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Where human capital meets growth capital



The Human Capital of Growth

How the partners and people a life science company chooses early on shape how far its capital takes it

EXECUTIVE VENTURES · VENTURES ACCELERATED

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Ventures Accelerated

WELCOME TO THE HUMAN CAPITAL OF GROWTH

Summary

This report is developed for founders, executives, board members and investors interested in understanding how the current financial climate affects how companies build, or rather assemble, the human capital required during their growth journey.

As companies bring in capital to advance their pipeline, their head count barely rises with the money raised. Instead, much of that capital will be spent through strategic partners such as CDMOs, CROs and various experts. In other words, life science companies grow by assembling capability from strategic partners bringing various sets of expertise and capabilities to the company, led by a lean execution team.

Our analysis of 2,800 drug developers who attended BioInternational or BioEurope during 2026 shows ***which*** competences that matters most for this small leadership team tasked to continuously assemble, negotiate with and manage external strategic partners. Without the right set of in-house competences, companies won't be able to make use of outside knowledge. This absorbative capacity, and how its distributed across the companies' roles and functions, is critical to success.

The insights presented here builds upon two new analyses of company data, one on company age and funding and one on early partnerships and clinical progress, combined with assessing already published research. A key theorem in the report is the equation Financial Capital + Strategic Access + Human Capital = Growth Capacity. We distinguish between two types of partners. On the one hand, the strategic partners as in vendors (such as CDMOs, CROs and IP experts etc) required over the course of a company's metamorphic growth journey. On the other hand, industrial partners which the company might enter a licensing agreement with, typically big pharmas. While we touch upon both, emphasis is to dig deeper into the dynamics between strategic vendor partners and inhouse team.

The data behind every figure is from the last five years, and older studies appear only for the theory. To facilitate your reading, each page has been structured into a question followed by the findings answering to that specific question. For a quick read through of implications on the data and research digested, look for the boxes headed "What it means" where interpretation of each finding is set out in brief.

We look forward to continuing the conversation,



Carolina Ragnerstam, CEO, Executive Ventures, and the Ventures Accelerated research team

KEY TAKEAWAYS

1. Small drug developers raise money at a steady pace of about $2–2.5M for every year they have existed, whatever their age or stage, and 84% of developers that have raised $100M or more still have 200 or fewer employees. Much of the money raised pay for work done by partners.
2. Venture capital is going into fewer, larger and later rounds, so each team carries more capital and has less room to recover from an execution mistake.
3. Developers that entered into a partnership with a big pharma industry partner early on, in the first five years, were 12-16 percentage points more likely to success in bringing a lead program to the clinic than companies flying solo, although they had not raised more money.
4. Manufacturing or quality issues appear in three-quarters of the complete response letters the FDA has published for 2020–2024, which makes the manufacturing partner one of the most consequential choices a small company makes.
5. Executives rank their people as their most valuable asset, ahead of their products.
6. While a majority of founders are scientists within academia, by the time a company becomes listed, only 3% of Chief Executives have scientific background.
7. Organisations that develop through partners, while having internal knowledge in that area are measurably more successful than those without internal knowledge in the partner's area.

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WHY GROWTH IS ASSEMBLED

Decades of research explain why life science companies grow through partners, and why that only works when companies hold in-house knowledge too

THE QUESTION. Why does so much of the industry's development happen through partners, and what does research say it takes to make that work?

For six decades the number of new drugs approved per billion dollars of R&D spending halved roughly every nine years, an 80-fold fall since 1950 that became known as Eroom's law, Moore's law spelt backwards.[1] The ratio only began to rise again around 2010. Over the same decades the large companies turned outwards. They began with alliances with biotechnology firms and contract research organisations and moved on to multiyear partnerships for discovery and development, and the number of their products that originated in-house declined steadily.[2] By 2021, emerging biopharma companies held a record 65% of the molecules in the R&D pipeline without a larger company involved, and they sponsored 59% of clinical trial starts, against 29% a decade earlier.[3]

Organisation research offers two ideas that frame this report. The first is that where an industry's knowledge is complex, expanding and spread across many organisations, as in biotechnology, innovation is found in networks of learning rather than inside individual firms, so the ability to find and work with partners becomes a core capability.[4] The second is that a firm can recognise, absorb and use outside knowledge only if it holds related knowledge of its own, which researchers call absorptive capacity.[5] A company that relies on partners therefore still needs people inside who know enough to choose them and to judge their work.

More recent research shows what happens when that capacity is thin.

A study of US firms across all industries, published in 2026 and based on data from the 1970s to the 2000s, found that outsourced R&D added nothing to the revenue of the firm that paid for it on average, while the productivity of in-house R&D held steady.[6] The 2022 review of biopharmaceutical outsourcing cited above describes the evidence on alliances as mixed. It argues that outsourcing brings efficiency in the short term but may slow innovation in the long run, because the larger partner tends to capture a disproportionate share of the value and leave a disproportionate share of the risk with the smaller one.

WHAT IT MEANS.

The research predicts the pattern that the rest of this report measures. Growth companies develop through partners because the knowledge they need is spread across many organisations, and what they gain from those partners depends on the knowledge, judgement and negotiating experience they hold themselves. That makes the people who hold that knowledge vital, which is why this report treats partners and in house staff together as one entity of human capital of growth.

1 Scannell, Blanckley, Boldon and Warrington, "Diagnosing the decline in pharmaceutical R&D efficiency", *Nature Reviews Drug Discovery* 11, 2012 (doi:10.1038/nrd3681).
2 Billette de Villemeur, Scannell and Versaevel, "Biopharmaceutical R&D outsourcing: short-term gain for long-term pain?", *Drug Discovery Today* 27(11), 2022, a review (doi:10.1016/j.drudis.2022.08.001). On the upturn around 2010 it cites Ringel, Scannell, Baedeker and Schulze, "Breaking Eroom's Law", *Nature Reviews Drug Discovery* 19, 2020.
3 IQVIA Institute, *Emerging Biopharma's Contribution to Innovation*, June 2022 (iqvia.com).
4 Powell, Koput and Smith-Doerr, "Interorganizational collaboration and the locus of innovation: networks of learning in biotechnology", *Administrative Science Quarterly* 41(1), 1996; tested on biotechnology firms in 1990–1994.
5 Cohen and Levinthal, "Absorptive capacity: a new perspective on learning and innovation", *Administrative Science Quarterly* 35(1), 1990.
6 Knott, "Outsourced R&D and declining R&D productivity", *Industrial and Corporate Change*, July 2026 (doi:10.1093/icc/dtag035): US firms in all industries, not life-science specific. The working-paper version (US Census Bureau, 2016) discloses the author's financial interest in a company that provides the productivity measure used.

$2–2.5M

raised for each year of its existence by the median small drug developer, whether it is three years old or fifteen and whether or not its lead programme has reached the clinic

Small life science companies keep raising money for many years without growing much. Because their headcount barely rises with the capital, much of the money must pay for work done outside the company, and for an investor, how well that work is chosen and managed becomes part of the investment case.

WHY THIS SECTION.

Capital is the input investors control most directly. This section shows what it buys in a small company, using a new analysis of company age and funding, and how a more selective capital market raises the stakes of every execution decision that follows.

CAPITAL

AGE AND FUNDING

Small developers raise at a steady pace for many years and stay small

THE QUESTION. Do small companies that have existed longer raise money more easily than young ones, and what becomes of the capital they raise?

DEVELOPERS WITH 50 OR FEWER EMPLOYEES THAT HAVE RAISED $50M AND $100M OR MORE, BY COMPANY AGE



Source: our analysis of BIO 2026 partnering profiles: 768 drug developers with 50 or fewer employees that disclose their total funding, and, for the 84%, the 182 developers of any size that have raised $100M or more. Companies that can afford a major US partnering event are better funded than most, so the levels run high; the age groups are compared within the same group of companies.

$2–2.5M
median raised per year of age, in every age band

1 in 5
small developers aged fifteen years or more have raised $100M or more

84%
of developers that have raised $100M or more still have 200 or fewer employees

Older small companies have raised more in total, as one would expect. The median rises from $6M for companies under five years old to $40M for those aged fifteen or more, and the share that have raised $50M or more rises from 13% to 43%. What does not change is the pace: divided by its age, the median small developer has raised about $2–2.5M for every year it has existed in every age band, and the pace is much the same for companies whose lead programme has reached the clinic. Developers with more than fifty employees have raised six to eight times as much per year of age at five to fourteen years, so the companies that raise faster are the ones that have built a larger organisation.

Capital does not turn into headcount either. Of the developers that have raised $100M or more, 84% still have 200 or fewer employees and 40% have fifty or fewer. For the smallest of them in particular, much of what they raise must pay for work done outside the company, by contract research and manufacturing organisations, advisers and other partners. This is our inference from headcount, since the profiles do not report how the money is spent.

WHAT IT MEANS.

For a company that stays small, neither time nor clinical progress changes how fast it raises money. What accumulates is the total, and the headcount figures suggest that much of it is spent through partners. An investor in a small company is therefore funding the choices its leaders make about those partners, which is why the rest of this report is about partners and the people who choose them.

THE CAPITAL MARKET

Investors are putting more money into fewer companies

THE QUESTION. How has the market for growth capital changed, and what does the change mean for a company that does most of its work through strategic partners?

$26.6M
median biopharma venture deal in 2025, up from $19.9M a year earlier[1]

32%
of biopharma venture dollars went to early-stage rounds in 2025, against more than 40% in 2020–2022

39%
of biotechs had less than a year of cash in 2024, against 18% in 2021[2]

US life science venture investment reached $32.6bn in 2025 across 1,526 deals. The number of deals has fallen every year since 2021 while the amount invested has risen every year since 2023, so capital is now as concentrated in a small number of transactions as it was at the height of the 2021 boom.[3] The rounds are larger and come later, and they rely increasingly on existing investors: the median number of new investors in a crossover round fell from six in 2024 to four in the first three quarters of 2025.[4] At the same time, a growing share of companies are running short of cash.

WHAT IT MEANS.

Larger, later rounds put more capital behind each team, and shorter runways leave less time to recover from a manufacturing delay or a senior hire made too late. When an investment case rests on fewer companies, the organisation that will be assembled around the asset carries more of the risk, and it deserves the same scrutiny as the science.

1 PitchBook data, reported by BioSpace, 18 February 2026 (biospace.com); both the deal-size and the early-stage figures.
2 EY, *Beyond Borders 2025*, reported by BioSpace, 18 June 2025 (biospace.com).
3 Orrick and PitchBook, *Life Sciences Snapshot Q1 2026* (orrick.com); US life sciences, including medical devices and diagnostics.
4 William Blair, *Biopharma Quarterly Review*, Q3 2025 (williamblair.com).

12–16 points

higher share with a lead programme in the clinic among developers that entered into an industry partner relationship in their first five years, compared with companies of the same age without one.

An industry partnership in a company's first five years of existence is associated with how far its programmes have come years later, and not with how much money it has raised. Earlier research shows that the terms of a first deal depend on experience, which ties the choice of partner to the people who negotiate it.

WHY THIS SECTION.

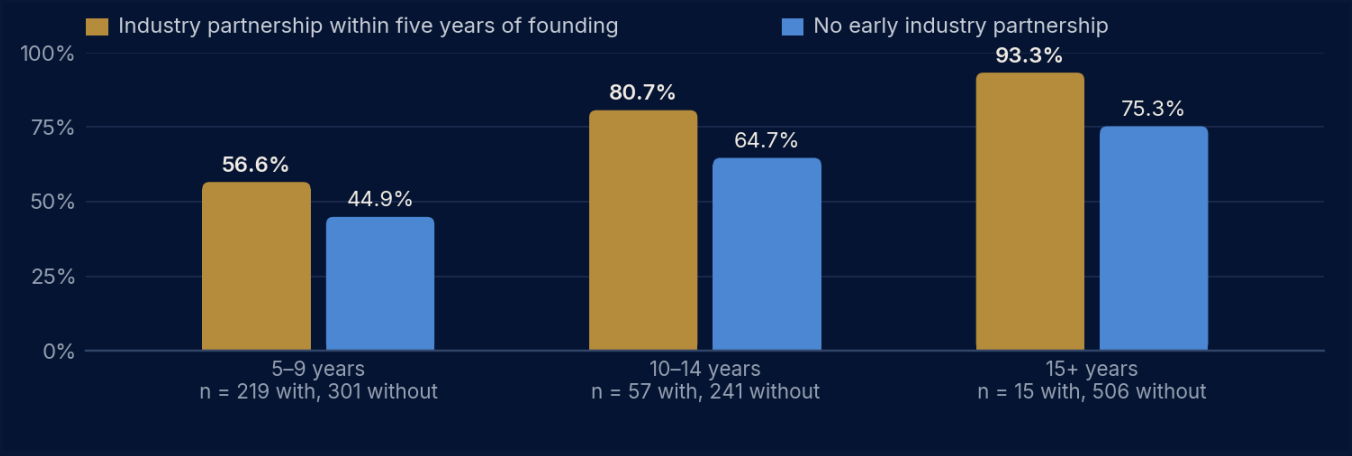
Adding to the choice of strategic partners being critical, being able to enter deals with Industry partners early on shapes what the capital achieves. This section tests that idea with a new analysis of partnership histories.

EARLY PARTNERS

Developers with an early industry partner are further along at the same age, without having raised more

THE QUESTION. Does an industry partnership signed early in a company's life go with faster development, with more capital, or with both?

SHARE OF DEVELOPERS WITH A LEAD PROGRAMME IN CLINICAL DEVELOPMENT, BY AGE AND BY EARLY INDUSTRY PARTNERSHIP



Source: our analysis of BIO 2026 partnering profiles with partnership histories and lead-programme stage from public sources: 1,738 drug developers aged five years or more, stage known for 1,339.

We compared developers that signed a partnership with an industrial partner (as in a pharmaceutical or biotech company) within five years of being founded with developers of the same age that did not; partnerships with universities, hospitals and service providers is not included. In each age band the partnered companies were more often in clinical development, and the differences are unlikely to be due to chance ($p = 0.008$ at five to nine years, $p = 0.02$ at ten to fourteen and $p < 0.001$ across all bands). They had not raised more money: at five to nine years both groups had raised a median of $20M and were equally likely to have reached a Series B or later round.

Earlier research points the same way for the first steps of development and is mixed for the later ones. In the 1990s, US biotechs that had signed a deal with a pharmaceutical company were valued about 38% higher in later financing rounds, and drugs developed jointly were more likely to advance in clinical trials.[1] Other studies found alliance projects more likely to move from Phase 1 to Phase 2 but less likely to go on to Phase 3 and approval.[2] The 1990s data also show that companies signing their first deal received payments 60% lower than companies that had already signed two or more.

WHAT IT MEANS.

For a growth company, an early industry partnership is associated with getting further on the same capital, so it deserves to be treated as a strategic choice in its own right, and the first-deal discount is an argument for bringing deal experience into the team before that partnership is negotiated. For an investor, a company's partnering history says something about its ability to execute that the amount raised does not. The data show an association and cannot prove cause: companies with stronger science may attract partners and progress faster for the same reason, and companies that have failed are not in the sample.

1 Nicholson, Danzon and McCullough, "Biotech-pharmaceutical alliances as a signal of asset and firm quality", NBER Working Paper 9007, 2002 (nber.org), later published in the *Journal of Business* 78, 2005: US biotechs, 1990s.

2 Billette de Villemeur, Scannell and Versaevel, "Biopharmaceutical R&D outsourcing: short-term gain for long-term pain?", *Drug Discovery Today* 27(11), 2022, a review (doi:10.1016/j.drudis.2022.08.001). On the upturn around 2010 it cites Ringel, Scannell, Baedeker and Schulze, "Breaking Eroom's Law", *Nature Reviews Drug Discovery* 19, 2020.

MANUFACTURING – WHERE THE CHOICE OF PARTNER MATTERS MOST

Three in four of the FDA's published complete response letters involve manufacturing or quality

THE QUESTION. Where do programmes that reach the regulator most often run into trouble, and what does a manufacturing problem cost in time?

74%

of the 202 complete response letters the FDA has published for 2020–2024 involved manufacturing or quality issues[1]

A complete response letter is the FDA's decision not to approve an application in its present form. When the agency published the letters it had sent in 2020–2024 in response to applications that it later approved, an analysis of them found that 150 of 202 involved problems with manufacturing processes, facility inspections or chemistry, manufacturing and controls. Because all of these products were eventually approved, the figure shows how often a fixable manufacturing problem delays a medicine that works, and it should not be read as the share of all rejections.

8.4 months

on average to lift a clinical hold that required more manufacturing data, against 4.8 months for one resolved by amending the trial protocol[2]

Clinical holds show the same pattern earlier in development. Of 33 publicly announced holds on cell and gene therapy trials in 2020–2022, a fifth were caused by manufacturing concerns, and holds that required more manufacturing data took well over the 6.2-month average to lift. The problem need not lie with the company itself. In September 2025 Scholar Rock received a complete response letter for its spinal muscular atrophy treatment because of inspection findings at a third-party fill-finish site; according to the company, the FDA cited no other approvability concerns, and its shares fell 12.5% before the market opened.[3]

WHAT IT MEANS.

A small company that does not make its own product depends on its manufacturing partner for much of what the regulator inspects, and the published letters show how often manufacturing and quality are where an approval is held up. The partner's regulatory record, its ability to take the product from clinical to commercial scale without moving the process to another site, and the quality of its people are therefore part of the company's own risk profile, and choosing the partner is a task for the company's leadership.

1 Pharma Manufacturing, 14 July 2025, analysis of the complete response letters the FDA published in July 2025 for applications it later approved (pharmamanufacturing.com).

2 Wills, Drago and Pietrusko, *Molecular Therapy Methods & Clinical Development*, October 2023; 33 publicly announced holds, 2020–2022 (PMC10597781).

3 BioSpace, 23 September 2025 (biospace.com).

NO SOURCING MODEL WINS ON ITS OWN, BUT EVERY ADDITIONAL PARTNER ADDS COORDINATION

THE QUESTION. What sourcing model is to be preferred in the choice of strategic partners for outsourced capability

The choice is made for each capability and is worth revisiting at each stage, because what is occasional for a ten-person company becomes core for one preparing a launch. Among the leading pharmaceutical companies in 2012–2021, the number of acquisitions went with the number of new drug approvals, while the number of licensing agreements did not.[1] For clinical development, a 2026 benchmarking study of 133 trials in 81 programmes at thirteen sponsors found that none of the three main models (in-house, full-service CRO or functional service provider) consistently outperformed the others. Trials using more vendors, however, had longer timelines from protocol to database lock and more protocol amendments and quality events. The study links performance more tightly to how the operating model is designed and how partners are aligned than to the type of organisation doing the work.[2]

WHAT IT MEANS.

Every partner a company adds has to be selected, contracted and coordinated, and that work falls on a small leadership team. Fewer and deeper partnerships, with partners that cover more of the journey, reduce the burden, and the experience of the people who design and run the arrangement decides how well it works.

1 Schuhmacher, Grinchenko, Gassmann, Hartl and Hinder, "A case study assessing the impact of M&A and licensing on FDA drug approvals of leading pharmaceutical companies", *Drug Discovery Today* 30(3), 2025 (doi:10.1016/j.drudis.2025.104306).

2 Syneos Health and Tufts CSDD, 16 September 2026 (Applied Clinical Trials); the study was commissioned by Syneos Health, a CRO.

HUMAN CAPITAL

3%

of the chief executives who took a biotech public in the first half of 2021 came from academia, although a senior post in an academic laboratory was the most common background among the companies' founders

Every milestone a company reaches changes the leadership it needs, and the person who leads a biotech to the public market is seldom the scientist who founded it. Executives already rank their people as their most valuable asset, and the evidence suggests that the gaps in a leadership team are cheapest to close before the milestone that exposes them.

WHY THIS SECTION.

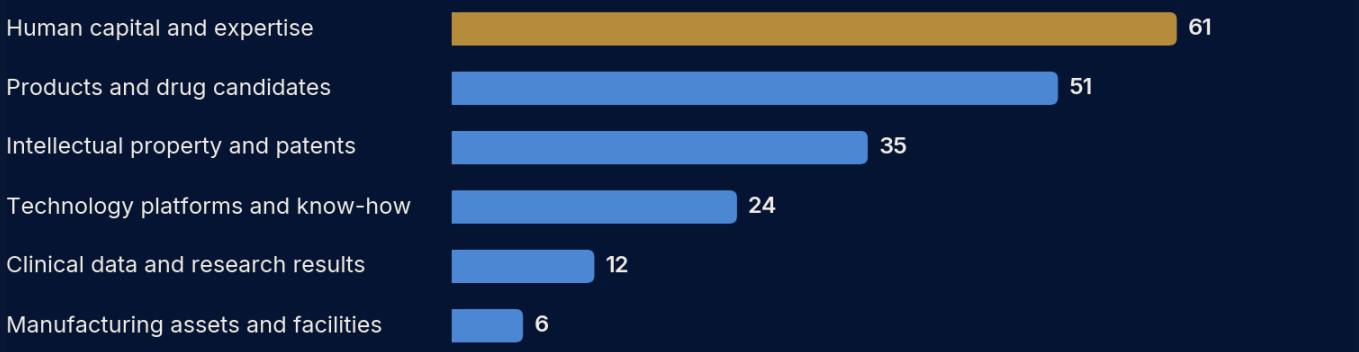
Partners can only deliver what a company is able to ask for, judge and manage. This section looks at what companies say they value and lack, how leadership changes as a company grows, and where the gap between the two is most costly.

WHAT COMPANIES VALUE – SPOTLIGHT SWEDEN

Executives rank their people above their products, and senior leadership is among the hardest skills to find

THE QUESTION. What do life science companies consider their most valuable asset, and which capabilities do they find hardest to secure?

THE COMPANY'S MOST VALUABLE ASSET, NUMBER OF MENTIONS BY 203 SWEDISH LIFE SCIENCE COMPANIES



Source: SwedenBIO, Life Science Barometer 2026; answers in the companies' own words, grouped into themes.[1]

92%

of the companies use external consultants, and 14% rely on them for most of their operations

58%

plan to hire more staff in 2026, and 40% plan to use more consultants

Asked to name their company's most valuable asset, the executives in SwedenBIO's survey mentioned the knowledge and experience of their people more often than their products and drug candidates, and far more often than their patents or their facilities. The competences they are looking for are, in order, sales and marketing, research and development, and business development and leadership, a group whose examples include CEO, CMO, CTO and CCO roles and senior management. After these come manufacturing, regulatory affairs, quality and clinical operations. The survey's authors observe that for many small companies having all the necessary expertise in-house is not possible.

Consultants fill much of the gap, and the reliance on them falls as companies mature. Michael Dabrowski, chief executive of Pelago Bioscience, described the limit of a scientific team as the company expanded its capacity, automated its laboratory work and built an international commercial organisation: "We are life science experts. We are not industrialists."[2]

WHAT IT MEANS.

Companies know that their people are what they are building on, and they know where the gaps are. Consultants cover a defined task well, but the leadership that decides which tasks matter and holds partners to account has to sit inside the company. As one experienced venture investor puts it, as soon as "real money" comes in, it is time to get serious about full-time people.[3]

1 SwedenBIO, *Life Science Barometer 2026*: 203 companies surveyed in autumn 2025, pp. 15, 22, 31 and 32.
2 Interviewed in *What the Science Needs Next*, Ventures Accelerated, September 2026.
3 Bruce Booth, "Twenty years in early-stage biotech VC, part 2: people", LifeSciVC, 15 October 2025 (lifescivc.com).

LEADERSHIP THROUGH THE MILESTONES

Each stage of growth changes the leadership a company needs

THE QUESTION. How often does a growing life science company need a different leader, and where do the leaders come from?

BACKGROUND OF THE CEOS OF THE 60 BIOTECHS THAT WENT PUBLIC IN THE FIRST HALF OF 2021



Source: Huayamares, Lokugamage, Da Silva Sanchez and Dahlman, 2022 (preprint).[1]

Most of the biotechs that went public in 2021 were founded by scientists from the laboratory where the technology was developed, and many of those founders moved into scientific or medical roles while the chief executive came from pharma, biotech or finance. The authors conclude that the market values chief executives with operational or financing experience more than those who developed the original technology, and they found similar patterns among the 138 biotechs that went public in 2018–2019. Earlier research points the same way. A chief executive's industry experience, international experience and management education affected how much venture capital a biotech raised.[2] Large biotechs replaced about half of their executives, including 43% of chief executives and 52% of chief financial officers, in the two years either side of their first launch.[3]

Changes at the top are also more frequent. Among 125 large public healthcare companies, 34% of departing chief executives in 2021–2025 had served less than four years, up from 29% in 2016–2020, and boards recruited 40% of new chief executives from outside, up from 30%.[4] Interim leaders increasingly bridge the gaps: demand from Heidrick & Struggles' clients for interim leaders has risen by 310% since 2020, and health care and life sciences is one of the three largest client industries for interim talent at Business Talent Group.[5]

WHAT IT MEANS.

Since the majority of founder CEOs are coming out of academic labs, and only 3% of the CEOs taking their company public has that same background, some drastic changes must have occurred along the way in terms of leadership preferences. Typically, leadership changes at inflection points, and this is a normal part of growth.

Stay ahead of the game: A company that plans the next team before the milestone that requires it, and uses interim leaders to bridge the gap, can make the change on its own terms instead of after a missed milestone.

1 Huayamares, Lokugamage, Da Silva Sanchez and Dahlman, "A systematic analysis of biotech startups that went public in the first half of 2021", arXiv 2205.00993, 2022, not peer-reviewed (arxiv.org).
2 Patzelt, "CEO human capital, top management teams, and the acquisition of venture capital in new technology ventures", *Journal of Engineering and Technology Management* 27(3–4), 2010: 117 biotechnology financing rounds (doi:10.1016/j.jengtecman.2010.06.001).
3 Skvarka and Farkas (Bain & Company), "Building a fully integrated biotech company: what it takes", *IN VIVO*, 2013: the fully integrated companies among the top 35 biotechs, two years before to two years after their first launch (bain.com).
4 Egon Zehnder, July 2026: 125 public biopharma, medical technology and pharmaceutical services companies, 2016–2025 (egonzehnder.com).
5 Heidrick & Struggles and Business Talent Group, *2025 High-End Independent Talent Report*, reported by Fortune, 23 April 2025 (fortune.com).

THE OVERLOOKED FUNCTIONS

The functions most likely to delay a programme receive the least senior attention

THE QUESTION. Do manufacturing and quality, the functions behind most of the FDA's published complete response letters, receive the senior hiring and attention they need?

<1%

of the appointments reported in public sources are in manufacturing, at every company size, and less than 2% in regulatory affairs and quality[1]

Public records of appointments are dominated by chief executives, founders and board members, who make up 57–74% of the 3,925 appointments we found at 2,204 companies in every size band. Manufacturing appointments make up less than 1% and regulatory and quality appointments less than 2%. Public sources report leadership changes more readily than functional hires, so these figures show where attention goes and do not capture every hire, but they point the same way as practitioners' accounts.

12–18 months

can be saved on the way to a Phase 2 study by investing early in manufacturing and controls, in the account of Lifordi's chief executive[2]

Arthur Tzianabos, chief executive of Lifordi Immunotherapeutics, describes the cost of that inattention from the inside. In that account, cost overruns at contract manufacturers typically go unnoticed when a company lacks the in-house expertise to see them, and assuming that any technical expert can oversee manufacturing and controls is "a big mistake". Lifordi's first hire, initially as a consultant, was its head of manufacturing and controls, recruited before the company formally launched. The work was funded at risk with a note ahead of the $70M Series A, and according to Tzianabos, manufacturing has never been on the company's critical path.

WHAT IT MEANS.

Very different sources describe the same gap: manufacturing and quality absorb a large share of the money and cause many of the delays, yet they attract a small share of senior hiring and leadership attention. An experienced manufacturing and quality lead adds most early, when the process and the manufacturing partner are being chosen; once a clinical hold or a complete response letter has exposed the gap, the cost is counted in months.

1 Our analysis of appointments reported in public sources for BIO 2026 companies: 3,925 appointments at 2,204 companies.

2 Arthur Tzianabos, chief executive of Lifordi Immunotherapeutics, LifeSciVC, 3 December 2025 (lifescivc.com).

3 in 4

of the FDA's published complete response letters involve manufacturing or quality,[1] yet under 1% of the 3,925 appointments reported at BIO 2026 companies are in manufacturing[2]

For investors and boards, the findings come down to governance. The capability most likely to delay a programme is the one companies least often appoint anyone to lead, and that can be changed before the next round.

WHY THIS SECTION.

Capital, partners and people create growth only in combination, and the weakest of the three sets the pace. This section draws the findings together into six questions that investors and boards can ask before the next round, and that founders can prepare to answer.

1 Pharma Manufacturing, 14 July 2025, analysis of the complete response letters the FDA published in July 2025 for applications it later approved (pharmamanufacturing.com).
2 Our analysis of appointments reported in public sources for BIO 2026 companies: 3,925 appointments at 2,204 companies.

SIX QUESTIONS BEFORE THE NEXT ROUND

What investors and boards can ask, and what founders can prepare to answer

The questions follow from the evidence in this report. They leave aside the science, which investors already examine closely, and concern the organisation that will turn the next round into the next milestone. Each points to a decision that is easier to make early than to correct later.

1. **Who owns manufacturing and quality, and when did they join?** Manufacturing or quality issues appear in three-quarters of the FDA's published complete response letters,[1] and an experienced lead appointed early can shorten the path to a Phase 2 study.[2]
2. **Which partner will take the product from the clinic to commercial supply, and has it done so before?** A partner with a record of approvals and capacity at every scale avoids a late transfer of the process, and an inspection at a partner's site can hold up an approval on its own.[3]
3. **How many partners does the plan depend on, and who coordinates them?** Trials that use more vendors run longer and have more amendments and quality events,[4] and the coordination falls on a small team.
4. **Has the company worked with an industry partner, and what did the partnership leave behind?** Developers with an early industry partner were further along in the clinic at the same age, without having raised more,[5] and first deals are negotiated at a discount when the team lacks deal experience.[6]
5. **Is this the leadership team for the next stage, or the one that was right for the last?** The chief executives who take biotechs public come almost entirely from industry and finance,[7] and turnover at the top is rising.[8]
6. **How will the company bridge the gap until the permanent hire is in place?** Interim and fractional leaders can carry a company through a transition, but the leadership that decides which tasks matter has to be built inside the company once the capital is there.[9]

1 Pharma Manufacturing, 14 July 2025, analysis of the complete response letters the FDA published in July 2025 for applications it later approved (pharmamanufacturing.com).
2 Arthur Tzianabos, chief executive of Lifordi Immunotherapeutics, LifeSciVC, 3 December 2025 (lifescivc.com).
3 BioSpace, 23 September 2025 (biospace.com).
4 Syneos Health and Tufts CSDD, 16 September 2026 (Applied Clinical Trials); the study was commissioned by Syneos Health, a CRO.
5 Our analysis; see "Early partners".
6 Nicholson, Danzon and McCullough, "Biotech-pharmaceutical alliances as a signal of asset and firm quality", NBER Working Paper 9007, 2002 (nber.org), later published in the *Journal of Business* 78, 2005: US biotechs, 1990s.
7 Huayamares, Lokugamage, Da Silva Sanchez and Dahlman, "A systematic analysis of biotech startups that went public in the first half of 2021", arXiv 2205.00993, 2022, not peer-reviewed (arxiv.org).
8 Egon Zehnder, July 2026: 125 public biopharma, medical technology and pharmaceutical services companies, 2016–2025 (egonzehnder.com).
9 Bruce Booth, "Twenty years in early-stage biotech VC, part 2: people", LifeSciVC, 15 October 2025 (lifescivc.com).



PERSPECTIVE: EXECUTIVE VENTURES

Leadership for the stage a company is heading into

Executive Ventures builds leadership teams and boards for the next stage of a company's development. Together with its sister company Ventures Accelerated, which connects life science companies with capital and partners, it works on two of the three inputs in this report's equation, human capital and strategic access.

> *"Life science companies move incredibly fast. The leadership team that is right for an early-stage company is not necessarily the team that will take it through commercialisation, international expansion or the next phase of capital growth."*
>
> Carolina Ragnerstam, CEO, Executive Ventures

The evidence in this report points in one direction. Small companies spend their capital through partners, the partners they choose early go with faster progress, and the functions most likely to delay a programme receive the least senior attention. Each of these depends on the people a company has in place, and each is easier to address before the milestone that tests it than afterwards. Putting the right leadership in place ahead of the next transition, rather than in response to a vacancy, is therefore part of a company's growth strategy and part of an investor's protection.



ABOUT THE EVIDENCE

How the analysis was done, which sources were used and where the evidence is weak

SOURCE RULES

The data behind every figure and statistic about today's industry was published in 2022 or later and concerns life sciences, or is labelled where it covers a wider field. Older studies appear only for the theory and for earlier findings, and their period is given where they are cited. The sources are peer-reviewed journals and reviews, regulators' data, company results and filings, industry associations, named research, consulting and executive search firms, and named practitioners writing about their own experience. Studies commissioned by a company with an interest in the result are identified as such, figures that could not be traced to a primary source are not used, and every quotation was checked against its original.

OUR ANALYSES

The company analyses use the partnering profiles of drug developers registered for BIO 2026, the industry's largest partnering event: founding year, headcount band and total funding as stated by each company, combined with partnership histories and the stage of the lead programme gathered from public sources. Small developers are those with fifty or fewer employees. An early industry partnership is one with a pharmaceutical or biotech company signed within five years of founding; partnerships with universities, hospitals, research institutes and service providers are not counted. A lead programme is clinical-stage from Phase 1 onwards, including approved products. Comparisons are made within age bands, because companies with an early partner are younger on average and a comparison that ignored age would hide the difference. Differences were tested with a two-proportion test in each band and a Cochran–Mantel–Haenszel test across bands.

LIMITATIONS

- Attending a major US partnering event is expensive, so the smallest and least funded companies are under-represented, and levels such as median funding run higher than in the industry as a whole. The comparisons are made within the same group of companies, which limits this bias without removing it.
- Funding is self-reported and disclosed by fewer than half of the companies, and better-funded companies probably disclose more readily.
- The analyses are cross-sectional and show associations. Companies that failed are not in the sample, and companies with stronger science may both attract partners and progress faster.
- Public sources record recent partnerships and senior appointments more completely than older deals and functional hires, so the early partnerships of the oldest companies are under-recorded.
- The SwedenBIO survey covers 203 Swedish companies that chose to respond, and its figures are counts of free-text mentions that cannot be read as shares of companies.

EVIDENCE WE DID NOT RELY ON

Some widely cited sources were left out because they do not concern life sciences, are too old to describe today's industry or could not be traced to a primary source. They include studies of how buyers choose professional-services firms in general, cost-per-drug estimates from 2020 and earlier, the value of contracted R&D services in 2018 and a frequently quoted figure of 60,000 open biopharma vacancies. Conference statistics on how often capability is offered or sought, and estimates of the size of the contract manufacturing market, are not used.

EXECUTIVE VENTURES

Where human capital meets growth capital

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