

# Fourth Annual Conference on Stem Cell Research & Regenerative Medicine

Thursday, February 15

**Pestana Lecture Hall, UT Health San Antonio, Long Campus**

Friday, February 16

**Holly Auditorium, UT Health San Antonio, Long Campus**

## Thursday, February 15 – Pestana Lecture Hall

8:00 a.m. – **Welcome and Remarks**

**William L. Henrich, MD, MACP**, President (UT Health San Antonio)

*Introduced by* Christi A. Walter, PhD (UT Health San Antonio)

**Taylor Eighmy, PhD**, President (UTSA)

*Introduced by* President Henrich

**Robert A. Hromas, MD, FACP**, Dean (Joe R. and Teresa Lozano Long School of Medicine)

*Introduced by* President Henrich

8:15 a.m. – **Keynote Lecture #1**

*Introduced by* Daniel Lodge, PhD (UT Health San Antonio)

**Stewart Anderson, MD** (Perelman School of Medicine, University of Pennsylvania,  
Children's Hospital of Philadelphia)

*Accelerating Human Stem Cell Derived Neuronal Maturation by Conditional Activation of mTOR Signaling*

## Session 1

[Session Chair – Tiziano Barberi, PhD, Texas Biomedical Research Institute]

9:15 a.m. – **Daniel Oh, PhD** (Columbia University)

*Bone-like Scaffold: Principles and Applications*

9:40 a.m. – **Marie-Claire Gauduin, PhD** (Texas Biomedical Research Institute)

*Engineering of Macaque CD4+ T Cells and CD34+ Hematopoietic Stem Cells resistant to in vitro  
VIS Infection using Zinc Finger Nucleases*

10:00 a.m. – **Break**

10:30 a.m. – **Anibal Diogenes, DDS, MS, PhD** (UT Health San Antonio)  
*Stem Cell Therapy for Dental Infections*

10:55 a.m. – **Keren Cheng, PhD** (UTSA)  
*Epigenetic Programming of Foundational Spermatogonial Stem Cells*

11:15 a.m. – **James Bynum, PhD** (United States Army Institute of Surgical Research)  
*Cellular Therapeutics for Treatment of Trauma-related Injuries: A Path to the Clinic*

11:35 a.m. – **Xiao-Dong Chen, MD, PhD** (StemBioSys and UT Health San Antonio)  
*Presence of Cyr61 in Native Bone Marrow-derived Extracellular Matrix is Critical for Retention of Mesenchymal Stem Cell Properties*

12:00 p.m. – **Luncheon and networking – Pestana Lecture Hall**

### Session 2

[Session Chair –Erzsebet Kokovay, PhD, UT Health San Antonio]

1:00 p.m. – **Xing Guo Cheng, PhD** (Southwest Research Institute)  
*A Novel Method for Single Cell Layer-by-Layer Encapsulation*

1:20 p.m. – **Richard LeBaron, PhD** (UTSA)  
*Investigation of TGF- $\beta$ 1 the Extracellular Matrix Protein BIGH3, and BIGH3-derived Integrin Ligand Peptides in Tissue Injury and Apoptosis*

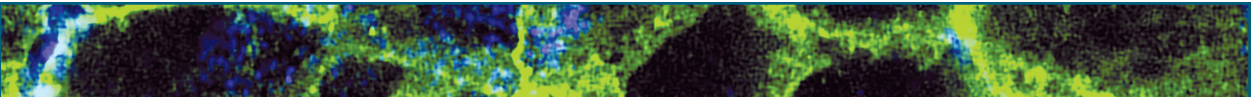
1:45 p.m. – **Daniel Lodge, PhD** (UT Health San Antonio)  
*Cell-Based Therapies for the Treatment of Psychiatric Disease*

2:10 p.m. – **Ben Antebi, PhD** (United States Army Institute of Surgical Research)  
*The Effect of Acute Respiratory Distress Syndrome on Bone-Marrow Mesenchymal Stem Cells*

2:35 p.m. – **Break**

3:05 p.m. – **Anand Srinivasan, PhD** (GenCure)  
*Manufacturing Human-Derived Platelet Lysate for Xeno-Free Expansion of Mesenchymal Stem Cells*

3:25 p.m. – **Marcel Daadi, PhD** (Texas Biomedical Research Institute)  
*Standards for deriving Nonhuman Primate Induced Pluripotent Stem Cells, Neural Stem Cells and Dopaminergic Lineage*



**Session 2 (continued)**

3:45 p.m. – **Keynote Lecture #2**

*Introduced by Sy Griffey, PhD (StemBioSys)*

**Joachim Kohn, PhD** (Rutgers University and New Jersey Center for Biomaterials)

*Understanding and Predicting the effect of Biomaterials on Cell and Stem Cell Differentiation*

4:45 p.m. – **Adjourn to Poster Presentations & Reception (ALTC Rm 2.205)**

5:00–7:00 p.m. – **Poster Presentations and Networking Reception (ALTC Rm 2.205)**

**Friday, February 16 – Holly Auditorium**

**Session 3**

[Session Chair – Jian Ling, PhD, Southwest Research Institute]

8:30 a.m. – **Erzsebet Kokovay, PhD** (UT Health San Antonio)

*Vascular Regulation of Adult Neural Stem Cells*

8:55 a.m. – **Eric Brey, PhD** (UTSA)

*Vascularization of Biomaterials for Regenerative Medicine*

9:20 a.m. – **Rebecca Bricker, MS, PhD Candidate** (Texas Biomedical Research Institute, UT Health San Antonio)

*Towards the derivation of Olfactory Placodal Cells from Human Pluripotent Stem Cells*

9:40 a.m. – **Chris Delavan, MS** (United States Army Institute of Surgical Research)

*Comparison of Direct vs Transwell MLR Assays for Evaluation of Human Mesenchymal Stromal Cell Immunomodulation Activity*

10:05 a.m. – **Break**

10:30 a.m. – **Brian Hermann, PhD** (UTSA)

*Single-Cell Transcriptomes as Tools for Regenerative Medicine Research*

10:55 a.m. – **Becky Robinson-Zeigler, PhD** (Advanced Regenerative Manufacturing Institute)

*The Cake is Not a Lie: Delivering on the Promise of Regenerative Medicine*

11:20 a.m. – **Donna Lehman, PhD** (UT Health San Antonio)  
*Mapping the Chromatin Landscape in the Developing Human Hypothalamus using an iPSC-based Model reveals Neuronal Activity-dependent Regulation of Bone*

11:45 a.m. – **Mike Fiske, MS** (GenCure)  
*Overcoming Challenges in Developing GenCure's Biomanufacturing Center*

12:00 p.m. – **Luncheon and networking**

#### Session 4

[Session Chair – Bijay Parida, PhD, United States Army Institute of Surgical Research]

1:00 p.m. – **Stephen Harris, PhD** (UT Health San Antonio)  
*Periodontal Stem Cell Differentiation: Lineage Tracing, Transcriptome and Epigenetic Regulation at the Single Cell Level*

1:25 p.m. – **Arezoo Mohammadipoor, PhD** (United States Army Institute of Surgical Research)  
*Extracellular Vesicles are as Potent Anti-inflammatory Mediators as their Mesenchymal Stem Cell Counterparts*

1:50 p.m. – **Nicole Edwards, PhD Candidate** (Southwest Research Institute)  
*An Advanced Collagen Wound Matrix Combined with Adipose-derived Stem Cells improves Cutaneous Wound Healing in a Mouse Model of Type 2 Diabetes*

2:10 p.m. – **Chris Rathbone, PhD** (UTSA)  
*Vascularization Strategies for Injured and Diseased Skeletal Muscle*

2:30 p.m. – **Pratap Khanwilkar, PhD** (InCube Labs)  
*Stack the Deck in your Favor: Increasing the Probability that your Translational Idea will Succeed*

2:55 p.m. – **Break**

3:15 p.m. – **Keynote Lecture #3**

*Introduced by John McCarrey, PhD (UTSA)*

**Jenny Hsieh, PhD** (UT Southwestern Medical Center & UTSA Brain Health Consortium)  
*Precision Models for Brain Health and Disease*

4:15 p.m. – **Conference adjourns**