

## **Global Viral Vector Manufacturing - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts 2021 - 2029**

Market Report | 2024-02-17 | 148 pages | Mordor Intelligence

### **AVAILABLE LICENSES:**

- Single User License \$4750.00
- Team License (1-7 Users) \$5250.00
- Site License \$6500.00
- Corporate License \$8750.00

### **Report description:**

The Global Viral Vector Manufacturing Market size is estimated at USD 1.25 billion in 2024, and is expected to reach USD 4.19 billion by 2029, growing at a CAGR of 27.36% during the forecast period (2024-2029).

The COVID-19 pandemic had underlined the importance of vaccine development for the global population, and it has had a positive impact on the growth of the viral vector manufacturing market. According to the WHO Global COVID-19 Vaccination - Strategic Vision for 2022, there are at least 17 vaccines in use. As of November 8, 2022, 12.88 billion doses were administered, and another 400 and more vaccine candidates were in clinical and preclinical development. Two viral vector vaccines have been authorized for emergency use in many countries for COVID-19, as of January 7, 2022, according to the Viral Vector Vaccines segment published by the Infectious Diseases Society of America. Moreover, various companies are launching their products and are involved in various partnerships, collaborations, and other developments which are expected to positively impact the market. For instance, in April 2020, AstraZeneca and Oxford University announced their partnership to develop a viral vectored vaccine utilizing a modified replication-deficient chimp adenovirus vector, ChAdOx1. Also, Janssen Biotech (Johnson & Johnson) has developed a viral vector vaccine utilizing a replication-incompetent human adenovirus vector and received approval from US FDA in February 2021, importance of viral vector manufacturing is increasing owing to the increasing research and developments occurring in current times.

The market is driven by the increasing prevalence of genetic disorders, cancer, and infectious diseases, the increasing number of clinical studies and availability of funding for gene therapy development, and potential applications in novel drug delivery approaches. For instance, as per the report published by the Foundation for Food & Agriculture Research in April 2022, African Swine Fever (ASF) has emerged as one of the highly contagious viruses that cause 100% mortality in swine. As of now, there is no commercially available vaccine to treat the disease. Therefore, to combat the disease, the Foundation for Food & Agricultural

**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: [support@scotts-international.com](mailto:support@scotts-international.com)

[www.scotts-international.com](http://www.scotts-international.com)

Research granted USD 145,000 to Genvax Technologies for developing a self-amplifying messenger RNA (saRNA) vaccine for African Swine Fever in association with the United States Department of Agriculture-Agricultural Research Services-Plum Island Animal Disease Center (USDA-ARS-PIADC). This prevalence of numerous infectious and viral diseases is motivating major companies to focus on viral vector product development and manufacturing.

Additionally, as the recombinant viral vectors are highly effective carriers of sequences encoding virus-disabling sequences, the appropriate and exact viral vectors usually need to be selected and adapted for application in the treatment of specific viral infections. Currently, there have been significant public and private sector initiatives are being taken for the development of viral vector vaccines, leading the key players to invest in capacity expansion for manufacturing activities. For example, in August 2022, Thermo Fisher opened a new manufacturing facility for viral vector production in Plainville, Massachusetts. The 300,000 square-foot-plant is opened with an aim to manufacture viral vectors, which are critical components in the development of gene therapies. Therefore, these related development activities by major players are also expected to boost the market's growth.

Government initiatives such as direct funding towards viral vector manufacture, which is increasing awareness, while the regulatory environment is getting streamlined via changes, such as prompt approval processes, are driving the studied market's growth. These aforementioned factors can propel the market for viral vector manufacturing and are expected to grow in the future. However, the high cost of gene therapies and challenges in viral vector manufacturing capacity can impact market growth negatively.

#### Viral Vector Manufacturing Market Trends

##### Cancer Sub-segment is Expected to Grow Faster in the Disease Segment

The upsurge in the global incidence of cancer and modern healthcare facilities are acting as major drivers for the growth of the market studied. According to GLOBOCAN 2020, globally, there were 1,92,92,789 new cancer cases in 2020, and it is projected to increase to 2,88,87,940 cases by 2040. In 2022, there are numerous Phase I, Phase II, Phase III, and Phase IV clinical trials related to viral vectors for the treatment of various types of cancers such as brain, skin, liver, colon, breast, and kidney. These trials are being conducted in various academic centers and biotechnology companies. For instance, as of November 17, 2022, more than 663 ongoing interventional clinical trials related to gene therapy across different phases of development for cancer were there globally, as mentioned in the National Clinical Trial (NCT) Registry.

In the field of oncology, viral vector-based gene therapy has demonstrated steady progress. A variety of viral vectors have been engineered for both therapeutic and preventive applications in cancers. Many gene therapy strategies have been developed to treat a wide range of cancers, including suicide gene therapy, oncolytic virotherapy, anti-angiogenesis, and therapeutic gene vaccines. According to the study published in the Radiology and Oncology in March 2022, numerous opportunities exist for using viral vectors in cancer therapy. Due to their improved ability to transduce human cells, viral vectors are a desirable drug delivery option. Over a thousand clinical trials using viral vectors are being conducted worldwide to treat cancer in 2021. For instance, as per clinicaltrial.gov as of November 17, 2022, there are around 86 trials being active using viral vectors for the treatment of cancer. Thus, owing to the increase in global cancer incidence, the market is expected to see growth.

The increasing research and development activities for the development of viral vector vaccines or therapies are increasing the opportunity for novel product developments. For instance, in September 2021, building on the success of the Oxford-AstraZeneca vaccine against SARS-CoV-2, researchers from the University of Oxford and the Ludwig Institute for Cancer Research are creating a vaccine to treat cancer. a viral vector cancer vaccine reduces tumor size and improves survival rates in mouse models by generating efficient anti-tumor immune responses when combined with immunotherapy. it is expected that a first-in-human clinical trial of the therapeutic cancer vaccine will begin in patients with non-small cell lung cancer in the coming year. Thus, growing research and development activity on the viral vector bases cancer manufacturing vaccines

**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: [support@scotts-international.com](mailto:support@scotts-international.com)

[www.scotts-international.com](http://www.scotts-international.com)

The surge in demand for the development of effective therapeutics for cancer management, the presence of a prompt approval process, and the prospects of novel drugs for significant product developments are the primary reasons responsible for significant research and development investments in the field of cancer therapeutics that are based on viral vectors. This, in turn, affects the growth of the cancer segment positively, and the cancer segment is hence expected to boost the market's growth.

North America is Expected to Witness Considerable Growth Over the Forecast Period

North America currently dominates the market for viral vector manufacturing and is expected to continue its stronghold for a few more years. In the United States, regulatory encouragement and patient advocacy have pushed rare disease clinical research to center stage. The significant incentives on offer through the Orphan Drugs Act (the United States) have encouraged pharmaceutical and biotechnology companies to consider the development of rare disease medicines as a potentially profitable venture.

Many companies have been expanding their facilities and investing a significant amount of capital in the region. For example, in October 2022, Kite, a Gilead Company announced the U.S. FDA has approved the company's retroviral vector (RVV) manufacturing facility in Oceanside, California, for commercial production of viral vectors. These developments could have a positive effect on the market growth as more research on viral vectors is anticipated. In October 2021, Catalent has invested USD 230 million to increase the production of viral vectors at its gene therapy campus in Harman, Maryland.

The United States holds the largest market share in the North American region owing to various factors like the high adoption rate of new therapies, increasing investments by key players, and the high incidence rate of cancer. For instance, in January 2021, Fujifilm Corporation is planning to invest USD 40.0 million to establish a new processing facility to advance viral vector manufacturing and perform cutting-edge research in the field of advanced therapies in the greater-Boston area. The investment will be dedicated to Fujifilm Diosynth Biotechnologies, a contract development and manufacturing organization (CDMO) for biologics, viral vaccines, and viral vectors. Thus such favorable initiatives may surge the market growth in the United States over the forecast period.

Viral Vector Manufacturing Industry Overview

The viral vector manufacturing market is moderately competitive and has several key players. Owing to the growing demand for novel therapeutics to deal with life-threatening diseases, such as cancer, various smaller companies are also entering the market and holding a significant market share. Some of the key market players are Cognate BioServices Inc. (Cobra Biologics), Finvector, Fujifilm Holdings, Corporation (Fujifilm Diosynth Biotechnologies), Kaneka Corporation (Eurogentec), Merck KGaA, Uniqure NV, Oxford BioMedica PLC, Johnson & Johnson (Janssen Global Services LLC), AstraZeneca, Vibalogics, Danaher (Cytiva), Sanofi SA, F. Hoffmann-La Roche Ltd (Spark Therapeutics), Lonza, and Thermo Fisher Scientific Inc.

Additional Benefits:

- <li> The market estimate (ME) sheet in Excel format </li>
- <li> 3 months of analyst support </li> </ul>

Table of Contents:

- 1 INTRODUCTION
- 1.1 Study Assumptions and Market Definition
- 1.2 Scope of the Study

## 2 RESEARCH METHODOLOGY

## 3 EXECUTIVE SUMMARY

## 4 MARKET DYNAMICS

### 4.1 Market Overview

### 4.2 Market Drivers

#### 4.2.1 Rising Prevalence of Genetic Disorders, Cancer, and Infectious Diseases

#### 4.2.2 Increasing Number of Clinical Studies and Availability of Funding for Gene Therapy Development

#### 4.2.3 Potential Applications in Novel Drug Delivery Approaches

### 4.3 Market Restraints

#### 4.3.1 High Cost of Gene Therapies

#### 4.3.2 Challenges in Viral Vector Manufacturing Capacity

### 4.4 Porter's Five Forces Analysis

#### 4.4.1 Threat of New Entrants

#### 4.4.2 Bargaining Power of Buyers/Consumers

#### 4.4.3 Bargaining Power of Suppliers

#### 4.4.4 Threat of Substitute Products

#### 4.4.5 Intensity of Competitive Rivalry

## 5 MARKET SEGMENTATION (Market Size by Value - USD million)

### 5.1 By Type

#### 5.1.1 Adenoviral Vectors

#### 5.1.2 Adeno-associated Viral Vectors

#### 5.1.3 Lentiviral Vectors

#### 5.1.4 Retroviral Vectors

#### 5.1.5 Other Types

### 5.2 By Disease

#### 5.2.1 Cancer

#### 5.2.2 Genetic Disorders

#### 5.2.3 Infectious Diseases

#### 5.2.4 Other Diseases

### 5.3 By Application

#### 5.3.1 Gene Therapy

#### 5.3.2 Vaccinology

### 5.4 Geography

#### 5.4.1 North America

##### 5.4.1.1 United States

##### 5.4.1.2 Canada

##### 5.4.1.3 Mexico

#### 5.4.2 Europe

##### 5.4.2.1 Germany

##### 5.4.2.2 United Kingdom

##### 5.4.2.3 France

##### 5.4.2.4 Italy

##### 5.4.2.5 Spain

##### 5.4.2.6 Rest of Europe

**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: support@scotts-international.com

[www.scotts-international.com](http://www.scotts-international.com)

- 5.4.3 Asia-Pacific
  - 5.4.3.1 China
  - 5.4.3.2 Japan
  - 5.4.3.3 India
  - 5.4.3.4 Australia
  - 5.4.3.5 South Korea
  - 5.4.3.6 Rest of Asia-Pacific
- 5.4.4 Middle East & Africa
  - 5.4.4.1 GCC
  - 5.4.4.2 South Africa
  - 5.4.4.3 Rest of Middle East & Africa
- 5.4.5 South America
  - 5.4.5.1 Brazil
  - 5.4.5.2 Argentina
  - 5.4.5.3 Rest of South America

## 6 COMPETITIVE LANDSCAPE

- 6.1 Company Profiles
  - 6.1.1 Charles River Laboratories (Cobra Biologics)
  - 6.1.2 Finvector
  - 6.1.3 Fujifilm Holdings Corporation (Fujifilm Diosynth Biotechnologies)
  - 6.1.4 Kaneka Eurogentec SA
  - 6.1.5 Merck KGaA
  - 6.1.6 uniQure NV
  - 6.1.7 Oxford Biomedica PLC
  - 6.1.8 Johnson & Johnson (Janssen Global Services LLC)
  - 6.1.9 AstraZeneca
  - 6.1.10 Vibalogics
  - 6.1.11 Danaher (Cytiva)
  - 6.1.12 Sanofi
  - 6.1.13 F. Hoffmann-La Roche Ltd (Spark Therapeutics)
  - 6.1.14 Lonza
  - 6.1.15 Thermo Fisher Scientific Inc.

## 7 MARKET OPPORTUNITIES AND FUTURE TRENDS

**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: [support@scotts-international.com](mailto:support@scotts-international.com)

[www.scotts-international.com](http://www.scotts-international.com)

## Global Viral Vector Manufacturing - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts 2021 - 2029

Market Report | 2024-02-17 | 148 pages | Mordor Intelligence

To place an Order with Scotts International:

- ☐ - Print this form
- ☐ - Complete the relevant blank fields and sign
- ☐ - Send as a scanned email to support@scotts-international.com

### ORDER FORM:

| Select license | License                  | Price     |
|----------------|--------------------------|-----------|
|                | Single User License      | \$4750.00 |
|                | Team License (1-7 Users) | \$5250.00 |
|                | Site License             | \$6500.00 |
|                | Corporate License        | \$8750.00 |
|                |                          | VAT       |
|                |                          | Total     |

\*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

\*\* VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

|               |                      |                               |                      |
|---------------|----------------------|-------------------------------|----------------------|
| Email*        | <input type="text"/> | Phone*                        | <input type="text"/> |
| First Name*   | <input type="text"/> | Last Name*                    | <input type="text"/> |
| Job title*    | <input type="text"/> |                               |                      |
| Company Name* | <input type="text"/> | EU Vat / Tax ID / NIP number* | <input type="text"/> |
| Address*      | <input type="text"/> | City*                         | <input type="text"/> |
| Zip Code*     | <input type="text"/> | Country*                      | <input type="text"/> |
|               |                      | Date                          | 2026-02-26           |
|               |                      | Signature                     |                      |

**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com



**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: [support@scotts-international.com](mailto:support@scotts-international.com)  
[www.scotts-international.com](http://www.scotts-international.com)