How can biopharma keep its balance?

EY Biotech Beyond Borders Report 2026

Produced by EY Insights

The better the question.
The better the answer.
The better the world works.

EY
Shape the future with confidence

CONTENTS

To our clients and friends

The EY Biotech Beyond Borders Report 2026 offers a snapshot of an industry trying to find a balanced path forward between major opportunities and significant challenges.

Rich Ramko
EY Americas Life Sciences Sector and Biotechnology Leader

Ashwin Singhania
Principal, Life Sciences Strategy, EY-Parthenon
Ernst & Young LLP

Arda Ural, PhD
EY Americas Life Sciences Sector Leader

On the negative side of the ledger, many emerging companies are continuing to feel the financing squeeze, with strategic and financial investment into the sector cautious and selective and the number of active companies dropping year on year. The wider biopharma industry is still dealing with looming patent cliffs and cost pressures. While leading biopharmas recognize the ongoing need to source new innovations, they are increasingly favoring alliances – particularly in China – as a key part of their growth strategies alongside direct acquisition of assets in the US and Europe.

The industry is keen to hedge against further risk, having just negotiated one of the most turbulent years in recent history. This included literal negotiations conducted between the industry's leading players and the Trump administration to establish new pricing norms and US manufacturing commitments, in response to the administration's major policy announcements on tariffs and Most Favored Nation rights in the first half of 2025. With new 100% tariffs on pharmaceutical imports announced in April 2026, these headwinds are not lifting anytime soon.

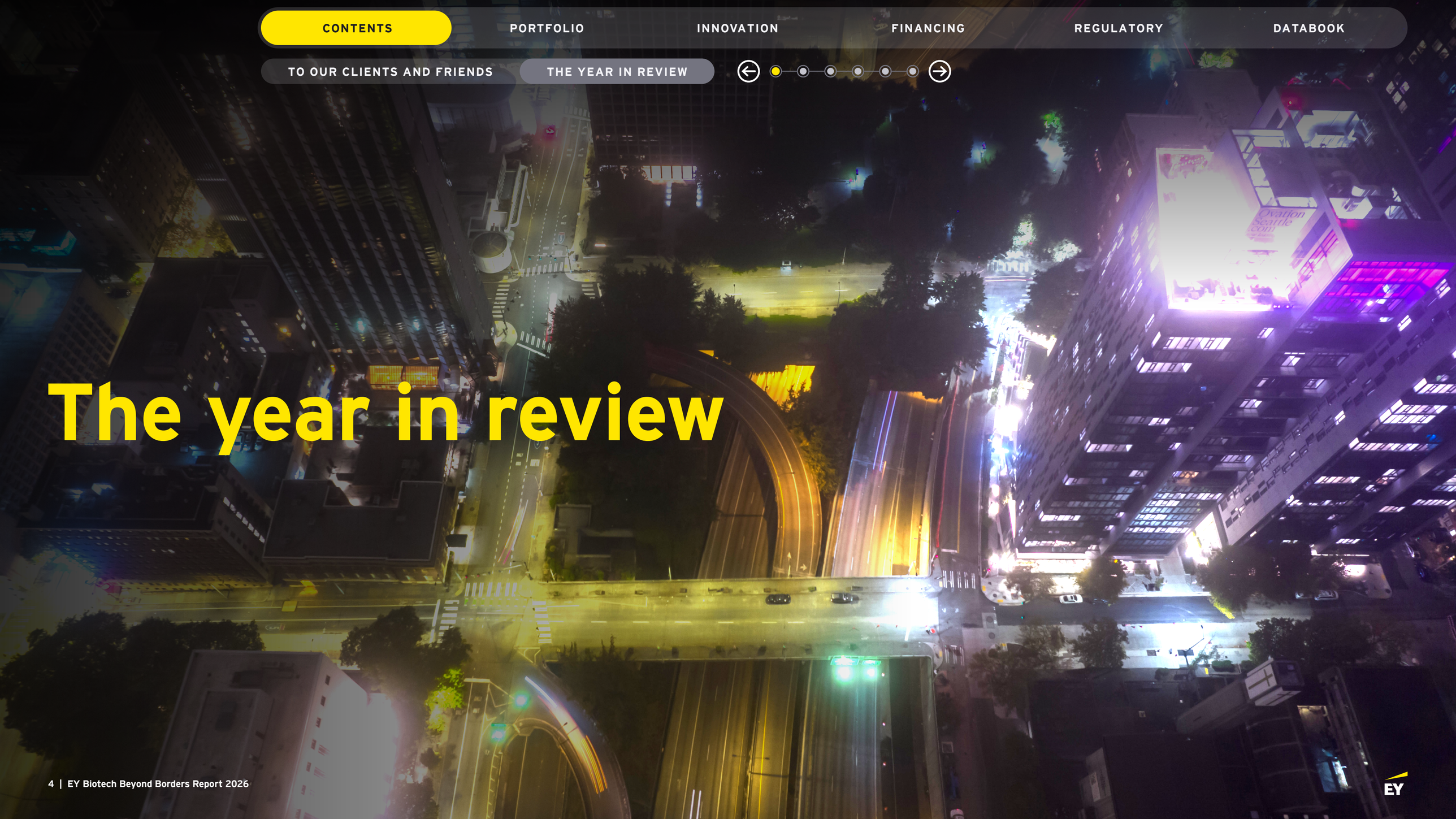
On the other hand, the industry's fundamentals remain very strong. In 2025, the biotech industry hit US$232b in revenues; with a record 72 companies generating over US$500m in sales. Though unevenly distributed, venture capital continues to flow in, with US$20.6b raised in 2025, while 2026 saw some early major rounds and encouraging signs of revival in the IPO market. Emerging biopharmas are also pioneering new financing models, including synthetic royalty agreements and innovative contracting structures.

Meanwhile, the industry's innovative engines continue firing on all cylinders, with first-in-class products (including 38% of all new launches in 2025) reaching the market. And biopharma has realized the potential to accelerate innovation. Widening the search for best-in-class R&D into historically less-established geographies such as China, and newer technologies such as the AI drug discovery engines being refined by TechBio leaders, opens new paths for the industry to develop and commercialize innovations more rapidly.

The upheavals of 2025 underline the need for biopharma to stay alert and agile to adapt quickly to a changing business landscape. However, the industry has already demonstrated its impressive capabilities in anticipating and offsetting emerging risks. Though unpredictable challenges will keep developing from a stormy geopolitical and macroeconomic environment, the industry must prioritize maintaining its balance to keep advancing.

In particular, companies need to understand and maintain the balance between organic and inorganic portfolio strategies; between different geographical and technological sources of innovation opportunity; between the search for robust financial efficiency and the need for novel partnering models to push innovation forward; and between the goals and priorities of the US administration and other policymakers, and the globalized business model biopharma have leveraged to thrive in the 21st century.

These challenges are addressed in more detail in this year's report, both in our analysis and in the range of voices from the industry and its stakeholders. Maintaining balance and riding the ongoing wave of change is no easy ask for biopharma today – but the industry's strong performance throughout the disruptions of the past year shows that biotech has the creativity, imagination and determination to meet these challenges successfully.



The year in review

Understanding the biopharma landscape in 2026 means recognizing the need to balance optimism and concern. From a headline perspective, 2025 was another strong year. Biotech delivered strong revenue growth, up 13% to US$232b; a third successive year of growth. The number of commercial leaders (those with revenues over US$500m annually) hit a record 72. Industry market capitalization rebounded strongly in the last months of 2025 as investors responded enthusiastically to biopharma's progress in negotiating a new working relationship with the US government (discussed in more detail below). In the first half of 2026, IPO investment has continued to recover. In April, Kailera Therapeutics' IPO generated US$718m, exceeding the total raised by Moderna in 2018, the sector's largest previous IPO.

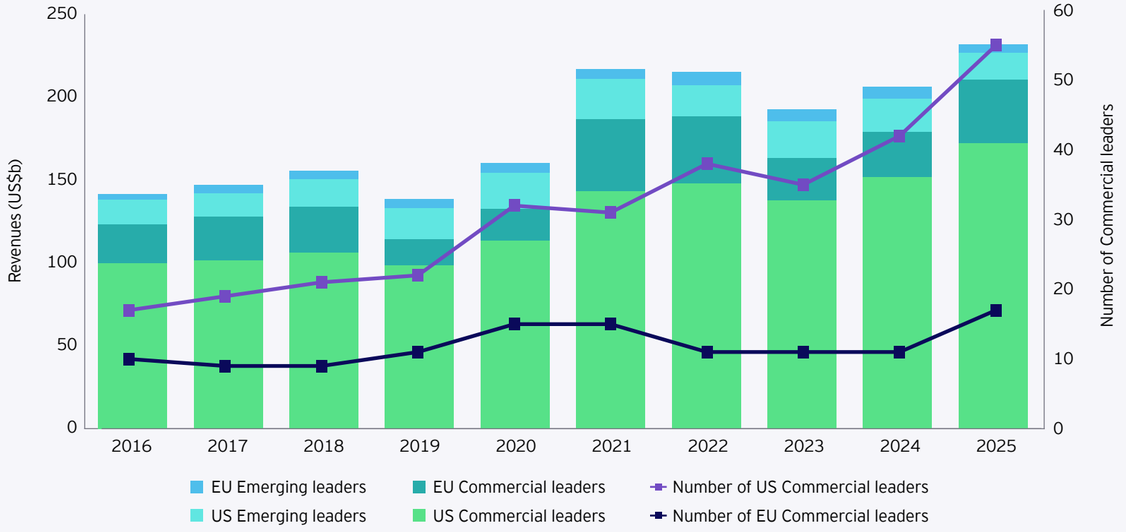
However, the continued difficulties for many players in the sector are reflected in the number of public companies falling for the fourth year in succession in 2025, with only 758 US and European public biopharma still trading at the end of 2025 – compared to the 977 that were in business as recently as 2021. Since 2021 this adjustment has been attributable, in large part to a deep correction that followed the "sugar rush" pandemic peak in investment. Nevertheless, the fact that the cohort size keeps consolidating downwards year after year indicates the ongoing challenges smaller players face to stay afloat in the current business environment.

The starkest illustration of this is the cash situation for the industry. Outside of the sector's commercial leaders (those with revenues over US$500m annually), only 45% of emerging biopharma have more than two years' cash remaining at the end of 2025. For 33%, less than a year's cash is left in reserve. Companies are feeling the heat despite reasonably healthy headline numbers for investment into the sector.

Biopharma raised US$68.5b overall in 2025, up 11% in 2024 and in line with the levels of financing the industry was generating prior to the pandemic investment spike and subsequent correction. Some of this increase is attributable to a 47% jump in debt financing in 2025, with some of biopharma's biggest players issuing debt to finance new acquisitions.[1] However, even discounting the biopharma giants, the innovation capital generated (that is, the financing raised by companies outside the biotech commercial leader group) in 2025 was the highest since 2021. The industry's smaller players raised US$58.9b: 86% of the total haul, and up 6% on the previous year. Follow-on financings, which were a particular source of concern in 2024, rebounded 34% in 2025, led by major rounds for orphan disease specialist Insmed, and a strong showing for immunology-focused biotechs including Kymera, Immunovant and Tharimmune.

The challenge for biotech financing is around venture capital (VC) and IPOs. The IPO market has displayed hopeful signs in the early months of 2026, with significant offerings including Generate Biomedicines and Eikon Therapeutics, which raised US$400m and $381m in Q1 2026. However, this uptick needs to be seen against the background of minimal biotech IPO activity each quarter since the beginning of 2022.

Biotech revenue performance 2016–2025



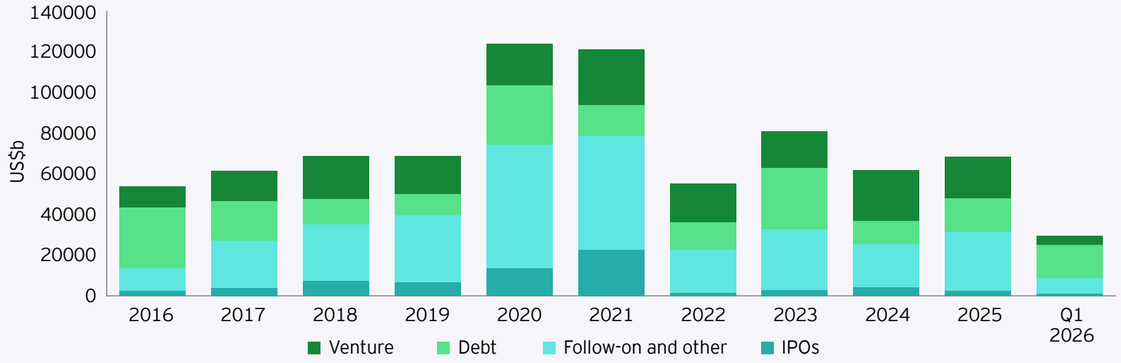
Sources: EY analysis, Capital IQ, company reports.

Meanwhile VC activity reflected and reinforced the long-deepening division between the industry's haves and have-nots. The total raised – US$20.6b – was down 17% compared to 2024 but still 6% higher than the 10-year average. Yet this figure comes disproportionately from late-stage deals (that is, third or later financing rounds), which climbed 9% to a record US$10b from 254 rounds. The industry generated another US$4.3b in VC investment in the first quarter of 2026, with some major rounds despite the ongoing business uncertainty. At the same time, early-stage financing generated US$12.3b from 353 rounds – a 21% drop in dollar terms and 14% dip in deal volume compared to 2024.

This reflects an increasingly selective and discriminating approach on the part of investors toward biopharma risk. Companies like Kailera Therapeutics, which raised US$600m in Series B financing in October 2025 (prior to its record-breaking IPO in April 2026),[2] are thriving. Kailera's injectable GLP-1/GIP agonist offers a phase 3 asset in a high-demand therapeutic category and unsurprisingly faces few barriers to raising capital.

Yet the investor enthusiasm for opportunities like these masks a generally cautious VC stance. The 2025 total of 607 financing rounds overall was 19% down on the five-year average deal volume, and just 50 of these rounds (8% of the total) accounted for 50% of the total investment.

Biotech financing, 2016–Q1 2026



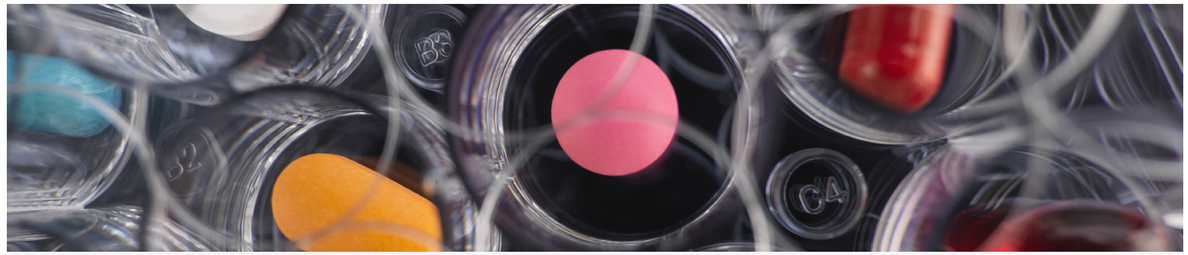
Sources: EY analysis, Capital IQ.

On the M&A front, a similar pattern of spend disproportionately driven by a relatively small number of larger-value deals was apparent in 2025. Average deal size reached its highest level in five years, and deals of US$5b or more in value accounted for 59% of spend, compared to a five-year average of 51%. Big Pharma's renewed willingness to transact continued into the first quarter of 2026, with US$36b in deals signed, compared to US$100b over the whole of 2025.

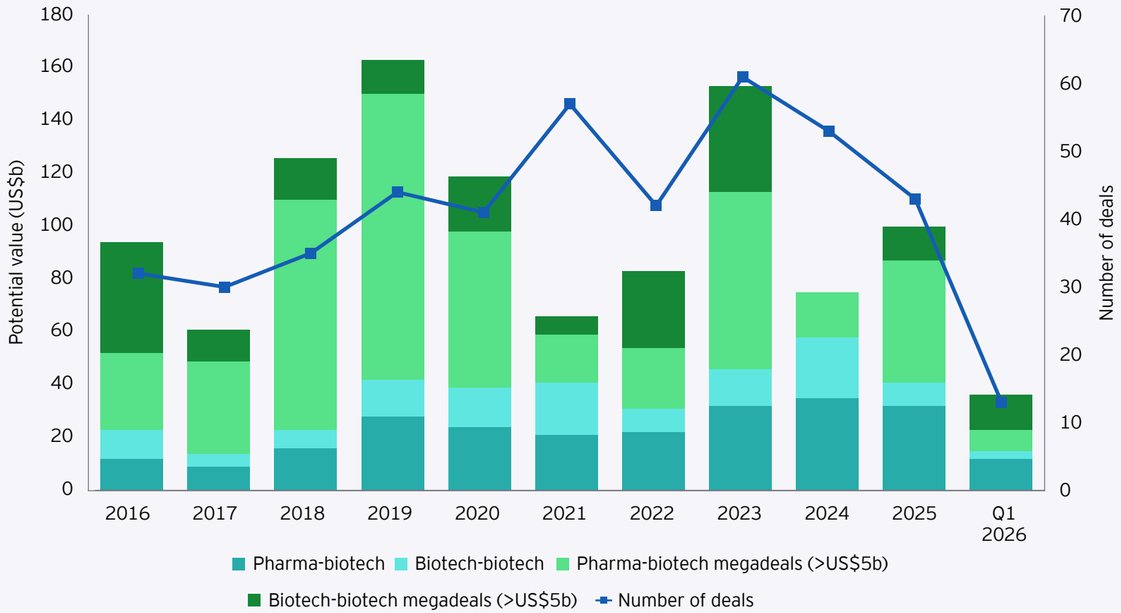
The high competition for de-risked assets means that the industry has increasingly leaned into alliances in addition to M&A. The growing preference for alliances increases the difficulty for emerging companies to exit via acquisition. A longer path to exit means that companies need to manage cash flow closely to keep the lights on until they can generate clinical data that will either support commercialization under their own agency or incentivize big pharma partners to consider buying them out.

However, a further complication for the US and European biotech ecosystem is the growing importance of China as an R&D competitor. China's growing speed and sophistication as an innovator has driven a huge upsurge in industry investment, with Chinese companies representing a genuine alternative to US and European biotech hubs for the first time. While US and European alliance spend was still robust in 2025 (the third-highest biobuck investment ever achieved, at US$136b), this was, once again driven by a higher average alliance investment. Average deal size spiked 45%, offsetting a 35% decline in the number of alliance deals. Once again, the pattern of investment is highly discriminating and selective.

So, while these are good times for a subset of biotech companies, the reasons for the declining numbers of public companies and the pressures straining those companies that remain in operation are clear. Put simply, biotech investors, both financial and strategic, have limited appetite for risk. The reason for this is also clear: the ambient level of risk and uncertainty is already high across the sector. To understand this background, we need to look beyond the patterns of industry investment and other internal performance metrics and look at the wider external dynamics that are redefining the world in which biopharma operates.

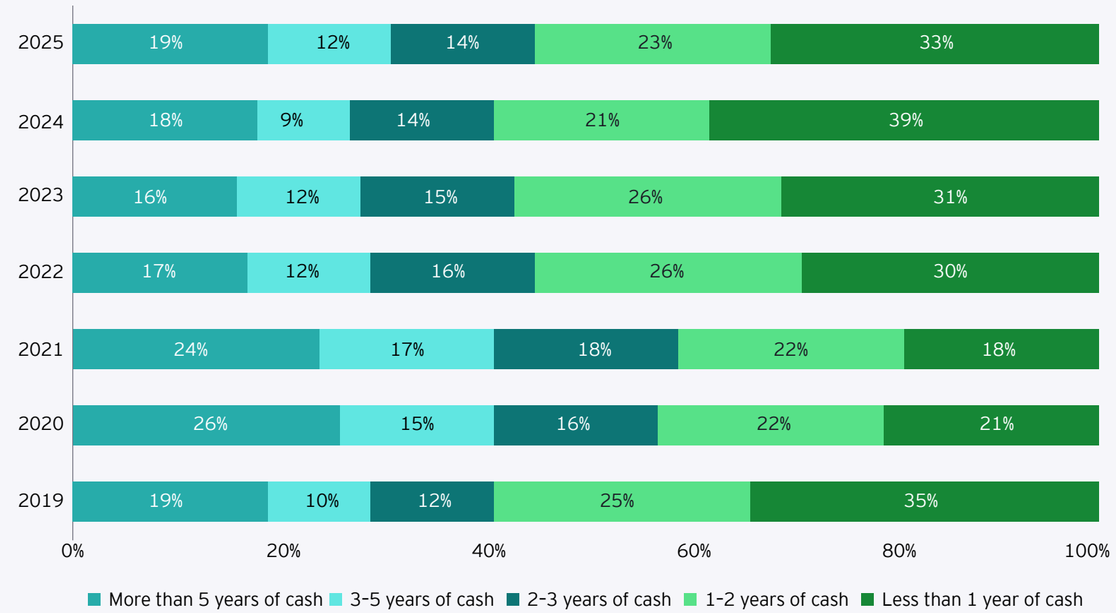


M&A deals 2016–Q1 2026



Sources: EY analysis, Capital IQ.

Biotech Survival Index



Sources: EY analysis, Capital IQ, company financial statement data.

The big picture: biotech and policy changes in 2025–26

Biopharmas were feeling the margin pressures before the advent of the new US administration in January 2025 – and a series of policy measures that have changed the rules for the global business environment in ways which continue to unfold and to compel companies to adapt rapidly.

With the post-pandemic landscape characterized by high inflation rates and macroeconomic volatility, input costs for biopharma ratcheted up, with everything from raw materials and energy to talent becoming more expensive and more difficult to access. Ongoing geopolitical strife and the incremental move away from the globalization model added to the stresses, pushing up freight and logistical cost demands.

The US administration compounded these uncertainties with a series of sweeping shifts in national policy. For biotech one of the most immediate concerns was around potential cuts to US public health funding, which threatened the existence of industry grants from the National Institutes of Health (NIH), Advanced Research Projects Agency for Health (ARPA-H) and Biomedical Advanced Research and Development Authority (BARDA). These public grants represent a key component of the biotech financing picture, particularly in a period where VC enthusiasm for the sector is wavering. NIH funding opportunities plunged in the first year of the new administration,[3] with further cuts proposed in the fiscal year 2027 budget.[4]

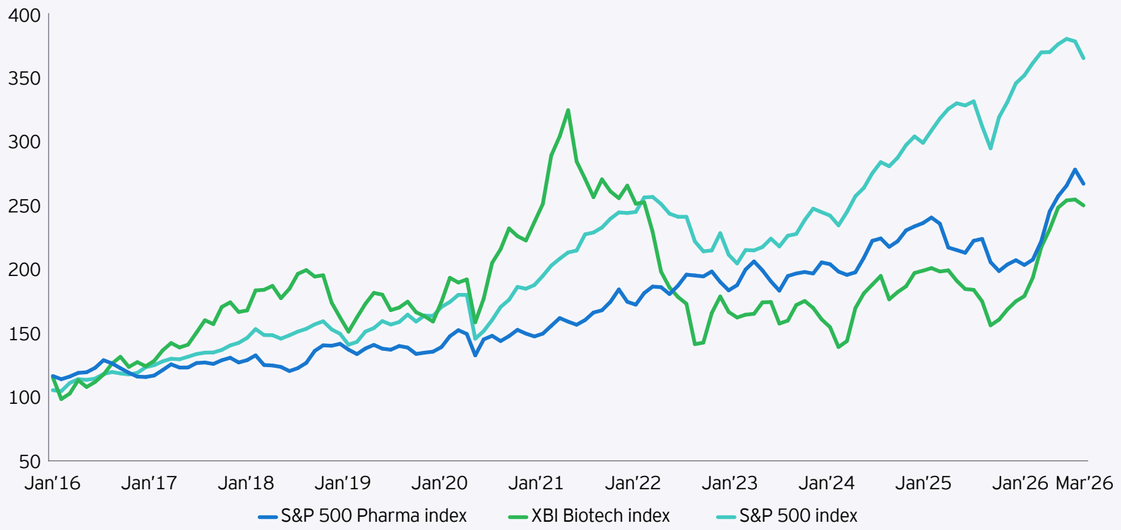
Dramatic though these cuts are for biopharma, other administration policies have similarly significant implications for the wider industry. In April 2025, the Trump administration announced the imposition of global trade tariffs that marked its "Liberation Day"[5] pivot in trade policy. While finished pharmaceuticals were initially exempted from import duties, the tariff announcements immediately injected uncertainty into the business environment, hitting share prices and stoking investor doubts.[6]

On the anniversary of the initial announcement, and following pushback from the U.S. Supreme Court over the legality of the IEEPA tariffs, the administration followed up on a long-standing promise by using section 232 of the Trade Expansion Act of 1962 to impose new measures. Under these terms, the US will impose tariffs of 100% on patented pharmaceuticals and their ingredients,[7] with some exceptions.

Many of the leading pharmaceutical players will not be impacted by the tariff hit, having carved out a series of individual arrangements with the White House in the last quarter of 2025. These negotiations gained urgency in light of two of the administration's other policy drives: the intent to bring pharmaceutical manufacturing onshore, creating jobs and driving inward capital investment to the US, and the goal of reducing US drug prices. The Liberation Day announcements were explicitly intended to prioritize US-made products over imports, and the administration followed up on this with a May policy announcement to promote domestic drug manufacturing by streamlining regulation.[8]

Meanwhile, the demand that the industry apply "Most Favored Nation" pricing considerations to the US was set out in a May 2025 Executive Order[9] aimed at ending the industry's practice of charging what the Order terms "enormously high prices in the United States." In July, the government followed up with letters to the CEOs of 17 of the industry's leading players, demanding "America First" drug pricing.[10]

Valuation changes, 2016–Q1 2026



Sources: EY analysis, Capital IQ, Biospace.com, Fortune.com, CNN.

These interlinked initiatives bore fruit in September 2025, when Pfizer struck a deal with the administration. Pfizer announced its agreement to align US prices with other major markets and to invest an additional US$70b into US R&D and capital projects;[11] in turn, the company reportedly secured various concessions, including exemption from Section 232 tariffs for the next three years. The Pfizer deal set the pattern, with AstraZeneca signing its own deal on October 10,[12] and Merck KGaA's EMD Serono on October 16.[13] All 17 of the companies the administration contacted in July 2025 have now negotiated deals, combining elements of compromise and conciliation around pricing, onshoring and investment into the US.[14]

As part of this alignment, biopharma players had pledged around US$370b in investments into US manufacturing, infrastructure and other areas by the end of 2025,[15] bolstering the optics for the government's "America First" policies. The markets rewarded the industry for reaching a new modus vivendi with the government, with biopharma share prices rebounding in the fourth quarter of 2025.

However, where these new agreements leave the biotech industry in the wake of the April 2026 tariff announcement is uncertain. The companies which have negotiated pricing deals enjoy exemption from the new tariff framework, while those which have committed to investing in onshore production face a reduced 20% rate for the next four years. For companies not included in the negotiations, the grace period before the full hit of the new tariffs is 120 days, or 180 days for smaller companies dependent on contract manufacturers.[16]

Looking ahead

Diana L Hoff
EY Americas Life Sciences
Incoming Sector Leader

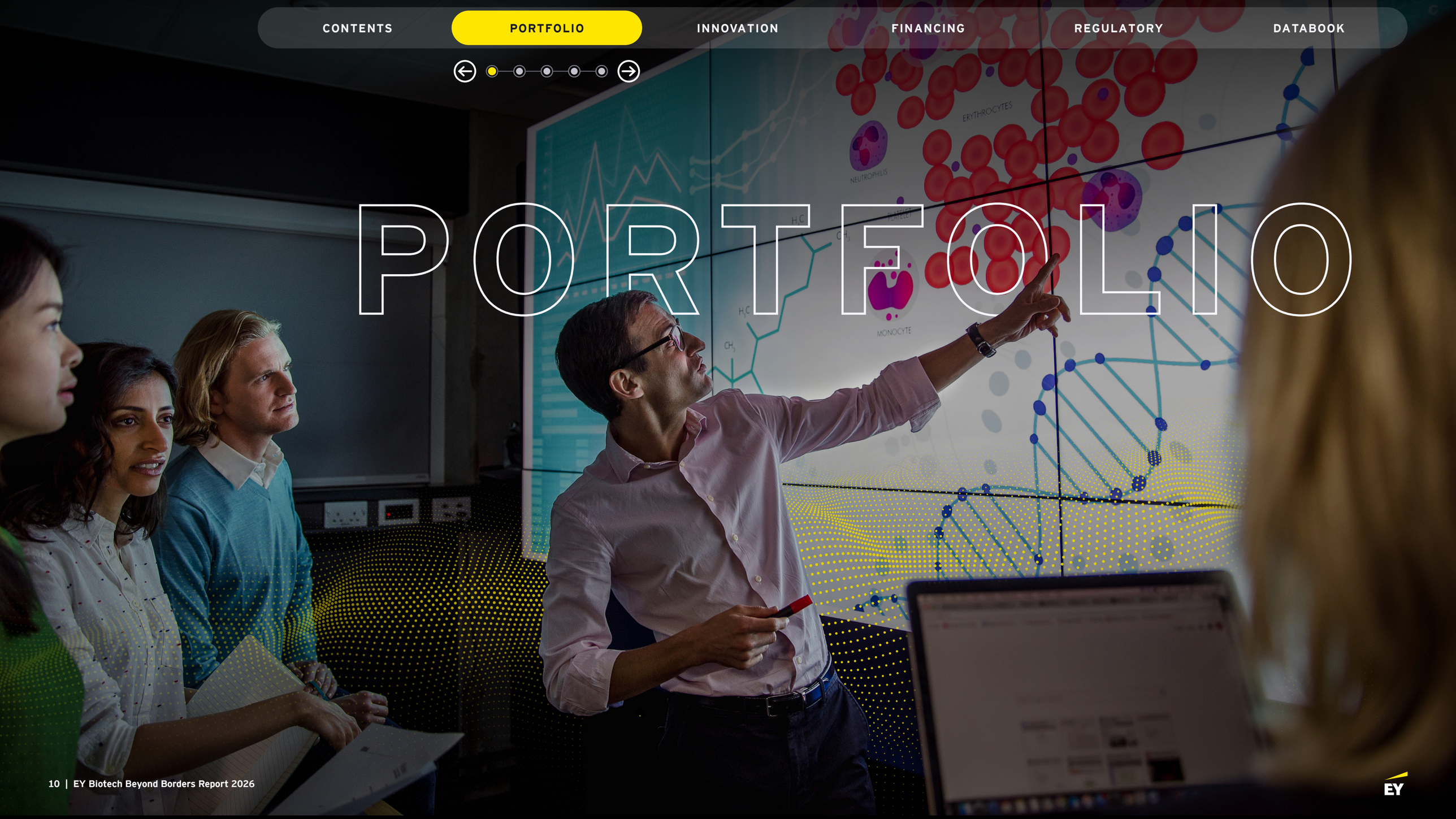
In short, the uncertainties that beset the industry in 2025 have in no way resolved. Policy trends that directly impact biotech, like NIH changes, appear set to continue or intensify. Policy changes affecting the wider biopharma landscape and thereby changing the operating environment for biotech are also ongoing, from pharmaceutical tariffs to downward pressure on prices to the onshoring drive. Wider policy commitments, including geostrategic moves that may drive up energy costs and constrain access to raw materials, adding further pressure to supply chains, are also a continuing concern for the sector.

With disruption therefore becoming biotech's new normal, the industry can expect the wild swings of fortune it experienced in 2025, reflected in the jagged pattern of valuation changes as investors responded to each new development, to continue throughout 2026. Yet as we noted at the outset, the industry has continued to grow throughout these upheavals, and anxiety about the present disruption should be balanced with optimism about the industry's continued strong fundamentals. For biopharma companies large and small, the challenge will be to maintain their balance amid the ongoing shifts in the landscape and to make strategic moves that can secure stability and growth.

In particular, companies need to consider:

- How to rebalance portfolios to offset patent expiries with new pipeline assets, whether organically developed or acquired externally – and how to find the right mix of modalities and therapeutic areas to thrive
- How to balance future sources of innovation, including tapping opportunities emerging in China and the US and European biotech ecosystems, and leveraging the opportunities of AI to accelerate R&D
- How to balance the current financing pressures and demands, with many biotechs needing to explore new financial models and deal structures to sustain operations through clinical development
- How to balance strategy across geographies, making use of global opportunities while also addressing evolving US policy priorities and the operational and strategic demands these place on the industry

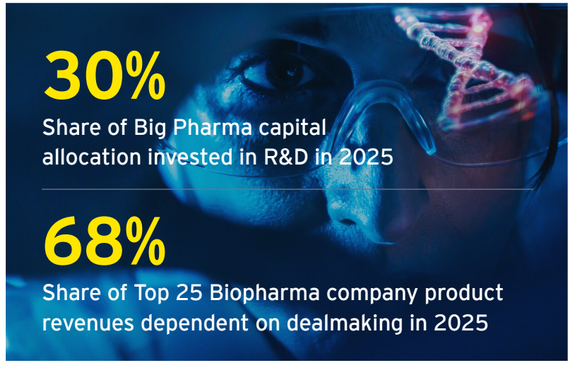
PORTFOLIO



Finding the right portfolio balance to offset patent expiries and pricing and market uncertainties

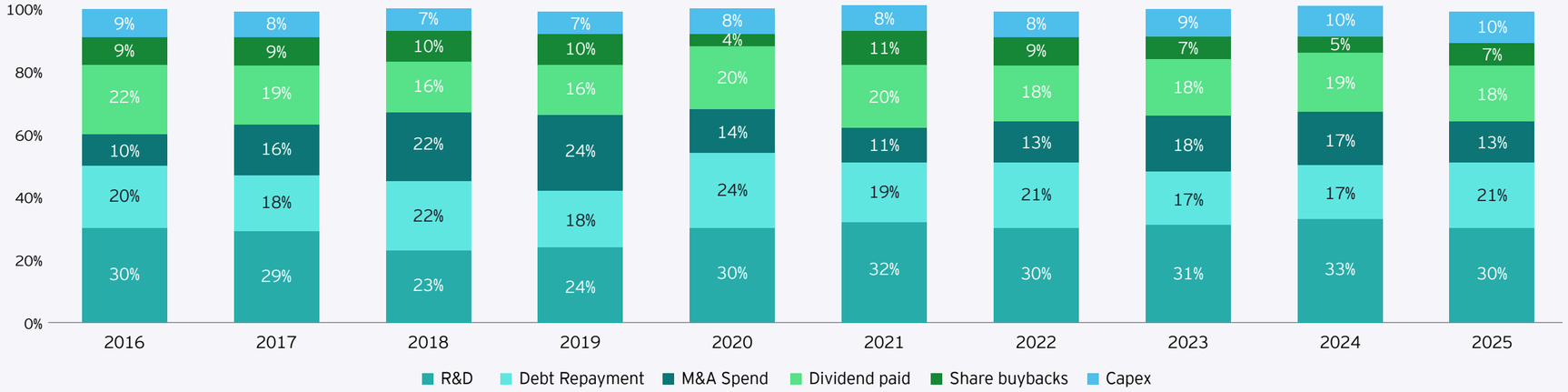
With loss of exclusivity and intensifying market competition pressing on one side, and global economic and political disruption on the other, biopharma needs smart portfolio strategies that can offset risks and secure opportunities for growth.

Getting portfolio planning right means finding a workable balance: between organic and inorganic growth drivers; between acquisitions and alliances on the partnering front; between finding first-in-class innovation and building the business foundations to commercialize those breakthroughs successfully. The biopharma portfolios of tomorrow will look different than those of 2026 – but the industry's long product cycles mean that companies need to start making these calls and finding that strategic balance today.



Organic vs. inorganic growth

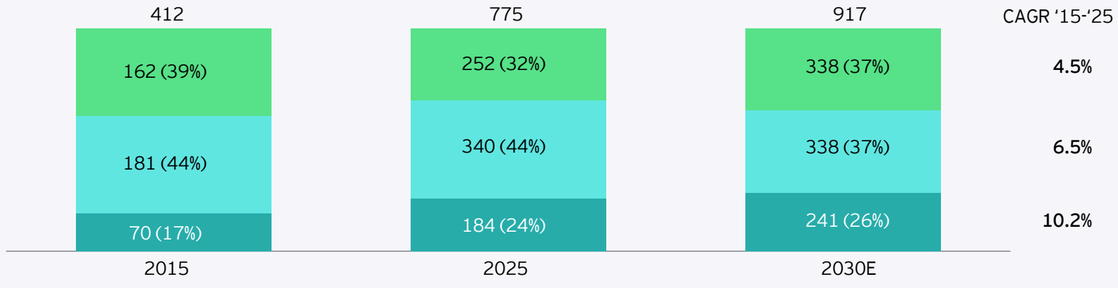
Big Pharma capital allocation 2016–2025



Sources: EY analysis, Capital IQ.

Innovation is the engine of biopharma, and the industry's leaders continue to invest up to a third of their expenditure into R&D while chasing the tantalizing prospect of AI innovation engines that can accelerate the processes of drug discovery and development (see INNOVATION article). Nevertheless, the life sciences' rapidly widening innovation frontier means that no single company can be across every transformative breakthrough in R&D, and the industry's frontrunners have leaned heavily into inorganic growth portfolio strategies to bolster their R&D efforts. About two-thirds of the Big Pharma portfolio revenues today derive from products acquired via dealmaking, and by 2030 these players will still depend on deals for most of their sales.

Source of product revenues for top 25 biopharmas 2015, 2025, 2030E



Sources: Evaluate Pharma, Capital IQ, EY analysis.

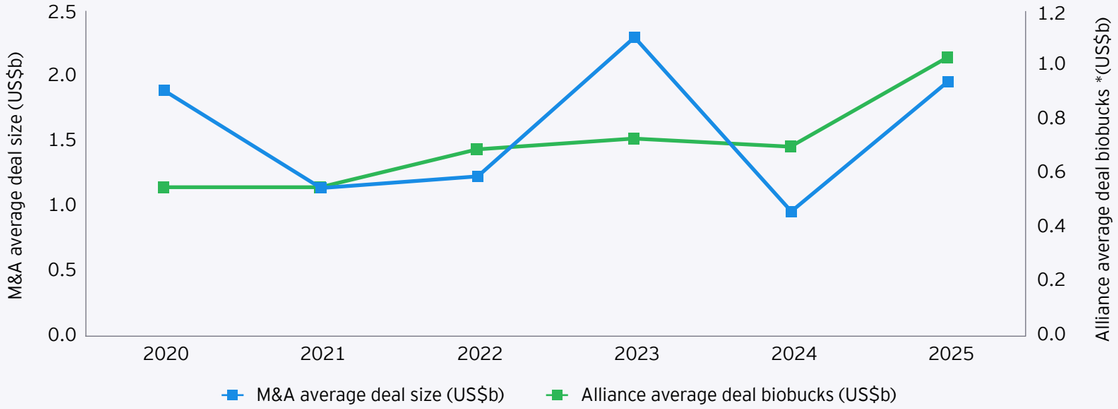
Alliances vs. acquisitions

Within its inorganic growth strategy, biopharma has followed a dual-track approach in recent years: a small number of big-ticket, high-price acquisitions for near- or in-market assets to address immediate portfolio deficits; and licensing and other alliance deals for high-potential assets at earlier stages of development. Across both alliances and acquisitions, average deal size rose sharply in 2025, with more discriminating, strategic investments the focus.

With deals getting larger, companies have sought to hedge some of their dealmaking investment risk, with 2025 also witnessing an uptick in the number of post-acquisition milestones structured into deal contracting; contingent value rights (CVR) tied to successful completion of specific clinical phases, to launch events, or to commercialization and sales endpoints are increasingly evident in years of high M&A spending, with more than half the biopharma deals in both 2023 and 2025 including some form of CVR milestone.

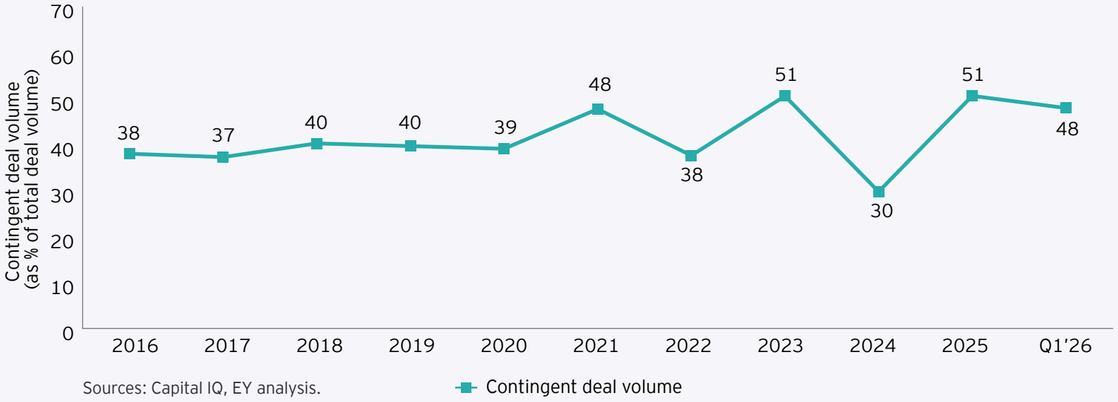
The attempt to balance commercial risk and reward is a key driver of alliance strategy. Biobucks licensing spend has been turbocharged in the past three years by the surge of Chinese biotech R&D flooding the market – but the industry had already come to rely heavily on alliances as a means to access innovations with a longer-term, less certain pay-off. In particular, this has been the approach the industry has preferred for the newer technology platforms coming to the market.

Average deal size for biopharma alliances and acquisitions, 2020–2025



Sources: Evaluate Pharma, Capital IQ, EY analysis.

Number of acquisitions including contingent milestones, 2016–Q1 2026



Sources: Capital IQ, EY analysis.

BIOreaction

John F. Crowley
President & CEO
Biotechnology Innovation Organization

AI is going to have a profound impact on our industry; it can help us develop molecules, to reduce or maybe someday eliminate the need for animal studies, to optimize clinical trial design, biostatistics, patient selection and to aid regulators in reviewing and interpreting clinical trial data. Perhaps AI's greatest impact will be in expanding our understanding of fundamental complex systems biology, enabling us to reduce the time and cost and increase the likelihood of success of our programs. That said, our mindset as an industry has always been to take bold and smart risks and oftentimes to be the first to fail rather than the last to succeed. That's a hallmark of our entrepreneurship, that an innovative industry born in America has a global reach and impact.

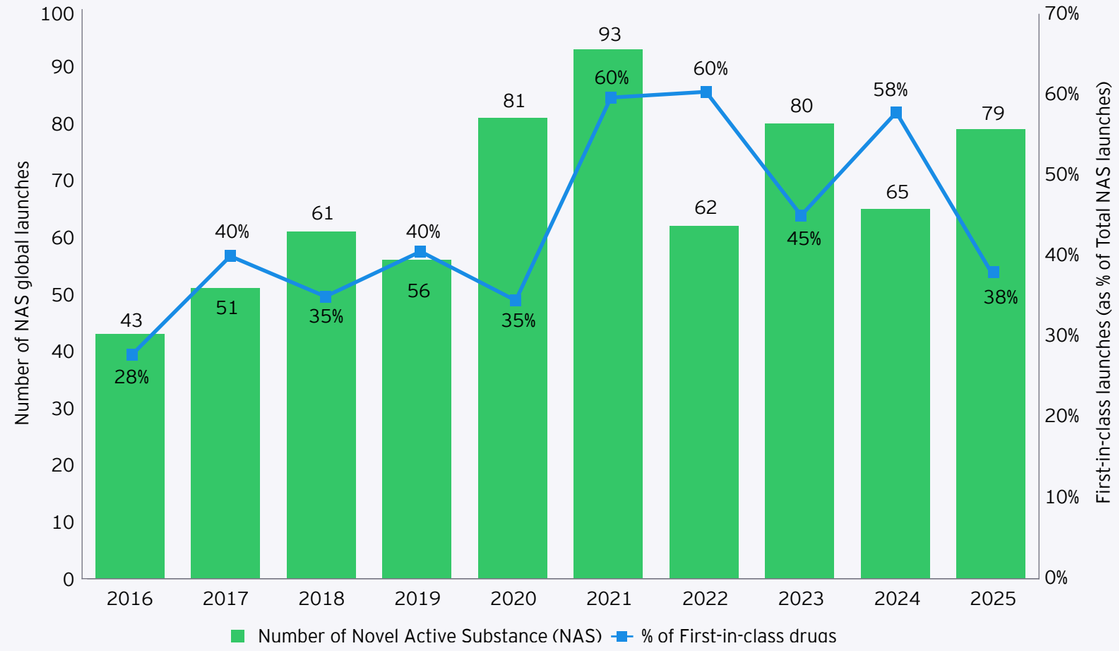
US biotech dominance is national security. And the United States has traditionally led the world in biotechnology with strong partnerships and collaborations with researchers around the world, particularly among our closest allies. We believe that we must win in biotechnology. And we believe, too, that everybody, that the entire world and everybody living in it is a better, safer, healthier and more prosperous place where the United States and our allies continue to lead in biotechnology. Today that lead is greatly threatened. China has made enormous advances in their biotechnology programs and industry. Rather than trying to stop what's happening in China, which I think would be a fool's errand, the better focus is for us to outcompete China, to focus on areas where we can be more competitive, where we can reduce the time, cost, complexity, uncertainty of drug development. If we do that, that will lower the cost of capital.

That will continue to ensure that the United States and our allies lead in biotechnology. And at the end of the day, I will bet on the American biotech entrepreneur all day long.

Innovative market opportunities vs. commercial challenges

In increasingly crowded marketplaces, where up to 56% of products in key therapeutic areas such as oncology miss sales projections,[17] companies confront uncertainty on how to convert innovation into the commercial success that can sustain their portfolio strategy. The gold standard is to have first-in-class products that can reshape the market. However, even first-in-class status is no longer a guarantee that a product can hit its commercial projections. Since 2021 the number of first-in-class products approved annually has reached heights unknown in the 2010s, emphasizing the current intensity and competitiveness of the innovation landscape and increasing the difficulty for companies seeking to turn clinical differentiation into commercial rewards.

Novel active substances (NAS) launched globally, 2016–2025



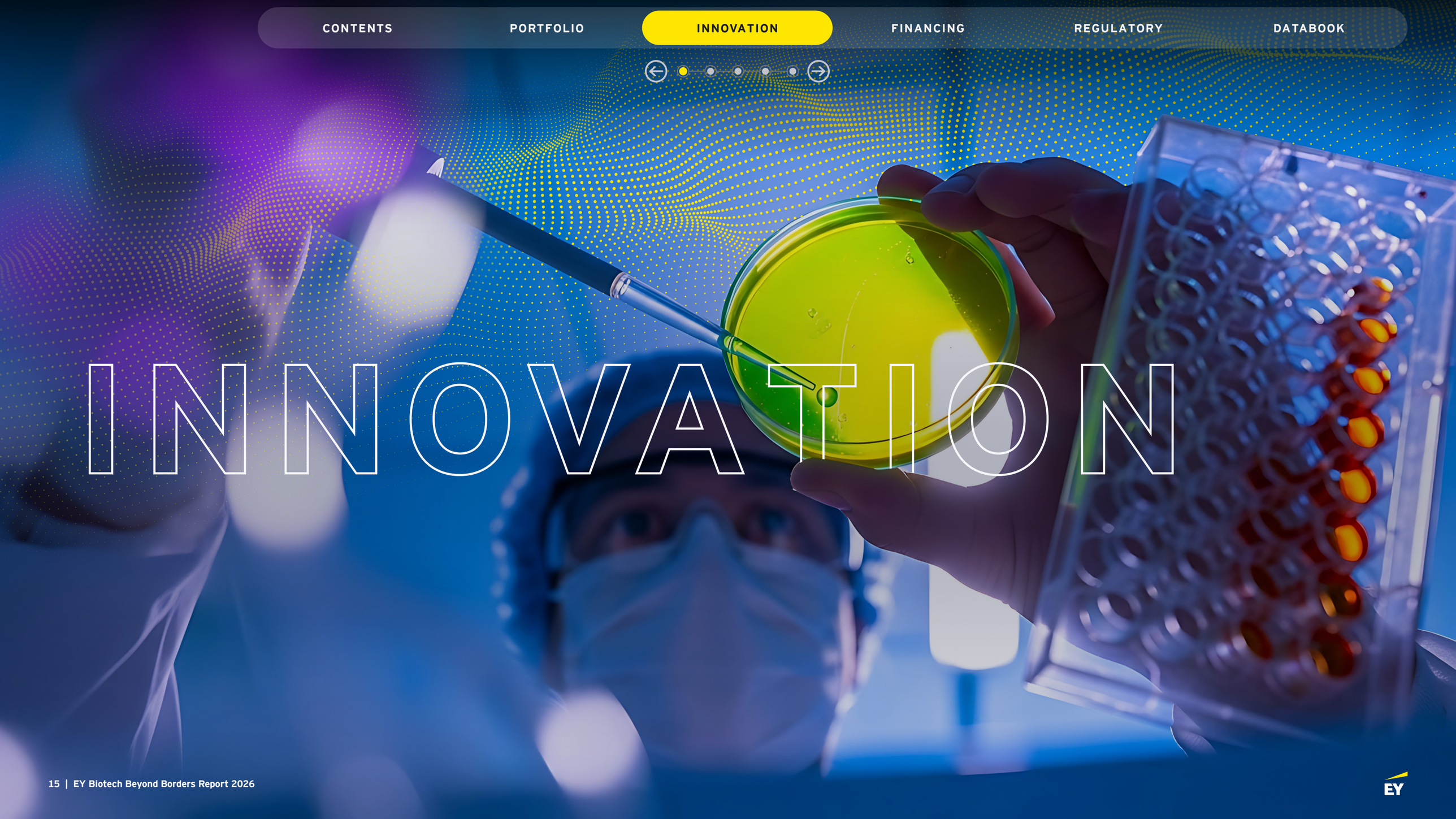
Source: IQVIA R&D Trends report.

The sheer scale of new launches hitting the market means that first-mover advantage is diluted. Whereas traditionally a biopharma winning approval for a novel product would be able to enjoy a period of exclusive market dominance, in recent years companies have seen challenges emerging faster. In 2024, Novo Nordisk's breakthrough in the anti-obesity market saw it invest heavily in manufacturing capacity to meet runaway demand for its first-in-class GLP-1 products. Novo became Europe's most valued corporation; but by the end of 2025 it faced fierce and ongoing competition in the weight loss market.[18] This dynamic highlights another balancing act biopharmas need to consider: market specialization has traditionally correlated strongly with outsize financial returns, but in an era where heightened competition may constrain the scope of blockbuster dominance, portfolio diversification may once again become a necessary strategic defense.

When companies do find an innovative edge, this will increasingly be in the new modality space. By most projections, industry pipelines and growth forecasts are heavily dependent on novel technology platforms, from cell and gene therapies to next-generation radioligand-antibody conjugates. The sophistication of these products offers them more defensive value against biosimilar challenges compared to more biological drug classes. However, the path to commercial dominance for these novel products is more uncertain, as evidenced by the turbulence the cell and gene field has experienced since its 2017 regulatory watershed.[19]

To rebuild their portfolios successfully around these new generations of products, and to balance the pursuit of innovation with commercial realities, biopharmas will need to address these critical challenges:

- Addressing the inherent challenges of low scalability and high cost of goods (COGS) for precision products that target relatively small therapeutic niches. This may involve embracing modular manufacturing, including single-use systems, and leaning into a more networked and agile operational model to optimize collaborations with CDMOs and other partners.
- Finding the right pricing model for high-innovation, high-cost new therapies. This may involve better launch sequencing planning, to avoid establishing unsustainably low international pricing benchmarks through launches in smaller markets, to improved customer engagement and commercialization strategies, to embracing innovative contracts that reward improved real-world outcomes.
- Greater use of AI analytics to make the commercial and operational model that underpins portfolio strategy more efficient. This may range from use of digital twins to better read and predict downstream market signals and upstream supply challenges, to smarter use of AI-enhanced customer relationship management (CRM) systems to manage end-markets more effectively.[20]



INNOVATION

Analyzing the risks and rewards from emerging sources of innovation

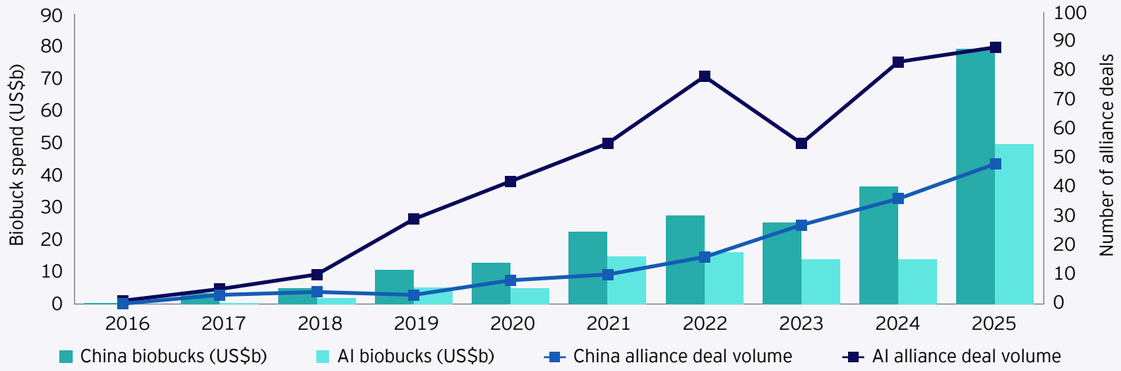
The face of biopharma innovation is changing rapidly – new geographies and new technologies are rapidly assuming a critical place in growth strategy. Yet, the industry needs to balance the opportunities of these emerging new sources of innovation against the risks and challenges they present.

In particular, two areas of potential game-changing significance leap out when we look at the flow of industry biobucks spend over the past 10 years: investment into R&D from China; and investment into AI models that hold out the possibility of revolutionizing industry innovation from the ground up.

Made in China: Is the center of life sciences shifting?

In the 2020s China has transformed itself into a primary engine for "best-in-class" early-stage innovation for the biopharma industry. China's new-found credibility in the R&D space has many deep long-term causes, including major state investment into the domestic biotech ecosystem, and the return of "sea-turtle" scientific talent nurtured abroad. These and other factors have enabled Chinese companies to ascend the biopharmaceutical value chain. Once predominantly regarded as an affordable destination for manufacturing, clinical trials and research, China is rapidly becoming a heavyweight innovator in its own right, boasting more R&D companies than Japan, the UK, France, Germany and Canada combined.

Biobuck investment into China R&D and AI technologies, 2016–2025



Sources: Capital IQ, EY analysis.

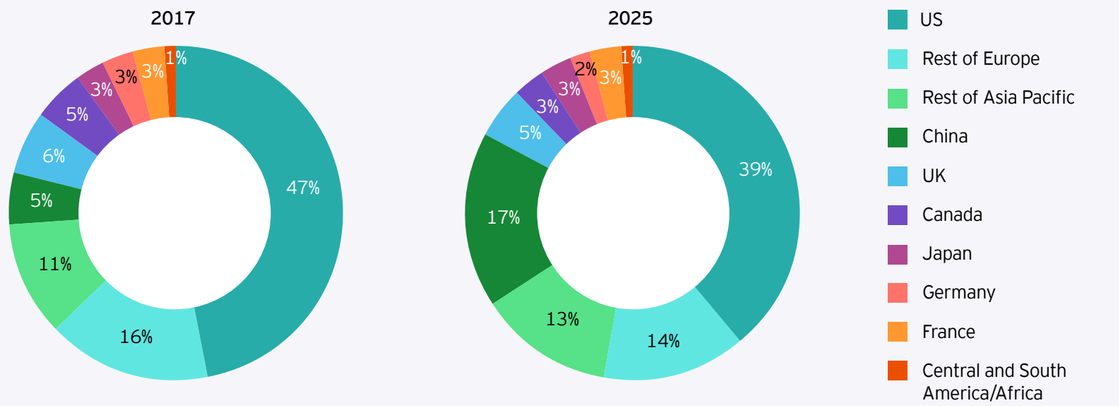
Executive decision Part 1

Wendy Cheung
Senior Vice President, Head of Oncology, GPS
Roche/Genentech

How does Genentech balance in-house R&D, acquisitions, and alliances and licensing deals to secure the right portfolio mix for future growth?

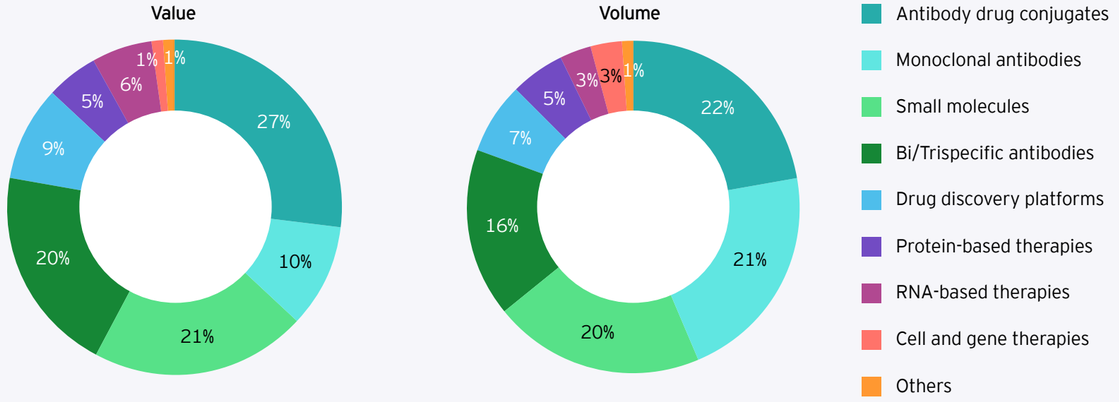
Our goal is to build one of the strongest pipelines in the industry, and we are agnostic to where innovation originates. At Roche and Genentech, we continue to invest deeply in our in-house R&D capabilities, while recognizing that a significant amount of innovation is happening externally. That's why we actively partner to complement our portfolio across therapeutic areas and development stages, through collaborations, licensing and acquisitions, typically focused on small- to mid-sized opportunities, to access promising assets, technologies and know-how. In practice, this means building on our deep disease area expertise, for example in breast cancer, where we continue to advance new approaches such as endocrine therapies like SERDs, while also bringing in complementary external innovation to broaden our approach. Ultimately, it's about increasing the probability of success and delivering transformative medicines for patients.

Distribution of R&D companies by HQ country/region, 2017 vs. 2025



Sources: Pharmaprojects, EY analysis.

Areas of focus in China deals

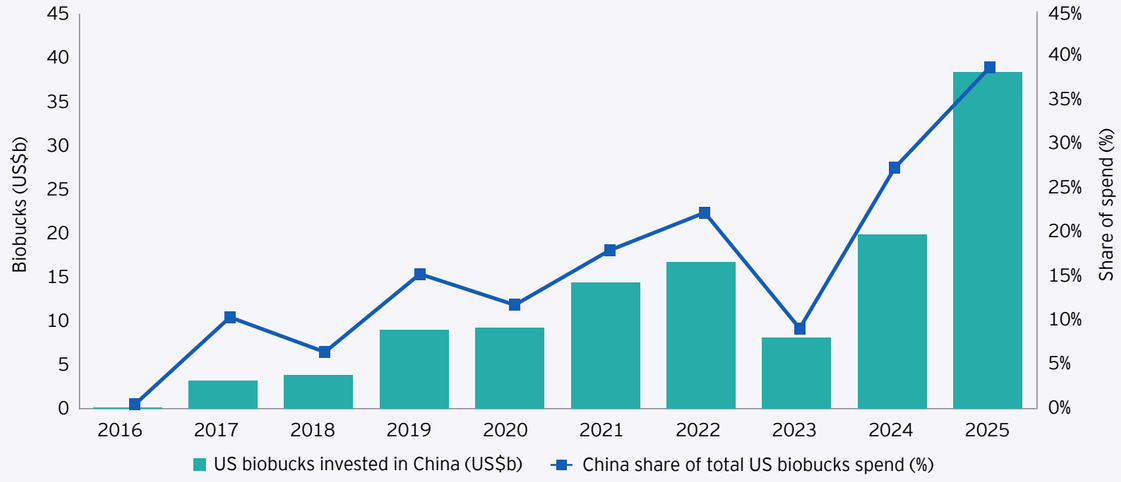


Source: EY analysis.

China's growing importance to the industry's collective clinical pipeline is not only a function of quantity but also of scientific quality. Rather than a mere parade of adequate me-too candidates, novel modalities and advanced therapeutic platforms account for a significant share of the studies China is initiating. These cutting-edge clinical programs account for a large proportion of the overseas investment into Chinese R&D.

As yet China arguably has yet to deliver a definitive "leading class" R&D breakthrough – though the emergence of bispecific antibodies concurrently targeting VEGF and PD-1 grabbed attention as a homegrown Chinese R&D achievement attracting major industry investment and excitement.[21] Industry discussions reveal two other areas where Chinese innovators have a definite edge over US competitors: affordability and speed. Though some reports indicate that up-front costs are now rising,[22] dealmaking in China in recent years has needed only modest advance commitments. Moreover, Chinese companies can move fast, with US and European policymakers and commentators have noted that China is now a significant competitor in the biopharma innovation space,[23] and with 39% of US biobucks flowing to China in 2025, more concerted pushback in US policy is an important possibility (see REGULATORY article). For now, however, China's rise is a significant strategic reality that the industry needs to recognize in its innovation thinking.

Share of US biobucks going to China R&D, 2016-2025



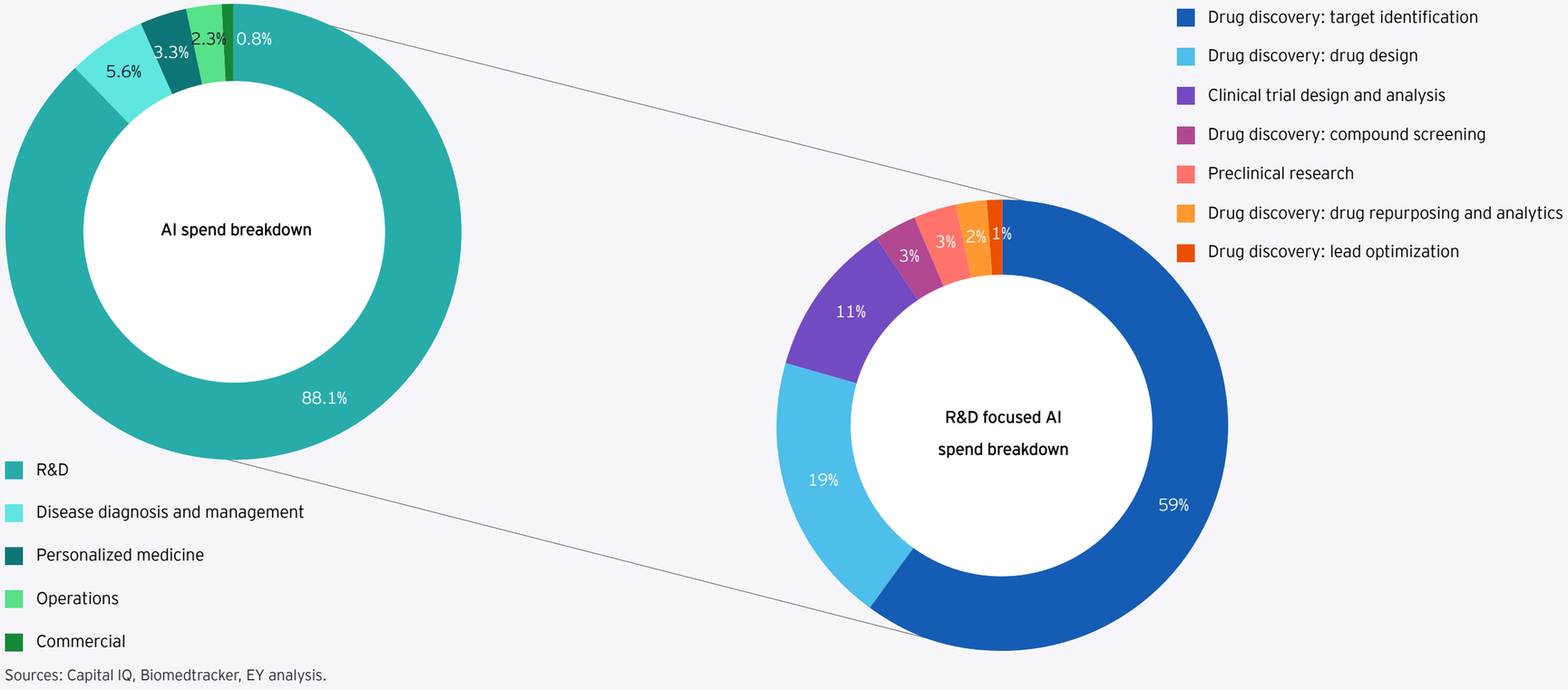
Sources: Capital IQ, EY analysis.

Is R&D the real AI opportunity for biotech?

The potential for AI to reformat the life sciences business model is widely acknowledged across the sector, with companies leveraging AI to reinvent everything from how company supply chains are monitored in real time to how sales reps shape and personalize their messaging for payers and practitioners. Yet overwhelmingly the key focus for industry AI alliance spending is innovation: R&D accounts for over 88% of the sector's biobucks investment in the space with drug target identification, drug design and clinical trial patient recruitment the three biggest target areas.

Biopharma's appetite for exploring AI applications in R&D indicates the reality of innovation as an entrenched pain point for the industry. The high costs of developing or acquiring a drug reflects the high attrition rate of molecules in clinical studies and the extended timelines involved in moving a candidate from initial discovery through eventual commercialization. While China, as noted, offers some scope to speed up R&D timelines, industry hopes for a more drastic acceleration of the process rest on the power of AI engines (of course, there is also substantial overlap between investments into China and AI innovation opportunities, with some of Big Pharma's biggest AI alliances signed with China partners).[24]

Dominance of R&D focus in AI dealmaking



Sources: Capital IQ, Biomedtracker, EY analysis.

For now, validation of AI's transformative impact on R&D is still pending, and biopharma leaders have followed a dual approach. They have signed multiple alliance deals with AI companies in the drug development space including Recursion, Schrödinger, In Silico Medicine and Isomorphic Labs. These deals have high biobuck values attached, but with the headline deal values dependent on milestones and earn-outs. At the same time, companies have significantly invested into their own AI infrastructure, including supercomputer clusters and GPUs. For now, the specialized algorithms and automation velocity offered by the specialist AI companies may outstrip what Big Pharma firms can build in-house, but a mixed model of proprietary capacity with external partnering appears to be the current working approach the industry is adopting.

Ultimately, to take advantage of the growing opportunities from China and AI-driven innovation, and to balance opportunities to accelerate R&D with the challenges of working in unfamiliar fields, biopharmas will need to meet these challenges:

- Developing the right deal constructs and partnering expertise to successfully work within China, including the potential need to embrace both "in China for China" as well as a "from China for global" models of how to globalize innovation within the country; this may involve building new joint ventures, devolving com-commercialization rights for the domestic Chinese market and building deep local expertise and collaboration.
- Finding the right balance between building AI capabilities in-house and finding the external partners who can optimize and accelerate AI programs – this includes entering into agreements to tap the emergent potential of quantum computing, an area where biopharma first-movers could build a significant edge in data and AI capabilities. Companies also need to build the tools to capture return on investment into AI initiatives to validate their spending in these areas.
- Companies need to work closely with regulators to capture the opportunities arising from China and AI; this includes understanding and partnering with the state and regional regulatory bodies within China, understanding and addressing US regulatory concerns about China-focused investment strategies, and collaborating to build a new regulatory framework around data access and usage to optimize efforts in the AI space.

Executive decision Part 2

Wendy Cheung
Senior Vice President, Head of Oncology, GPS
Roche/Genentech

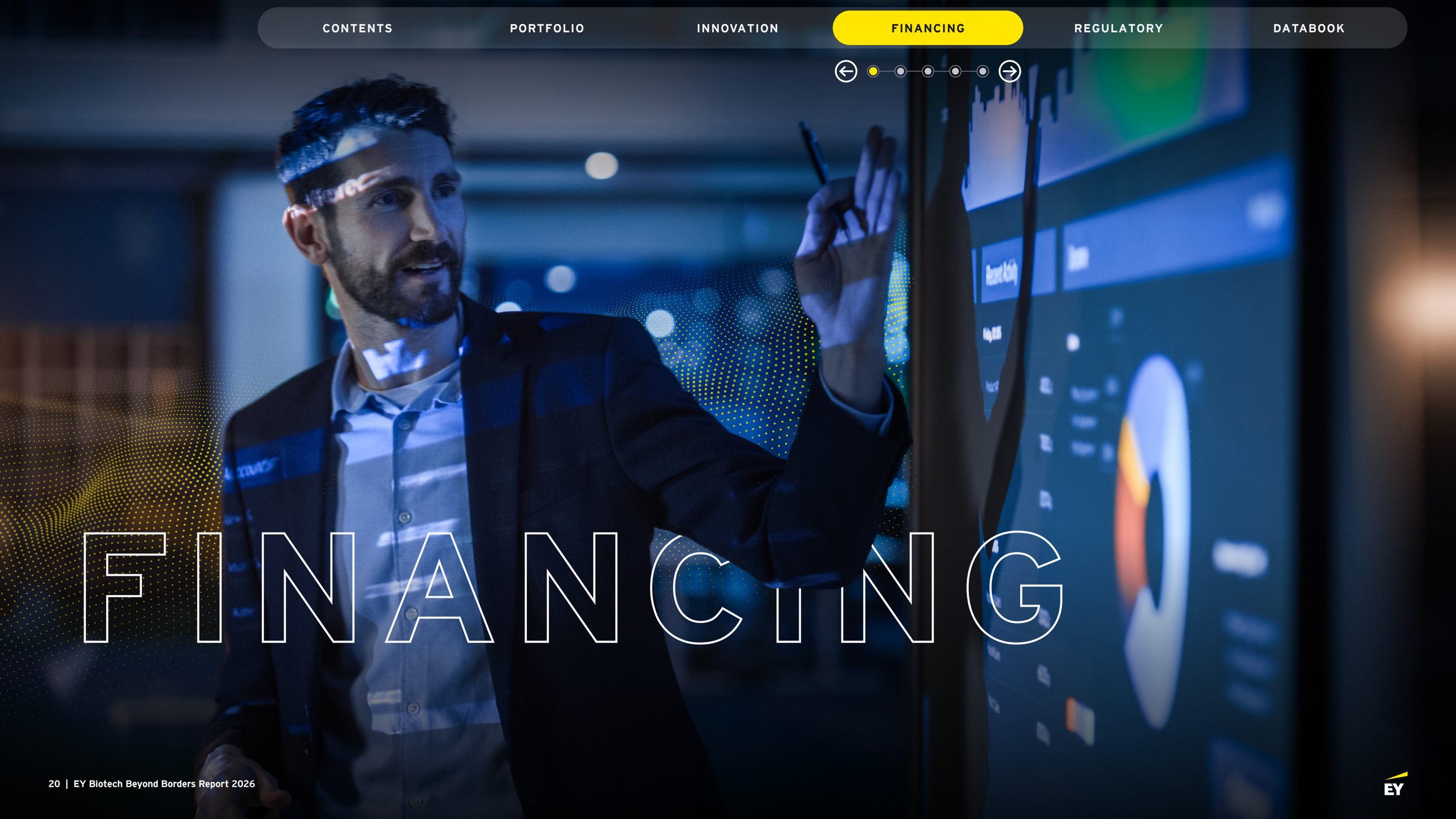
How do you incorporate the potential of new modalities into growth strategy, and what are the challenges and roadblocks with these newer technology platforms?

We start from the patient perspective, understanding where the greatest unmet needs are and where we can have the most meaningful impact. From there, we assess how best to address those needs, and increasingly that means bringing new modalities into our portfolio as the science evolves. At Roche and Genentech, we do this by building a diversified, science-led pipeline across platforms such as antibodies, ADCs and next-generation cell therapies, with a clear focus on areas of highest unmet need. This is complemented by integrating diagnostics, data and digital capabilities to enable more personalized and effective care while improving the patient experience. We also actively partner to access emerging platform technologies and external innovation that complement our internal portfolio and strengthen our capabilities to deliver future breakthroughs.

Approaches such as cell therapies are nascent, complex and rapidly evolving, requiring different manufacturing models, closer integration across research, manufacturing and the clinic. Ensuring these innovations can be effectively delivered to patients remains a key focus.

How are current operating landscape uncertainties impacting how you plan your portfolio and partnering strategies?

The current environment is becoming more challenging to navigate, with macroeconomic and regulatory uncertainties impacting funding, valuations and deal activity. At the same time, there continues to be significant patient need, particularly in areas like oncology, reinforcing the importance of continuing to innovate and advance the science to deliver better therapies. For us, this means staying focused on bringing in the right external opportunities with transformative potential to complement our existing pipeline and portfolio, while prioritizing rigorously and maintaining discipline.



FINANCING

Balancing growth strategies against the realities of a tougher financing environment

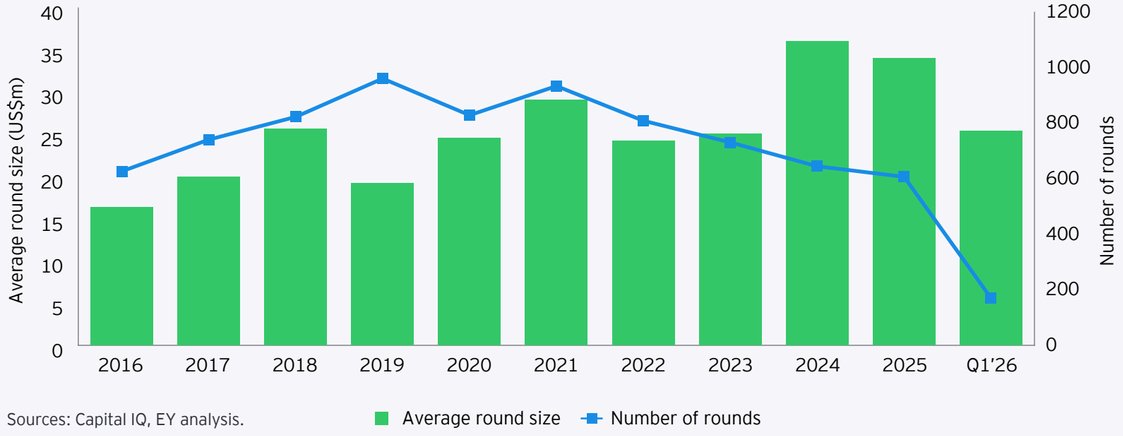
Biotech's financing landscape is currently defined by a paradox: on the one hand, a record number of "mega-rounds" are being signed; on the other hand, growing numbers of biotechs are caught in an ongoing liquidity trap.

This financing pattern presents a significant challenge for the industry – how biotechs balance the strategic need to generate the clinical data needed to attract investment and potentially make an exit, with the tactical challenge of keeping the lights on in the short term and remaining in operation. The answer lies in accelerating the reinvention of financing models.

The financing problem for biotechs in 2026

The issue the industry faces is not a lack of investment – as noted, venture capital spending proved exceptionally robust in 2025. Yet the high overall spend levels mask two distinct challenges for the sector. The total spend is driven by an inflated average round size that hit new heights in 2024-25, dwarfing the average rounds seen at the pandemic peak of investor excitement about the biotech sector. At the same time, the number of rounds has fallen away year on year from that 2021 peak, in 2025 dropping back to the level of a decade prior.

Biotech number of VC rounds and average round size 2016-Q1 2026



Sources: Capital IQ, EY analysis.

Moreover, the share of revenues going to early-stage companies (that is, seed, first or second rounds of financing) fell to a decade low of 59% in 2025, with the total number of early-stage VC rounds dropping to 353 – the lowest recorded since 2014. Venture financing is becoming more discriminating – willing to make significant investments, but only on a select number of strategic opportunities – and, relatedly, becoming more risk-averse. The reduced appetite for early-stage funding reflects a growing preference for clinically-validated candidates and existing portfolio investments over new contenders. In short, investors will make relatively big bets – but only on relatively safe bets.

For the biotechs that fail to attract these lucrative VC rounds, access to public markets has become increasingly challenging considering the disappearance of the IPO market since the beginning of 2022. The sluggish performance of the IPO market over the past three years has exacerbated the squeeze in the sector.

Though the first quarter of 2026 saw promising signs for biotech IPOs, other external factors have compounded the challenge for the sector. Firstly, the rise of China (see INNOVATION chapter) offers Big Pharma a low-cost pathway to "outsourcing" early-stage innovation, which may reduce opportunities for US and European biotechs to capture financing. Secondly, the questions over National Institutes of Health (NIH) budgeting under the current US administration have added a large measure of uncertainty to the ongoing support of the largest global funder of basic biomedical research. Lower availability of NIH grants also weakens the value of this funding as a due diligence proxy for private investors, potentially amplifying the reluctance of VCs to invest in the sector.

Executive decision

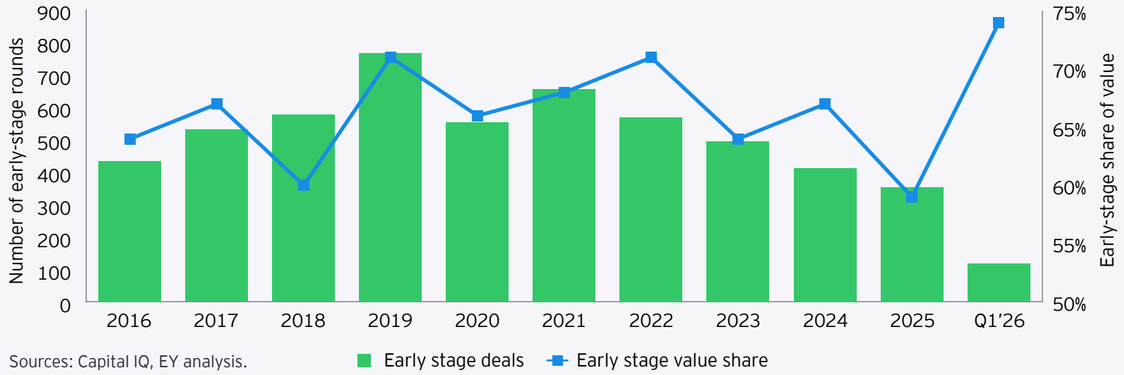
Roger M. Perlmutter, M.D., Ph.D.
President, CEO Officer and Board Chair
Eikon Therapeutics[25]

At US$381m, Eikon looks set to be the largest biotech IPO since 2024, overtaking Aktis Oncology's US$318m offering last month. Eikon will be the second biotech working on new drugs to go public in 2026 and completed enrollment of the TeLuRide-005 Phase 2 trial of EIK1001 in first-line treatment of stage 4 non-small cell lung cancer.

"2025 was an important year of progress for Eikon's business and clinical programs. With our initial public offering, and the consequent strengthening of our balance sheet, we believe we are well-positioned to advance multiple registration-enabling programs, bringing us closer to our mission of delivering breakthrough therapeutics to patients with serious illnesses."

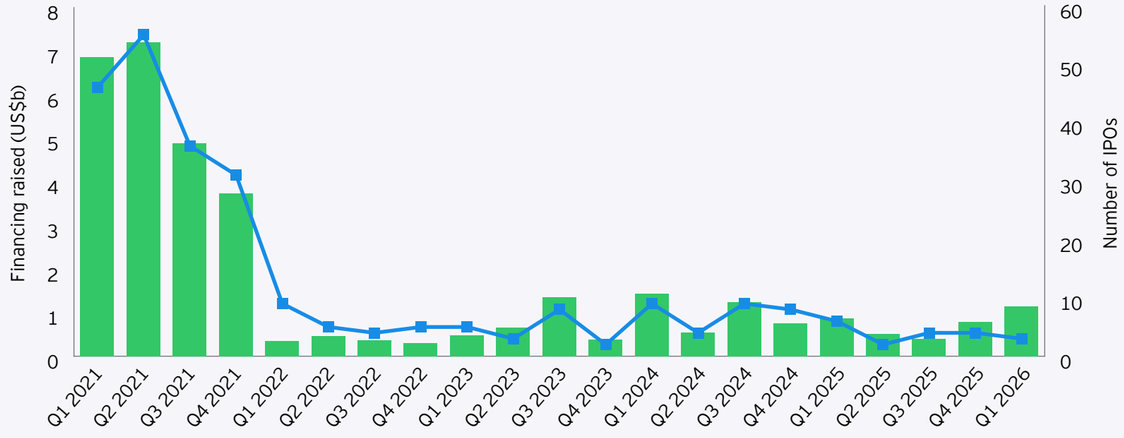
Source: Eikon news release, 3/30/36; Fierce Biotech article 2/5/26

Early-stage biotech VC: number of rounds and share of VC spend 2016-Q1 2026



Sources: Capital IQ, EY analysis.

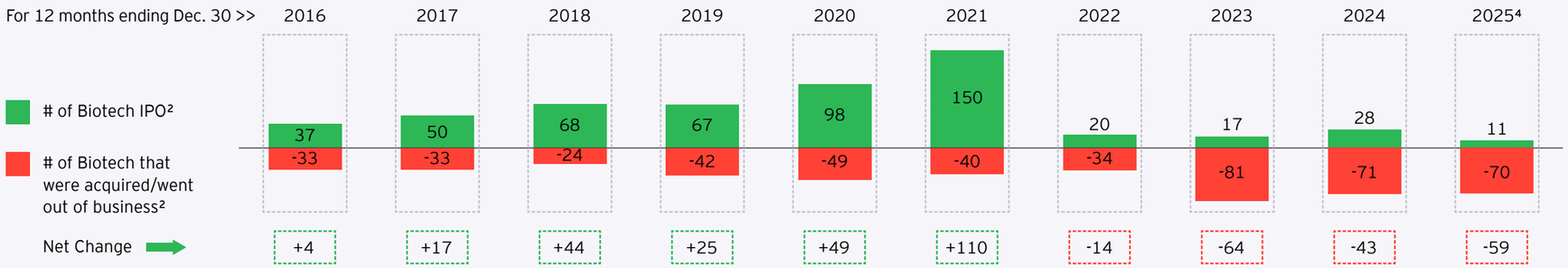
IPO capital raised and number of deals, Q1 2021-Q1 2026



Sources: Capital IQ, EY analysis.

The convergence of these factors has created a stark financing reality for biotechs. Aside from the select group favored by VC investors, startups face a tougher path to sustainable financing, with more companies exiting via acquisition – or simply checking out, unable to maintain financial viability.

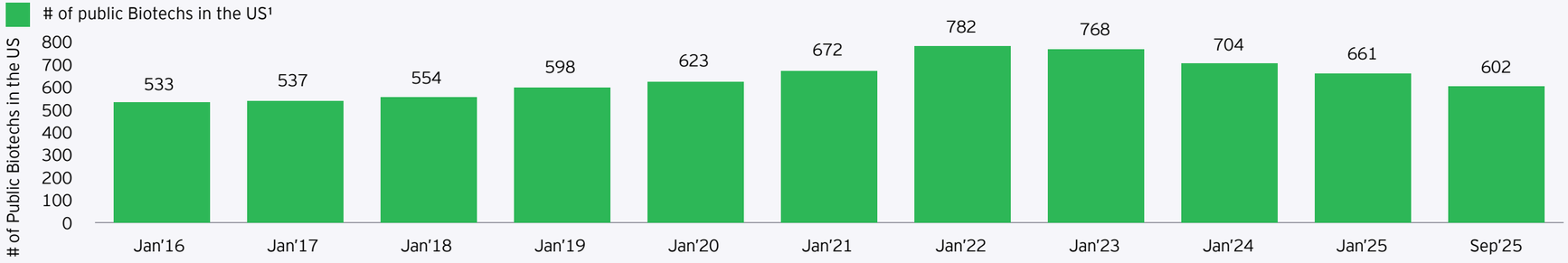
US biotechs: IPO vs. exits and liquidation, 2016–2025



Sources: Capital IQ, EY analysis.

With the number of companies exiting or folding outstripping the number of new public offerings every year since 2021, the number of companies publicly trading has contracted for four consecutive years. In the US, the number of public biotechs has plunged by nearly a quarter since the 2022 peak. Since of these companies, around 50%, have two years or less of cash remaining, the financing situation represents a stark ongoing challenge for the biotech ecosystem.

Net change in number of US biotechs, 2016–2025



Sources: EY analysis, Capital IQ, company filings, press releases, secondary research.

Possible solutions for biotech's financing squeeze

For biotech's have-nots, a new era of financing approaches is being born of necessity. Specialized firms are increasingly providing fixed-term loans and debt to biotechs with early-stage assets, widening the scope for early-phase – and even preclinical – companies to access funding. Biotechs looking to make exits recognize the value of contingent value rights (CVRs) to help close valuation gaps by building in post-acquisition shareholder payouts linked to clinical and commercialization milestones. Biopharma deals in 2025 saw increasing deployment of this practice, with industry dealmakers commenting that the use of CVR has become almost expected in dealmaking.

Beyond acquisitions, debt and equity financing approaches, another option biotechs are exploring is fundraising through selling tiered or fixed shares of future revenues from pre-market products. This "synthetic royalty" model – effectively, selling royalties on prospective revenues – picked up steam in 2025 with Revolution Medicines' US$2b synthetic royalty deal with specialist firm Royalty Pharma. Potentially the largest such deal of this type to date, the deal illustrated "a new funding paradigm for highly innovative biotech companies."[26] For biotechs the advantages of these deal models include the relative operational autonomy they can retain by trading royalties rather than equity, with the up-front availability of cash potentially enabling companies to cross the clinical trial finishing line without a Big Pharma partner.

The proliferation of innovative deal and fundraising structures offers biotechs a way forward in the current high-pressure financing landscape. To benefit from these opportunities and build their growth strategy on firm financial foundations, biotechs need to:

- Ensure they have a robustly defined and patent-moated intellectual property portfolio as core value proposition and collateral; and identify upfront the deal structure and milestone model that will enable them to close the valuation gap and find a strategic partner.
- Establish the right setup to fly solo as long as necessary, and find the right financing approach to balance strategic autonomy with the need to bridge the path to future profitability.
- Leverage AI as a potential lever to reduce operational costs – using AI to generate cheaper quicker data can be a strong defensive move for biotechs that risk being sidelined by industry leaders investing in China or in-house AI R&D.

REGULATORY

Evaluating global commercialization strategy against the changing regulatory dynamics of the current political landscape

In a new era of decoupled globalization, evolving US policies are reshaping biopharma strategies. The industry has evolved a business model designed around low-cost, tax-efficient, geographically fragmented operations, with globalized supply chains and higher US drug prices underwriting biopharma's commercial viability.

Now, US policy is driving companies to rethink their approach. As noted, 17 major Big Pharma players have already entered voluntary agreements with the administration, manufacturing investments in the US, and other measures to hedge against a potential tariff impact. But the industry still needs to find a workable balance to address other potential frictions.

Biosecure balancing act: commitments to the US and China

Though China is embedded in industry manufacturing and development processes and assuming an increasingly important role as a site of innovation, US policy has discouraged reliance on Chinese partnerships. The 2025 imposition of high tariffs on

EY perspective

Heather Meade, Principal
Washington Council Ernst & Young
Ernst & Young LLP

Nearly two years into President Trump's second term, the administration has defined itself by executive action and dealmaking. The President has signed dozens of executive orders related to health care, deregulation, AI, and trade and tariffs that will shape the future strategy of life sciences companies.

To date, the administration has struck 17 Most Favored Nations (MFN) deals with drug manufacturers with the goal of lowering US drug prices and increasing investment in research and domestic manufacturing in exchange for a reprieve from the administration's tariff agenda. This executive-level dealmaking is expected to continue as the administration looks to secure commitments from smaller biopharma companies ahead of the imposition of Section 232 pharmaceutical tariffs later this summer and fall. The US will continue to place pressure on other nations to increase drug pricing after securing a commitment from the United Kingdom to increase the net price of new prescription drugs paid by NHS by 25%.

CMS is using its demonstration authority to test drug pricing reforms, including Medicare drug pricing approaches that reference global markets. At the center of this strategy are two proposed mandatory Medicare demonstrations: The Global Benchmark for Efficient Drug Pricing or GLOBE Model, which applies to Part B drugs, and the Guarding U.S. Medicare Against Rising Drug Costs or GUARD Model, which applies to Part D drugs.

CMS also has proposed two voluntary drug pricing models to test new rebate structures in Medicaid (GENEROUS Model) and pair lower GLP-1 prices with lifestyle and nutrition interventions across Medicaid and Medicare Part D (BALANCE Model) — though the voluntary nature of those models has prompted CMS to delay or extend application windows and launch dates due to low uptake.

The Food and Drug Administration (FDA) is also supporting the administration's goals launching new initiatives, such as the PreCheck Program, designed to accelerate drug manufacturer facility inspections and approvals, and the National Priority Review Voucher program to accelerate reviews of products developed in the US. In addition, the FDA has announced multiple initiatives aimed at accelerating drug reviews and approvals, including integrating AI into the review process, new pathways for rare disease drugs, streamlining clinical trials, and creating a pathway for real-time clinical trial data sharing. This steady stream of new initiatives continues despite facing the challenges related to a 20% staff reduction in 2025.

HHS continues to face pushback from the medical industry over its changes to US vaccine policy, with the department's changes to the childhood vaccine schedule and overhaul of the Advisory Committee on Immunization Practices tied up in legal challenges.

While MFN and tariffs have dominated the media's focus, the implementation of IRA's drug price negotiations and other changes at HHS and FDA will continue to affect drugmakers, including:

- Implementing CMMI prescription drug models
- 340B program changes
- Sectoral and country specific tariffs
- Pharmacy benefit manager reform
- Price transparency
- Data privacy and security
- Site-neutral payments
- Patent reform
- Clinical trials and FDA approvals
- Drug price negotiation
- Leadership changes

Chinese goods was followed by the enactment of the US Biosecure Act signed into law on December 18, 2025, which aims to limit access to US funds for specific Chinese biotech and CDMO "companies of concern" as defined by the Pentagon's 1260H listing annually.

While the act has been diluted from its original form by removing specific company names among other changes, the direction of travel toward increased barriers to US market entry for products developed outside the country borders is underlined by other policy moves. These include:

- The FDA's April 2025 introduction of National Priority Review Vouchers (NPRVs) to give precedence to products developed within the US.[27]
- Earlier in 2025 a Department of Justice rule came into effect blocking the transfer of American patients' bulk health and genomic data.[28]
- "America First" user fees have been proposed for drugs primarily developed in other geographies,[29] with the FDA taking a skeptical stance in recent years on drug submissions based solely on China-generated data.[30]
- The publication of the National Security Commission on Emerging Biotech (NSCEB) report, which urged in respect of China's rise that "[t]o remain competitive the US must take swift action in the next three years."[31]

The tension between US policy resistance to China's expanding role within biotech needs agility and creative solutions for the industry to balance competing demands.

Analyzing onshoring commitments with optimizing costs

The US government's encouragement of onshoring has heavily incentivized investment into manufacturing within the US. In a series of major announcements in 2025 industry leaders have pledged upwards of US$370b to domestic manufacturing commitments to offset against tariff impositions on the import of branded drugs.

Selected industry investments in US manufacturing sites, 2025

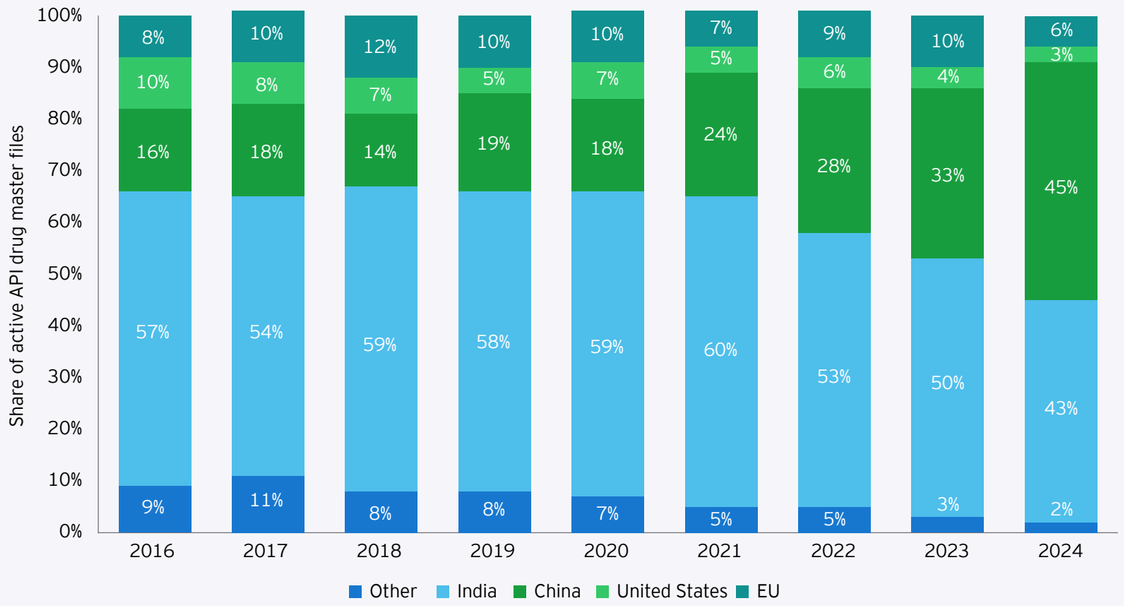
Company	Investment	Focus area
Merck	**US$70b** in coming years	▪ Includes a US$3b facility in VA ▪ US$1b DE plant for keytruda ▪ US$1b NC facility for vaccine
Johnson & Johnson	**US$55b** over four years	▪ New sites and expansions in NC ▪ Expansions across Medtech & Innovative medicine
AstraZeneca	**US$50b** by 2030	▪ New drug substance advanced manufacturing hub in VA ▪ Expansions in MD, MA, IN, CA, TX
Roche	**US$50b** over the next 5 years	▪ New and expanded facilities in NC and IN ▪ Automation and digital capabilities
Eli Lilly	**US$50b** since 2020	▪ US$27b to build four new mfg. sites ▪ US$5b mfg. site in VA for ADCs and US$6.5b facility in TX for APIs
Bristol Myers Squibb	**US$40b** over the next 5 years	▪ Strengthen presence across US ▪ Radiopharma manufacturing and AI, machine learning for innovation
Gilead	**US$32b** by 2030	▪ New biologics manufacturing site in CA
GlaxoSmithKline	**US$30b** over the next 5 years	▪ AI-driven biologics plant in PA ▪ AI and advanced digital capabilities across five GSK sites
Novartis	**US$23b** over the next 5 years	▪ Build and expand 10 US facilities ▪ Expansion of manufacturing for biologics, small molecules and RLTs

Sources: associated company press releases.

The pivot toward "repatriating" the industry offers resilience in the face of tariffs and other potential "America First" policy moves – but also brings with it the potential for major capex commitments and elevated cost of goods (COGS) that may limit companies' ability to invest in growth activities. The repatriation is likely to be highly differentiated between drug types – small molecule chemical synthesis depends on a highly dispersed global supply chain reliant heavily on ex-US sources of advanced pharmaceutical ingredients (APIs), and rebuilding the essential medicine supply chain within the US is therefore a more difficult onshoring challenge.

Ultimately, the industry needs to balance the onshoring drive with the need to ensure agility and cost management; regional partnerships and hybrid supply models will be key to bridging this gap.[33]

API sourcing based on API Drug Master Files, 2016-2024[32]



Sources: EY analysis, Capital IQ, company filings, press releases, secondary research.

BIOreaction

John F. Crowley
President & CEO
Biotechnology Innovation Organization

Last year there was a lot of political rhetoric around scientific funding to the National Institutes of Health and there were real challenges around distribution of funds. However, we're now in a much better place, and I believe that will continue – though every year will be a challenge, and we need to be prepared. It's important for people to realize that the current budget actually saw an increase in NIH funding. So I'm confident that people do realize the unique role the NIH plays as the foundation of discovery in medicine, together with our great academic research institutions.

In terms of tariffs: we have never had tariffs on biotechnology and biopharmaceutical products for a reason. They are a tax that would slow growth and innovation, distort markets and ultimately harm patients. We support the goal of reestablishing the resiliency of our supply chain: we have lost that in recent years, and it is a national security threat. It's particularly devastating for our small and mid-sized biotech companies who do not have the balance sheets and business model to move capital towards building manufacturing facilities.

We would rather see, and we are actively engaged on this, incentives, programs and a system that will support the reshoring of manufacturing in the United States and our allies, so that our country and ultimately all the nations of the world have unimpeded access, unimpeded to medicines and the technologies and components that go into making those great medicines.

We need a strong FDA to lead the world in regulatory science. We also need a modernized and reformed FDA that has bold leadership and institutes bold advances. We continue to work closely with the commissioner to ensure we're instituting those changes. Much of this is mindset – the FDA has all the 21st century regulatory tools that it needs to elevate regulatory science, in areas like adaptive clinical studies, Bayesian statistics, real-world evidence, surrogate markers, accelerated approval. We just need guidance that is consistent and clear. Our innovators and our investors loathe nothing more than uncertainty, shifting standards and unpredictability in the regulatory environment. So we need to ensure consistency and predictability, and make bold changes that elevate regulatory science to accelerate more medicines faster through the clinical trial process and FDA review.

Assessing lower benchmark prices with better launch planning

Commercially, the introduction of Most Favored Nation (MFN) pricing is forcing a radical rethink of launch sequencing, pushing countries toward a global-first pricing mindset rather than a tactical staging of sequential country launches. Traditionally higher US price ceilings have underwritten industry profitability and enabled companies to sustain lower reimbursement levels in other geographies.

Some firms are opting to delay or entirely forgo European launches to protect their US price points;[34] out-licensing of ex-US product rights is potentially a concern if lower prices in overseas market would establish a low benchmark price in the US. Selective rollouts targeting countries where pricing and reimbursement norms provide a commercial justification is likely to become the norm as companies seek to find the right commercial balance for prices worldwide.

Identifying the risks and rewards of US policies

Though US policy is targeted at "America First" outcomes, the unpredictable federal environment carries several risks for the industry. The uncertainty over NIH budget, as noted in the FINANCING chapter, reduces access to grants for smaller biotechs and will potentially push companies toward seeking different funding sources.[35] Vaccine skepticism at the Department of Health and Human Services (HHS) and the Advisory Committee on Immunization Practices (ACIP) raises questions over the viability of vaccine financing and commercialization models.[36]

Meanwhile the FDA's prioritization of greater speed and AI-enabled workforce optimization offers industry the opportunity to accelerate review and approval timelines under a lighter-touch regulation model. Introduction of NPRVs may allow accelerated approval timelines, while the FDA's launch of the PreCheck pilot is intended to streamline investment into development of domestic facilities,[37] its ELSA generative AI tool aims at accelerating product application reviews.[38]

In these and other policy shifts, there are opportunities as well as challenges for the industry. To benefit from the regulatory realignments underway in the US, companies need to:

- Capitalize on the advantages of the US model including more favorable market access terms for US commitments, the potential for faster review and approval and the regulatory acceleration enabled by lighter-touch and AI-augmented oversight processes.
- Balance the strategic importance of the US market with the geographical optimized location of supply chains, tax operations, innovation investments and back-office functions – in many cases companies may need to build more flexible and agile partnerships between global hubs and regional spokes to maximize advantage from US policy and ex-US cost efficiencies.
- Rethink launch sequencing for a world where MFN policies inflect the pricing model, with refined launch market targeting and standard "global price" the new normal; companies must also address the challenges of currency exchange risk exposure in a fragmented business landscape.

DATABOOK

Financials

- The public biotech industry recorded solid 12.3% topline growth to reach US$232b in revenues in 2025 but recorded negative net income for the third consecutive year, with collective bottom line contraction of US$9b.
- Biotech market capitalization increased by 28.8% to reach US$1.65t, with the industry's total raised capital also increasing by 26%
- In many other respects the industry contracted in 2025: Number of public companies in the sector fell 5.4% to 758, and their collective total number of employees fell 2.6% to 287,788.

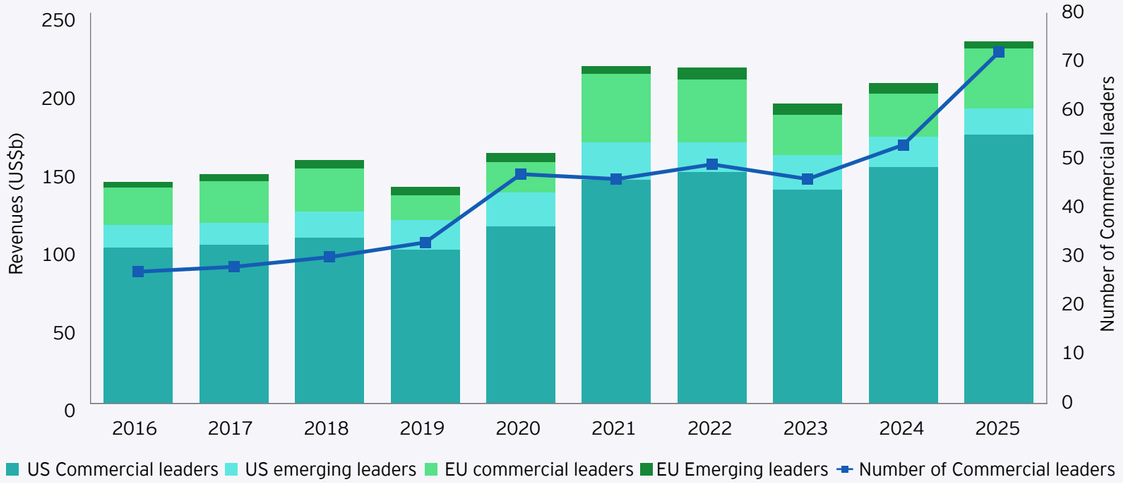
US and European biotechnology at-a-glance (US$b)

	2025	2024	2023	2022	2021	% change (2024-25)
Public company data						
Revenues	232	207	193	216	218	12.3%
R&D expense	100	109	97	96	91	-8.3%
Net income	(9)	(35)	(44)	(30)	(1)	73.4%
Market capitalization	1,647	1,278	1,341	1,316	1,607	28.8%
Number of employees	287,788	295,558	299,843	303,390	292,366	-2.6%
Financing						
Capital raised by public companies	48	38	61	36	90	26.0%
Number of IPOs	16	30	18	22	158	-46.7%
Number of companies						
Public companies	758	801	907	957	977	-5.4%

Sources: EY analysis, Capital IQ, company financial statement data. Numbers may appear inconsistent because of rounding.

- Biotechs with annual revenues above US$500m continued to account for the vast majority of industry sales in 2025, with revenue growth driven primarily by established commercial players rather than emerging companies, as reflected in the widening gap between commercial and emerging leader revenues.
- While commercial leaders delivered double-digit revenue growth in 2025, industry profitability remained under pressure, with the sector posting a third consecutive year of net losses—highlighting ongoing margin compression even among scale players.

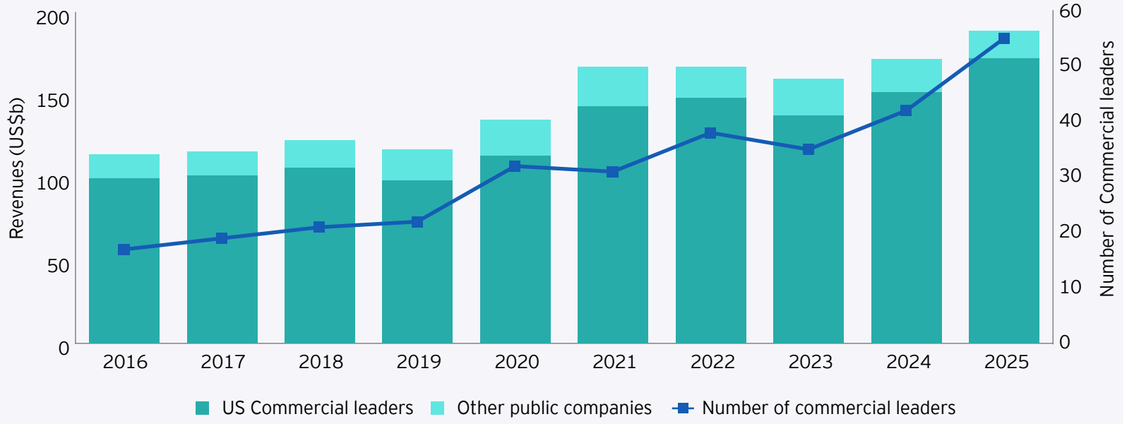
US and European Public Company Revenue, 2016-2025



Sources: EY analysis, Capital IQ, company reports.
Commercial leaders are companies with revenues at or above US$500m.
Emerging leaders are companies with revenues below US$500m.

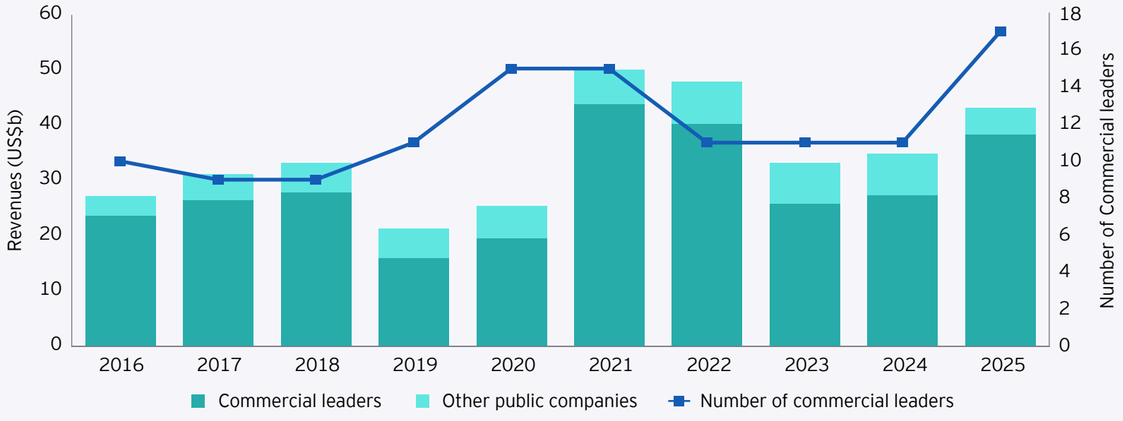
- Total biotech R&D expense declined 8.3% year-over-year in 2025, suggesting more selective capital deployment and tighter portfolio focus, particularly among larger companies balancing late-stage investment needs against sustained profitability challenges.
- The charts indicate a continued increase in the number of biotech companies achieving commercial-leader status in 2025, with the US accounting for the majority of new additions, reinforcing its dominant role in driving industry revenues across the US and Europe.

US public company revenue 2016–2025



Sources: EY analysis, Capital IQ. Commercial leaders are companies with revenues >=US$500m.

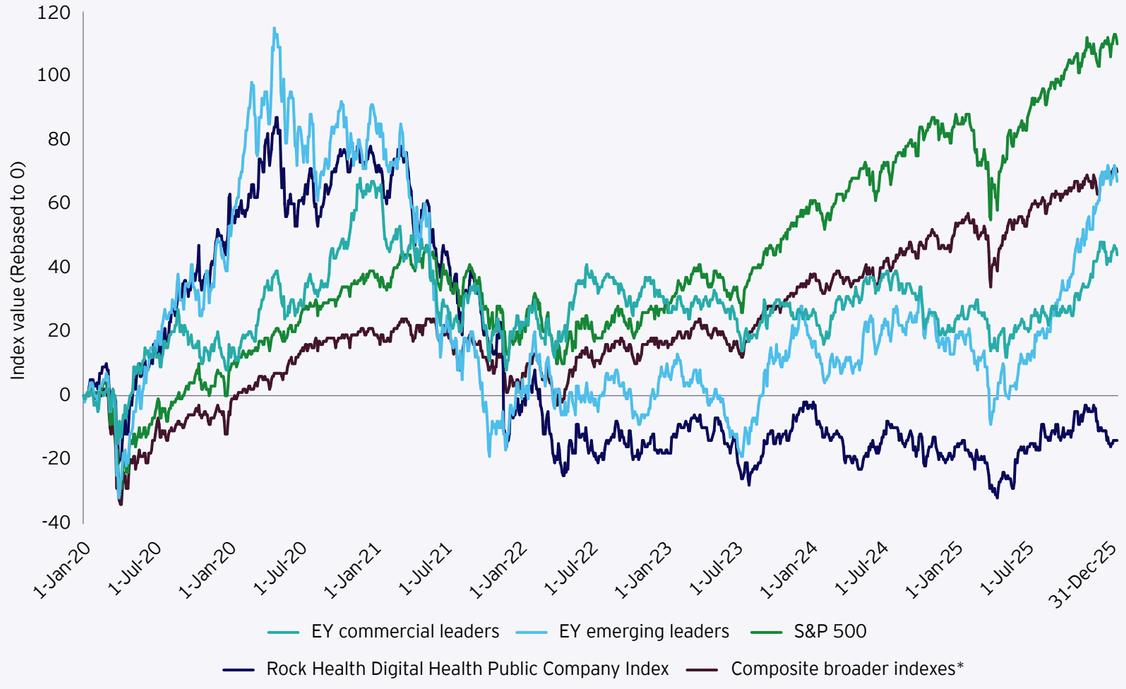
European public company revenue 2016–2025



Sources: EY analysis, Capital IQ. Commercial leaders are companies with revenues >=US$500m.

- US public biotechs continued to generate the bulk of total industry revenues in 2025, with US commercial leaders contributing a disproportionate share of overall sales — underscoring the structural revenue imbalance between US and European biotech markets.
- Despite strong topline growth, the sector saw fewer public companies, lower employment, and fewer IPOs in 2025, reinforcing a bifurcated industry dynamic in which growth and capital increasingly concentrate among a smaller set of scaled, commercial organizations.

US and European biotech market capitalization relative to leading indexes, 2020–2025

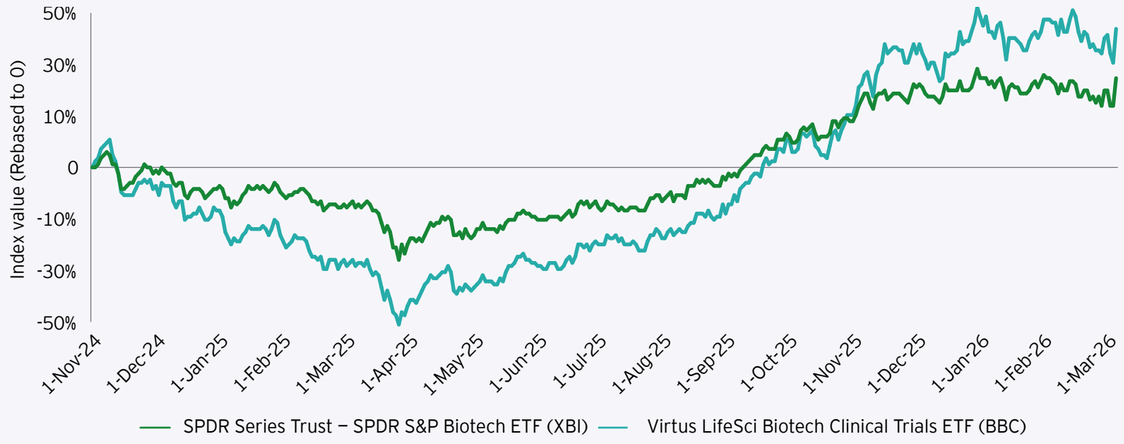


Sources: EY analysis, Capital IQ.

*Composite broader indices refers to the daily average of leading US and European indices: Russell 3000, Dow Jones Industrial Average, NYSE, S&P 500, CAC-40, DAX and FTSE 100.

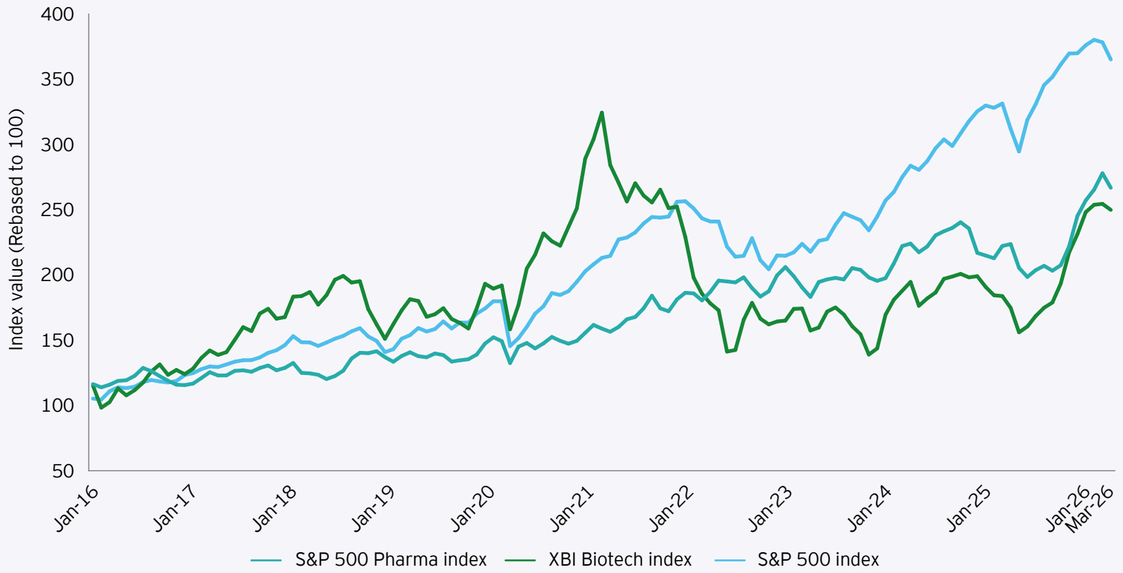
- The biotech sector has underperformed the broader market for an extended period because its performance spread wider between different companies based on their stage of development. The US and European biotech market capitalization during the period from 2020 to 2025 showed underperformance against major equity indices while established commercial biotech companies maintained their lead over emerging biotech startups. This situation demonstrates a continued divide between established biotech companies that generate revenue and developmental stage companies.
- Biotech stocks declined materially in late 2024 and early 2025 amid market uncertainty, FDA leadership changes and policy concerns, which led to greater financial losses for emerging and clinical-stage biotechs than for large-cap biotechs that had lower risk sensitivity to market conditions, reducing their risk appetite.
- The second half of 2025 showed a strong recovery for biotech equities because financing conditions became better and investor confidence began to stabilize, which enabled clinical-stage and small-cap indices to recover from their mid-year lows despite being behind the performance of the wider market.
- Biotech indices produced positive returns until late 2025 but failed to match S&P 500 performance during both one-year and multiyear periods, which supported the belief that sector recovery occurs through selective progress instead of showing widespread recovery.

Biotech stocks, November 2024–March 2026



Sources: EY analysis, Capital IQ. Charts includes companies that were active on December 30, 2024.

Index performance – S&P 500 vs. S&P 500 Pharma vs. XBI Biotech: 2016–Q1 2026



Sources: EY analysis, Capital IQ, Biospace.com, Fortune.com, CNN; Note: *Data till March 31, 2026.

- Biotechnology stocks plunged sharply in the first half of 2025 amid election-related policy uncertainty, tariff disruptions, renewed drug-pricing pressure, and instability at the FDA, which heightened risk-off sentiment and deepened sector losses.
- The sector staged a strong recovery in the second half of the year, driven by a steady flow of FDA approvals and encouraging clinical trial results – especially in oncology and rare diseases – along with the reopening of US biotech capital markets following Federal Reserve rate cuts that lowered the cost of capital and boosted investor confidence.

Top 10 changes in US and European market capitalization, 2020-2025

Company	Market cap December 31, 2025	Market cap December 31, 2020	US$ change	CAGR (2020-2025)
Gilead Sciences	152,281	73,031	79,250	16%
Vertex Pharmaceuticals	115,026	61,457	53,569	13%
Amgen	176,250	133,852	42,398	6%
argenx SE	51,507	13,945	37,561	30%
Alnylam Pharmaceuticals	52,535	15,100	37,435	28%
Insmed	37,118	3,391	33,727	61%
Regeneron Pharmaceuticals	79,193	50,990	28,204	9%
Natera	31,688	8,496	23,192	30%
Roivant Sciences Ltd.	15,092	522	14,571	96%
United Therapeutics	20,979	6,746	14,234	25%

Sources: EY analysis, Capital IQ.

- Established companies led market capitalization increase through their performance, including Gilead Sciences adding US$79.3b, Vertex Pharmaceuticals gaining US$53.6b and Amgen obtaining US$42.4b.
- Investor sentiment continues to favor established biotech companies with profitable business models and durable, long-lived product franchises.
- Mid-cap companies and smaller firms achieved outstanding growth performance through Roivant Sciences (96% CAGR) and Insmed (61% CAGR) and Natera (30% CAGR) and argenx (30% CAGR) because investors recognized their value through their unique drug development processes and their successful clinical research.
- Alnylam Pharmaceuticals and United Therapeutics have achieved significant market capitalization growth, driven by Alnylam's leadership in RNA-based therapies and United Therapeutics' strong presence in rare diseases, supported by continued business expansion.

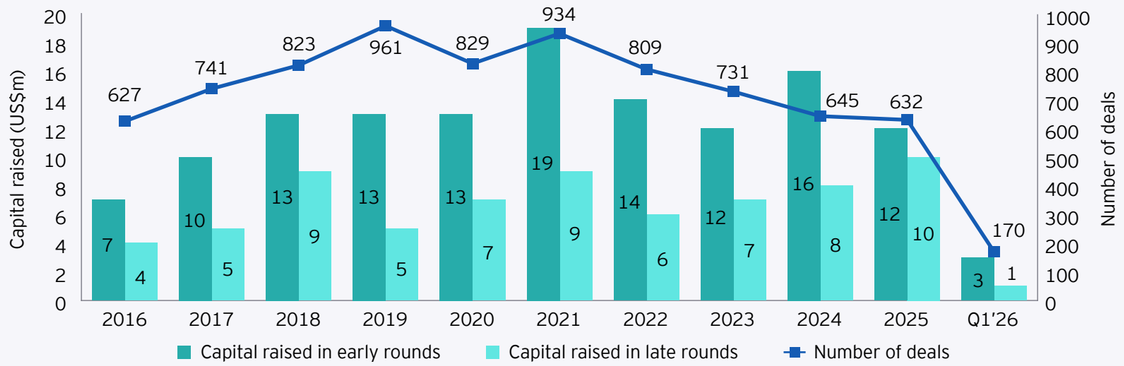
Financing

Biotech financing, 2010–Q1 2026

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Q1 2026
IPOs	1,325	863	909	3,546	6,856	5,419	2,283	3,829	7,195	6,543	13,428	22,689	1,485	2,865	3,995	2,240	1,147
Follow-on and other	5,869	5,860	7,672	9,314	14,418	22,665	11,247	23,196	27,759	32,980	60,887	55,594	20,891	29,838	21,477	28,864	7,635
Debt	12,507	23,981	14,554	12,979	26,266	31,313	29,849	19,600	12,504	10,644	29,102	15,472	13,670	29,929	11,368	16,706	16,253
Venture	5,811	5,586	5,670	5,877	8,065	12,225	10,278	14,884	21,199	18,431	20,374	27,319	19,228	18,341	24,719	20,640	4,318
Total	**25,513**	**36,291**	**28,805**	**31,718**	**55,604**	**71,622**	**53,657**	**61,509**	**68,657**	**68,598**	**123,791**	**121,074**	**55,274**	**80,973**	**61,560**	**68,450**	**29,352**

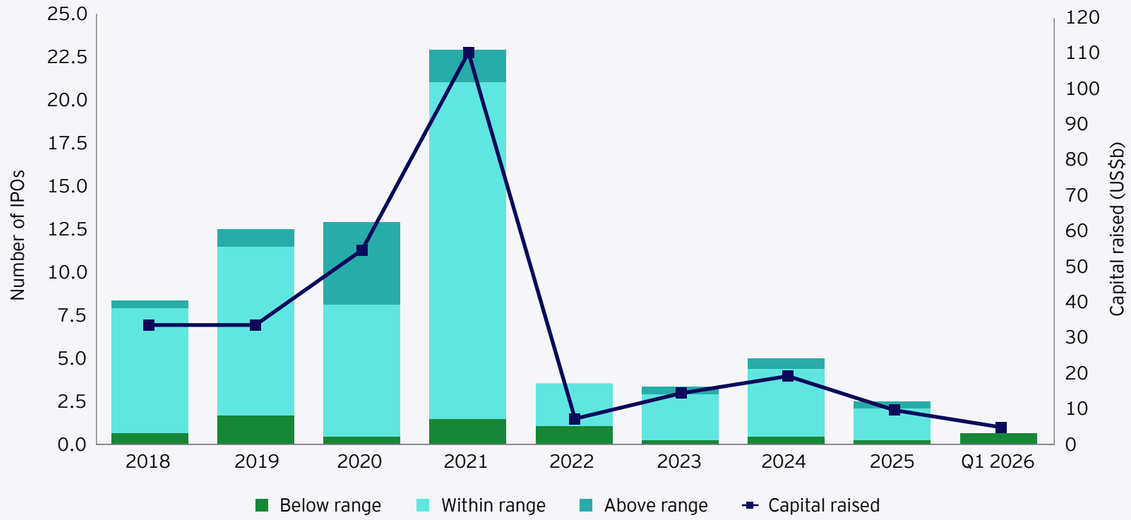
Sources: EY analysis, Capital IQ and VentureSource. Numbers may appear inconsistent because of rounding. Convertible debt instruments included in "debt."

US and European venture capital raised by year, (2016–Q1 2026)



Sources: EY analysis, Capital IQ. Numbers may appear inconsistent because of rounding. Convertible debt instruments included in "debt."

US and European biotechnology IPO pricing by year (2018–Q1 2026)

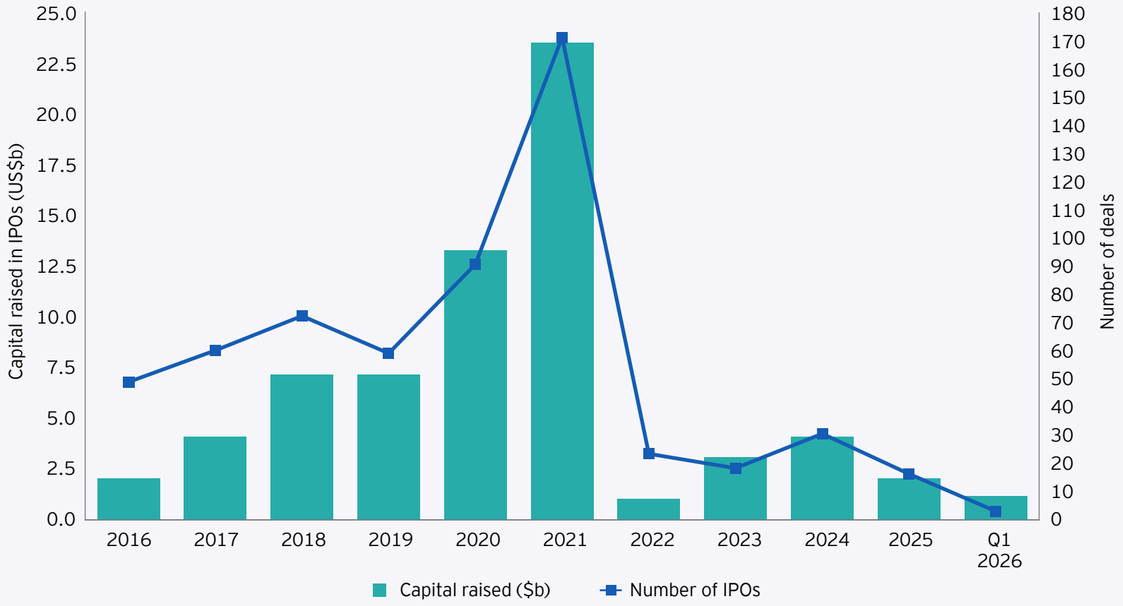


Sources: EY analysis, Capital IQ.

- Early-stage funding contracted – Early-round biotech VC fell from US$16b in 2024 to US$12b in 2025, reflecting tighter risk appetite, higher investor selectivity and continued scrutiny of preclinical science without near-term inflection points.
- Late-stage funding rebounded – Late-round capital increased from US$8b to US$10b, as investors concentrated dollars behind de-risked assets, clinical milestones and companies viewed as IPO- or M&A-ready.

- The US$2.2b raised through biotech IPOs in 2025 came almost entirely from the US (96%). Europe remained largely sidelined, with no European biotech raising more than US$88.4m, the 9th-largest IPO out of just 16 total offerings for the year, highlighting continued regional disparities in capital access.
- The leading offerings in IPOs were led by Caris Life Sciences, Metsara, MapLight Therapeutics, and LB Pharmaceuticals, reflecting sustained investor preference for neurology, oncology and cardio-metabolic assets. Outside these core areas, offerings included Sionna Therapeutics, which is developing treatments for cystic fibrosis and Evommune which is focused on chronic inflammatory diseases, signaling targeted investor interest beyond traditional biotech strongholds.

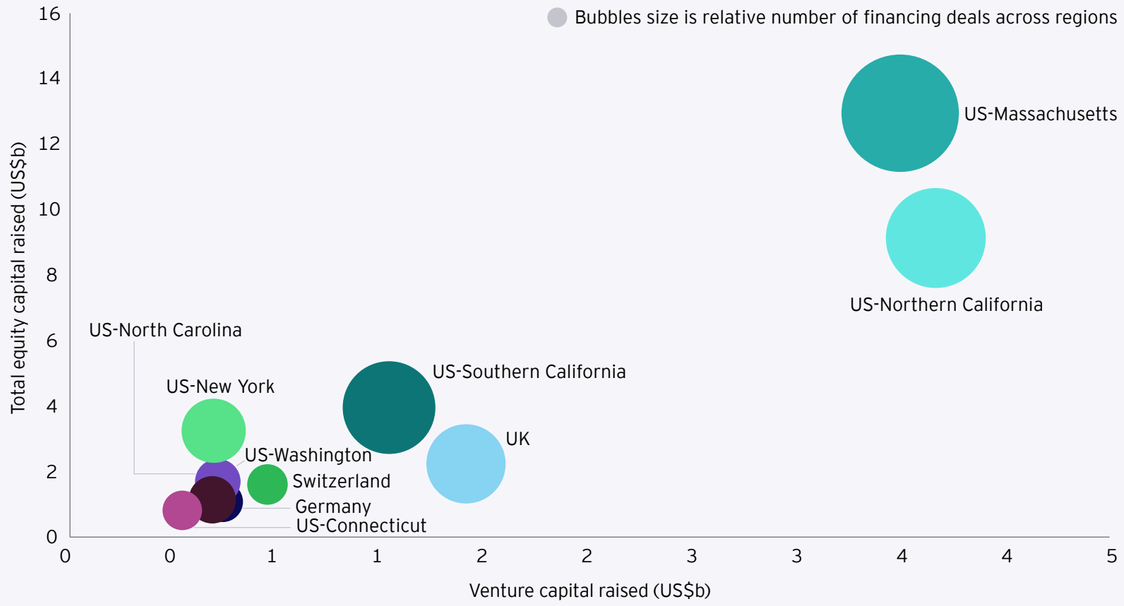
US and European IPOs, 2016-Q1 2026



Sources: EY analysis, Capital IQ.

- Excluding debt financing, Massachusetts and Northern California remained the clear centers of US biotech activity in 2025, accounting for 288 non-debt financings combined. Together, the two regions raised US$8.1b in venture capital, approximately 55% of total US biotech VC (US$14.8b) and US$21.9b in total equity financing, representing roughly 53% of all US biotech equity capital raised during the year (US$42b Ex-debt).
- Beyond these established US clusters, fundraising activity fell off sharply. The UK emerged as the leading non-US biotech market, raising US$1.9b in venture capital and US$2.2b in total equity financing. Other European hubs such as Switzerland (US$1.5b equity) and Germany (US$1.0b equity) contributed more modest amounts, reinforcing the continued concentration of biotech capital formation within mature US ecosystems.

Capital raised by leading US and EU regions excluding debt, 2025



Sources: EY analysis, Capital IQ.

Top US and European venture capital rounds, 2025

Name	Region	Therapeutic focus of lead candidate	Clinical stage of lead candidate	Gross raised (US$m)	Quarter	VC round type
Kailera Therapeutics, Inc.	US-Massachusetts	Other(Obesity)	Phase III	600	Q4	2nd round
Isomorphic Labs	UK	Other	NA	600	Q1	1st round
Verdiva Bio Limited	UK	Other (Obesity)	Phase II	410	Q1	1st round
Tubulis GmbH	Germany	Oncology	Phase I/Iia	400	Q4	Late stage
Biohaven Therapeutics Ltd	US-Connecticut	Neurology	Phase III	400	Q2	VC debt
MapLight Therapeutics, Inc.	US-Northern California	Neurology	Phase II	373	Q3	Late stage
Pathos AI, Inc.	US-Illinois	Oncology	Phase 1b/2a	365	Q2	Late stage
Eikon Therapeutics, Inc.	US-Northern California	Oncology	Phase III	351	Q1	Late stage
Kriya Therapeutics, Inc.	US-North Carolina	Multiple (Neurology, Ophthalmology)	Pre-clinical	313	Q3	Late stage
Kardigan	US-Northern California	Cardiovascular/vascular	Phase III	300	Q1	1st round
Itm Isotopen Technologien München Aktiengesellschaft	Germany	Oncology	Registration	263	Q2	Late stage
Orca Biosystems Inc.	US-Northern California	Oncology	Phase III	250	Q4	3rd round
Aviceda Therapeutics, Inc.	US-Massachusetts	Ophthalmology	Phase II/III	208	Q1	3rd round
Abcuro, Inc.	US-Massachusetts	Autoimmune	Phase II/III	200	Q1	3rd round
Tenvie Therapeutics	US-Northern California	CNS	IND-Enabling	200	Q1	1st round
Yarrow Bioscience, Inc.	US-New York	Autoimmune	Phase 1b/2b	200	Q4	1st round
Windward Bio AG	Switzerland	Immunology	Phase II	200	Q1	1st round
Callio Therapeutics, Inc.	US-Washington	Oncology	Pre-clinical	187	Q1	1st round
Braveheart Bio, Inc.	US-Northern California	Cardiovascular/vascular	Phase III	185	Q3	1st round
Electra Therapeutics, Inc.	US-Northern California	Multiple (Immunology, Oncology)	Phase II/III	183	Q4	2nd round

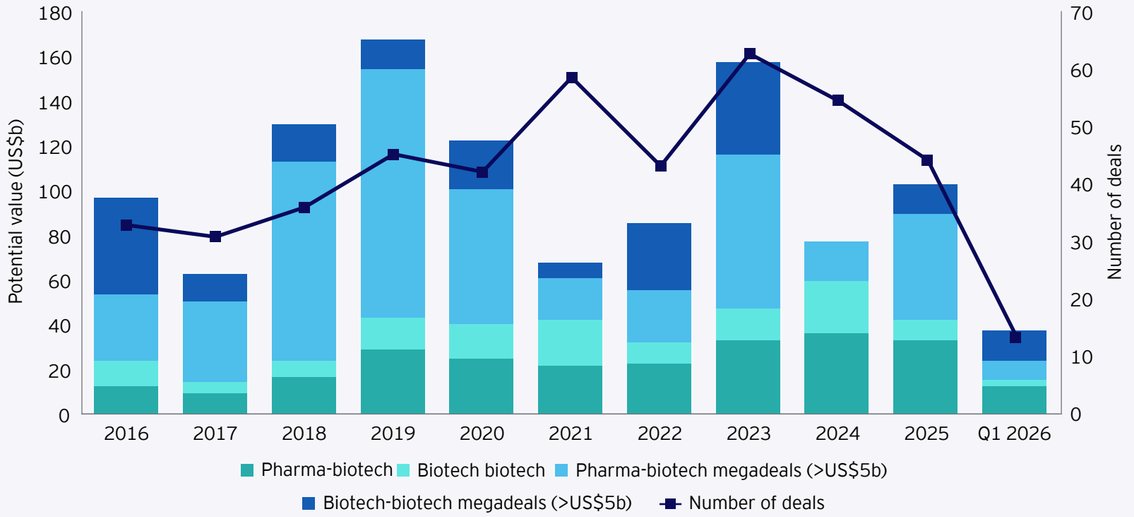
Sources: EY analysis, Capital IQ.

- Venture funding softened in 2025, with investors prioritizing late-stage quality over volume: After a rebound in VC activity in 2024, biotech venture funding moderated in 2025 as investors became more selective, concentrating capital on companies with Phase II/III lead assets, strong prior validation, and credible execution track records. Overall VC spending continued at a respectable rate into 2026, with the first quarter seeing biotech generate another US$4.3b in VC investment. However, the recent pattern of investment indicates a selective recovery, with capital focused on stronger, later-stage opportunities rather than a broad rebound in early-stage investing.
- The largest capital financings of the year included a US$600m round for Kailera Therapeutics, focused on late-stage, next-generation obesity therapy, and a US$600m raise by Isomorphic Labs, Alphabet's London-based AI drug-discovery platform.
- Other venture capital financing rounds were led by Biohaven and MapLight Therapeutics, underscoring renewed institutional appetite for CNS innovation, with investors backing differentiated neuroscience mechanisms, late-stage neuropsychiatric programs, and platform-driven CNS research. The presence of multiple neurology-focused financings among the year's top deals signals that CNS is once again being viewed as a key long-term growth area in biotech.

M&A

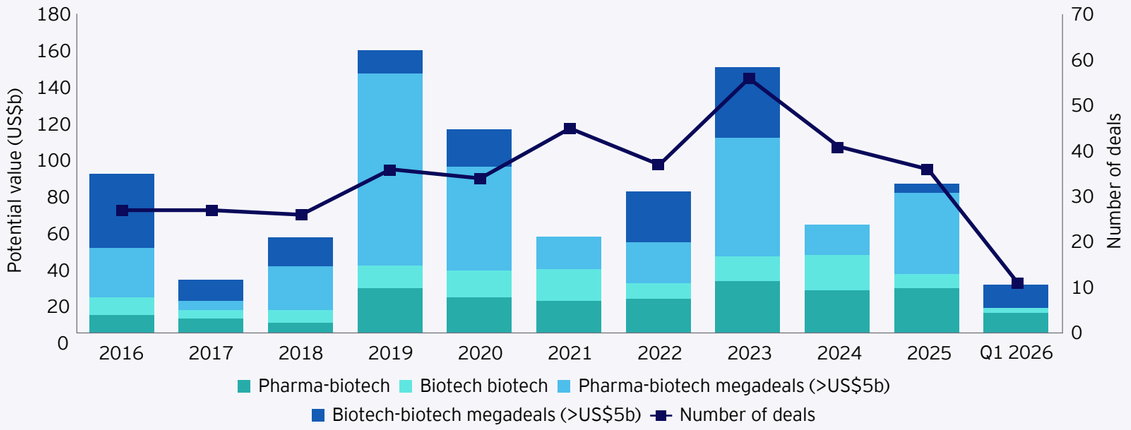
- M&A activity rebounded meaningfully in 2025 after a subdued 2024. Following a cautious deal environment in 2024, biotech and pharma-biotech M&A accelerated in 2025, with a clear pickup in both deal count and aggregate value. The year saw a renewed willingness by large pharma to transact, even as dealmaking remained disciplined and strategically focused.
- Large pharma-biotech transactions drove headline value, but megadeals remained selective. In 2025, there were multiple transactions exceeding US$5b, primarily involving large pharma acquiring biotech companies, with an average deal size of approximately US$9.2b. Momentum accelerated into early 2026, with Q1 deal value accounting for 36% (US$36b) of total deal value of US$99.7b in 2025, and average deal size of approximately US$2.7b, highlighting a shift toward larger, higher conviction transactions and a signal towards a more assertive and purposeful M&A environment across life sciences.

US & European M&As, 2016-Q1 2026



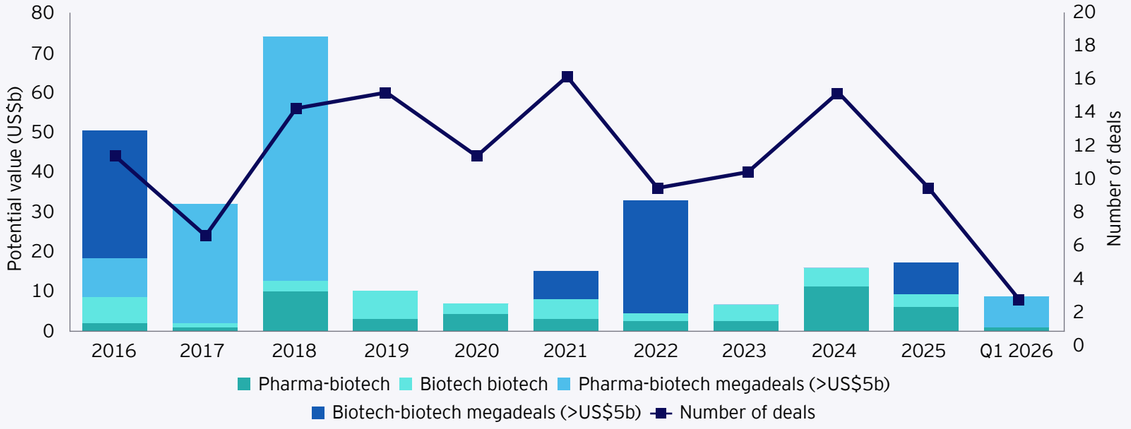
Sources: EY analysis, Capital IQ, Biomedtracker.

US M&As, 2016-Q1 2026



Sources: EY analysis, Capital IQ, Biomedtracker.

European M&As, 2016-Q1 2026



Sources: EY analysis, Capital IQ, Biomedtracker.

- Deal activity favored innovation-driven bolt-ons over scale-driven acquisitions. Despite the rebound in total deal value, acquirers continued to prioritize smaller, innovation-focused bolt-on deals, reflecting a preference for assets with clear clinical differentiation, late-stage visibility, and more predictable return profiles rather than high-risk, large-scale integrations.
- Among top notable acquisitions that surpassed the US$5b mark were Novartis's US$12b investment to strengthen its late-stage neuroscience pipeline through Avidity Biosciences; Pfizer's entry into the obesity portfolio with the US$9.8b buyout of Metsera; Sanofi expansion in rare immunology with the US$9.5b acquisition of Blueprint Medicines Corporation and Merck's US$9.2b acquisition of Cidara Therapeutics to diversify ahead of the patent expiry for its cancer drug Keytruda.
- Oncology emerged as the leading therapeutic area by deal value. Among transactions valued above US$1b, oncology accounted for approximately US$16.8b in total M&A spend, led by Genmab's US$8.0b acquisition of Merus, Merck KGaA's US$3.9b acquisition of SpringWorks Therapeutics, Eli Lilly's US$2.5b acquisition of Scorpion Therapeutics, and other oncology-focused transactions, highlighting continued strategic interest in late-stage and platform-based cancer assets.
- Neurology remained a major but secondary driver of dealmaking. Neurology represented approximately US$14.4b in >US$1b deal value, primarily driven by Novartis's US$12.0b acquisition of Avidity Biosciences and Alkermes' US$2.37b acquisition of Avadel Pharmaceuticals, indicating sustained investment in CNS and neuromuscular disease assets, though below oncology in total disclosed deal value.
- M&A activity was concentrated in targeted innovation areas rather than broad mega-deal consolidation. The >US$1b deal set was spread across oncology, neurology, immunology, obesity/cardiometabolic, infectious disease, and cardiovascular/vascular areas, suggesting buyers are deploying capital toward focused biotech assets and differentiated therapeutic platforms rather than pursuing very large, diversified acquisitions. Immunology was also a notable dealmaking area, totaling approximately US$13.2b, led by Sanofi's US$9.5b acquisition of Blueprint Medicines.

Top 15 US and European M&As in 2025

Company	Country	Acquired or merged company	Country/Region	Total potential value (US$m)	CVRs/milestones (US$m)
Novartis AG	Switzerland	Avidity Biosciences, Inc.	US	12,000	
Pfizer Inc.	US	Metsera, Inc.	US	9,813	
Sanofi	France	Blueprint Medicines Corporation	US	9,500	
Merck & Co., Inc.,	US	Cidara Therapeutics, Inc.	US	9,257	
Genmab A/S	Denmark	Merus N.V.	Netherlands	8,000	
BioMarin Pharmaceutical Inc.	US	Amicus Therapeutics, Inc.	US	5,231	
Novo Nordisk A/S	Denmark	Akero Therapeutics, Inc.	US	5,200	500
Merck KGaA	Germany	SpringWorks Therapeutics, Inc.	US	3,900	
Roche Holding AG	Switzerland	89bio, Inc.	US	3,500	1,100
Novartis	Switzerland	Anthos Therapeutics, Inc	US	3,100	2,150
Eli Lilly & Company	US	Scorpion Therapeutics	US	2,500	
Alkermes plc	Ireland	Avadel Pharmaceuticals plc	Ireland	2,370	270
Sanofi	France	Dynavax Technologies Corporation	US	2,215	
AbbVie Inc.	US	Capstan Therapeutics, Inc.	US	2,100	
Novartis AG	Switzerland	Regulus Therapeutics	US	1,700	800

Sources: EY analysis, Capital IQ.

Alliances

Alliances with big up-front payments, 2025 (US and EU)

Company	Country	Partner	Country	Up-front payments (US$m)
Roche Holding AG	Switzerland	Zealand Pharma A/S	Denmark	1,650
Bristol Myers Squibb Company	US	BioNTech SE	Germany	1,500
GSK plc	UK	Boston Pharmaceuticals Inc.	US	1,200
AbbVie Inc.	US	Ichnos Glenmark Innovation	US	700
Sanofi	France	Dren Bio, Inc.	US	600
AbbVie Inc.	US	Gubra ApS	Denmark	350
Philochem AG	Switzerland	RayzeBio, Inc.	US	350
AbbVie Inc.	US	ADARx Pharmaceuticals, Inc.	US	335
Ionis Pharmaceuticals, Inc.	US	Ono Pharmaceutical Company, Ltd.	Japan	280
Gilead Sciences, Inc.	US	LEO Pharma A/S	Denmark	250
Les Laboratoires Servier	France	IDEAYA Biosciences, Inc.	US	210
Novartis AG	Switzerland	Arrowhead Pharmaceuticals, Inc.	US	200
MeiraGTx Holdings plc	US	Hologen Ltd	Guernsey	200
Biogen, Inc.	US	Stoke Therapeutics, Inc.	US	165
Regeneron Pharmaceuticals, Inc.	US	Tessera Therapeutics	US	150

Sources: EY analysis, Biomedtracker.

- Alliance dealmaking remained milestone-heavy despite large headline values. Across 2025, total potential value of US and European biopharma alliance deals reached ~US$157.9b, but only ~8% was paid upfront, with the majority structured as contingent milestone and royalty payments ("biobucks"). This structure reflects continued risk-sharing, with limited near-term cash outlays for biotechs.
- The largest alliance of the year saw Bristol Myers Squibb sign a potential US$11.1b deal with BioNTech for bispecific antibody programs across multiple solid tumors, including ES-SCLC, NSCLC, and proposed TNBC indications. Only US$1.5b (14%) was paid upfront, underscoring the milestone-driven nature of large oncology collaborations.

Big biobucks alliances, 2025 (US and EU)

Company	Country	Partner	Country	Total potential value (US$m)	Up-front payments (US$m)
Bristol Myers Squibb Company	US	BioNTech SE	Germany	11,100	1,500
XtalPi, Inc.	US	DoveTree Medicines	US	5,990	51
Novartis AG	Switzerland	Monte Rosa Therapeutics, Inc.	US	5,760	120
Roche Holding AG	Switzerland	Zealand Pharma A/S	Denmark	5,250	1,650
Vertex Pharmaceuticals Incorporated	US	Orna Therapeutics	US	4,350	65
Vor Biopharma Inc.	US	RemeGen Ltd.	China	4,230	45
Zealand Pharma A/S	Denmark	OTR Therapeutics	China	2,500	30
Sciwind Biosciences Co., Ltd.	China	Verdiva Bio Limited	UK	2,470	70
AbbVie Inc.	US	Gubra ApS	Denmark	2,225	350
Novartis AG	Switzerland	Arrowhead Pharmaceuticals, Inc.	US	2,200	200
AbbVie Inc.	US	Xilio Therapeutics, Inc.	US	2,152	52
Madrigal Pharmaceuticals, Inc.	US	CSPC Pharmaceutical Group Limited	China	2,120	120
Chiesi Farmaceutici S.p.A.	Italy	Arbor Biotechnologies	US	2,115	
Genentech, Inc.	US	Orionis Biosciences Inc.	US	2,105	105
Roche Holding AG	Switzerland	Manifold Bio	US	2,055	55

Sources: EY analysis, Biomedtracker.

- AI-driven drug discovery emerged as a major collaboration theme. One of the year's most significant non-oncology alliances involved XtalPi and DoveTree Medicines, with a potential value of up to US$6.0b, ranking as the second-largest alliance of 2025. The deal highlights growing pharma commitment to AI- and robotics-enabled platforms for small-molecule and antibody discovery across oncology, autoimmune and neurological diseases.
- Upfront payments stayed historically low despite rising deal values. Aggregate upfront payments in 2025 totaled roughly US$12b, remaining well below peak levels as a share of total deal value. This reinforces a broader industry shift toward capital efficiency and outcome-linked collaboration models, even as strategic partnerships rebounded in scale.

Source index

1. "AbbVie raised US$4b as a strategic financial move in February," davispolk.com/experience/abbvie-4-billion-senior-notes-offering, and "Biogen US$1.75b in May" davispolk.com/experience/biogen-1-75-billion-senior-notes-offeringo pay down existing debts. (See also SEC filing: investors.biogen.com/node/29156/html).
2. "Kailera Therapeutics Announces US$600m Series B Financing to Further Advance Pipeline of Next-Generation Therapies for the Treatment of Obesity," kailera.com/press-release/kailera-therapeutics-announces-600-million-series-b-financing-to-further-advance-pipeline-of-next-generation-therapies-for-the-treatment-of-obesity/.
3. "Under Trump, NIH Funding Opportunity Notices Dropped From 787 To 84," forbes.com/sites/brucelee/2026/03/29/under-trump-nih-funding-opportunity-notices-dropped-from-787-to-84/.
4. "Trump's Budget Again Calls for Billions in NIH Cuts," medpagetoday.com/publichealthpolicy/healthpolicy/120647.
5. "April 2, 2025 – Liberation Day tariff announcements," edition.cnn.com/business/live-news/tariffs-trump-news-04-02-25.
6. "The Greatest Risks to Pharma from Tariffs," pharmexec.com/view/greatest-risks-tariffs.
7. "Fact Sheet: President Donald J. Trump Bolsters National Security and Strengthens US Supply Chains by Imposing Tariffs on Patented Pharmaceutical Products | The White House." Generics and biosimilars are exempted for another 12 months, following which the government intends to review their status again). The tariffs make partial exemptions for the EU trading bloc and other countries which have already negotiated bilateral trading terms: the EU, UK, Switzerland, Lichtenstein, Japan and Korea face 15% tariffs on imports.
8. "Regulatory Relief to Promote Domestic Production of Critical Medicines," The White House.
9. "Delivering Most-Favored-Nation Prescription Drug Pricing to American Patients," The White House.
10. "President Trump Demands America First Prescription Drug Pricing," The White House.
11. "Pfizer Reaches Landmark Agreement with US Government to Lower Drug Costs for American Patients," pfizer.com/news/press-release/press-release-detail/pfizer-reaches-landmark-agreement-us-government-lower-drug. Pfizer also agreed to participate in a direct purchasing platform branded TrumpRx.com, discounting certain medicines and making them directly purchasable by patients. Note also that certain terms of the deal remain confidential.
12. "AstraZeneca announces historic agreement with US Government to lower the cost of medicines for American patients," astrazeneca.com/media-centre/press-releases/2025/astrazeneca-announces-historic-agreement-with-us-government-to-lower-the-cost-of-medicines-for-american-patients.html.
13. "EMD Serono Announces Unprecedented Agreement with US Government to Expand Access to IVF Therapies," emdserono.com/us-en/company/news/press-releases/agreement-with-u-s-government-to-expand-access-to-ivf-therapies-16-10-2025.html.
14. The GLP-1 leaders Novo Nordisk and Eli Lilly agreed terms with the administration in November 2025 (see whitehouse.gov/fact-sheets/2025/11/fact-sheet-president-donald-j-trump-announces-major-developments-in-bringing-most-favored-nation-pricing-to-american-patients), with Amgen, Boehringer Ingelheim, Bristol Myers Squibb, Gilead Sciences, GSK, Merck & Co., Novartis, Roche's Genentech and Sanofi following suit in December (see fiercepharma.com/pharma/top-drugmakers-reach-us-drug-price-deal-trump-administration), and Johnson & Johnson (jnj.com/media-center/press-releases/johnson-johnson-reaches-agreement-with-u-s-government-to-improve-access-to-medicines-and-lower-costs-for-millions-of-americans-delivers-on-u-s-manufacturing-and-innovation-investments) and AbbVie (news.abbvie.com/2026-01-12-AbbVie-and-Trump-Administration-Reach-Agreement-to-Improve-Access-and-Affordability-for-Americans) in January 2026.
15. "Pharmas have promised US$370b in US investments amid 2025's onshoring boom: DPR," fiercepharma.com/manufacturing/pharmas-have-poured-370b-us-manufacturing-amid-2025s-onshoring-boom-dpr.
16. "How Trump's New Drug Tariffs Affect Pharmaceutical Manufacturing Operations," pharmtech.com/view/how-trumps-new-drug-tariffs-affect-pharmaceutical-manufacturing-operations.
17. "The tech and people balanced for a successful launch," ey.com, https://www.ey.com/en_gl/insights/life-sciences/how-biopharma-can-get-the-right-mix-of-people-and-tech-for-launch-success.
18. "Novo Nordisk slashes 9,000 jobs to slim down in fierce weight-loss drug battle," reuters.com/business/novo-nordisk-slashes-9000-jobs-slim-down-fierce-weight-loss-drug-battle-2025-09-10/.
19. "Cell and gene therapies: Stagnation or maturation?" pharmaphorum.com/deep-dive/cell-and-gene-therapies-stagnation-or-maturation.
20. "How next-gen CRM will transform life sciences sales," ey.com, " https://www.ey.com/en_gl/insights/life-sciences/how-next-generation-crm-will-reshape-the-life-sciences-commercial-model.
21. "A little-known Chinese company made a drug that beat the world's biggest-selling medicine," edition.cnn.com/2025/02/25/business/china-biotech-global-disruption-intl-hnk.
22. "After 230% deal size explosion, China is no longer the 'bargain basement' for biopharma licensing: analyst," fiercebiotech.com/biotech/analyst-china-no-longer-bargain-basement-biotech-acquisitions.
23. See, for example, "Biotech Blues: The West Struggles To Stay Ahead," cepa.org/article/biotech-blues-the-west-struggles-to-stay-ahead/.
24. See, for example, "AstraZeneca enters strategic collaboration with CSPC Pharmaceuticals focused on AI-enabled research," astrazeneca.com/media-centre/press-releases/2025/astrazeneca-enters-into-collaboration-with-cspc.html.
25. "Eikon news release, 3/30/26; Fierce Biotech article 2/5/26," fiercebiotech.com/biotech/eikons-upsized-381m-nasdaq-listing-marks-largest-biotech-ipo-2024, investors.eikontx.com/news-releases/news-release-details/eikon-therapeutics-announces-fourth-quarter-and-full-year-2025.
26. "Royalty signs off US$2b to bankroll Revolution's RAS cancer drug," fiercebiotech.com/biotech/royalty-signs-2b-bankroll-revolutions-ras-cancer-drugs-road-approval.
27. "Commissioner's National Priority Voucher (CNPV) Pilot Program," FDA.
28. "Federal Register Preventing Access to US Sensitive Personal Data and Government-Related Data by Countries of Concern or Covered Persons," The Federal Register.
29. "FDA could hike user fees for ex-US drug programmes," pharmaphorum.com/news/fda-could-hike-user-fees-ex-us-drug-programmes.
30. "FDA invites more data from abroad – with a wary eye on China," pharmavoice.com/news/fda-china-clinical-trials-drug-approvals/753128/.
31. The publication of the National Security Commission on Emerging Biotech (NSCEB) report.
32. Adapted from "Global manufacturing capacity for active pharmaceutical ingredients remains concentrated | US Pharmacopeia Blog," qualitymatters.usp.org/global-manufacturing-capacity-active-pharmaceutical-ingredients-remains-concentrated.
33. "Why biopharma needs asset-light manufacturing models now," ey.com.
34. "Drugmakers delay some European launches with a wary eye on Trump's pricing policies," reuters.com/business/healthcare-pharmaceuticals/drugmakers-delay-some-european-launches-with-wary-eye-trumps-pricing-policies-2026-03-31/.
35. "The Impact of Federal Funding Cuts on Research, Practice, and Patient Care," National Library of Medicine.
36. "RFK Jr. mRNA Cuts Threaten Vaccine Development, Crisis Response," news.bloomberglaw.com/health-law-and-business/rfk-jr-mrna-cuts-threaten-vaccine-development-crisis-response.
37. "FDA Launches PreCheck Pilot Program to Strengthen Domestic Pharmaceutical Manufacturing," FDA.
38. "FDA Launches Agency-Wide AI Tool to Optimize Performance for the American People," FDA.

Acknowledgments

Project leadership

Rich Ramko – EY Americas Life Sciences Sector and Biotechnology Leader
Ashwin Singhania – Principal, Life Sciences Strategy, EY-Parthenon, Ernst & Young LLP
Arda Ural PhD – EY Americas Life Sciences Sector Leader
Leadership provided their strategic insights and brought years of experience to the analysis of industry trends.

Lead authors: **James Evans** and **Harish Kumar**, EY Global Life Sciences Analysts
Authored the report, led data analysis and quality review, and contributed industry insights to shape the content.

Data: **Arpit Jain, Kritika Verma** and **Prateek Jain**
Research, collection and analysis of data.

Branding leadership

Shanthi Subramanian – EY US Life Sciences Marketing Manager
Kathy Beckman – EY US Life Sciences Marketing Contractor
Carol Piering – EY US Health and Life Sciences PR Leader
Julie Bloom – Senior Graphic Designer, US Creative Services
JP McArthur – Art Director, AWS-Administration & Workplace Services
Deborah Crowe – Senior Proofreader, US Creative Services

EY | Building a better working world

EY is building a better working world by creating new value for clients, people, society and the planet, while building trust in capital markets.

Enabled by data, AI and advanced technology, EY teams help clients shape the future with confidence and develop answers for the most pressing issues of today and tomorrow.

EY teams work across a full spectrum of services in assurance, consulting, tax, strategy and transactions. Fueled by sector insights, a globally connected, multidisciplinary network and diverse ecosystem partners, EY teams can provide services in more than 150 countries and territories.

All in to shape the future with confidence.

US SCORE no. 31148-261US
2601-10057-CS
ED None

ey.com