+357 96 030922
info@marketpublishers.com

AI in Biotechnology Market by Function (Drug Design & Optimisation, Biomarker, SAR; Clinical Trial Design, Data Assessment, RWE, Inventory, Supply chain, Logistics; Launch, Pricing, Patient Engagement, Adverse Events), & End User - Global Forecast to 2029

https://marketpublishers.com/r/A0DFB78EDA4BEN.html
Date: February 2025
Pages: 397
Price: US$ 4,950.00 (Single User License)
ID: A0DFB78EDA4BEN

Abstracts

The global AI in biotechnology market is projected to reach USD 7.75 billion by 2029 from USD 3.23 billion in 2024, at a high CAGR of 19.1% during the forecast period. The market is expected to grow as a result of the increasing demand for personalized therapies and precision medicines, and the growing applications of AI in epidemiological models for predicting disease outbreaks. It helps public health officials to respond and develop better vaccines which further drives market growth. The increasing demand for personalized therapies and precision medicine has led to an increasing number of clinical trials performed. For instance, as of October 2023, around 1584 clinical trials performed using AI for various diseases were reported to Clincaltrials.gov. However, the limited interpretability of AI algorithms, high implementation cost and data privacy & security concerns are some of the restraining factors for the market growth.

“Based on function, research & development segment dominated the AI in biotechnology market in 2023”

The AI in biotechnology market by function is broadly divided into six segments: research & development, regulatory compliance, manufacturing & supply chain, launch & commercial, and post-market surveillance & patient support. The research & development segment accounted for the largest share of the global AI in biotechnology market in 2023. The large share of this segment can be attributed to the rising demand for personalized medicine, automation in labs, the rise of predictive analytics, and the need for faster drug discovery. an increase in the number of AI-discovered molecules in

+357 96 030922
info@marketpublishers.com

clinical trials significantly augments market growth. For instance, AI-native Biotechs and their partners in the pharmaceutical industry have entered an increasing number of molecules for AI-driven clinical trials (Source: Elsevier B.V.). In 2023, there were around 67 reported ongoing trials, and this number has increased from 2014 with around 60% year-over-year compound growth.

“In 2023, the pharmaceutical companies held the largest market share among end users.”

Based on end user, pharmaceutical companies hold the largest share of the AI in biotechnology market. There are emerging health problems, notably cognitive decline that led to high healthcare services and medication demands, associated with such demographic shifts. Pharmaceutical companies will experience huge growth opportunities as life expectancy increases, thereby raising the increasing healthcare demands of this aging population. Additionally, massive investments are being made by pharmaceutical companies into research and development, particularly drug discovery and development processes wherein AI is utilized for tasks like target identification, lead optimization, and patient stratification in clinical trials.

“In 2023, Europe was the second largest regional market for AI in the biotechnology market.”

In 2023, Europe held the second-highest share of the AI in biotechnology market. This dominance is attributed to a substantial increase in investment in Europe for AI, with a growing number of patent filings for biotechnology-related medical technology. In the year 2022, the European Patent Office (EPO) published over 10,000 AI patent applications, which highlights an increased focus on AI solutions in biotechnology. In March 2023, the UK government pledged investment in nine promising AI healthcare technologies to speed up research and development. Moreover, in August 2023, the government launched 22 new projects to explore the application of AI in healthcare. All these initiatives represent Europe's determination to spearhead applications of AI in the biotechnology sector.

The break-down of primary participants is as mentioned below:

By Company Type - Tier 1: 45%, Tier 2: 30%, and Tier 3: 25%

By Designation - C-level: 42%, Director-level: 31%, and Others: 27%

+357 96 030922
info@marketpublishers.com

By Region - North America: 32%, Europe: 32%, Asia Pacific: 26%, Middle East & Africa: 5%, Latin America: 5%

NVIDIA Corporation (US), Illumina, Inc. (US), Exscientia plc (UK), Schr?dinger, Inc. (US), Recursion Pharmaceuticals, Inc. (US), SOPHiA GENETICS (Switzerland), Predictive Oncology. (US), Deep Genomics. (Canada),), Data4Cure, Inc. (US), Genoox (US), BenevolentAI (US), and DNAnexus, Inc. (US) are some of the key players in the AI in biotechnology market.

The study includes an in-depth competitive analysis of these key players in AI in biotechnology market, with their company profiles, recent developments, and key market strategies.

Research Coverage:

The report analyses the AI in biotechnology market. It aims to estimate the market size and future growth potential of various market segments based on offering (end-to-end solutions, niche solutions, technology providers, and services), function (research & development [R&D], regulatory compliance, manufacturing & supply chain, launch & commercial, post-market surveillance & patient support, and corporate), deployment mode (cloud-based, and on-premise), end-user (pharmaceutical companies, biotechnology companies, research institutes and labs, healthcare providers, and contract research organizations [CRO]), and region (North America, Europe, Asia Pacific, Latin America and Middle East & Africa).

The scope of the report covers detailed information regarding the major factors, such as drivers, restraints, challenges, and opportunities, influencing the growth of the AI in biotechnology market. A detailed analysis of the key industry players has been done to provide insights into their business overview, solutions, and services; key strategies; partnerships, collaborations, acquisitions, expansion, agreements, investment, and product launches associated with the AI in biotechnology market. Competitive analysis of upcoming startups in the AI in biotechnology market ecosystem is covered in this report.

Reasons to Buy the Report

This report will enrich established firms and new entrants/smaller firms to gauge the market's pulse, which, in turn, would help them garner a greater share of the market.

+357 96 030922
info@marketpublishers.com

Firms purchasing the report could use one or a combination of the below-mentioned strategies to strengthen their positions in the market.

This report provides insights on:

Analysis of key drivers: (growing cross-industry collaborations and partnerships, growing need to reduce the time and cost of drug discovery and development, rising adoption of AI in precision medicine, improving computing power, and declining hardware cost), restraints (high implementation costs of AI limit adoption in biotechnology, especially for SMEs and emerging economies, data privacy risks and compliance challenges for AI in biotechnology), opportunities (integrating AI and big data in precision medicine for biotechnology advancement, surge in biotechnology investments enhances opportunities for AI to accelerate drug discovery innovations, innovation across healthcare, agriculture, and environmental science for global growth), and challenges (data quality and interpretability issues that hinder AI integration and trustworthiness, AI deployment in biotechnology hindered by talent shortages and evolving regulatory challenges) influencing the growth of the AI in biotechnology market.

Product Development/Innovation: Detailed insights on upcoming technologies, research & development activities, and new product launches in the AI in biotechnology market.

Market Development: Comprehensive information on the lucrative emerging markets, by offering, function, deployment mode, end-user, and region.

Market Diversification: Exhaustive information about the product portfolios, growing geographies, recent developments, and investments in the AI in biotechnology market.

Competitive Assessment: In-depth assessment of market shares, growth strategies, product offerings, and capabilities of the leading players in the AI in biotechnology market including NVIDIA Corporation (US), Illumina, Inc. (US), Exscientia (UK), Schr?dinger, Inc. (US), Recursion Pharmaceuticals, Inc. (US), SOPHiA GENETICS (Switzerland), Predictive Oncology. (US),Deep Genomics. (Canada), Exscientia (US), and Data4Cure, Inc.

+357 96 030922
info@marketpublishers.com

Contents

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: AI in Biotechnology Market by Function (Drug Design & Optimisation, Biomarker, SAR; Clinical Trial Design, Data Assessment, RWE, Inventory, Supply chain, Logistics; Launch, Pricing, Patient Engagement, Adverse Events), & End User - Global Forecast to 2029

Product link: https://marketpublishers.com/r/A0DFB78EDA4BEN.html

Price: US$ 4,950.00 (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/A0DFB78EDA4BEN.html