

Stem Cells; Human Cells That Have the Ability to Develop Into Many Different Cell Types

<u>Stem cells</u> are a unique and powerful tool for research and medical treatments. These cells help understand human biology as well as develop new strategies for therapy. By creating induced pluripotent stem cells (iPSCs) from the patient's blood or bone marrow, researchers can study the characteristics of disease. They can also be used to test potential drugs. Moreover, they may help restore some functions, such as the heart. For the time being, stem cell research is limited to treating certain degenerative conditions.

Stem cell research is legal in the U.S., however, there are restrictions on its funding and use. Currently, the only stem cell-based treatment that is routinely reviewed and approved by the Food and Drug Administration (FDA) is hematopoietic (or blood) stem cell transplantation. It is used to treat disorders and cancers that affect the immune system and the blood. Currently, the only stem cell products that are FDA-approved consist of blood-forming stem cells that are derived from umbilical cord blood.

Stem cells can be isolated from the body in many ways, depending on the tissue. For example, blood stem cells can be taken from a person's circulating blood, from blood in the umbilical cord when a baby is born, or from a donor's bone marrow.

For more details, visit- https://bit.ly/3t7gJov

