

RNAi Drug Delivery: Technologies and Global Markets

<https://marketpublishers.com/r/R32A0B281BE3EN.html>

Date: August 2023

Pages: 141

Price: US\$ 5,500.00 (Single User License)

ID: R32A0B281BE3EN

Abstracts

Report Scope:

This research report categorizes the market for nucleic acid drugs by type. The major product segments are conjugated and encapsulated. The non-viral vectors used for encapsulation are divided into polymers, lipids and others (e.g., inorganic material, hybrid systems). The market is also segmented based on the molecule types, delivery modes and therapeutic areas. It is divided by application types into therapeutic applications and research-based applications. The markets in North America, Europe, the Asia-Pacific region and Rest of the World (RoW) are covered.

Report Includes:

24 data tables and 45 additional tables

An up-to-date overview and industry analysis of the global markets for RNA interference (RNAi) drug delivery technologies

Analyses of the global market trends, with historic market revenue (sales figures) from 2020 to 2022, estimates for 2023, and projections of compound annual growth rates (CAGRs) through 2028

Estimation of the actual market size and revenue forecast for the RNAi drug delivery technologies market, and corresponding market share analysis based on type of RNAi, therapeutic area, and region

Discussion of major growth drivers, industry-specific challenges, regulatory aspects, and technology advancement that will shape the market for RNAi drug delivery technologies as a basis for projecting demand in the next few years

(2023-2028)

Review of key patent grants and patent applications on RNAi drug delivery markets, and emerging technologies and new developments within the marketplace

Latest information on the mergers and acquisition deals, partnerships, agreements, collaborations, and other strategic alliances within the marketplace

Insight into the recent industry structure, competitive aspects of each product segments, increasing investment on R&D activities, market growth strategies, and company revenue share analysis

A look at commercial opportunities in the RNAi research tools and reagents, recent progress and future opportunities for RNAi therapeutics in various disease classifications, clinical trial applications, and potential markets for future developments

Identification of the major stakeholders and analysis of the competitive landscape based on recent developments, segmental revenues, and operational integration

Descriptive company profiles of the leading global players of the industry, including Alnylam Pharmaceuticals, Benitec Biopharma, Ionis Pharmaceutical, Novo Nordisk and Sirnaomics Inc.

Contents

CHAPTER 1 INTRODUCTION

Study Goals and Objectives
Reasons for Doing the Study
Scope of Report
What's New in This Update?
Research Methodology
Geographic Breakdown

CHAPTER 2 SUMMARY AND HIGHLIGHTS

Market Outlook

CHAPTER 3 MARKET OVERVIEW

Introduction
History of Nucleic Acid Drugs
Antisense Oligonucleotides
RNA
Drug Delivery System
Nucleic Acid Drugs
Inhibition Type
Antisense Oligonucleotide
Regulations
Pre-Clinical INDs
COVID-19 Impact Analysis on the RNAi Drug Delivery Markets
Positive Impact of COVID-19
Negative Effect of COVID-19

CHAPTER 4 MARKET DYNAMICS

Market Drivers
Approved RNAi Drugs
Venture Funding Increased in RNAi Drugs
RNAi Drugs Designated as Orphan Drugs
New Nanoparticle Technologies for Drug Delivery Systems
Market Restraints

High Drug Costs
Lack of Awareness Regarding Rare Diseases
Clustered Regularly Interspaced Short Palindromic Repeats Technology Application
Growing
Market Opportunities
Application in Cancer Treatment
Infectious Disease and RNAi Drugs

CHAPTER 5 NUCLEIC ACID DRUG DELIVERY TECHNOLOGY MARKET BY TYPE

Encapsulation
Viral Vector-Based
Non-Viral Vector-Based Delivery System
Conjugates

CHAPTER 6 MARKET BREAKDOWN BY APPLICATION

Drug Development and Discovery
Process of RNA-Based Drug Discovery
Design of RNAi Drugs
Sequence Optimization
Chemical Modification
Targeted Delivery
Therapeutic Application

CHAPTER 7 MARKET BREAKDOWN BY ROUTE OF ADMINISTRATION

CHAPTER 8 MARKET BREAKDOWN BY MOLECULES

Small Interfering Ribonucleic Acid
Antisense Oligonucleotide
Fomivirsen (Vitravene)
Mipomersen
Nusinersen (Spinraza)
Inotersen (Tegsedi)
Eteplirsen (Exondys 51)
Golodirsen (Vyondys 53)
Milasen: A Unique Personalized Medicine
Messenger RNA

Others
Aptamers
Micro RNA

CHAPTER 9 MARKET BREAKDOWN BY THERAPEUTIC AREA

Oncology
Rare and Genetic Diseases
Central Nervous System
Respiratory
Other Disease

CHAPTER 10 MARKET BREAKDOWN BY REGION

North America
Europe
Asia-Pacific
Japan
South Korea
China
India
Australia
Rest of the World

CHAPTER 11 ENVIRONMENTAL, SOCIAL AND GOVERNANCE IN THE BIOTECHNOLOGY SECTOR

Key Environmental, Social and Governance Issues in the Biotechnology Industry
Biotechnology Industry Environmental, Social and Governance Performance Analysis
Environmental Performance
Social Performance
Governance Performance
Consumer Perspective on ESG in Biotechnology
Case Study
Concluding Remarks from BCC Research

CHAPTER 12 EMERGING TECHNOLOGIES AND DEVELOPMENTS

Drug Delivery to Lungs

Nanotechnology
Use of Artificial Intelligence and Machine Learning

CHAPTER 13 CLINICAL TRIAL AND PATENT ANALYSIS

Clinical Trials Analysis
Patent Analysis

CHAPTER 14 MERGERS AND ACQUISITIONS AND FUNDING OUTLOOK

Start-Up Funding in Nucleic Acid Delivery Technology

CHAPTER 15 COMPETITIVE INTELLIGENCE

CHAPTER 16 COMPANY PROFILES

ALNYLAM PHARMACEUTICALS INC.
ARCTURUS THERAPEUTICS INC.
ARBUTUS BIOPHARMA CORP.
ARROWHEAD PHARMACEUTICALS INC.
BENITEC BIOPHARMA
CELLECTA INC.
ELEVEN THERAPEUTICS
GENEVANT SCIENCES CORP.
IONIS PHARMACEUTICALS INC.
MIRIMUS, INC.
NOVO NORDISK
NANODE THERAPEUTICS INC.
OLIX PHARMACEUTICALS
PHIO PHARMACEUTICALS CORP.
SILENCE THERAPEUTICS PLC
SIRNAOMICS INC.
SOMAGENICS, INC.

List Of Tables

LIST OF TABLES

Summary Table: Global Market for Nucleic Acid Drug Delivery, by Type, Through 2028

Table 1: Challenges for the Delivery of Nucleic Acid Drugs

Table 2: Differences Between Small Molecule Drugs and Biological Drugs

Table 3: Nucleic Acid Drug Classification

Table 4: Nucleic Acid Drug Types

Table 5: siRNA Therapeutics for SARS-CoV-2, SARS-CoV-1 and MERS-CoV, 2021

Table 6: Orphan Drug Incentives in Various Countries

Table 7: Direct Methods of Insertion into the Cell

Table 8: Advantages and Disadvantages of Various Kinds of Drug Delivery Systems

Table 9: Advantages and Disadvantages of Viral Vectors

Table 10: Global Market for Nucleic Acid Drug Delivery, by Encapsulation Material Type, Through 2028

Table 11: Lipid Nanoparticles and Their Functions

Table 12: Lipid Nanoparticle Types and Their Advantages and Disadvantages

Table 13: Comparison of Polymeric Vectors and Lipid-Based Vectors

Table 14: Polymer Types for Nucleic Acid Drug Delivery and Their Properties

Table 15: Global Market for Nucleic Acid Drug Delivery, by Application, Through 2028

Table 16: Approved Nucleic Acid Drugs, upto June 2023

Table 17: Routes of Administration for Nucleic Acid Drugs

Table 18: Global Market for Nucleic Acid Drug Delivery, by Route of Administration, Through 2028

Table 19: Characteristics of Different Molecule Types for Nucleic Acid Drug

Table 20: Global Market for Nucleic Acid Drug Delivery, by Molecule Type, Through 2028

Table 21: Comparison ASO Versus siRNA

Table 22: Various mRNA Drugs Under Clinical Trials, June 2023

Table 23: Comparison of miRNA and siRNA

Table 24: Global Market for Nucleic Acid Drug Delivery, by Therapeutic Area, Through 2028

Table 25: Global Market for Nucleic Acid Drug Delivery, by Region, Through 2028

Table 26: North American Market for Nucleic Acid Drug Delivery, by Type, Through 2028

Table 27: North American Market for Non-Viral Vector Nucleic Acid Drug Delivery, by Type, Through 2028

Table 28: U.S. Biotech Private Rounds for Nucleic Acid-Based, June 2022

Table 29: European Market for Nucleic Acid Drug Delivery, by Type, Through 2028

Table 30: European Market for Non-Viral Vector Nucleic Acid Drug Delivery, by Type, Through 2028

Table 31: Asia-Pacific Market for Nucleic Acid Drug Delivery, by Type, Through 2028

Table 32: Asia-Pacific Market for Non-Viral Vector Nucleic Acid Drug Delivery, by Type, Through 2028

Table 33: Rest of the World Market for Nucleic Acid Drug Delivery, by Type, Through 2028

Table 34: Rest of the World Market for Non-Viral Vector Nucleic Acid Drug Delivery, by Type, Through 2028

Table 35: Alnylam ESG initiatives

Table 36: Patents Issued on Nucleic Acid Drug Delivery, 2000-2020

Table 37: Collaboration in Nucleic Acid Drug Delivery Market, 2021-2023

Table 38: Start-Up Funding in the Nucleic Acid Drug Delivery Industry, January 2022 and March 2023

Table 39: Collaborations in the Nucleic Acid Drug Delivery Market, 2021-2023

Table 40: Clinical Trials and Approvals in the Nucleic Acid Drug Delivery Market, 2021-2023

Table 41: Other Strategic Developments in Nucleic Acid Drug Delivery Market, 2021-2023

Table 42: Alnylam Pharmaceuticals Inc.: Annual Revenue, 2022

Table 43: Alnylam Pharmaceuticals: Pipeline Products

Table 44: Alnylam Pharmaceuticals: Product Portfolio

Table 45: Alnylam Pharmaceuticals: Recent Developments, 2021-2023

Table 46: Arcturus Therapeutics Inc.: Annual Revenue, 2022

Table 47: Arcturus Therapeutics: Pipeline Products

Table 48: Arcturus Therapeutics: Recent Developments, 2021-2023

Table 49: Arbutus Biopharma Corp.: Collaborations, 2021-2023

Table 50: Arbutus Biopharma Corp.: Annual Revenue, 2022

Table 51: Arbutus Biopharma Corp.: Recent Developments, 2021-2023

Table 52: Pipeline of Arrowhead Pharmaceuticals

Table 53: Benitec Biopharma: Annual Revenue, 2022

Table 54: Eleven Therapeutics: Recent Developments, 2022

Table 55: Genevant: Recent Developments, 2021 and 2022

Table 56: Ionis Pharmaceutical Inc.: Annual Revenue, 2022

Table 57: Pipeline Products of Ionis Pharmaceuticals

Table 58: Ionis Pharmaceuticals Inc.: Recent Developments, 2023

Table 59: Mirimus Inc.: Recent Developments, 2021 and 2022

Table 60: Novo Nordisk: Annual Revenue, 2022

Table 61: Pipeline Products of Novo Nordisk

Table 62: Pipeline Products of Nanode Therapeutics

Table 63: Olix Pharmaceuticals: Recent Developments, 2021-2023

Table 64: Silence Therapeutics: Annual Revenue, 2022

Table 65: Pipeline of Silence Therapeutics

Table 66: Silence Therapeutics: Recent Developments, 2023

Table 67: Pipeline of Sirnaomics Inc.

Table 68: Sirnaomics Inc.: Recent Developments, 2021-2023

List Of Figures

LIST OF FIGURES

Summary Figure: Global Market for Nucleic Acid Drug Delivery, by Type, 2020-2028

Figure 1: Timeline of Nucleic Acid Therapeutics, Since 1950s

Figure 2: Enzymes Needed for RNA-Based Drugs

Figure 3: Basic Function of a Drug Delivery System

Figure 4: Challenges Faced by RNA-Based Drug Delivery

Figure 5: Nucleic Acid Drug Types

Figure 6: Clinical Trial Flow

Figure 7: Clinical Trial Specifications

Figure 8: Share of Various Viruses Under Study for Vaccine Development

Figure 9: Research on Virology During the COVID-19 Pandemic

Figure 10: RNA-Based Drugs Under Development, 2017-2022

Figure 11: Total RNA-Based Funding, by Venture Capitalists, 2017-2021

Figure 12: Corporate-Backed RNA Financing, 2017-2021

Figure 13: Financial Benefits for Orphan Drugs

Figure 14: Nano-Delivery Types Used for Nucleic Acid Drug Delivery

Figure 15: Global Market Shares of Nucleic Acid Drug Delivery Systems, by Type, 2022

Figure 16: Drug Delivery of Nucleic Acid Drugs, by Types

Figure 17: Viral Vector Types

Figure 18: Global Market for Conjugate Drug Delivery Systems of Nucleic Acids, 2020-2028

Figure 19: Gene Therapy Types

Figure 20: RNA-Based Drugs in Research and Development, 2022

Figure 21: Initial Issues with RNA-Based Drugs

Figure 22: RNA Drug Designing

Figure 23: Market Breakdown by Route of Administration Types and Subtypes

Figure 24: siRNA Delivery System

Figure 25: Antisense Oligonucleotide Mechanism of Action

Figure 26: Global Market Shares of Nucleic Acid Drug Delivery Systems, by Therapeutic Area, 2022

Figure 27: Global Market for Nucleic Acid Drug Delivery, by Region, 2020-2028

Figure 28: Share of Biotechnology Firms Reporting and Not Reporting ESG Data, 2022

Figure 29: ESG Disclosure in Various Company Specific Documents in Biotechnology Industry, 2022

Figure 30: Share of ESG Disclosure During the Forecasted Period in the Biotechnology Industry

- Figure 31: Share of ESG Significance in the Biotechnology Industry
- Figure 32: Major Environmental Concerns in the Biotechnology Industry, 2023
- Figure 33: Major Social Concerns in the Biotechnology Industry
- Figure 34: Major Governance Concerns in the Biotechnology Industry
- Figure 35: Share of Clinical Trials of RNA Therapeutics, by Clinical Trial Phase, 2020-2022
- Figure 36: Share of Clinical Trials of RNA Therapeutics, by Age Group, 2022
- Figure 37: Share of Clinical Trials of RNA Therapeutics, by Gender, 2022
- Figure 38: Share of Clinical Trials of RNA Therapeutics, by Investors, 2022
- Figure 39: Share of Clinical Trials of RNA Therapeutics, by Recruitment Status, 2022
- Figure 40: Share of Clinical Trials of RNA Therapeutics Based on Study Results
- Figure 41: Start-Up Funding in the Nucleic Acid Drug Delivery Industry, by Various Rounds, 2022 and 2023
- Figure 42: Distribution Share of Start-Up Funding in the Nucleic Acid Drug Delivery Industry, by Various Rounds, 2022 and 2023
- Figure 43: Global Market Shares of Nucleic Acid Drug Delivery, by Various Growth Strategies, 2022
- Figure 44: Alnylam Pharmaceuticals: Annual Revenue, 2021 and 2022
- Figure 45: Alnylam Pharmaceuticals: Revenue Share, by Products, 2022
- Figure 46: Alnylam Pharmaceuticals: Revenue Share, by Region, 2022
- Figure 47: Arcturus Therapeutics: Annual Revenue, 2021 and 2022
- Figure 48: Arbutus Biopharma Corp.: Annual Revenue, 2021 and 2022
- Figure 49: Arbutus Biopharma Corp.: Revenue Share, by Type, 2022
- Figure 50: Benitec Biopharma: Annual Revenue, 2021 and 2022
- Figure 51: Ionis Pharmaceutical: Annual Revenue, 2021 and 2022
- Figure 52: Novo Nordisk: Annual Revenue, 2021 and 2022
- Figure 53: Novo Nordisk: Revenue Share, by Segments, 2022
- Figure 54: Novo Nordisk: Revenue Share, by Region, 2022

I would like to order

Product name: RNAi Drug Delivery: Technologies and Global Markets

Product link: <https://marketpublishers.com/r/R32A0B281BE3EN.html>

Price: US\$ 5,500.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/R32A0B281BE3EN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:
Last name:
Email:
Company:
Address:
City:
Zip code:
Country:
Tel:
Fax:
Your message:

****All fields are required**

Customer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970