

# 4<sup>th</sup> International Conference on **Tissue Science and Regenerative Medicine** July 27-29, 2015 Rome, Italy

## Cutting edge concepts in the use of stem cell and PRP injections in an office setting

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The presentation concerns PRP and Stem Cell (both bone marrow and adipose) injections for musculoskeletal conditions in an office setting. Indications are given as to which type of cell and technique to use to accomplish repair. Stem cells, both bone marrow derived (BMAC) and adipose, are used for the more difficult problems. PRP injections are utilized for the less severe problems. Indications are given when to use Stem Cells versus PRP and when to use both. The newest concepts in stem cell science are presented. These concepts include the clinical use of MUSE cells, exosomes, and Blastomere like stem cells. Basic science of both PRP and stem cells are discussed. This presentation defines what constitutes an effective PRP preparation. Myths concerning stem cells are dispelled. One myth is that mesenchymal stem cells are the most important stem cell. This was the initial interpretation of Dr. Arnold Caplan the father of mesenchymal stem cell science. Dr. Caplan now feels that MSCs have an immunomodulation capacity which may have a more profound and immediate effect on joint chemistry and biology. We now learn in the talk that the hematopoietic stem cells are the drivers of tissue regeneration. Also discussed are adjuncts used which enhance the results. These therapies include supplements, LED therapy, lasers, electrical stimulation, and cytokine therapy. The scientific rationale is presented for each of these entities as to how they have a direct on stem cells.

### Biography

Joseph Purita, MD is Director of Institute of Regenerative and Molecular Orthopedics in Boca Raton, Florida. The institute specializes in the use of Stem Cells and Platelet Rich Plasma injections. He is a pioneer in the use of Stem Cells and Platelet Rich Plasma. The Institute has treated some of the most prominent professional athletes from all major sports in both the USA and abroad. He received a BS and MD degree from Georgetown University. He is board certified in Orthopedics by ABOS. He is a Fellow American College of Surgeons, Fellow American Academy Orthopedic Surgeons, and a Fellow American Academy of Pain Management. He is also certified in Age Management Medicine. He has lectured and taught extensively throughout the world on the use of Stem Cells and Platelet Rich Plasma. He has been instrumental in helping other countries in the world establish guidelines for the use of Stem Cells in their countries. He has been invited to lecture on these techniques throughout the world as a visiting Professor.

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