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## Guest Editorial

# Roll of Stem Cell Therapy in Osteoarthritis

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Osteoarthritis (OA) is by far the most prevalent type of degenerative joint disease. It is a painful, long-lasting disorder that can affect any synovial joint. Over the future decades, diseases would impose a significant socioeconomic burden on society as a result of an ageing population and rising disease prevalence [1]. The fact that there are few OA therapy choices complicates this situation. Since neither pharmacological nor non-operative treatments have shown to be effective in slowing or stopping the progression of disease, treatment is limited to managing aggravating variables over the long term and managing pain. When mechanical deformity is evident, surgical alternatives such as osteotomies are available to improve alignment and reduce the risk of OA; however, these operations are of limited effect once severe degenerative changes have occurred [2]. Despite improvements in these techniques, they cannot be used to treat more severe joint degeneration brought on by OA. The hunt for disease-modifying remedies goes on in the lack of successful tactics.

For degenerative musculoskeletal disorders like OA, mesenchymal stem cells (MSCs) have been recommended as the best restorative cellular treatment. These cells can quickly multiply and differentiate into musculoskeletal lineages like bone and cartilage. They can be found in a range of tissues [3]. A large body of research has also shown that these cells control crucial immunologic processes by modifying the local inflammatory response. Together, these elements lend credence to MSCs' potential to prevent degenerative joint disease. Due to the fact that this cytotype can be found in a wide variety of tissues, research has concentrated on identifying the best source for MSC generation [4]. Thus, MSC-based therapeutic approaches can be employed to treat OA as a standard treatment plan in near future.

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