

Cell Separation Technologies Market In 2029

The Business Research Company's Cell Separation Technologies Global Market Report 2025 – Market Size, Trends, And Global Forecast 2025-2034

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/EINPresswire.com/ -- "Cell Separation Technologies Market to Surpass \$19 billion in 2029. In comparison, the Cell Separation market, which is considered as its parent market, is expected to be approximately \$30 billion by 2029, with Cell Separation Technologies to

represent around 63% of the parent market. Within the broader Healthcare Services industry, which is expected to be \$10,759 billion by 2029, the Cell Separation Technologies market is estimated to account for nearly 0.2% of the total market value.

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The Business Research Company's Latest Report Explores Market Driver, Trends, Regional Insights - Market Sizing & Forecasts Through 2034”

The Business Research Company



Which Will Be the Biggest Region in the Cell Separation Technologies Market in 2029

North America will be the largest region in the cell separation technologies market in 2029, valued at \$7,902 million. The market is expected to grow from \$4,205 million in 2024 at a compound annual growth rate (CAGR) of 13%. The rapid growth can be attributed to the growing demand for biopharmaceuticals and rising incidence of chronic diseases.

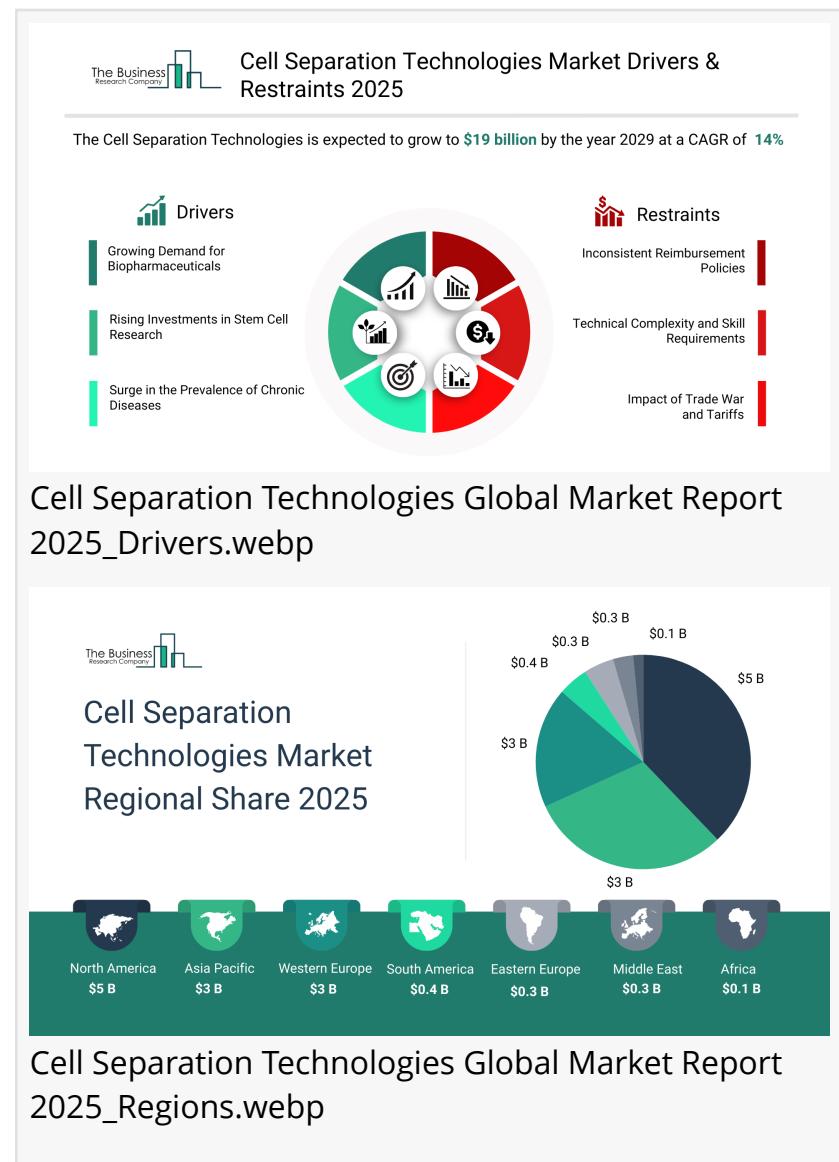
Which Will Be The Largest Country In The Global Cell Separation Technologies Market In 2029? The USA will be the largest country in the cell separation technologies market in 2029, valued at \$7,112 million. The market is expected to grow from \$3,871 million in 2024 at a compound annual growth rate (CAGR) of 13%. The rapid growth can be attributed to the growing demand for biopharmaceuticals and increasing prevalence of chronic diseases.

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What will be Largest Segment in the Cell Separation Technologies Market in 2029?

The cell separation technologies market is segmented by product into instruments and consumables and reagents. The consumables and reagents market will be the largest segment of the cell separation technologies market segmented by product, accounting for 60% or \$11,354 million of the total in 2029. The consumables and reagents market will be supported by recurring demand for kits, buffers and reagents in routine lab workflows, increasing frequency of diagnostic and research procedures requiring cell separation, rising adoption of single-use reagents to reduce contamination, continuous need for cost-effective solutions in large-scale research projects and expanding use of reagents in stem cell and cancer-related research.



The cell separation technologies market is segmented by technology into gradient centrifugation, surface markers separation, fluorescence activated cell sorting, magnetic cell sorting, filtration-based separation and other technologies. The gradient centrifugation market will be the largest segment of the cell separation technologies market segmented by technology, accounting 32% or \$6,160 million of the total in 2029. The gradient centrifugation market will be supported by its proven effectiveness in separating cells based on density, growing use in basic research and clinical applications, affordability compared to advanced sorting techniques, widespread availability of centrifuge-compatible kits and its role as a standard initial step in many separation protocols. Gradient centrifugation allows for the precise separation of cells based on differences in density, size and mass. This method is especially effective in isolating specific cell subpopulations, such as peripheral blood mononuclear cells (PBMCs), stem cells and cancer cells, making it a preferred choice in both clinical applications and research environments.

The cell separation technologies market is segmented by application into stem cell research, immunology, neuroscience, cancer research and other applications. The cancer research market will be the largest segment of the cell separation technologies market segmented by application,

accounting for 34% or \$6,547 million of the total in 2029. The cancer research market will be supported by rising global cancer burden, growing demand for circulating tumor cell isolation, increasing use of tumor-infiltrating lymphocytes in immunotherapy research, expansion of precision oncology studies and higher investments in cancer biomarker discovery and drug screening.

The cell separation technologies market is segmented by end user into biotechnology and pharmaceutical companies, hospitals and diagnostic laboratories, academic and research institutes and other end-users. The biotechnology and pharmaceutical companies market will be the largest segment of the cell separation technologies market segmented by end user, accounting for 42% or \$8,035 million of the total in 2029. The biotechnology and pharmaceutical companies market will be supported by increasing biologics and cell-based drug development, growing demand for GMP-compliant separation protocols, expansion of clinical pipelines using cell therapies, outsourcing of R&D to service providers and rising focus on drug screening and toxicity testing using isolated cell populations.

What is the expected CAGR for the Cell Separation Technologies Market leading up to 2029? The expected CAGR for the cell separation technologies Market leading up to 2029 is 14%.

What Will Be The Growth Driving Factors In The Global Cell Separation Technologies Market In The Forecast Period?

The rapid growth of the global cell separation technologies market leading up to 2029 will be driven by the following key factors that are expected to reshape biomedical research, clinical diagnostics, and advanced therapeutic development worldwide.

Growing Demand For Biopharmaceuticals - The growing demand for biopharmaceuticals will become a key driver of growth in the cell separation technologies market by 2029.

Biopharmaceuticals such as monoclonal antibodies, recombinant proteins and vaccines depend on mammalian cell cultures like CHO (Chinese Hamster Ovary) cells, where cell separation technologies are essential for ensuring pure, high-yielding cell populations. These systems play a critical role in upstream bioprocessing by enabling the selection of optimal clones and removal of contaminants, ensuring consistency and regulatory compliance. As the industry shifts toward personalized biologics, including cell-based therapies, the need for precise cell isolation has expanded. Rising R&D investments, particularly after the pandemic, have further driven demand for automated, high-throughput cell separation platforms to support accelerated drug development and manufacturing scalability. As a result, the growing demand for biopharmaceuticals is anticipated to contribute to a 1.5% annual growth in the market.

Rising Investments In Stem Cell Research - The rising investments in stem cell research will emerge as a major factor driving the expansion of the cell separation technologies market by 2029. Rising investments in stem cell research are significantly driving demand for advanced cell separation technologies, which are essential for isolating specific stem cell populations from complex biological samples. These technologies support the development of regenerative

therapies for conditions like heart disease, diabetes and neurodegenerative disorders by enabling the production of high-purity therapeutic cells. They are also critical for stem cell banking and cryopreservation, where clean separation is required before storage. Additionally, growing regulatory scrutiny has increased the need for GMP-compliant systems to ensure consistent quality, potency and identity of stem cell products. Consequently, the accelerating rising investments in stem cell research will capabilities is projected to contributing to a 1.0% annual growth in the market.

Surge In The Prevalence Of Chronic Diseases - The surge in the prevalence of chronic diseases processes will serve as a key growth catalyst for the cell separation technologies market by 2029. The rising prevalence of chronic diseases such as cancer, diabetes and cardiovascular disorders is driving demand for targeted therapies that rely on isolating specific cell types, making cell separation technologies essential. These tools support advanced diagnostics by enabling the extraction of high-purity cells for genetic analysis, biomarker detection and disease monitoring. Additionally, the growth of regenerative and stem cell therapies, particularly for conditions like neurodegeneration and organ failure, further underscores the need for precise and scalable cell separation methods. As healthcare shifts toward personalized medicine, the market for these technologies continues to expand, driven by their critical role in both research and clinical applications. Therefore, this surge in the prevalence of chronic diseases operations is projected to supporting to a 0.8% annual growth in the market.

Rising Healthcare Expenditure - The rising healthcare expenditure will become a significant driver contributing to the growth of the cell separation technologies market by 2029. The global increase in healthcare spending is enabling greater investment in advanced cell separation technologies, critical for research, diagnostics and therapeutic applications. Enhanced funding allows hospitals, labs and biotech firms to upgrade infrastructure, supporting the adoption of precision tools that improve efficiency and outcomes. Increased spending also fuels the growth of personalized and cell-based therapies, which rely heavily on effective cell isolation. Additionally, the expansion of clinical trials and diagnostic services—such as liquid biopsies and immunophenotyping—further accelerates demand for high-performance cell separation solutions. Consequently, the rising healthcare expenditure strategies is projected to contributing to a 0.5% annual growth in the market.

Access the detailed Cell Separation Technologies Market report here:

<https://www.thebusinessresearchcompany.com/report/cell-separation-technologies-global-market-report>

What Are The [Key Growth Opportunities In The Cell Separation Technologies Market in 2029?](#)

The most significant growth opportunities are anticipated in the cell separation consumables market, the gradient centrifugation technologies cell separation market, the cell separation for cancer research market, and the cell separation for biopharma technologies market. Collectively, these segments are projected to contribute over \$15 billion in market value by 2029, driven by advances in high-precision cell isolation technologies, automation in cell processing, and the expanding applications of cell separation in therapeutic development, cancer research, and

biopharmaceutical manufacturing. This surge reflects the accelerating adoption of innovative cell separation solutions that enable reproducible, scalable, and clinically compliant workflows, fueling transformative growth within the broader cell separation and biopharma technologies industry.

The cell separation consumables market is projected to grow by \$5,197 million, the cell separation biopharma technologies market by \$3,894 million, and the cell separation for cancer research market by \$3,210 million, the cell separation for biopharma technologies market by \$2,341 million over the next five years from 2024 to 2029.

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