Gene Therapy Vectors

ANMD-MRS9-082 · Advanced Therapeutics & Biomanufacturing

A Global Sustainability Due Diligence & Market Research Study

History 2020–2024 · Base Year 2025 · Forecast 2025–2032 · Outlooks 2035 / 2040 / 2050 · Currency US$

WHY THIS REPORT

Gene therapy vectors are the delivery vehicles of the genetic-medicine era — the AAV, lentiviral, adenoviral and non-viral/plasmid systems that carry therapeutic genes into patients and cells. This decision-grade study sizes the global market three ways — value, doses/patients enabled and vector volume — across vector type, production system and application, across seven regions and four scenarios to 2032, with outlooks to 2050.

SUSTAINABILITY & SDG IMPACT — THE ANMD LENS

Sustainability is this report's backbone, not an afterthought. Gene therapy vectors enable measurable curative and durable therapies, with manufacturing yield and cost central to access, while scaled GMP vector supply broadens patient reach and strengthens the health-equity story.

Mapped Sustainable Development Goals:

SDG 3	SDG 9	SDG 10	SDG 12	SDG 17
Good Health	Industry & Innovation	Reduced Inequalities	Responsible Consumption	Partnerships for Goals

Measurable sustainability outcomes assessed:

- Curative and durable genetic-medicine delivery
- Higher titre and lower cost-of-goods
- Broader patient access through scaled supply
- Single-use plastics, process energy and supply-chain ESG as material risks

Framework alignment: Double materiality mapped to GRI, SASB, ISSB, TCFD, TNFD, CSRD and the EU Taxonomy, with greenwashing and SDG-washing screens applied throughout.

WHAT'S INSIDE AT A GLANCE

53 Chapters	**9** Report Parts	**7** Regions Covered	**40+** Country Markets
2025–32 Forecast Horizon	**4** Forward Scenarios	**25+** Companies Profiled	**5** SDGs Mapped

REPORT COVERAGE

Geographic scope: North America, Europe, Asia Pacific, Latin America, Africa, Middle East and Rest of World — with named country intelligence. North America is the value leader (United States) on pipeline depth and CDMO capacity; Europe is the technology leader (Germany, United Kingdom, Switzerland) on platforms and manufacturing; Asia Pacific is the scale engine; other regions assessed on their own merits.

MARKET OVERVIEW

From manufacturing chokepoint to scaled supply — where vectors go high-titre, GMP and CDMO-backed.

Vectors are the manufacturing chokepoint of gene therapy. Demand is driven by an expanding clinical pipeline, the scale-up to commercial supply, and the race to raise titre and lower cost-of-goods — with CDMO capacity central to availability. The market is read three ways — value, doses/patients enabled and vector volume — and forecast under four scenarios, each region reported separately.

- **North America is the value leader** — United States, on gene-therapy pipeline and CDMO capacity
- **Europe is the technology leader** — United Kingdom, Germany and France, on vector platforms
- **Asia Pacific is the scale engine** — China, Japan and South Korea, on manufacturing build-out
- **Titre and scale are the differentiators** — high-yield production systems plus GMP vector platforms

REGIONAL OUTLOOK

Across seven reporting regions, the report separates early commercialisation leaders from high-growth and emerging markets — each profiled in full rather than aggregated into Rest of World.

Region	Stage	Lead Markets & Drivers
North America	Value leader	United States — pipeline depth, CDMO capacity, reimbursement
Europe	Technology leader	Germany, United Kingdom, Switzerland — platforms, manufacturing
Asia Pacific	Scale engine	China, Japan, South Korea — biomanufacturing, build-out
Middle East	High-growth	Saudi Arabia, Israel, UAE — biotech investment, access
Latin America	Emerging	Brazil, Mexico — biologics access, manufacturing
Africa	Emerging	South Africa, Egypt — access, local manufacturing

KEY MARKET DRIVERS & RESTRAINTS

Drivers	Restraints
• Pipeline-expansion + commercial-scale-up convergence • Titre & cost-of-goods value • Policy & reimbursement support (gene-therapy pathways) • CDMO capacity & supply-security economics • Stable-producer, transient & baculovirus gains	• Manufacturing yield & cost-of-goods pressure • Regulatory & GMP-qualification burden • Capacity-constraint & supply-bottleneck risk • Single-use plastics & sustainability scrutiny • Talent, scale-up & analytics gaps

SEGMENTATION SNAPSHOT

By Vector Type	AAV vectors · lentiviral vectors · adenoviral vectors · non-viral / plasmid · retroviral vectors
By Production System	Transient transfection · stable producer cell line · baculovirus / Sf9
By Application	Oncology · rare / genetic disease · immunology & infectious disease
By End User	Hospitals · pharma / biotech · CDMOs · academia
By Business Model	Product sales · CDMO services · licensing
By Scale	Clinical · commercial

TABLE OF CONTENTS — PARTS & CHAPTERS

The full report is organised into nine parts across 53 chapters, listed below. Detailed sub-headings, country tables and directories are provided in the full report.

COMPETITIVE & INVESTMENT SNAPSHOT

The competitive field spans global biopharma majors, specialist gene therapy vectors makers, and emerging innovators. Deal activity — M&A, technology acquisition and platform expansion — signals a market consolidating around scalable, scaled, GMP-ready platforms.

Representative players profiled in the full report:

Thermo Fisher Scientific Inc. · Lonza Group AG · Catalent, Inc. · Charles River Laboratories International, Inc. · WuXi Advanced Therapies (WuXi AppTec Co., Ltd.) · Oxford Biomedica plc · Sartorius AG · and 20+ further profiled players across specialists, CDMOs and challengers and emerging innovators.

Investment intelligence: venture, infrastructure, development, climate and blended finance, green bonds and sustainability-linked loans — culminating in a bankability assessment and a Go / No-Go / Conditional-Go investment verdict.

KEY QUESTIONS THIS REPORT ANSWERS

- ? How large is the global gene therapy vectors market, and how fast will it grow to 2032?
- ? Which regions, countries and segments offer the strongest risk-adjusted opportunity?
- ? How do manufacturing cost, scalability and access change value versus incumbent therapies?
- ? Who leads, and where is the competitive and patent white space?
- ? Is the investment case bankable — and under what conditions?
- ? How does the category align with the SDGs, health-equity and patient-access and disclosure regulation?

WHY ANMD — THE DIFFERENCE

Most market studies stop at units and revenue. This report is built as a sustainability due diligence instrument — fusing market sizing with ESG, SDG, climate, water and natural-capital intelligence and a decision-ready bankability verdict in a single architecture.

- **Triangulated sizing** — every market read three ways so value, volume and production-volume views reconcile rather than conflict.
- **Region-honest forecasting** — Latin America, Africa and the Middle East reported in full, never hidden inside Rest of World, every forecast resolved to the 2025 base year.
- **Integrated evidence base** — company, patent and project databases linked to the analysis, with published-filing patents and FTO treated as an indicator, not a legal conclusion.
- **No-fabrication discipline** — every estimate carries a data-confidence rating and disclosed sources; gaps are flagged for further diligence, never filled with invented numbers.
- **Anti-greenwashing rigour** — SDG-washing and greenwashing screens plus claim-substantiation checks built into the ESG and project analysis.
- **Decision-first structure** — 9 Parts and 53 Chapters culminating in stakeholder playbooks and a clear Go / No-Go / Conditional-Go investment verdict.

WHO SHOULD BUY THIS REPORT

Investors and life-sciences / PE funds, pharma and biotech companies, CDMOs and CROs, hospitals and treatment centers, tools and consumable suppliers, payers and regulators, and corporate strategy and ESG teams, plus strategic corporate planners and decision-makers.

Access the Full Report

The complete report delivers all 53 chapters in full, with every sub-heading, country table, company and patent directory, forecast model and due diligence checklist.

Purchase at **www.anewmarketdynamics.com** · Standard & Premium licences · Single-Site (SSL) and Global-Site (GSL) options at checkout.

Want the Complete Detailed Table of Contents?

This prospectus lists the nine parts and 53 chapters. The complete detailed table of contents — every sub-heading, country table, exhibit, company and patent directory and annex — is available on request to registered users. To receive it, register with your official company email at **www.anewmarketdynamics.com**. The full detailed table of contents will be sent directly to your registered company email address.