

Global DNA Sequencing: Research, Applied and Clinical Markets

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

AVAILABLE LICENSES:

- Single User License \$4650.00
- 2-5 Users License \$5580.00
- Site License \$6696.00
- Enterprise License \$8035.00

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

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 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.

Table of Contents:

- Table of Contents
- Chapter 1 Executive Summary
- Market Outlook
- Scope of Report
- Market Insights

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Chapter 2 Market Overview
Importance of DNA
Genetic Variation and Analysis
History of Sequencing
NGS (Second-generation Sequencing)
TGS (Long-read Sequencing)
Research and Applied Applications
R&D Applications
Applied Applications
Direct to Consumer
Biopharma
Agriculture
Forensics
Microbiome
Synthetic Biology
Chapter 3 Market Dynamics
Market Dynamics Snapshot
Market Drivers
Technological Advances in Sequencing Techniques
Rising Applications of DNA Sequencing in Clinical Diagnostics
Market Restraints
High Cost of DNA Sequencing
Data Interpretation and Management Challenges
Market Opportunities
Expansion of Precision Medicine
Growth in NIPT
Chapter 4 Emerging Technologies
Long-read Sequencing Technologies
SMRT Sequencing
Nanopore Sequencing
Spatial Genomics and Transcriptomics
Single-cell DNA Sequencing
Ultra-low Input Sequencing
CRISPR-Cas9 and Genome-editing Integration with Sequencing Technologies
AI and Machine Learning in DNA Sequencing
Chapter 5 Market Segmentation Analysis
Segmentation Breakdown
Global DNA Sequencing Market Analysis by Product and Service
Instruments and Consumables
Services
Global DNA Sequencing Market Analysis by Technology
NGS
TGS
Sanger Sequencing
Pyrosequencing
Global DNA Sequencing Market Analysis by Application
Biopharma

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Microbiology
Agriculture
Others (Synthetic Biology, Population Genomics, and Consumer Genomics)
Global DNA Sequencing Market Analysis by End User
Market Size and Forecast
Academic and Research Institutes
Hospitals and Clinics
Pharmaceutical and Biotechnology Companies
Clinical Research
Others (Agricultural Institutions, Forensic Labs)
Global DNA Sequencing Market Analysis by Disease Category
Market Size and Forecast
Cancer
Reproductive Health
Mendelian Disorders
Others (Cardiology, Metabolic/Immune, Neurology, Transplant, Clinical)
Geographic Breakdown
Global DNA Sequencing Market Analysis by Region
Market Size and Forecast
North America
Europe
Asia-Pacific
Rest of the World (RoW)
Chapter 6 Competitive Landscape
Overview
Partnerships
Investments and Funding
Patent Analysis
Chapter 7 ESG Perspective
Introduction
ESG Performance in the Market
ESG Practices in the DNA Sequencing Industry
Environmental Performance
Social Performance
Governance Performance
ESG Risk Ratings in the DNA Sequencing Industry
Concluding Remarks from BCC Research
Chapter 8 Appendix
Methodology
Sources
Abbreviations
Company Profiles
AGILENT TECHNOLOGIES INC.
BGI
F. HOFFMANN-LA ROCHE LTD.
GUARDANT HEALTH
ILLUMINA INC.

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

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
NOVOGENE CO., LTD.
REVVITY

Global DNA Sequencing: Research, Applied and Clinical Markets

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

To place an Order with Scotts International:

- Print this form
- Complete the relevant blank fields and sign
- Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Single User License	\$4650.00
	2-5 Users License	\$5580.00
	Site License	\$6696.00
	Enterprise License	\$8035.00
		VAT
		Total

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*	<input type="text"/>	Phone*	<input type="text"/>
First Name*	<input type="text"/>	Last Name*	<input type="text"/>
Job title*	<input type="text"/>		
Company Name*	<input type="text"/>	EU Vat / Tax ID / NIP number*	<input type="text"/>
Address*	<input type="text"/>	City*	<input type="text"/>
Zip Code*	<input type="text"/>	Country*	<input type="text"/>
		Date	<input type="text" value="2026-06-09"/>
		Signature	

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

