عنوان مقاله:

Gene-Enhanced Personalized Regenerative Medicine for Bone

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خلاصه مقاله:

Regenerative medicine (RM) is a developing multidisciplinary science that uses different principles and methods of other fields or sciences for tissue regeneration, repair or replacement. Gene therapy refers to transferring genes or gene expression regulator factors for the desired purposes. In some cases, gene therapy plays an important role in regenerative medicine by modulating stem cells from different sources. Genetic heterogeneity of individuals can affects the results of gene therapy or other therapies in RM. This is why personal genomics should be considered in RM and is called personalized regenerative medicine (PRM). The purpose of PRM is to employ strategies and methods tailored to the individual's genetics in order to efficiently reconstruct or substitute various parts of the body. In this study, the strategies and recent advances in bone regeneration such as gene therapy, epigenetic-based therapies, RNA-based therapy and CRISPR/Cas9 system with an attitude to personalized medicine are introduced.

کلمات کلیدی:

Bone, Regenerative medicine, Gene Therapy, Epigenetic, Personalized Medicine

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