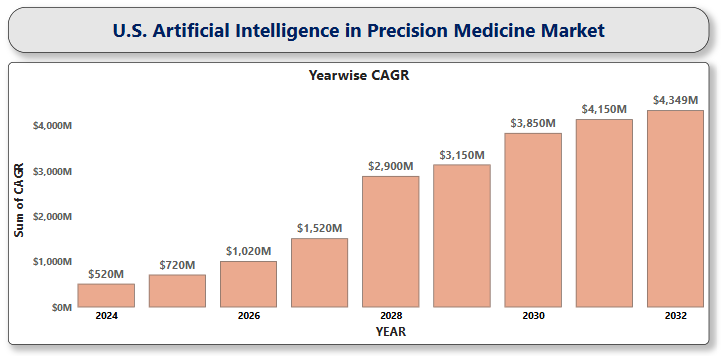
A close-up of hands holding a tablet and a pen

Description automatically generated**U.S. Artificial Intelligence in Precision Medicine Market**

According to Intelli, the U.S. Artificial Intelligence in Precision Medicine Market size was valued at USD 520.7Million in 2024 and is projected to reach USD 4349.98 Million by 2032, growing at a CAGR of 31.51% from 2025 to 2032.



Artificial Intelligence (AI) is revolutionizing precision medicine, ushering in a new era of personalized healthcare that is faster, smarter, and more effective. By harnessing vast datasets, ranging from genomics and electronic health records to real-time patient monitoring, AI algorithms can uncover patterns and insights beyond human capability. One of the most significant advantages of using AI in precision medicine is its ability to help clinicians develop highly personalized treatment plans. Instead of relying on standardized approaches that may not work equally well for everyone, AI can analyze a patient’s unique genetic profile, lifestyle habits, environmental exposures, and medical history. This comprehensive analysis allows healthcare providers to understand the underlying causes of a disease at an individual level and predict how a specific patient might respond to various treatments. From early disease detection to predicting treatment response and discovering novel drug targets, AI stands at the forefront of transforming how medicine is practiced, delivering unprecedented accuracy, efficiency, and hope for better outcomes.

**U.S. Artificial Intelligence in Precision Medicine Market Definition**

**​**The U.S. Artificial Intelligence in Precision Medicine market represents a rapidly evolving segment within healthcare, focusing on the integration of AI technologies to enhance personalized medical care. This market leverages advanced computational methods, including machine learning and natural language processing, to analyze complex datasets such as genomic information, electronic health records, and real-time patient monitoring data. The market spans a wide range of applications, such as drug discovery, diagnostics, and treatment planning, with oncology emerging as one of the key therapeutic areas where AI integration is delivering significant benefits. The U.S. AI in Precision Medicine market signifies a transformative shift in healthcare delivery, emphasizing the importance of individualized treatment plans and the potential of AI to revolutionize patient care.​

**U.S. Artificial Intelligence in Precision Medicine Market Overview**

**​**The U.S. Artificial Intelligence in Precision Medicine market is experiencing rapid growth, driven by several key factors that are transforming the healthcare landscape.​ One of the most significant is the explosion of healthcare data from genomic sequencing, electronic A close-up of hands holding a tablet and a pen

Description automatically generatedhealth records, and wearable devices, which necessitates the use of AI to extract meaningful insights. Advancements in AI technologies, especially in deep learning and natural language processing (NLP), have significantly improved the way complex medical data is analyzed and interpreted. Deep learning algorithms can process large volumes of structured and unstructured data, such as medical images, genomic sequences, and patient records, to detect patterns and anomalies that may not be visible to the human eye. This capability enhances diagnostic accuracy and supports the early detection of diseases. Meanwhile, NLP enables AI systems to understand and extract valuable insights from clinical notes, research articles, and patient histories written in natural language, making it easier for healthcare providers to access relevant information quickly. Additionally, the rising prevalence of chronic diseases such as cancer, diabetes, and cardiovascular conditions is fueling demand for more targeted and efficient care solutions. Strategic collaborations between AI firms and pharmaceutical companies are fostering innovation, especially in drug discovery and clinical trial optimization. Together, these factors are driving robust market growth and establishing AI as a critical pillar of precision medicine in the U.S.

**U.S. Artificial Intelligence in Precision Medicine Market Segmentation**

​The U.S. Artificial Intelligence in Precision Medicine market is segmented across several key dimensions, each reflecting the diverse applications and technologies driving personalized healthcare.

**U.S. Artificial Intelligence in Precision Medicine Market, By Technology**

* **Deep Learning**
* **Natural Language Processing**
* **Querying Methods**
* **Context-aware processing**

The U.S. Artificial Intelligence in Precision Medicine market is witnessing significant technological advancement, with deep learning emerging as the dominant technology. NLP is another rapidly growing segment, enabling the interpretation of unstructured data like clinical notes and research papers to support real-time decision-making. Querying methods and context-aware processing significantly improve the accuracy and efficiency of data retrieval and interpretation, enabling clinicians to quickly access the most relevant and actionable insights tailored to each patient's specific context. Together, these A close-up of hands holding a tablet and a pen

Description automatically generatedtechnologies are transforming the healthcare ecosystem, making precision medicine more intelligent, and patient-centered.

**U.S. Artificial Intelligence in Precision Medicine Market, By Therapeutic Application**

* **Cardiology**
* **Oncology**
* **Neurology**
* **Respiratory**

The U.S. Artificial Intelligence in Precision Medicine market is making substantial strides across various therapeutic applications, each benefiting from AI's ability to personalize and optimize patient care. Oncology holds the largest share, with AI playing a pivotal role in improving cancer diagnosis, treatment planning, and ongoing patient monitoring. Cardiology is experiencing rapid growth, with AI-driven tools being used to evaluate heart disease risk, analyze medical imaging, and support treatment decisions, ultimately leading to improved cardiovascular health outcomes. In neurology, AI is transforming the diagnosis and management of disorders such as Alzheimer's and Parkinson's, enabling earlier detection and more personalized treatment approaches. Respiratory medicine is also benefiting, as AI technologies help with the early identification and management of conditions like chronic obstructive pulmonary disease (COPD) and asthma, improving patient care and reducing hospitalizations.

**U.S. Artificial Intelligence in Precision Medicine Market, By End User**

* **Healthcare Providers**
* **Pharmaceutical Companies**
* **Research Organizations**

The U.S. Artificial Intelligence in Precision Medicine market is significantly shaped by its diverse range of end users, each leveraging AI to enhance healthcare outcomes. Healthcare providers, including hospitals, clinics, and diagnostic centers, are integrating AI technologies to improve patient care by enabling more accurate diagnostics, personalized treatment plans, and real-time decision-making. Pharmaceutical companies are pivotal in leveraging AI to enhance drug discovery, refine clinical trial processes, and create targeted therapies that are personalized to an individual’s genetic makeup. Research organizations play a critical role in advancing the field, utilizing AI to analyze A close-up of hands holding a tablet and a pen

Description automatically generatedcomplex datasets, uncover novel medical insights, and drive innovation in personalized medicine.

**Key Players**

The “U.S. Artificial Intelligence in Precision Medicine market" study report will provide valuable insight emphasizing the U.S. market. The major players in the market NVIDIA Corporation, IBM Corporation, Siemens Healthineers, GE HealthCare, Pfizer Inc., Gilead Sciences, Inc., Regeneron Pharmaceuticals, Amgen Inc., AbbVie Inc., Johnson & Johnson, Eli Lilly and Company, AstraZeneca PLC, Bristol-Myers Squibb, Intel Corporation, Sanofi, Insillico medicine, Mayo Clinic among others. Our market analysis also entails a section solely dedicated to such major players wherein our analysts provide an insight into the financial statements of all the major players, along with product benchmarking and SWOT analysis.

**Key Developments**

* In 2024, AI models made significant strides by analyzing vast genomic datasets to predict survival outcomes in pancreatic cancer and identify genetic variants associated with psychiatric disorders. These advancements allow for the creation of highly personalized treatment strategies tailored to an individual's genetic makeup.
* In 2024, Accenture has partnered with the American Cancer Society to leverage AI and machine learning in cancer research and treatment. This collaboration focuses on speeding up the development of personalized treatment plans for cancer patients by utilizing AI to analyze data from clinical trials, and patient records, ultimately enhancing the precision and effectiveness of cancer care.

**Market Attractiveness**

The image of market attractiveness provided further helps to get information about the region leading in the U.S. Artificial Intelligence in Precision Medicine market. We cover the major impacting factors driving the industry growth in the given region.

**Porter’s Five Forces**

A close-up of hands holding a tablet and a pen

Description automatically generatedThe image provided would further help to get information about Porter's five forces framework providing a blueprint for understanding the behavior of competitors and a player's strategic positioning in the respective industry. Porter's five forces model can be used to assess the competitive landscape U.S. Artificial Intelligence in Precision Medicine market, gauge the attractiveness of a particular sector, and assess investment possibilities.

A close-up of hands holding a tablet and a pen

Description automatically generatedTABLE OF CONTENT

1 **INTRODUCTION OF U.S. ARTIFICIAL INTELLIGENCE IN PRECISION MEDICINE MARKET**

* 1. Overview of the market
  2. Scope of report
  3. Assumptions

1. **EXECUTIVE SUMMARY**
2. **RESEARCH METHODOLOGY**
   1. Data Mining
   2. Validation
   3. Primary Interviews
   4. List of Data sources
3. **U.S. ARTIFICIAL INTELLIGENCE IN PRECISION MEDICINE MARKET OUTLOOK**
   1. Overview
   2. Market Dynamics
      1. Drivers
      2. Restrains
      3. Opportunities
      4. Trends
   3. Portes Five FORCE Model
   4. Value Chain Analysis

**5 U.S. ARTIFICIAL INTELLIGENCE IN PRECISION MEDICINE MARKET, BY TECHNOLOGY**

5.1 Overview

A close-up of hands holding a tablet and a pen

Description automatically generated5.2 Deep Learning

5.3 Natural Language Processing

5.4 Querying Methods

5.5 Context-aware Processing

**6 U.S. ARTIFICIAL INTELLIGENCE IN PRECISION MEDICINE MARKET, BY** **THERAPEUTIC APPLICATIONS**

6.1 Overview

6.2 Cardiology

6.3 Oncology

6.4 Neurology

6.5 Respiratory

**7 U.S. ARTIFICIAL INTELLIGENCE IN PRECISION MEDICINE MARKET, BY END USER**

7.1 Overview

7.2 Healthcare Providers

7.3 Pharmaceutical Companies

7.4 Research Organizations

1. **U.S. ARTIFICIAL INTELLIGENCE IN PRECISION MEDICINE MARKET COMPETITIVE LANDSCAPE**
   1. Overview
   2. Company Market Ranking
   3. A close-up of hands holding a tablet and a pen

      Description automatically generated Key Developments Strategies
2. **COMPANY PROFILES**

**9.1 NVIDIA Corporation**

* + 1. Overview
    2. Financial Performance
    3. roduct Outlook
    4. Key developments
  1. **IBM Corporation**
     1. Overview
     2. Financial Performance
     3. Product Outlook
     4. Key developments
  2. **Siemens Healthineers**
     1. Overview
     2. Financial Performance
     3. Product Outlook
     4. Key developments
  3. **GE HealthCare**
     1. Overview
     2. Financial Performance
     3. Product Outlook
     4. Key developments
  4. **Pfizer Inc.**
     1. Overview
     2. Financial Performance
     3. A close-up of hands holding a tablet and a pen

        Description automatically generatedProduct Outlook
     4. Key developments
  5. **Gilead Sciences, Inc.**
     1. Overview
     2. Financial Performance
     3. Product Outlook
     4. Key developments
  6. **Regeneron Pharmaceuticals**
     1. Overview
     2. Financial Performance
     3. Product Outlook
     4. Key developments
  7. **Amgen Inc.**
     1. Overview
     2. Financial Performance
     3. Product Outlook
     4. Key developments

* 1. **AbbVie Inc.**
     1. Overview
     2. Financial Performance
     3. Product Outlook
     4. Key developments
  2. **Johnson & Johnson**
     1. Overview
     2. Financial Performance
     3. A close-up of hands holding a tablet and a pen

        Description automatically generatedProduct Outlook
     4. Key developments
  3. **Eli Lilly and Company**
     1. Overview
     2. Financial Performance
     3. Product Outlook
     4. Key developments
  4. **AstraZeneca PLC**
     1. Overview
     2. Financial Performance
     3. Product Outlook
     4. Key developments
  5. **Bristol-Myers Squibb**
     1. Overview
     2. Financial Performance
     3. Product Outlook
     4. Key developments
  6. **Intel Corporation**
     1. Overview
     2. Financial Performance
     3. Product Outlook
     4. Key developments
  7. **Sanofi**
     1. Overview
     2. Financial Performance
     3. Product Outlook
     4. A close-up of hands holding a tablet and a pen

        Description automatically generatedKey developments
  8. **Insillico medicine**
     1. Overview
     2. Financial Performance
     3. Product Outlook
     4. Key developments
  9. **Mayo Clinic**
     1. Overview
     2. Financial Performance
     3. Product Outlook
     4. Key developments

1. **KEY DEVELOPMENTS**
   1. Product Launches/Developments
   2. Merges and Acquisitions
   3. Business Expansions
   4. Partnerships and Collaborations
2. **Appendix**

11.1 Related Research