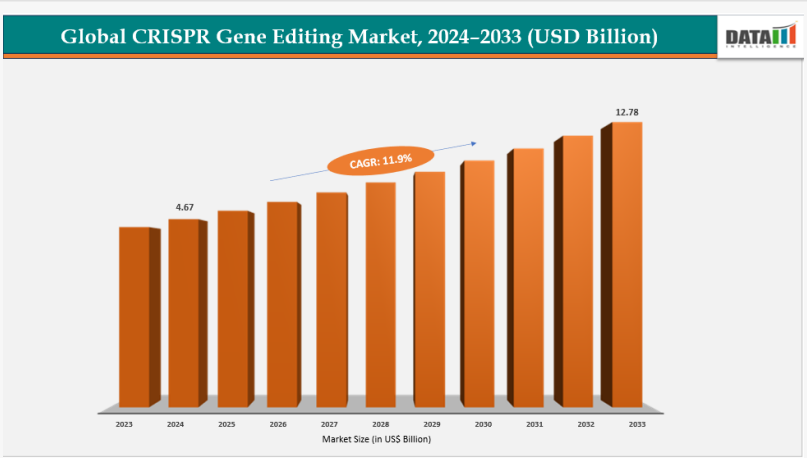
CRISPR Gene Editing Market to Hit $12.78B by 2033, Kits & Reagents 60.5% Share, Cas9 Drives Innovation

CRISPR Gene Editing Industry Forecast | Market $12.78B by 2033, North America Leads 48.5%



CRISPR Gene Editing Market

AUSTIN, TX, UNITED STATES, October 25, 2025 /EINPresswire.com/ -- CRISPR Gene Editing: A Technological Overview

CRISPR gene editing has transitioned from a laboratory curiosity to a cornerstone of modern biotechnology, revolutionizing our approach to genetic diseases, including Charcot-Marie-Tooth (CMT) disease. This article delves into the current landscape of CRISPR technology, its application in treating CMT, and the evolving market dynamics, with insights from DataM Intelligence.

> USA CRISPR Gene Editing Market: $4.21B in 2023, $4.67B in 2024, Expected $12.78B by 2033, CAGR 11.9% (2025-2033) Growth & Trends”
>
> *DataM Intelligence 4Market Research LLP*

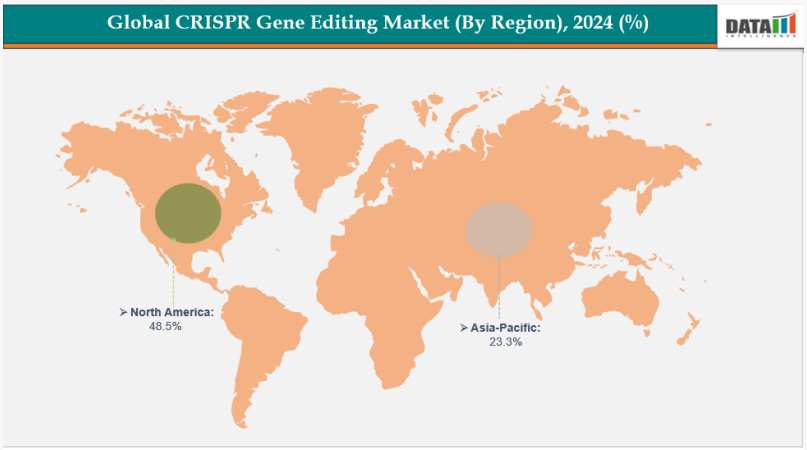
CRISPR (Clustered Regularly Interspaced Short Palindromic Repeats) and its associated protein Cas9 have enabled precise modifications to DNA, offering unprecedented opportunities in genetic research and therapy. The technology's versatility spans from basic research to potential clinical applications, including the correction of genetic mutations responsible for various diseases.

Market Trajectory and Commercial Implications

The CRISPR gene editing market was valued at USD 4.21 billion in 2023, increasing to USD 4.67 billion in 2024, and is projected to reach USD 12.78 billion by 2033, expanding at a compound annual growth rate (CAGR) of 11.9% between 2025 and 2033.

Get a Sample PDF Of This Report (Get Higher Priority for Corporate Email ID):–

https://www.datamintelligence.com/download-sample/crispr-gene-editing-market



CRISPR Gene Editing Market, By Region

This expansion is driven by factors such as:

Rising Prevalence of Genetic Disorders: An increase in the incidence of genetic diseases has heightened the demand for innovative therapeutic solutions.

Advancements in Research and Technology: Continuous improvements in CRISPR techniques have enhanced their precision and applicability.

Supportive Government Initiatives: Policies and funding have accelerated research and development in gene editing.

Increasing Investment in Biotechnology: Venture capital and partnerships are fueling innovation and commercialization efforts.

Key Highlights

North America leads the global CRISPR gene editing market, capturing the largest revenue share of 48.5% in 2024.

The Asia Pacific region is the fastest-growing market, registering a CAGR of 7.7% in 2024.

Within the product segment, kits and reagents dominate, accounting for 60.5% of the market share in 2024.

In terms of technology, the CRISPR/Cas9 segment holds the largest share at 35.3% in 2024.

Charcot-Marie-Tooth Disease: A Target for CRISPR Intervention

CMT is a group of inherited disorders affecting the peripheral nerves, leading to muscle weakness and sensory loss. Traditional treatments have focused on symptom management, but gene editing offers the potential to address the root causes of these conditions.

Recent developments include:

CMT2A Research: The Charcot-Marie-Tooth Association (CMTA) has invested $300,000 into a

CRISPR-based research project at the Gladstone Institutes, aiming to develop a therapy targeting multiple MFN2 mutations associated with CMT2A

CMT1A and CMT1B Initiatives: CMTA has allocated $448,748 to support research targeting the PMP22 gene duplication in CMT1A and mutations in the MPZ gene in CMT1B, both of which are prevalent forms of demyelinating CMT

CMT4C Studies: Investigations into CMT4C, caused by mutations in the SH3TC2 gene, have utilized CRISPR-based tools to create human-induced pluripotent stem cell models, facilitating the study of disease mechanisms and potential therapies

Key Players

1. Thermo Fisher Scientific Inc.
2. New England Biolabs
3. Lonza Bioscience
4. Merck, Integrated DNA Technologies, Inc.
5. Synthego
6. GenScript
7. Takara Bio Inc.
8. QIAGEN
9. Agilent Technologies, Inc

Key Industry Developments

These initiatives underscore the potential of CRISPR technology to provide targeted treatments for various CMT subtypes, moving beyond symptomatic relief to address the underlying genetic causes.

In January 2024, Scribe Therapeutics expanded its in vivo collaboration with Sanofi to target a second gene, strengthening their partnership to develop next-generation CRISPR-based genetic therapies. Leveraging Scribe's CRISPR by Design platform, the collaboration aims to accelerate the discovery of precise and effective in vivo treatments for human diseases.

In the same month, Tome Biosciences acquired Replace Therapeutics to boost its CRISPR-based genomic integration capabilities. The acquisition brought in Replace's ligase-mediated PGI (L-PGI) technology, which combines CRISPR/Cas9 precision with DNA ligase, allowing efficient, targeted small-sequence DNA edits in both dividing and non-dividing cells without causing double-strand breaks.

Market Segmentation

By Product: The kits and reagents segment leads the CRISPR gene editing market, accounting for 60.5% of the share in 2024.

By Technology: The CRISPR/Cas9 segment dominates the market by technology, holding a 35.3% share in 2024.

By-Product: (Kits and Reagents, Instruments)

By Gene Editing Modality: (Ex-Vivo Editing and In-Vivo Editing)

By Technology: (CRISPR/Cas9 Technology, CRISPR/Cas12 Technology, CRISPR/Cas13 Technology, Base Editing, Prime Editing, Epigenetic Editing and Others)

By End User: (Academic and Research Institutes, Biotechnology and Pharmaceutical Companies, Agricultural and Livestock Industry, Hospitals and Clinics, Contract Research Organizations (CROs) and Others)

Have any Enquiry of This Report @ https://www.datamintelligence.com/enquiry/crispr-gene-editing-market

Regional Insights: CRISPR Gene Editing Market

North America (48.5% share, 2024): Dominates due to advanced healthcare infrastructure, robust R&D, early adoption of genomic technologies, and supportive regulatory policies. Notably, the U.S. FDA approved CASGEVY, the first CRISPR/Cas9 therapy for sickle cell disease in December 2023, benefiting around 16,000 patients with a potential one-time treatment.

Europe (34.5% share, 2024): Growth driven by high disease awareness, strong healthcare infrastructure, and active collaborations between biotech firms and academic institutions. Over €2.66 billion was invested in 1,200 CRISPR projects across 24 countries, enhancing applications in medicine, biotechnology, and agriculture. Germany, in particular, benefits from supportive regulations, research hubs, and academic partnerships.

Asia Pacific (fastest-growing, CAGR 7.7%, 2024): Led by Japan, China, India, and South Korea, growth is fueled by increasing disease awareness, improved healthcare infrastructure, government support, and rising R&D investments. In Japan, collaborations such as iXgene Inc. and C4U Inc.’s CRISPR-Cas3 project are accelerating precision gene-editing applications in therapeutics and biotechnology.

Strategic Collaborations and Industry Movements

The biotechnology sector is witnessing strategic collaborations aimed at advancing CRISPR-based therapies:

Eli Lilly and Verve Therapeutics: Eli Lilly acquired Verve Therapeutics for up to $1.3 billion, focusing on a CRISPR-based therapy targeting the PCSK9 gene to treat high cholesterol and cardiovascular diseases

AstraZeneca and Algen Biotechnologies: AstraZeneca entered into a $555 million agreement with Algen Biotechnologies to develop therapies using Algen's CRISPR gene-editing technology, highlighting the industry's commitment to integrating gene editing into therapeutic pipelines

These partnerships reflect a growing confidence in CRISPR technology's potential to revolutionize treatment paradigms across various medical conditions.
DataM Intelligence: Market Insights and Strategic Recommendations

DataM Intelligence, a leading provider of market intelligence, offers comprehensive analyses of the CRISPR gene editing market. Their reports highlight key trends, market forecasts, and strategic insights, assisting stakeholders in navigating the complex landscape of gene editing technologies.

Recommendations for stakeholders include:

Investment in Research and Development: Focusing on innovative gene editing techniques can lead to breakthroughs in treating genetic disorders.

Strategic Partnerships: Collaborating with biotech firms and research institutions can accelerate the development and commercialization of CRISPR-based therapies.

Regulatory Navigation: Understanding and adhering to regulatory frameworks is crucial for the successful introduction of gene editing therapies to the market.

Buy Now & Unlock 360° Market Intelligence:- https://www.datamintelligence.com/buy-now-page?report=crispr-gene-editing-market

Conclusion

CRISPR gene editing stands at the forefront of a new era in biotechnology, offering transformative potential in the treatment of genetic disorders like Charcot-Marie-Tooth disease. As the technology evolves and market dynamics shift, stakeholders must remain agile, informed, and collaborative to harness the full potential of gene editing innovations.

Related Reports:

Gene Editing Tools Market

Cell and Gene Therapy Market

Sai Kiran
DataM Intelligence 4market Research LLP
877-441-4866
sai.k@datamintelligence.com
Visit us on social media:
LinkedIn
X
