The Use of Nutraceuticals in Regenerative Matrix Repair in Knee OA

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Abstract:

Nutraceuticals to facilitate the Regenerative process, after the use of matrix or stem cell applications in knee osteoarthritis (OA) is examined. Pro-inflammatory cytokines have been extensively studied in various disease models. Recombinant technology in single cytokine modulation has been utilized for various Rheumatologic disease states, incorporating blockade of tumor necrosis factor alpha (TNF-a), interleukin 1- beta (IL1-b), and interleukin 1-6 (IL-6). The efficacy of mono cytokine inhibition on knee osteoarthritis (OA) has failed to demonstrate. This is long known to be the case in the well demonstrated progressive nature of knee OA, with downstream inhibition of PGE2 with nonsteroidal anti-inflammatory drugs (NSAIDS). The use of Regenerative therapies incorporating biological scaffolds, growth factors, and Mesenchymal stem cell implants may provide a more comprehensive cell signaling inhibitory pathway. A combination approach, incorporating nutraceuticals based upon clinical laboratory studies, may reflect a possible synergistic mechanism to Regenerative therapies. Knowledge of the cytokine modulatory capacity of nutraceuticals can be a useful adjuvant strategy in vivo to enhance Regenerative capacity.

Biography:

Dennis M. Lox M.D., Graduated from the University of Arizona Phi Beta Kappa, and Phi Kappa Phi. His medical education was from Texas Tech University and his Residency in Physical Medicine and Rehabilitation at the University of Texas Health Sciences Center at San Antonio. Dr. Lox choose a path following Sports and Regenerative Medicine.

Dr. Lox has edited two medical textbooks, eight medical textbook chapters, and authored numerous scientific articles and abstracts. Dr. Lox is a highly sought after guest lecturer at both National and International Medical Symposiums on various topics in the Regenerative Medicine, Stem Cell Science, and Tissue Engineering fields. Dr. Dennis Lox maintains an active clinical practice in Beverly Hills, California, and the Tampa Bay, Florida area.