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Basics of stem cells

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Stem Cell is a specific cell that can divide to produce some offspring cells that continue as stem cells and some cells that are destined to differentiate (become specialized). Stem cells are an on-going source of the differentiated cells that make up tissues and organs of animals and plants. There is a great interest in stem cells because they have potential in the development of therapies for replacing defective or damaged cells resulting from a variety of disorders and injuries, such as Parkinson disease, heart disease and diabetes. There are two major types of stem cells: Embryonic stem cells and Adult stem cells, which are also called tissue stem cells. Cell Culture has become an indispensable technology in many branches of life science. It provides the basis for studying the regulation of cell proliferation, differentiation and product formation in carefully controlled conditions, with processes and analytical tools which are scalable from the level of the single cell to in excess of 10kg wet weight cells. Cells culture has also provided the means to define almost the entire human genome and to dissect the pathways of intracellular and intercellular signaling which ultimately regulate gene expression. From its ancestry in developmental biology and pathology, this discipline has now emerged as a tool for molecular geneticists, immunologists, surgeons, bioengineers and manufactures of pharmaceuticals, while still remaining a fundamental tool to the cell biologist, whose input is vital for the continuing development of the technology. Stem cell technologies develop cell culture media, cell separation systems, Instrument other reagents for use in life science. Uses of stem cells cerebral palsy stroke, DMD, MND process are to drastically improvement in diseases American treatment DMD & CP treatment, stem cell therapy. It is transplanted routine to treat a variety of blood, bone marrow diseases, blood cancer, immune diseases, blood cancer and immune disorder also. More recently stem cells obtaining from the bloodstream (peripheral blood stem cells). Umbilical cord stem cells have been used to treat some of the same blood-based on diseases.

Biography

Sudha Bansode is an Associate Professor in Zoology at Shankarrao Mohite College, Akluj and Maharashtra State, India. Recently she has completed her Post-Doctoral Studies from University of California, Riverside USA. She is an active researcher & passionate teacher in India. She has been published above 25 research papers in International Journals & interested in Bone Research. Also, she has the honor of Distinguished Editorial Board Member of several International Journals. She is an author of "Textbook Histological Techniques" & "Outlines of Physiology". And now she is working on another own reference book "Rhythms in Freshwater Crustaceans". She is a University recognized research guide for PhD students in India. She was an invited Indian Speaker of "Oxford Symposium" on 27-29 August 2014 at Balliol College, Oxford, United Kingdom, Cell Signaling & Cancer Therapy at Chicago on 27-28 September 2017 USA, "Genetics, Cell and Gene TherAPY" 20-21 August 2018 in Amsterdam, Netherlands. She was an academic visitor of Bangkok-Thailand, Colombo-Sri Lanka, Daira-Dubai-UAE. Her recent intellectual interaction is with many international professional groups.

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