

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

Market Report | 2023-01-23 | 120 pages | Mordor Intelligence

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### **Report description:**

The stem cell manufacturing market is projected to record a CAGR of nearly 12.9% over the forecast period.

Stem cell-based therapies are being suggested to treat COVID-19. Therefore, the COVID-19 pandemic positively impacted the stem cell manufacturing market compared to other markets. Several companies and universities are involved in research studies associated with stem cells. For instance, in August 2020, the University of Minnesota Institute used mesenchymal stem cells (MSCs) for the patients affected by COVID-19 and lung failure. Additionally, several companies are getting approvals for their stem cell-based therapies from the US Food and Drug Administration. For instance, in August 2020, Calidi Biotherapeutics announced the US FDA approval of stem cell therapy treatment for COVID-19 and pneumonia patients. Hence, novel alternative therapies, such as stem cell therapy, have the potential to treat COVID-19 patients, which can reduce the mortality rate.

The major factors attributing to the market's growth include the technological advancements in stem cell manufacturing and preservation and growing public awareness about the therapeutic potency of stem cell products.

Stem cells can treat a wide range of incurable diseases, for which the treatments were previously unknown. Additionally, they can be used to replace damaged neurons caused by spinal cord injuries, Alzheimer's disease, Parkinson's disease, and other neurological problems. They also produce insulin to treat patients with diabetes and weak heart muscle and replace the damaged tissue or the injured or diseased organ. Preservation of pluripotent status and regenerative capacity is essential to produce clinical-grade iPSCs (induced pluripotent stem cells) for cell therapies. The design of the media with the matrix and matriculation emerged as a result of the signaling mechanisms that help support cohesion in the PSC lines and the consolidation process. The development of iPSC monitoring strategies, silico models, and quality data systems incorporating real-time data may increase the robust process.

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According to California Institute for Regenerative Medicine 2021, Stem Cell Awareness Day, October 11th, is celebrated for the scientific advances made for the millions of people worldwide who suffer from incurable diseases and injuries. Research and academic institutions and educators are encouraged to participate by hosting public talks and other activities and events in their communities. Furthermore, the growing public-private investments and funding in stem cell-based research is boosting the market's growth. However, the popularity of alternative procedures is a major drawback for the market.

#### Stem Cell Manufacturing Market Trends

Stem Cell Banking Segment is the Fastest Growing Segment in the Stem Cell Manufacturing Market.

A stem cell bank is a provision that stores stem cells developed from amniotic fluid for future use. Stem cell samples in private banks are stored specifically for use by the individual from whom such cells have been collected, and the banking costs are paid by the person. The sample can later be recovered or used only by that individual or, in many cases, by their first-degree blood relatives.

In addition, the establishment of stem cell banks across the world will contribute significantly to the market's growth. For instance, in March 2020, Jerudong Park Medical Centre (JPMC), in partnership with Stemlife Berhad, the pioneer and largest cord blood bank in Malaysia, opened a Stem Cell Banking Resource Centre that will provide convenient access for expectant families to gather information about the lifesaving clinical applications of stem cells from cord blood and the umbilical cord, before or after the consultation with their obstetrician. In addition, in September 2021, STEMCELL Technologies launched human pluripotent stem cell (hPSC) characterization and banking services in partnership with WiCell, which will provide researchers with comprehensive cell quality assessments and enable them to generate cell banks using standardized practices.

The major factor driving the segment's growth is the increasing public demand for cord blood stem cell banking and rising awareness regarding the prospective advantages of stem cell preservation. Furthermore, stem cells have been proven to treat approximately 80 diseases and disorders, including hematopoietic disorders, immunodeficiency diseases, and metabolic disorders. With the continued increase in per capita disposable revenue across developing countries and an expected decrease in product costs associated with stem cell therapies, increasing public awareness and the adoption of stem cell therapies are driving the segment's growth.

North America Dominates the Market and is Expected to Continue the Trend During the Forecast Period

North America is expected to dominate the overall market throughout the forecast period. The market growth is due to the presence of key players, high concentration of stem cell research in the region, mounting public-private funding and grants to support the clinical evaluation of stem cells for various applications, robust research infrastructure, and growing public awareness on the therapeutic potency of stem cells.

In addition, the International Agency for Research on Cancer 2020 estimates that, globally, 1 in 5 people develop cancer during their lifetime, and 1 in 8 men and 1 in 11 women die from the disease. The increasing number of cancer cases provides opportunities for market players as they focus on R&D activities to introduce new stem cell therapies.

Furthermore, beneficial government initiatives and an increase in the number of research partnerships are expected to drive the market's growth. In March 2021, Vertex Pharmaceuticals received the FDA grant as a fast track designation to VX-880, a human stem cell-derived therapy for patients with Type 1 diabetes. VX-880 is a first-in-class, allogeneic, fully differentiated islet cell therapy designed to regulate glucose levels by restoring a patient's pancreatic islet cell function, including insulin production.

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According to [clinicaltrials.gov](https://clinicaltrials.gov), as of February 7, 2022, there were about 1,803 registered recruiting and non-recruiting clinical trials across different phases of development related to stem cell therapy for different indications in the United States. The trials across the different phases show positive outcomes. This factor is expected to augment the market's growth in the future. Thus, due to these factors, the market is expected to witness growth in North America.

## Stem Cell Manufacturing Market Competitor Analysis

The stem cell manufacturing market is moderately competitive and consists of several major players. Some of the companies currently dominating the market are Becton, Dickinson and Company, Cellular Dynamics (Fujifilm Holdings Corporation), Lonza Group, Stemcell Technologies, Merck Group, Thermo Fisher Scientific, and Pluristem Therapeutics Inc.

Additional Benefits:

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

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