

Conference Program

Thursday, February 10

9:00 - Welcome – Christi Walter [UT Health SA]

SESSION 1 [Session Chair – Christi Walter, UT Health SA]

9:05 - **Gangadhara Reddy Sareddy** (UT Health SA)

“KDM1A Inhibition Sensitizes Glioma Stem Cells to Chemo and Radiation Therapy”

9:25 - **Shanmugasundaram Natesan** (USA-ISR)

“Non-Surgical Debridement of Burn Wound Using a Novel Enzymatic Agent to Improved Healing”

9:40 - **Gary Gaufo** (UTSA)

“Contribution of Genome Duplication to a Mammalian Totipotent-Pluripotent-Like State”

10:20 - **Angelica Fernandez** (SwRI)

“Bio-Manufacturing of Autologous CAR T Cell Therapies Using a Magnetic Beads-Free System”

10:35 - Coffee break

10:55-11:55– Keynote Lecture

Introduction to Keynote Lecture – John McCarrey [UTSA]

Dr. Amander Clark, UCLA



“Uniquely Human: Using Pluripotent Stem Cells to Identify New Regulatory Pathways in Development and Regeneration”

11:55 – **Jennifer Potter** (UT Health SA)

12:00 – Lunch

SESSION 2 [Session Chair – Sy Griffey, Sequence LifeScience]

- 1:00 - **Lorena Roa-De La Cruz** (UTSA)
“Mechanism of Foundational Spermatogonial Stem Cell Specification in the Mouse Testis”
- 1:20 - **Kriso Nuutila** (USA-ISR)
“Minced Dermis Graft Can Be Expanded Up To 100 Times To Re-Epithelialize a Full-Thickness Burn Wound”
- 1:35 - **Casey Sabbag** (59th Med Wing, USAF)
“Novel Nerve Regeneration Strategies for Limb Salvage in Combat-Related Extremity Injuries”
- 1:50 - **LuZhe Sun** (UT Health SA)
“Inhibition of Mammary Stem Cell Function and Early-Stage Breast Cancer Progression by mTOR Inhibitors”

- 2:10 - **Jimmy Johnson** (South TX Blood & Tissue CTR)
“GMP Source Material Considerations for Advanced Therapies”
- 2:30 - **Solaleh Miar** (UTSA)
“Injectable Biomaterials for Vocal Fold Restoration after Laryngeal Nerve Injury”
- 2:45 - **Michael Whitely, Jr** (USA-ISR)
“Evaluation of Novel Treatment Approaches for Tissue Repair and Infection Mitigation in Extremity Musculoskeletal Wounds”

3:00 - **Coffee break 15**

SESSION 3 [Session Chair – Casey Sabbag, USAF 59th Medical Wing]

- 3:15 - **Sarah Pierrie** (59th Med Wing, USAF)
“Surgical Adjuncts to Improve Pain and Function after Amputation”
- 3:30 - **Ryan Wood** (UTSA)
“Cyclophosphamide Chemotherapy Produces a Transient Loss of Taste Bud Innervation in Mice”
- 3:50 - **Travis Block** (Stem BioSys)
“Progress Toward Clinical Trials in a Dish: Achieving Biologically-Relevant Phenotypes from Pluripotent Stem Cells using Cell-Derived ECM”
- 4:10 - **Gang Huang** (UT Health SA)
“Epigenetic and Transcriptional Control of Hematopoietic Stem Cell Fate Decisions”
- 4:35 - **Marc Thompson** (USA-ISR)
“Secretome-Loaded Plasma-alginate Composite Gels Modulate Healing in a Porcine Burn Model”
- 4:50 - **Sarah Eddy** (Norton Rose Fullbright)

5:00 – 7:00 - Poster Session

Friday, February 11

SESSION 4 [Session Chair – James Bynum, USA ISR]

- 9:00 - **Nicolas Muzzio** (UTSA)
“Wireless Localized Electrical Stimulation of Neurons using EDOT-Pyrrole Nanoparticles”
- 9:20 - **Umang Sharma** (USA-ISR)
“Effects of Extracellular Vesicles Derived from Irradiated and Non-Irradiated Skeletal Muscle Stem Cells on Myogenesis and Angiogenesis”
- 9:35 - **Brij Singh** (UT Health SA)
“Stem Cells, Calcium and Tissue Regeneration”
- 9:55 - **Nicholas McMahon** (SwRI)
“A Scalable Bioreactor for the Expansion of Anchorage-Dependent Cells”
- 10:10 - **Parul Varma** (UTSA)
“Single Cell Approaches in Precision Models of Developmental Epilepsy”
- 10:30 - **Bernard Arulanandam** (UTSA)

10:35 - Coffee break

SESSION 5 [Session Chair – Vivienne Marshall, BioBridge Global]

- 10:55 - **Noboru Hiroi** (UT Health SA)
“Postnatal Stem Cells: A Source of Cognitive and Social Dysfunctions in Neurodevelopmental Disorders”
- 11:15 - **Tiffani Chance** (USA-ISR)
“The Effects of Extracellular Vesicle Source on Function and Therapeutic Applications”
- 11:30 - **Settimio Pacelli** (UTSA)
“Diabetic Skeletal Muscle Models Engineered to Study Impaired Angiogenesis”

11:50 – 1:00 – Panel Discussion – DoD Funding Priorities



- **Dr. Michael Davis, Chair**



- **Dr. Andre Cap, USA-ISR**



- **Dr. Byron Hepburn, UT Health SA**



- **Dr. Becky Cap, BioBridge Global**

1:00 - Conference adjourns