



2021 RME COURSE & WORLD STEM CELL SUMMIT

AGENDA

Regenerative Medicine Essentials Course

Monday, June 14

Session 1: Intro and Background; Pluripotent Stem Cells and Progenitors

8:15-8:30am	RME Course Welcome	Joan Schanck, MPA
8:30-9:00am	Current Concepts and Changing Trends	Anthony Atala, MD
9:00-9:10am	BREAK	
9:10-9:40am	RegenMed 1.0	Mahendra Rao, MD, PhD, Chair
9:40-10:00am	Regenerative Medicine's First Biomarker for Predicting Responsiveness to Stem Cell Therapy Based on Mechanism-of-action: Evidence from Cerebral Injury	Evan Snyder, MD, PhD, FAAP
10:00-10:20am	Development of an iPSC-derived Neuron Replacement Therapy for Parkinson's disease	Jeanne F. Loring, PhD
10:20-10:30am	BREAK	
10:30-10:50am	Live Panel Discussion	Moderator: Victoria Weis, PhD
10:50-11:00am	BREAK	

Session 2: Biomaterials

11:00-11:20am	Principles of Biomaterials: Specifications and Selection	David Williams, PhD, DSc, Chair
11:20-11:40am	Biomaterials for Biomolecule and Cell Delivery in Tissue Engineering	Tony Mikos, PhD
11:40am-12:00pm	Hydrogel Bioinks for Cell-Based Extrusion Bioprinting	Sang Jin Lee, PhD
12:00-12:20pm	Clinical Applications of 3D Printed Biomaterials	John Fisher, PhD
12:20-12:40pm	TBC	Michael Yaszemski, MD, PhD
12:40-12:50pm	BREAK	
12:50-1:10pm	Live Panel Discussion	Moderator: David Williams, PhD, DSC
1:10-2:10pm	Lunch, Social Networking & Exhibits	

Session 3: Enabling Technologies

2:10-2:30pm	Enabling Technologies Overview and Bioprinting: An enabling technology for tissue engineering and regenerative medicine	John Jackson, PhD, Chair
2:30-2:45pm	In Vivo Delivery of RNA and Genome Editing Tools	Daniel Anderson, PhD
2:45-3:00pm	Imaging and Regenerative Medicine	Frank Marini, PhD
3:00-3:15pm	Gene Therapy: Getting to the Root of the Disease for a Permanent Cure	Chris Porada, PhD
3:15-3:30pm	Genome Editing for Protection Against Heart Attack	Kiran Musunuru, MD, PhD, MPH, ML
3:30-3:40pm	BREAK	
3:40-4:00pm	Live Panel Discussion	Moderator: John Jackson, PhD
4:00-4:15pm	Closing Comments	Course Directors
4:15-4:30pm	BREAK	
4:30-5:30pm	Career Perspectives I: Creating The Right Career for You – A roundtable discussion Student Chairs: Diana Lim, James Poteracki, Brady Trevisan	Jamie Garza, MD, DDS, FACS; Graca Almeida-Porada, MD, PhD; Gary Green EdD, Beth Roxland, JD

Tuesday, June 15

Session 4: Cell Therapies

8:00-8:10am	RME Course Day 2 Opening Comments	Joan Schanck, MPA
8:10-8:40am	Overview MSCs/COVID, Opioids, and More	Arnold Caplan, PhD
8:40-9:10am	Cell and Gene Based Biologic Therapies	Graca Almeida-Porada, MD, PhD, Chair
9:10-9:40am	Amniotic Epithelial Stem Cells for Lung and Wound Healing	Sean Murphy, PhD
9:40-9:45am	BREAK	
9:45-10:00am	Live Panel Discussion	Moderator: Graca Almeida-Porada, MD, PhD
10:00-10:15am	BREAK	

Session 5: Tissue Engineered Medical Products/Temps and Biofabrications

10:15-10:35am	Considerations for Developing TEMPs	James Yoo, MD, PhD
10:35-10:55am	Soft Tissue Construct Development by Electrohydrodynamic Processing	Bill Wagner, PhD
10:55-11:15am	Glance into Biofabrication for TERM: Past, present and future	Lorenzo Moroni, PhD
11:15-11:35am	TBC	Gail Naughton, PhD

11:35-11:45am	BREAK	
11:45am-12:05pm	Live Panel Discussion	Moderator: James Yoo, MD, PhD

Session 6: Regulatory Policy, Process Development and Manufacturing

1:00-1:20pm	Regenerative Medicine Clinical Translation in Academia: How do we accelerate the technology to first-in-man?	Julie Allickson, PhD, Chair
1:20-1:40pm	FDA Perspectives on Characterization of Cell Therapies	Steve Bauer, PhD
1:40-2:00pm	From Business Card to IND: A CAR-T Case Study	Gary Pigeau, PhD
2:00-2:20pm	Addressing Cell Therapy Hurdles Through Cell Characterization and Innovation	Steve Becker, PhD
2:20-2:30pm	BREAK	
2:30-2:50pm	Live Panel Discussion	Moderator: Julie Allickson, PhD
2:50-3:00pm	BREAK	

Session 7: Regenerative Rehabilitation with AR3T

3:00-3:20pm	Engineering The Regenerative and Rehabilitative Response to Musculoskeletal Trauma	Karina Nakayama, PhD, Chair
3:20-3:35pm	Predicting the Effects of Rehabilitation on Cartilage Repair	Riccardo Gottardi, PhD
3:35-3:50pm	Mechanical Regulation of Cartilage Repair: Relevance for Tissue Engineering and Rehabilitation	Sibylle Grad, PhD, PD
3:50-4:05pm	Cell Therapy for Spinal Cord Injury	Wenchun Qu, MD, PhD
4:05-4:20pm	Regenerative Rehabilitation of Complex Musculoskeletal Injuries	Robert Guldberg, PhD
4:20-4:30pm	BREAK	
4:30-4:45pm	Live Panel Discussion	Moderator: Karina Nakayama, PhD
4:45-5:00pm	Closing Day Comments	Joan Schanck, MPA
5:00-5:15pm	BREAK	
5:15-6:15pm	Career Perspectives II: Biotech Startups: Perspectives from New Investigators to Established Founders Student Chairs: Diana Lim, James Poteracki, Brady Trevisan	James Kovach, MD, JD, Mahendra Rao, MD, PhD, Andrea Mazzocchi, PhD

Wednesday, June 16

Session 8: Clinical Trials and Bioethics

8:15-8:30am	RME Course Day 3 Opening Comments	Joan Schanck, MPA
8:30-8:45am	Bioethics & Regenerative Medicine: Basics & Beyond	Nancy King, JD
8:45-9:05am	Cord Blood and Cord Tissue Therapies in Children	Joanne Kurtzberg, MD
9:05-9:25am	MSC Clinical Trials	Joshua Hare, MD, FACC, FAHA
9:25-9:45am	Cell and Gene Therapy Clinical Trials	Jan Nolta, PhD
9:45-9:55am	BREAK	
9:55-10:15am	Live Panel Discussion	Moderator: Tracy Criswell, PhD
10:15-10:30am	BREAK	

Session 9: Commercialization

10:30-10:50am	Engineering Human Tissues for Medical Impact	Gordana Vunjak-Novakovic, PhD
10:50-11:10am	Translating Immunoengineering for Regenerative Medicine	Jennifer Elisseef, PhD
11:10-11:30am	Commercial Planning of a Biotech Product – REACT Case Study	Deepak Jain, PhD
11:30-11:40am	BREAK	
11:40am-12:00pm	Live Panel Discussion	Moderator: Shay Soker, PhD
12:00-12:45pm	Lunch and Social Networking	

Session 10: Regenerative Medicine Hub

Business Development, Incubation, and Acceleration

12:45-12:52pm	ReMDO Overview	Rick Blume, Chair
12:52-12:59pm	Agile City Overview	Karen Barnes
12:59-1:06pm	Greater Winston-Salem Overview	Laura Lee
1:06-1:13pm	Winston Salem Starts Overview	Robert Boles
1:13-1:25pm	LIVE Panel Discussion	Moderator: Rick Blume
1:25-1:40pm	BREAK	

Workforce Development and Training – Defining an Ecosystem for RM Workforce

1:40-1:50pm	Needs and Gaps	Gary Green, EdD
1:50-2:00pm	Common Employability/Beta Skills	Russ Read, CPP (LERN), MA
2:00-2:10pm	Perspectives	Tom Tubon, PhD
2:10-2:20pm	WFIRM Training Ecosystem	Joan Schanck, MPA

2:20-2:30pm	LIVE Panel Discussion	Moderator: Tracy Criswell, PhD
2:30-2:45pm	BREAK	

Session 11: RMMS and SCTM

2:45-2:55pm	Introduction and Background	Joshua Hunsberger, PhD and Ann Murphy, PhD
2:55-3:15pm	RMMS Working Groups: Getting Involved, Progress, and Future Aspirations	Zohreh Izadifar, PhD and Shannon Eaker, PhD
3:15-3:30pm	BREAK	
3:30-4:30pm	<p>Innovative Tech for Regenerative Medicine Manufacturing</p> <ul style="list-style-type: none"> • PHC/Epredia: Digital Pathology for Regenerative Medicine - Steven Lynam, BCMAS • Biospherix: Cyto-centric - Alicia Henn, PhD, MBA • SBI: Optical Sensing and Cell Culture - Jake R. Boy • PHI: Non-invasive live cell imaging - Kersti Alm, PhD • CellBox: Shipping and Logistics - Corné Swart, PhD • Technical Break, followed by LIVE Panel Discussion 	Joshua Hunsberger, PhD and Gary Green, EdD
4:30-5:00pm	Resources for Enabling a Regenerative Medicine Ecosystem	Ann Murphy, PhD and Joshua Hunsberger, PhD
5:00-5:15pm	RME Closing Remarks	Joan Schanck, MPA