

# **mRNA Synthesis and mRNA Manufacturing Market (2nd Edition), 2022-2035: Distribution by Type of Product (Drug Substances (APIs) and Drug Products (FDFs)), Application Area(s) (mRNA Vaccines and mRNA Therapeutics), Therapeutic Area(s) (Infectious Diseases, Oncological Disorders and Other Diseases) and Key Geographical Regions (North America, Europe, Asia-Pacific, Latin America, MENA and Rest of the World): Industry Trends and Global Forecasts, 2022-2035**

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## **Abstracts**

The global mRNA manufacturing and mRNA synthesis market is estimated to reach USD 1.95 billion in 2023 and is anticipated to decline at a CAGR of -1.7% during the forecast period 2022-2035.

Over the next decade, market projections indicate a decline in the market size due to an expected decrease in demand for COVID vaccines until 2035. However, the emergence of messenger ribonucleic acid (mRNA) as a pivotal therapeutic method in modern healthcare is noteworthy. Since the onset of the COVID-19 pandemic, mRNA therapeutics and vaccine production have gained significant attention, presenting a groundbreaking approach to combat not only COVID-19 but also a range of other conditions such as oncological, infectious, and genetic disorders. Currently, there are more than 195 mRNA therapeutics and vaccines in different developmental stages or already available for various medical conditions.

This surge in mRNA-based treatments has led to a noticeable increase in the demand for mRNA production capabilities. The manufacturing of mRNA therapeutics and vaccines is complex and requires significant capital investment, along with specialized expertise. Consequently, developers of mRNA-based therapies and vaccines are actively exploring strategies to overcome existing challenges. One promising avenue among the available options is the outsourcing of production to mRNA Contract Development and Manufacturing Organizations (CDMOs).

Looking forward, as a greater number of RNA-based candidates progress through clinical phases and enter the market, we anticipate substantial growth in the mRNA synthesis and manufacturing market during the forecast period.

## Report Coverage

An executive summary of the key insights captured during research. It offers a high-level view on the current state of the mRNA synthesis and contract manufacturing services market and its likely evolution in the short to mid-term and long term.

Overview of mRNA, highlighting details on its structure and the historical evolution of mRNA vaccines. It also presents information on the in-vitro synthesis of mRNA, its applications in various therapeutic modalities and the challenges associated with the process. Additionally, it features a discussion on the commonly outsourced manufacturing operations and their advantages. .

Detailed assessment of the overall market landscape of the companies offering mRNA custom synthesis services, based on several relevant parameters, such as year of establishment, company size, location of headquarters, type of service(s) offered, input for synthesis, type of purification method(s), scale of operation and GMP compliance.

A detailed competitiveness analysis of mRNA custom synthesis service providers based on supplier strength and service strength

A comprehensive assessment of the overall market landscape of mRNA contract manufacturing service providers, based on several relevant parameters, including year of establishment, company size, location of headquarters, location of manufacturing facilities, type of product(s) manufactured, type of service(s) offered and scale of operation.

An in-depth company competitiveness analysis of mRNA contract manufacturing service providers based in North America, Europe and Asia-Pacific. The analysis compares the contract service providers on the basis of various parameters, such as their supply strength and service portfolio strength.

A detailed overview of the current market landscape of companies engaged in the development of mRNA synthesis kits, based on several relevant parameters, such as type of enzyme, kit components, type of enzyme mix used, mRNA component modified, yield per reaction, number of reactions, reaction run time and kit price.

A product competitiveness analysis of the mRNA synthesis kits, based on supplier power and product competitiveness

Detailed profiles of the key players offering services for the synthesis and manufacturing of mRNA. and key mRNA synthesis kit providers. Each profile includes a brief overview of the company, along with information on the mRNA synthesis kits portfolio.

A detailed analysis of completed, ongoing and planned clinical studies of mRNA therapeutics and vaccines, based on several relevant parameters, such as trial registration year, trial status, trial phase, target patient population, therapeutic area, type of sponsor / collaborator, leading industry players, and regional distribution of trials.

An analysis of recent partnerships inked between stakeholders engaged in this domain, since 2014, covering acquisitions, manufacturing agreements, fill / finish service agreements, supply agreements, service alliance, and other relevant deals.

A comprehensive analysis of over 35 mRNA-based therapeutics / vaccines developers that are likely to partner with mRNA contract manufacturing service providers.

A comprehensive market forecast analysis, highlighting the future potential of the market till 2035. We have segregated the current and upcoming opportunity based on type of product (drug substances (APIs) and drug products (FDFs)), application areas (mRNA-based vaccines and mRNA-based therapeutics),

therapeutic areas (infectious diseases, oncological disorders and other diseases), and key geographical regions (North America, Europe, Asia-Pacific, Latin America, MENA and rest of the world).

### Key Market Companies

Aldevron

APExBIO

Biomay

BioNTech

CELLSCRIPT

CureVac

biosynthesis

eTheRNA, Eurogentec

Jena Biosciences

Moderna

New England Biolabs

Thermo Fisher Scientific

TriLink BioTechnologies

## Contents

### 1. PREFACE

- 1.1. Scope of the Report
- 1.2. Market Segmentations
- 1.3. Research Methodology
- 1.4. Key Questions Answered
- 1.5. Chapter Outlines

### 2. EXECUTIVE SUMMARY

### 3. INTRODUCTION

- 3.1. An Overview of mRNA
- 3.2. Structure of mRNA
- 3.3. Evolution of mRNA Vaccines
- 3.4. mRNA Manufacturing Process
  - 3.4.1. Chemical Synthesis of mRNA
  - 3.4.2. In vitro Synthesis of mRNA
- 3.5. Applications of Chemically / in vitro Synthesized mRNA
- 3.6. Challenges Associated with mRNA Synthesis
- 3.7. Commonly Outsourced Manufacturing Operations
- 3.8. Advantages of Outsourcing Manufacturing Operations

### 4. MARKET LANDSCAPE: MRNA CUSTOM SYNTHESIS SERVICE PROVIDERS

- 4.1. mRNA Custom Synthesis Service Providers: Overall Market Landscape
  - 4.1.1. Analysis by Year of Establishment
  - 4.1.2. Analysis by Company Size
  - 4.1.3. Analysis by Location of Headquarters
  - 4.1.4. Analysis by Company Size and Location of Headquarters
  - 4.1.5. Analysis by Type of Service(s) Offered
  - 4.1.6. Analysis by Input for Synthesis
  - 4.1.7. Analysis by Structural Modification
  - 4.1.8. Analysis by Type of Purification Method(s)
  - 4.1.9. Analysis by Application Area(s)
  - 4.1.10. Analysis by Scale of Operation
  - 4.1.11. mRNA Custom Synthesis Service Providers: Information on Length (Base Pair)

of mRNA Manufactured

4.1.12. mRNA Custom Synthesis Service Providers: Information on mRNA Synthesis / Manufacturing Capacity

## **5. MRNA CUSTOM SYNTHESIS SERVICE PROVIDERS: COMPANY COMPETITIVENESS ANALYSIS**

5.1. Key Parameters and Scores

5.2. Methodology

5.3. Competitiveness Analysis: Small Companies

5.4. Competitiveness Analysis: Mid-Sized Companies

5.5. Competitiveness Analysis: Large Companies

## **6. MARKET LANDSCAPE: MRNA CONTRACT MANUFACTURING SERVICE PROVIDERS**

6.1. mRNA Contract Manufacturing Service Providers: Overall Market Landscape

6.1.1. Analysis by Year of Establishment

6.1.2. Analysis by Company Size

6.1.3. Analysis by Location of Headquarters

6.1.4. Analysis by Company Size and Location of Headquarters

6.1.5. Analysis by Location of Manufacturing Facility

6.1.6. Analysis by Type of Product(s) Manufactured

6.1.7. Analysis by Type of Service(s) Offered

6.1.8. Analysis by Scale of Operation

## **7. MRNA CONTRACT MANUFACTURING SERVICE PROVIDERS (MRNA CDMO): COMPANY COMPETITIVENESS ANALYSIS**

7.1. Methodology

7.2. Company Competitiveness Analysis: mRNA Contract Manufacturing Service Providers based in North America

7.3. Company Competitiveness Analysis: mRNA Contract Manufacturing Service Providers based in Europe

7.4. Company Competitiveness Analysis: mRNA Contract Manufacturing Service Providers based in Asia-Pacific

## **8. MARKET LANDSCAPE: MRNA SYNTHESIS KIT PROVIDERS**

## 8.1. mRNA Synthesis Kits: Overall Market Landscape

8.1.1. Analysis by Kit Components

8.1.2. Analysis by Type of Enzyme

8.1.3. Analysis by Type of Enzyme Mix Used

8.1.4. Analysis by mRNA Component Modified

8.1.5. Analysis by Yield per Reaction

8.1.6. Analysis by Number of Reactions

8.1.7. Analysis by Reaction Run-Time

8.1.8. Analysis by Price of Kits

8.1.9. Most Active Players: Analysis by Number of mRNA Synthesis Kits Offered

## 8.2. mRNA Synthesis Kits: Developer Landscape

8.2.1. Analysis by Year of Establishment

8.2.2. Analysis by Company Size

8.2.3. Analysis by Location of Headquarters

## 9. MRNA SYNTHESIS KITS: PRODUCT COMPETITIVENESS ANALYSIS

9.1. Methodology

9.2. Product Competitiveness Analysis: mRNA Synthesis Kits

## 10. COMPANY PROFILES: MRNA SYNTHESIS AND MANUFACTURING SERVICE PROVIDERS

10.1. Aldevron

10.1.1. Company Overview

10.1.2. mRNA Synthesis Focused Services Portfolio

10.1.3. Recent Developments and Future Outlook

10.2. Biomay

10.2.1. Company Overview

10.2.2. mRNA Synthesis Focused Services Portfolio

10.2.3. Recent Developments and Future Outlook

10.3. bioSYNTHESIS

10.3.1. Company Overview

10.3.2. mRNA Synthesis Focused Services Portfolio

10.3.3. Future Outlook

10.4. eTheRNA

10.4.1. Company Overview

10.4.2. mRNA Synthesis Focused Services Portfolio

10.4.3. Recent Developments and Future Outlook



## 10.5. Eurogentec

10.5.1. Company Overview

10.5.2. mRNA Synthesis Focused Services Portfolio

10.5.3. Recent Developments and Future Outlook

## 10.6. TriLink BioTechnologies

10.6.1. Company Overview

10.6.2. mRNA Synthesis Focused Services Portfolio

10.6.3. Recent Developments and Future Outlook

## **11. COMPANY PROFILES: MRNA SYNTHESIS KIT PROVIDERS**

### 11.1. APExBIO

11.1.1. Company Overview

11.1.2. mRNA Synthesis Kits Portfolio

### 11.2. CELLSRIPT

11.2.1. Company Overview

11.2.2. mRNA Synthesis Kits Portfolio

### 11.3. Jena Biosciences

11.3.1. Company Overview

11.3.2. mRNA Synthesis Kits Portfolio

### 11.4. New England Biolabs

11.4.1. Company Overview

11.4.2. mRNA Synthesis Kits Portfolio

### 11.5. Thermo Fisher Scientific

11.5.1. Company Overview

11.5.2. mRNA Synthesis Kits Portfolio

## **12. CLINICAL TRIAL ANALYSIS**

### 12.1. Methodology

### 12.2. mRNA-based Therapeutics / Vaccines: Clinical Trial Analysis

12.2.1. Analysis by Trial Registration Year

12.2.2. Analysis by Trial Status

12.2.3. Analysis by Trial Registration Year and Patients Enrolled

12.2.4. Analysis by Trial Registration Year and Trial Status

12.2.5. Analysis by Trial Phase

12.2.6. Analysis by Target Patient Population

12.2.7. Analysis by Therapeutic Area

12.2.8. Analysis by Type of Sponsor / Collaborator



12.2.9. Most Active Players: Analysis by Number of Trials

12.2.10. Analysis by Region

## **13. PARTNERSHIP AND COLLABORATIONS**

13.1. Partnership Models

13.2. mRNA Synthesis and Manufacturing: Partnerships and Collaborations

13.1.1. Analysis by Year of Partnership

13.1.2. Analysis by Type of Partnership

13.1.3. Analysis by Year and Type of Partnership

13.1.4. Analysis by Type of Product

13.1.5. Analysis by Type of Partner

13.1.6. Most Active Players: Analysis by Number of Partnerships

13.1.7. Analysis by Local and International Agreements

13.1.8. Analysis by Intercontinental and Intracontinental Agreements

13.1.9. Analysis by Region

## **14. LIKELY PARTNERS ANALYSIS**

14.1. Methodology

14.2. Likely Partners based in North America

14.2.1 Most Likely Partners based in North America

14.3. Likely Partners based

14.3.1 Most Likely Partners based in Europe

14.4. Likely Partners based in Asia Pacific and Rest of the World

14.4.1 Most Likely Partners based in Asia Pacific and Rest of the World

## **15. BIG PHARMA INITIATIVES**

15.1. Methodology

15.2. Big Pharma Players: List of mRNA-based Therapeutics / Vaccines Focused Initiatives

15.3. Competitive Benchmarking of Big Pharma Players

15.3.1. Harvey Ball Analysis

15.3.2. Spider Web Analysis

## **16. MARKET FORECAST**

16.1. Chapter Overview

## 16.2. Key Assumptions and Forecast Methodology

### 16.3. Global mRNA Synthesis and mRNA Manufacturing Market, 2022-2035

#### 16.3.1. mRNA Synthesis and mRNA Manufacturing Market, 2022-2035: Distribution by Type of Product

##### 16.3.1.1. mRNA Synthesis and mRNA Manufacturing Market for Drug Substances (APIs), 2022-2035

##### 16.3.1.2. mRNA Synthesis and mRNA Manufacturing Market for Drug Products (FDFs), 2022-2035

#### 16.3.2. mRNA Synthesis and Manufacturing Market, 2022-2035: Distribution by Application Area,

##### 16.3.2.1. mRNA Synthesis and Manufacturing Market for mRNA-based Vaccines, 2022-2035

##### 16.3.2.2. mRNA Synthesis and Manufacturing Market for mRNA-based Therapeutics, 2022-2035

#### 16.3.3. mRNA Synthesis and Manufacturing Market: Distribution by Therapeutic Area, 2022, 2025 and 2035

##### 16.3.3.1. mRNA Synthesis and Manufacturing Market for Infectious Diseases, 2022-2035

##### 16.3.3.1. mRNA Synthesis and Manufacturing Market for Oncological Disorders, 2022-2035

##### 16.3.3.1. mRNA Synthesis and Manufacturing Market for Other Diseases, 2022-2035

#### 16.3.4. mRNA Synthesis and Manufacturing Market: Distribution by Geography, 2025 and 2035 (USD Billion)

##### 16.3.4.1. mRNA Synthesis and Manufacturing Market in North America, 2022-2035

##### 16.3.4.2. mRNA Synthesis and Manufacturing Market in Europe, 2022-2035

##### 16.3.4.3. mRNA Synthesis and Manufacturing Market in Asia Pacific, 2022-2035

##### 16.3.4.4. mRNA Synthesis and Manufacturing Market in Latin America, 2022-2035

##### 16.3.4.5. mRNA Synthesis and Manufacturing Market in MENA, 2022-2035

##### 16.3.4.6. mRNA Synthesis and Manufacturing Market in Rest of the World, 2022-2035

## 17. EXECUTIVE INSIGHTS

## 18. APPENDIX 1: TABULATED DATA

## 19. APPENDIX 2: LIST OF COMPANIES AND ORGANIZATIONS

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