Therapeutics & Vaccines

IFNy AND TFNa CO-STIMULATION OF MESENCHYMAL STROMAL CELLS DERIVED FROM MINOR SALIVARY (LABIAL) GLANDS FOR THERAPEUTIC USE

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Inventors: Sara McCoy, Jacques Galipeau

The Invention

UW-Madison researchers have developed improved methods for optimizing the characteristics of salivary gland-derived mesenchymal stromal cells (MSCs) for therapeutic administration.

The inventors have discovered two method modifications that improve the characteristics of MSCs:

1. Using Collagenase AF-1 for digesting the salivary gland biopsy sample promoted greater cell proliferation in the resulting cells
2. Interferon-gamma (IFNγ) is currently used to optimize the immunomodulatory and trophic potential of MSCs, as well as recovery from cryopreservation. The inventors have discovered that treating MSCs (from salivary gland, bone marrow, or adipose tissue) with a combination of IFNγ and tumor necrosis factor-alpha (TNFα) significantly improves the tissue regeneration response, by enhancing the production of R-spondin, which interacts with LGR5 receptors in cells such as epithelial progenitors, thereby promoting tissue regeneration.

Additional Information

For More Information About the Inventors

- Sara McCoy

Tech Fields

- Therapeutics & Vaccines : Autoimmune disorders
- Therapeutics & Vaccines : Other therapeutic technologies

For current licensing status, please contact Andy DeTienne at adetienne@warf.org or 608-960-9857