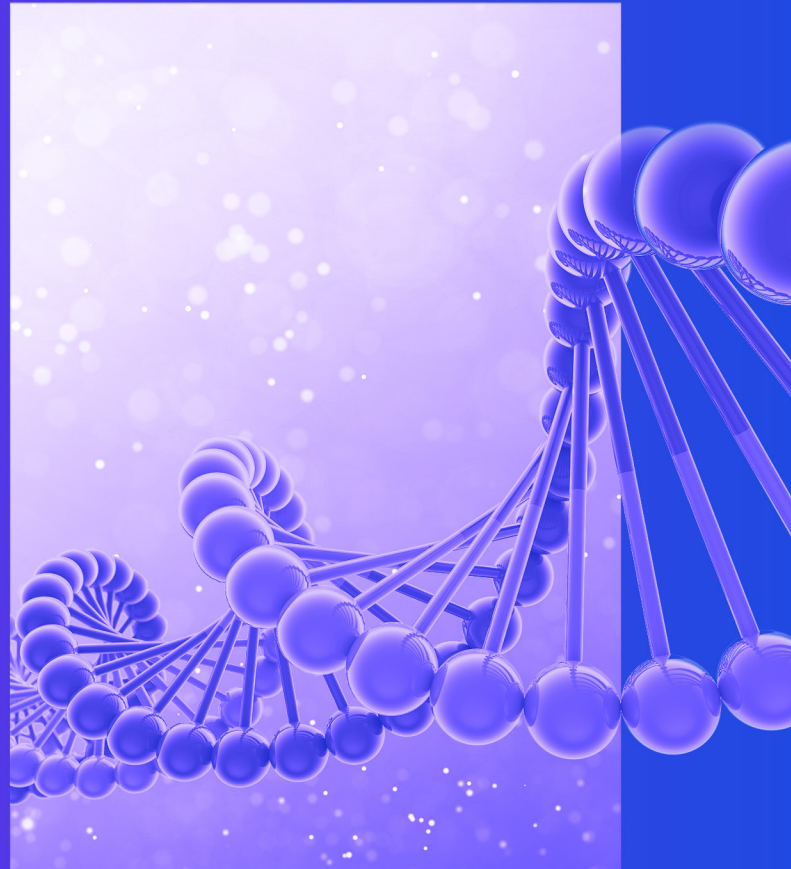




Biopharma deal trends outlook for 2022

Risk is shaping deal
strategy in the pursuit of
innovation



KPMG Predictions for 2022 biopharmaceutical deals

Megamergers will remain out of favor (i.e., no deals over \$30 billion).

Performance and outlook for the sector is healthy, while valuations have been mixed coupled with intense competition.

Biopharma will continue to mostly focus on small to midsized deals (e.g., a few million to \$15 billion) largely in pursuit of building innovation across their pipelines.



Multiple sources of risk and renewed focus on R&D productivity and efficiency will lead the industry to focus more on deal strategies that mitigate risk, accelerate development, or involve risk-sharing strategies such as licensing deals (with or without buy options), partnerships and strategic R&D collaborations and other alliances.

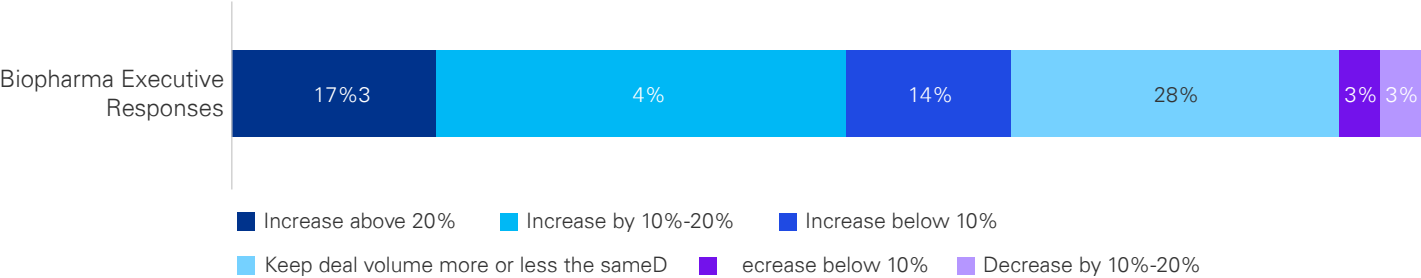
When considering full company acquisitions, large biopharmaceutical companies will look for targets that have innovative platforms (e.g., targets with unique and highly valued manufacturing capabilities or R&D platforms) in addition to attractive pipeline assets.

Entering 2022, deal optimism was high among executives

As deal volumes surged in 2020 and continued strong through 2021, there was optimism from pharmaceutical executives for how this capital market activity would carry through into 2022 (Exhibit 1). While there was uncertainty about how the global economy would recover from the impacts of COVID-19 and the implications for the capital markets, the continued growth of disruptive innovation across the global pharmaceutical pipeline remained strong and highly attractive to large pharmaceutical companies. However, it is clear that the persistence of inflation and the risk of a recession have since become a much bigger factor in M&A (see [Biopharmaceuticals deal trends: What to expect in 2021](#)).

Exhibit 1: December 2021 survey of pharmaceutical executives

Q: By what magnitude does your firm plan to increase or decrease M&A deal activity for 2022 compared to 2021, as measured by number of transactions? (Survey completed in December 2021)



- In December 2021, a majority (i.e., ~65 percent) of executives expected their firm to increase their M&A activity in 2022 compared to 2021
- ~17 percent of executives anticipate deal volume increases of more than 20 percent
- Only ~6 percent of executives expected a deal volume decrease in 2022



Source(s): KPMG 2021 Healthcare and life sciences investment survey outlook

At the start of 2022, there was good reason to believe this optimism from pharmaceutical executives was justified, and that we should share their belief that deal volumes in 2022 could exceed what we saw in 2020 and 2021 (see [2021 Healthcare and Life Sciences Investment Outlook](#)). Several competitors in the pharmaceutical industry were flush with capital either from COVID-19 therapeutics and vaccines or from new and old blockbuster therapies.

Additionally, the tailwinds for innovation across the worldwide pharmaceutical pipeline remain strong

with no foreseeable trend that will stall growth.

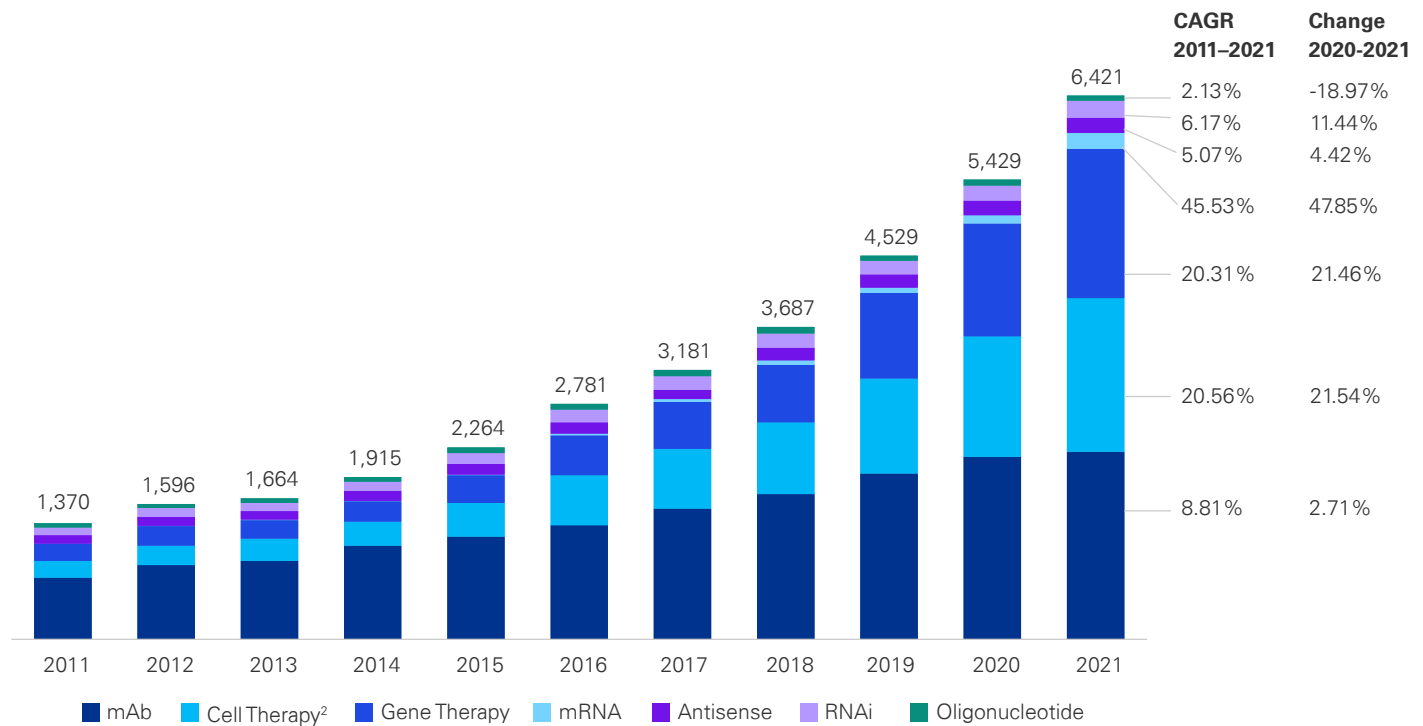
The pipeline of highly innovative biological therapies continues to grow aggressively (Exhibit 2).

Further evidence of our era of innovation is that the number of patents filed each year—it has risen by a CAGR of over 29 percent from 2017 to 2020, while the average time to file the patents in the U.S. has fallen to its lowest level thus far.¹

The landscape of small targets for large biopharmaceutical companies remains extremely rich. For example,

small biopharma companies, with an estimated expenditure on R&D of less than \$200 million and revenue under \$500 million are responsible for a record 65 percent of the molecules in the worldwide pharmaceutical pipeline in 2022, up from less than 50 percent in 2016 and one-third in 2001.² Given the constant pressure large pharmaceutical companies face to keep their pipeline replenished, this rich landscape of small, innovative companies will continue to fuel the trend toward smaller transactions.

Exhibit 2: Worldwide biologics pre-commercialization pipeline¹



- Modified gene therapies and modified cell therapies have outpaced the growth of mAb pipeline therapies, and in 2021 they combined to make up the largest segment of the worldwide pharmaceutical pipeline.

Note(s): 1. Includes registered, pre-registration, Phase III, Phase II, Phase I, and Preclinical assets
 2. Includes CAR-T, stem cell, T cell receptor, tumour-infiltrating lymphocytes, and other cellular therapies

Source(s): KPMG analysis; Informa

¹ IQVIA, Global Trends in R&D 2022

² IQVIA, Global Trends in R&D 2022

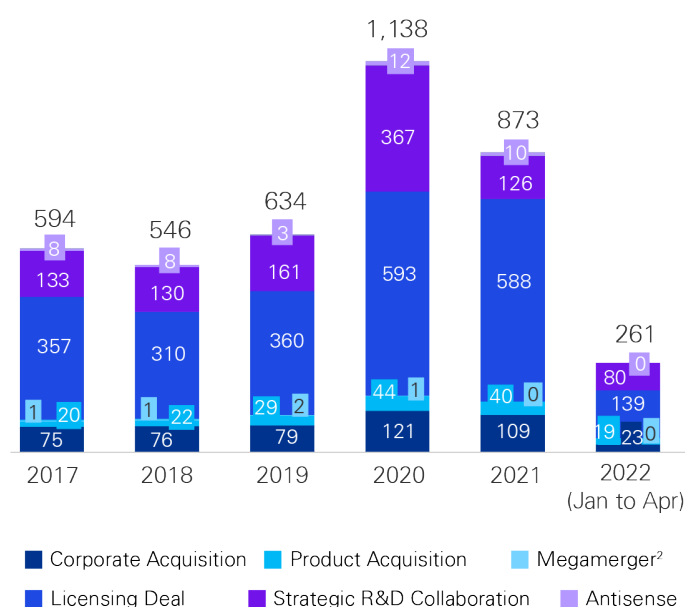
Growing uncertainty in 2022 is shaping deal strategy

At the start of 2021, we highlighted that it was likely we'd see a more assertive FTC under the Biden administration. And while there are no public reports of the FTC blocking any pharmaceutical deals, experts such as Arman Oruc, partner at Goodwin, co-chair, antitrust and competition, have noted that the FTC has engaged in more second reviews and is applying more scrutiny to each pharmaceutical deal.³ Second reviews extend the time to deal close, as companies respond to additional information requests. This could be a factor driving why we have seen fewer deals overall in 2021 compared to 2020. This dynamic, so far, has not changed for 2022.

The tailwinds that drove M&A in 2021—the need for innovation and the need to fill pipelines—remain in force. But the headwinds have grown. Inflation, rising interest rates, recession fears, and falling equity values increase uncertainty, raising questions about the wisdom of deal making now.

In this environment, it is not unreasonable for biopharmaceutical acquirers to take a wait-and-see approach for acquisitions and favor deal strategies that minimize risk, such as stage gate capital investments. In fact, this trend is already showing up in deal data. While the total number of deals in Q1'22 (261 deals) was on pace with 2020 and 2021—more deals involved lower risk deal strategies. Specifically, the industry appeared to be more focused on product acquisitions (19 in Q1'22). If the industry keeps up this pace of product acquisitions over the next three quarters, it will result in 79 of these types of deals, which is significantly more than what we saw in 2020 and 2021.

Exhibit 3: Volume of biopharma deals, by deal strategy¹



Note(s): 1. Acquisitions >\$30B; 2. Only Jan-April 2022; Deal count only includes deals where one pharmaceutical executes a deal with another pharmaceutical company. Equity investor deals and debt financing deals have been excluded

Source(s): KPMG analysis; Informa data pulled May 24, 2022

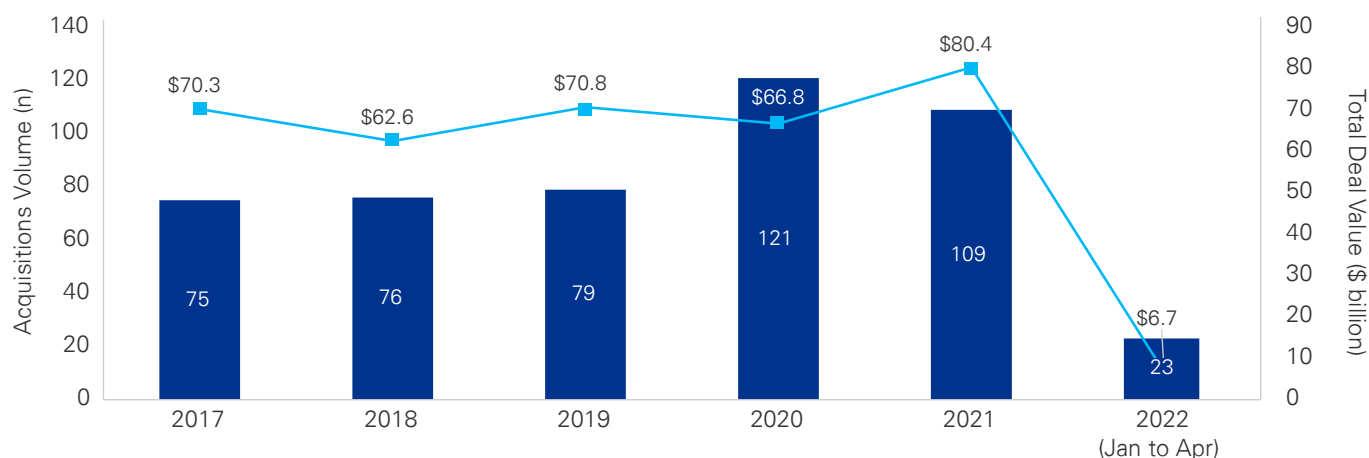
³ KPMG, [Opportunities and challenges in an evolving market](#)

If we look at the trends associated with full-company acquisitions across biopharma, it looks like the first quarter of 2022 started with a different strategy trend than we saw 2020 and 2021. Unless the full-company acquisitions accelerate in the second half of the year, 2022 will finish with fewer acquisitions than the

last two years in terms of total deal volume and overall deal value (Exhibit 4). In Q1'22 the average corporate acquisition value was ~\$291 million, which is significantly lower than the average deal value seen in 2021 (~\$738 million) and 2020 (~\$552 million) (Exhibition 5). We think all the previous points prove our thesis

that in an effort to manage risks associated with uncertain times, a more assertive FTC and the inherent risk associated with targeting earlier stage assets has broadly shaped the type of deal strategies the pharmaceutical industry is deploying in 2022.

Exhibit 4: Acquisition volume vs. total deal value of corporate acquisitions¹



- Despite lower total deal and corporate acquisition volume, total deal value for corporate acquisitions increased in 2021, reflecting larger deals or greater valuations than in 2020.
- For Q1'22 the average corporate acquisition value (~\$291 million) was lower than the average deal value seen in 2021 and 2020.

Exhibit 5: Average corporate acquisition value (excluding megamergers)¹ (2017 – 2022)²

Deal Year	Deal Count	Average Industry Deal Value
2022 (only through Q1)	23	~ \$291.3 M
2021	109	~ \$737.6 M
2020	121	~ \$552.0 M
2019	79	~ \$896.2 M
2018	76	~ \$823.6 M
2017	75	~ \$937.3 M

Note(s): 1. Megamergers (i.e., >\$30 billion) were excluded due to their outlier effect on year-to-year deal value;
2. Only January-April 2022

Source(s): KPMG analysis; Informa



Innovation via small biopharma deals remains the key strategy

Qualitatively, if we look at examples of the three largest corporate acquisitions that were completed in Q1'22, only one acquisition involved a company with a late-stage asset, GSK's acquisition of Sierra Oncology (reported deal value of \$1.9 billion;⁴ the other two largest deals were for early stage, platform companies. AbbVie acquired Syndesi Therapeutics for \$1.2 billion—the most mature asset was in Phase 1b⁵—and Biohaven acquired Channel Biosciences for \$1.2 billion, where the lead asset is preclinical.⁶ Both of these deals were as much about the scientific platform from which multiple assets can be developed from as they were about the pipeline assets.

When we look at the continued deal activity in cell and gene (Exhibit 6), we see more evidence of the industry's continued focus on adding new capabilities. The data from Q1'22 was on pace for another strong year of deals for cell and gene therapy, with 16 percent of all pharmaceutical deals focused in cell and gene. If 2022 keeps pace, it will compare to 2021, which was the most active year for cell and gene therapy deals.

One important emerging difference between Q1'22 versus previous years was the larger number of Strategic R&D Collaborations—we believe the emphasis on collaborations rather than full company acquisitions signaled a broader industry shift. Specifically, as we look back at the cell and gene acquisitions that have occurred over the past five years, only a few large pharmaceutical companies have successfully bolted on these acquisitions without facing risks ranging from failed clinical trials due to safety issues to extreme flights of talent. This shift of deal strategy was likely an effort to continue building acquirers' cell and gene pipelines and expertise while mitigating some of the risks of failure seen across the industry.

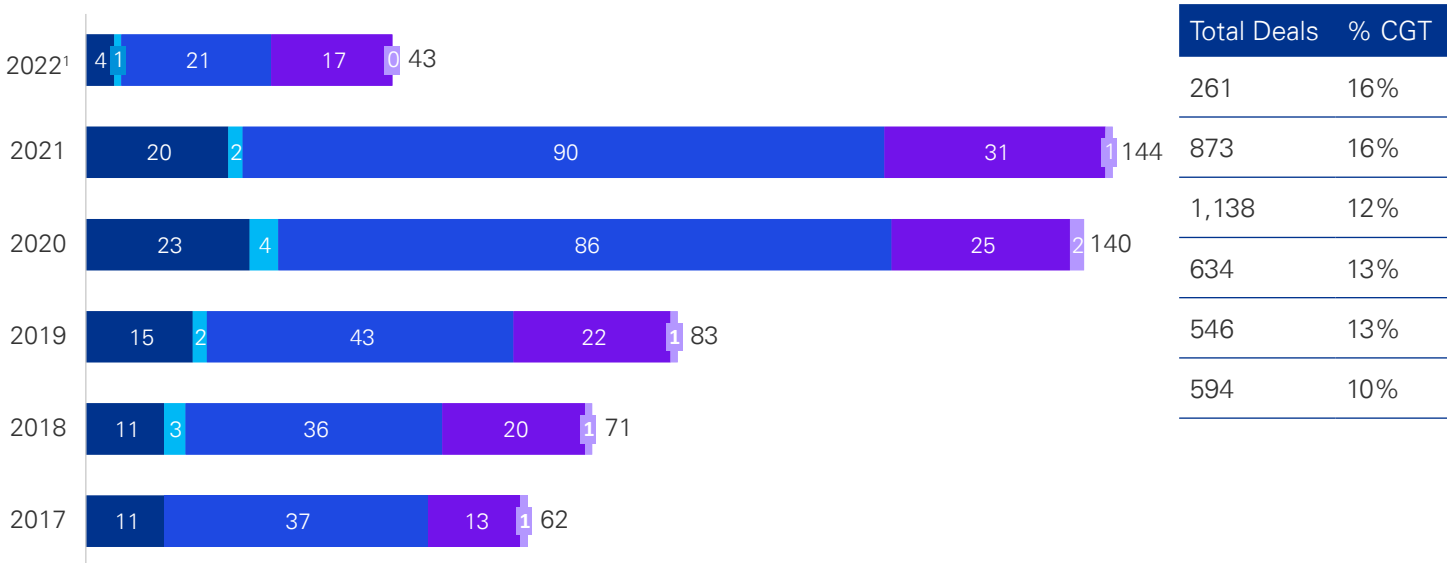


⁴ "GSK reaches agreement to acquire late-stage biopharmaceutical company Sierra Oncology for \$1.9bn," GSK.com, April 13, 2022

⁵ "AbbVie Acquires Syndesi Therapeutics, Strengthening Neuroscience Portfolio," AbbVie News Center, March 1, 2022

⁶ Biohaven Acquires Kv7 Ion Channel Platform For The Treatment Of Epilepsy And Other Neurologic Disorders From Channel Biosciences, Biosciences - Knopp Biosciences, February 25, 2022

Exhibit 6: Cell and gene therapy deals



- Overall, cell and gene deals increased by four (~3 percent) into 2021, with growth being driven by deals in licensing, strategic R&D collaborations, and trial collaborations.
- 2022 is on pace to match the total deal volume in 2021; however, it appears the industry is more focused on Strategic R&D Collaborations.

Note: 1. Only January-April 2022
 Source(s): KPMG analysis; Informa

Innovation is not limited to cell and gene therapies. In 2021, we began to see another emerging trend related to innovation around pipeline assets in areas of alternative medicine (i.e., cannabis and psychedelics). Alternative medicines have become an important category for mainstream biopharma. Some of the notable deals in 2021 included Jazz Pharmaceuticals' \$7.2 billion acquisition of GW Pharmaceuticals⁷,

the maker of Epidiolex (the first plant-derived cannabinoid medicine ever approved by the FDA).

Additionally, Pfizer bolstered its pipeline by acquiring Arena for \$6.7 billion in December 2021.⁸ (Arena's key asset, Olorinab, is a highly selective, full agonist of the cannabinoid type 2 receptor [CB2].)

On the psychedelic front, Otsuka Pharmaceuticals made investments

into Compass Pathways⁹, Perception Neurosciences¹⁰, and most recently Mindset Pharma¹¹ through its venture capital arm. The global pipeline for alternative medicines continues to expand, and with a flurry of IPO activity in 2021 for psychedelic companies, it is likely we will soon see more acquisitions (notable examples include ATAI, MindMed, Compass Pathways, and Cybin).

⁷ "Jazz Pharmaceuticals to Acquire GW Pharmaceuticals plc, Creating an Innovative, High-Growth, Global Biopharma Leader | Jazz Pharmaceuticals plc," Investors, February 3, 2022

⁸ "Pfizer to Acquire Arena Pharmaceuticals," News, December 13, 2021

⁹ "Mental Health Care Company COMPASS Pathways Concludes Successful Series B Investment Round," News Releases, April 25, 2021

¹⁰ "Otsuka and Perception Neuroscience Announce Collaboration on Development of PCN-101 (R-ketamine) in Japan for Treatment of Depressive Disorders, News Releases, March 16, 2022

¹¹ "The McQuade Center for Strategic Research and Development and Mindset Pharma Collaborate to Develop Psychedelic Medicines," News Releases, January 5, 2022

Final thoughts



As the industry manages through the multiple risks and uncertainties that are plaguing 2022, it has not slowed deal activity. Rather, the industry has shifted its deal strategy in an effort to mitigate these uncertainties while still adding important pipeline opportunities to their portfolio.



Megamergers (defined here as greater than \$30 billion) will likely remain out of favor for the industry as the risk-reward of navigating a more assertive FTC and the uncertainty of the global economy is too great.



Creative deals with a smaller, innovative biotechnology company or asset offer a more judicious use of capital—the rich landscape of targets allows for more diverse deployment of capital across multiple, disruptive pipeline opportunities.



How KPMG can help

KPMG Deal Advisory & Strategy has a long history of enabling our pharmaceutical clients across the entire transaction cycle:

Where is the growth opportunity and who to target?



KPMG has a dedicated life sciences team for assessing the landscape of emerging technologies and companies in order to prioritize a short list of company and/or asset targets for business development.

What's the investment thesis and target valuation?



KPMG has specialized teams that can build the forecast models, valuations, and the overall strategic point of view to justify future transactions.

To what degree are the financial, commercial, and operational assumptions supporting the investment rationale supported factually?



KPMG has life sciences specialist highly experienced in providing the full range of due diligence services: financial and accounting due diligence, commercial due diligence, operational due diligence, tax due diligence, HR due diligence.

How to account and report?



KPMG has subject matter specialists, who are proficient in complex technical accounting and reporting matters, dedicated to helping biopharma companies simplify complex accounting and reporting challenges and minimizing unnecessary risks in financial reporting. We provide practical insights and recommendations on the deal structure and terms and provide postclose implementation support to assist companies in realizing an accounting and reporting treatment in line with their objectives.

How to integrate?



KPMG has specialized teams dedicated to helping pharmaceutical companies develop their integration strategies and then operationalize the integration across all back-office and front-office functions.

How to divest?



- KPMG has skilled strategists to help clients run sophisticated analyses to identify the optimal capital creation options that help ensure the financial and strategic goals of the core portfolio are set for growth and sustainability.
- Once the divestment options are identified, KPMG has professionals to support the operational separation of the entities across all major functions.

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