

Global DNA Read, Write and Edit Market

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Abstracts

Report Scope:

The scope of the report includes DNA read, write and edit technologies, applications, industries, initiatives, patents and companies. The markets for read, write and edit products and services are given for 2017, 2018, 2019 (estimated) and 2024 (forecast).

This report reviews the main read, write and edit technologies and explains why genetic variation is important in clinical testing and disease. It then discusses significant large-scale research initiatives that impact read, write and edit applications. Of particular interest is a discussion of population-scale sequencing projects throughout the world, and their likely impact. The main market driving forces for read, write and edit products and services are listed and discussed.

The report quantifies each of the main market segments. The read (sequencing) market is quantified by delivered format, including sequencing workflow products (sample preparation kits and reagents, sequencing instruments and consumables, and informatics) and sequencing services (clinical diagnostics and sequencing services to applied market customers).

The sequencing workflow products market is quantified by type, that is, DNA isolation and extraction; target enrichment; library preparation; and informatics/ecosystems. The sequencing instruments and consumables market is given by platform (Sanger, NGS and 3GS).

The sequencing services market is analyzed by end user application (applied, clinical, and R&D). Within sequencing services, the applied market is analyzed by end-user application (agriculture, biopharma, consumer, microbiology, population-scale genomics, synthetic biology and other).

Also within sequencing services, the clinical market is analyzed and quantified by disease category (cardiovascular, clinical microbiology and infectious diseases, Mendelian disorders, metabolic/immune disorders, neurology, oncology, reproductive health and transplant medicine).

The DNA write (synthesis) market is quantified by product type (oligonucleotides, synthetic biology parts, genes and RNA therapeutics). The oligonucleotide market is analyzed by application (gene editing, sequencing, PCR, FISH, microarray, gene synthesis and other). The gene market is quantified by gene type (standardized, value-added). Finally, the RNA therapeutics market is quantified by platform (RNA interference, antisense oligos, micro RNA modulation and mRNA) and by disease category (cancer, hematology, musculoskeletal, neurology and rare diseases).

The DNA edit (gene editing) market is quantified by application (agriculture, biopharma, diagnostics and therapeutics); editing platform (CRISPR, meganuclease, TALEN, ZFN). The gene editing agriculture market is analyzed by product type (crop/seeds, livestock). The gene editing biotechnology market is analyzed by product type (kits and reagents, cell line engineering, animal models and services). The gene editing therapeutics market is analyzed by disease category (eye and rare diseases).

Specific geographic markets discussed include North America, Europe, Asia-Pacific, and the rest of the world (ROW).

Industry sectors analyzed include next-generation sequencing; long read sequencing; DNA synthesis; RNA therapies; and gene editing.

More than 320 companies in the read, write and edit industry are profiled in this report.

BCC Research also provides a summary of more than 180 of the main industry acquisitions and strategic alliances that took place from January 2018 through June 2019, including key alliance trends.

Report Includes:

28 data tables and 77 additional tables

An overview of the global market for DNA read, write and edit technologies, applications, and industries

Analyses of global market trends, with market data from 2017, 2018, estimates for 2019, and projections of compound annual growth rates (CAGRs) through 2024

Discussion on sequencing technologies, market applications, industry structure, and important clinical sequencing initiatives

Information pertaining to several significant large-scale research initiatives that are contributing to sequencing services, write synthesis and gene editing technologies' market development

A look at the innovations in pharmaceutical and biotechnology companies and research & development programs in stem cell-based therapies and gene therapies

Coverage of significant patents and their allotments in each category, as well as major industry acquisitions and strategic alliances data

Company profiles of over 320 major global players within the industry, including 3Billion Inc., 23Andme Inc., Bayer AG, Becton, Dickinson and Co. (BD), Bio-Rad Laboratories, Pacific Biosciences, Qiagen NV, Roche Holding AG and Thermo Fisher Scientific Inc.

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Gene Therapy Initiative

Human Cell Atlas Consortium

Immunomonitor Consortium

Integration of Imaging and Fluid-based Tumor Monitoring in Cancer Therapy Program

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Liquid Biopsies and Imaging for Improved Cancer Care

Lung Cancer Master Protocol Project

Matchmaker Exchange

Medical Genome Initiative

Metagenomics and Metadesign of Subways and Urban Biomes

Million Veteran Program

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23ANDME INC.

ADAPTIVE BIOTECHNOLOGIES INC.

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