

U.S. Clinical Oncology Next Generation Sequencing (NGS) Market Size & Forecast By Technology (Whole Genome Sequencing, Whole Exon Sequencing, Targeted Sequencing & Resequencing), By Workflow (NGS Pre-Sequencing, Sequencing, NGS Data Analysis, Primary, Secondary & Tertiary Data Analysis), By End Use (Academic & Clinical Research, Hospitals & Clinics, Pharma & Biotech Entities) And Trend Analysis From 2013 To 2024

https://marketpublishers.com/r/U03FB237A0AEN.html

Date: October 2016 Pages: 86 Price: US\$ 5,950.00 (Single User License) ID: U03FB237A0AEN

Abstracts

U.S. clinical oncology next generation sequencing market is anticipated to reach USD 1.53 billion by 2024, according to a new report by Grand View Research, Inc. Application of NGS platform for clinical oncology are expected to grow at a steady pace under the influence of increasing adoption of NGS platforms in oncology R&D coupled with rising incidents of cancer.

Application of NGS based cancer diagnostics for screening and monitoring of oncogenes to understand the underlying mechanism behind causes of cancer is expected to boost growth of this vertical throughout the forecast period.

Moreover, exponentially decreasing costs for sequencing have also spurred the demand for NGS platform in clinical oncology research as whole genome analysis has become affordable even by the smaller R&D entities. In addition, high competition amongst prominent market players to enhance their share in the market is also expected to translate into increased revenues generated by these companies as a result.

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Further key findings from the report suggest:

Out of the different technologies offered by NGS platforms, targeted sequencing & resequencing accounted for the largest share owing to the fact that it enables study of changes in diseases at molecular level, & analyze the underlying modifications in the genetic sequence to investigate epigenomics of cancer, thus enhancing demand for more advancement in targeted sequencing tools.

Workflow associated with genomic sequencing is expected to witness lucrative progress as a result of variation in platforms provided by prominent market players with respect to amount of DNA sequenced per cycle, read length, and runtime. Furthermore, data analysis of raw sequence data thus obtained, is the most critical step in the workflow of NGS, and is thus anticipated to experience immense growth in coming years as a consequence of abundance of data generated post sequencing.

Adoption of high throughput sequencing platform by clinical sector is observed to be more promising for NGS based oncology research market as a consequence of usage of NGS in cancer research and more specifically in discovery of new cancer related genes, tumor heterogeneity, and identification of alterations that are contributive in tumorogenesis

Key players operating in this industry include Illumina Inc., Roche, Agilent Technologies, Knome Incorporated. Genomatix Software GmbH, GATC Biotech Ag, Oxford Nanopore Technologies Ltd, Macrogen Inc., Life technologies Corp, DNASTAR Inc, Exosome Diagnostics, Biomatters Ltd, CLC Bio, BGI, Qiagen NV, Perkin Elmer, Incorporated, Pacific Bioscience, Inc, Partek, Inc, GnuBIO, Foundation Medicine, Paradigm, Caris Life Sciences and Myriad Genetics and they are actively engaged in manufacturing and commercialization of innovative bioinformatics algorithms as demonstrated by the increasingly growing number of partnerships between prominent players and emerging players.

For instance, In February 2016, Thermo Fisher collaborated with Invivoscribe Technologies, Inc for the development of NGS based, in vitro diagnostic (IVD) oncology tests on Ion PGM Dx System which is further anticipated to accelerate growth of the company in near future. Similarly, in June 2016, Thermo Fisher supported enhancement and commercialization of clinical research assay and in vitro diagnostics using NGS technology launched the Ion Torrent Developers Alliance Program.



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