

## **Stem Cell Market - Growth, Trends, Covid-19 Impact, and Forecasts (2023 - 2028)**

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### **Report description:**

The stem cell market was valued at about USD 16.19 billion in 2021 and is expected to witness a revenue of USD 29.53 billion in 2027 with a CAGR of 10.21% over the forecast period, 2022-2027.

The growth of the market is attributed to the rising number of clinical trials and the growing adoption of stem cell therapies globally. In the context of COVID-19, government organizations in various countries, research institutes, and many biotech and pharmaceutical firms are focusing on effective and rapid technologies for the fast diagnosis of COVID-19. According to a research article titled "Mesenchymal Stem Cell Therapy for COVID-19: Present or Future" published in April 2020, mesenchymal stem cells are a safe and effective approach to the treatment of COVID-19. Mesenchymal Stem Cells (MSCs)-based immunomodulation treatment has been proposed as a suitable therapeutic approach and several clinical trials have begun. The positive results from such studies can lead to the development of new therapies for COVID-19 and thus can propel the growth of the market.

Factors such as increased awareness about umbilical stem cells and growing demand for regenerative treatment options, coupled with rising research and development initiatives to develop stem cell therapies and increasing approvals for clinical trials in stem cell research, are majorly driving the growth of the market.

The area of stem cell-based therapies garners significant investments, and various clinical trials that require considerable support for expenditure are currently underway. Companies are fundraising to develop stem cell-based therapies to tackle many diseases. For instance, in January 2022, Cellino Biotech, a cell therapy manufacturing company, raised USD 80 million in Series A financing round. Cellino plans to expand access to stem cell-based therapies by building the first autonomous human cell foundry in 2025. As the applications of stem cell technologies in the treatment of diseases have ultimately increased, so has the overall adoption rate of these technologies across the world. This has led to increased investments by the market players for the development of novel therapies in this area.

Additionally, the initiatives taken by the government to support the research studies are also contributing to the growth of the

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market. For instance, in June 2020, the Australian Government funded USD 5.9 million for eight medical research projects to find new and innovative stem cell treatments for incurable diseases, including leukemia, Parkinson's disease, and epilepsy.

Thus, owing to the abovementioned factors, the market is expected to project significant growth over the forecast period. However, expensive procedures and regulatory complications, as well as ethical and moral frameworks, may hinder the growth of the market.

## Stem Cell Market Trends

### The Oncology Disorders Segment is Expected to Exhibit the Fastest Growth Rate Over the Forecast Period

The global cancer burden has been increasing, and thus, cancer therapies must be modified according to regional and national priorities. As per the data published by the International Agency for Research on Cancer 2020, globally, 1 in 5 people develop cancer during their lifetime, and 1 in 8 men and 1 in 11 women die from the disease. Breast, colorectal, lung, cervical, and thyroid cancers are common among women, whereas lung cancer and prostate cancer are the most common among men, together accounting for nearly one-third of all male cancers.

A bone marrow transplant, or stem cell transplant, is a treatment for some types of cancer, like leukemia, multiple myeloma, neuroblastoma, or some types of lymphoma. For cancer treatments, both autologous and allogeneic stem cell transplants are done. Autologous transplants are preferred in the cases of leukemias, lymphomas, multiple myeloma, testicular cancer, and neuroblastoma.

The strategic initiatives taken by the market players are also propelling the growth of the segment growth. For instance, in February 2020, the Global Institute of Stem Cell Therapy and Research (GIOSTAR) inaugurated a new stem cell and cancer research and therapy center in Chandigarh, India. This facility represents the latest milestone in global expansion efforts spearheaded by GIOSTAR in India, Mexico, the United States, and numerous other countries.

Thus, owing to the abovementioned factors, the market segment is expected to show growth over the forecast period.

### North America is Expected to Hold a Significant Share in the Market and Expected to do Same Over the Forecast Period

North America dominated the overall stem cell market, with the United States contributing the largest share of the market. The United States and Canada have developed well-structured healthcare systems. These systems also encourage research and development. The increasing number of cancer cases is providing opportunities for market players. The major market players are focusing on R&D activities to introduce new stem cell therapies in the market. Additionally, according to the American Cancer Society, in 2022, there were an estimated 1,918,030 new cases of cancer in the United States, and 609,360 deaths were notified in the year 2022. It also reported that in males, the leading cancer sites in the country are prostate while in females it is breast cancer. Such an increasing burden of the disease is expected to propel the growth of the market.

In addition, the current situation of COVID-19 is another factor driving the growth of the market in the country, as research activities are undergoing for the treatment of COVID-19. Stem cell therapy could also be a promising approach for the treatment of COVID-19 in the future. For instance, in May 2020, Lineage Cell Therapeutics received a grant of USD 5 million from the California Institute for Regenerative Medicine (CIRM) to support the use of VAC, Lineage's allogeneic dendritic cell therapy, for the development of a potential vaccine against SARS-CoV-2, the virus that causes COVID-19.

Furthermore, in April 2021, Vertex Pharmaceuticals Incorporated received the United States Food and Drug Administration (FDA) Fast Track Designation for VX-880, and the company initiated a clinical trial for VX-880 in patients who have type 1 diabetes (T1D)

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with severe hypoglycemia and impaired hypoglycemic awareness. VX-880 is one of the first investigational stem cell-derived therapies utilizing fully differentiated, insulin-producing pancreatic islet cells for the treatment of type 1 diabetes. Such a fast approval procedure is expected to drive the growth of the market.

Thus, owing to the abovementioned factors, the North American region is expected to grow over the forecast period.

### Stem Cell Market Competitor Analysis

The stem cell market is highly competitive and consists of several major players. In terms of market share, a few of the major players currently dominate the market. The presence of major market players, such as Thermo Fisher Scientific (Qiagen NV), Sigma Aldrich (a subsidiary of Merck KGaA), Becton, Dickinson and Company, and Stem Cell Technologies, is, in turn, increasing the overall competitive rivalry in the market. The product advancements and improvements in stem cell technology by the major players are also increasing the competitive rivalry.

### Additional Benefits:

The market estimate (ME) sheet in Excel format  
3 months of analyst support

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