



ZS portfolio and business development quarterly

Biopharma pipeline and investment trends

By Cody Powers and Joshua Hattem

Looking back at 2023

In our first ZS portfolio and business development quarterly webinar of the year, we reviewed 2023 to provide context as pharma leaders prepare for 2024. In this report, you'll find insights around:

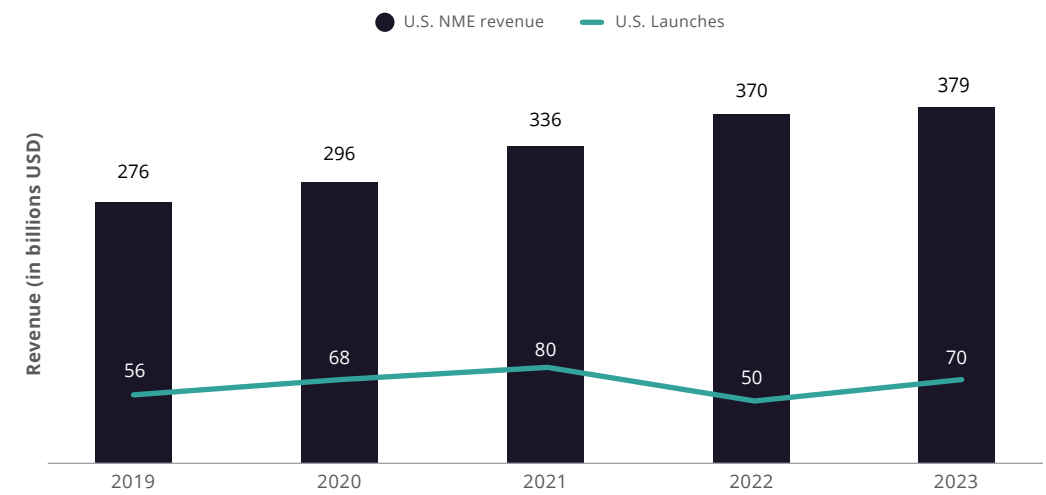
- Launches and revenue data stemming from new molecular entities (NMEs)
- Valuation trends in publicly traded biopharma
- Sources of capital for private and public biopharma
- The continued decline in aggregate industry-wide trial volume
- Deal activity by therapeutic category

Overall, 2023 included plenty of reasons to be optimistic, especially considering more than 70 NMEs were approved by the U.S. Food and Drug Administration.



FIGURE 1:

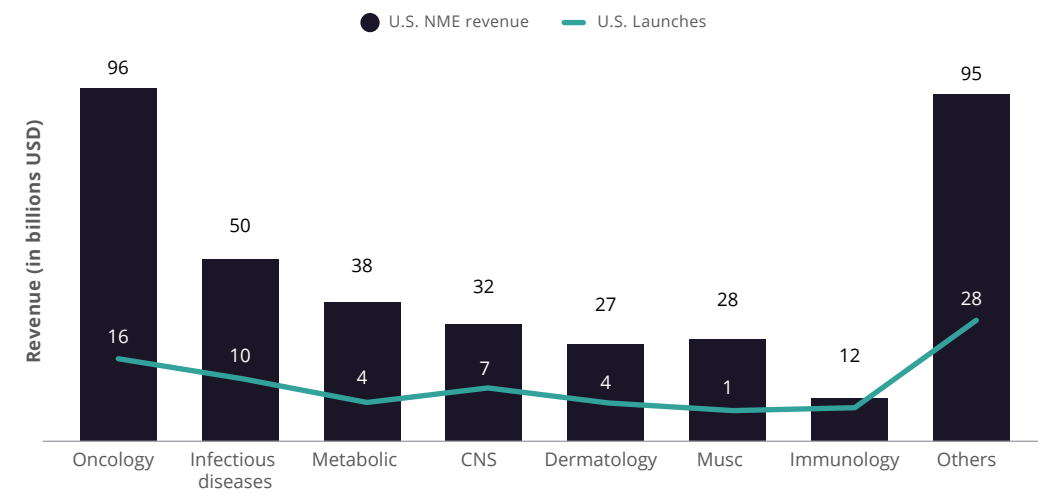
Stable revenues, with launches recovering



Revenue from U.S. NME launches was relatively flat between 2022 and 2023, but those 70 launches were a significant increase over 50 in 2022.

FIGURE 2:

Oncology, infectious disease and metabolic disorders led the way in 2023

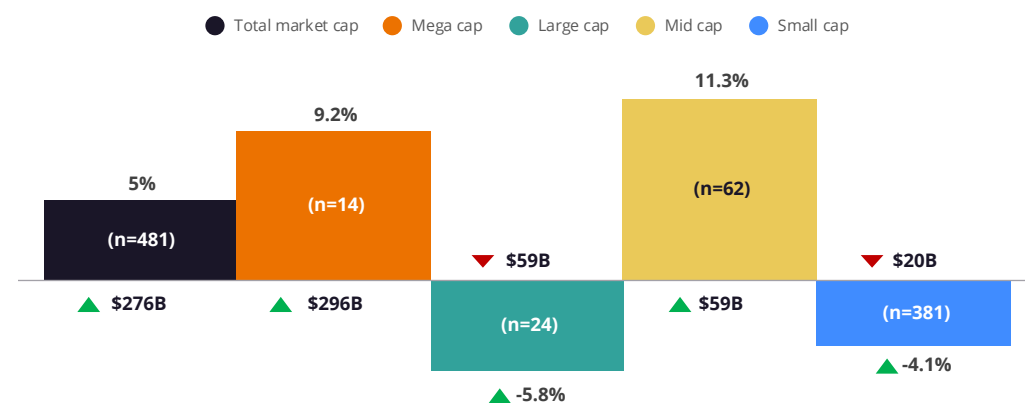


The three largest revenue-generating areas—oncology, infectious diseases and metabolic disorders—accounted for the largest proportion of new drug launches.

Sources for Figures 1 and 2: Evaluate Pharma. U.S. launch numbers account for unique NME launches in the U.S. from 2019-2023. Revenue is a cumulative sum of all NMEs sales in U.S. for each year. Indication expansions are not included in the analysis of number of launches.

FIGURE 3:

2023 market cap gains and losses: Mega cap and mid cap lead the way



While mega-cap and mid-cap companies drove 2023's growth, both large-cap and small-cap companies struggled to keep pace. The valuations of more than half of large-cap (13 of 24) and 57% of small-cap (217 of 381) pharma companies declined in 2023.

FIGURE 4:

Market valuation shifts in a post-pandemic world

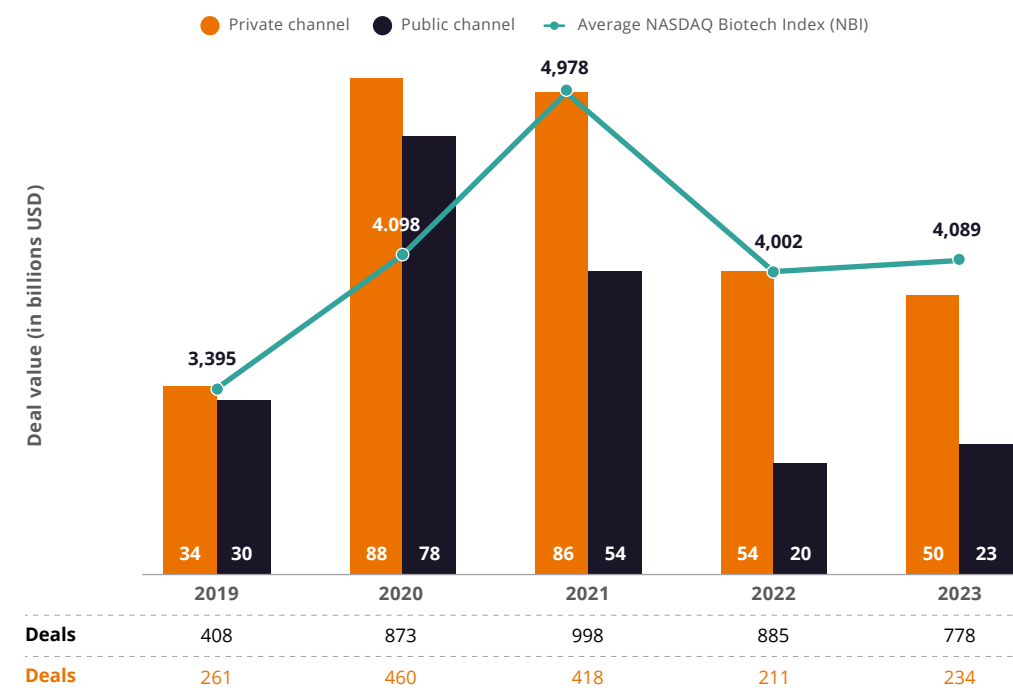
Greatest gains or losses 2023-2024	Mega cap (More than \$100B)	Large cap (\$20B-\$100B)	Mid cap (\$5B-\$20B)	Small-cap (Less than \$5B)
▲	Eli Lilly	Celltrion	ImmunoGen	Amneal
▼	Pfizer	Moderna	Sino Biopharm	FibroGen

The decline in demand for COVID-19 assets contributed to the decrease in the cumulative market cap of Pfizer, a mega-cap company, as well as Moderna and BioNTech, both large caps. Still, aggregate industry growth was 5% in 2023.

Sources for Figures 3 and 4: Pitchbook, Evaluate Pharma. Analysis includes approximately 500 biopharmaceutical companies across the globe sourced from Evaluate Pharma. Percentage gains and losses are based on shifts in market cap from Jan. 1, 2023, through Jan. 16, 2024. Companies have been classified as "mega cap," "large cap," "mid cap" and "small cap" based on the latest market cap data.

FIGURE 5:

Fundraising remains below pre-COVID levels



Total funding in 2023 remained stable from 2022, though it's still below its COVID-19 peak, given the continuation of a difficult fundraising environment. This situation is particularly challenging for small-cap firms, leading them to explore new sources of fundraising.

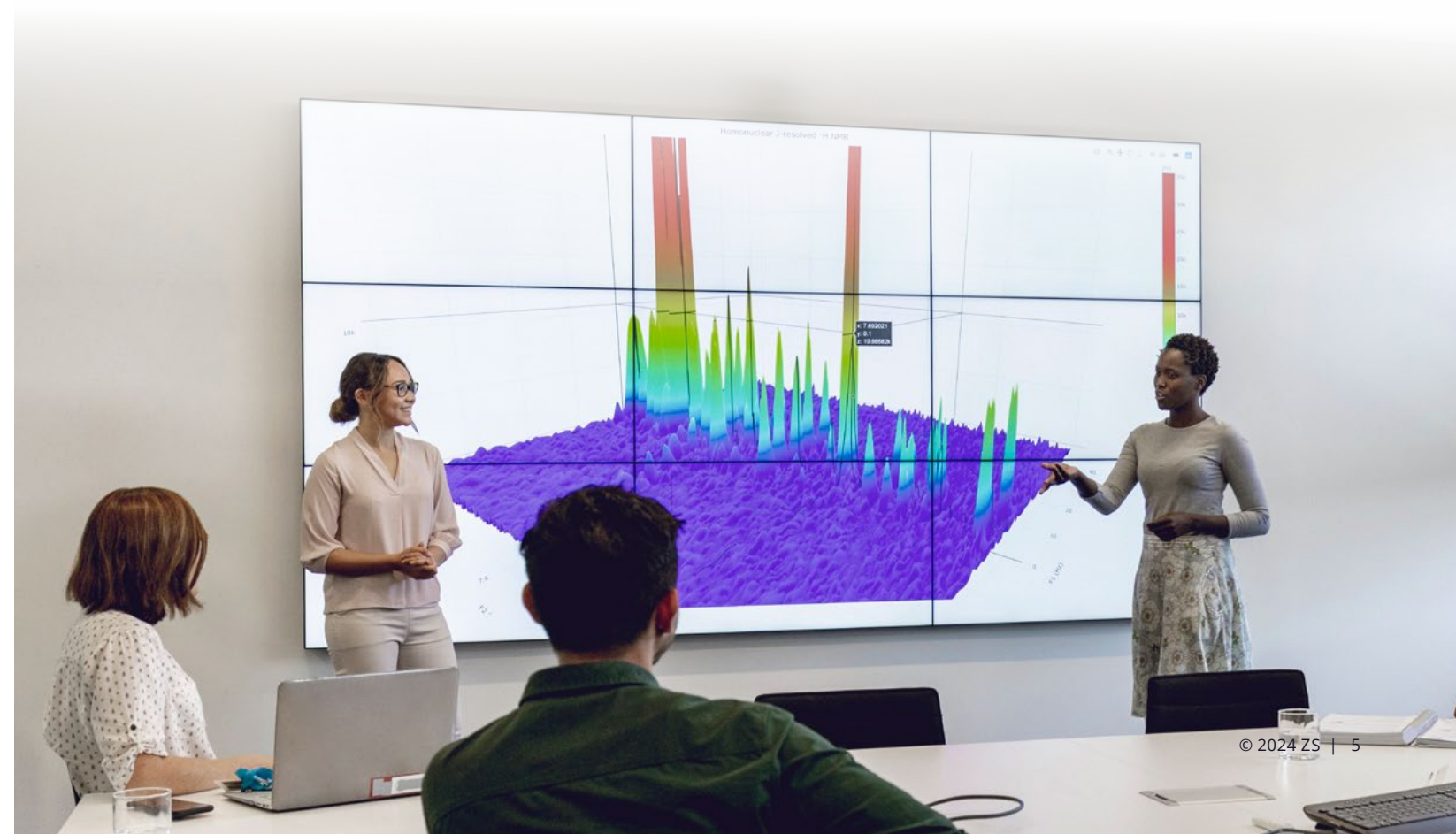
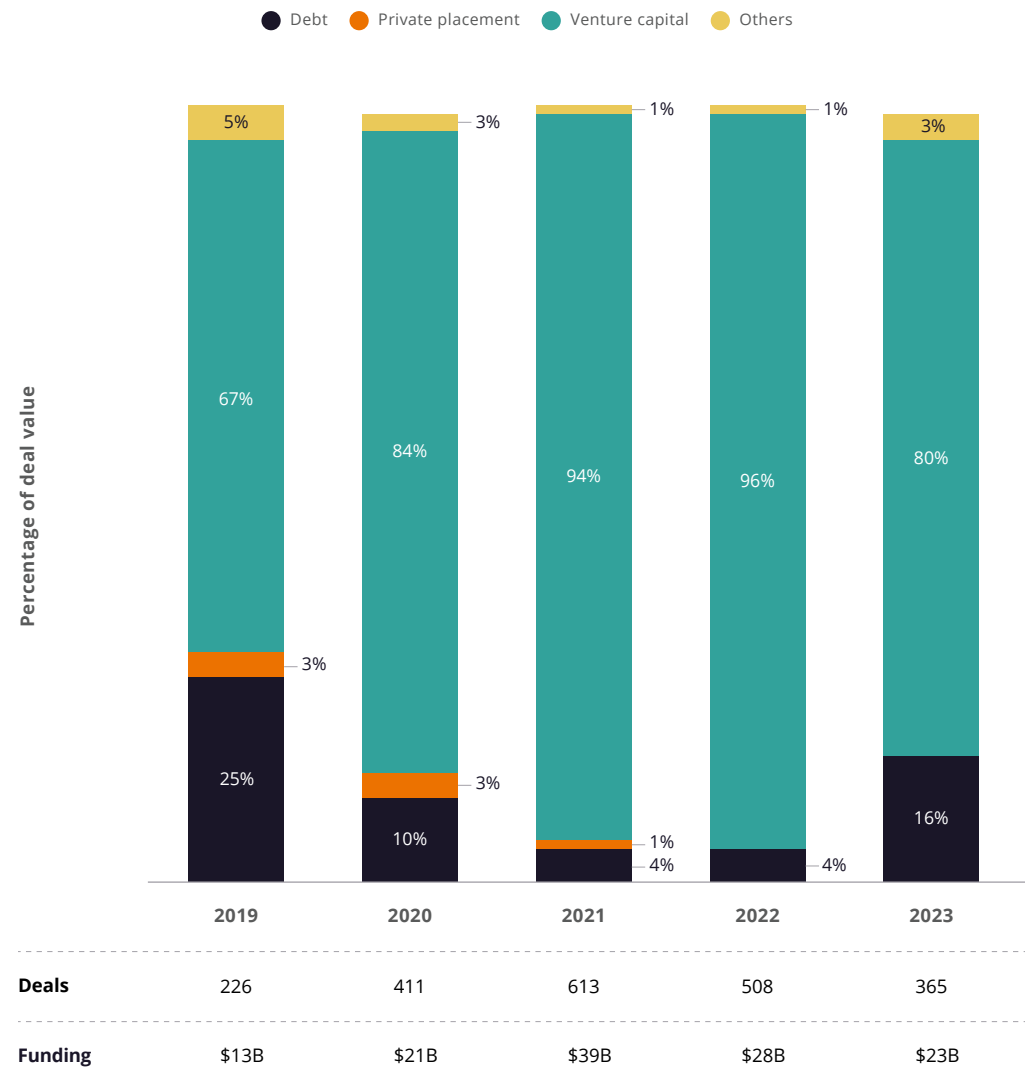


FIGURE 6:

Private companies are taking on more debt as venture capital declines

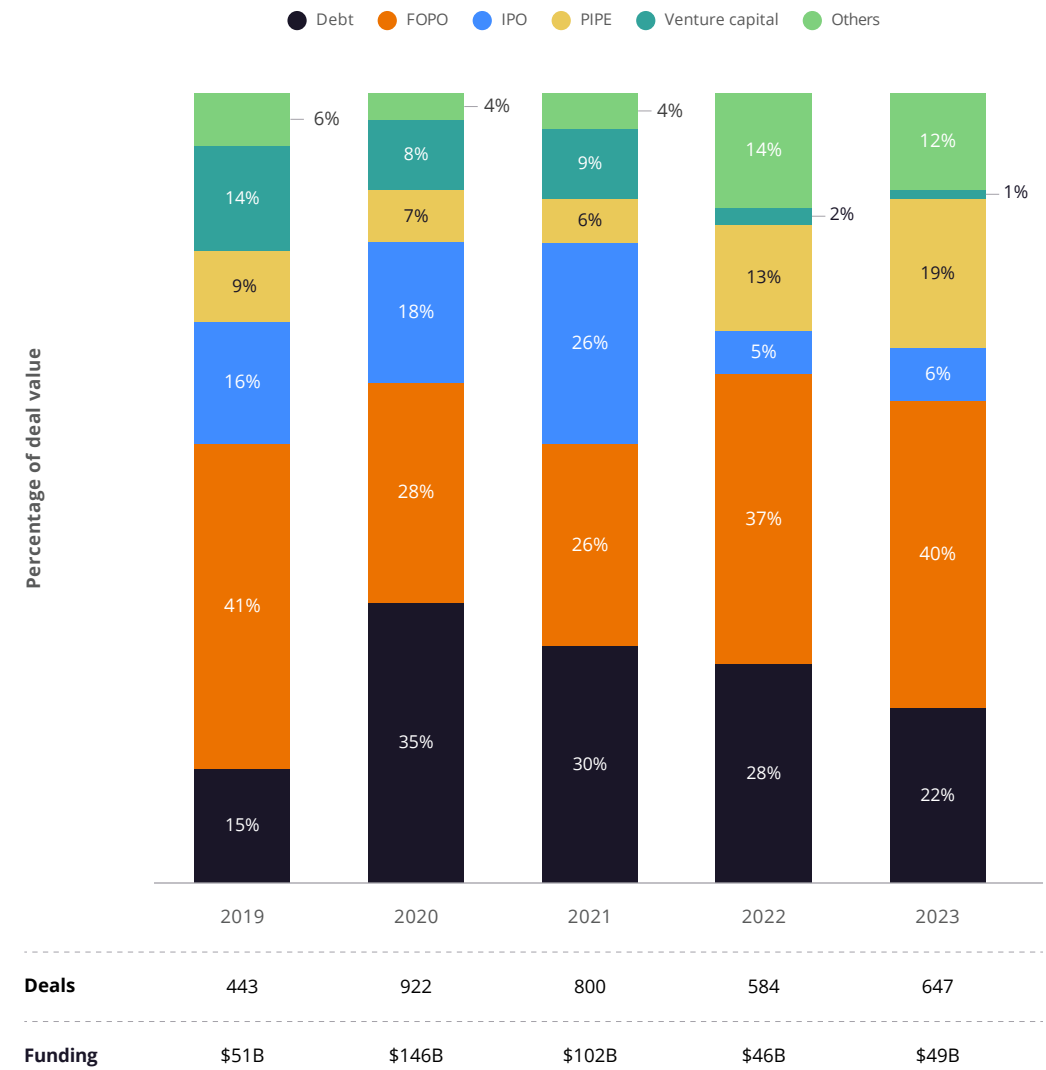


Numbers might not equal 100% due to rounding.

Private pharma companies have traditionally relied on venture capital funding during prosperous times. However, venture capital funding declined by a striking 17% between 2022 and 2023. This led these pharma companies to rely more on debt financing than in previous years.

FIGURE 7:

New funding sources for public companies



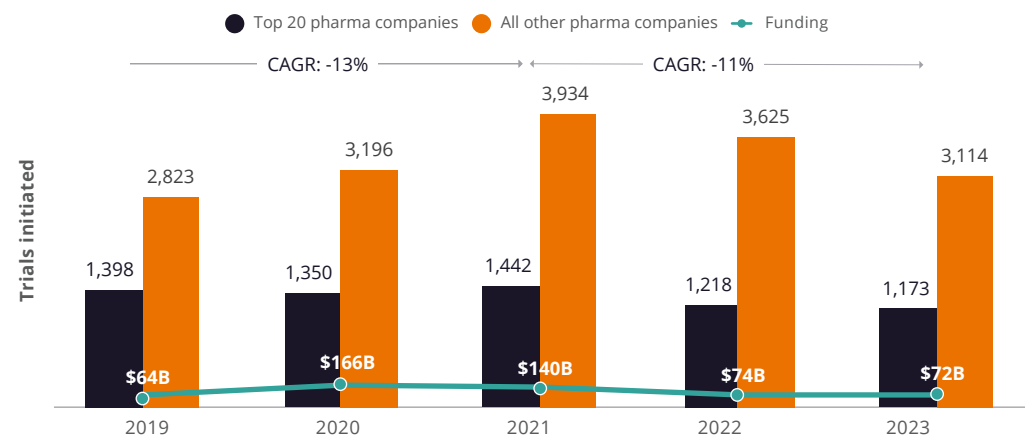
As dollars from venture capital and initial public offerings (IPOs) dry up, more public companies are turning to royalty monetization and alternative sources of funding, such as private investment in public equity (PIPE).

Numbers might not equal 100% due to rounding.

Sources for Figures 5, 6 and 7: Biomedtracker. Public channels include IPO, FOPO, spin off, convertible and non-convertible debt. Private channels include convertible and non-convertible debt, special purpose financing vehicles, venture capital, private review vouchers sales, royalty sales and PIPE.

FIGURE 8:

A declining number of clinical trials

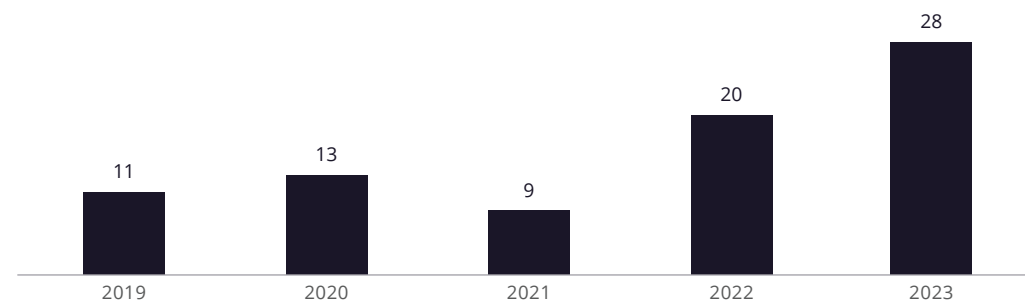


We've seen that trial growth and funding growth ran parallel through their COVID peaks. Trial volumes fell post-COVID, which can partially be attributed to a decline in COVID-related trials. Recently, firms of all sizes have initiated fewer trials.

Sources: Citeline, Labiotech. The top 20 pharma companies are based on fiscal year 2022 drug sales: Pfizer, AbbVie, Johnson & Johnson, Merck, Novartis, Roche, Bristol Myers Squibb, AstraZeneca, Sanofi, Takeda, GlaxoSmithKline, Eli Lilly, Gilead Sciences, Amgen, Novo Nordisk, Bayer, Boehringer Ingelheim, Moderna, BioNTech and Viatris. CAGR is compound annual growth rate.

FIGURE 9:

Bankruptcies on the rise

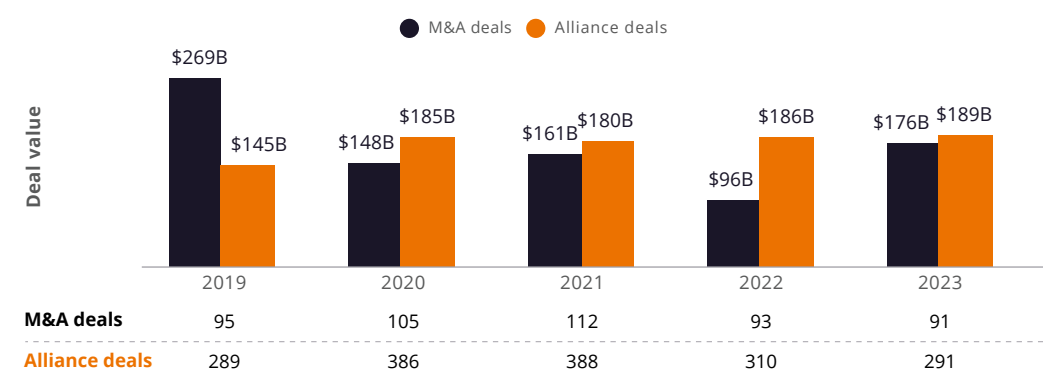


As it has become increasingly difficult to obtain capital, more firms have filed for bankruptcy. The current conditions are leading companies to take action—like delaying trials—to cut costs and stretch their existing funds.

Source: Fierce Biotech.

FIGURE 10:

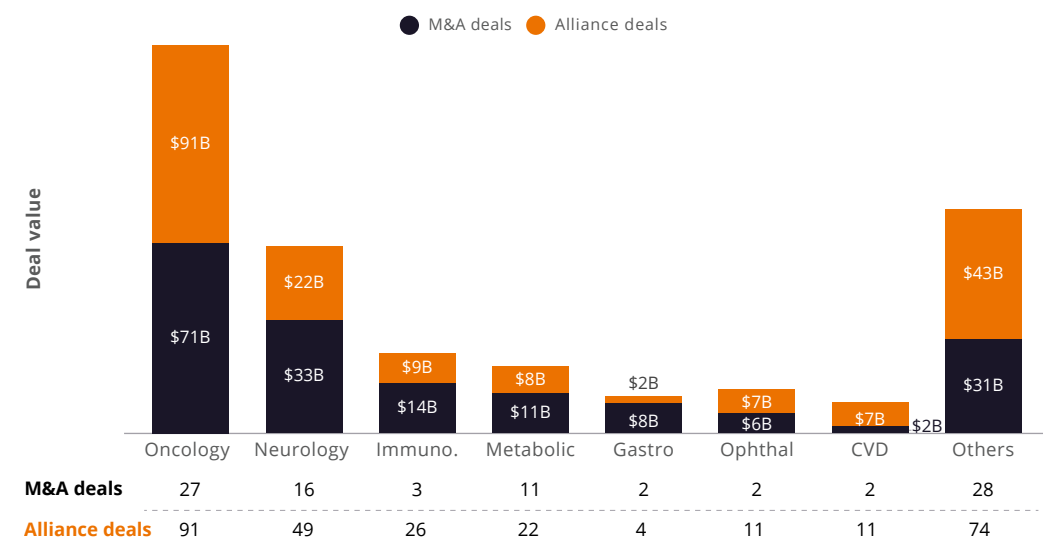
M&A and alliance deals market heats up in 2023



It's encouraging to see that mergers and acquisition (M&A) deal values jumped significantly in 2023. Considering that numerous deals were announced late last year, we expect this positive trend to continue in 2024. It appears M&A activity is back to where it was during COVID.

FIGURE 11:

2023 M&A and alliance deals by therapy area

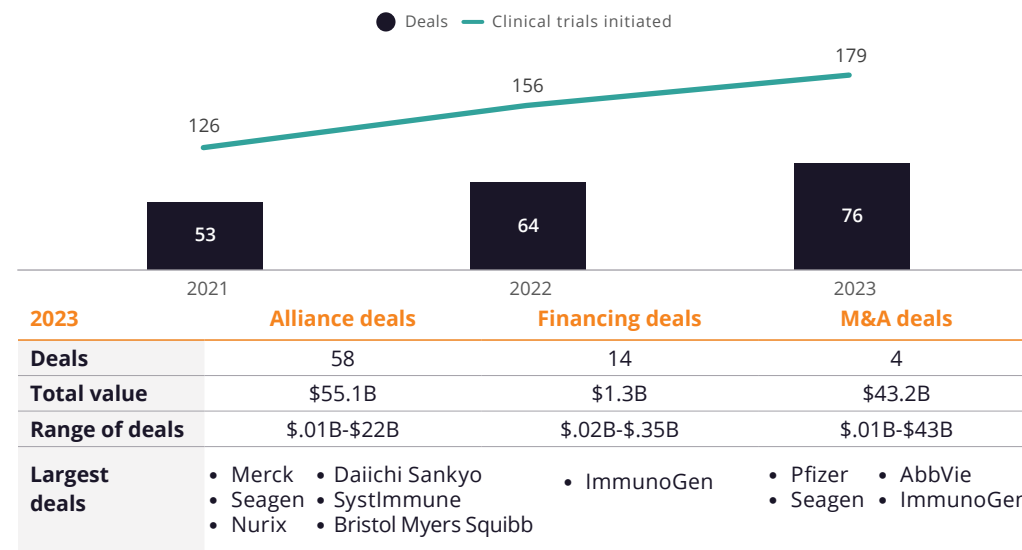


While the highest proportion of M&A and alliance deals were in the oncology space, neurology deals surged in 2023, reaching \$33 billion—double the amount of immunology deals.

Sources for Figures 10 and 11: Biomedtracker, Evaluate Pharma. Revenue data of only NME assets were considered. Deals with potential deal value available were considered for the analysis. Therapy area is tagged based on lead asset involved.

FIGURE 12:

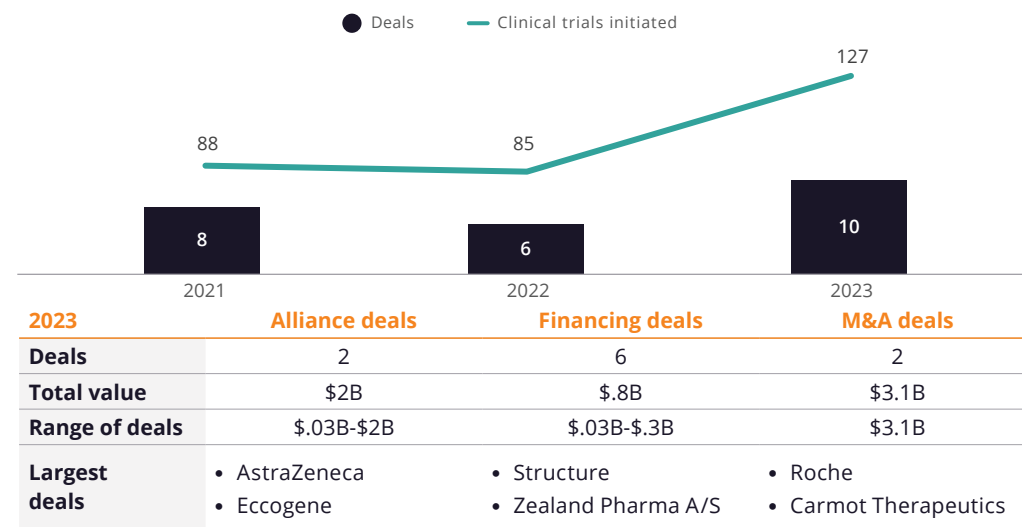
ADC deals on the rise



In the past three years we have seen an increasing number of deals for antibody-drug conjugates (ADCs), as well as growth in clinical trials for these drugs. The number of ADC clinical trials jumped 42% between 2021 and 2023.

FIGURE 13

Increasing interest in GLP-1s



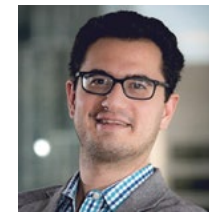
We're of course also seeing an explosion in GLP-1 clinical trials, and 2023 brought more deals than the previous two years.

Sources for Figures 12 and 13: Biomedtracker, Citeline, the Synaffix-Amgen deal and Outsourced Pharma. GLP-1 deals include combination deals with other mechanisms. Only final and completed deals are included.

About the authors



Cody Powers has over 13 years of experience in healthcare and life sciences consulting with companies of all stages and across a range of strategy issues, including corporate and portfolio strategy, business development and licensing and pipeline assessment. Cody has been a featured speaker across a wide range of engagements (including BIO, LSX and Fierce) as well as a breadth of media outlets.



Joshua Hattem focuses on helping pharmaceutical companies develop strategies for product development and commercialization. His passion is the intersection of science and business, helping clients develop cross-functional strategies for their products and portfolios as well as capabilities that bridge commercial, medical and clinical. He specializes in cross-functional challenges such as market mapping and market shaping, portfolio prioritization, market segmentation, value proposition development and evidence generation strategy.



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