

# An Overview on Stem Cells and Their Assistance in Cancer Treatment

Hongyu T\*

Medical professor, Duke University, USA

## Cancer Treatment

Stem cell transplantation (SCT) is a procedure that involves replacing a patient's diseased or damaged bone marrow with healthy stem cells. This process is used to treat various types of cancer, including leukemia, lymphoma, and multiple myeloma. The stem cells are typically collected from the patient or a donor and then reimplanted into the patient's body to produce new, healthy blood cells.

There are two main types of SCT: autologous SCT and allogeneic SCT. Autologous SCT involves using the patient's own stem cells, while allogeneic SCT involves using stem cells from a donor. Allogeneic SCT is more complex and carries a higher risk of complications, but it is often necessary for patients with certain types of cancer.

Stem cell transplantation is a highly specialized procedure that requires a team of experts, including hematologists, oncologists, and transplant coordinators. The process involves several steps, including conditioning (preparing the patient's body for the transplant), transplantation, and engraftment (allowing the new stem cells to take hold and produce new blood cells). The recovery period can be long and challenging, but many patients achieve long-term remission and a return to a normal quality of life.

Stem cell transplantation is a powerful tool in the fight against cancer, and its use continues to expand as researchers discover new ways to improve the procedure and reduce its risks. For patients with certain types of cancer, SCT offers a chance for a cure and a better future.

## Who requires stem cell transplant?

Stem cell transplantation is typically used to treat patients with certain types of cancer, including leukemia, lymphoma, and multiple myeloma. It is also used to treat patients with certain types of bone marrow failure syndromes, such as aplastic anemia and myelodysplastic syndromes.

\*Corresponding author: Hongyu T, Medical professor, Duke University, USA, E-mail: hongyutian345@gmail.com

Received: 03-Jan -2022, Manuscript No: acp-22-52416; Editor assigned: 05-Jan-2022, PreQC No. acp-22-52416(PQ); Reviewed: 19-Jan-2022, QC No. acp-22-52416; Revised: 24-Jan-2022, Manuscript No. acp-22-52416(R); Published: 31-Jan-2022, DOI: 10.4172/2472-0429.1000124

Citation: Hongyu T (2022) An Overview on Stem Cells and Their Assistance in Cancer Treatment. Adv Cancer Prev 6: 124.

Copyright: © 2022 Hongyu T. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.