

Ribonucleic Acid (RNA)-Based Oncolytic Therapy Market Trends 2025-2029: Regional Outlook and Sizing Analysis

*The Business Research Company's
Ribonucleic Acid (RNA)-Based Oncolytic
Therapy Global Market Report 2025 –
Market Size, Trends, And Global Forecast
2025-2034*

LONDON, GREATER LONDON, UNITED
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/EINPresswire.com/ -- [Ribonucleic Acid](#)

[\(RNA\)-Based Oncolytic Therapy Market](#) Growth Forecast: What To Expect By 2025?

In recent years, the [RNA-based oncolytic treatment market size](#) has undergone swift expansion. It is projected to increase from \$1.78 billion in 2024 to reach \$2.12 billion in 2025, growing at a compound annual rate of 18.9%. Elements contributing to this growth during the historical

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period include the rise in cancer cases, boosted investment in healthcare infrastructure, burgeoning awareness of targeted therapies, the broadening of clinical trial programs, and an uptick in governmental support for cancer research.

Expectations are high for the ribonucleic acid (RNA)-based oncolytic therapy market to undergo rapid expansion in the coming years, with anticipated growth reaching \$4.17 billion in 2029 at a compound annual growth rate (CAGR) of 18.5%. This projected surge within the forecast period

can be attributed to growing acceptance of RNA-focused therapies, the increasing importance given to immuno-oncology, the rise in biotech collaborations, the expansion of sophisticated manufacturing facilities, and better access to precision medicine. Key forecast period trends include advances in technology, progress in viral vector design, heightened investment in R&D, innovation in delivery methods, and the development of combination therapy strategies.

Download a free sample of the ribonucleic acid (rna)-based oncolytic therapy market report:

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What Are Key Factors Driving The Demand In The Global Ribonucleic Acid (RNA)-Based Oncolytic Therapy Market?

The escalation in the use of personalized medicine is projected to stimulate the advancement of the RNA-based oncolytic therapy market. Personalized medicine essentially involves medical care personalized to individual genetic details, which enhances efficiency and diminishes negative effects. The reception of personalized medicine is on the rise as a growing number of healthcare professionals and organizations understand the possibility to enrich patient results through precise and focused treatment methods and diagnostic services. RNA-based oncolytic therapy is instrumental in cancer management, conforming to the rising reception of personalized medicine to provide tailored and patient-centric treatment strategies. For instance, in February 2024, the Personalized Medicine Coalition, an American advocacy group for customized medical treatments, saw FDA approval for 16 novel personalized treatments for patients with rare diseases in 2023, a significant rise from only 6 in 2022. Consequently, this upward trend in the acceptance of personalized medicine is fueling the growth of the RNA-based oncolytic therapy market.

Who Are The Leading Players In The Ribonucleic Acid (RNA)-Based Oncolytic Therapy Market?

Major players in the Ribonucleic Acid (RNA)-Based Oncolytic Therapy Global Market Report 2025 include:

- AstraZeneca PLC,
- Moderna Inc.,
- BioNTech SE,
- Gritstone Bio Inc.,
- Orna Therapeutics Inc.,
- Strand Therapeutics Inc.,
- Oncolytics Biotech Inc.,
- Anima Biotech Inc.,
- eTheRNA immunotherapies NV,
- Vyriad Inc.

What Are The Main Trends, Positively Impacting The Growth Of Ribonucleic Acid (RNA)-Based Oncolytic Therapy Market?

In the market for RNA-based oncolytic therapy, significant businesses are making strides by focusing on technology progression like synthetic messenger RNA (mRNA) techniques. These methods aim to enhance the efficiency of tumor targeting, stimulate immune response, and ensure more accurate and long-standing results in cancer therapy. Synthetic messenger RNA technology adopts a biotechnology-based strategy that constructs and circulates lab-made mRNA sequences to direct cells in producing specific therapeutic proteins for disease treatment, including cancer. For instance, CSPC Pharmaceutical Group Limited, a China-based pharmaceutical firm, acquired regulatory approval in June 2024 to commence clinical trials for SYS6020, its synthetic mRNA-based cancer cell treatment, marking a significant milestone in China's mRNA therapeutics domain. SYS6020 uses mRNA-lipid nanoparticle technology to

specifically target and eradicate myeloma cancer cells with least side effects, while also showing potential uses in the treatment of some autoimmune disorders.

Analysis Of Major Segments Driving The Ribonucleic Acid (RNA)-Based Oncolytic Therapy Market Growth

The ribonucleic acid (RN)-based oncolytic therapy market covered in this report is segmented as

- 1) By Therapy Type: Messenger Ribonucleic Acid (mRNA)-Based Oncolytic Therapy, Small Interfering Ribonucleic Acid (siRNA)-Based Oncolytic Therapy, Micro Ribonucleic Acid (miRNA)-Based Oncolytic Therapy, Other Therapy Types
- 2) By Route Of Administration: Intravenous, Intratumoral, Other Route Of Administrations
- 3) By Application: Breast Cancer, Lung Cancer, Colorectal Cancer, Prostate Cancer, Melanoma, Other Applications
- 4) By End-User: Hospitals, Cancer Research Institutes, Specialty Clinics, Other End-Users

Subsegment:

- 1) By Messenger Ribonucleic Acid (mRNA)-Based Oncolytic Therapy: Self-Amplifying mRNA (saRNA), Non-Replicating mRNA, Circular RNA (circRNA)-Based mRNA therapy
- 2) By Small Interfering Ribonucleic Acid (siRNA)-Based Oncolytic Therapy: Chemically Modified siRNA, Nanoparticle-Delivered siRNA, Conjugated siRNA
- 3) By Micro Ribonucleic Acid (miRNA)-Based Oncolytic Therapy: miRNA Mimics, miRNA Inhibitors (Antagomirs), miRNA Sponges Or Decoys
- 4) By Other Therapy Types: Long Non-Coding RNA (lncRNA)-Based Therapies, Short Hairpin RNA (shRNA)-Based Therapies, Aptamer-RNA Based Oncolytic Agents

View the full ribonucleic acid (rna)-based oncolytic therapy market report:

<https://www.thebusinessresearchcompany.com/report/ribonucleic-acid-rna-based-oncolytic-therapy-global-market-report>

Which Region Is Expected To Lead The Ribonucleic Acid (RNA)-Based Oncolytic Therapy Market By 2025?

In 2024, North America was the leading region in the RNA-based oncolytic therapy market. The Asia-Pacific region is projected to experience the highest growth rate in the coming years. The global market report for RNA-based oncolytic therapy studied includes regions such as Asia-Pacific, Western Europe, Eastern Europe, North America, South America, the Middle East, and Africa.

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