+357 96 030922
info@marketpublishers.com

# Global Artificial Intelligence in Drug Discovery Market Size Study, by Application (Drug Optimization and Repurposing, Preclinical Testing, Others), by Therapeutic Area (Oncology, Neurodegenerative Diseases, Cardiovascular Diseases, Metabolic Diseases, Infectious Diseases, Others), and Regional Forecasts 2022-2032

https://marketpublishers.com/r/G25082D533F3EN.html
Date: January 2025
Pages: 285
Price: US$ 3,750.00 (Single User License)
ID: G25082D533F3EN

## Abstracts

The Global Artificial Intelligence (AI) in Drug Discovery Market was valued at approximately USD 1.6 billion in 2023 and is projected to expand at a robust CAGR of 29.7% during the forecast period 2024-2032. This burgeoning growth is attributed to the increasing adoption of AI technologies, including machine learning and deep learning, across various phases of drug discovery, from initial compound screening to clinical trials. The rising need for innovative drug therapies and the integration of advanced analytics in preclinical testing processes drive the market's expansion. Furthermore, a surge in strategic collaborations between AI startups and pharmaceutical companies is reshaping the drug discovery landscape, optimizing processes, and reducing developmental timelines.

The digitalization of biomedical and clinical research is further propelling the implementation of AI-powered solutions. Large datasets generated during molecule screening and preclinical studies demand sophisticated tools for accurate analysis, making AI indispensable for researchers. Advanced machine learning algorithms not only enhance the precision of molecule binding predictions but also reduce errors, fostering significant cost efficiencies. Notably, government initiatives in emerging and developed economies are accelerating the penetration of AI technologies, enabling streamlined regulatory processes and fostering innovation.

+357 96 030922
info@marketpublishers.com

Among applications, Drug Optimization and Repurposing leads the market, contributing the highest share of 53.7% in 2023. This dominance underscores the efficiency of AI in refining existing drug candidates and identifying novel therapeutic uses, thereby addressing unmet medical needs while maximizing investment returns. Meanwhile, the Preclinical Testing segment exhibits the fastest growth, with AI's ability to optimize testing protocols, predict drug toxicity, and model biological interactions significantly enhancing its appeal to pharmaceutical companies.

Regionally, North America commands the largest market share at 57.7%, driven by substantial investments in healthcare technologies and a favorable regulatory landscape. The region's robust research infrastructure and collaboration between technology giants and pharmaceutical companies amplify the adoption of AI in drug discovery. Simultaneously, Asia Pacific emerges as the fastest-growing region, fueled by advancements in AI applications across countries like China, Japan, and India. These nations prioritize AI integration to improve clinical trial efficiency and address complex healthcare challenges.

The industry is witnessing an influx of mergers, acquisitions, and strategic partnerships aimed at advancing AI capabilities in drug discovery. For instance, BioNTech's acquisition of InstaDeep highlights the industry's focus on leveraging AI for immunotherapy innovations. However, stringent regulations and ethical considerations surrounding AI applications pose challenges, emphasizing the importance of compliance with international standards to sustain market growth.

Major players shaping this market include IBM, Exscientia, Google (DeepMind), and Insilico Medicine, among others. These companies are continually driving innovation, underlining the transformative potential of AI in revolutionizing drug discovery processes.

Key Players Included in This Report:

IBM

Exscientia

Insilico Medicine

Google (DeepMind)

+357 96 030922
info@marketpublishers.com

BenevolentAI

Atomwise Inc.

Berg Health (acquired by BPGbio Inc.)

BioSymetrics, Inc.

insitro

GNS Healthcare (rebranded as Aitia)

CYCLICA (acquired by Recursion)

Cloud Pharmaceuticals

BioAge Labs

Merck & Co.

Fujitsu

The detailed segments and sub-segment of the market are explained below:

By Application:

Drug Optimization and Repurposing

Preclinical Testing

Others

By Therapeutic Area:

Oncology

+357 96 030922
info@marketpublishers.com

Neurodegenerative Diseases

Cardiovascular Diseases

Metabolic Diseases

Infectious Diseases

Others

By Region:

North America

U.S.

Canada

Mexico

Europe

U.K.

Germany

France

Italy

Spain

Denmark

Sweden

Norway

+357 96 030922
info@marketpublishers.com

Asia Pacific

- Japan
- China
- India
- South Korea
- Australia

Latin America

- Brazil
- Argentina

Middle East & Africa

- South Africa
- Saudi Arabia
- UAE
- Kuwait

Years considered for the study are as follows:

- Historical year – 2022
- Base year – 2023

+357 96 030922
info@marketpublishers.com

Forecast period – 2024 to 2032

Key Takeaways:

Market Estimates & Forecast for 10 years from 2022 to 2032.

Regional and segment-level analysis.

Comprehensive competitive landscape and key player strategies.

Supply-side and demand-side analysis of the market.

+357 96 030922
info@marketpublishers.com

# Contents

+357 96 030922
info@marketpublishers.com



## CHAPTER 4. GLOBAL ARTIFICIAL INTELLIGENCE IN DRUG DISCOVERY MARKET INDUSTRY ANALYSIS



## CHAPTER 5. GLOBAL ARTIFICIAL INTELLIGENCE IN DRUG DISCOVERY MARKET SIZE & FORECAST BY APPLICATION (2022-2032)

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com



## CHAPTER 8. COMPETITIVE INTELLIGENCE



## CHAPTER 9. RESEARCH PROCESS



## 12. LIST OF TABLES

+357 96 030922
info@marketpublishers.com



## 12. LIST OF FIGURES

+357 96 030922
info@marketpublishers.com


This list is not complete. The final report contains more than 50 figures. The list may be updated in the final deliverable.

+357 96 030922
info@marketpublishers.com

## I would like to order

Product name: Global Artificial Intelligence in Drug Discovery Market Size Study, by Application (Drug Optimization and Repurposing, Preclinical Testing, Others), by Therapeutic Area (Oncology, Neurodegenerative Diseases, Cardiovascular Diseases, Metabolic Diseases, Infectious Diseases, Others), and Regional Forecasts 2022-2032

Product link: https://marketpublishers.com/r/G25082D533F3EN.html

Price: US$ 3,750.00 (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/G25082D533F3EN.html