# Biopharmaceuticals Market, Size, Share, Growth, Opportunity and Forecast, 2021-2028 | DataM Intelligence

The Global Biopharmaceuticals Market is expected to grow at a CAGR of 14.20% during the forecasting period (2021-2028).



# California, Altadena, Aug 5, 2021 (<u>Issuewire.com</u>) - Market Overview

Biopharmaceuticals are large and complex molecular drugs that are mainly obtained from proteins and nucleic acids of living organisms such as microorganisms and animal cells also known as transgenic organisms. These drugs are obtained using biotechnology and have high therapeutic value. Biopharmaceuticals are also known as biologics and biotech drugs and are usually administered by intravenous, subcutaneous, or intramuscular injections and are more efficient than conventional small molecule drugs. Biopharmaceuticals are an alternative to the previously less effective and sometimes unsafe treatments and offer several benefits. Biopharmaceutical's benefits include highly effective and potent action, fewer side effects, can be tailored according to specific medical requirements of patients and they hold the potential to actually cure diseases at the root level. Biopharmaceuticals have reduced the number of deaths due to cancer and HIV/AIDS in the past decade and have changed the treatment of several chronic diseases, such as diabetes and cardiovascular diseases.

Some of the biopharmaceuticals include monoclonal antibodies, erythropoietin, growth hormones, recombinant proteins, recombinant human insulin, purified proteins, interferon, and vaccines.

Recombinant human insulin was amongst the first substances to be approved for therapeutic purposes, and currently, there are nearly 300 biopharmaceutical products that have been approved and are available in the market.

#### **Market Drivers**

The major drivers fueling the growth of the market are an increase in the elderly population, the surge in prevalence of chronic diseases such as cancer and diabetes, an increase in obesity and sedentary lifestyle among the population, and growing acceptance for biopharmaceuticals due to their ability to treat previously untreatable diseases. Furthermore, approval for newer biopharmaceutical products and continuous R&D in this segment is expected to increase the growth of the market.

According to the World Health Organization (WHO), cancer is the second leading cause of death globally and is responsible for an estimated 9.6 million deaths in 2018. About 1 in 6 deaths worldwide, is due to cancer. Moreover, approximately 100 million people in the year 2018 all over the world needed insulin out of which 63 million were obese, including all the people living with Type 1 diabetes and between 10-25% of people with type 2 diabetes. A sedentary lifestyle leads to several chronic diseases thus boosting the market growth.

Biopharmaceuticals hold the potential to cure the disease entirely and not just the symptoms, hence increasing its acceptance. According to the United Nations (UN) statistics, about 65% of the drugs approved in the market in 2017 are based on biotechnology.

#### **Market Restraints**

High costs associated with drug development and their threat of failure, challenging development process, and strict regulatory framework are going to restrain the market in the forecast period.

Generally, the development of a biopharmaceutical product takes around 5 to 9 years and costs over \$ 100 million. The regulatory framework plays a major role in deriving incentives for investment and establishing sufficient quality and safety for biomedical products. The WHO has set strict approval standards for biopharmaceuticals.

# **Market Segmentation**

The global biopharmaceuticals market is segmented by product as Monoclonal Antibodies, Recombinant growth factors, Purified Proteins, Recombinant Proteins, Recombinant Hormones, Synthetic Immunomodulators, Vaccines, and Recombinant enzymes. Monoclonal antibodies are further segmented as Anti-Cancer Monoclonal Antibodies, Anti-Inflammatory Monoclonal Antibodies, and Other Monoclonal Antibodies. Recombinant growth factors are further segmented as Erythropoietin and Granulocyte Colony Stimulating Factor. Purified Proteins are further segmented as Leukaemia Inhibitory Factor (LIF), P53 Protein, and P38 Protein. Recombinant Proteins are further segmented as Serum Albumin, Amyloid Protein, Defensin, Cyclase, Caspase, and Cathepsin. Recombinant Hormones are further segmented as Recombinant Human Growth Hormone (HGH) and Recombinant Insulin. Synthetic Immunomodulators are further segmented as Cytokines, Interferons, Interleukins, and Tumour Necrosis Factor (TNF). Vaccines are further segmented as Recombinant Vaccines and Conventional Vaccines. Recombinant enzymes are further segmented as Enterokinase and Transferrin.

By application, the market is segmented as oncology, inflammatory and infectious diseases, autoimmune disorders, metabolic disorders, hormonal disorders, disease prevention, cardiovascular

diseases, and neurological diseases.

Monoclonal Antibodies are the emerging technology that is identical to immune cells and represents a copy of the unique parent cell. As the <u>biopharmaceutical market</u> in the US and the rest of the world continues to expand, the sales of monoclonal antibody products have grown from approximately \$50 billion in 2010 to almost \$90 billion in 2015, an increase of 1.8 times. In 2018, the monoclonal antibodies market segment accounted for a market share of more than 40% of the global biopharmaceutical market.

Anti-cancer monoclonal antibodies help cure cancer more efficiently. Cancer is the largest segment by application and accounts for more than 20% of the market share. According to the <u>WorldCancer Fund</u>, cancer is a global health problem responsible for 7.6 million deaths (13% of all deaths) worldwide and is expected to rise to 13.1 million by 2030. Around 49% of the drugs used in cancer treatment were either natural products or their derivatives.

# **Geographical Analysis**

Geographically, the global Biopharmaceuticals market is divided into North America, Europe, South America, Asia-Pacific, and the Middle East, and Africa.

In North America, the US biopharmaceuticals market accounted for the largest market share of 46%, followed by Canada. The US is the largest free-pricing market globally for pharmaceuticals and has high per capita incomes, a large elderly population, and high rates of chronic diseases and drug consumption. According to the Pharmaceutical Research and Manufacturers Association (PhRMA), U.S. firms conduct over half the world's research and development(R&D) in pharmaceuticals and hold the intellectual property rights on most new medicines.

Asia-Pacific is expected to grow at a steady pace of <u>CAGR 8.34%</u> over the period of forecast. The reason being the encouragement of innovation and price reforms in Japan. Supporting government regulations, advanced technological presence, good infrastructural facilities are some of the major factors for the market growth in the region. For instance, Japan government has set up Japan Agency for Medical Research and Development (AMED) to centralize decision-making for strategies and budget allocations, and build a one-stop R&D system and promote R&D among the private sector.

# **Competitive Analysis**

Some of the major market players are AbbVie Inc., Amgen, Bayer, Biogen, Bristol-Myers Squibb, Merck & Co., Inc., Novartis AG, Novo Nordisk, Pfizer, GlaxoSmithKline PLC, Sanofi S.A., and Takeda Pharmaceuticals.

Roche, Sanofi, AbbVie, Pfizer, and Merck are the top five companies in the market and account for more than 50% of the biopharmaceutical market share. Many of the biopharmaceutical products are in the late stages of clinical development. Under huge economic pressures to increase the outputs, pharmaceutical manufacturers have embraced biopharmaceuticals, and have a huge number of products in their pipelines. Out of every 10 biopharmaceutical drugs that enter the clinical phases, only three manage to gain market approval. As of 2017, around 75% of the total products available in the pipeline belong to biopharmaceuticals, providing large scope for the market in the future.

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