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The winding journey of biotech capital raising: deciphering the jargon

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Ensuring biotech companies are sufficiently capitalized to propel innovation and development remains a central focus for management. In this article, we draw on our broad perspective interacting with venture capitalists to offer thoughts on investor feedback. Understanding venture capitalists' mindsets and investment theses will increase the probability of securing needed capital.

Overview of biotech fundraising environment

For biotech chief executive officers (CEOs), the need to relentlessly raise capital is a foregone conclusion, given the exorbitant development costs. Unlike other life sciences segments, such as medical devices or diagnostics, where a minimally viable product can be developed with limited investment, it is crucial for biotech companies to attract early venture capital to support cash burn. Evidently, management teams will have to undertake this process; yet, it is challenging and far from straightforward.

The biotech fundraising process consists of multiple investment rounds, from seed financings of a few million dollars (<$10 million) to establish proof of concept through crossover rounds and initial public offerings (IPOs), attracting new classes of investors to bolster clinical pipelines. The ultimate reliance on capital markets leads to both opportunity and uncertainty. Since 2013, the biotech bull run (Figure 1) has resulted in the creation of numerous startup companies and IPOs, providing investors with favorable internal rates of return. In turn, more venture capital groups formed, seeking to mimic this success and flooding capital into the segment. The bullish sentiment was amplified as the pandemic triggered further capital flow into biotech, reaching an all-time high from 2020 to 2022. During this period, we witnessed multiple $100 million-plus series A financing rounds for platform technologies, numerous early-stage IPOs, and special purpose acquisition corporations formed to acquire biotech companies. More recently, however, macroeconomic headwinds led to uncertainty in both the public and private markets. Consequently, the first quarter of 2023 experienced a pullback in investment activity, which was significantly lower than 2022 highs, albeit substantial compared with 2013. As highlighted in Box 1 and Figure 1, market conditions directly affect companies' ability to raise private equity capital, leading to an unfavorable funding environment noted by declines in both deal number and value. As such, management teams and founders should carefully hone their investment pitches to withstand diligence processes using the points below as guidelines to increase the likelihood of closing in a post–bull run biotech market.

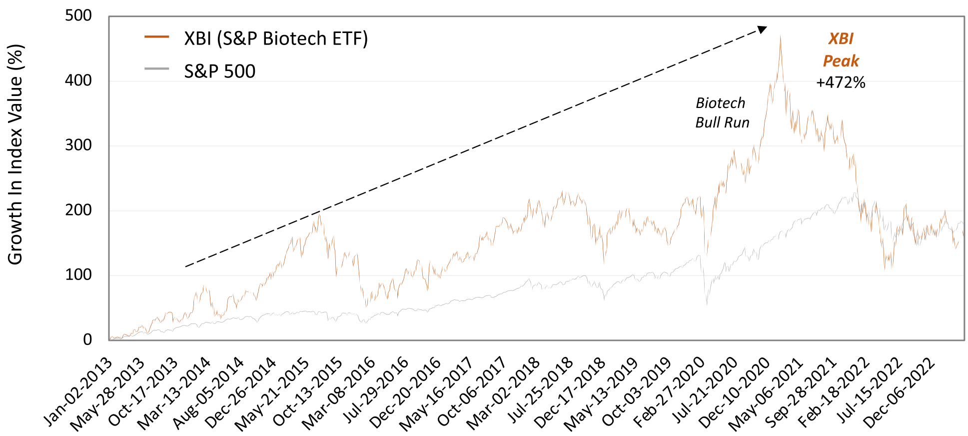
On the basis of Outcome Capital's discussions with investors, we observe recurring feedback, including that the opportunity is out of scope or not a strategic fit, the opportunity is too early, the opportunity risk profile is not aligned, the opportunity has substantial market risk, or the opportunity does not present a clear business model. What does this feedback mean for management, and how can it be addressed? We share our thoughts on how to effectively prepare, but one thing is certain in fundraising: The opportunity will not be a fit for all investors.

The opportunity is 'out of scope' or 'not a strategic fit'

Typically, this means that the fund has decided to invest outside the company's target indication, or the fund has already invested in a competing technology and will thus avoid concentrating their portfolio. As such, a management team should research the groups with a rigor and scrutiny similar to that with which one would assess the merit of pursuing and advancing a new discovery program. An assessment of venture capitalist (VC) websites is an appropriate starting point to gain high-level details about strategic focus and prior investments but will not suffice. Teams should seek to establish relationships with investment principals and other management teams to learn more about each fund's strategy. Becoming familiar with the fundraising environment is a core activity best conducted prior to launching a capital-raising process and can be viewed as a round of informational interviews. Our recommendation is to strategically target venture capital groups to align indication focus and development stage.

The opportunity is too early

Data are the primary currency for early-stage companies, and the amount of data defines investment risk. Recent reports indicate that ~3.5% of assets in the preclinical stage and ~7% of drug candidates that reach the clinic will successfully attain FDA approval. For funds to achieve returns on investment, either a product needs to be acquired or significant capital will be needed to commercialize the asset. The considerable risk necessitates comfort from venture capital groups with the level of data around the program. Groups will often cite a company as too early when they cannot achieve comfort around the data. For that reason, compelling data, both preclinically and clinically, that suggest the program has a palatable probability of success is mandatory. Additionally, external key opinion leaders' support is key in developing confidence in a program. Our recommendation is to establish corporate brand awareness through an established scientific advisory board, high-impact publications, and conference presentations.



Early-Stage Venture Activity (2020 – 2023)

Year	Deal No.	Med. Deal Size ($M)
2020	818	6.6
2021	1030	8.6
2022	788	10
H1 2023	***257***	***8.3***

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Figure 1. Market performance of XBI versus S&P 500 indices since 2013 and corresponding US venture activity. The year 2013 marked the beginning of the bull run in the biotech segment. Throughout this time, the XBI outpaced the broader market (S&P 500), reaching a peak of a 472% increase in value in early 2021, which was more than three times the performance of the S&P 500, which saw a 168% increase in value during the same period. In late 2021 and early 2022, the XBI had significant pullback to reflect broader market trends. Venture capital activity in biotech reflected the end of the bull run with decreases in deal number and overall company valuations as overall downward market trends translated to less favorable deal terms for founders in the private markets. Founders and management teams should appreciate the need to follow guidance presented here, given the elevated selectivity of venture capital and reticence to dole out large sums of money to preclinical/early clinical stage biotech companies. XBI tracks biotech companies as defined by the Global Industry Classification Standard (https://www.msci.com/our-solutions/indexes/gics) and includes companies primarily engaged in the development and commercialization of products based on genetic analysis and engineering and includes protein-based therapeutics but excludes companies manufacturing biotechnology products without a healthcare application. Data sourced from Pitchbook and Capital IQ.

The opportunity risk profile and capital needs are not aligned

The relationship between time, capital, and value inflection milestones must be well defined. Investors must ensure that capital is effectively deployed to propel a company through multiple value inflection and derisking milestones. Although there is not a one-size-fits-all equation, platform and single-asset companies must keep these considerations in mind when speaking with investors. We have highlighted key considerations for each below.

Platform companies with multiple programs may be perceived as risky. Higher amounts of capital are needed to progress multiple programs in parallel. Additionally, the clinical risk is compounded, given that if a trial fails, pipeline programs will likely lose value because of their interconnectedness. Conversely, a platform that demonstrates efficacy will be perceived as beneficial with a significantly higher upside resulting from the multiple follow-on products. Moderna's success demonstrates this principle.

With single-asset companies, investors have a clearer relationship between their investment and the progress the company will achieve. In this scenario, investors identify companies that have a sole objective and limited distractions that could hinder progress. Single-asset companies still offer investors significant return-on-investment (ROI) potential, with a clearer path to liquidity through acquisition by a larger company. In contrast to platform companies, single-asset companies do not have multiple shots on goal or follow-on indications that will disproportionally gain value. Our recommendation is to effectively define use of proceeds and an investor pathway to liquidity to

Box 1. Overview of biotech venture capital environment and strategies

With the primary focus of returning capital to their limited partners, biotech investors seek to develop a unique investment thesis. As such, the biotech venture capital community is diverse, with groups identifying specific investment stages and indications as key elements to consider.

Because drug development is a costly and risky endeavor, VCs focus their investments on a specific development stage, whether early stage (series A or B) or later stage (series D through IPO) to establish their necessary return profiles. In fact, some VCs, including Flagship Pioneering and Atlas Ventures, among others, invest as early as company creation, developing companies to a point where they can attract outside capital. Typically, early-stage investors seek higher return potential, given there is substantially more risk.

Different indications also present different return profiles and have become differentiators for specific VC investment theses. Today's biotech venture ecosystem has seen the formation of numerous oncology-focused VC firms and neurology-specific funds in addition to general therapeutics funds. Each group seeks its own return profile and, in turn, stage of investment.

Despite differing investment focus in terms of indications of interest, the funds will be similar in that they seek to diversify their portfolio through multiple investments, typically from ten to 15, that meet the criteria of investment committees. A typical fund will usually receive 300–500 new opportunities every year but will invest in just –three to five companies. Given these unfavorable odds, it is crucial for CEOs to understand investor feedback when developing an offering that aligns with prevailing investment theses.

alleviate concern about ROI and misuse of investment.

There is substantial market risk

Market risk falls into two main buckets: competition and exit potential. Competition lies in competing drugs in clinical development and first-generation molecules or generics that drive prices down. It is for these reasons that companies aim to prove superiority in clinical trials, providing objective quantification of improvement versus standard of care. Demonstrating superiority increases the cost of development and may decrease the likelihood of success. Management and scientific teams need a data-driven rationale for why their approach is best in class.

The second element of market risk lies in exit potential. Because ROI is a main driver for any institutional investor, a clear path to liquidity defines an investment. Therefore, if a company is in a segment with an unclear acquisition universe or limited transaction history, it will cause investors to pause. This is the reason investors have focused on oncology as opposed to, for example, anti-infectives. The oncology segment contains a robust acquisition universe, including Merck, Pfizer, *Bristol Myers Squibb*, and Novartis, that continually hunt for new assets and pay top dollar. By contrast, the anti-infectives segment contains a limited number of large companies, with diminished transactional activity. This does not necessarily signal that new biotech companies in underinvested spaces do not have strong investment theses; rather, they must focus on speaking to key strategics early to identify critical milestones and potential exit timing that can be communicated to investors. Our recommendation is to identify key strategics through detailed market landscaping and address specific synergies that will lead to a transaction.

There is not a defined business model

Companies built around an enabling technology, such as a drug delivery technology or drug development software, present investors with multiple avenues to commercialization. These value propositions are exciting to management teams, given the broad potential of the technology. However, an uncertain or ambiguous business model can hinder investment appetite despite expansive utility. Investors need focus and a well-defined product, market, and path to liquidity. In these scenarios, it is critical that management teams define the company's path: a therapeutic company, a technology licensor, or an advanced contract research organization. Pursuing all avenues in parallel creates confusion and reduces management's probability to return shareholder capital. This level setting helps an investor determine the appropriate size of investment and premoney valuation and increases the likelihood that a company will receive the investment. Our recommendation is to plan for commercialization in early stages of development; identify the end-users, prescribers, and payers; and ensure alignment of incentives and sensitivities.

Concluding remarks

In this article, we provided CEOs with recurring feedback based on our experiences. Although the journey to raise capital is long, winding, and at times frustrating, founders and executives continue to build strong and sustainable companies making significant advancements in science and medicine, rendering the biotech industry exciting, collaborative, and rewarding. Management teams must continue to seek a third-party perspective and prioritize advancement of key programs toward value inflection milestones. Balancing the core aspirational goals to positively impact patients' lives with the drive to create value for shareholders is essential to a strong investment pitch.

Declaration of interests

N.F., M.C., and O.B.J. are members of the investment banking team at Outcome Capital, a life sciences and healthcare specialized advisory and investment banking firm in Boston, MA, USA assisting companies in capital raising and merger and acquisition transactions. O.B.J. serves as a member of the board of directors for Elios Vision.

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