Name of Journal: *World Journal of Stem Cells*

Manuscript NO: 57148

Manuscript Type: REVIEW

Senescent mesenchymal stem/stromal cells and restoring their cellular functions

Meng QS *et al*. Aged MSCs: Features and rejuvenation strategies

Qing-Shu Meng, Jing Liu, Lu Wei, Hui-Min Fan, Xiao-Hui Zhou, Xiao-Ting Liang

Abstract

Mesenchymal stem/stromal cells (MSCs) have various properties that make them promising candidates for stem cell-based therapies in clinical settings. These include self-renewal, multilineage differentiation, and immunoregulation. However, recent studies have confirmed that aging is a vital factor that limits their function and therapeutic properties as

862,000 Results Any time

Restoring the quantity and quality of elderly human ...

https://stemcellres.biomedcentral.com/articles/10.1186/s13287-017-0688-x

Oct 27, 2017 · Degenerative diseases are a major public health concern for the aging population and **mesenchymal stem** cells (MSCs) have great potential for treating many of these diseases. However, the quantity and quality of MSCs declines with aging, limiting the potential efficacy of autologous MSCs for treating the elderly population. Human bone marrow (BM)-derived MSCs from young and elderly …

Cited by: 12 **Author:** Travis J. Block, Milos Marinkovic, Olivia N…
Publish Year: 2017

Mesenchymal stem cells for restoration of ovarian function

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6436469

Mar 01, 2019 · With the progress of regenerative medicine, mesenchymal stem cells (MSCs) have received attention as a way to restore ovarian function. It has been reported that MSCs derived from **bone marrow**, **adipose**, **umbilical cord blood**, **menstrual blood**, and **amniotic fluid improved ovarian function**.

Cited by: 1 **Author:** Sook Young Yoon
Publish Year: 2019

Search Tools

Turn off Hover Translation (关闭取词)

国内版 国际版

Senescent mesenchymal stem/stromal cells and restoring their c

ALL IMAGES VIDEOS

121,000 Results Any time

Cellular Senescence in Mesenchymal Stem Cells – Fight Aging!

https://www.fightaging.org/archives/2019/07/...

Cellular senescence is a cause of aging.**Cells** become **senescent** in response to a variety of circumstances: damage, a toxic environment, reaching the Hayflick limit on replication, and so forth. In all **cell** populations, older individuals exhibit increasing numbers of **senescent cells**, perhaps largely due to the progressive decline of the immune system and its growing failure to clear out ...

p16INK4A-expressing mesenchymal stromal cells restore the ...

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6604166

May 23, 2019 · Background. The therapeutic benefits of **mesenchymal stromal cells** (MSCs) include treatment of chronic inflammation. However, given the short-lived engraftment of these **cells** in vivo, **their** therapeutic efficacy remains mysterious.Transient induction of **cellular** senescence contributes to activation of immune **cells**, which promotes clearance of damaged **cells** ...

Cited by: 1 **Author:** Takako S. Chikenji, Yuki Saito, Naoto Ko...
Publish Year: 2019

Mesenchymal Stem Cell Senescence Alleviates Their ...

https://pubmed.ncbi.nlm.nih.gov/31644429

We test whether by becoming **senescent**, the **mesenchymal stromal/stem cells** (MSCs), found in the **synovial** tissue and sub-chondral bone marrow, can contribute to OA development. We established an in vitro p16 INK4a-positive **senescence** model on human MSCs. Upon **senescence induction**, **their intrinsic stem cell properties** are altered.

Mesenchymal stem cell senescence alleviates their ...

https://www.ncbi.nlm.nih.gov/pubmed/31644429

Oct 22, 2019 · We test whether by becoming **senescent**, the **mesenchymal stromal/stem cells** (MSCs), found in the **synovial** tissue and sub-chondral bone marrow, can contribute to OA development. We established an in vitro p16INK4a-positive **senescence** model on human MSCs.

Senescent mesenchymal stem/stromal cells and restoring their cellular fu

ALL IMAGES VIDEOS MAPS NEWS SHOPPING

126,000 Results Any time

Cellular Senescence in Mesenchymal Stem Cells – Fight Aging!

https://www.fightaging.org/archives/2019/07/...

Cellular senescence is a cause of aging.**Cells** become **senescent** in response to a variety of circumstances: damage, a toxic environment, reaching the Hayflick limit on replication, and so forth. In all **cell** populations, older individuals exhibit increasing numbers of **senescent cells**, perhaps largely due to the progressive decline of the immune system and its growing failure to clear out unwanted ...

Mesenchymal Stem Cell Senescence Alleviates Their ...

https://pubmed.ncbi.nlm.nih.gov/31644429

Mesenchymal Stem Cell Senescence Alleviates Their Intrinsic and Seno-Suppressive Paracrine Properties Contributing to Osteoarthritis Development. Tissue accumulation of p16^{INK4a}-positive **senescent cells** is associated with age-related disorders, such as osteoarthritis (OA). These **cell-cycle arrested cells** affect **tissue function** through a specific secretory phenotype.

Human mesenchymal stem cells lose their functional ...

https://www.nature.com/articles/s41598-017-18862-1?...

Jan 10, 2018 · **Mesenchymal stem cells** (MSCs) are an integral part of the **bone marrow** niche and aid in the **protection**, **regeneration** and proliferation of **hematopoietic stem cells** after exposure to myelotoxic taxane...

Mesenchymal Stromal Cell Exosomes Ameliorate Experimental ...

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5765387

Jan 01, 2018 · **Mesenchymal stem/stromal cell** (**MSC**) **therapy** had shown promise in preclinical models of **BPD**, and recent studies established that one of the main therapeutic vectors of **MSCs** is found in **their secretome** and represented by exosomes (extracellular vesicles).

Cited by: 170 **Author:** Gareth R. Willis, Angeles Fernandez-Gon...

Publish Year: 2018

Decidual Mesenchymal Stem/Stromal Cell-Derived ...

https://www.sciencedirect.com/science/article/pii/S2210778920300933

Jul 15, 2020 · Oxidative stress and endothelial dysfunction contribute substantially to the pathogenesis of