

# **Viral Vectors And Plasmid DNA Manufacturing Market Size, Share & Trends Analysis Report By Vector Type (AAV, Lentivirus), By Workflow, By Application, By End Use, By Disease, By Region, And Segment Forecasts, 2022 - 2030**

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## **Abstracts**

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### **Viral Vectors And Plasmid DNA Manufacturing Market Growth & Trends**

The global viral vectors and plasmid DNA manufacturing market are expected to reach USD 11.19 billion by 2030, registering a CAGR of 14.71% from 2022 to 2030, according to a new report by Grand View Research, Inc. The growing demand for viral vectors and plasmid DNA for gene therapy has prompted leading market participants to introduce innovative and technologically advanced programs and technologies to increase plasmid DNA production. For instance, In April 2018, GE Healthcare Life Sciences announced the introduction of KUBio BSL 2, a prefabricated, modular bioprocessing facility for the manufacturing of viral vector-based vaccinations, oncolytic virus, and cell and gene therapies.

The government investments in the development of novel technologies and production facilities are expanding. For instance, in 2018, the Department for Business, Energy, and Industrial Strategy granted Cobra Biologics a US\$ 3.4 million Industrial Strategy Challenge Fund grant for infrastructure investment to expand production capabilities and commercialization of DNA and viral vector products. As a result, growing government spending on research & development is likely to propel market expansion throughout the forecast period.

The market growth is being fueled by an increase in the global prevalence of cancer and the availability of sophisticated healthcare facilities. As per GLOBOCAN 2020, there have been 1,92,92,789 new cancer cases in 2020, with the number expected to rise to 2,88,87,940 by 2040. Furthermore, suicide gene therapy, therapeutic gene vaccines, oncolytic virotherapy, and anti-angiogenesis are just a few of the gene therapy treatments that have been developed to treat a variety of tumors. Therefore, it will increase the demand for gene therapy and further boost market growth.

As numerous recombinant proteins, live attenuated viruses, and nucleic acid-based vaccines are under pre-clinical development for the treatment of the diseases, this pandemic is likely to create future growth prospects for the global market. Furthermore, viral vector vaccines are made up of a recombinant virus that has been attenuated to minimize pathogenicity, and genes expressing viral antigen(s) that have been cloned using recombinant DNA technologies. Moreover, key players in the viral vector manufacturing industry are expanding their production capacities. For instance, in January 2021, Johnson & Johnson revealed positive efficacy and safety results for COVID-19 from its Phase 3 ENSEMBLE clinical study, which used its AdVac vaccination platform. All preconditions and targets were met for its single-dose COVID-19 vaccine, which is now under development at Janssen Pharmaceutical Companies. The AdVac viral vector technology has the potential to give the body a powerful and long-lasting humoral and cellular

immune response. Furthermore, the Oxford-AstraZeneca COVID-19 vaccine is another viral vector-based vaccination that has obtained many approvals. The vaccine was discovered in November 2020 and has since been mass-produced for public vaccination. Thus, it will boost market growth.

### Viral Vectors And Plasmid DNA Manufacturing Market Report Highlights

By vector type, the adeno-associated virus (AAV) segment held the largest share of the viral vectors and plasmid DNA manufacturing market. Adeno-associated viruses are highly in demand and their usage in clinical trials is growing every year as these viruses offer the highest accuracy in delivering the gene to the region of interest.

The cancer segment is expected to grow lucratively over the forecast period. Viral vector-based clinical trials conducted for different cancer indications showed positive outcomes. Although immune responses have been relatively modest in some cases, the efficacy can most likely be improved by vector

engineering and dose optimization.

North America dominated the global market in 2021, due to a strong regulatory framework for promoting gene therapy development and the high cost of therapies in the U.S.

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