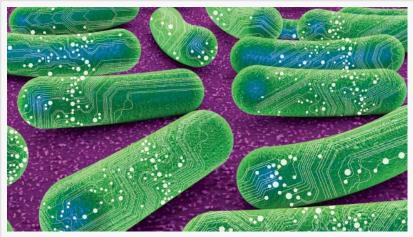


## Synthetic Biology Market Insights: Catalysts Driving Biotechnological Revolution | Codexis, EnBiotix, Inc., Synthego

synthetic biology market is estimated to be valued at US\$ 13.9 billion in 2022 and is expected to exhibit a CAGR of 28.0% during the forecast period 2023-2030

BURLINGAME, CALIFORNIA , UNITED STATES, November 22, 2023 /EINPresswire.com/ -- Market Overview:

Synthetic biology uses techniques of engineering and science to develop novel biological parts, devices and



Synthetic Biology Market

systems as well as redesigning existing natural biological systems. Key applications include pharmaceuticals and drug discovery, biomaterials and bioenergy.

Market Dynamics:

The synthetic biology market is witnessing robust growth owing to rising demand for synthetic biology products and services across various application segments. Synthetic biology products and services find wide usage in pharmaceutical and biotechnology sector for developing therapies, drug discovery and manufacturing activities. Furthermore, growing demand for renewable chemicals and biofuels is also spurring demand for synthetic biology tools and techniques. Advancements in gene editing and engineering as well as decline in costs of DNA sequencing and synthesis are expanding potential applications of synthetic biology, thereby supporting market growth over the forecast period.

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Major Market Drivers for Synthetic Biology

Increasing Research and Development Activities for Synthetic Biology

The synthetic biology market is anticipated to witness significant growth owing to the increasing investments being made by both public as well as private organizations in R&D activities pertaining to synthetic biology. Government investments are propelling synthetic biology research as this field is expected to deliver applications across various industries like healthcare, agriculture, chemicals and materials among others. On the other hand, private players are also injecting large funds to accelerate the pace of innovation and commercialization of synthetic biology products and tools.

Rising Demand for Alternative Renewable Sources

The rising concerns towards depletion of fossil fuels and need to switch to more sustainable and eco-friendly sources of energy are driving the demand for alternative renewable sources of energy. Synthetic biology plays a crucial role here by enabling engineering of microbes for producing biofuels and bioplastics from renewable feedstocks. The ability of synthetic biology to manufacture fuels, chemicals and materials directly from plant waste makes it an attractive proposition for renewable source development.

Major Market Restrain for Synthetic Biology

Stringent Government Regulations for Synthetic Biology Products

One of the key challenges faced by the synthetic biology market is the presence of stringent government regulations for products developed using synthetic biology techniques. Regulatory bodies across countries have formulated guidelines for safe use as well as development and commercialization of synthetic biology derived products. The compliance requirements associated with these regulations increase the cost and timelines for bringing synthetic biology products to market. Obtaining clearances and approvals from regulatory authorities acts as a hindrance, especially for small companies with limited resources.

Major Market Opportunity for Synthetic Biology

Potential Applications in Healthcare Industry

The healthcare industry presents significant opportunity for the synthetic biology market. Synthetic biology offers novel ways for developing new therapeutics, diagnostics and enabling personalized medicine. It allows engineering of cells and biological systems for production of new drugs, vaccines, monoclonal antibodies, regenerative medicine therapies among others. Advancements in DNA synthesis and genome engineering technologies are fueling research focused on treatment of complex diseases using synthetic biology approaches. This presents an attractive opportunity for synthetic biology product developers to capitalize on.

Major Market Trend in Synthetic Biology

Growing Adoption of Digital and Cloud Based Tools

A notable trend observed in the synthetic biology market is the growing preference and adoption of digital tools, cloud platforms and Software-as-a-Service (SaaS) based offerings. Synthetic biology workflows involve complex data processing, simulation, modeling and designing of genetic sequences which require high performance computing facilities. Digital platforms providing cloud based access to synthetic biology design and analysis software, genomic simulation services and CRISPR/gene editing tools are witnessing increased uptake. This allows life science researchers and companies to leverage synthetic biology capabilities without need for heavy on-premise infrastructure investments.

List of TOP Players in Market Report are: -

Thermo Fisher Scientific
Synbio Technologies
Merck KGaA
Agilent Technologies Inc.
GenScript
Amyris
Eurofins Genomics GmbH
Integrated DNA Technologies Inc.
Codexis Inc.
EnBiotix Inc.
Synthego
New England Biolabs (UK) Ltd.
Scarab Genomics LLC and Genomatica Inc.

Market Detailed Segmentation:

By Product:

Oligonucleotides Enzymes Synthetic Cells Others

By Technology:

Gene Synthesis Genome Engineering DNA Sequencing Others By End user:

Biotechnology & Pharmaceutical Industry Academics & Research Institutes Others

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Furthermore, the years considered for the study are as follows:

Historical data - 2016-2021 The base year for estimation - is 2021 Estimated Year - 2023 Forecast period\*\* - 2023 to 2030

This Synthetic Biology Market Research/Analysis Report Contains Answers to your following Questions:

DWhat are the current global trends in the Synthetic Biology market, and will the market experience an increase or decrease in demand in the upcoming years?

□ What is the expected demand for various product types within the Synthetic Biology market, and what are the emerging Market applications and trends?

□ What are the projections for the global Synthetic Biology Market in terms of capacity, production, production value, cost, profit, market share, supply, consumption, import, and export?

□ How will strategic developments shape the Market trajectory in the medium to long term?

D What factors contribute to the final price of Synthetic Biology , and what are the raw materials used in its manufacturing?

What is the market's growth potential, particularly with the increasing adoption of Synthetic Biology in mining?

□ What is the current and 2022 value of the global market, and who are the leading companies in this market?

U What recent Market trends can be leveraged to create additional revenue streams?

D What entry strategies, economic impact mitigation measures, and marketing channels should be considered for the Synthetic Biology Market?

Summarized Extracts from TOC of Market Study

Chapter 1 Synthetic Biology Introduction and Market Overview

- 1.1 Objectives of the Study
- 1.2 Overview of Synthetic Biology
- 1.3 Scope of The Study
- 1.3.1 Key Market Segments
- 1.3.2 Players Covered
- 1.3.3 COVID-19's impact on the Synthetic Biology industry
- 1.4 Methodology of The Study
- 1.5 Research Data Source
- Chapter 2 Executive Summary
- Chapter 3 Industry Chain Analysis
- Chapter 4 Market, by Type
- Chapter 5 Market, by Application
- Chapter 6 Market Analysis by Regions
- Chapter 7 North America Market Analysis by Countries
- Chapter 8 Europe Synthetic Biology Market Analysis by Countries
- Chapter 9 Asia Pacific Synthetic Biology Market Analysis by Countries
- Chapter 10 Middle East and Africa Synthetic Biology Market Analysis by Countries
- Chapter 11 South America Synthetic Biology Market Analysis by Countries

Chapter 12 Competitive Landscape

Chapter 13 Industry Outlook

Chapter 14 Market Forecast

Chapter 15 New Project Feasibility Analysis

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