

2nd International Conference on
ORTHOPEDICS & ADVANCED CARE
&
2nd International Conference on
OBESITY & ITS TREATMENTS

February 25-26, 2019
Singapore City, Singapore

Regenerative Medicine for orthopaedics conditions

Anthony B Goodesmith

Standard Medical Equipment Systems LLC, USA

Cell therapy promises to treat patients with faulty organs (such as the heart, lungs, and liver). Clinical research trials using adult somatic stem cells are currently on going. Osiris Therapeutics, Inc., has shown promise in its line of mesenchymal cells that will help prevent graft vs. host disease common after bone marrow transplants. Osiris Therapeutics, Inc. also uses these somatic stem cells to produce cartilage in injured and arthritic knees and is conducting clinical trials in patients with heart disease. Stem cells in tissue engineering- Tissue engineering are dependent on the premise of the body's own maintenance system. A "scaffold" made of nylon or a biomaterial such as collagen is transplanted into the body. Cells use the scaffold as foundation, transforming it over a period time with

organic three-dimensional tissue. Human embryonic stem cells can be used for functional organs, such as a human heart. Somatic rejection or acceptance is key factor that determines whether these stem cell-directed structures can operate efficiently and last the patient's full lifetime. The Geron stem cell company is clinically testing the safety of their therapy, during the practical surgery following a traumatic injury by fixing damaged human nerves. This would have a positive impact eventually beyond spinal injury to even affect demyelinating diseases, such as multiple sclerosis. Projected to impact Parkinson's disease, where depletion of cells that develop dopamine results in neurons to fire out of control causing depleted function of motor movements.