

Global AI In Genomics Market Size study & Forecast, by Component (Hardware, Software, Services), By Technology (Machine Learning, Computer Vision), By Functionality (Genome Sequencing, Gene Editing, Others), By Application (Drug Discovery & Development, Precision Medicine, Diagnostics, Others), By End-use (Pharmaceutical and Biotech Companies, Healthcare Providers, Research Centers, Others), and Regional Analysis, 2022-2029

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Abstracts

Global AI In Genomics Market is valued at approximately USD 341.03 million in 2021 and is anticipated to grow with a healthy growth rate of more than 46.0% over the forecast period 2022-2029. Artificial intelligence (AI) is used in genomics to create computer systems that can carry out tasks such as mapping genomes. The structure, evolution, and function of genetic material are also explored with AI more quickly than with human participation. Although the primary goal of AI algorithms is to replicate human intelligence, clinical genomics is geared at performing genomic analysis, which phenotype-to-genotype correspondence, comprises variant calling, genome annotation, and genome annotation. Moreover, AI techniques can assist in immediately predicting DNA or protein structure that does not feature handcrafting. The increasing government investments, the surge in the adoption of AI in precision medicine, the reduction in cost and time for genome sequencing, and rising genomic datasets are the key factors that are fostering market growth across the globe.

Moreover, the rising investment in research of personalized medicine is also fueling the market demand at a substantial rate. As per Statista, in 2019, the global market for

personalized medicine market was estimated to be worth around USD 1,980 billion, which is projected to reach USD 2,770 billion by the year 2022. Consequentially, the growing focus on the research of personalized medicine is associated with the growth of the AI In Genomics Market. In addition, the rising emphasis on developing human-aware AI systems, as well as the increasing advancement in the field of gene therapy are presenting various lucrative opportunities over the forecasting years. However, the dearth of skilled AI professionals and stringent regulatory framework are hindering market growth over the forecast period of 2022-2029.

The key regions considered for the Global AI In Genomics Market study include Asia Pacific, North America, Europe, Latin America, and the Rest of the World. North America dominated the market in terms of revenue, owing to the growing investment in R&D, rising advancements in AI-powered solutions for genomics, and the introduction of new software and tools for genomic data analysis. Whereas, Asia Pacific is expected to grow at the highest growth rate over the forecasting period. Factors such as the growing population, rising healthcare spending, increasing focus on precision medicine, and rapid advances in genomics technology are burgeoning the market growth in the forecasting years.

Major market players included in this report are:

IBM Corporation

Microsoft Corporation

NVIDIA Corporation

DEEP GENOMICS

Data4Cure, Inc.

Freenome Holdings, Inc.

Thermo Fisher Scientific, Inc.

Illumina, Inc.

SOPHiA GENETICS

BenevolentAI

Recent Developments in the Market:

In May 2021, the Adventist Church-run non-profit healthcare system AdventHealth and health intelligence company Sema4 entered into a partnership agreement. In this agreement, AdventHealth's genomic and clinical data are supposed to be combined using Sema4's software and tools. With investments in genomics research, genetic testing, counselling, and sequencing, AdventHealth was projected to increase its emphasis on genomics and personalised health as a result of this collaboration. In October 2020, NVIDIA announced a partnership with an AI-powered lab for the development of new drugs and vaccines. The GSK centre accessed more precise

genetic and clinical data by combining AI technology, biological data, and contemporary computing platforms. Through NVIDIA Clara discovery, a collection of optimised computational drug discovery tools and frameworks, NVIDIA provided its experience in GPU optimisation and high-speed computational pipeline development.

Global AI In Genomics Market Report Scope:

Historical Data 2019-2020-2021

Base Year for Estimation 2021

Forecast period 2022-2029

Report Coverage Revenue forecast, Company Ranking, Competitive Landscape, Growth factors, and Trends

Segments Covered Component, Technology, Functionality, Application, End-use, Region

Regional Scope North America; Europe; Asia Pacific; Latin America; Rest of the World

Customization Scope Free report customization (equivalent up to 8 analyst's working hours) with purchase. Addition or alteration to country, regional & segment scope*

The objective of the study is to define market sizes of different segments & countries in recent years and to forecast the values to the coming years. The report is designed to incorporate both qualitative and quantitative aspects of the industry within countries involved in the study.

The report also caters detailed information about the crucial aspects such as driving factors & challenges which will define the future growth of the market. Additionally, it also incorporates potential opportunities in micro markets for stakeholders to invest along with the detailed analysis of competitive landscape and product offerings of key players. The detailed segments and sub-segment of the market are explained below:

By Component:

Hardware

Software

Services

By Technology:

Machine Learning

Computer Vision

By Functionality:

Genome Sequencing

Gene Editing

Others

By Application:

Drug Discovery & Development

Precision Medicine

Diagnostics

Others

By End-use:

Pharmaceutical and Biotech Companies

Healthcare Providers

Research Centers

Others

By Region:

North America

U.S.

Canada

Europe

UK

Germany

France

Spain

Italy

ROE

Asia Pacific

China

India

Japan

Australia

South Korea

RoAPAC

Latin America

Brazil

Mexico

RoLA

Rest of the World

Contents

CHAPTER 1. EXECUTIVE SUMMARY

- 1.1. Market Snapshot
- 1.2. Global & Segmental Market Estimates & Forecasts, 2019-2029 (USD Million)
 - 1.2.1. AI In Genomics Market, by Region, 2019-2029 (USD Million)
 - 1.2.2. AI In Genomics Market, by Component, 2019-2029 (USD Million)
 - 1.2.3. AI In Genomics Market, by Technology, 2019-2029 (USD Million)
 - 1.2.4. AI In Genomics Market, by Functionality, 2019-2029 (USD Million)
 - 1.2.5. AI In Genomics Market, by Application, 2019-2029 (USD Million)
 - 1.2.6. AI In Genomics Market, by End-use, 2019-2029 (USD Million)
- 1.3. Key Trends
- 1.4. Estimation Methodology
- 1.5. Research Assumption

CHAPTER 2. GLOBAL AI IN GENOMICS MARKET DEFINITION AND SCOPE

- 2.1. Objective of the Study
- 2.2. Market Definition & Scope
 - 2.2.1. Scope of the Study
 - 2.2.2. Industry Evolution
- 2.3. Years Considered for the Study
- 2.4. Currency Conversion Rates

CHAPTER 3. GLOBAL AI IN GENOMICS MARKET DYNAMICS

- 3.1. AI In Genomics Market Impact Analysis (2019-2029)
 - 3.1.1. Market Drivers
 - 3.1.1.1. Rising investment for research in the field of personalized medicine
 - 3.1.1.2. Increasing government investments
 - 3.1.2. Market Challenges
 - 3.1.2.1. Dearth of skilled AI professionals
 - 3.1.2.2. Stringent regulatory framework
 - 3.1.3. Market Opportunities
 - 3.1.3.1. Rising emphasis on developing human-aware AI systems
 - 3.1.3.2. Increasing advancement in the field of gene therapy

CHAPTER 4. GLOBAL AI IN GENOMICS MARKET INDUSTRY ANALYSIS

- 4.1. Porter's 5 Force Model
 - 4.1.1. Bargaining Power of Suppliers
 - 4.1.2. Bargaining Power of Buyers
 - 4.1.3. Threat of New Entrants
 - 4.1.4. Threat of Substitutes
 - 4.1.5. Competitive Rivalry
- 4.2. Futuristic Approach to Porter's 5 Force Model (2019-2029)
- 4.3. PEST Analysis
 - 4.3.1. Political
 - 4.3.2. Economical
 - 4.3.3. Social
 - 4.3.4. Technological
- 4.4. Top investment opportunity
- 4.5. Top winning strategies
- 4.6. Industry Experts Prospective
- 4.7. Analyst Recommendation & Conclusion

CHAPTER 5. RISK ASSESSMENT: COVID-19 IMPACT

- 5.1. Assessment of the overall impact of COVID-19 on the industry
- 5.2. Pre COVID-19 and post COVID-19 Market scenario

CHAPTER 6. GLOBAL AI IN GENOMICS MARKET, BY COMPONENT

- 6.1. Market Snapshot
- 6.2. Global AI In Genomics Market by Component, Performance - Potential Analysis
- 6.3. Global AI In Genomics Market Estimates & Forecasts by Component 2019-2029 (USD Million)
- 6.4. AI In Genomics Market, Sub Segment Analysis
 - 6.4.1. Hardware
 - 6.4.2. Software
 - 6.4.3. Services

CHAPTER 7. GLOBAL AI IN GENOMICS MARKET, BY TECHNOLOGY

- 7.1. Market Snapshot
- 7.2. Global AI In Genomics Market by Technology, Performance - Potential Analysis
- 7.3. Global AI In Genomics Market Estimates & Forecasts by Technology 2019-2029

(USD Million)

7.4. AI In Genomics Market, Sub Segment Analysis

7.4.1. Machine Learning

7.4.2. Computer Vision

CHAPTER 8. GLOBAL AI IN GENOMICS MARKET, BY FUNCTIONALITY

8.1. Market Snapshot

8.2. Global AI In Genomics Market by Functionality, Performance - Potential Analysis

8.3. Global AI In Genomics Market Estimates & Forecasts by Functionality 2019-2029

(USD Million)

8.4. AI In Genomics Market, Sub Segment Analysis

8.4.1. Genome Sequencing

8.4.2. Gene Editing

8.4.3. Others

CHAPTER 9. GLOBAL AI IN GENOMICS MARKET, BY APPLICATION

9.1. Market Snapshot

9.2. Global AI In Genomics Market by Application, Performance - Potential Analysis

9.3. Global AI In Genomics Market Estimates & Forecasts by Application 2019-2029

(USD Million)

9.4. AI In Genomics Market, Sub Segment Analysis

9.4.1. Drug Discovery & Development

9.4.2. Precision Medicine

9.4.3. Diagnostics

9.4.4. Others

CHAPTER 10. GLOBAL AI IN GENOMICS MARKET, BY END-USE

10.1. Market Snapshot

10.2. Global AI In Genomics Market by End-use, Performance - Potential Analysis

10.3. Global AI In Genomics Market Estimates & Forecasts by End-use 2019-2029

(USD Million)

10.4. AI In Genomics Market, Sub Segment Analysis

10.4.1. Pharmaceutical and Biotech Companies

10.4.2. Healthcare Providers

10.4.3. Research Centers

10.4.4. Others

CHAPTER 11. GLOBAL AI IN GENOMICS MARKET, REGIONAL ANALYSIS

11.1. AI In Genomics Market, Regional Market Snapshot

11.2. North America AI In Genomics Market

11.2.1. U.S. AI In Genomics Market

11.2.1.1. Component breakdown estimates & forecasts, 2019-2029

11.2.1.2. Technology breakdown estimates & forecasts, 2019-2029

11.2.1.3. Functionality breakdown estimates & forecasts, 2019-2029

11.2.1.4. Application breakdown estimates & forecasts, 2019-2029

11.2.1.5. End-use breakdown estimates & forecasts, 2019-2029

11.2.2. Canada AI In Genomics Market

11.3. Europe AI In Genomics Market Snapshot

11.3.1. U.K. AI In Genomics Market

11.3.2. Germany AI In Genomics Market

11.3.3. France AI In Genomics Market

11.3.4. Spain AI In Genomics Market

11.3.5. Italy AI In Genomics Market

11.3.6. Rest of Europe AI In Genomics Market

11.4. Asia-Pacific AI In Genomics Market Snapshot

11.4.1. China AI In Genomics Market

11.4.2. India AI In Genomics Market

11.4.3. Japan AI In Genomics Market

11.4.4. Australia AI In Genomics Market

11.4.5. South Korea AI In Genomics Market

11.4.6. Rest of Asia Pacific AI In Genomics Market

11.5. Latin America AI In Genomics Market Snapshot

11.5.1. Brazil AI In Genomics Market

11.5.2. Mexico AI In Genomics Market

11.5.3. Rest of Latin America AI In Genomics Market

11.6. Rest of The World AI In Genomics Market

CHAPTER 12. COMPETITIVE INTELLIGENCE

12.1. Top Market Strategies

12.2. Company Profiles

12.2.1. IBM Corporation

12.2.1.1. Key Information

12.2.1.2. Overview

- 12.2.1.3. Financial (Subject to Data Availability)
- 12.2.1.4. Product Summary
- 12.2.1.5. Recent Developments
- 12.2.2. Microsoft Corporation
- 12.2.3. NVIDIA Corporation
- 12.2.4. DEEP GENOMICS
- 12.2.5. Data4Cure, Inc.
- 12.2.6. Freenome Holdings, Inc.
- 12.2.7. Thermo Fisher Scientific Inc.
- 12.2.8. Illumina, Inc.
- 12.2.9. SOPHiA GENETICS
- 12.2.10. BenevolentAI

CHAPTER 13. RESEARCH PROCESS

- 13.1. Research Process
 - 13.1.1. Data Mining
 - 13.1.2. Analysis
 - 13.1.3. Market Estimation
 - 13.1.4. Validation
 - 13.1.5. Publishing
- 13.2. Research Attributes
- 13.3. Research Assumption

List Of Tables

LIST OF TABLES

TABLE 1. Global AI In Genomics Market, report scope

TABLE 2. Global AI In Genomics Market estimates & forecasts by Region 2019-2029 (USD Million)

TABLE 3. Global AI In Genomics Market estimates & forecasts by Component 2019-2029 (USD Million)

TABLE 4. Global AI In Genomics Market estimates & forecasts by Technology 2019-2029 (USD Million)

TABLE 5. Global AI In Genomics Market estimates & forecasts by Functionality 2019-2029 (USD Million)

TABLE 6. Global AI In Genomics Market estimates & forecasts by Application 2019-2029 (USD Million)

TABLE 7. Global AI In Genomics Market estimates & forecasts by End-use 2019-2029 (USD Million)

TABLE 8. Global AI In Genomics Market by segment, estimates & forecasts, 2019-2029 (USD Million)

TABLE 9. Global AI In Genomics Market by region, estimates & forecasts, 2019-2029 (USD Million)

TABLE 10. Global AI In Genomics Market by segment, estimates & forecasts, 2019-2029 (USD Million)

TABLE 11. Global AI In Genomics Market by region, estimates & forecasts, 2019-2029 (USD Million)

TABLE 12. Global AI In Genomics Market by segment, estimates & forecasts, 2019-2029 (USD Million)

TABLE 13. Global AI In Genomics Market by region, estimates & forecasts, 2019-2029 (USD Million)

TABLE 14. Global AI In Genomics Market by segment, estimates & forecasts, 2019-2029 (USD Million)

TABLE 15. Global AI In Genomics Market by region, estimates & forecasts, 2019-2029 (USD Million)

TABLE 16. Global AI In Genomics Market by segment, estimates & forecasts, 2019-2029 (USD Million)

TABLE 17. Global AI In Genomics Market by region, estimates & forecasts, 2019-2029 (USD Million)

TABLE 18. U.S. AI In Genomics Market estimates & forecasts, 2019-2029 (USD Million)

TABLE 19. U.S. AI In Genomics Market estimates & forecasts by segment 2019-2029

(USD Million)

TABLE 20. U.S. AI In Genomics Market estimates & forecasts by segment 2019-2029

(USD Million)

TABLE 21. Canada AI In Genomics Market estimates & forecasts, 2019-2029 (USD Million)

TABLE 22. Canada AI In Genomics Market estimates & forecasts by segment 2019-2029 (USD Million)

TABLE 23. Canada AI In Genomics Market estimates & forecasts by segment 2019-2029 (USD Million)

TABLE 24. UK AI In Genomics Market estimates & forecasts, 2019-2029 (USD Million)

TABLE 25. UK AI In Genomics Market estimates & forecasts by segment 2019-2029 (USD Million)

TABLE 26. UK AI In Genomics Market estimates & forecasts by segment 2019-2029 (USD Million)

TABLE 27. Germany AI In Genomics Market estimates & forecasts, 2019-2029 (USD Million)

TABLE 28. Germany AI In Genomics Market estimates & forecasts by segment 2019-2029 (USD Million)

TABLE 29. Germany AI In Genomics Market estimates & forecasts by segment 2019-2029 (USD Million)

TABLE 30. France AI In Genomics Market estimates & forecasts, 2019-2029 (USD Million)

TABLE 31. France AI In Genomics Market estimates & forecasts by segment 2019-2029 (USD Million)

TABLE 32. France AI In Genomics Market estimates & forecasts by segment 2019-2029 (USD Million)

TABLE 33. Italy AI In Genomics Market estimates & forecasts, 2019-2029 (USD Million)

TABLE 34. Italy AI In Genomics Market estimates & forecasts by segment 2019-2029 (USD Million)

TABLE 35. Italy AI In Genomics Market estimates & forecasts by segment 2019-2029 (USD Million)

TABLE 36. Spain AI In Genomics Market estimates & forecasts, 2019-2029 (USD Million)

TABLE 37. Spain AI In Genomics Market estimates & forecasts by segment 2019-2029 (USD Million)

TABLE 38. Spain AI In Genomics Market estimates & forecasts by segment 2019-2029 (USD Million)

TABLE 39. RoE AI In Genomics Market estimates & forecasts, 2019-2029 (USD Million)

TABLE 40. RoE AI In Genomics Market estimates & forecasts by segment 2019-2029

(USD Million)

TABLE 41. RoE AI In Genomics Market estimates & forecasts by segment 2019-2029

(USD Million)

TABLE 42. China AI In Genomics Market estimates & forecasts, 2019-2029 (USD Million)

TABLE 43. China AI In Genomics Market estimates & forecasts by segment 2019-2029 (USD Million)

TABLE 44. China AI In Genomics Market estimates & forecasts by segment 2019-2029 (USD Million)

TABLE 45. India AI In Genomics Market estimates & forecasts, 2019-2029 (USD Million)

TABLE 46. India AI In Genomics Market estimates & forecasts by segment 2019-2029 (USD Million)

TABLE 47. India AI In Genomics Market estimates & forecasts by segment 2019-2029 (USD Million)

TABLE 48. Japan AI In Genomics Market estimates & forecasts, 2019-2029 (USD Million)

TABLE 49. Japan AI In Genomics Market estimates & forecasts by segment 2019-2029 (USD Million)

TABLE 50. Japan AI In Genomics Market estimates & forecasts by segment 2019-2029 (USD Million)

TABLE 51. South Korea AI In Genomics Market estimates & forecasts, 2019-2029 (USD Million)

TABLE 52. South Korea AI In Genomics Market estimates & forecasts by segment 2019-2029 (USD Million)

TABLE 53. South Korea AI In Genomics Market estimates & forecasts by segment 2019-2029 (USD Million)

TABLE 54. Australia AI In Genomics Market estimates & forecasts, 2019-2029 (USD Million)

TABLE 55. Australia AI In Genomics Market estimates & forecasts by segment 2019-2029 (USD Million)

TABLE 56. Australia AI In Genomics Market estimates & forecasts by segment 2019-2029 (USD Million)

TABLE 57. RoAPAC AI In Genomics Market estimates & forecasts, 2019-2029 (USD Million)

TABLE 58. RoAPAC AI In Genomics Market estimates & forecasts by segment 2019-2029 (USD Million)

TABLE 59. RoAPAC AI In Genomics Market estimates & forecasts by segment 2019-2029 (USD Million)

TABLE 60. Brazil AI In Genomics Market estimates & forecasts, 2019-2029 (USD Million)

TABLE 61. Brazil AI In Genomics Market estimates & forecasts by segment 2019-2029 (USD Million)

TABLE 62. Brazil AI In Genomics Market estimates & forecasts by segment 2019-2029 (USD Million)

TABLE 63. Mexico AI In Genomics Market estimates & forecasts, 2019-2029 (USD Million)

TABLE 64. Mexico AI In Genomics Market estimates & forecasts by segment 2019-2029 (USD Million)

TABLE 65. Mexico AI In Genomics Market estimates & forecasts by segment 2019-2029 (USD Million)

TABLE 66. RoLA AI In Genomics Market estimates & forecasts, 2019-2029 (USD Million)

TABLE 67. RoLA AI In Genomics Market estimates & forecasts by segment 2019-2029 (USD Million)

TABLE 68. RoLA AI In Genomics Market estimates & forecasts by segment 2019-2029 (USD Million)

TABLE 69. Row AI In Genomics Market estimates & forecasts, 2019-2029 (USD Million)

TABLE 70. Row AI In Genomics Market estimates & forecasts by segment 2019-2029 (USD Million)

TABLE 71. Row AI In Genomics Market estimates & forecasts by segment 2019-2029 (USD Million)

TABLE 72. List of secondary sources, used in the study of global AI In Genomics Market

TABLE 73. List of primary sources, used in the study of global AI In Genomics Market

TABLE 74. Years considered for the study

TABLE 75. Exchange rates considered

List of tables and figures and dummy in nature, final lists may vary in the final deliverable

List Of Figures

LIST OF FIGURES

- FIG 1. Global AI In Genomics Market, research methodology
 - FIG 2. Global AI In Genomics Market, Market estimation techniques
 - FIG 3. Global Market size estimates & forecast methods
 - FIG 4. Global AI In Genomics Market, key trends 2021
 - FIG 5. Global AI In Genomics Market, growth prospects 2022-2029
 - FIG 6. Global AI In Genomics Market, porters 5 force model
 - FIG 7. Global AI In Genomics Market, pest analysis
 - FIG 8. Global AI In Genomics Market, value chain analysis
 - FIG 9. Global AI In Genomics Market by segment, 2019 & 2029 (USD Million)
 - FIG 10. Global AI In Genomics Market by segment, 2019 & 2029 (USD Million)
 - FIG 11. Global AI In Genomics Market by segment, 2019 & 2029 (USD Million)
 - FIG 12. Global AI In Genomics Market by segment, 2019 & 2029 (USD Million)
 - FIG 13. Global AI In Genomics Market by segment, 2019 & 2029 (USD Million)
 - FIG 14. Global AI In Genomics Market, regional snapshot 2019 & 2029
 - FIG 15. North America AI In Genomics Market 2019 & 2029 (USD Million)
 - FIG 16. Europe AI In Genomics Market 2019 & 2029 (USD Million)
 - FIG 17. Asia pacific AI In Genomics Market 2019 & 2029 (USD Million)
 - FIG 18. Latin America AI In Genomics Market 2019 & 2029 (USD Million)
 - FIG 19. Global AI In Genomics Market, company Market share analysis (2021)
- List of tables and figures and dummy in nature, final lists may vary in the final deliverable

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