A Look Ahead for Life Sciences:
Predictions for the Industry in 2023

The life sciences industry has seen monumental change over the past few years because of the COVID-19 pandemic, low cost of cash and the resulting spike in investment. At the same time, rising inflation, low valuations and economic instability have recently led to uncertainty and unpredictability within the industry in the last year. However, life sciences leaders remain optimistic about the year ahead.

Here are 8 predictions for the life sciences industry in 2023.

01

Rise in reverse merger activity.

In 2020 and 2021, we saw many life sciences companies go public at very high valuations. With funds abundantly available, a number of companies went public before beginning clinical trials, a move which may have been premature for some. Additionally, many SPACs that went public were unable to find a target company that demonstrated strong business and science foundations.

During the **biotech bubble** in 2020 and 2021, when the stock market was strong, many companies went public at an earlier stage than usual, including companies that were pre-clinical, due to significant valuations for life sciences IPOs. Now that valuations have declined, companies are more reluctant to enter into equity financing transactions at current valuations or are having a harder time obtaining funding. This financial environment may result in such companies becoming more **attractive acquisition targets**.

Additionally, there may be companies that were unsuccessful in their clinical trials but have useful secondary data for additional research. These companies could be attractive reverse merger targets as well.

02

Personnel will shift to companies with robust pipelines.

The past few years of low-cost capital paired with COVID funding and tech breakthroughs (such as mRNA technology) sped up the drug and device development process. Many life sciences companies were constantly hiring to keep up with the pace of their research and development. Now, as companies reprioritize and manage unfavorable clinical trial results, we will likely see continued hiring freezes and layoffs. To cope with leaner operations, life science companies may turn to outsourcing some of their scientific, research, manufacturing, financial and operations work.

Despite these layoffs, however, companies with robust clinical pipelines will continue to commit to significant hiring initiatives. Those who have been laid off could filter into companies with more reliable pipelines.

03

More partnerships between smaller companies.

While valuations of life science companies are declining, there might not be a corresponding rise in M&A activity. Unsatisfied with the prices large pharmaceutical and medical device companies are willing to pay, those looking to sell will be seeking an alternative. We may see smaller companies turn to each other in partnerships or licensing agreements to share needed resources and avoid a sale at a disappointing price. For instance, companies that have strong trial data but lack funding may partner with companies that have leftover capital from unsuccessful trials. Partnership and licensing agreements offer an alternative method to generate capital. Beyond funds, we may see more partnerships among smaller companies to take advantage of scientific and operational synergies, especially to advance combination therapies.

04

Market rebound in late 2023 for IPOs.

IPOs have slowed in 2022, as companies wait out the cooling market in hopes their patience will be rewarded with higher valuations. While we expect to see the IPO market open up in late 2023, we do not expect to again see the spiking valuations of 2020 and 2021, but rather a slow and gradual increase over time. As a result, we predict that companies further along in their drug or device development take the risk of going public, while early-stage companies will remain cautious.

Additionally, while the market normalizes, success may still depend on the specific science companies pursue. For example, we expect there to be strong interest in infectious disease and oncology-related products and some movement away from specific COVID-19 research. These trends will likely impact the timeline for going public in each sector and the pace at which markets move forward.

05

Expansion of RNA technology in infectious diseases and oncology.

The COVID-19 pandemic led to an increase in infectious disease research, and companies had ample access to funding from both private and public sources. Following the release of several COVID-19 vaccines and treatments, companies that were unable to get a COVID-19 vaccine into the market want to be prepared not only for the next strain of COVID-19, but for the next pandemic.

Expect to see companies use RNA and mRNA technology to bring new medicines to infectious disease and other areas like oncology. In addition, lessons learned during the COVID-19 pandemic, like how to run more efficient trials remotely, will be used to advance oncology research. Furthermore, with recent **breakthroughs in mRNA**, clinical trial design and operational efficiencies, research is poised for new advancements across disease areas.

06

Refocusing pipelines post-COVID.

As funding has grown tighter, both public and private companies have become more disciplined in terms of which programs to focus on. When funding was readily available and could be invested in multiple programs at the same time, companies were able to move each program along as quickly as possible.

In the next year, many companies may re-examine their existing research and development pipelines following the biotech bubble and attempt to close or consolidate excess programs added during the COVID-era boom in order to **extend their cash runway**. Instead, focus will shift to the areas that have the greatest likelihood of success.

07

Life sciences companies are focused on supply chain sustainability and resilience.

We expect to see life sciences companies focus on measuring, reporting, and reducing their scope 1, 2 and 3 emissions to make headway toward their net zero carbon reduction targets in the next year:

- **Scope 1 emissions:** Direct emissions, such as company facilities and vehicles.
- **Scope 2 emissions:** Emissions from energy purchased for the company's own use, like purchased electricity, steam heating and cooling.
- **Scope 3 emissions:** Indirect emissions from the company's purchased goods and services, transportation and distribution, waste generated in operations and more.

In the next year, life sciences companies will not only focus on reducing their own Scope 1 and 2 emissions but will also request the same from partners and vendors to meet Scope 3 sustainability goals.

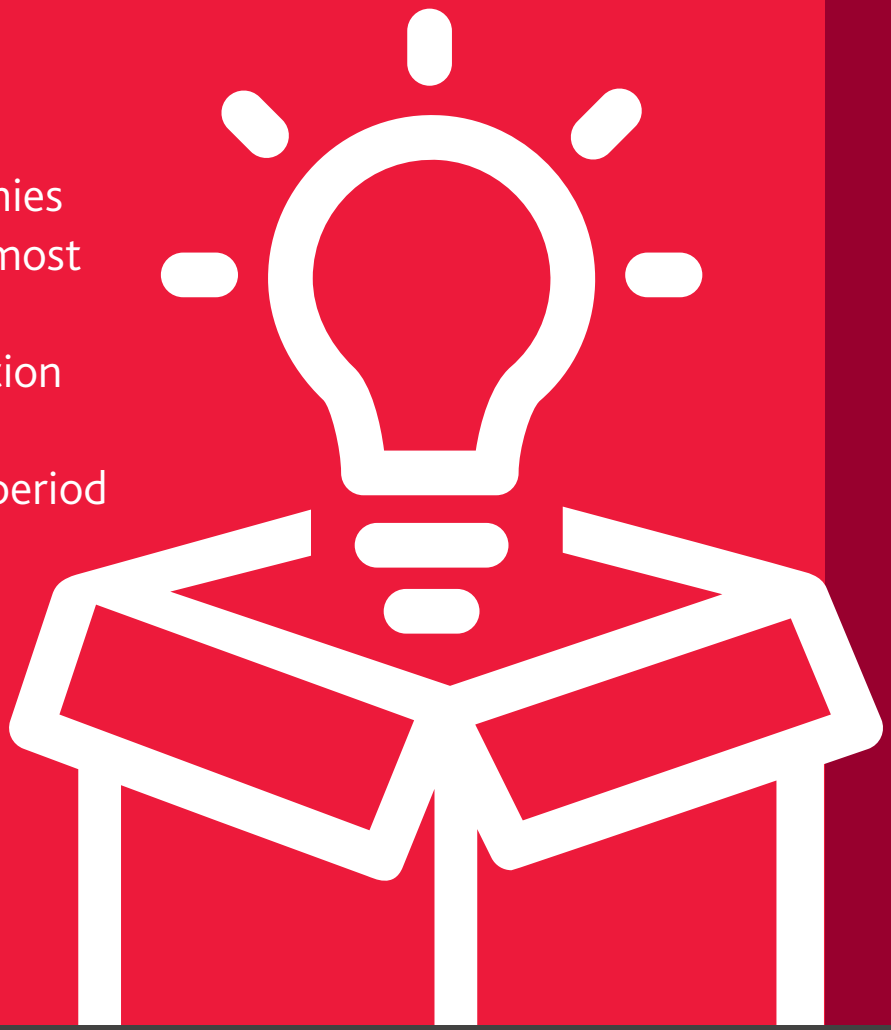
Companies will also be refocusing their supply chains. Though disruption has eased in the latter half of 2022, geopolitical conflict, labor shortages and climate change have taken their toll on shipping logistics around the world. Life sciences companies will continue to navigate the balance between shorter supply chains that are closer to market and those that are diverse, scalable and flexible in the face of obstacles.

08

AI continues to transform the drug development industry.

There are many new developments emerging in AI, machine learning and data analytics that will transform the life sciences industry, not just in the coming year, but over the next decade. We expect to see more advancement in silico studies, where experiments are performed by computer simulation before in vitro and in vivo studies are conducted. In silico studies not only present huge cost savings potential but can accelerate the drug development process. Data analytics can also identify trends and conclusions that scientists may miss. With these advancements, the life sciences industry of 2032 will look very different from today.

With valuations declining and funds becoming limited, the life sciences boom of the past two years has ended. We are seeing markets normalize, however, leaving industry leaders optimistic about the future. Changes will persist, with the refocusing of priorities, layoffs and constant pressure to provide positive clinical data. The companies with the strongest research and most promising products will move forward in this time of consolidation and tightening. The year ahead may be the beginning of a great period of innovation for life sciences.



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