5<sup>th</sup> International Conference on

## **Tissue Engineering & Regenerative Medicine**

September 12-14, 2016 Berlin, Germany

## Clinical applications of mesenchymal stem cells

**Brian M Mehling<sup>1</sup>, Marine Manvelyan<sup>1</sup>** and **Dong Cheng Wu<sup>2, 3</sup>** <sup>1</sup>Blue Horizon International LLC, USA <sup>2</sup>Wuhan University, China <sup>3</sup>Wuhan Honggiao Brain Hospital, China

Mundreds of millions are the most common cause of severe long-term pain and physical disability, and they affect hundreds of millions of people around the world. Osteoarthritis (OA) is the most common form of arthritis and the leading cause of chronic disability. OA is estimated to affect 630 million people worldwide. OA is characterized by degeneration of articular cartilage, limited intra-articular inflammation with synovitis and changes in peri-articular and subchondral bone. BHI Therapeutic Sciences offers a novel method of arthritis therapy using a patient's own stromal vascular fraction (SVF) cells including mesenchymal stem cells. The therapy is available at Malacky Hospital in Slovakia. Malacky Hospital is staffed with expertly-trained medical professionals and is one of the premiere hospitals in Central Europe. Blue Horizon International Slovakia is licensed by the Ministry of Health of Slovak Republic to provide adipose stem cell treatments for orthopedic joint applications - knees, hips, shoulders and ankles. Procedures utilize cutting-edge technology and adult stem cells only. In 2015, 73 patients underwent the therapy with own stromal vascular fraction cells. 64 patients have follow-up evaluation results. Affected area includes knees (37 patients), hips (25 patients) and hips and knees (2 patients). Results from patients' follow-up examinations and MRI scans showed that stem cell therapy was safe for the patients. Follow-up examination results conducted 10 days, 3 and 6 months after treatment have shown significant improvement of clinical condition relating to pain relief, improved mobility, which was shown also on the follow-up MRI scans of the affected joints.

## Biography

Brian M Mehling is a practicing American Orthopedic Trauma Surgeon, Researcher and Philanthropist. He has started his path in medicine through undergraduate study at Harvard University obtaining Bachelor of Arts and Master of Science degrees in Biochemistry from Ohio State University. Completing his Degree of Medicine at Wright State University School of Medicine, he received his Post-graduate education through Residencies and Fellowships at St. Joseph's Hospital in Paterson, NJ and the Graduate Hospital in Philadelphia, PA, while pursuing a PhD in Chemistry. He operates his own practice, Mehling Orthopedics, in both West Islip, NY and Hackensack, NJ.

mmanvelyan@bluehorizonhospital.com

Notes: