

SEEING THROUGH THE CLOUDS: OPPORTUNITIES AND GLOBAL CHALLENGES FOR BIOTECH COMPANIES

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In the pharmaceutical industry, as in many others, the COVID-19 pandemic suddenly forced Companies to operate differently. COVID-19 vaccine success stories helped highlight the biotech industry's significant impact in advancing HealthCare.

Above all, the development programs for COVID-19 vaccines will be remembered for an unprecedented level of collaboration among mature, global Pharmaceutical Companies, young Biotech Companies, Academic research Labs, Health Authorities, Regulatory Agencies, and, last but not least, a range of public and private Institutions that committed funding, research, and other resources.

Thousands of scientists and physicians at labs and hospitals have executed experimental and clinical trials, engineers at contract manufacturing organizations, logistics companies and government agencies have participated in global supply chains, digital-solutions developers and government administrators at all levels have contributed.

Today the global biotech sector is flourishing; private and public biotech funding, including global Venture Capital (VC) investments, deals, and IPOs, reached all-time highs in 2021. The surge in financing helped the global biotech sector outperform its sister industry, pharmaceuticals and medtech sectors.

Actually Vaccines are considered to be our first choice for beating COVID-19 and many governments are counting on them to enable economic recovery. But to inoculate people worldwide as soon as vaccines are proven will require that the pharmaceutical industry to grow up quickly to unprecedented volumes of supply. The available global production capacity will be critical to that capability.

The disruptive potential of some of the novel technology platforms that have come out of COVID-19 research may open the door for more interest and disruptive innovation in this field. The role of Technology Transfer is crucial, pushing the knowledge about the ability to produce a new biotech drug from development to manufacturing. To ensure adequate and timely supplies of new drugs and treatments, global Institutions and Biopharma companies must collaborate to make Tech Transfer an industrialized process, we need it. Remember, be prepared for the next generation of drugs.....

Many of the factors that helped compress development timelines for the COVID-19 vaccine were specific to this global pandemic and likely cannot be replicated in all future drug development programs. However, recent events may prompt Governments and Companies to reconsider how they value their pandemic preparedness and prioritize their investments. For instance, first of all funding Research, additionally, there are other, broader lessons for Companies and Governments on how to help accelerate the development of new medicines. Producing complex pharmaceuticals is not just a matter of building the required production line or tech hardware; it also involves a complex and totally innovative manufacturing process, a large team of experts and the right regulatory approach.

The unprecedented pace and scale of technological disruption brought on by the new Biotech industrial revolution is affecting the operations function across all industries. Manufacturers are introducing advanced technologies, automating and digitizing processes,

and applying advanced analytics to Data, for instance Artificial Intelligence and Machine Learning for Drug Discovery and Development. The Life Sciences sector is also facing its own disruptions, for example, new business models, such as personalized medicine, and new product modalities, for instance, cell and gene therapy.

Rising to meet these challenges, Biotech and Pharmaceutical Companies are testing a multitude of technological breakthrough and innovative strategies that address all aspects of research and drug development. For companies prepared to keep abreast of the rapid pace of change, these innovations offer a path for paving the way in the next generation of products and technologies.