

## Stem cells as therapeutic tools for rheumatoid arthritis

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Adult multipotent progenitor cells isolated from a variety of tissues have been shown to aid in tissue repair and immunological homeostasis under the influence of appropriate signals. Among the most popular and well characterized types of adult stem cells are the bone marrow (BM) derived mesenchymal stem cells (MSCs). These cells reside in BM stroma supporting the haematopoietic progenitor cell growth. These cells were shown to trans-differentiate into osteocytes, chondrocytes, adipocytes and smooth muscle cells. With such potential proven in clinical set up as well, there is currently great interest in exploring the potential use of MSCs in autoimmune manifestations. Rheumatoid arthritis (RA) is a systemic autoimmune disease associated with cartilage and bone destruction owing to the local production of inflammatory cytokine mediators. The clinical role of MSCs in T-cell suppression combined with the regenerative factors proposed MSCs as candidate therapeutic tools to address RA. The fact that there are, specific issues concerning the reserves and function of autologous BM MSCs in RA in clinical scenario has motivated our group to evaluate the eligibility of donated clinical grade umbilical cord stroma derived MSCs for clinical application

### Biography

Subhadra Dravida is the Founder CEO of Tran-Scell Biologics Pvt. Ltd ([www.tran-scell.com](http://www.tran-scell.com)), an Adult Stem Cell Processing and Banking Company at Hyderabad, India. She is a technocrat by profession having worked in the USA, Canada and India with 12 years of professional experience in the stem cell research and commercialization. She has unique blend of experiences & skills of wet lab, product development to marketing and managing business. She has handled various national and internationally funded stem cell research and applications projects, conducted different phases of research and clinical trials both in India and Canada. She has published original research articles to her credit on isolations and characterizations of pluripotent stem cells derived from different adult sources and bioengineering on different scaffolds for clinical evaluation in treating diseases. She has both national and international granted process and design stem cell domain patents to her credit. She was associated with the University of North Carolina, USA, Ottawa Health Research Institute, Canada, Reliance Life Sciences, India, Center for Cellular and Molecular Biology, Hyderabad

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