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Current Status of Umbilical Cord Blood Derived Stem Cell Therapy for Incurable and Intractable Disease: More than 700 Stem Cell Panels are Stored and Umbilical Cord Blood Derived Stem Cell Bank will be Established by the End of this Year to Treat the Incurable over the World

Hoon Han

Research Institute of Biotechnology, HistoStem., Co., Seoul 137-873

In spite of remarkable progress of present-day medical science, it is the reality that incurable diseases still threat our lives. It is impossible for the damaged organs or tissues to be treated by the existing chemotherapeutic or surgical therapy. Stem cell therapy is hope for a number of patients who suffer from fatal diseases over the world. Particularly, patients who can't be even cured by organ transplantation or patients who are not able to have organ transplantation due to lack of organ supply will be the best beneficiaries of stem cell therapy. In order to stem cell therapy to play its role as a popularized medical remedy, it should meet the requirements from these four following standpoints. Safety concern; (2) Ethical issues; (3) Use of allogenic stem cells; (4) Production in large quantity. UBC-derived Stem cell is multipotent cell and it has characteristics of ectodermal, endermal competency, and mesodermal(hepatogenic) potential. This UCB-derived stem cell is use in 250 cases of clinical applications on 17 types of diseases such as spinal cord injury, Buerger's disease, liver cirrhosis, diabetes mellitus, chronic renal failure, osteoporosis, and cerebral infarction. Our studies suggest that human umbilical cord blood-derived stem cells can be applied to treat incurable disease such as liver cirrhosis, diabetes mellitus, osteoporosis, Buerger's disease and even spinal cord injury effectively without application of immunosuppressive agents. UCB-derived stem cells can prevent from triggering immune-rejection of transplantation in advance since they are produced by Cell Panels completed HLA tests. UCB is the most suitable resource for commercialization and popularization of stem cells.