



COVID  
IMPACT

Life  
Sciences

Simplify > Accelerate > Grow

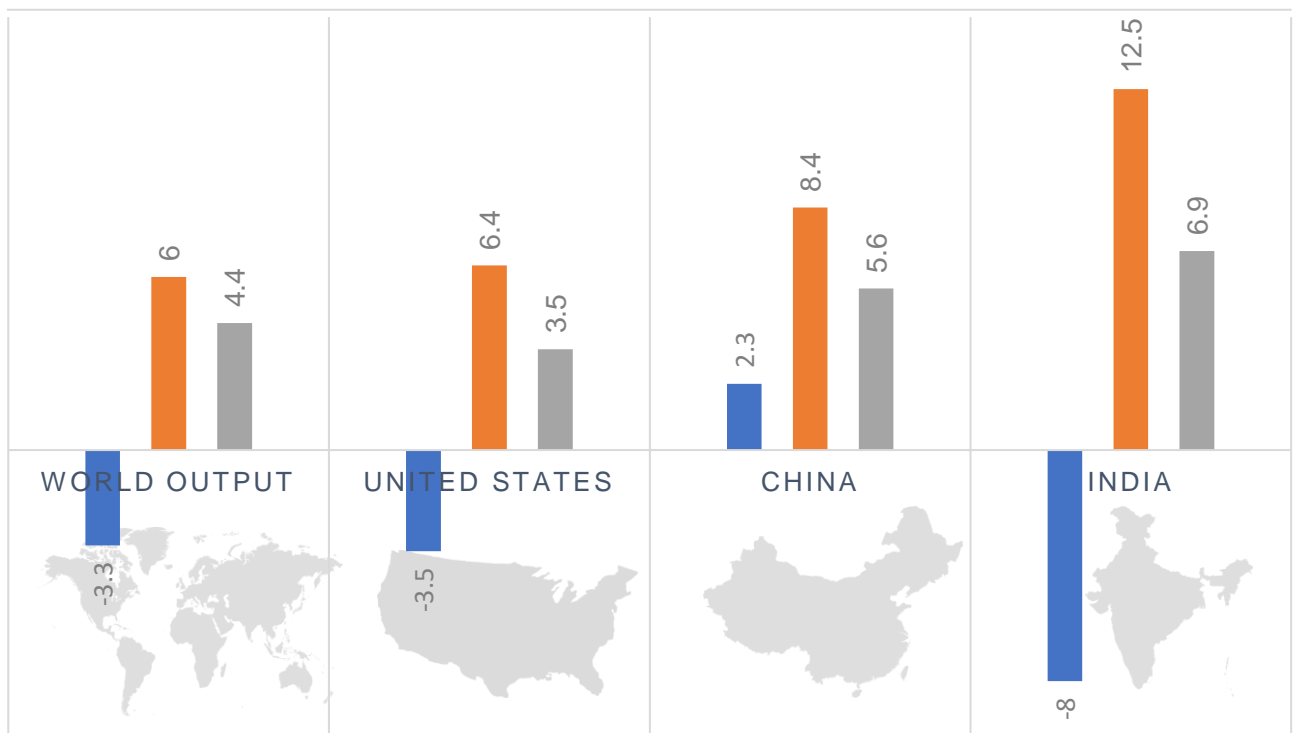
**pie**  
PIERIAN SERVICES

## An Overview

The global pandemic, novel coronavirus has been devastating for the world economy at large. Besides the loss of millions of lives, the pandemic has brought enormous strain on the global economy due to business disruptions and shutdowns from social distancing norms. The global growth contracted in 2020 but IMF is now projecting a stronger recovery in 2021. The growth is projected at 6 percent for the global economy in 2021 and 4.4 percent in 2022. U.S. economy will witness a 6.4 percent growth in 2021, the report added. The recent vaccine approvals have raised hopes for a faster economic recovery amid exceptional uncertainty. The 2021 forecast for the global economy is revised up 0.5 percentage points relative to the previous forecast, expecting a faster recovery due to partial resumption of economic activities and fiscal policy support including economic stimulus packages announced in major economies.

### Exhibit 1 : Economic Outlook Growth projections - Annual percentage change

■ 2020 ■ 2021 ■ 2022 (Source: World Economic Outlook April 2021, IMF)



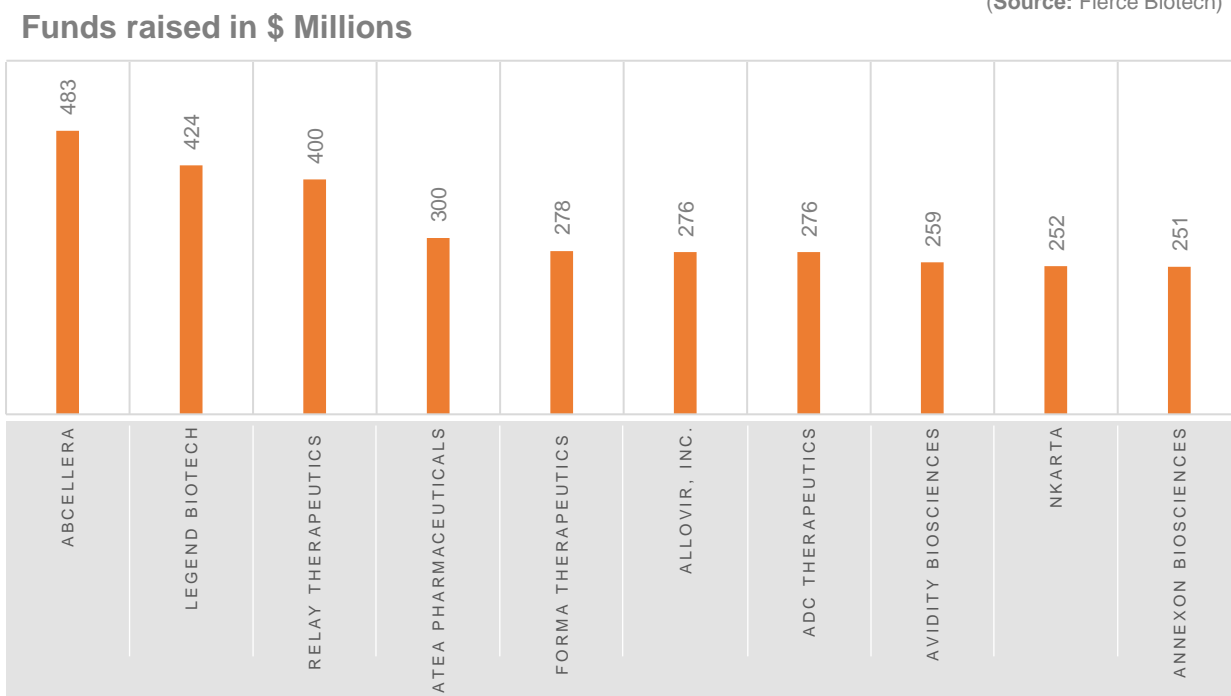
The life sciences sector responded to the unforeseen challenges created by the pandemic and took the center stage in the fight against Covid-19. The need for convergence between different life science sectors (R&D, pharma, biotech, start-ups and digital platforms) has been the highlight of the pandemic. The life sciences sector has been at the forefront of the Covid response and has witnessed a surge in demand for its products (vaccines, general labware, active pharmaceutical ingredient, testing kits, etc.) since the outbreak. The opportunities created by the pandemic have also brought some unprecedented challenges along with it for those operating in the field of life sciences.

## Surge in IPOs in Biotech

- A recent report published by Nasdaq revealed that by the end of April 2021, 37 Biotech firms in the U.S. have issued IPOs, all of which are listed with Nasdaq. In 2020, 86 IPOs were issued out of which only three did not list with Nasdaq. These listings collectively raised \$21.5Billion.
- The global biotechnology services market is estimated to grow from \$150.37 billion in 2020 to \$163.92 billion in 2021 at a CAGR of 9%, according to a research report published by Research and markets.
- Life sciences recorded a high venture capital in 2020 of \$23.5 billion in 626 deals in eight life sciences categories covered by Genetic Engineering & Biotechnology News (biotechnology, disease diagnosis, drug delivery, drug development, drug discovery, drug manufacturing, pharmaceutical distribution and wholesale pharmaceuticals), according to the PwC/CB Insights quarterly MoneyTree™ Report.
- In 2020, 100 new securities were added to Nasdaq Biotechnology Index as compared to 40 in 2019. Special Purpose Acquisition Companies (SPACs) are becoming a lucrative alternative for the Biotech Companies to raise finance. As per research conducted by Zone Capital Partners, Biotech SPACs have surged 250% since 2019 with two dozen being announced since mid-October 2020 targeting more than \$3.58 billion in proceeds.

### Exhibit 2 : Biggest Biotech IPOs in 2020

(Source: Fierce Biotech)

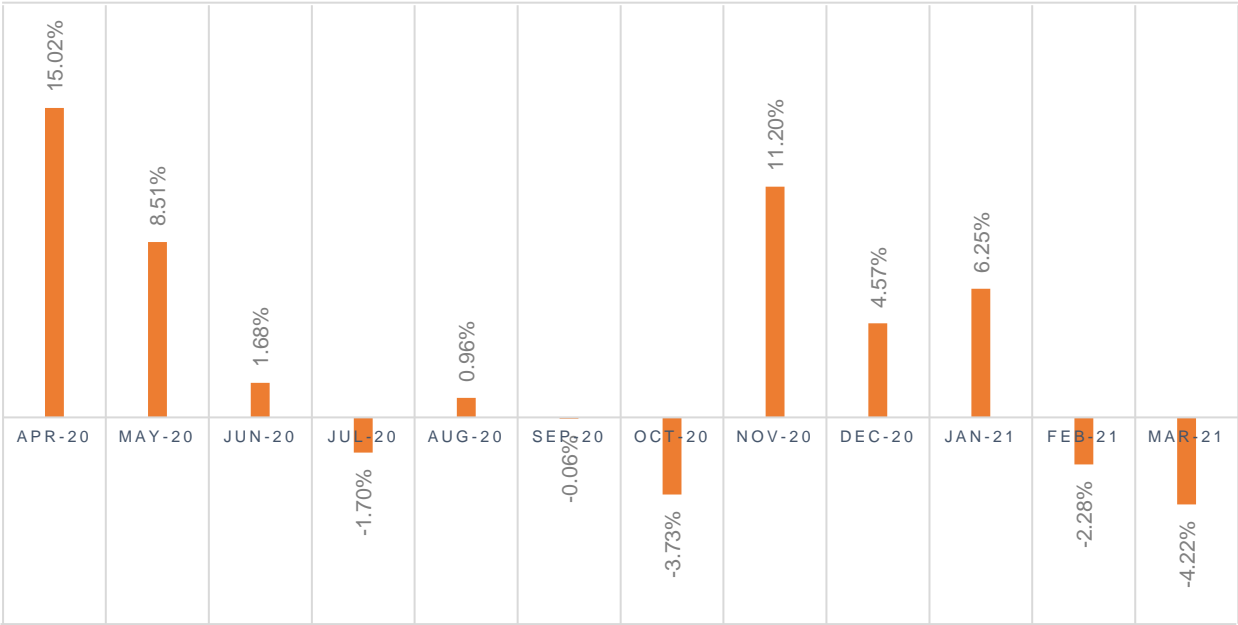




# NASDAQ INDEX

**Exhibit 3 : Nasdaq Biotechnology Index**  
**Monthly Performance – TR Version**

(Source: Indexes.nasdaq.com)





# CHALLENGES AHEAD

## Increasing production to overcome demand surge

To vaccinate the world population, pharma companies will have to strategize for large-scale production. To meet the spike in demand for vaccines, Active Pharmaceutical Ingredient (API) and other drug manufacturers need to forge partnerships and come out with a time-bound plan for ramping up their production. Governments can liberalize policies to support manufacturers by providing quicker approvals and licenses. European medicines Agency (EMA) has developed a single point of contact system for pharma and biotech companies to report shortages of Covid-19 drugs. Collaborative partnerships among manufacturers and more investment in vaccine research will produce better products at an effective cost.



## Restructuring the supply chain

The shortages in drug supplies during the pandemic have made the developed countries realize their over-dependence on other countries like India and China. Pandemic has revealed vulnerabilities in their healthcare systems due to over-reliance on outsourcing Active Pharmaceutical Ingredients (API). Government regulations on exports in the initial phase of Covid had disrupted the supply chain of many life-saving drugs. Many companies are opting for a “China plus one” policy to diversify their supplier base and avoid investing only in China. India is set to emerge as a global supplier in the vaccines & pharmaceutical industry.



## Disruption in clinical trials

With the outbreak of Covid-19, 70% of the clinical trials were disrupted by end of April 2020, due to suspension of enrolment as per Global Data, a leading data and analytics company. Research funding and other resources were diverted from undergoing medical research to Covid-19 vaccine development. Although the disrupted clinical trials continue to resume but slow enrollment remains a concern. Over 1000 trials are still disrupted due to the pandemic in March 2021. In May 2021, U.S. lawmakers proposed a bill “Long term Opportunities for Advancing New Studies (LOANS) for Biomedical Research Act” to incentivize biomedical research by providing funding through government-issued Bio-Bonds.





## Regulatory and safety guidelines

The prolonged process of drug approvals remains a challenge for pharma companies. Although due to the rise in Covid cases, Governments are expediting processes to get clearances to scale up the production of vaccines and life-saving drugs. The U.S. Food and Drug Administration (FDA) has issued guidelines for medical product developers, to address the emergence of new variants of SARS-CoV-2. Regulators such as UK Medicines and Healthcare Regulatory Agency (MHRA), the European Medicines Agency (EMA), and the US Food and Drug Administration (FDA) have framed new guidelines for conducting clinical trials. With ever-changing norms and regulations, biotech companies must keep themselves updated with new regulations.



## Adopting to the new technology and digital platforms

In the growing trend of virtual interactions, the healthcare industry must adapt to digital technologies and data-driven artificial intelligence platforms to provide remote patient care and teleconsultation facility to the patients. A report by Rock Health revealed that digital health received USD 5.4 billion in funding for the first half of 2020, out of that USD 936 million went towards telemedicine initiatives. The life sciences industry needs to rethink how care is given, how medical supplies are provided to hospitals, how to monitor patient progress, patient transportation, how to go about clinical trials in a virtual world.



## Life Sciences Outlook

Amidst the backdrop of the Covid pandemic, the life sciences sector is looking at many untapped opportunities. The way forward is to collaborate across the region to speed up research and development and find innovative solutions. Companies can produce better healthcare products when they collaborate and work with regulators to ensure drug safety and expedite drug development. Making healthcare affordable remains a key objective for the industry. In the U.S., nearly 600 drugs have already experienced an average price increase of 4.2% in 2021, according to GoodRx. Lessons learned while addressing the challenges posed by the pandemic will push the pharmaceutical industry to an accelerated approval pathway in support of clinical studies. Life sciences companies will need to determine how to position themselves in a rebounding economy with heightened expectations for rapid innovation.

# COVID-19 RESPONSE

## Life Sciences Phased response for Covid-19



### IMMEDIATE RESPONSE

- Setting up a Crisis response team
- Identify & resolve disruptions caused in clinical trials and R&D.
- Conduct simulations of unlikely scenarios to assess operational capability.
- Train employees on digital platforms to make them adopt telemedicine.
- Conduct business review & prepare forecasts to abandon any prolonged R&D project.
- Mitigate disruption caused in the supply chain.



### PLANNING RECOVERY

- Restarting clinical trials
- Understanding FDA guidelines for drug development
- Raising funds for undertaking R&D
- Building platforms for remote consultations
- Remodeling Pharmacy to patient drug supply
- Adopting remote work tools & staff redeployment.
- Develop virtual engagement platforms
- Check eligibility for government aid under relief packages.



### REFORMATION

- Redefining Business Continuity & updating Business Continuity Plan
- Redesign and accelerate the digitization of clinical trials
- Long term acceptance of telemedicine
- Planning Research and Development
- Active participation in potential regulatory evolution in new drug development.
- Engaging in collaborative innovation to produce better solutions.
- Scale digital capabilities

# ABOUT PIERIAN

FOLLOW US AT



PIERIAN Services was founded in 2002 as a new age Consulting and Managed Services Company established by a team of Professionals and Industry experts. In the last 18 years, it has the privilege of serving some of the Fortune 500 Companies and new start-ups in the wide areas of its expertise, spanning across Industry Verticals. We help our clients to work smarter and achieve accelerated growth through process transformation, digital technology enablement, analytics driven industry and business insights. Information about how Pierian collects and uses personal data can be provided by our executives. For more information about our organization, please visit [www.pierianservices.com](http://www.pierianservices.com)

Copyright @ 2021, Pierian Services Private Limited, All Rights Reserved. This material has been prepared for general informational purposes only and is not intended to be relied upon as accounting, tax or other professional advice. Please refer to your advisors for specific advice. The company expressly disclaims all liabilities in respect to actions taken or not taken based on any or all the contents of this document.

[www.pierianservices.com](http://www.pierianservices.com) | [info@pierianservices.com](mailto:info@pierianservices.com)

## INDIA

### BANGALORE

# 979, 19th Main,  
13th Cross,  
B.S.K. 2nd Stage,  
Bangalore – 560 070  
Karnataka

62, High Street  
11th Main, 6th floor,  
Jayanagar, 4th Block,  
Bangalore – 560 041,  
Karnataka

### SHIVAMOGA

Kaudki Towers,  
Savalanga Road,  
Near Shivamurthy Circle,  
Shivamoga –  
577 201,  
Karnataka

### GURUGRAM

Level 18, Tower-A,  
Building No.5 (Epitome),  
DLF Cyber City,  
DLF Phase 3,  
Gurugram – 122002,  
Haryana

### PUNE

310, Tower A,  
World Trade Center,  
Kharadi,  
Pune – 411014,  
Maharashtra

## USA

### WASHINGTON, D.C.

1899 L ST NW  
Washington, DC 20036

## MIDDLE EAST

### ABU DHABI

Suite 012, 1<sup>st</sup> Floor,  
Al Omran Building,  
Hamdan Street,  
P.O. Box: 53954  
Abu Dhabi – UAE

### SHARJAH

SAIF Desk R5-45/C  
P.O. Box: 513821  
Sharjah – UAE

## SINGAPORE

### SINGAPORE

Level 21  
Centennial Tower  
3 Temasek Avenue  
Singapore - 039190