

Autologous stem cell therapy for diabetes: An exciting new frontier opens

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Exogenous insulin administration remains to be the standard method for diabetes treatment since many years and continued to be so. The century long search for an ultimate curative diabetic therapy opened way to the transplantation epoch. The current protocols of islet cell transplantation for the treatment of diabetes mellitus have been hampered by islet availability and allograft rejection. Stem cells have been an enigmatic area of research and progressive effort has been made in order to provide treatment for various devastating disorders, inclusive of diabetes mellitus. In lieu of this, bone marrow and adipose tissue derived stem cells holds a prominent stand in showcasing tissue repair efficacy and developed in to potentially unlimited source of islet cells for transplantation. Despite continuous efforts and rigorous assessments, there has been skepticism in accepting autologous stem cells as therapy for the treatment of diabetes. Hence, this speech herein discloses these uncertainties and highlights on the power of generating enough new beta cells from adult stem cells, thereby bringing stem cells as a cue to cure diabetes mellitus. This colossal benefit of stem cells and its applicability in diabetic therapy will be realized in the near future, thereby serving as a saviour for diabetics all over the world

Biography

M. Dhanasekaran has completed his Ph.D in 2012 on adult stem cell technology and regenerative medicine. His broad area of research lies on optimization of culturing for stem cells derived from bone marrow, subcutaneous and omentum fat tissue and differentiation into islet like clusters for the treatment of diabetes. He is currently the Scientist of Lifeline Institute of Regenerative Medicine, Chennai, India. He has published around 10 papers in reputed journals and had been a reviewer for some journals. He is now the lead author of three chapters on a book of regenerative medicine, which is in pipeline.

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