

5<sup>th</sup> Annual

# **Midwest Conference on Cell Therapy and Regenerative Medicine**

**Friday-Saturday, September 15-16, 2017**

**Sheraton Overland Park Hotel, Overland Park, KS**

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*Sponsored by:*

**Midwest Stem Cell Therapy Center**

**&**

**The University of Kansas Medical Center  
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# ACKNOWLEDGEMENT

## Contributor

*We wish to acknowledge and sincerely thank this organization for supporting this symposium.*

State Farm Insurance

*This schedule is tentative and subject to change*

**Friday, September 15<sup>th</sup> (Day 1)**

**7:00 – 7:45**                      *Registration and Breakfast*

**7:45 – 7:55**                      *Welcome Remarks*

**Session I: New Concepts in Cardiovascular Regenerative Therapy**

**Moderators:** *Arshed Quyyumi, Raj Kishore*

<b>8:00 – 8:20</b>	<i>Cell Therapy to Cell Secretome Therapy: The Next Generation</i>	<b>Keith March</b>
<b>8:20 – 8:40</b>	<i>Stem Cell Exosomes for Cardiac Repair</i>	<b>Raj Kishore</b>
<b>8:40 – 9:00</b>	<i>The Role of miR-128 in Cardiomyocyte Proliferation and Cardiac Regeneration</i>	<b>Yigang Wang</b>
<b>9:00 – 9:20</b>	<i>Cell Therapy in Heart Failure: What Have We Learnt?</i>	<b>Arshed Quyyumi</b>
<b>9:20 – 9:40</b>	<i>Vascular Regeneration with Novel Cell-Based Approaches</i>	<b>Young-Sup Yoon</b>
<b>9:40 – 9:50</b>	<i>Panel Discussion</i>	<b>March, Kishore, Wang, Quyyumi, Yoon</b>

**Coffee Break: 9:50 – 10:10**

**Session II: Opportunities for Diverse Tissue and Organ Repair**

**Moderators:** *Devendra Agrawal, Hartmut Jaeschke*

<b>10:10 – 10:30</b>	<i>Clinical Application and Research Advancements of Tissue Engineered Blood Vessels</i>	<b>Clay Quint</b>
<b>10:30 – 10:50</b>	<i>Challenges in Finding and Targeting Cancer Stem Cells</i>	<b>Fariba Behbod</b>
<b>10:50 – 11:10</b>	<i>Stem Cell Therapy in Arthritis and Cartilage Repair</i>	<b>Devendra Agrawal</b>

11:10 – 11:30	<i>Decellularized Wharton's Jelly Matrix for Regenerative Medicine Applications</i>	Omar Aljitawi
11:30 – 11:50	<i>Hepatic Cell Therapy: Human Umbilical Cord-Derived Cells to Rescue Liver Injury</i>	Hartmut Jaeschke
11:50 – 12:10	<i>Stimulation of Coronary Collateral Growth with Vascular Progenitor Cells in Metabolic Syndrome</i>	Liya Yin

**LUNCH BREAK: 12:10 – 12:55**

12:55 – 1:15	<i>Automating the Production of Induced Pluripotent Stem Cells</i>	Daniel Paull
1:15 – 1:25	<i>Panel Discussion</i>	Quint, Behbod, Agrawal, Aljitawi, Jaeschke, Yin, Paull

**Session III: Translating Concepts into Potential Therapies**

**Moderators:** Warren Sherman, Joyce Frey-Vasconcells

1:25 – 1:45	<i>Translating Tissue Stem Cell Asymmetry into Unique Tools for Advancing Stem Cell Therapy</i>	James Sherley
1:45 – 2:05	<i>Cell, Gel, Heart Repair</i>	Warren Sherman
2:05 – 2:25	<i>Development of a Secretome-derived Biopharmaceutical for Ischemic Brain Injury</i>	Michael Coleman
2:25 – 2:45	<i>Stem-To-T Cells, A Novel Approach for Immunotherapy</i>	Steven Swanson
2:45 – 3:05	<i>MultiStem: Journey from Lab to Clinic</i>	Sarah Busch

**Coffee Break: 3:05 – 3:25**

3:25 – 3:45	<i>What's New with FDA Regulation and Tips on Navigation</i>	Joyce Frey-Vasconcells
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<b>3:45 – 4:05</b>	<b><i>Accelerating Stem Cell Treatments to Patients with Unmet Medical Needs</i></b>	<b>Lisa Kadyk</b>
<b>4:05 – 4:15</b>	<b><i>Panel Discussion</i></b>	<b>Sherley, Sherman, Coleman, Swanson, Busch, Frey-Vasconcells, Kadyk</b>

**Session IV: Cell-Based Approaches for Neurological Diseases**

***Moderators: Richard Barohn and James Berry***

<b>4:15 – 4:35</b>	<b><i>Cell therapy in Amyotrophic Lateral Sclerosis</i></b>	<b>James Berry</b>
<b>4:35 – 4:55</b>	<b><i>Adult Stem Cells to Ameliorate Neurological Degeneration</i></b>	<b>Hiroshi Nishimune</b>
<b>4:55 – 5:15</b>	<b><i>In Vivo Glia to Neuron Conversion for Brain Repair</i></b>	<b>Gong Chen</b>
<b>5:15 – 5:35</b>	<b><i>Delivery of Artificial Transcription Factors to Treat Genetically-linked Neurological Disorders Using Viral Particles, Nanoparticles, and Adult Stem Cells</i></b>	<b>Kyle Fink</b>
<b>5:35 – 5:55</b>	<b><i>Stem Cells and ALS</i></b>	<b>Kevin Eggan</b>
<b>5:55 – 6:05</b>	<b><i>Panel Discussion</i></b>	<b>Barohn,Berry, Nishimune, Chen, Fink, Eggan</b>

**Adjournment**

**Saturday, September 16<sup>th</sup> (Day 2)**

7:00 – 7:45            *Registration and Breakfast*

7:45 – 7:55            *Welcome Remarks*

**Session V: Cell Therapy in Hematology and Cancer**

**Moderators: Sunil Abhyankar, Neil Dunavin**

8:00 – 8:20	<i>Hematopoietic Stem Cell Transplant: A Historic Perspective</i>	Anurag Singh
8:20 – 8:40	<i>Graft vs Host Disease: A Recalcitrant Barrier to Successful Allogeneic Stem Cell Transplant: A Novel Immunosuppressive Approach Using</i>	Sunil Abhyankar
8:40 – 9:00	<i>A Biological Basis for the Immunosuppressive Effects of Umbilical Cord Derived MSCs</i>	Neil Dunavin
9:00 – 9:10	<b>Panel Discussion</b>	Singh, Abhyankar, Dunavin

**Session VI: The Road to the Clinic**

**Moderators: Michael Detamore**

9:10 – 9:35	<i>Direct Cell Reprogramming to Accelerate Translation</i>	Jan-Eric Ahlfors
9:35 – 10:00	<i>Novaderm's Long, Long Road with a Short Time to Get There</i>	Randall McCoy

**Coffee Break: 10:00 – 10:20**

10:20 – 10:45	<i>Leveraging Musculoskeletal Regenerative Medicine for Treatment of Traumatic Brain Injury</i>	Michael Detamore
10:45 – 11:10	<i>Thriving China Cell Therapy and CBMG Leadership</i>	Jack Wang
11:10 – 11:25	<b>Panel Discussion</b>	Ahlfors, McCoy, Detamore, Wang,



11:20 – 11:25	<i>Introduction</i>	
11:25 – 11:55	<i>Special Guest Speaker</i>	<b>Kansas Governor Sam Brownback</b>
11:55 – 12:15	<i>Q &amp; A for Governor Brownback</i>	

**Lunch Break: 12:15 – 1:00**

1:00 – 1:05	<i>Introduction</i>	
1:05 – 2:00	<i>Keynote Address: The Global Need for Regenerative Medicine: Why We Should Strive to Bring Cellular Therapies to the Masses</i>	<b>Monsignor Tomasz Trafny, The Vatican</b>
2:00 – 2:10	<i>Q &amp; A for Msgr. Trafny</i>	

**Coffee Break: 2:10 – 2:30**

**Session VII: Globalization of Cellular Therapies**

**Moderators: Msgr. Tomasz Trafny and Dan Gincel**

2:30 – 2:50	<i>Why Do Stem Cell Clinical Trials Fail?</i>	<b>Dan Gincel</b>
2:50 – 3:10	<i>The Clinical Evidence in Heart Repair So Far</i>	<b>Buddhadeb Dawn</b>
3:10 – 3:30	<i>Promoting Stem Cell Research in Oklahoma</i>	<b>Paul Kincade</b>
3:30 – 3:50	<i>Surgical Regenerative Medicine implementation in Europe and for the USA</i>	<b>Daniel Saris</b>
3:50 – 4:10	<i>The Stem Cell Epidemic</i>	<b>David Prentice</b>
4:10 – 4:30	<i>Panel Discussion</i>	<b>Msgr. Trafny, Gincel, Dawn, Kincade, Saris, Prentice</b>

**Adjournment**

## Overview:

The purpose of this conference is to update physicians, scientists, nurses and other healthcare professionals, trainees, and the general public in the greater Midwest region on:

1. *the past, present, and future of adult stem cell therapy;*
2. *new developments in adult stem cell research;*
3. *diagnosis and treatment guidelines related to cell therapy for various medical conditions;*
4. *management of patients using these new cell transplantation technologies; and*
5. *the ethical use of regulated adult stem cells.*

Various clinical trials that have contributed to the advancement of this field will be presented. The progress and hurdles toward translation of adult stem cell therapy on a broader scale will be discussed. The participants will learn about advances in therapy with adult stem cells. The participants will also examine the latest trends in regenerative medicine and gain a greater understanding of adult stem cell biology, the procedures and processes for translation, and the overall potential for tissue and organ regeneration.

## Target Audience:

The Midwest Conference on Cell Therapy and Regenerative Medicine is designed for physicians, scientists, nurses, trainees, other healthcare professionals and the general public.

## Objectives:

*At the completion of this conference participants should be able to:*

- Describe new findings with adult stem cells and what is necessary to translate these observations into potential patient therapies.
- Identify and discuss past, ongoing, as well as possible future clinical trials using adult stem cells for repair/ regeneration of various tissues and organs
- Describe various disease categories for which adult stem cell therapy may prove beneficial, and the global efforts to facilitate wider applications of such potential therapy.

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- You will be emailed a link to complete the evaluation and print your own certificate.
- You should receive the email from KUMC on **Wednesday, September 20, 2017** from [contactce@kumc.edu](mailto:contactce@kumc.edu).
- If you do not receive this in your inbox, check your spam/junk mailbox. You may also call KUMC continuing education office or **913-588-4488**.





**Course Director:**

**Buddhadeb Dawn MD**, Executive Director, Midwest Stem Cell Therapy Center; Director, KU Cardiovascular Research Institute; Cardiovascular Division Director, Department of Medicine, University of Kansas Medical Center



**Planning Committee:**

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## ACCREDITATION

**All participants are required to sign attendance rosters at the beginning of each day.** A certificate of completion will be provided to all participants based on completion of the program evaluation, documentation of actual attendance time, and payment in full. If you are not paid in full, a link to complete the evaluation and obtain your certificate will be emailed to you upon receipt of payment.

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Each attendee will be e-mailed a link to log into our new KUMC CE portal to complete the evaluation and print your own certificate. If you do not receive a KUMC e-mail in your inbox by September 20, 2017, please check your spam/junk mailbox. You may also contact [contactce@kumc.edu](mailto:contactce@kumc.edu) if you did not receive it and the KUMC CE office will send you another e-mail.

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**The following presenters have disclosed relevant financial relationships with proprietary entities producing, marketing, re-selling, or distributing healthcare goods or services consumed by, or used on patients related to the content of their presentations:**

**James Berry, MD** has received research support from Brainstorm Cell Therapeutics, Neuraltus Pharmaceuticals, Voyager Therapeutics, Cytokinetics, and Amylyx Pharmaceuticals. He has also received an honorarium from Denali Therapeutics.

**Sarah Busch, PhD** receives a salary from Athersys, Inc.

**Michael Coleman, PhD** has disclosed ownership interest in NeuroFx, Inc.

**Kevin Eggan, PhD** has received consulting fees from Q-State Biosciences.

**Keith March, MD, PhD** has received consulting fees from Tissue Genesis and NeuroFX.

**Daniel Saris, MD** has received consulting fees from Vericel, Cartwheel, and Smith & Nephew. He has also received research support from Arthrex and Smith & Nephew.

**James Sherley, MD, PhD** has receipt of intellectual property rights and/or is a patent holder for Asymmetrex LLC.

**Warren Sherman, MD, FACC, FSCAI** receives a salary from LoneStar Heart, Inc.

**Steven Swanson, PhD** receives a salary from ImmunoCellular Therapeutics.

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**Richard J Barohn, MD** is on the editorial boards for Elsevier, Inc. and the American Academy of Neurology. He is on the speakers bureau for NuFactor, Grifols Therapeutics Inc., and Plan 365 Inc. He is on the advisory board for CSL Behring GmbH, and has received an honorarium from Option Care. He has received research grants from NIH, FDA/OOPD, NINDS, Novartis, Sanofi/Genzyme, Biomarin, IONIS, Teva, Cytocenetics, Eli Lilly, and PTC.



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Buddhadeb Dawn, MD	Raj Kishore, PhD, FAHA	Jack Wang, MD, PhD
Michael Detamore, PhD	Randall McCoy	Yi-Gang Wang, PhD
Neil Dunavin, MD	Hiroshi Nishimune, PhD	Liya Yin, MD, PhD
Kyle Fink, PhD	Daniel Paull, PhD	Young-Sup Yoon, MD, PhD

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Lindale Banks, MFA	Robert Simari, MD
Monya Floyd	Peter Smith, PhD
Barbara MacArthur, RN, MN, FAAN	Dana Winegarner, DO
Joseph McGuirk, DO	

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Jan-Eric Ahlfors, MD, PhD

A conflict of interest, or a potential for bias, exists if an individual/entity in a position to benefit financially from the success of a continuing education activity is also in a position to influence its content, design, or implementation. For this continuing education activity, conflict of interest was resolved and successful resolution of conflict of interest will be validated through the implementation of the following mechanisms.

- Relevant financial relationships were disclosed and resolved prior to everyone's participation in the planning, development, and implementation of this activity.
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- Speakers were selected based upon a review of their qualifications and an assessment of their ability to present the best available evidence accepted in health care practice.
- Clinical content was validated by a review of the activity for fair balance and bias, appropriate patient treatment recommendations, and whether scientific studies cited in the activity conform to standards accepted by the scientific community.
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