

General Market Overview

The second quarter of 2023 has brought forth significant clinical advancements and positive trends in the biotech and life science industry, reflecting its resilience and potential for investments and growth.

After a longer capital market downturn, the biotech sector is showing signs of stabilization. Year-to-date, the SPDR S&P Biotech ETF (XBI) and the Nasdaq Biotechnology Index (NBI) have been trading relatively flat. In Q2 2023, XBI exhibited a notable rebound with a quarter-over-quarter gain of 9.2%, outperforming the S&P 500's 8.3% rise over the same period. XBI's sensitivity to small- and mid-cap public biotech companies contributed to this resurgence.

With the IPO window relatively closed, reverse mergers have emerged as an alternative for accessing funding and the public market. The number of reverse merger deals has been steadily increasing, from 13 in 2015 to 50 in 2022. Q2 2023 alone witnessed 15 reverse mergers out of a total of 25 recorded for the year. M&A deals are driving the stabilization in the capital markets. For Q2, M&A deals with a total disclosed value of \$29 billion were noted in the Biocentury Database.

With the industry facing patent expiration of several top drugs in 2023, and over 20 patent expirations by 2030, the market is expected to be reshaped the coming years. These patent cliffs are putting pressure on big pharmaceutical companies to replenish their pipelines to offset the expected loss in revenues, whether that is from in-house R&D, partnering deals or acquisitions. Some notable M&A deals occurred during this quarter, including the acquisitions of Prometheus Biosciences by Merck & Co, IVERIC bio by Astellas, Chinook Therapeutics by Novartis, Dice Therapeutics by Eli Lilly, and Bellus Health by GSK.

Venture capital investments in the life sciences and healthcare sectors increased in Q2 compared to the previous quarter, with a total investment of \$11.2 billion according to DealForma. In biopharmaceutical therapeutics and platforms, a \$1 billion increase compared to the previous three quarters was invested, making it a total of \$4.7 billion in venture financings. Series A financings have shown a year-to-date increase to \$60 million, surpassing the five-year average of around \$45 million. However, Series B and C rounds averaged lower than before at \$73 million, suggesting a slightly restrictive financing environment. Oncology continues to attract the most seed and Series A capital, while biologics, nucleic acid- or protein-based therapies dominate the therapeutic modality landscape. Follow-on financings remain relatively unchanged compared to the last quarters, indicating that companies were able to raise capital on positive news despite the relatively restrictive financing environment.

The number of FDA-approved drugs rebounded from the low levels seen in 2022, with 26 approvals recorded so far this year. In Q2 2023 alone there were 13 new drug approvals, more than double the number from the same period in 2022. Clinical advancements spanned various disease areas, such as rare disease, oncology, and neurology. A significant milestone was achieved when Sarepta's gene therapy for a specific population of Duchenne muscular dystrophy (DMD) patients was the first ever gene therapy to win accelerated FDA approval. AstraZeneca and Daiichi's interim results from the solid tumor DESTINY-PanTumor-02 trial of Enhertu, an antibody-drug conjugate (ADC) for HER2, have the potential to reshape cancer therapeutics with tumor-agnostic approaches. Progress was also made in Alzheimer's disease research, as Lilly's Donanemab phase 3 data shed light on the clinical implications of the amyloid beta hypothesis. Additionally, the full approval of Eisai and Biogen's Lecanemab (developed by Swedish company BioArctic) following the quarter marked the first full drug approval for an anti-amyloid treatment.