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MESENCYMAL STEM CELL'S, "THE GUARDIANS OF INFLAMMATION"**Matthew Regulski***

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Human mesenchymal stem cells (MSCs) are a unique progenitor cell that can be recovered from most vascularized tissues in the human body. In addition to their capability of differentiating into tissues of mesenchymal lineage, perhaps their most salient features are immunomodulation and trophic capabilities. A chronic wound is characterized by an overzealous immune response that leads to a corrosive extracellular matrix, deficiency of regulatory growth factors, hypoxia, and cellular senescence. Human MSCs are a potential therapeutic modality to recapitulate the healing paradigm through their capacity to modulate both the innate and the adaptive immune responses. They are capable of secreting specific proteins, as dictated by the microenvironment they are placed into that will have anti-inflammatory and growth restorative effects on all cellular factions. Their low immunogenicity suggests MSCs can be transplanted without the need for Matching between donor and recipient. The current understanding of the cellular mechanisms underlying their immunomodulatory effects is summarized in this review.