

терапевтического потенциала эндогенных МСК в клиническую практику.

ФИНАНСИРОВАНИЕ РАБОТЫ

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СОБЛЮДЕНИЕ ЭТИЧЕСКИХ СТАНДАРТОВ

Авторы не проводили экспериментов с участием животных или людей.

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Activation of Endogenous Mesenchymal Stromal Cells as an Approach to Tissue Regeneration

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Mesenchymal stromal cells (MSCs) which have a complex pro-regenerative effect on damaged tissues represent a promising resource for cell therapy for a wide range of diseases. However, transplantation of autologous or donor MSCs to a patient is associated with a number of problems, such as variability of cell properties depending on their source and cultivation conditions, a decrease in their therapeutic potential and the possibility of acquiring immunogenicity or tumorigenicity during *in vitro* expansion, and the invasiveness of the isolation procedure. One of the ways to avoid these problems can be the impact on endogenous MSCs by stimulating their directed migration into tissue defects, without the need for extraction from the body, *in vitro* cultivation and reintroduction to the patient. This review discusses approaches to activating the mobilization of MSCs from tissue niches and/or stimulating their migration to the target area, which can be considered as a safer, and possibly more effective alternative to MSC transplantation.

Keywords: mesenchymal stromal cells, regenerative medicine, mobilization, migration, chemoattractants