Third-Generation Sequencing Technology Market 2026 Advancing Genomics Research Capabilities

The Business Research Company's Third-Generation Sequencing Technology Market 2026 Advancing Genomics Research Capabilities

Third-Generation Sequencing Technology Market Size

LONDON, GREATER LONDON, UNITED KINGDOM, March 17, 2026 /EINPresswire.com/ -- "Third-generation Sequencing Technology market to surpass $33 billion in 2030. Within the broader Medical Equipment industry, which is expected to be $1,218 billion by 2030, the Third-generation Sequencing Technology market is estimated to account for nearly 3% of the total market value.

> Expected to grow to $26.71 billion in 2030 at a compound annual growth rate (CAGR) of 13.7%”
>
> *The Business Research Company*

Which Will Be The Biggest Region In The Third-generation Sequencing Technology Market in 2030
North America will be the largest region in the third-generation sequencing technology market in 2030, valued at $12 billion. The market is expected to grow from $6 billion in 2025 at a compound annual growth rate (CAGR) of 16%. The rapid growth can be attributed to substantial federal genomics funding, strong presence of leading sequencing technology providers, expanding precision medicine initiatives, increasing adoption of long-read sequencing in clinical and translational research, robust biotechnology and pharmaceutical R&D investments, and well-established academic and genomic research infrastructure across the US and Canada.

Which Will Be The Largest Country In The Global Third-generation Sequencing Technology Market In 2030?
The USA will be the largest country in the third-generation sequencing technology market in

2030, valued at $11 billion. The market is expected to grow from $5 billion in 2025 at a compound annual growth rate (CAGR) of 17%. The strong growth can be attributed to significant federal genomics and precision medicine funding, rapid adoption of long-read sequencing in clinical diagnostics and oncology research, strong presence of leading sequencing technology innovators, expanding biopharmaceutical R&D investments, increasing integration of AI-driven bioinformatics platforms, and a well-established network of academic medical centers and large-scale genome research initiatives.

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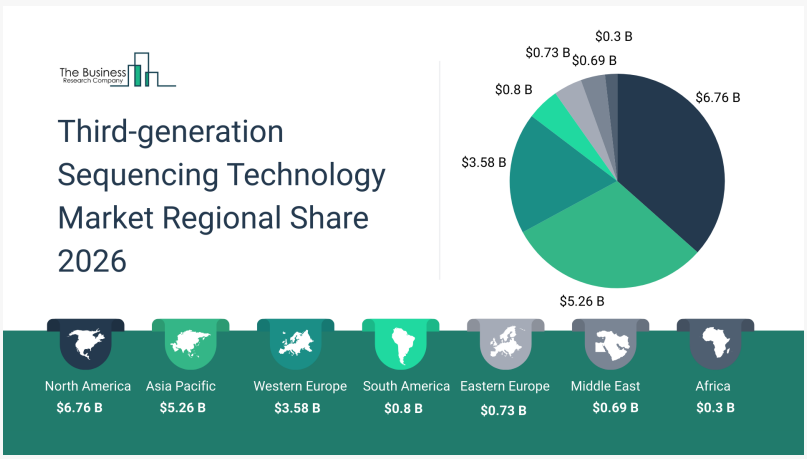
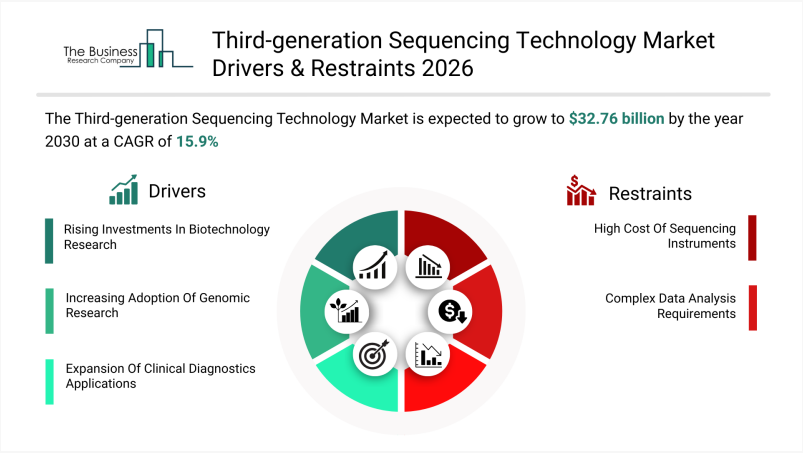


Third-Generation Sequencing Technology Market Share



Third-Generation Sequencing Technology Market Growth

What Will Be The Largest Segment In The Third-generation Sequencing Technology Market In 2030?

The third-generation sequencing technology market is segmented by technology type into single-molecule real-time (SMRT) sequencing, transcription-mediated amplification (TMA), nanopore sequencing, sequencing by synthesis (SBS), and other emerging technologies. The nanopore sequencing market will be the largest segment of the third-generation sequencing technology market segmented by technology type, accounting for 52% or $17 billion of the total in 2030. The nanopore sequencing market will be supported by the increasing demand for ultra-long read capabilities, real-time data generation, portability and field-based sequencing applications, expanding use in clinical diagnostics and infectious disease surveillance, growing adoption in large-scale population genomics projects, continuous improvements in base-calling accuracy, and integration with advanced bioinformatics and cloud-based data analysis platforms.The third-generation sequencing technology market is segmented by read length or output into long-read sequencing, ultra-long-read sequencing, high-throughput long-read sequencing, and low-throughput long-read sequencing.The third-generation sequencing technology market is segmented by deployment or delivery into on-premises deployment, cloud-enabled / hybrid

deployment, and managed service deployment.The third-generation sequencing technology market is segmented by end user into academic institutions, clinical laboratories, pharmaceutical and biotechnology companies, research organizations, and government and non-profit organizations.

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The third-generation sequencing technology market is segmented by deployment or delivery into on-premises deployment, cloud-enabled / hybrid deployment, and managed service deployment.

The third-generation sequencing technology market is segmented by end user into academic institutions, clinical laboratories, pharmaceutical and biotechnology companies, research organizations, and government and non-profit organizations.

What Is The Expected CAGR For The Third-generation Sequencing Technology Market Leading Up To 2030?
The expected CAGR for the third-generation sequencing technology market leading up to 2030 is 16%.

What Will Be The Growth Driving Factors In The Global Third-generation Sequencing Technology Market In The Forecast Period?
The rapid growth of the global third-generation sequencing technology market leading up to 2030 will be driven by the following key factors that are expected to accelerate biotechnology research investments, expand genomic research applications, strengthen precision medicine initiatives, and enhance the adoption of advanced sequencing platforms in clinical diagnostics worldwide.

Rising Investments In Biotechnology Research - The rising investments in biotechnology research is expected to become a key growth driver for the third-generation sequencing technology market by 2030. Increasing investments in biotechnology research are propelling the expansion of the third-generation sequencing (TGS) technology market by advancing the development and commercialization of sophisticated genomic tools and applications. Enhanced funding from government bodies, private investors, and pharmaceutical companies is supporting large-scale genomics programs and precision medicine initiatives. This financial backing enables wider adoption of high-throughput, highly accurate, and real-time sequencing platforms enabled by TGS technologies. Additionally, stronger investment flows are stimulating innovation in bioinformatics and data analytics, improving sequencing performance, accelerating turnaround times, and driving cost efficiencies across research and clinical settings. As a result, the rising investments in biotechnology research is anticipated to contributing to 2.2% annual growth in the market.

Increasing Adoption Of Genomic Research - The increasing adoption of genomic research is expected to emerge as a major factor driving the expansion of the third-generation sequencing technology market by 2030. The growing adoption of genomic research is accelerating the expansion of the third-generation sequencing (TGS) technology market by increasing demand for advanced sequencing platforms that provide faster, more accurate, and comprehensive genetic analysis. Modern genomic studies depend on high-throughput sequencing to investigate complex genetic variations, epigenetic modifications, and underlying disease mechanisms. TGS technologies enable real-time sequencing of long DNA reads without the need for amplification, significantly improving data integrity and discovery efficiency. Expanding applications in precision medicine, pharmaceutical research, and agricultural genomics are further strengthening market growth and broadening the technology's adoption across diverse research domains. Consequently, the increasing adoption of genomic research is projected to contribute to around 2.0% annual growth in the market.

Expansion Of Clinical Diagnostics Applications - The expansion of clinical diagnostics applications is expected to act as a key growth catalyst for the third-generation sequencing technology market by 2030. The expansion of clinical diagnostics applications is fueling the growth of the third-generation sequencing (TGS) technology market by enabling faster, more precise, and comprehensive genetic analysis for disease detection and therapeutic decision-making. TGS facilitates real-time sequencing of long DNA or RNA molecules, allowing accurate identification of rare mutations, structural variations, and epigenetic modifications. Its capability to analyze complex clinical samples, including tumor tissues and infectious pathogens, strengthens personalized medicine strategies and supports early disease diagnosis. Increasing integration of TGS platforms in clinical laboratories for oncology testing, infectious disease surveillance, and genetic disorder screening is significantly driving market demand. Therefore, the expansion of clinical diagnostics applications is projected to contribute to approximately 1.5% annual growth in the market.

Access The Detailed Third-generation Sequencing Technology Market Report Here
https://www.thebusinessresearchcompany.com/report/third-generation-sequencing-technology-global-market-report?utm_source=EINPresswire&utm_medium=Paid&utm_campaign=Mar_PR

What Are The Key Growth Opportunities In The Third-generation Sequencing Technology Market In 2030?
The most significant growth opportunities are anticipated in the single-molecule real-time (SMRT) sequencing market, the transcription-mediated amplification (TMA) market, the nanopore sequencing market, the sequencing by synthesis (SBS) market, and the other emerging technologies market. Collectively, these segments are projected to contribute over $18 billion in market value by 2030, driven by rising investments in large-scale genomics initiatives, expanding applications in precision medicine and clinical diagnostics, increasing demand for long-read and real-time sequencing capabilities, rapid advancements in bioinformatics and AI-enabled data analysis platforms, and growing adoption across oncology, rare disease research, infectious

disease surveillance, and agricultural genomics. This surge reflects the accelerating focus on comprehensive genome characterization, improved diagnostic accuracy, cost-efficient high-throughput sequencing, and the advancement of personalized and data-driven healthcare solutions across the global life sciences industry.

The single-molecule real-time (SMRT) sequencing market is projected to grow by $3 billion, transcription-mediated amplification (TMA) market by $1 billion, the nanopore sequencing market by $9 billion, the sequencing by synthesis (SBS) market by $4 billion, and the other emerging technologies market by $1 billion over the next five years from 2025 to 2030.

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