

Market Analysis on Biotechnology and Bioengineering

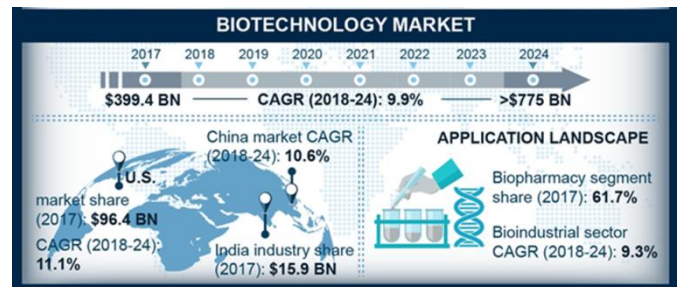
Biotechnology is a science that incorporates technology with biological systems, living organisms to develop different products of the required specific characters.

Today, biotechnology covers different genres such as genetics, biochemistry, molecular biology, etc. New technologies, advancements and products are developed every year in the areas of medicine (development of new medicines and therapies), agriculture (development of genetically modified plants, biofuels, and biomedical treatment), and industrial biotechnology (production of chemicals, paper, textiles and food), etc.

Some of the prominent business players operational in biotechnology market include Abbott Laboratories, Agilent Technologies, Amgen, Biogen Scientific, Bio-Rad Laboratories, Danaher, F. Hoffmann-La Roche, Illumina, Merck, PerkinElmer, Qiagen and Thermo Fisher Scientific. These business players implement strategic initiatives such as merger, new product launch and acquisitions to uphold their position in the market and strengthen their product offerings. For instance, May 2018, Illumina announced that it acquired Edico Genome that is a provider of data analysis speeding up solutions for next-generation sequencing (NGS). This acquisition is aimed to reduce time required for results.

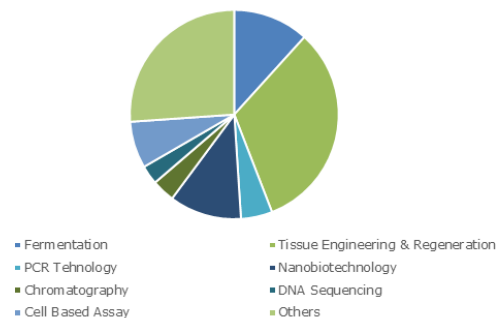
With the development of genetic engineering in the 1970s, research in biotechnology (and other related areas such as medicine, biology etc.) developed rapidly because of the new possibility to make changes in the organisms' genetic material (DNA). The increasing prevalence of chronic and life-threatening diseases has prompted pharmaceutical companies and research firms to focus on R&D activities for the development of effective therapeutics. As a result, advances in life sciences research is leading to an improved understanding of biological systems. The development of oligonucleotide synthesis technologies has helped pharmaceutical and biotechnology researchers with molecular-level development, design, and modification of biological systems. The increasing research activities in the pharmaceutical and biotechnology sectors will lead to the expansion of the global oligonucleotide synthesis market at a CAGR of over 10% during the forecast period.

The global antiviral drug resistance market is expected to reach US\$ 4,573.24 Mn in 2027 from US\$ 2,572.26 Mn in 2018. The Antiviral drug resistance market is estimated to grow with a CAGR of 6.8% from 2019-2027.



The global Molecular Biology Enzymes and Kits & Reagents Market was valued at USD 5.21 billion in 2016 and is projected to reach USD 18.66 billion by 2025, growing at a CAGR of 15.23% from 2017 to 2025.

The fast and rapid growth of Biotech sector has resulted increase in investments in the kits and enzyme production companies. The products are in high demand due to increasing implementation of biotechnology In pharmaceutical drug development and testing. The market is seeing a positive value trend analysis.



List of Biotechnology Companies

USA Biotechnology Companies:

[Amgen](#) | [Gilead Sciences](#) | [Novo Nordisk](#) | [Biogen](#) | [CSL](#) | [Allergan](#) | [Takeda Pharmaceuticals](#) | [Celgene](#) | [Vertex Pharmaceuticals](#) | [Regeneron Pharmaceuticals](#) | [Jiangsu Hengrui Medicine](#) | [Alexion Pharmaceuticals](#) | [Celltrion](#) | [Samsung Biologics](#) | [Teva Pharmaceutical Industries](#) | [Sun Pharmaceutical Industries](#) | [BioMarin Pharmaceutical](#) | [Mylan](#) | [UCB](#) | [Sinopharm Group](#) | [Incyte](#) | [WuXi Apptec](#) | [Yunnan Baiyao Group](#) | [China Resources Pharmaceutical Group](#) | [Perrigo](#) | [LLTECH systems](#) | [Los Alamos National Laboratory](#) | [Media Cybernetics](#) | [MetaSystems](#) | [Olympus America](#) | [Optronics](#) | [Orchard Pathology](#) | [PathCentral](#) | [Psyche Systems](#) | [Remote Technologies](#) | [Sunquest CoPathPlus](#) | [Ventana Medical Systems](#) | [Visiopharm](#)

Europe Biotechnology Companies:

[Regeneron Pharmaceuticals](#) | [Alnylam Pharmaceuticals](#) | [BridgeBio](#) | [Ilya Pharma](#) | [CeMM - Research Center for](#)

[Molecular Medicine of the Austrian Academy of Sciences](#) | [MRC Laboratory of Molecular Biology](#) | [Genome British Columbia](#) | [Institut Pasteur](#) | [Magnisense](#) | [IFOM The FIRC Institute of Molecular Oncology Foundation](#) | [SOLEIL Synchrotron](#) | [Boehringer Ingelheim](#) | [CRCL - Cancer Research Centre of Lyon](#) | [iMM Lisboa - Instituto de Medicina Molecular](#) | [EBI - European Bioinformatics Institute](#) | [Clinical Pathology Laboratories](#) | [Archives-Pathology & Lab Med](#)

Middle East Biotechnology Companies:

[Al Zahrawi Medical](#) | [Qatar Scientific Company](#) | [Afghanpharma](#) | [AL Baker](#) | [Biotech Pharma Services](#) | [Pharmalink](#) | [Pharma Trade](#) | [Planet Pharmacies LLC](#) | [Julphar Gulf Pharmaceutical Industries](#) | [QIAGEN Biosytech](#) | [BioFunds.org](#) | [ProSpec](#) | [Global Hawk Imaging & Diagnostics](#) | [Allied Diagnostics](#) | [Gulf Diagnostics Center WLL](#) | [Medsol Diagnostics](#) | [Minerva Diagnostics laboratory](#)

Asia Biotechnology Companies:

[Dr Lal PathLabs Pvt Ltd](#) | [Riken Genesis](#) | [Asclepis – RNAi Therapeutic](#) | [City Diagnostic and Health Care Clinic](#) | [ForteBio](#) | [Acton Biotech](#) | [Dr. Dangs Pathology Labs](#) | [Helix Pathlabs](#) | [Clontech](#) | [Mullackals](#) | [SwitchGear Genomics](#) | [Piramal Diagnostics](#) | [Abgent](#) | [YSS enzymes](#) | [SRL Diagnostics Ltd](#) | [Xcelris Genomics](#) | [Thyrocare Technologies Ltd](#) | [Schrodinger](#) | [CLC Bio](#) | [Biocon](#) | [Syngene](#) | [Panagene](#) | [ToolGen](#) | [3D Matrix](#) | [Integrated DNA Technologies](#) | [Ayoxxa](#) | [Austrianova Biotechnology](#) | [Vivantis Technologies](#)

African Biotechnology Companies:

[Alere Inc](#) | [Bio-Reference Laboratories](#) | [DaVita Healthcare Partners Inc.](#) | [Genomic Health Inc.,](#) | [Synexa Life Sciences](#) | [Myriad Genetics Inc.,](#) | [NeoGenomics Inc.,](#) | [Quest Diagnostics Inc.,](#) | [Kapa Biosystems](#) | [Sonic Healthcare Limited](#) | [Biotech Africa](#) | [SYNLAB International GMBH](#)

Australian Biotechnology Companies:

[Clinical Centre of Serbia](#) | [Charite – Universitätsmedizin Berlin](#) | [Starna](#) | [Cynata](#) | [PX Biosolutions](#) | [Regeneus](#) | [Antisense Therapeutics](#) | [Integrated DNA Technologies](#) | [BMG Labtech](#) | [PolyActiva](#) | [Genetic Signatures](#) | [Viralytics](#) | [Benitec](#) | [Innate Immunotherapeutics](#)

List of Biotechnology Universities

USA Biotechnology Universities:

[McGill University](#) | [Purdue University](#) | [Tufts University](#) | [University of Connecticut](#) | [University of Illinois at Urbana-](#)

[Champaign](#) | [Bastyr University](#) | [New York Chiropractic College](#) | [The University of Bridgeport](#) | [Boston University](#) | [Colorado State](#) | [Cornell University](#) | [Harvard University](#) | [Clemson University](#) | [University of California](#) | [University of Washington](#) | [University of Delaware](#) | [Ohio State University](#) | [Rutgers University](#) | [Stanford University](#) | [Duke University](#) | [Brown University](#) | [University of California](#) | [Scripps Research Institute](#) | [Johns Hopkins University](#) | [University of Michigan](#) | [Yale University](#) | [University of Maryland](#)

Europe Biotechnology Universities:

[University of göttingen](#) | [Wageningen University](#) | [University of Helsinki](#) | [University of Gothenburg](#) | [European University Cyprus](#) | [University of Nottingham](#) | [University of Illinois](#) | [University of Copenhagen](#) | [Universität Wien](#) | [University of Oxford](#) | [University of Cambridge](#) | [University College London](#) | [The University of Manchester](#) | [King's College London](#) | [Moscow State University](#) | [Universidade de Lisboa](#) | [Moscow State University](#) | [Lancaster University](#) | [The University of York](#) | [University of Twente](#) | [University of Valencia](#) | [Lunds university](#) | [Swiss Federal Institute of Technology Zurich](#) | [The University of Edinburgh](#) | [Catholic University of Leuven](#) | [Free University of Berlin](#) | [University of Oslo](#) | [University of Southampton](#) | [Newcastle University](#) | [Carinthia University of Applied Sciences](#)

Asia Biotechnology Universities:

[National University of Singapore](#) | [University of Hong Kong](#) | [KAIST - Korea Advanced Institute of Science & Technology](#) | [Nanyang Technological University, Singapore](#) | [Hong Kong University of Science and Technology](#) | [The Chinese University of Hong Kong](#) | [Peking University](#) | [Seoul National University](#) | [Tsinghua University](#) | [The University of Tokyo](#) | [Osaka University](#) | [Kyoto University](#) | [Hokkaido University](#) | [University of Science and Technology of China](#) | [Nanjing University](#) | [Hanyang University.](#)

Middle East Biotechnology Universities:

[Arabian Gulf University](#) | [Royal College of Surgeons in Ireland](#) | [Mohammed bin Rashid University](#) | [Jordan University of Science and Technology](#) | [Hashemite University](#) | [University of Jordan](#) | [Mutah University](#) | [Yarmouk University](#) | [Kuwait University](#) | [Oman Medical College](#) | [Sultan Qaboos University](#) | [King Saud bin Abdulaziz University for Health Sciences](#) | [Salman bin abdraziz university](#) | [Alfaisal University](#) | [Imam Muhammad ibn Saud Islamic University](#) | [King Abdulaziz](#)

[University](#) | [King Saud University](#) | [University of Dammam](#) | [Al-Majmaah University](#) | [Maarefa Medical College](#) | [Dubai Medical College](#) | [Gulf Medical University](#) | [United Arab Emirates University](#) | [University of Sharjah](#) | [Ras al-Khaimah Medical and Health Sciences University](#) | [Masdar Institute of Science & Technology](#) | [Gulf Medical University](#) | [American University of Ras al Khaimah AURAK](#) | [Alhosn University](#) | [Canadian University of Dubai](#)

African Biotechnology Universities:

[University of Cape Town](#) | [University of Pretoria](#) | [University of South Africa](#) | [University of the Witwatersrand](#) | [University of KwaZulu-Natal](#) | [Universities Stellenbosch](#) | [University of Johannesburg](#) | [North-West University](#) | [University of Nairobi](#) | [University of the Western Cape](#) | [The American University](#) | [University of Ibadan](#) | [Cairo University](#) | [Cape Peninsula University of Technology](#) | [Addis Ababa University](#) | [Egerton University](#) | [University of Ghana](#) | [University of Nigeria](#) | [Eduardo Mondlane University](#) | [University of Lago](#) | [Kenyatta University](#) | [Durban University of Technology](#) | [Covenant University](#) | [Kwame Nkrumah University of Science and Technology](#) | [Mansoura University](#) | [University of Dar es Salaam](#) | [Ahmadu Bello University](#) | [Ain Shams University](#) | [Jimma University and Ethiopia](#) | [Alexandria University](#)

Australian Biotechnology Universities:

[Australian National University](#) | [Australian Catholic University](#) | [Australian National University](#) | [Carnegie Mellon University - Australia](#) | [Central Queensland University](#) | [Charles Darwin University](#) | [Charles Sturt University](#) | [Deakin University](#) | [Edith Cowan University](#) | [Federation University Australia](#) | [Flinders University](#) | [Griffith University](#) | [James Cook University](#) | [La Trobe University](#) | [Macquarie University](#) | [Monash University](#) | [Murdoch University](#) | [Queensland University of Technology](#) | [Royal Melbourne Institute of Technology](#) | [Southern Cross University](#) | [The University of Notre Dame Australia](#) | [University of Queensland](#) | [University of South Australia](#) | [University of Southern Queensland](#) | [University of the Sunshine Coast](#) | [University of Sydney](#) | [University of Tasmania](#) | [University of Technology Sydney](#) | [The University of Western Australia](#) | [University of Wollongong](#) | [Western Sydney University](#) | [Victoria University](#)

List of Biotechnology Journals

[The Journal of Biochemistry & Molecular Biology](#) | [Journal of Plant And Animal Biochemistry](#) | [Journal of Clinical Biochemistry & Molecular Biology](#) | [European Journal of Biochemistry & Molecular Biology](#) | [Medical](#)

[And Pharmaceutical Biochemistry](#) | [Quantitative Biology And Biophysics](#) | [Nature Reviews Biochemistry & Molecular Biology](#) | [Biochemistry & Molecular Biology](#) | [Nature Biochemistry & Molecular Biology](#) | [International Biochemistry & Molecular Biology](#) | [Carbohydrates](#) | [International Reviews of Biochemistry & Molecular Biology](#) | [Medical Genetics](#) | [Bioorganic And Biological Chemistry](#) | [Biochemistry & Molecular Biology journal](#) | [Agricultural And Food Chemistry](#) | [Molecular Development Biology](#) | [Journal of Quantitative Biology And Biophysics](#) | [Journal of Nano Biochemistry](#) | [Journal of Structural Biology](#) | [International journal of Food Chemistry](#) | [journal of Enzymology & Biochemistry](#)

Biotechnology Associations

[Federation of European Biochemical Societies](#) | [International Union of Biochemistry and Molecular Biology](#) | [Federation of Asian and Oceanic Biochemistry and Molecular Biology](#) | [American Society for Biochemistry and Molecular Biology](#) | [Association of Clinical Biochemists of India](#) | [Australasian Association of Clinical Biochemists](#) | [Australian Society of Biochemistry and Molecular Biology](#) | [Belgian Society of Biochemistry and Molecular Biology](#) | [Biochemistry and Biomedical Sciences Society](#) | [Biochemistry Society](#) | [British Society for Proteome Research](#) | [Canadian Society for Molecular Biosciences](#) | [Egyptian society of Biochemistry and Molecular Biology](#) | [Hong Kong Society of Biochemistry and Molecular Biology](#) | [International Society of Nucleosides, Nucleotides, & Nucleic Acids](#) | [Italian Society of Biochemistry and Molecular Biology](#) | [Singapore Society for Biochemistry and Molecular Biology](#) | [Society for Plant Biochemistry and Biotechnology](#)

Biotechnology Societies

[Federation of European Biochemical Societies](#) | [International Union of Biochemistry and Molecular Biology](#) | [Federation of Asian and Oceanic Biochemistry and Molecular Biology](#) | [American Society for Biochemistry and Molecular Biology](#) | [Australian Society of Biochemistry and Molecular Biology](#) | [Belgian Society of Biochemistry and Molecular Biology](#) | [Biochemistry and Biomedical Sciences Society](#) | [Biochemistry Society](#) | [British Society for Proteome Research](#) | [Canadian Society for Molecular Biosciences](#) | [Egyptian society of Biochemistry and Molecular Biology](#) | [Hong Kong Society of Biochemistry and Molecular Biology](#) | [International Society of Nucleosides, Nucleotides, & Nucleic Acids](#) | [Italian Society of Biochemistry and Molecular Biology](#) | [Singapore Society for Biochemistry and Molecular Biology](#) | [Society for Plant](#)

[Biochemistry and Biotechnology](#) | [Swedish Mass Spectrometry Society](#) | [Swiss Society of Crystallography](#) | [The Croatian Society of Biochemistry and Molecular Biology](#) | [The Danish Society for Biochemistry and Molecular Biology](#)