**Application of Mesenchymal Stem Cells in Facial Rejuvenation**

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## Abstract

Oxidative damage occurring to the skin from internal and external factors contribute to the aging of skin rapidly degenerating collagen and the skin, contributing to formation of wrinkles and sagging skin. To reverse and repair damaged aging skin, returning it to its youthful appearance, requires a complex interplay of growth factors, matrix proteins, anti-inflammatory and immune regulatory systems. Mesenchymal stem cells (MSCs) recently have been used to stimulate this complex interplay of systems to repair and heal the skin, protecting it from oxidative stress. The direct application of MSCs in combination with platelet-rich plasma injected into the face activates skin rejuvenation and repair, returning it to its youthful appearance. This presentation will discuss and show examples of the use of MSCs in facial rejuvenation.

## Professional Biography

Dr. Nooshin K. Darvish completed her doctorate in Naturopathic Medicine in 1995 from Bastyr University in Washington followed by a two-year residency in Naturopathic Family Medicine. She is board-licensed and board-certified in Anti-Aging Medicine. She holds Fellowships in Integrative Cancer Therapies as well as Metabolic and Nutritional Medicine. She has held multiple faculty positions at Bastyr University since 1993. Currently, she is an affiliate clinical faculty and an offsite Resident Physician Training Director for Bastyr. She founded Holistique Medical Center, the first integrative, regenerative and naturopathic medical center on any hospital campus in Washington and is currently its medical director. She has been a consultant for internationally based hospitals, is published in peer-review journals, and has served on editorial boards for integrative medical journals. She is regularly interviewed on radio and podcasts on regenerative, anti-aging, integrative, and naturopathic medicine.