Human Umbilical Cord Mesenchymal Stem Cells Suppress Systemic Lupus Erythematosus Lesions by Rebalancing CD4+/CD8+ Cell Population

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Despite considerable advances in the treatment for systemic lupus erythematosus (SLE), there is still an unmet need to develop novel therapeutic approaches with improved efficacy and lower side effects. Here we explore human umbilical cord-derived mesenchymal stem cells (hUCMSCs) as a promising treatment for SLE induced by concanavalin A-activated spleno-lymphocyte in...

Stem Cells in the Oral Cavity

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Stem cells have emerged in the health area as a promise for the healing of damaged tissues and replacement of organs. With their capacity of self-renewal and clonogenity, as well as their ability to develop into many different cell types in the body, their potential seems to be unlimited, serving as a kind of cell stock for any cellular need in the human body.

Neverth ...
Mesenchymal Stem Cell as a Vector for Gene and Cell therapy Strategies

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Stem cells are undifferentiated biological cells that able to maintain undifferentiated state through cell division and give rise to any mature cell type. They are almost divided into embryonic (ESC) and adult stem cells (ASC). ASCs have lineage restriction in compare to ESCs which they cannot differentiate into all 3 layers (ectoderm, mesoderm and endoderm) [1,2]. ...

Stem Cell Therapy for Neurodegenerative Diseases

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Aging-related neurodegenerative disorders mainly include Alzheimer’s disease (AD) and Parkinson’s disease (PD). AD is the most common form of dementia, which is one of the major causes of disability and dependency in the elderly. Since the pathologic characteristics of AD are beta-amyloid (Abeta) plaques and neurofibrillary tangles (NFT) [1], depleting Abeta should be ...
Epigenetic alternations are not associated with any changing the base sequence of DNA, but are closely related to phenome together with genome [1]. Most of them are determined differently under various external and internal influences and, even if abnormal, memorized over individual life...