

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

Market Report | 2024-10-28 | 386 pages | MarketsandMarkets

AVAILABLE LICENSES:

- Single User \$4950.00
- Multi User \$6650.00
- Corporate License \$8150.00
- Enterprise Site License \$10000.00

Report description:

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 Clinicaltrials.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 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.

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

"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%

-□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), Schrodinger, 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. 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

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

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), Schrodinger, Inc. (US), Recursion Pharmaceuticals, Inc. (US), SOPHiA GENETICS (Switzerland), Predictive Oncology. (US), Deep Genomics. (Canada), Exscientia (US), and Data4Cure, Inc.

Table of Contents:

1	INTRODUCTION	37
1.1	STUDY OBJECTIVES	37
1.2	MARKET DEFINITION	37
1.3	STUDY SCOPE	38
1.3.1	MARKETS COVERED & REGIONAL SCOPE	38
1.3.2	INCLUSIONS & EXCLUSIONS	39
1.3.3	YEARS CONSIDERED	40
1.4	CURRENCY CONSIDERED	40
1.5	LIMITATIONS	41
1.6	STAKEHOLDERS	42
2	RESEARCH METHODOLOGY	43
2.1	RESEARCH DATA	43
2.1.1	SECONDARY DATA	44
2.1.1.1	Key data from secondary sources	45
2.1.2	PRIMARY DATA	45
2.1.2.1	Key data from primary sources	47
2.1.2.2	Insights from primary experts	48
2.2	MARKET SIZE ESTIMATION	49
2.3	DATA TRIANGULATION	53
2.4	MARKET SHARE ESTIMATION	54
2.5	RESEARCH ASSUMPTIONS	54
2.6	LIMITATIONS	54
2.6.1	METHODOLOGY-RELATED LIMITATIONS	54
2.6.2	SCOPE-RELATED LIMITATIONS	54
2.7	RISK ASSESSMENT	55
3	EXECUTIVE SUMMARY	56
4	PREMIUM INSIGHTS	60
4.1	AI IN BIOTECHNOLOGY MARKET OVERVIEW	60
4.2	AI IN BIOTECHNOLOGY MARKET, BY REGION	61

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

4.3	NORTH AMERICA: AI IN BIOTECHNOLOGY MARKET, BY END USER & REGION	62
4.4	AI IN BIOTECHNOLOGY MARKET: GEOGRAPHIC SNAPSHOT	63
4.5	AI IN BIOTECHNOLOGY MARKET: DEVELOPED VS. EMERGING ECONOMIES	63
	?	
5	MARKET OVERVIEW	64
5.1	INTRODUCTION	64
5.2	MARKET DYNAMICS	64
5.2.1	DRIVERS	65
5.2.1.1	Growing cross-industry collaborations and partnerships	65
5.2.1.2	Growing need to reduce time and cost of drug discovery and development	66
5.2.1.3	Rising adoption of AI in precision medicine	66
5.2.1.4	Improving computing power and declining hardware cost	67
5.2.2	RESTRAINTS	68
5.2.2.1	High implementation costs of AI limit adoption in biotechnology, especially for SMEs and emerging economies	68
5.2.2.2	Data privacy risks and compliance challenges for AI in biotechnology	68
5.2.3	OPPORTUNITIES	68
5.2.3.1	Integrating AI and big data in precision medicine for biotechnology advancement	68
5.2.3.2	Surge in biotechnology investments enhances opportunities for AI to accelerate drug discovery innovations	69
5.2.3.3	Innovation across healthcare, agriculture, and environmental science for global growth	69
5.2.4	CHALLENGES	70
5.2.4.1	Data quality and interpretability issues that hinder AI integration and trustworthiness	70
5.2.4.2	AI deployment in biotechnology hindered by talent shortages and evolving regulatory challenges	70
5.3	ECOSYSTEM ANALYSIS	71
5.4	CASE STUDY ANALYSIS	72
5.4.1	LEVERAGED NVIDIA DGX CLOUD FOR RAPID TRAINING OF PROTEIN MODELS	72
5.4.2	IMPLEMENTED END-TO-END NGS WORKFLOW FOR EFFICIENT GENETIC VARIANT DETECTION	73
5.4.3	ACCELERATED DRUG DISCOVERY WITH GENERATIVE AI AND STREAMLINED WORKFLOWS	73
5.5	VALUE CHAIN ANALYSIS	74
5.6	PORTER'S FIVE FORCES ANALYSIS	75
5.6.1	BARGAINING POWER OF SUPPLIERS	76
5.6.2	BARGAINING POWER OF BUYERS	76
5.6.3	THREAT OF SUBSTITUTES	76
5.6.4	THREAT OF NEW ENTRANTS	76
5.6.5	INTENSITY OF COMPETITIVE RIVALRY	76
5.7	REGULATORY ANALYSIS	77
5.7.1	REGULATORY LANDSCAPE	77
5.7.1.1	North America	77
5.7.1.2	Europe	78
5.7.1.3	Asia Pacific	79
5.7.1.4	Latin America	80
5.7.1.5	Middle East & Africa	80
5.7.2	REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS	80
5.8	PATENT ANALYSIS	83
5.8.1	PATENT PUBLICATION TRENDS FOR AI IN BIOTECHNOLOGY	83
5.8.2	JURISDICTION AND TOP APPLICANT ANALYSIS	84
5.9	TECHNOLOGY ANALYSIS	87
5.9.1	KEY TECHNOLOGIES	87

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

5.9.1.1	Natural Language Processing (NLP)	87
5.9.1.2	Predictive analytics	87
5.9.2	COMPLEMENTARY TECHNOLOGIES	87
5.9.2.1	Cloud computing	87
5.9.2.2	Big data analytics	87
5.10	INDUSTRY TRENDS	88
5.10.1	EVOLUTION OF AI IN BIOTECHNOLOGY	88
5.10.2	COMPUTER-AIDED DRUG DESIGN AND AI	89
5.11	PRICING ANALYSIS	89
5.11.1	INDICATIVE PRICING ANALYSIS, BY DRUG DISCOVERY PROCESS	90
5.11.2	AVERAGE SELLING PRICE TREND, BY REGION	90
5.12	KEY CONFERENCES & EVENTS, 2024-2025	91
5.13	KEY STAKEHOLDERS & BUYING CRITERIA	92
5.13.1	BUYING CRITERIA	93
5.14	TRENDS & DISRUPTIONS IMPACTING CUSTOMERS' BUSINESSES	94
5.15	END-USER ANALYSIS	95
5.15.1	UNMET NEEDS	95
5.15.2	END-USER EXPECTATIONS	96
5.16	INVESTMENT & FUNDING SCENARIO	96
5.17	IMPACT OF AI/GEN AI ON AI IN BIOTECHNOLOGY MARKET	97
5.17.1	KEY USE CASES	98
5.17.2	CASE STUDIES OF AI/GENERATIVE AI IMPLEMENTATION	98
5.17.2.1	Case study: Accelerated biomarker discovery and clinical trial optimization	98
5.17.3	IMPACT OF AI/GEN AI ON INTERCONNECTED AND ADJACENT ECOSYSTEMS	99
5.17.3.1	Drug discovery and development market	99
5.17.3.2	Genomics and bioinformatics market	99
5.17.3.3	Medical imaging & diagnostics market	100
5.17.4	USER READINESS & IMPACT ASSESSMENT	100
5.17.4.1	User readiness	100
5.17.4.1.1	Pharmaceutical companies	100
5.17.4.1.2	Biotechnology companies	100
	?	
5.17.4.2	Impact assessment	101
5.17.4.2.1	User A: Pharmaceutical companies	101
5.17.4.2.1.1	Implementation	101
5.17.4.2.1.2	Impact	101
5.17.4.2.2	User B: Biotechnology companies	101
5.17.4.2.2.1	Implementation	101
5.17.4.2.2.2	Impact	101
6	AI IN BIOTECHNOLOGY MARKET, BY OFFERING	102
6.1	INTRODUCTION	103
6.2	END-TO-END SOLUTIONS	103
6.2.1	GROWING USE OF ADVANCED ALGORITHMS TO IMPROVE PRECISION AND EFFICIENCY TO BOOST MARKET GROWTH	103
6.3	NICHE SOLUTIONS	104
6.3.1	ABILITY OF NICHE SOLUTIONS TO ADDRESS SPECIFIC CHALLENGES WITHIN DRUG DISCOVERY TO SUPPORT ADOPTION	104
6.4	TECHNOLOGIES	105
6.4.1	ABILITY OF TECHNOLOGIES TO ENHANCE DRUG DISCOVERY, PERSONALIZED MEDICINE, AND DATA ANALYTICS TO FUEL	

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- GROWTH 105
- 6.5 SERVICES 106
 - 6.5.1 CONSULTING SERVICES 107
 - 6.5.1.1 Increasing efficiency of research processes and cost savings to boost adoption of consulting services 107
 - 6.5.2 IMPLEMENTATION SERVICES & ONGOING IT SUPPORT 108
 - 6.5.2.1 Increasing precision and efficiency in IT support services to boost demand 108
 - 6.5.3 TRAINING & EDUCATION SERVICES 108
 - 6.5.3.1 Need for skilled talent to drive market growth 108
 - 6.5.4 POST-SALES & MAINTENANCE SERVICES 109
 - 6.5.4.1 Complexity of AI systems and need for improvement in AI algorithms to boost market 109
- 7 AI IN BIOTECHNOLOGY MARKET, BY FUNCTION 111
 - 7.1 INTRODUCTION 112
 - 7.2 RESEARCH & DEVELOPMENT 112
 - 7.2.1 DRUG DISCOVERY 114
 - 7.2.1.1 Molecular design & optimization 115
 - 7.2.1.1.1 Increased efficiency in drug discovery with molecular design & optimization to drive market growth 115
 - 7.2.1.1.2 Biomarker discovery 116
 - 7.2.1.1.2.1 Ability to analyze large data sets with AI-enabled biomarker discovery to boost demand for ? 116
 - 7.2.1.1.3 Structure-activity relationship (SAR) modeling 117
 - 7.2.1.1.3.1 Improved data analysis, predictive modeling, and compound optimization for drug candidates with SAR to fuel growth 117
 - 7.2.2 CLINICAL DEVELOPMENT 117
 - 7.2.2.1 Trial design 119
 - 7.2.2.1.1 Ability of AI to improve trial design through simulations and patient stratification to favor market 119
 - 7.2.2.2 Site selection 119
 - 7.2.2.2.1 Optimized process of selecting clinical trial sites to fuel growth 119
 - 7.2.2.3 Recruitment 120
 - 7.2.2.3.1 Enhanced process of selecting and enrolling participants for clinical trials to drive demand 120
 - 7.2.2.4 Clinical data assessment 121
 - 7.2.2.4.1 Ability of clinical data assessment to enhance efficiency and accuracy of data interpretation to propel market 121
 - 7.2.2.5 Predictive toxicity & risk monitoring 121
 - 7.2.2.5.1 Ability of data integration and predictive modeling to create comprehensive risk profiles for drug candidates to support market 121
 - 7.2.2.6 Monitoring & drug adherence 122
 - 7.2.2.6.1 Enhanced patient compliance with monitoring & drug adherence to drive market growth 122
 - 7.2.2.7 Real-world evidence (RWE) analysis 123
 - 7.2.2.7.1 Enhanced safety monitoring & economic evaluation with RWE analysis to propel growth 123
 - 7.3 REGULATORY COMPLIANCE 123
 - 7.3.1 ABILITY OF AI TO ENSURE REGULATORY COMPLIANCE IN CLINICAL TRIALS TO SUPPORT GROWTH 123
 - 7.4 MANUFACTURING & SUPPLY CHAIN 124
 - 7.4.1 SUPPLY CHAIN PLANNING 126
 - 7.4.1.1 Increasing demand for real-time data analytics to accelerate market growth 126
 - 7.4.2 INVENTORY MANAGEMENT 126
 - 7.4.2.1 Automating stock tracking and replenishment with advanced analytics to fuel growth 126
 - 7.4.3 LOGISTICS OPTIMIZATION 127
 - 7.4.3.1 Ability of AI to drive collaboration and transparency in biotechnology logistics to aid growth 127
 - 7.4.4 DEMAND FORECASTING 128

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

7.4.4.1	Ability to integrate data for reliable demand forecasts to fuel growth	128
7.4.5	PREDICTIVE MAINTENANCE	128
7.4.5.1	Boosting equipment reliability with AI-powered predictive maintenance to drive demand	128
7.4.6	OTHER MANUFACTURING & SUPPLY CHAIN FUNCTIONS	129
7.5	LAUNCH & COMMERCIAL	130
7.5.1	LAUNCH COORDINATION	131
7.5.1.1	Growing product launch success rates through predictive analytics to boost adoption	131
7.5.2	PATIENT ENGAGEMENT	131
7.5.2.1	Advantages such as real-time patient feedback for better health outcomes to support growth	131
7.5.3	MARKETING OPERATIONS	132
7.5.3.1	Enhanced marketing performance with AI to boost market	132
7.5.4	PREDICTIVE PRICING	133
7.5.4.1	Ability of AI to enhance pricing accuracy to drive adoption	133
7.6	POST-MARKETING SURVEILLANCE & PATIENT SUPPORT	133
7.6.1	MEDICATION ADHERENCE	134
7.6.1.1	Growing demand for personalized healthcare to drive market	134
7.6.2	ADVERSE EVENT REPORTING	135
7.6.2.1	Advantages such as faster post-market surveillance and enhanced drug safety to drive demand	135
7.6.3	PATIENT MONITORING	136
7.6.3.1	Rise of remote healthcare solutions to boost demand	136
7.6.4	COMPLIANCE MONITORING	136
7.6.4.1	Increasing complexity of regulatory requirements to drive adoption	136
7.6.5	PATIENT SUPPORT PROGRAMS	137
7.6.5.1	Growing interest in patient-centered care to support growth	137
7.7	CORPORATE	138
7.7.1	RISK MANAGEMENT	139
7.7.1.1	Rising expenditure for drug development to support growth	139
7.7.2	COMPLIANCE MONITORING	139
7.7.2.1	Strict guidelines from bodies to aid growth	139
7.7.3	SALES FORCE OPTIMIZATION	140
7.7.3.1	Need for data-driven decision-making to boost adoption of sales force optimization	140
7.7.4	OTHER CORPORATE FUNCTIONS	141
8	AI IN BIOTECHNOLOGY MARKET, BY DEPLOYMENT MODE	142
8.1	INTRODUCTION	143
8.2	CLOUD-BASED SOLUTIONS	143
8.2.1	PUBLIC CLOUD	144
8.2.1.1	Need to reduce dependency on expensive on-premise infrastructure to boost demand	144
8.2.2	PRIVATE CLOUD	145
8.2.2.1	Need for enhanced security and data protection to drive market growth	145
8.2.3	MULTI-CLOUD	146
8.2.3.1	Enhanced flexibility & cost optimization to support market growth	146
8.2.4	HYBRID CLOUD	147
8.2.4.1	Cost efficiency and flexibility of hybrid cloud to fuel growth	147
8.3	ON-PREMISE SOLUTIONS	148
8.3.1	ADVANTAGES SUCH AS DATA SECURITY AND PRIVACY AND COMPLIANCE WITH REGULATIONS TO FAVOR GROWTH	148
9	AI IN BIOTECHNOLOGY MARKET, BY END USER	150
9.1	INTRODUCTION	151

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

9.2	PHARMACEUTICAL COMPANIES	151
9.2.1	INNOVATION AND EFFICIENCY ASSOCIATED WITH AI INTEGRATION IN DRUG DISCOVERY & DEVELOPMENT TO BOOST ADOPTION	151
9.3	BIOTECHNOLOGY COMPANIES	152
9.3.1	ABILITY OF AI-DRIVEN INNOVATIONS TO ACCELERATE PERSONALIZED MEDICINE AND DRUG DISCOVERY TO SUPPORT GROWTH	152
9.4	RESEARCH INSTITUTES & LABS	153
9.4.1	STRATEGIC INVESTMENTS AND COLLABORATIONS TO PROPEL AI ADVANCEMENTS IN RESEARCH INSTITUTES AND LABS	153
9.5	HEALTHCARE PROVIDERS	154
9.5.1	IMPROVED PATIENT OUTCOMES TO SUPPORT ADOPTION	154
9.6	CONTRACT RESEARCH ORGANIZATIONS (CROS)	155
9.6.1	ABILITY OF AI TECHNOLOGIES TO ACCELERATE CLINICAL TRIALS AND IMPROVE PATIENT RECRUITMENT TO FUEL GROWTH	155
10	AI IN BIOTECHNOLOGY MARKET, BY REGION	157
10.1	INTRODUCTION	158
10.2	NORTH AMERICA	159
10.2.1	MACROECONOMIC OUTLOOK FOR NORTH AMERICA	165
10.2.2	US	165
10.2.2.1	Increasing investments and partnerships to drive market	165
10.2.3	CANADA	171
10.2.3.1	Availability of advanced facilities and shorter approval times for drug candidates to drive market	171
10.3	EUROPE	177
10.3.1	MACROECONOMIC OUTLOOK FOR EUROPE	184
10.3.2	GERMANY	184
10.3.2.1	Increased funding in start-ups to drive uptake of AI in biotechnology	184
10.3.3	UK	190
10.3.3.1	Increasing investments and government fund allocations to drive market	190
10.3.4	FRANCE	195
10.3.4.1	Government initiatives in France to support market growth	195
10.3.5	ITALY	201
10.3.5.1	Growing investments to create opportunities for market growth	201
	?	
10.3.6	SPAIN	207
10.3.6.1	Increasing need for personalized medicine and data-driven healthcare to increase adoption rate in market	207
10.3.7	REST OF EUROPE	212
10.4	ASIA PACIFIC	218
10.4.1	MACROECONOMIC OUTLOOK FOR ASIA PACIFIC	226
10.4.2	JAPAN	226
10.4.2.1	Accelerating AI-driven drug discovery and biotechnology innovation to drive market in Japan	226
10.4.3	CHINA	232
10.4.3.1	Rising foreign investments to drive market in China	232
10.4.4	INDIA	238
10.4.4.1	Increasing number of start-ups and support from government to propel market	238
10.4.5	SOUTH KOREA	244
10.4.5.1	Significant advances in AI integration for R&D to fuel growth	244
10.4.6	REST OF ASIA PACIFIC	250
10.5	LATIN AMERICA	256
10.5.1	MACROECONOMIC OUTLOOK FOR LATIN AMERICA	262

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

10.5.2	BRAZIL	262
10.5.2.1	Funding of biotech companies to drive market in Brazil	262
10.5.3	MEXICO	268
10.5.3.1	Investment inflows and strengthening AI-related education to drive market in Mexico	268
10.5.4	REST OF LATIN AMERICA	274
10.6	MIDDLE EAST & AFRICA	280
10.6.1	MACROECONOMIC OUTLOOK FOR MIDDLE EAST & AFRICA	286
10.6.2	GCC COUNTRIES	286
10.6.2.1	Increase in healthcare investments to support market growth	286
10.6.3	REST OF MIDDLE EAST & AFRICA	293
11	COMPETITIVE LANDSCAPE	300
11.1	INTRODUCTION	300
11.2	KEY PLAYER STRATEGY/RIGHT TO WIN	300
11.3	REVENUE ANALYSIS, 2019-2023	302
11.4	MARKET SHARE ANALYSIS, 2023	303
11.4.1	RANKING OF KEY MARKET PLAYERS	306
11.5	COMPANY EVALUATION MATRIX: KEY PLAYERS, 2023	306
11.5.1	STARS	306
11.5.2	EMERGING LEADERS	306
11.5.3	PERVASIVE PLAYERS	307
11.5.4	PARTICIPANTS	307
?		
11.5.5	COMPANY FOOTPRINT: KEY PLAYERS, 2023	308
11.5.5.1	Company footprint	308
11.5.5.2	Component footprint	309
11.5.5.3	Application footprint	310
11.5.5.4	End-user footprint	311
11.5.5.5	Region footprint	312
11.6	COMPANY EVALUATION MATRIX: START-UPS/SMES, 2023	313
11.6.1	PROGRESSIVE COMPANIES	313
11.6.2	RESPONSIVE COMPANIES	313
11.6.3	DYNAMIC COMPANIES	313
11.6.4	STARTING BLOCKS	313
11.6.5	COMPETITIVE BENCHMARKING: STARTUPS/SMES, 2023	315
11.7	COMPANY VALUATION & FINANCIAL METRICS	317
11.8	BRAND/PRODUCT COMPARISON	318
11.9	COMPETITIVE SCENARIO	319
11.9.1	PRODUCT LAUNCHES & UPGRADES	319
11.9.2	DEALS	320
11.9.3	EXPANSIONS	321
12	COMPANY PROFILES	322
12.1	KEY PLAYERS	322
12.1.1	NVIDIA CORPORATION	322
12.1.1.1	Business overview	322
12.1.1.2	Products offered	323
12.1.1.3	Recent developments	324
12.1.1.3.1	Product launches	324

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 12.1.1.3.2 Deals 324
- 12.1.1.4 MnM view 324
 - 12.1.1.4.1 Right to win 324
 - 12.1.1.4.2 Strategic choices 325
 - 12.1.1.4.3 Weaknesses & competitive threats 325
- 12.1.2 ILLUMINA, INC. 326
 - 12.1.2.1 Business overview 326
 - 12.1.2.2 Products offered 327
 - 12.1.2.3 Recent developments 328
 - 12.1.2.3.1 Product launches 328
 - 12.1.2.3.2 Deals 329
 - 12.1.2.4 MnM view 330
 - 12.1.2.4.1 Right to win 330
 - 12.1.2.4.2 Strategic choices 330
 - 12.1.2.4.3 Weaknesses & competitive threats 330
- ?
- 12.1.3 EXSCIENTIA 331
 - 12.1.3.1 Business overview 331
 - 12.1.3.2 Products offered 332
 - 12.1.3.3 Recent developments 332
 - 12.1.3.3.1 Product launches 332
 - 12.1.3.3.2 Deals 332
 - 12.1.3.3.3 Other developments 334
 - 12.1.3.4 MnM view 335
 - 12.1.3.4.1 Right to win 335
 - 12.1.3.4.2 Strategic choices 335
 - 12.1.3.4.3 Weaknesses & competitive threats 335
- 12.1.4 SCHRODINGER, INC. 336
 - 12.1.4.1 Business overview 336
 - 12.1.4.2 Products offered 337
 - 12.1.4.3 Recent developments 338
 - 12.1.4.3.1 Product upgrades 338
 - 12.1.4.3.2 Deals 338
- 12.1.5 RECURSION PHARMACEUTICALS, INC. 340
 - 12.1.5.1 Business overview 340
 - 12.1.5.2 Products offered 341
 - 12.1.5.3 Recent developments 341
 - 12.1.5.3.1 Deals 341
 - 12.1.5.3.2 Expansions 342
- 12.1.6 SOPHIA GENETICS 343
 - 12.1.6.1 Business overview 343
 - 12.1.6.2 Products offered 344
 - 12.1.6.3 Recent developments 344
 - 12.1.6.3.1 Product launches 344
 - 12.1.6.3.2 Deals 345
- 12.1.7 PREDICTIVE ONCOLOGY 347
 - 12.1.7.1 Business overview 347

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

12.1.7.2□Products offered□348
12.1.7.3□Recent developments□348
12.1.7.3.1□Product launches□348
12.1.7.3.2□Deals□348
12.1.8□BENEVOLENTAI□349
12.1.8.1□Business overview□349
12.1.8.2□Products offered□350
12.1.8.3□Recent developments□350
12.1.8.3.1□Deals□350
?
12.1.9□EUROFINS DISCOVERY□351
12.1.9.1□Business overview□351
12.1.9.2□Products offered□352
12.1.9.3□Recent developments□352
12.1.9.3.1□Product launches□352
12.1.9.3.2□Deals□352
12.1.9.3.3□Expansions□354
12.1.10□XTALPI INC.□355
12.1.10.1□Business overview□355
12.1.10.2□Products offered□356
12.1.10.3□Recent developments□356
12.1.10.3.1□Deals□356
12.1.11□DNANEXUS, INC.□358
12.1.11.1□Business overview□358
12.1.11.2□Products offered□358
12.1.11.3□Recent developments□359
12.1.11.3.1□Deals□359
12.1.11.3.2□Other developments□361
12.1.12□NUMEDII, INC.□362
12.1.12.1□Business overview□362
12.1.12.2□Products offered□362
12.1.13□BPG BIO, INC.□363
12.1.13.1□Business overview□363
12.1.13.2□Products offered□363
12.1.13.3□Recent developments□364
12.1.13.3.1□Deals□364
12.1.14□IKTOS.□365
12.1.14.1□Business overview□365
12.1.14.2□Products offered□365
12.1.14.3□Recent developments□365
12.1.14.3.1□Deals□365
12.1.15□INSILICO MEDICINE□366
12.1.15.1□Business overview□366
12.1.15.2□Products offered□366
12.1.16□LOGICA□367
12.1.16.1□Business overview□367
12.1.16.2□Products offered□367

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

12.1.17	AMERICAN CHEMICAL SOCIETY	368
12.1.17.1	Business overview	368
12.1.17.2	Products offered	368
?		
12.1.18	AGANITHA AI INC.	369
12.1.18.1	Business overview	369
12.1.18.2	Products offered	369
12.1.18.3	Recent developments	370
12.1.18.3.1	Deals	370
12.2	START-UP/SME PLAYERS	371
12.2.1	VERISIM LIFE	371
12.2.2	VALO HEALTH	371
12.2.3	TEMPUS AI, INC.	372
12.2.4	LIFEBIT BIOTECH LTD.	373
12.2.5	GENOOX	373
12.2.6	DATA4CURE, INC.	374
12.2.7	DEEP GENOMICS	374
13	APPENDIX	375
13.1	DISCUSSION GUIDE	375
13.2	KNOWLEDGESTORE: MARKETSandMARKETS' SUBSCRIPTION PORTAL	382
13.3	CUSTOMIZATION OPTIONS	384
13.4	RELATED REPORTS	384
13.5	AUTHOR DETAILS	385

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.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

Market Report | 2024-10-28 | 386 pages | MarketsandMarkets

To place an Order with Scotts International:

- Print this form
- Complete the relevant blank fields and sign
- Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Single User	\$4950.00
	Multi User	\$6650.00
	Corporate License	\$8150.00
	Enterprise Site License	\$10000.00
		VAT
		Total

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*	<input type="text"/>	Phone*	<input type="text"/>
First Name*	<input type="text"/>	Last Name*	<input type="text"/>
Job title*	<input type="text"/>		
Company Name*	<input type="text"/>	EU Vat / Tax ID / NIP number*	<input type="text"/>
Address*	<input type="text"/>	City*	<input type="text"/>

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Zip Code*

Country*

Date

2026-06-09

Signature

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com