

# Gene Editing Market by Product & Service (Reagents, Consumables, Systems, Software), Technology (CRISPR, TALEN, ZFN, Antisense), Application (Cell Line Engineering, Genetic Engineering, Drug Discovery), End User (Pharma, Biotech) – Global Forecast to 2028

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# **Abstracts**

The gene editing market is projected to grow from USD 5.3 billion in 2023 to USD 10.6 billion by 2028 at a CAGR of 15.0%. Rising government funding and number of genomics projects has emerged as a high impact driver for the market. In March 2022, the US National Institutes of Health (NIH) expanded its funding for gene editing research, allocating USD 89 million for additional projects. Similarly, the European Union launched the Horizon 2020 program, providing substantial financial resources to promote genomics research and gene editing projects. Moreover, several countries, including China, Japan, and South Korea, have established national genomics programs and dedicated funding to drive advancements in gene editing technologies.

"Gene editing services to witness the highest growth during the forecast period."

Based on product & service, the gene editing market is segmented into reagents & consumables, software & systems, and services. The gene editing services market includes sequencing services; data analysis; bioinformatics services; and other services, such as informatics, cleanup, gene expression, and DNA synthesis services. Additionally, service providers also offer customized sequencing services. The introduction of sequencing services in biomedical applications is expected to boost the demand for genomic sequencing, subsequently boosting the gene editing market.



"Pharmaceutical & biotechnology companies accounted for the largest share of the global gene editing market in 2022."

Based on end users, the gene editing market is segmented into pharmaceutical & biotechnology companies, academic & research institutes, and other end users. Other end users include diagnostic companies, CROs, and CDMOs. High demand for gene editing in pharma applications such as pharmacogenomics has contributed to the dominance of this segment throughout the forecast period. The growing importance of biomarkers is expected to drive the use of genomic systems and services in this segment, owing to the various applications of biomarkers in drug development. With this, biotechnology companies are also building genomic databases to discover and develop new therapeutics.

"Asia Pacific is estimated to register the highest CAGR during the forecast period."

The gene editing market is segmented into North America, Europe, the Asia Pacific (APAC), Latin America, and the Middle East & Africa (MEA). The Asia Pacific region is expected to be the fastest-growing market for gene editing due to the increasing investments in research and the rising applications of gene synthesis for the genetic engineering of cells and tissues of organisms. Cancer has become one of the leading causes of death in Japan, prompting the government to undertake various initiatives to reduce its prevalence and mortality. For example, the Agency for Medical Research and Development has undertaken many research projects, including the Japan Regenerative Medicine Project, Japan Genomic Medicine Project, and Japan Cancer Research Project. The market in Japan has also witnessed various collaborations and partnerships between local organizations and leading global players seeking to introduce and offer technologically advanced products and services in the country.

Breakdown of supply-side primary interviews, by company type, designation, and region:

By Respondent: Supply Side (70%), Demand side (30%)

By Designation: C-level (55%), Director-level (20%), and Others (25%)

By Region: North America (50%), Europe (20%), AsiaPacific (20%), and Rest of the World(10%)



# List of Companies Profiled in the Report

Merck KGaA (Germany)

Thermo Fisher Scientific, Inc. (US)

GenScript (China)

Agilent Technologies (US)

PerkinElmer (US)

Lonza (Switzerland)

Tecan Life Sciences (Switzerland)

Sangamo Therapeutics (US)

Editas Medicine (US)

CRISPR Therapeutics AG (Switzerland)

Precision Biosciences (US)

Cellectis S.A. (France)

Intellia Therapeutics (US)

Bluebird Bio, Inc. (US)

Regeneron Pharmaceuticals (US)

AMSBIO (England)

Creative Biogene (US)

Synthego Corporation (US)

Beam Therapeutics Inc. (US)



Caribou Biosciences, Inc. (US)

OriGene Technologies (US)

New England Biolabs (US)

Inscripta (US)

Mammoth Biosciences (US).

# Research Coverage

This report studies the gene editing market based on product & service, technology, application, end user, and region. The report also analyzes factors (such as drivers, restraints, opportunities, and challenges) affecting the market growth. It evaluates the opportunities and challenges in the market for stakeholders and provides details of the competitive landscape for market leaders. The report also studies micromarkets with respect to their growth trends, prospects, and contributions to the total gene editing market. The report forecasts the revenue of the market segments with respect to five major regions.

Reasons to Buy the Report:

The report provides insights on the following pointers:

Market Penetration: Comprehensive information on gene editing offered by the top 25 players in the market. The report analyzes the gene editing market by product & service, technology, application, end user, and region.

Market Development: Comprehensive information about lucrative emerging markets. The report analyzes the markets for various products/services/technologies across key geographic regions.

Market Diversification: Exhaustive information about untapped geographies, recent developments, and investments in the gene editing market

Competitive Assessment: In-depth assessment of market shares and strategies



of the leading players in the gene editing market



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\*Details on Business Overview, Products Offered, Recent Developments, and MnM View (Key strengths/Right to Win, Strategic Choices Made, and Weaknesses and Competitive Threats) might not be captured in case of unlisted companies.

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# **About**

The global genome editing market is expected to reach \$3,514.08 Million by 2019 from \$1,845.25 Million in 2014, growing at a CAGR of 13.75%.

Increased R&D expenditure and growth of biotechnology and pharmaceutical industries, increased funding for genomics research, and technological advancements are the primary growth drivers for this market during the forecast period (2014–2019). Moreover, increasing demand for synthetic genes, and global rise in production of genetically modified crops are also expected to drive market growth. However, stringent regulatory policies and adverse public perception related to genetic research may hinder the growth of this market.

The global genome editing market is segmented on the basis of applications, technologies and end users.

On the basis of applications, the market is segmented into cell line engineering, animal genetic engineering, plant genetic engineering, and other applications. Of these, the cell line engineering segment accounted for the largest share of the global genome editing market in 2014. On the other hand, the animal genetic engineering segment is expected to grow at the highest growth rate during the forecast period.

By technology, the market is divided into CRISPR, TALEN, ZNF, antisense technology, and other technologies. Of these, CRISPR will account for the largest and the fastest-growing segment of the global genome editing market by 2019. On the basis of end users, the genome editing market is categorized into biotechnology and pharmaceutical companies, academic and government research institutes, and contract research organizations (CROs).

The geographic segments included in this report are Asia, Europe, North America, and the Rest of the World (RoW). North America includes Canada and the U.S.; and Asia includes China, India, Japan, and the Rest of Asia.

Major players of Genome Editing Market are

GenScript USA Inc. (U.S.)

Integrated DNA Technologies, Inc. (U.S.)



New England Biolabs, Inc. (U.S.)

OriGene Technologies, Inc. (U.S.)

Sangamo Biosciences, Inc. (U.S.)



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