Stem cells for soft injuries

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Soft injuries present a significant clinical and research challenge to biological and medical doctors1. The search for a successful long-term solution remains the focus of intense research. Over the past few years, several exciting technologies have emerged, which, given time, may provide a realistic clinical management option. This issue represents the synthesis of the philosophy of I.S.Mu.L.T., we love to try to connect the Basic Science to Medical and Surgical practice2.

Often, however, for various reasons, the practical application of new technologies such as mesenchymal stem cells (MSCs) is too superficial and not supported by scientific evidence. Therefore only the deeper knowledge through the work of expert authors, can help to avoid gross mistakes. Based on a variety of preclinical studies showing that MSCs play a significant role in tissue repair and homeostasis. MSCs based therapies show promise in improving outcomes. Much of the work has been experimental, although early clinical use in equine strain-induced tendon injuries supports the efficacy of this strategy.

While much has been studied about the mechanisms of action of implanted MSCs, the relative importance of the various mechanisms is still unknown. This issue aimed to presents some of a detailed review of new areas of research which hold promise for future success in managing of soft tissues disorders.

References