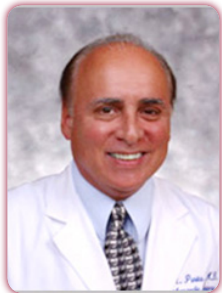


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Lipogems a game changer in the field of regenerative stem cell therapy

The use of adipose tissue has taken on increasing importance in the field of regenerative stem cell therapy. This therapy can be divided into two major pathways. One pathway involves plastic and reconstruction surgery. The other major pathway involves orthopedics and its related fields. Other uses are being found in gynecology, urology, and general surgery. Until recently the main uses of adipose tissue centered around the use of enzymatic produced SVF suspensions. Typically these suspensions were made with the use of the enzyme collagenase. Although collagenase has worked well in the past there is now a complaint method of producing a fast, enzyme free lipoaspirate that is turned into a therapeutic product. This new method comes from the Lipogems company. The Lipogems technique has been utilized in over 5,000 patients. It has recently obtained FDA clearance. Lipogems makes use of the high stem cell density of adipose tissue thought to be 1 out of every 100 cells. Lipogems utilizes mild mechanical forces in a closed system to produce micro fractured and purified adipose tissue graft which is non expanded and ready to use in a variety of regenerative applications. More importantly, Lipogems adipose product has a very well preserved vascular stroma with slit-like capillaries wedged between adipocytes and vascular channels. The stem cell niche is preserved enabling the pericytes to have a much higher survivability rate. The intact niche provides a perfect environment for reparative response of activated MSCs. As Dr. A. Caplan has pointed out, pericytes are precursor mesenchymal stem cells. Activated MSCs are crucial for the immune modulation and regeneration. The lipoaspirate of Lipogems shows a higher percentage of mature pericytes and hMSCs than enzymatically digested lipoaspirates. We are now aware that there are novel growth factors secreted by Lipogems lipoaspirate which may explain the therapeutic efficacy of Lipogems. Also important, is the fact that the Lipogems technique may preserve the important MUSE cell. Muse cells are unique in that they be pluripotent, have a high survivability rate, and are quite small by stem cell standards. They are considered to be an embryonic like stem cell without any of the risks of regular embryonic stem cells since they are the patient's own. They may represent a quantum leap in regenerative medicine. Since Lipogems preserves these cells it too is a quantum leap.

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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