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Commentary

Significance of Biopharmaceutical Biologics in COVID-19

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COMMENTARY

Separation of a biopharmaceutical or a biological product of interest such as a monoclonal antibody, protein, and cells on a large scale from a complex mixture of biomolecules is generally referred to as biopharmaceutical bioseparation. This purification of desired biomolecules has made the life sciences sector a very better demographic sector in the emerging market. These biopharmaceutical biological products are being exploited for their beneficial chemical properties such as metabolic activity, neurological activity, and antibacterial activity. The exploitation of these products is significantly generating very high income globally. These innovations are facilitated by rigorous R&D efforts by global players and academia in all the segments mentioned above. The world of medicine has seen a new wave of therapies that are specific and targeted to a particular patient. Demand for more targeted biological solutions is likely to increase significantly, as drugs and therapies evolve to meet the demand for a more targeted approach.

Biological products and other biopharmaceuticals played a very crucial role in this global pandemic COVID-19. Demand for more targeted biological serums, vaccines, and other therapeutic drugs is likely to increase significantly, as drugs and therapies evolve to meet the demand for a more targeted approach. Purification of these biological products and biopharmaceuticals through bioseparation involves a sequence of cumbersome steps comprising filtration, extraction, chromatography, drying, and analysis. The global market of biopharmaceutical bioseparation systems can be segregated based on technique. The biopharmaceutical industry is one of the major contributors to global economic progress. Due to globalization, outsourcing of biopharmaceutical processes has increased to a great extent. With the complexity of processes and technology-oriented industry, companies started finding it feasible for outsourcing processes to experts. Outsourcing also helped corporate in cost reduction and better focus on core business segments. Once considered as a cost-saving alternative, outsourcing of biopharmaceutical business is now a strategic decision. The biopharmaceutical bioseparation systems market can be divided into cell disruption technology, ultrasonic separation, centrifugation technology, membrane-based bioseparation, precipitation, extraction technique, filtration technologies, and chromatography technique. Major to minor modifications, alterations, and replacement of products have been expected to drive the biopharmaceutical bioseparation systems market during the global pandemic. In addition to that, ongoing research and development in fields such as genetics and genomics, pharmaceutical sciences, and biotechnology will require higher investments by end-users for equipment to ensure the rising research and analysis needs. Moreover, consumer requirements for automation will lead to an increase in demand for automated bioseparation systems that handle multiple samples with a high degree of accuracy rendered by automation.

This is attributed to various regions being at the forefront of medicinal export and import, with many key biopharmaceutical companies all around the world. The high adoption of novel treatment options and rapidly growing population leading to rising expenditure on the healthcare market in the world makes it one of the most profitable markets for biopharmaceutical bioseparation systems. The rise in income levels in emerging markets has increased health care spending. Moreover, changing lifestyles and an increase in urbanization in these countries have led to a gradual escalation in the incidence of lifestyle-related diseases such as cancer, diabetes, and heart disease. This has opened up multiple avenues for expansion in the biopharmaceutical sector to conduct research and allocate a substantial budget for the same.

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CONFLICT OF INTEREST

The author has declared that no competing interests exist.

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