

Global DNA Sequencing: Research, Applied and Clinical Markets

Market Research Report | 2024-12-13 | 168 pages | BCC Research

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Report description:

Description

Report Scope

The report highlights the current and future market potential of DNA sequencing and provides a detailed analysis of market drivers, restraints and opportunities. The report also gives market projections for 2029 and includes a competitive environment and product analysis. The report provides market estimates and forecasts for DNA sequencing based on technology, product & service, end user, application, disease category, and region. By technology, the market is segmented into next-generation sequencing (NGS), third-generation sequencing (TGS), pyrosequencing, and Sanger sequencing. By product and service, the market is categorized into instruments and consumables or services. By end user, the market is segmented into academic and research institutes, hospitals and clinics, pharmaceutical and biotechnology companies, contract research organizations, and others. By application, the market is categorized as biopharma, microbiology, agriculture, or others. By disease category, the market is segmented into cancer, reproductive health, Mendelian disorders, and others. The report includes the company profiles of the key players, with detailed information about their business segments, financials, product portfolios, and recent developments.

By geographical region, the market has been segmented into North America, Europe, Asia-Pacific, and the Rest of the World (RoW). The North American region includes the U.S., Canada and Mexico. Europe includes Germany, the U.K., Italy, France, Spain, and the Rest of Europe; Asia-Pacific includes China, Japan, India, Australia, South Korea, and the Rest of Asia-Pacific. For market estimates, data has been provided for 2021 and 2022 as the historic years and for 2023 as the base year, with forecasts through 2029.

Report Includes

- 70 data tables and 59 additional tables
- An overview of the global market for DNA sequencing technologies and their applications in research, applied and clinical segments

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- Analysis of the global market trends, with data from 2021-2023, estimates for 2024, and projections of compound annual growth rates (CAGRs) through 2029
- A market forecast for the DNA sequencing industry, and a corresponding market share analysis by products and services, end-use segment, application, disease category and region
- A look at the key market dynamics for DNA sequencing, and the regulatory scenario
- Discussion of market opportunities for DNA sequencing, industry structure, applications and business considerations of sequencing technologies, along with the ongoing changes in the structure of the MedTech industry
- Review of the leading next-generation sequencing (NGS) technologies, emerging applications, and the DNA sequencing-based diagnostics and research initiatives affecting the market
- Analysis of patents related to novel sequencing technologies, as well as clinical trials
- A discussion of ESG challenges and ESG practices in the industry
- Insights into the major acquisitions and strategic alliances, competitive benchmarking of sequencing industry participants and their growth strategies
- Market share analysis of the leading companies, as well as company profiles, including Illumina Inc., Thermo Fisher Scientific Inc., Pacific Biosciences (PacBio), and Oxford Nanopore Technologies Ltd.

Executive Summary

Summary:

In 2023, the global market for DNA sequencing was valued at \$12.5 billion. The market is forecast to grow at a CAGR of 18.6% to reach \$34.8 billion by the end of 2029.

Technological advances in sequencing techniques and rising applications of DNA sequencing in clinical diagnostics drive the market's growth. The high cost of DNA sequencing, data interpretation and management difficulties challenge the market's growth.

Instruments and consumables held the largest share of the market segmented by product and service in 2023, and this segment is expected to grow at a CAGR of 18.8% during the forecast period. The instruments and consumables segment is further categorized into sequencing instruments, sequencing kits and reagents, and others based on workflow. Services are also further categorized into sequencing services and software and informatics solutions.

In terms of technology, the NGS segment is forecast to grow at a CAGR of 18.9% during the forecast period. This segment accounted for 73.6% of the market in 2023 and is expected to reach a value of \$25.9 billion by the end of 2029.

The biopharma segment accounted for 44.8% of the market by application in 2023. This segment is expected to grow at a CAGR of 19.0% during the forecast period, reaching a value of \$15.9 billion by the end of 2029.

North America held the largest share of the market by region, with 46.9%, in 2023. Increasing R&D activities and the growing number of regional service providers are responsible for the region's high share.

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AGILENT TECHNOLOGIES INC.
BGI
F. HOFFMANN-LA ROCHE LTD.
GUARDANT HEALTH
ILLUMINA INC.

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MYRIAD GENETICS INC.
OXFORD NANOPORE TECHNOLOGIES PLC.
PACBIO
QIAGEN
THERMO FISHER SCIENTIFIC INC.
Other Key Companies Offering DNA Sequencing Services
10X GENOMICS
CROWN BIOSCIENCE
EUROFINS GENOMICS
GENEWIZ, FROM AZENTA LIFE SCIENCES
INTEGRATED DNA TECHNOLOGIES, INC
MACROGEN
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