Genomics in Cancer Care Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Product (Instruments, Consumables, Services), By Technology (Genome Sequencing, PCR, Microarray, Nucleic Acid Extraction and Purification, Others), By Application (Diagnostics, Personalized Medicine, Drug Discovery & Development, Research), By End User (Hospitals, Research Institutes & Academic Institutes, Others), By Region & Competition, 2021-2031F

Market Report | 2026-05-25 | 182 pages | TechSci Research

AVAILABLE LICENSES:

- Single User License $4500.00
- Multi-User License $5500.00
- Custom Research License $8000.00

Report description:

Market Overview
The Global Genomics in Cancer Care Market is projected for substantial growth, expanding from USD 16.79 Billion in 2025 to USD 42.94 Billion by 2031, at a robust 16.94% CAGR. This market focuses on analyzing patient and tumor genetic profiles to guide precision oncology through targeted therapies and personalized diagnostic strategies. Its expansion is fundamentally driven by the escalating global incidence of oncological diseases, demanding advanced diagnostic tools, alongside the continuous reduction in costs associated with next-generation sequencing (NGS) technologies. For instance, the American Cancer Society projects 2,041,910 new cancer cases in the United States in 2025, underscoring the critical need for genomic interventions. The declining costs of genome sequencing, propelled by advancements like the 352 NovaSeq X instruments shipped by Illumina in 2023, allow clinical laboratories to process samples more efficiently, thereby democratizing access to comprehensive genomic profiling. Complementing this, non-invasive liquid biopsy solutions are revolutionizing diagnostics by detecting circulating tumor DNA for early detection and monitoring, as demonstrated by Guardant Health's Shield test achieving 83% sensitivity for colorectal cancer detection. This accessibility is crucial given the World Health Organization's prediction of a 77% rise in new cancer cases to 35 million by 2050, highlighting the need for scalable screening tools.

Market Driver

The continuous reduction in genome sequencing costs, driven by advancements in Next-Generation Sequencing (NGS) technologies, serves as a primary engine for market growth by enabling high-throughput sequencing platforms to process genetic samples with greater speed and efficiency. This democratizes access to comprehensive genomic profiling, as evidenced by Illumina's shipment of 352 NovaSeq X instruments during 2023, which significantly scaled up genomic sequencing capabilities for laboratories and reduced the barrier to entry for healthcare facilities to integrate complex genomic data into routine oncology workflows. Simultaneously, the emergence of non-invasive liquid biopsy solutions is reshaping clinical diagnostics by offering a viable alternative to traditional tissue biopsies, detecting circulating tumor DNA to identify genetic mutations and facilitate early detection and continuous monitoring of treatment response. According to Guardant Health, its FDA-approved Shield test demonstrated 83% sensitivity for colorectal cancer detection. This shift toward accessible testing is crucial as the global burden of disease intensifies, with new cancer cases predicted to rise by 77% to reach 35 million by 2050, as reported by the World Health Organization in 2024. Consequently, the scalability of liquid biopsies directly addresses the need for mass screening tools capable of managing this increasing patient population.

Market Challenge

Despite this strong growth trajectory, the market faces significant impediments, primarily the lack of standardized reimbursement policies and the high costs associated with comprehensive genomic profiling. Inconsistent payer coverage criteria create financial uncertainty for healthcare providers, often leading to hesitation in ordering advanced diagnostic tests, which limits the generation of essential genetic data and disrupts clinical workflows. This economic burden extends directly to patients, with high out-of-pocket expenses often forcing them to decline recommended profiling, as exemplified by more than 40% of cancer patients in the United States exhausting their life savings within two years of treatment, according to the American Association for Cancer Research. Consequently, patient access and adoption rates are reduced, stifling market expansion and potential revenue growth for genomic interventions in standard cancer care.

Market Trends

The market is simultaneously being shaped by transformative trends. The integration of artificial intelligence (AI) into genomic workflows is automating the analysis of vast datasets to identify actionable oncological biomarkers, thereby addressing manual variant curation bottlenecks and allowing researchers to efficiently correlate complex genetic profiles with therapeutic outcomes. This commercial traction is significant as laboratories seek to scale precision oncology operations, with Tempus AI reporting full-year revenue of $693.4 million in 2024, representing a 30.4% year-over-year increase driven by the widespread adoption of its AI-enabled genomics platform, highlighting the growing reliance on computational tools for enhanced diagnostic speed and accuracy. Concurrently, the emergence of long-read sequencing technologies is proving essential for detecting complex structural variants often missed by traditional short-read platforms. These systems sequence long DNA stretches without fragmentation, providing a more complete picture of tumor heterogeneity and fusion genes critical for targeted treatment planning. The rapid adoption of this technology is evident in Oxford Nanopore Technologies' PromethION product range, which experienced a 55.8% year-over-year revenue growth in 2024, indicating a strong market shift toward native long-read capabilities that empower clinicians to uncover comprehensive structural data vital for developing novel cancer therapies.

Key Market Players

* Illumina Inc
* Agilent Technologies, Inc.
* Roche Diagnostics
* Cancer Genetics, Inc.
* Bio-Rad Laboratories Inc
* Sigma-Aldrich Corp
* QIAGEN NV
* GE Healthcare Inc
* Life Technologies Corp
* Quest Diagnostics Inc

Report Scope
In this report, the Global Genomics in Cancer Care Market has been segmented into the following categories, in addition to the industry trends which have also been detailed below:

Genomics in Cancer Care Market, By Product
  * Instruments
  * Consumables
  * Services
Genomics in Cancer Care Market, By Technology
  * Genome Sequencing
  * PCR
  * Microarray
  * Nucleic Acid Extraction and Purification
  * Others
Genomics in Cancer Care Market, By Application
  * Diagnostics
  * Personalized Medicine
  * Drug Discovery & Development
  * Research
Genomics in Cancer Care Market, By End User
  * Hospitals
  * Research Institutes & Academic Institutes
  * Others
Genomics in Cancer Care Market, By Region
  * North America
United States
Canada
Mexico
  * Europe
France
United Kingdom
Italy
Germany
Spain
  * Asia Pacific
China
India
Japan
Australia
South Korea
  * South America
Brazil
Argentina
Colombia
  * Middle East & Africa
South Africa

Saudi Arabia
UAE
Competitive Landscape
Company Profiles: Detailed analysis of the major companies present in the Global Genomics in Cancer Care Market.
Available Customizations:
Global Genomics in Cancer Care Market report with the given market data, TechSci Research offers customizations according to a company's specific needs. The following customization options are available for the report:
Company Information
* Detailed analysis and profiling of additional market players (up to five).

Table of Contents:

SCOTTS INTERNATIONAL

Genomics in Cancer Care Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Product (Instruments, Consumables, Services), By Technology (Genome Sequencing, PCR, Microarray, Nucleic Acid Extraction and Purification, Others), By Application (Diagnostics, Personalized Medicine, Drug Discovery & Development, Research), By End User (Hospitals, Research Institutes & Academic Institutes, Others), By Region & Competition, 2021-2031F

Market Report | 2026-05-25 | 182 pages | TechSci 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	$4500.00
	Multi-User License	$5500.00
	Custom Research License	$8000.00
	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*		Phone*	
First Name*		Last Name*	
Job title*			

Company Name*		EU Vat / Tax ID / NIP number*	
Address*		City*	
Zip Code*		Country*	
		Date	2026-06-08
		Signature	

Scotts International. EU Vat number: PL 6772247784
tel. 0048 603 394 346 e-mail: support@scotts-international.com
www.scotts-international.com