

Gene Therapy Market by Type of Therapy, Type of Gene Delivery Method Used, Type of Vector Used, Target Therapeutic Areas, Route of Administration, and Key Geographical Regions: Industry Trends and Global Forecasts (5th Edition), 2022-2035

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Abstracts

Gene Therapy Market (5th Edition) by Type of Therapy (Gene Augmentation, Oncolytic Viral Therapy, Immunotherapy and Others), Type of Gene Delivery Method Used (Ex vivo and In vivo), Type of Vector Used (Adeno-associated Virus, Adenovirus, Herpes Simplex Virus, Lentivirus, Non-Viral Vectors, Retrovirus and Others), Target Therapeutic Areas (Cardiovascular Diseases, Dermatological Diseases, Genetic Diseases, Hematological Diseases, Infectious Diseases, Metabolic Diseases, Muscle-related Diseases, Oncological Diseases, Ophthalmic Diseases and Others), Route of Administration (Intraarticular, Intracerebral, Intracoronary, Intradermal, Intralesional, Intramuscular, Intrapleural, Intrathecal, Intratumoral, Intravenous, Intravesical, Intravitreal, Subretinal, Topical and Others), and Key Geographical Regions (US, Europe, Asia-Pacific and rest of the world): Industry Trends and Global Forecasts, 2022-2035

Report Link: <https://www.rootsanalysis.com/reports/gene-therapies-market/268.html>

The gene therapy market is valued at approximately \$2.6 billion in 2023, with an expected compounded annual growth rate (CAGR) of 18.0% during the forecast period.

In August 2017, a significant milestone was achieved with the FDA approval of Tisagenlecleucel as the first gene therapy for the treatment of relapsed or refractory pediatric and young-adult B-cell acute lymphoblastic leukemia. Over the past two decades, there have been numerous breakthroughs in the development of gene

therapies. In 2020, Libmeldy™, an ex vivo gene therapy, received approval for the treatment of metachromatic leukodystrophy. These therapies, encompassing gene replacement and gene-editing modalities, aim to correct mutated genes in patients using molecular carriers, including both viral and non-viral vectors.

Following the onset of the COVID-19 pandemic, there has been a steady increase in investigational new drug (IND) applications filed for cell and gene therapies. In 2021, more than 200 gene therapies were in phase II and III studies, and it is expected that six gene therapies will receive USFDA market approval in 2022. Promising results from ongoing clinical research have encouraged both government and private firms to invest in therapy product development in this field. In 2021, gene therapy companies raised approximately \$9.5 billion in capital investments. With the continuous progress in this domain, gene therapies are anticipated to benefit 1.1 million patients with a wide range of disease indications by 2035.

Currently, over 250 gene therapy companies are actively involved in the development of early and late-stage gene therapies on a global scale. Recent years have witnessed a significant surge in the integration of cutting-edge technologies, including gene modification, gene editing, genome sequencing, and manipulation technologies (such as molecular switches), in conjunction with gene delivery methods. The CRISPR-Cas9-based gene-editing tool is a notable technological advancement that enables precise alterations to transgenes. It's important to note that new-generation delivery platforms, such as nanoparticles and hybrid vector systems, have proven effective and safe for delivering gene-based therapeutics. Furthermore, various consolidation efforts are underway in the industry, primarily focused on expanding and strengthening existing development efforts. A clear indicator of this is the fact that 56% of the total acquisitions in this domain have centered around consolidating drug classes. Driven by the collective and persistent efforts of gene therapy companies and the growing demand for effective therapeutic options requiring a single dose, the gene therapy market is poised for significant growth during the forecast period.

Key Market Segments

Type of Therapy

Gene Augmentation

Oncolytic Viral Therapy

Immunotherapy

Others

Type of Gene Delivery Method Used

Ex vivo

In vivo

Type of Vector Used

Adeno-associated Virus

Adenovirus

Herpes Simplex Virus

Lentivirus

Non-Viral Vectors

Retrovirus

Others

Target Therapeutic Areas

Cardiovascular Diseases

Dermatological Diseases

Genetic Diseases

Hematological Diseases

Infectious Diseases

Metabolic Diseases

Muscle-related Diseases

Oncological Diseases

Ophthalmic Diseases

Others

Route of Administration

Intraarticular

Intracerebral

Intracoronary

Intradermal

Intralesional

Intramuscular

Intrapleural

Intrathecal

Intratumoral

Intravenous

Intravesical

Intravitreal

Subretinal

Topical

Others

Geographical Regions

US

Europe

Asia-Pacific

Rest of the World

Research Coverage:

The report studies the gene therapy market by type of therapy, type of gene delivery method used, type of vector used, target therapeutic areas, route of administration, and key geographical regions.

The report analyzes factors (such as drivers, restraints, opportunities, and challenges) affecting the market growth.

The report assesses the potential advantages and obstacles within the market for those involved and offers information on the competitive environment for top players in the market.

The report forecasts the revenue of market segments with respect to major regions.

An overview of key findings from our research on the gene therapy market, offering insights into its current state and likely evolution in the short, mid, and long term.

A comprehensive overview of the gene therapy market, detailing the phase of

development (marketed, clinical, preclinical, and discovery), therapeutic areas, target disease indications, types of vectors, gene/molecule targets, types of therapy, gene delivery methods, routes of administration, and special drug designations.

An overview of companies involved in gene therapy development, including establishment year, company size, headquarters location, regional landscape, and key players in the domain.

Discussion on viral and non-viral vectors, covering their design, manufacturing requirements, advantages, and limitations.

Analysis of gene therapy regulations in North America, Europe, and Asia-Pacific, focusing on challenges related to reimbursement.

Examination of commercialization strategies adopted by gene therapy companies at different development stages: pre-launch, during launch, and post-marketing.

Profiles of marketed and late-stage gene therapies, including development timeline, current status, mechanism of action, technology used, patent portfolio, dosage, manufacturing details, and affiliated companies.

Review of emerging technologies and therapy development platforms used for manufacturing gene therapies, with a focus on technologies used in four or more products/candidates.

In-depth analysis of gene therapy and gene editing therapy patents filed/granted since 2017, including patent type, publication year, regional applicability, CPC symbols, leading industry players in terms of patents, and patent valuation.

Analysis of mergers and acquisitions in the gene therapy domain from 2015-2022, based on parameters like year, deal type, geographical location, value drivers, product development phase, therapeutic area, and deal multiples.

Analysis of investments at various stages (seed financing, venture capital, IPOs, secondary offerings, debt financing, grants, and equity offerings) by gene therapy companies.

Analysis of completed, ongoing, and planned clinical studies, considering parameters like registration year, trial status, phase, therapeutic area, geography, sponsor type, treatment sites, and patient population.

Examination of factors influencing gene therapy pricing, with various models/approaches used by manufacturers.

Analysis of startup companies in the gene therapy domain established between 2017-2022, based on years of experience.

A case study on vector manufacturing trends and companies offering contract vector manufacturing services, along with details on vector manufacturing processes for different types.

Key Benefits of Buying this Report

The report offers market leaders and newcomers valuable insights into revenue estimations for both the overall market and its sub-segments.

Stakeholders can utilize the report to enhance their understanding of the competitive landscape, allowing for improved business positioning and more effective go-to-market strategies.

The report provides stakeholders with a pulse on the gene therapy market, furnishing them with essential information on significant market drivers, barriers, opportunities, and challenges.

You will get access to complimentary PPT insights and excel data packs / dynamic dashboards to easily navigate through complex analyses / charts.

Key Market Companies

Shenzhen Sibiono GeneTech

Shanghai Sunway Biotech

Epeius Biotechnologies

Human Stem Cells Institute

Amgen

Orchard Therapeutics

Spark Therapeutics

Novartis

AnGes

bluebird bio

Orchard Therapeutics

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- 25.4. Patricia Zilliox (President and CEO, Eyevensys)
- 25.5. Christopher Reinhard (CEO and Chairman, Gene Biotherapeutics (previously

known as Cardium Therapeutics))

25.6. Adam Rogers (CEO, Hemera Biosciences)

25.7. Ryo Kubota (CEO, Chairman and President, Kubota Pharmaceutical Holdings (Acucela))

25.8. Al Hawkins (CEO, Milo Biotechnology)

25.9. Jean-Phillipe Combal (CEO, Vivet Therapeutics)

25.10. Robert Jan Lamers (former CEO, Arthrogen)

25.11. Tom Wilton (former CBO, LogicBio Therapeutics)

25.12. Michael Tripletti (former CEO, Myonex Therapeutics)

25.13. Molly Cameron (former Corporate Communications Manager, Orchard Therapeutics)

25.14. Cedric Szpirer (former Executive and Scientific Director, Delphi Genetics)

25.15. Marco Schmeer (Project Manager) and Tatjana Buchholz, (former Marketing Manager, PlasmidFactory)

25.16. Jeffrey Hung (CCO, Vigene Biosciences)

26. APPENDIX 1: TABULATED DATA

27. APPENDIX 2: LIST OF COMPANIES AND ORGANIZATIONS

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