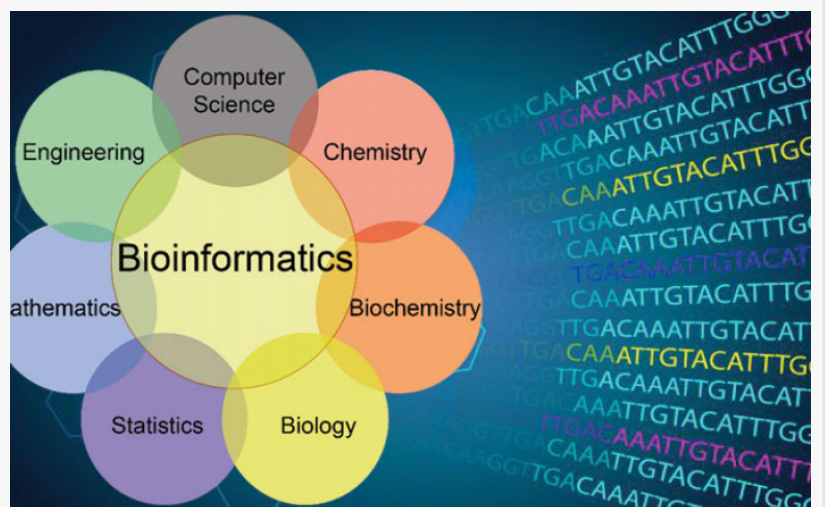# Bioinformatics Market Accelerates on Genomic Data and AI Tools | DataM Intelligence

Bioinformatics market grows rapidly, driven by genomics research, AI integration, precision medicine, and rising demand for data-driven drug discovery.

TEXAS, TX, UNITED STATES, July 30, 2025 /EINPresswire.com/ -- Bioinformatics is the computational domain of biological data analysis including genomics, proteomics, drug discovery and precision medicine is powering modern life sciences. Based on DataM Intelligence analysis, the global bioinformatics market was

Bioinformatics Market

valued at approximately USD 11.4 billion in 2022, and is expected to reach about USD 29.1 billion by 2031, with a CAGR of 12.8% from 2022 to 2031. Growth is propelled by surging demand for next-generation sequencing (NGS), AI/ML analytics, and cloud-based data tools supporting drug discovery and translational research.

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Bioinformatics Market Segments

By Product & Services:

Bioinformatics platforms command the largest share, offering integrated workflows for sequence processing and data visualization. Meanwhile, bioinformatics services including custom analytics and outsourced pipelines are registering the fastest growth as genomics adoption expands across biotech and clinical research sectors.

By Application:

Genomics leads with the highest application share, reflecting dominance in large-scale sequencing projects and precision medicine use cases. Chemoinformatics & drug design is growing fastest, driven by rising demand for virtual screening, molecular docking and AI-assisted therapeutic discovery workflows.

Bioinformatics Market Players

Major vendors shaping global bioinformatics include:

• Thermo Fisher Scientific, Illumina, Agilent Technologies, QIAGEN, SOPHiA GENETICS, BGI Group, Eurofins Scientific, DNAnexus, Seven Bridges Genomics and Strand Life Sciences. These organizations offer sequencing instruments, platform software, and managed analytics, often embedding AI pipelines to accelerate insights and reduce drug development cycles.

Regional Market Dynamics in Bioinformatics

• North America dominates the market (~44–46% share in 2024), backed by deep biotech infrastructure, national genomic initiatives, and strong venture funding for AI-driven biology.
• Asia Pacific is the fastest-growing region (expected CAGR ~18–19%), led by China, India and Japan expanding sequencing centers, research startups, and cloud-based analytics infrastructure.
• Europe maintains a substantial share, supported by collective EU genomics investments, precision medicine strategies, and startups across Switzerland, France, UK and Germany.
• Latin America is expanding gradually, with research hubs in Brazil and Argentina investing in regional genomics collaboration and bioinformatics adoption.
• Middle East & Africa remain nascent, though initiatives in South Africa, UAE, and Saudi Arabia are integrating bioinformatics tools into regional infectious disease and cancer research projects.

Looking for in-depth insights? Grab the full report: https://www.datamintelligence.com/buy-now-page?report=bioinformatics-market

Recent Investments & Strategic Developments in Bioinformatics

United States
• June 2025: SoftBank–Tempus AI joint venture extended into the U.S. Genome and clinical data analytics in Japan; supported by a USD 200M injection from SoftBank, enhancing AI powered treatment decision tools across bioinformatics workflows.

Japan
• In April 2025, Tempus AI's Japanese JV with SoftBank received government regulatory clearance to roll out genomic treatment recommendation services in Japan, making it one of the first global

bioinformatics platforms based on U.S. patient data deployed in Asia.

Europe
• July 2025: BioNTech's acquisition of CureVac (USD 1.25 billion) enhances its AI and bioinformatics-driven mRNA R&D platform, boosting Europe's capacity for integrated data-centric drug design.

Innovation & Growth Drivers in Bioinformatics

• AI & Machine Learning: Cloud-based ML algorithms enabling real-time genomic interpretation, phenotype prediction, and biomarker discovery are core to platform adoption.
• Scaling NGS Projects: With global genomic datasets rapidly swelling multiple exabytes per year the need for high-throughput analysis drives demand for scalable bioinformatics services.
• Cloud & SaaS Platforms: Adoption of Bioinformatics-as-a-Service is accelerating, allowing labs and pharma to outsource data pipelines with rapid deployment and cost flexibility.
• Public/Private Data Collaborations: Large consortiums like UK Biobank and NIH's All of Us rely on standardized bioinformatics infrastructure, stimulating industry growth.

Bioinformatics Market Challenges & Future Outlook

Challenges:

• Data Privacy & Regulatory Complexity: International bio-data sharing demands strict compliance and secure frameworks, especially as cross-border pipelines expand.
• Talent Bottlenecks: Skilled bioinformatics professionals remain limited, particularly in emerging markets, with cost pressure and outsourcing raising workforce concerns.

Future Outlook:

With market valuation set to rise nearly fourfold from 2024 to 2032, bioinformatics is foundational to next-generation healthcare and biotech innovation. Stakeholders prioritizing cloud deployment, AI-embedded workflows, and global data collaboration across North America, Asia-Pacific and Europe will lead in precision medicine, drug discovery, and multi omics analysis.

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