

# The Quarterly Rx: 2025 U.S. Biopharma Recap

December 2025

William Blair

# U.S. Biopharma Market Summary – Key Takeaways

*Biopharma*

**Year In Review 2025**

## Your Year in Biopharma

- **XBI® Performance:** +37%
- **Number of IPOs, FOs, PIPEs:** 196 (8 IPOs / 152 FOs / 36 PIPEs)
- **Total Public Capital Raised:** $32B
- **Number of >$1B M&A:** 32
- **Total Capital Returned Via Public Co. M&A:** $70B
- **Biopharma Cos. Below Cash:** 15% (vs. 20% at YE '24)

## Your Biggest Breakouts

- **Best XBI® Performer:** Celcuity, +673%
- **Best 2025 IPO Performance:** Metsera, +264%(1)
- **Biggest Market Cap Appreciation:** Insmed, +$25B
- **Biggest M&A Deal:** ITCI/J&J, $14.6B

## Your (Private) Market Mood

- 247 financings, $21.9B raised
- **Genre Preference:** 62% clinical-stage
- **Out of Rotation:** Fewer crossovers, 30 in '25 vs. 46 in '24
- **Top Listeners:** OrbiMed, RA, Sanofi, Novo and Lilly
- **Fresh Tracks**: 24 new life sciences funds raised $13B+

## Your Wildest Swings

- **Best 1-Day Mover:** Abivax, +532%
- **Worst 1-Day Mover:** MoonLake, -90%
- **December 9th:** Largest single day, $3.5B, and single week (week of 12/8), $4.4B, of capital raised in the past five years

## What You Had On Repeat

- **Obesity Covers:** Metabolic hits topped the charts
- **Asia on Loop:** Cross-border biopharma wouldn't stop playing
- **FDA Shuffle Mode:** Regulatory risk kept skipping tracks
- **MFN & Pricing Static:** Loud headlines, same old song

## IPOs: New Artist Debuts

- 8 IPOs, 100% clinical-stage, 88% small molecules
- **Opening Reception:** 12% median 1-day return
- **Chart Hold:** 88% trading above issue
- **Debut Stats:** $196M median raise, 1.18x step-up

## Back on (Public) Tour

- **Headline Show:** Largest follow-on, Insmed ($863M) and largest PIPE, Summit ($500M)
- **Setlist Drivers:** 71% catalyst-driven offerings

## Your Deal DNA

- **Surging Up the Charts:** 73 M&A deals, $141B total value
- **Platinum Year:** Most $1B+ M&A deals in the last 20+ years
- **Late-stage Bias:** Over 50% for Phase 3 & commercial assets
- **Earn-out Encores:** 64% used CVR or milestone structures

## Fast Forward into 2026(2)

- ***2026 Interest Rate Cuts Will Remain a Tailwind for Biopharma***
- ***Major Biopharma Indices Will Continue Climbing the Charts and Close Modestly Up***
- ***Busier Release Calendar with ~20 IPOs in 2026, Skewed to H1***
- ***Rebound in "Crossover" Rounds as IPO Window Reopens***
- ***Increase in Big Pharma Collaborations with China Companies for Novel Targets***
- ***Continued Double-Digit $1B+ Public Company M&A Activity and at Least One $20B+ Acquisition, Underscored by Increased Deal Competition and Upcoming LOEs***
- ***Regulatory Uncertainty Will Favor Later-Stage, Asset-Centric Opportunities with Clear Endpoints***

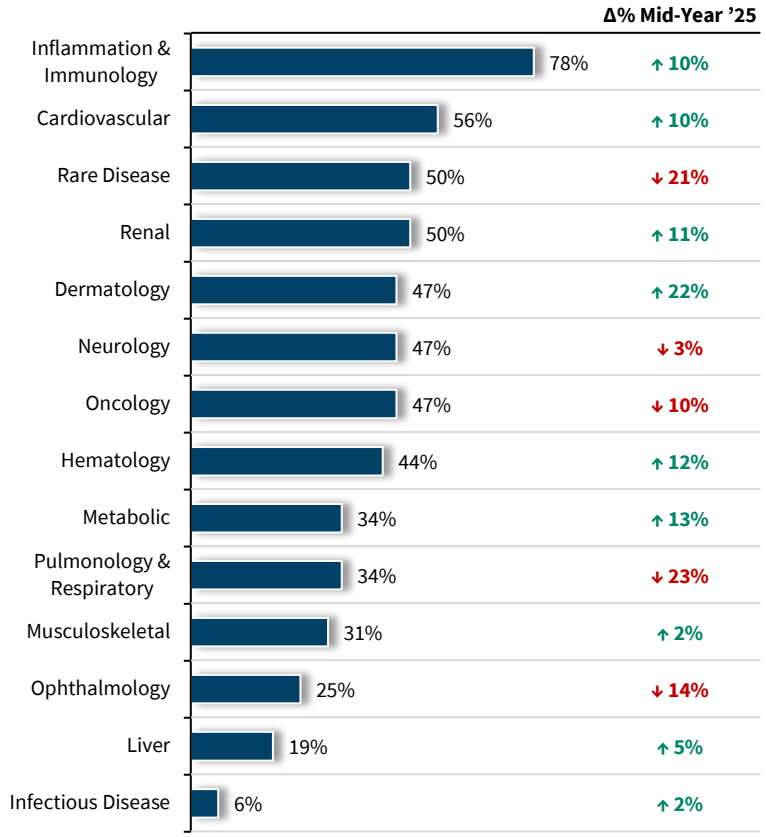
Market data as of December 19, 2025.
(1) Reflects change from IPO offer price to the final acquisition price of $65.60 per share following Metsera's November 2025 acquisition by Pfizer.
(2) Reflects views of William Blair Investment Banking and Equity Capital Markets teams.

# 2025 Year-End Investor Survey

- Biopharma outlook remains optimistic, fueled by macro tailwinds, deal activity, and renewed generalist interest
- Investor focus remains on I&I, alongside continued appetite for multi-specifics, small molecules, and RNA/oligonucleotides

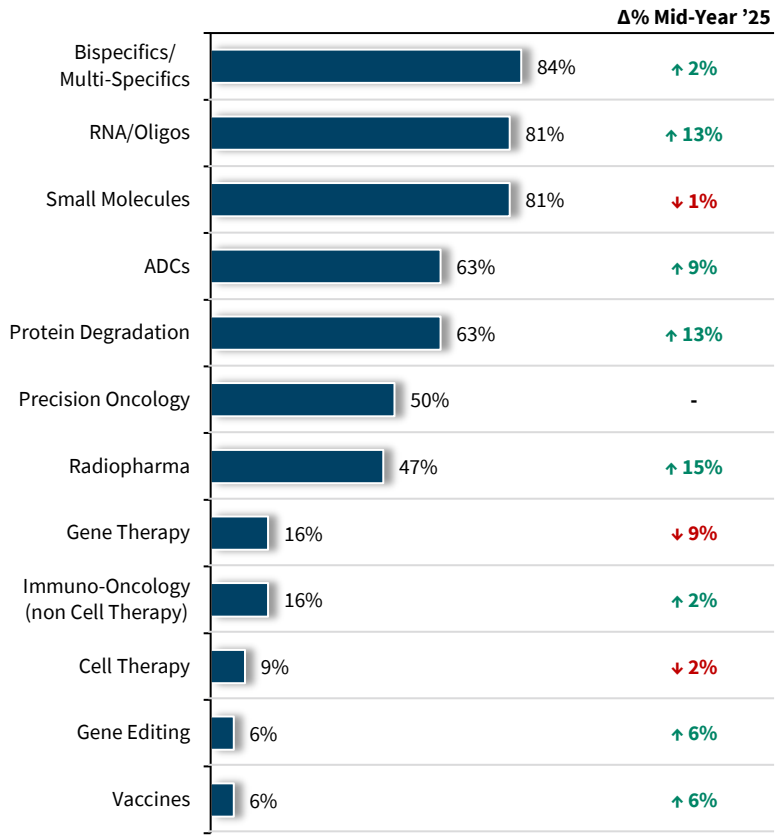
## I&I and Cardiovascular Remain on Top Amid Waning Enthusiasm for Oncology and Metabolic Diseases

(% of Respondents Indicating Interest in the Below Indications)



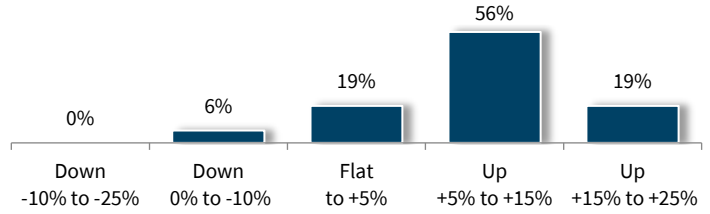

## Bi/Multi-Specifics, Small Molecules, RNA/Oligos Continue to Lead While Vaccines and Genetic Medicines Lose Investor Confidence

(% of Respondents Indicating Interest in the Below Modalities)

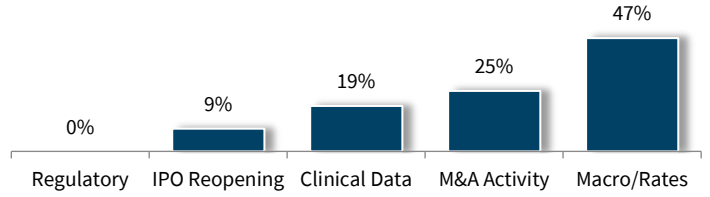



## Most Investors Expect XBI® Up in 2026, Driven by Macro/Rates; SMID Biotech Drawing More Generalist Activity

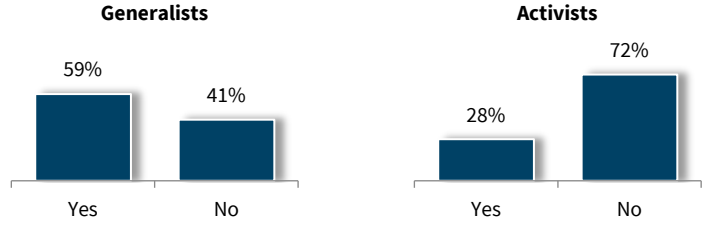
### What is Your Base Expectation for XBI® Performance in 2026?




### What Will Primarily Drive XBI® Performance in 2026?




### Will These Investors Be More Active in SMID Biotech in 2026?



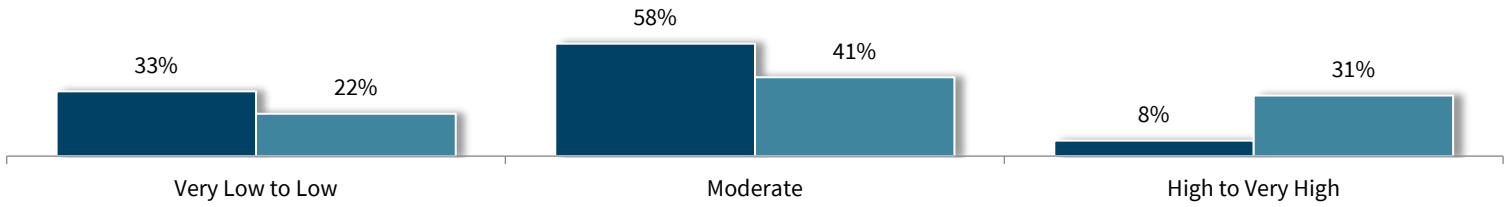

Note: Survey results based on responses gathered from individual investors at 32 unique funds which included mutual funds, long/short hedge funds, healthcare specialist funds, generalist long-only funds, family offices, and venture capital firms. Survey conducted the weeks of December 8 and 15, 2025.

# 2025 Year-End Investor Survey (cont'd)

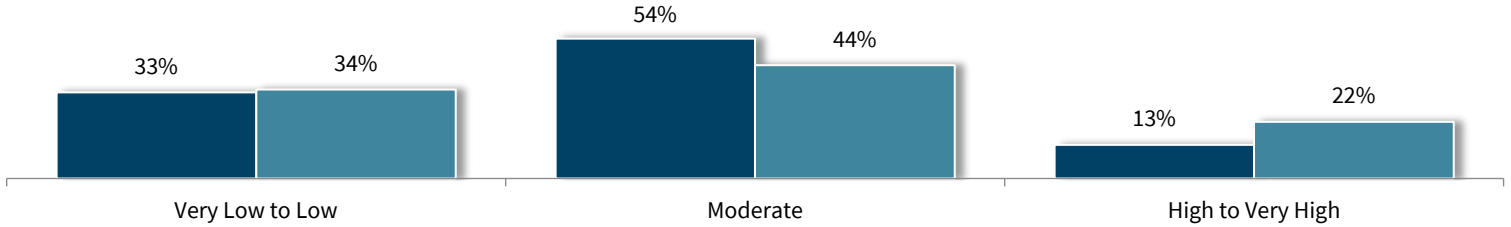
A greater proportion of investors are indicating higher interest in financing participation compared to mid-year, alongside substantial expectations for a rebound in IPO activity and continued rise in $1B+ public M&A

## Interest in Both Public and Private Financings Highest in 2-Years, With Particularly Strong Appetite for Follow-Ons/PIPEs

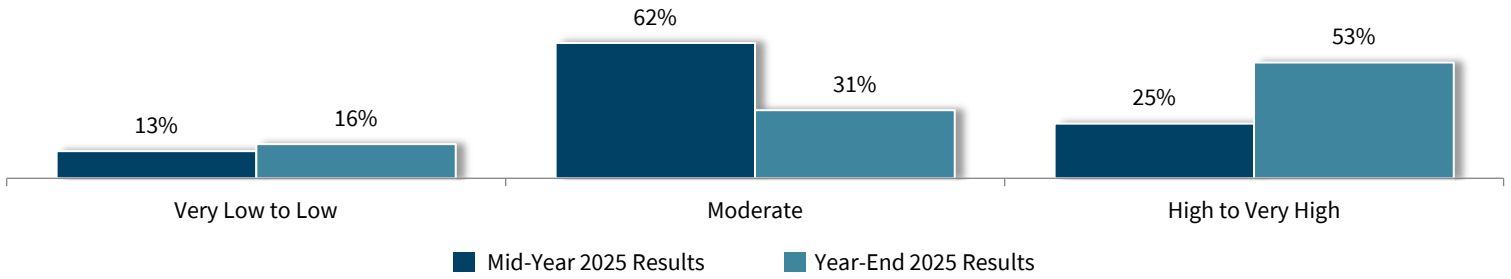
### Current Appetite for Private/Crossover Rounds?




### Current Appetite for IPOs?

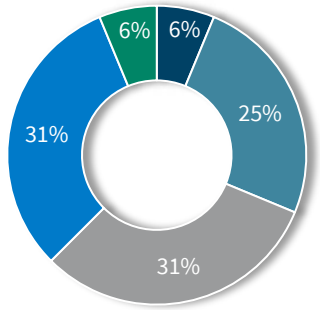



### Current Appetite for Follow-Ons/PIPEs?

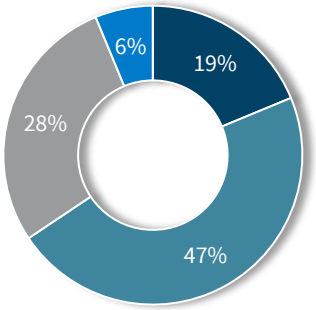



## Investors Optimistic for Robust IPO and M&A Activity in 2026

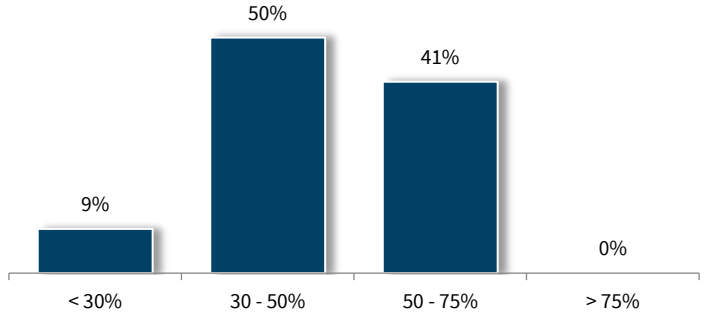
### # of IPOs?




### # of $1B+ Public M&A?




### What Do You Expect for Average Takeout Premiums in 2026?



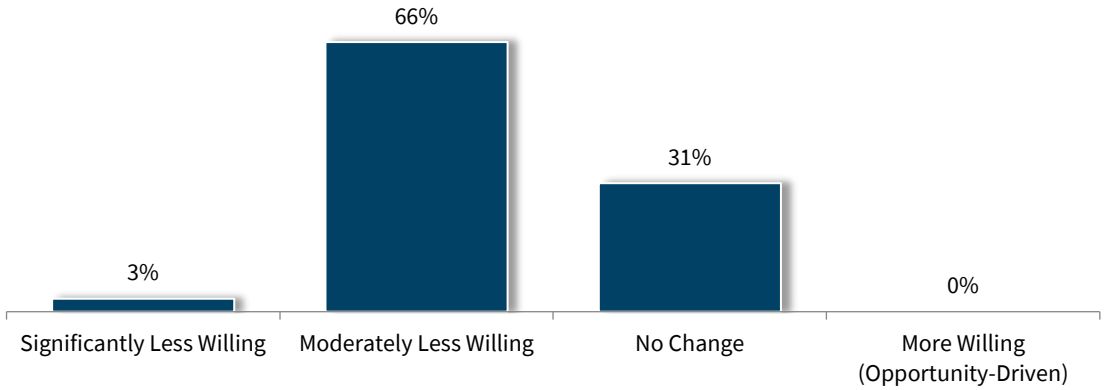

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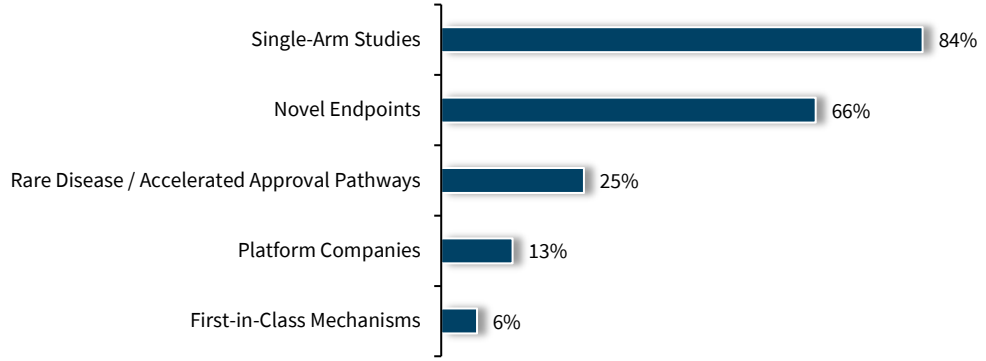
Investors are cautious on regulatory risk, while viewing China as a key source of innovation; they maintain neutral-to-positive sentiment on AI in biotech and largely neutral on drug pricing reform's effect on valuations

## Caution on Regulatory Risk Rises, Particularly on Novel Endpoints and Single-Arm Designs

### Has FDA Shift Changed Willingness to Underwrite Regulatory Risk Over Next 6–12 Months?

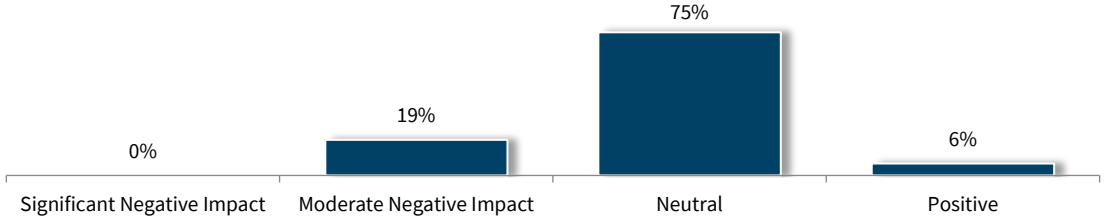



### Which Areas Are You Most Cautious On Because of Recent FDA Changes?




## Biotech Outlook Shaped by China and AI With Minimal Concern Over Drug Pricing Reform

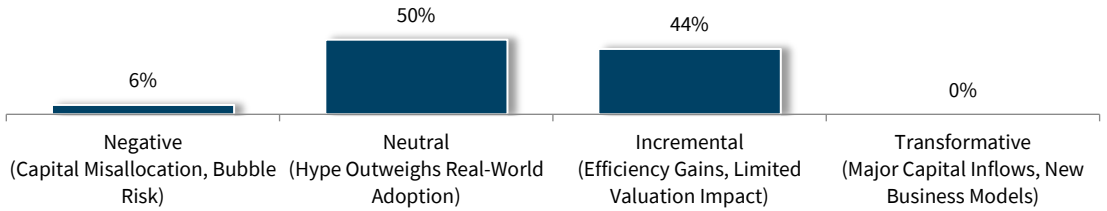
### How Will Drug Pricing Reform Impact Biotech Valuations in 2026?




### What Role Will China and Other Emerging Markets Play in Biotech in 2026?



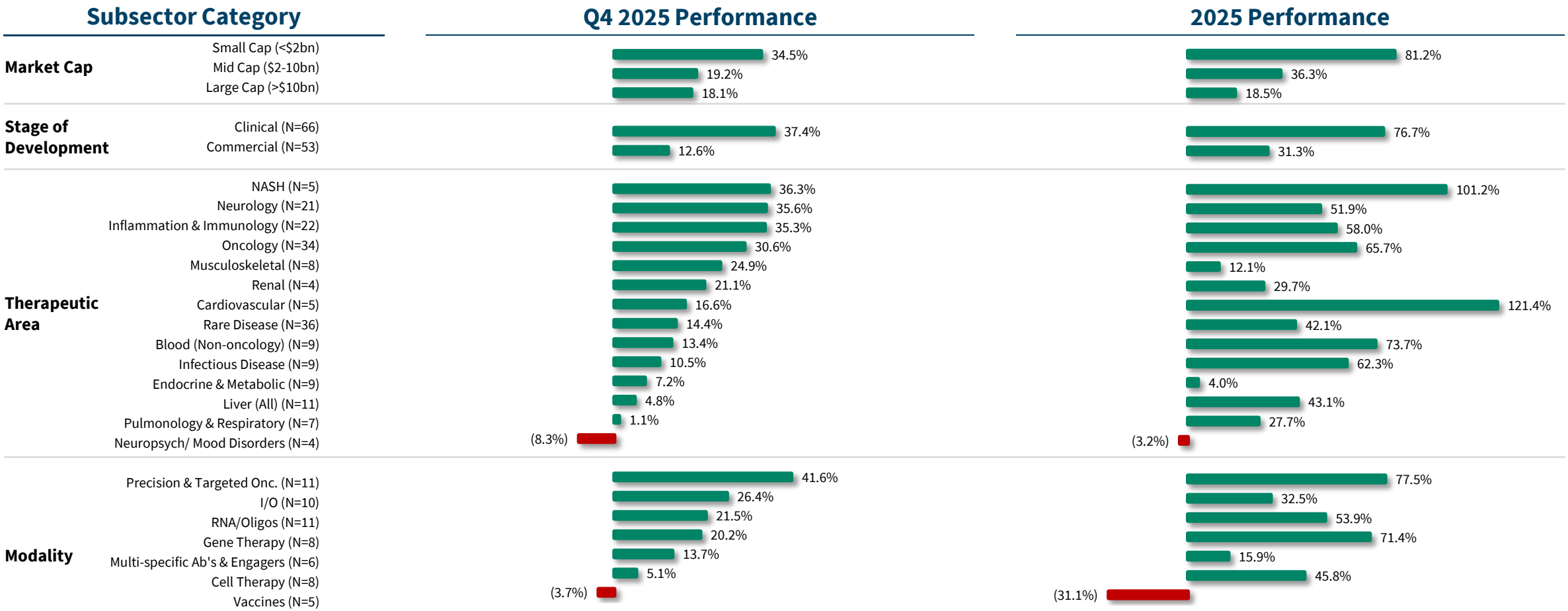

### How Will AI and Digital Technologies Impact Biotech Investing in 2026?




Note: Survey results based on responses gathered from individual investors at 32 unique funds which included mutual funds, long/short hedge funds, healthcare specialist funds, generalist long-only funds, family offices, and venture capital firms. Survey conducted the weeks of December 8 and 15, 2025.

# XBI® Subsector Market Performance

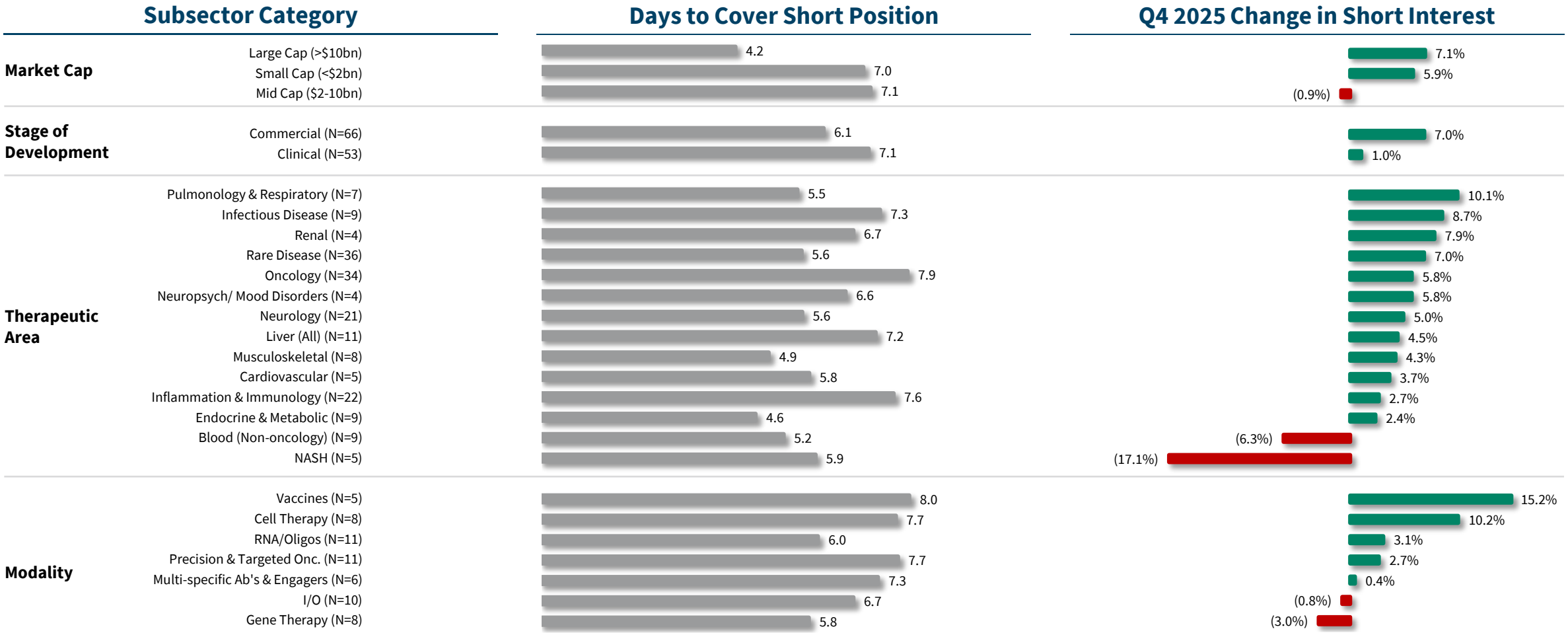
Broad-based biopharma strength carried through Q4, spanning market caps, therapeutic areas, and modalities, as small caps once again led the way for the third consecutive quarter. The XBI® rose over 35% in 2025, marking its best performance since 2020 and extending six straight months of outperformance




Source: FactSet and William Blair internal reporting. Therapeutic area and modality based on William Blair analysis.
Note: Market capitalizations are as of the first trading day of each graph's performance period.
Subsector indices are equally weighted and averaged. Includes XBI® constituents' as of December 19, 2025, and excludes non-therapeutic focused companies in the XBI®.

# XBI® Subsector Q4 2024 Short Interest Trends

Short interest was broadly higher in Q4 2025 – rising in large and small caps while easing slightly in mid caps – with dispersion across therapeutic areas and modalities driven by elevated positioning in pulmonology/respiratory therapeutics and vaccines



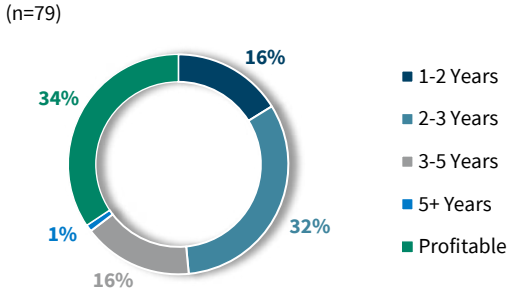

Source: FactSet, CapIQ, and William Blair internal reporting.
Note: XBI® constituents are equally weighted and averaged. Excludes non-therapeutic focused companies in the XBI®. Market capitalizations are as of the first trading day of the quarter. Days to cover short position calculated as total number of shares shorted / 3-month ADTV. Days to cover short position as of 11/28/25 settlement date. Short interest change measured from 9/15/25 to 11/28/25 settlement dates.

# Phenotype of Positive XBI® Performers in 2025

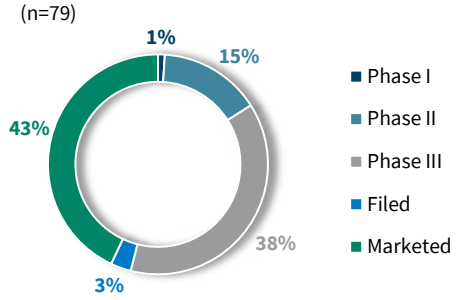
- In 2025, 66% (79/119) of biopharma companies in the XBI® finished the year positive, reflecting broad recovery across the sector
- Top performers were generally late-stage and had meaningful clinical and/or regulatory catalysts this year

## Breakdown of Positive Performers

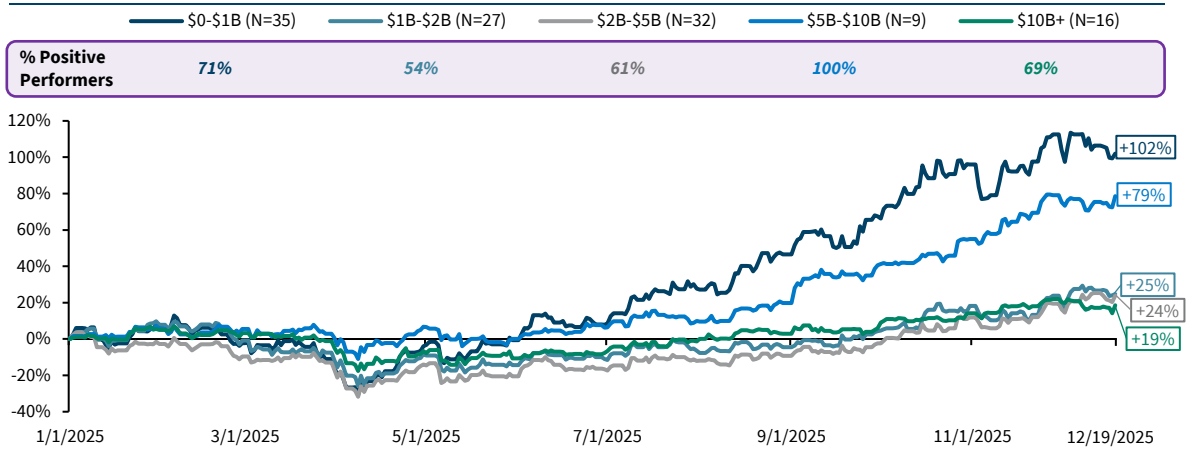
### By Cash Runway




### By Lead Stage of Development




## XBI® Performance by Market Cap(1)




## Top 15 Performers of the XBI®

($ in millions)

| Company | Area of Focus | 2025 Share Price %Δ | Current Market Cap | 2025 Market Cap $Δ | Stage of Development | Modality |
|---|---|---|---|---|---|---|
| celcuity | Oncology | +673% | $4,681 | +$4,195 | Phase III | Small Molecule |
| cogent | Oncology/ Rare Disease | +407% | $6,017 | +$5,155 | Phase III | Small Molecule |
| CIDARA (2) | Infectious Disease | +294% | $3,332 | +$3,038 | Phase III | Small Molecule-Fc Conjugate |
| PRECIGEN | Infectious Disease | +286% | $1,529 | +$1,201 | Marketed | Gene Therapy |
| AnaptysBio | I&I | +271% | $1,359 | +$956 | Phase II | Antibody |
| arrowhead | Metabolic/ Rare Disease | +263% | $9,257 | +$6,917 | Marketed | Oligonucleotide |
| PRAXIS | Neurology | +255% | $6,825 | +$5,344 | Phase III | Small Molecule |
| COMPASS | Oncology | +244% | $888 | +$688 | Phase III | Bispecific Antibody |
| TAYSHA | Neurology/ Rare Disease | +217% | $1,504 | +$1,149 | Phase III | Gene Therapy |
| MINERALYS | Cardiovascular | +199% | $2,915 | +$2,302 | Phase III | Small Molecule |
| STOKE | Neurology/ Rare Disease | +190% | $1,825 | +$1,241 | Phase III | Oligonucleotide |
| bridgebio | Multiple/ Rare Disease | +178% | $14,704 | +$9,518 | Marketed | Small Molecule |
| TANGO | Oncology | +176% | $1,147 | +$816 | Phase II | Small Molecule |
| Sana | I&I | +167% | $1,161 | +$797 | Phase I | Cell Therapy |
| insmed | Respiratory | +153% | $37,289 | +$24,937 | Marketed | Small Molecule |

**+$68,254** *gained in market capitalization*

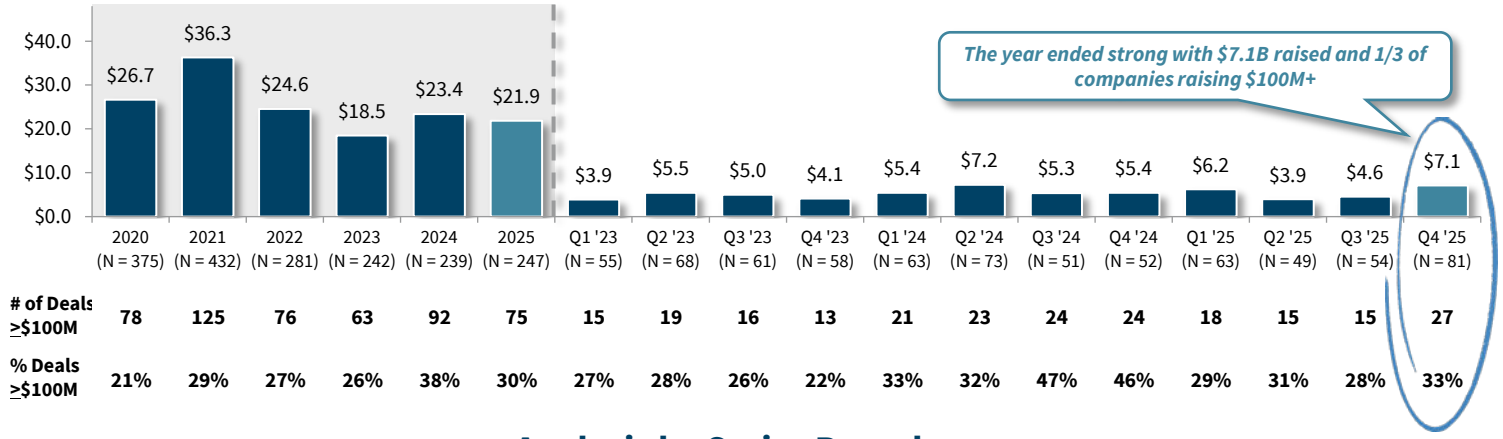
Source: CapIQ, PitchBook Data, Inc., FactSet, and SEC Filings as of December 19, 2025.
Note: Excludes non-therapeutic focused companies in the XBI®. Performance and current market capitalization for companies that have announced acquisitions determined by closing share price 1 day prior to acquisition announcement.
(1) Market capitalization as of first trading day of 2025.
(2) On November 14, 2025, Merck announced that it would acquire Cidara.

# Biopharma Private Financings Trends

- 247 deals in 2025 have raised total proceeds of $21.9B
- Heightened focus on clinical-stage companies, representing 62% of deals in 2025, up from 46% and 54% in 2023 and 2024, respectively

## Total Proceeds and Deal Volume

($ in billions)




| | 2020 (N = 375) | 2021 (N = 432) | 2022 (N = 281) | 2023 (N = 242) | 2024 (N = 239) | 2025 (N = 247) | Q1 '23 (N = 55) | Q2 '23 (N = 68) | Q3 '23 (N = 61) | Q4 '23 (N = 58) | Q1 '24 (N = 63) | Q2 '24 (N = 73) | Q3 '24 (N = 51) | Q4 '24 (N = 52) | Q1 '25 (N = 63) | Q2 '25 (N = 49) | Q3 '25 (N = 54) | Q4 '25 (N = 81) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| # of Deals ≥$100M | 78 | 125 | 76 | 63 | 92 | 75 | 15 | 19 | 16 | 13 | 21 | 23 | 24 | 24 | 18 | 15 | 15 | 27 |
| % Deals ≥$100M | 21% | 29% | 27% | 26% | 38% | 30% | 27% | 28% | 26% | 22% | 33% | 32% | 47% | 46% | 29% | 31% | 28% | 33% |

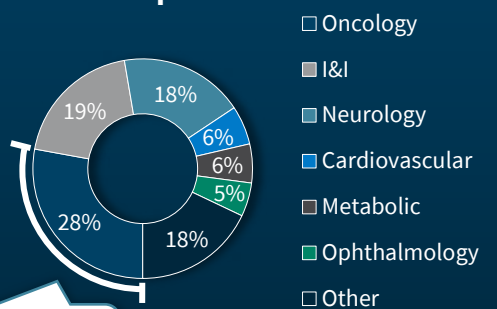
## Analysis by Series Round

*($ in millions, deal size represents mean, includes extension rounds)*

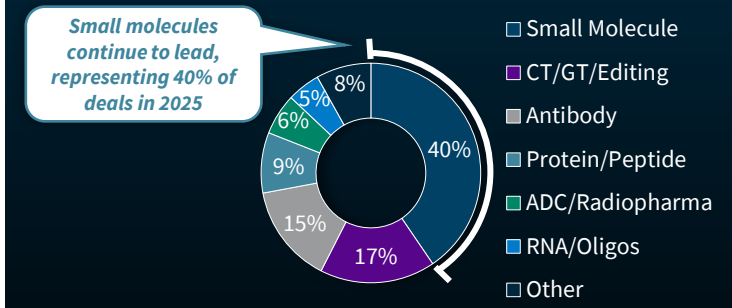
| | 2023 | | | | 2024 | | | | 2025 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Series Round | Deal Size | Series Count | % Ext. Rounds | % Clin. Stage | Deal Size | Series Count | % Ext. Rounds | % Clin. Stage | Deal Size | Series Count | % Ext. Rounds | % Clin. Stage |
| Series A | $64 | 107 | 20% | 25% | $100 | 101 | 16% | 33% | $82 | 108 | 22% | 43% |
| Series B | $77 | 81 | 21% | 49% | $87 | 79 | 20% | 59% | $84 | 80 | 19% | 70% |
| Series C | $107 | 32 | 16% | 78% | $99 | 39 | 13% | 79% | $92 | 36 | 11% | 86% |
| Series D+ | $84 | 22 | 5% | 86% | $129 | 20 | 0% | 85% | $126 | 23 | 9% | 91% |
| **All Rounds** | **$76** | **242** | **18%** | **46%** | **$98** | **239** | **15%** | **54%** | **$89** | **247** | **18%** | **62%** |

## 2025 Analysis by TA and Stage

### Therapeutic Area




### Modality

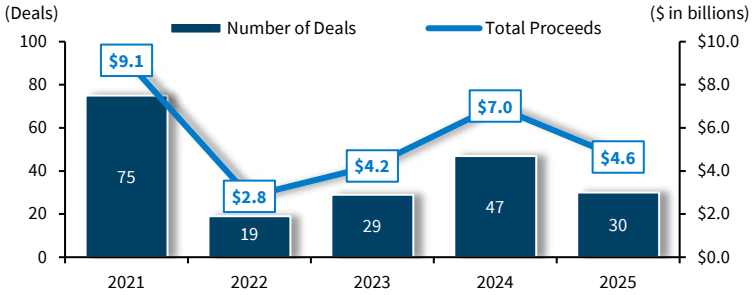



Source: CapIQ, PitchBook Data, Inc., and SEC Filings as of December 19, 2025.
Note: Includes Series A and later private financing deals and extension rounds with a minimum disclosed deal size of $20M, involving at least one U.S./EU healthcare investor.
Ext = Extensions.

# Biopharma Crossover Financing Trends

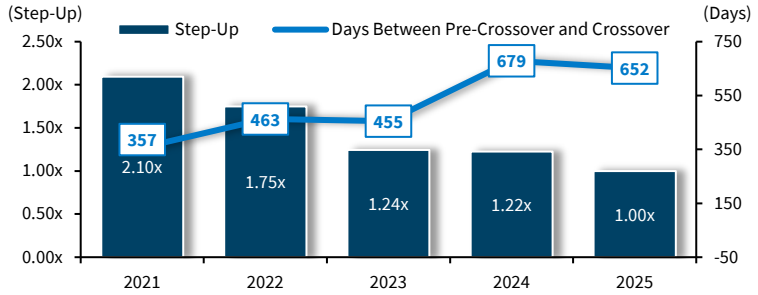
Crossover activity fell in 2025, with only 30 deals raising $4.6B in proceeds, although activity picked up in Q4 2025

## Total Crossover Volume and Proceeds




| | 2021 | 2022 | 2023 | 2024 | 2025 |
|---|---|---|---|---|---|
| Median Deal Size: | $106 | $132 | $150 | $135 | $120 |
| % Clinical: | 48% | 58% | 69% | 70% | 93% |

## Pre-Crossover-to-Crossover Metrics (1)




| | 2021 | 2022 | 2023 | 2024 | 2025 |
|---|---|---|---|---|---|
| # Public: | 35 | 5 | 11 | 11 | 1 |
| # Acquired: | 18 | 4 | 6 | 8 | 0 |

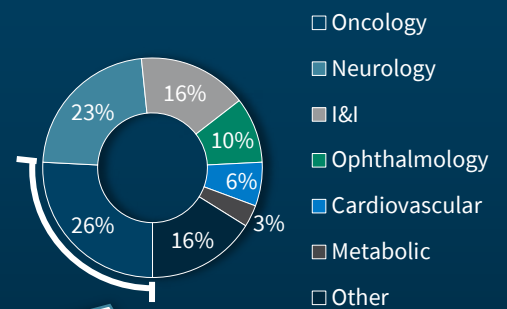
## Top 10 Largest Crossovers of 2025

| Deal Date | Company | Series | Deal Size | Lead Investors | Days Since Prior Round | Stage | Modality | Therapeutic Area |
|---|---|---|---|---|---|---|---|---|
| 10/14/25 | kailera | Series B | $600 | BainCapital | 378 | Phase II | Peptide | Metabolic |
| 10/15/25 | TUBULIS | Series C | $401 | venrock | 580 | Phase I/IIa | ADC | Oncology |
| 10/14/25 | Kardigan | Series B | $254 | ND | 277 | Phase III | Small Molecule | Cardiovascular |
| 9/10/25 | ODYSSEY THERAPEUTICS | Series D | $213 | SR One | 645 | Phase IIa | Small Molecule | I&I |
| 1/7/25 | AVICEDA THERAPEUTICS | Series C | $208 | OMEGA FUNDS, TCGX | 221 | Phase IIb/III | Nanoparticle | Ophthalmology |
| 2/12/25 | abcuro | Series C | $200 | NEA | 551 | Phase II/III | Antibody | I&I, Musculoskeletal |
| 7/28/25 | MapLight | Series D | $200 | Forbion, Goldman Sachs | 637 | Phase II | Small Molecule | Neurology |
| 9/3/25 | Treeline | Series A – Extension | $200 | ANDREESSEN HOROWITZ | 321 | Phase I | Protein Degrader | Oncology |
| 10/22/25 | ELECTRA THERAPEUTICS | Series C | $183 | EQT Life Sciences, nextech | 1,344 | Phase II/III | Antibody | I&I |
| 10/27/25 | HEMAB | Series C | $157 | Sofinnova partners | 979 | Phase II | Bispecific Antibody | Hematology, Rare Disease |

Source: CapIQ, PitchBook Data, Inc., and SEC Filings as of December 19, 2025. ND = Not Disclosed.
Note: Includes crossover rounds for companies that have completed an IPO as well as crossover rounds where the next round of financing will likely be an IPO: either a $50M+ raise (Series B onwards) or a $100M+ raise (Series A) with multiple crossover and/or large mutual funds in the syndicate. Lead asset information shown.
(1) Chart reflects median values.

## 2025 Crossovers by TA and Stage

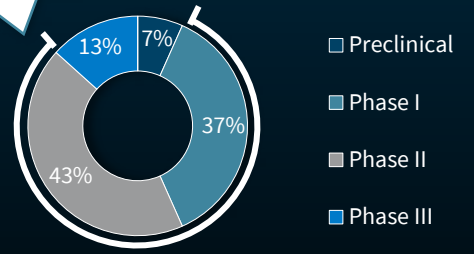
### Therapeutic Area




*26% of crossovers had an oncology focus, approximately in line with broader private financing deals*

### Stage of Development

*The vast majority (80%) of 2025 crossovers were Phase I or II*



# Biopharma Private Financings Most Active Investors

In 2025, corporate venture capital groups were highly prominent, accounting for 3 of the top 5 investors, helping offset reduced activity from healthcare specialists and mutual funds

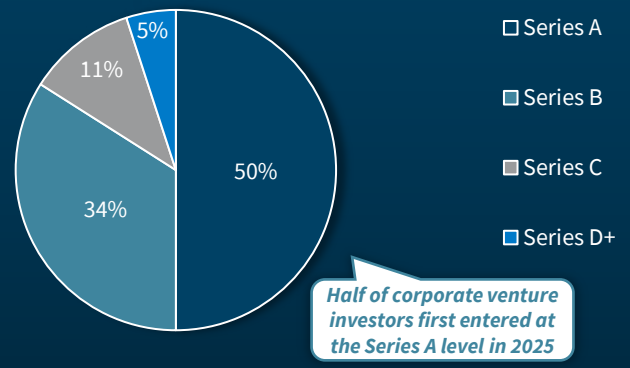
## Most Active Investors in 2025

| Company | Deal Count | Series A | Series B | Series C | Series D+ | Δ '24 Count | % Deals Led | Crossover Count[1] | Recent[2] Fundraise |
|---|---|---|---|---|---|---|---|---|---|
| orbimed | 26 | 10 | 9 | 3 | 4 | +1 | 31% | 9 | ✓ |
| RACAPITAL | 22 | 8 | 4 | 6 | 4 | (11) | 32% | 9 | |
| Lilly[3] | 20 | 13 | 5 | 1 | 1 | +9 | 0% | 0 | ✓ |
| sanofi ventures[4] | 20 | 6 | 5 | 6 | 3 | +10 | 35% | 8 | ✓ |
| novo[4] | 19 | 12 | 2 | 3 | 2 | - | 42% | 4 | |
| Forbion. | 15 | 6 | 6 | 2 | 1 | (2) | 87% | 2 | ✓ |
| ARCH VENTURE PARTNERS | 14 | 6 | 5 | 3 | 0 | (6) | 50% | 4 | ✓ |
| | 13 | 1 | 4 | 5 | 3 | (2) | 23% | 9 | ✓ |
| CATALIO CAPITAL MANAGEMENT | 11 | 1 | 5 | 2 | 3 | +1 | 0% | 5 | ✓ |
| F-PRIME | 10 | 3 | 5 | 1 | 1 | - | 10% | 1 | |
| Janus Henderson INVESTORS | 10 | 4 | 3 | 1 | 2 | (5) | 10% | 6 | |
| NEA | 10 | 2 | 4 | 2 | 2 | - | 60% | 3 | |
| QIMING VENTURE PARTNERS | 10 | 3 | 6 | 1 | 0 | +8 | 40% | 1 | |
| Sofinnova partners | 10 | 6 | 2 | 1 | 1 | +3 | 60% | 2 | ✓ |
| SR One | 10 | 4 | 2 | 1 | 3 | +1 | 60% | 5 | |
| INVUS | 10 | 4 | 3 | 2 | 1 | (5) | 0% | 4 | |
| ABINGWORTH | 9 | 3 | 1 | 5 | 0 | +6 | 22% | 2 | |

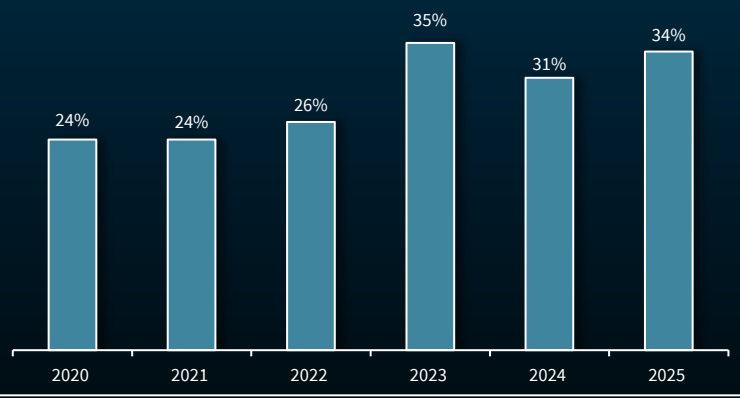
| Company | Deal Count | Series A | Series B | Series C | Series D+ | Δ '24 Count | % Deals Led | Crossover Count[1] | Recent[2] Fundraise |
|---|---|---|---|---|---|---|---|---|---|
| G/ | 9 | 5 | 3 | 1 | 0 | (8) | 22% | 1 | |
| SURVEYOR | 9 | 2 | 4 | 2 | 1 | (7) | 0% | 5 | |
| SV HEALTH INVESTORS | 9 | 5 | 2 | 1 | 1 | +4 | 67% | 2 | ✓ |
| ATLASVENTURE | 8 | 3 | 3 | 2 | 0 | (6) | 38% | 1 | ✓ |
| BLUE OWL | 8 | 1 | 1 | 2 | 4 | - | 25% | 6 | |
| DCVC | 8 | 6 | 1 | 1 | 0 | +3 | 63% | 1 | ✓ |
| EQT Life Sciences | 8 | 2 | 3 | 2 | 1 | +2 | 50% | 3 | |
| FORESITE CAPITAL | 8 | 2 | 3 | 1 | 2 | (6) | 13% | 4 | ✓ |
| FRAZIER LIFE SCIENCES | 8 | 4 | 0 | 3 | 1 | (7) | 50% | 4 | ✓ |
| OMEGA FUNDS | 8 | 3 | 3 | 1 | 1 | +1 | 25% | 2 | ✓ |
| QIA | 8 | 0 | 5 | 2 | 1 | +4 | 0% | 4 | |
| BainCapital | 7 | 4 | 1 | 2 | 0 | +2 | 71% | 3 | ✓ |
| DEEP TRACK CAPITAL | 7 | 0 | 3 | 4 | 0 | (7) | 29% | 7 | |
| Jeito | 7 | 3 | 2 | 1 | 1 | +4 | 57% | 2 | |
| khosla ventures | 7 | 4 | 3 | 0 | 0 | +3 | 29% | 0 | |
| rtw | 7 | 2 | 3 | 2 | 0 | (4) | 0% | 3 | |
| SAMSARA BIOCAPITAL | 7 | 3 | 1 | 2 | 1 | (6) | 43% | 2 | |

## Analysis of Corporate Venture Activity By

### First Investment Round in 2025




### Participation as a % of All Private Financings




Source: CapIQ, PitchBook Data, Inc., FactSet, and SEC Filings as of December 19, 2025. Includes Series A and later private financing deals and extension rounds with a minimum disclosed deal size of $20M, involving at least one U.S./EU healthcare investor. Excludes seed rounds.
(1) Includes crossover rounds for companies that have completed an IPO as well as rounds where the next round of financing will likely be an IPO: either a $50M+ raise (Series B onwards) or a $100M+ raise (Series A) with multiple crossover or large mutual funds in the syndicate.
(2) Represents new fund raises announced in 2024 and 2025.
(3) Includes investments from Lilly Ventures.
(4) Includes investments from parent company.

# 2025 New Biopharma Funds Formation

## Life sciences specialists continue to attract significant capital, raising over $13 billion in new funds this year with four funds surpassing $1 billion in fresh capital raised

| Investor Name | Fund Name | Location | Close Date | Fund Size ($M) |
|---|---|---|---|---|
| Sofinnova Partners | Sofinnova Partners Life Sciences Fund | Paris, France | 3/4/2025 | $1,250 |
| | Sofinnova Capital XI | Paris, France | 11/17/2025 | $750 |
| | Biovelocita II | Paris, France | 3/18/2025 | $175 |
| orbimed | Royalty and Credit Opportunities Fund V[1] | New York, NY | 8/4/2025 | $1,860 |
| FRAZIER HEALTHCARE PARTNERS | FLS XII | Seattle, WA | 7/31/2025 | $1,300 |
| TCGX | TCGX Fund III | Palo Alto, CA | 10/6/2025 | $1,300 |
| VIVO CAPITAL | Vivo Opportunity Fund | Palo Alto, CA | 5/7/2025 | $740[2] |
| OMEGA FUNDS | Omega Fund VIII | Boston, MA | 7/21/2025 | $647 |
| sanofi ventures | Evergreen Venture Fund+ | Paris, France | 9/24/2025 | $625[3] |
| DEERFIELD Advancing Healthcare | Deerfield's Healthcare Innovations Fund III | New York, NY | 5/5/2025 | $600 |
| medicxi | Medicxi V Fund | London, United Kingdom | 11/14/2025 | $581 |
| ANDREESSEN HOROWITZ[4] | Biotech Ecosystem Venture Fund | Menlo Park, CA | 1/10/2025 | $500 |

| Investor Name | Fund Name | Location | Close Date | Fund Size ($M) |
|---|---|---|---|---|
| Aditum Bio | Aditum Bio Fund III | Oakland, CA | 1/6/2025 | $428 |
| ATLAS VENTURE | Atlas Venture Opportunity Fund III | Cambridge, MA | 9/4/2025 | $400 |
| CATALIO CAPITAL MANAGEMENT | Catalio Nexus Fund IV | New York, NY | 7/1/2025 | $400 |
| TCG Labs Soleil | TCG Labs Opportunity I+ | San Francisco, CA | 7/24/2025 | $400[5] |
| Curie.Bio | Curie Bio Seed Fund II | Boston, MA | 1/29/2025 | $340 |
| ASCENTA CAPITAL | Fund I | West Palm Beach, FL | 10/9/2025 | $325 |
| SV HEALTH INVESTORS | Dementia Discovery Fund II | Boston, MA | 5/20/2025 | $269 |
| Amplify | Amplify Bio Fund I | Menlo Park, CA | 6/5/2025 | $200 |
| AN VENTURES | AN Venture Partners I | San Francisco, CA | 7/2/2025 | $200 |
| HATTERAS VENTURE PARTNERS | Hatteras Venture Partners VII and Opportunity Fund I | Durham, NC | 7/13/2025 | $200[6] |
| BRANDON CAPITAL PARTNERS | Brandon Capital Fund VI+ | Melbourne, Australia | 7/24/2025 | $110[7] |
| T.Rx CAPITAL | T.Rx Capital Fund I | Boston, MA | 9/18/2025 | $78 |

Source: PitchBook Data, Inc., and internal William Blair research as of December 19, 2025.
(1) Focused on non-dilutive credit and royalty-based financing.
(2) Additional fundraising for the third cycle of Vivo Capital's evergreen Vivo Opportunity Fund.
(3) Additional fundraising for the second cycle of Sanofi Ventures' evergreen fund.
(4) The Biotech Ecosystem Venture Fund also included participation from Eli Lilly.
(5) TCG Labs Opportunity I fund reflects an initial $400M raise in 2024 and an additional $400M raise in 2025.
(6) Includes $200M across two funds focused on seed- and early-stage opportunities.
(7) Brandon Capital's Fund VI reflects an initial $180M close in 2024 and a final close for an additional $110M in 2025.

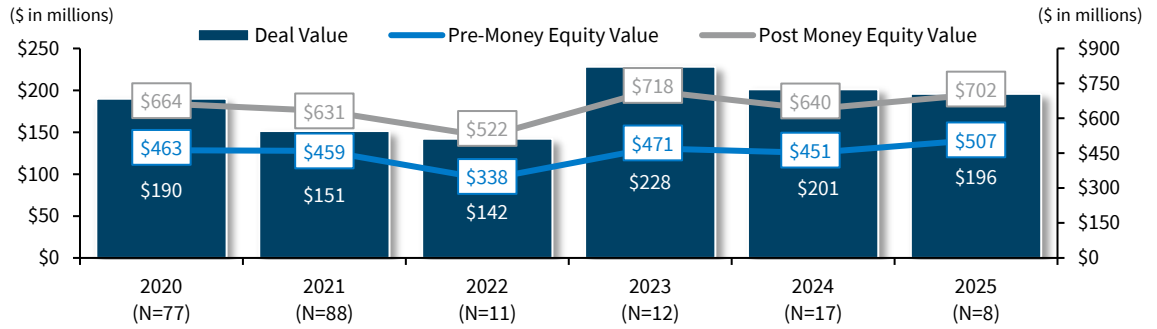
# 2025 Biopharma IPOs

- Only 8 biopharma IPOs in 2025, lowest in over a decade, driven by macro headwinds and a record-long U.S. government shutdown
- Aktis Oncology's late-December filing signals renewed momentum heading into 2026

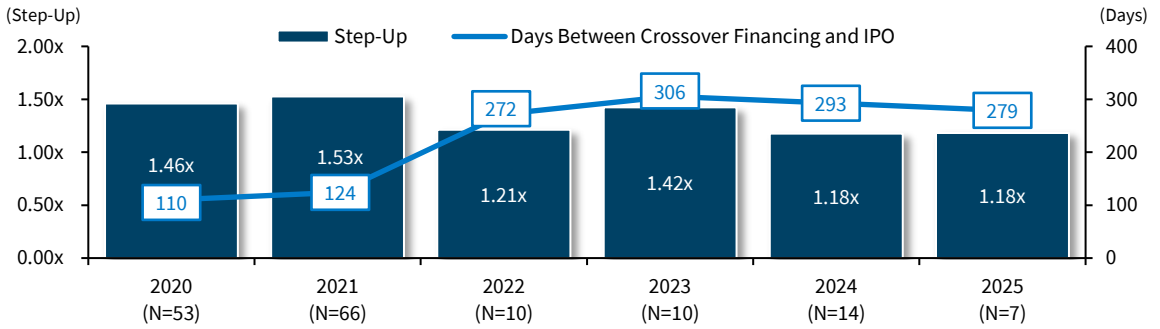
($ in millions)

| Pricing Date | Issuer | At Pricing: Deal Value | Market Cap | Deal Value as % of Market Value | Pre-Money: Equity Value | Pre-Money: Step-Up | Days from Pre-IPO Financing to IPO | Initial File/Offer vs. Range | % Change Offer/ 1 Day | % Change Offer/ Current | Lead Product at Pricing: Phase | Therapeutic Area/Modality | Next Major Catalyst (months) | Key Pre-IPO Investors |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11/5/25 | evommune | $173 | $504 | 34% | $331 | 1.18x | 370 | In Range | +26% | +14% | Phase IIb | I&I / Small molecule | 2 to 7 | ADAR1, EQT, Marshall Wace, Pivotal, RA, RTW, Sectoral, SymBiosis |
| 10/26/25 | MapLight | $259 | $704 | 37% | $454 | 1.06x | 90 | NA | +8% | +21% | Phase II | Neurology / Small molecule | 9 to 14 | 5AM, Avego, Blue Owl, Forbion, Goldman Sachs, T. Rowe |
| 9/10/25 | | $328 | $379 | 86% | $52 | 0.36x | 609 | In Range | +15% | +40% | Phase II | Neurology / Small molecule | 21 to 27 | Deep Track, Pontifax, TCG Crossover, Vida |
| 2/12/25 | aardvark therapeutics | $98 | $346 | 28% | $248 | 1.07x | 279 | In Range | (11%) | (14%) | Phase III | Metabolic / Small molecule | 11 to 13 | Cormorant, Decheng, Surveyor, SymBiosis, Tetragon |
| 2/6/25 | sionna | $219 | $794 | 28% | $575 | 1.26x | 338 | In Range | +39% | +135% | Phase I | Fibrosis / Small molecule | 1 to 4 | Atlas, Enavate, OrbiMed, Perceptive, QIA, RA, T. Rowe, TPG, Viking |
| 1/30/25 | | $140 | $700 | 20% | $560 | 1.20x | 65 | In Range | (0%) | +161% | Phase IIb | Renal / Small molecule | 11 to 13 | Casdin, Deep Track, Foresite, Frazier, General Catalyst, GV, Janus, Logos, Matrix, Woodline |
| 1/30/25 | Metsera | $316 | $1,896 | 17% | $1,580 | 1.52x | 78 | Above | +47% | +264%(1) | Phase I/II | Metabolic / Protein | 5 to 7 | Deep Track, Fidelity, GV, Janus, RA, SoftBank, SymBiosis, T. Rowe, Venrock, Viking, Wellington |
| 1/23/25 | Ascentage | $126 | $1,844 | 7% | $1,687 | NA | NA | NA | +1% | +70% | Phase III | Oncology / Small molecule | 11 to 23 | NA |

## Deal Sizing and Valuation




## Crossover-to-IPO Metrics(2)

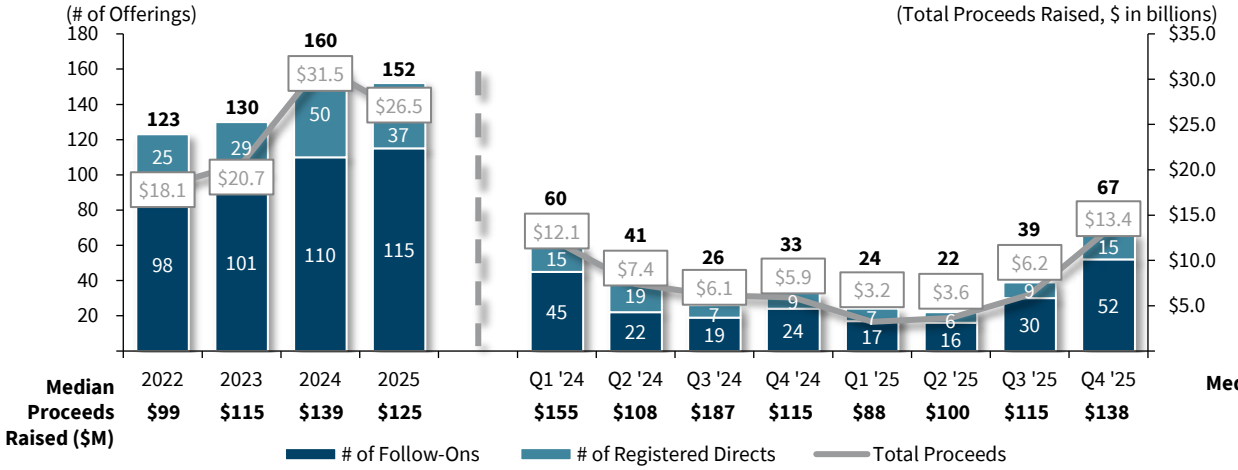



Source: CapIQ, Dealogic, Factset, PitchBook Data, Inc. and SEC Filings as of December 19, 2025.
Note: Includes U.S. IPOs only. Excludes best efforts IPOs. Excludes IPOs less than $25 million in gross proceeds. All valuations performed on a basic share count basis. ND = Not Disclosed. NA = Not Applicable. Charts reflect median values.
(1) Reflects change from IPO offer price to the final acquisition price of $65.60 per share following Metsera's November 2025 acquisition by Pfizer.
(2) Crossover-Financing rounds defined as pre-IPO financings completed that included multiple crossover and/or large mutual funds in the investor syndicate.

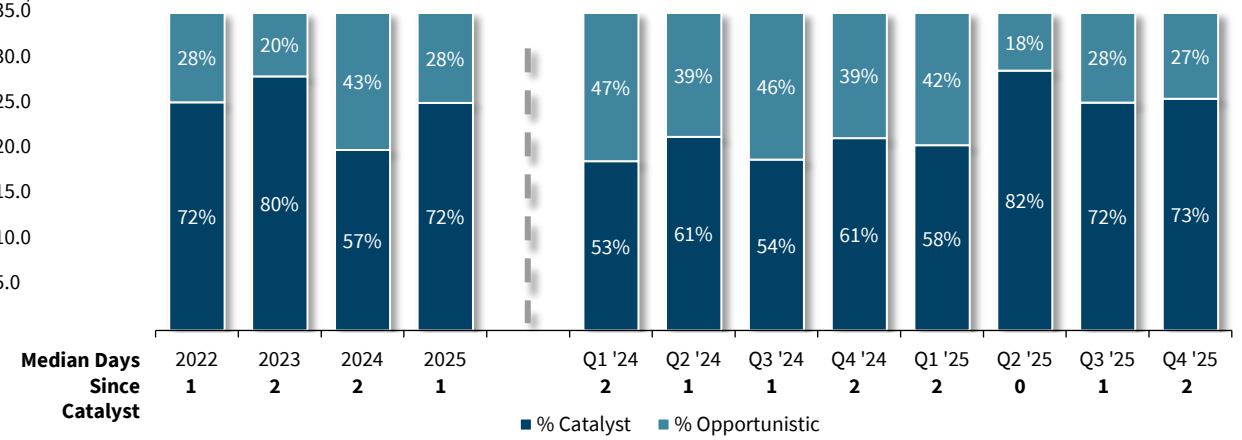
# Biopharma Follow-on & Registered Direct Trends

- Material improvement in H2 2025, with Q4 representing the highest $ volume since Q4 2020 as offerings upsized more frequently
- December 9th marked the busiest day of secondary issuance in the past 5 years with $3.5bn in total proceeds

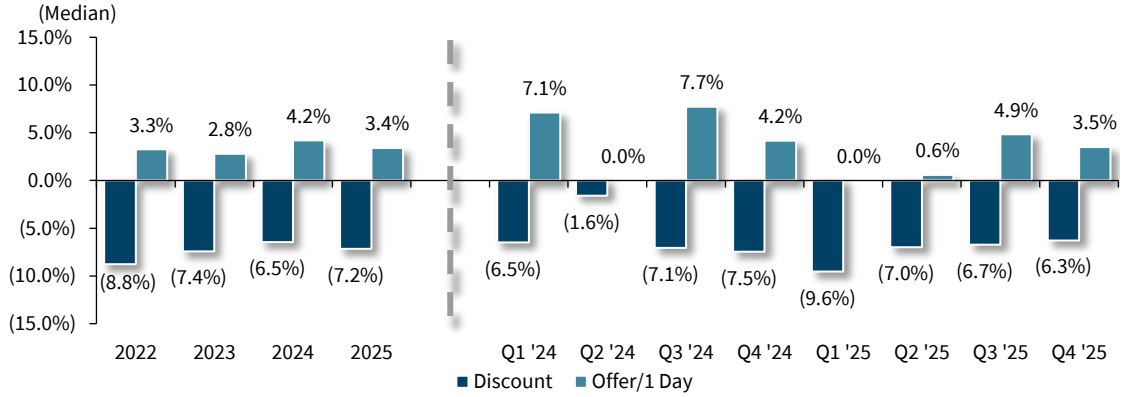
## Deal Volume and Proceeds



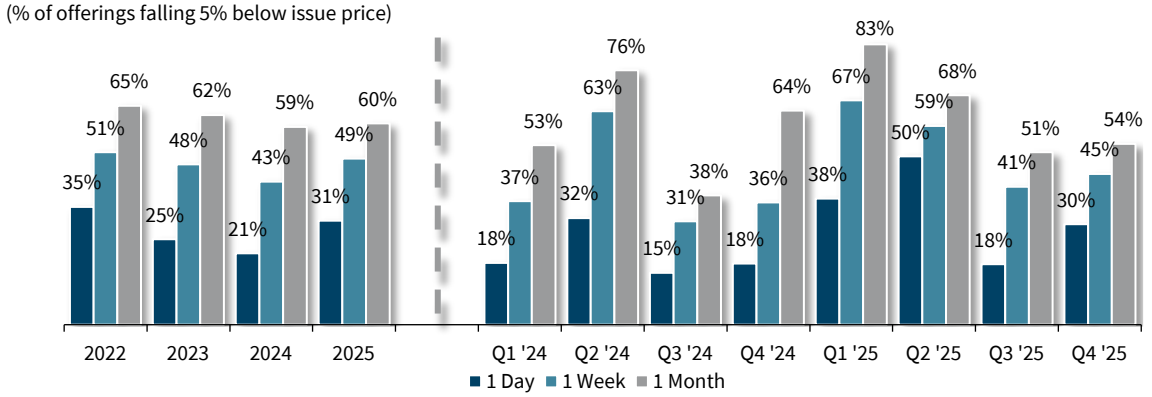

## Catalyst Driven Offerings Remain the Majority




## Discounts Continue to Tighten as Investor Sentiment Improves(1)




## Recent Offerings are Performing Better in the Aftermarket

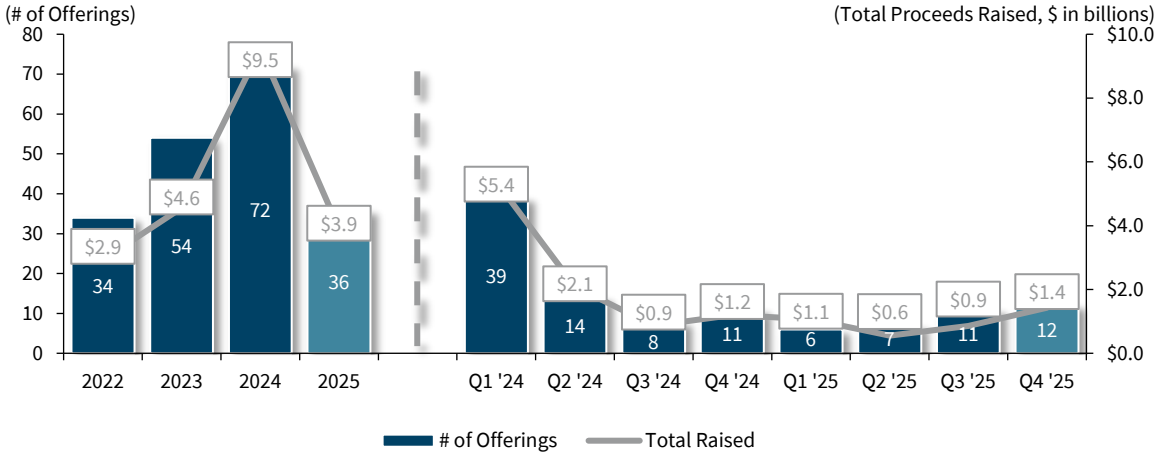



Source: Dealogic as of December 19, 2025.
Note: Includes fully marketed and confidentially marketed follow-on offerings and registered directs. Excludes offerings with gross proceeds below $20 million. Median pricing and performance includes offerings with warrants.
(1) Represents file/offer for fully marketed follow-on offerings and premium/discount to last trade for confidentially marketed follow-on offerings and registered directs.

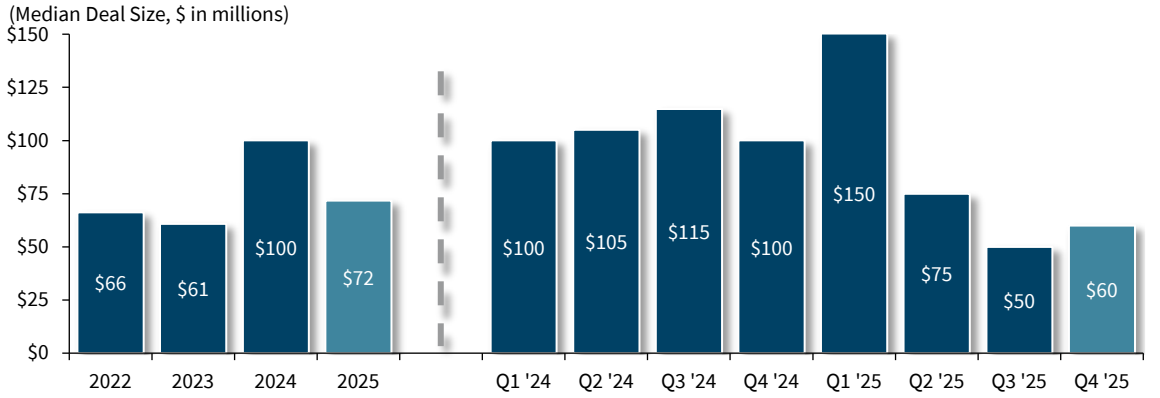
# Biopharma PIPE Trends

PIPE activity was muted in 2025, with the lowest volume of deals since 2022 as issuers looked more often to registered financings

## Deal Volume and Proceeds

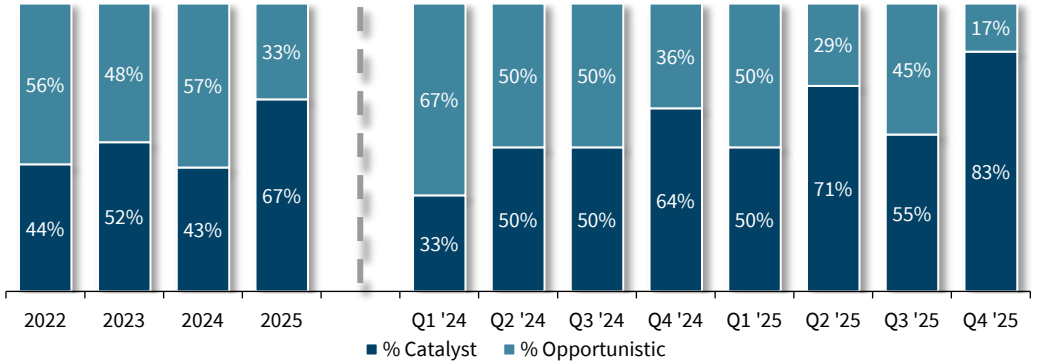



## Deal Size Drops in ’25 with Limited Sample Size; Aftermarket Performance Similar to ’24

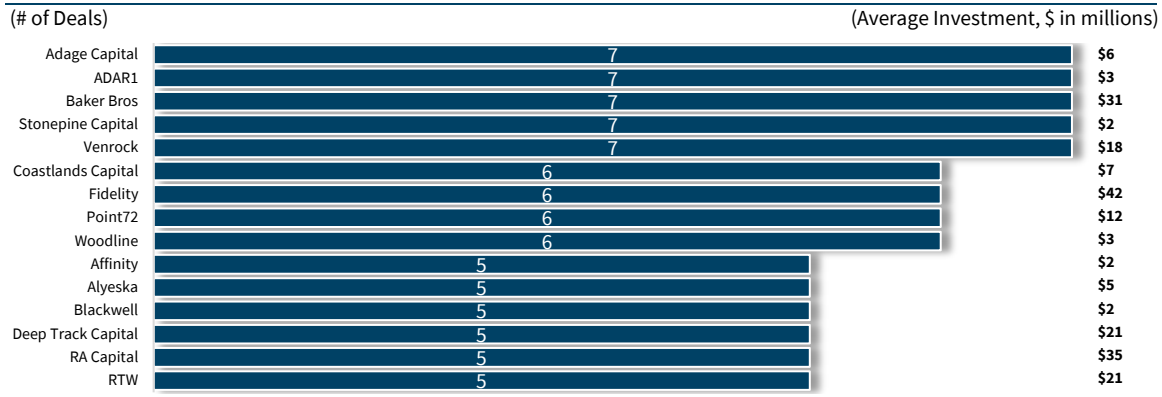



| | 2022 | 2023 | 2024 | 2025 | Q1 '24 | Q2 '24 | Q3 '24 | Q4 '24 | Q1 '25 | Q2 '25 | Q3 '25 | Q4 '25 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1-Day Issue[1] Price Break | 35% | 33% | 26% | 28% | 23% | 36% | 25% | 27% | 33% | 29% | 18% | 33% |

## Recent PIPE Offerings are Catalyst Driven




## Top PIPE Investors in 2025[2]




Source: Dealogic as of December 19, 2025.
Note: Excludes offerings with gross proceeds below $20 million.
(1) % of offerings where intra-day low fell more than 5.0% below offer price.
(2) Includes disclosed participants only. Average investment based on publicly available data from SEC filings.

# Biopharma Convertible Debt Issuance

## Convertible debt activity was elevated in 2025 representing the highest proceeds raised in a single year on record

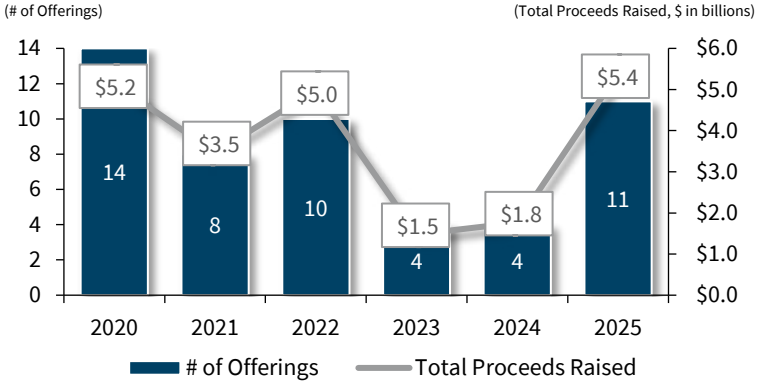
($ in millions)

| Pricing Date | Issuer | Deal Value | Market Cap | % of Market Cap | Coupon | Premium | Tenor | Stage | Use of Proceeds |
|---|---|---|---|---|---|---|---|---|---|
| 11/12/25 | IONIS | $770 | $11,771 | 6.5% | 0.000% | 35.0% | 5.0 | Marketed | Convertible bond refinancing and GCP |
| 11/11/25 | cogent | $230 | $4,621 | 5.0% | 1.625% | 45.0% | 6.0 | Phase III | Repay term loan and GCP |
| 11/6/25 | Halozyme | $750 | $8,042 | 9.3% | 0.875% | 27.5% | 7.0 | Marketed | Convertible bond refinancing and GCP |
| 11/6/25 | Halozyme | $750 | $8,042 | 9.3% | 0.000% | 27.5% | 5.3 | Marketed | Convertible bond refinancing and GCP |
| 9/24/25 | KalVista | $125 | $611 | 20.5% | 3.250% | 30.0% | 6.0 | Marketed | Working capital and GCP |
| 9/16/25 | Cytokinetics | $650 | $5,954 | 10.9% | 1.750% | 37.5% | 6.0 | NDA Filed | Convertible bond refinancing and GCP |
| 9/9/25 | Alnylam | $661 | $63,197 | 1.0% | 0.000% | 40.0% | 3.0 | Marketed | Convertible bond refinancing and GCP |
| 8/11/25 | LIGAND | $460 | $2,881 | 16.0% | 0.750% | 32.5% | 5.1 | Marketed | Share repurchase and GCP |
| 7/30/25 | celcuity | $201 | $1,458 | 13.8% | 2.750% | 35.0% | 6.0 | Phase III | Working capital and GCP |
| 3/6/25 | DYNAVAX | $225 | $1,738 | 12.9% | 2.000% | 30.0% | 5.0 | Marketed | Convertible bond refinancing |
| 2/25/25 | bridgebio | $575 | $6,533 | 8.8% | 1.750% | 45.0% | 6.0 | Marketed | Repay term loan and GCP |
| **Mean** | | **$491** | **$10,441** | **10.4%** | **1.341%** | **35.0%** | **5.5** | | |
| **Median** | | **$575** | **$5,954** | **9.3%** | **1.625%** | **35.0%** | **6.0** | | |
| **Minimum** | | **$125** | **$611** | **1.0%** | **0.000%** | **27.5%** | **3.0** | | |
| **Maximum** | | **$770** | **$63,197** | **20.5%** | **3.250%** | **45.0%** | **7.0** | | |

### Key Takeaways

- Biopharma accounted for 48% of healthcare convertible debt volume
- Highest total proceeds raised in a year for biopharma
- Commercial stage issuers comprised the vast majority of issuance as convertible debt investors prefer limited clinical risk
- 100% of offerings priced at/above the midpoint of the initial terms
- Use of proceeds have primarily been to refinance existing convertible debt/term loan as well as funding commercial execution

### Biopharma Convertible Issuance




Note: Excludes convertible PIPE offerings.
Source: Bloomberg, CMG, and Dealogic data as of December 19, 2025.

# Venture Debt in Biopharma

After an active 2025, the outlook for venture debt[(1)] looks positive heading into the new year as borrowers continue to gravitate towards venture debt's minimally dilutive nature

## Market Overview

- 2025 marked another highly active year for venture debt as it remains a viable path for borrowers looking to extend their runway with minimally dilutive capital and achieve certainty of close, among other benefits
- High-quality, performing companies have benefited from attractive structures and terms due to an increasingly competitive market as more lenders enter the space
- Average deal size continues to rise for these performing companies as lenders aggressively target larger opportunities
- Direct lenders have enabled borrowers to raise capital with thinner equity cushions as they are not restricted by the same regulatory pressures as commercial banks
- However, lenders are patiently picking their spots to deploy capital, prioritizing high-performing companies over those facing growth headwinds
- With strong interest from borrowers and lenders as well as significant amounts of dry powder available, venture debt will remain an attractive product in 2026

## 2025 Venture Debt[(1)] Financings for Public Biopharma Companies

($ in millions)

| Date | Company | Available at Close | Total Facility[(2)] | Interest Rate | LTM at Close[(3)] Revenue | LTM at Close[(3)] EBITDA | Market Cap at Close | Debt / Mkt Cap | Facility / Mkt Cap | Phase of Development |
|---|---|---|---|---|---|---|---|---|---|---|
| 12/16/25 | Humacyte | $40 | $53 | 11.50% | $2 | ($97) | $210 | 19.1% | 25.0% | Marketed |
| 11/24/25 | moderna | $600 | $1,500 | 9.23% | $2,232 | ($3,255) | $9,436 | 6.4% | 15.9% | Marketed |
| 11/03/25 | kyverna | $40 | $100 | 8.75% | $0 | ($170) | $298 | 13.4% | 33.6% | Pivotal Phase II |
| 10/14/25 | CANDEL THERAPEUTICS | $50 | $100 | 9.75% | $0 | ($39) | $317 | 15.8% | 31.5% | Phase III Complete |
| 10/06/25 | valneva | $215 | $215 | 9.00% | $211 | ($68) | $979 | 22.0% | 22.0% | Marketed |
| 9/29/25 | ARS PHARMA | $100 | $150 | 9.19% | $112 | ($59) | $961 | 10.4% | 15.6% | Marketed |
| 9/03/25 | PRECIGEN | $100 | $125 | 10.25% | $4 | ($92) | $1,415 | 7.1% | 8.8% | Marketed |
| 8/12/25 | ARMATA PHARMACEUTICALS | $15 | $15 | 14.00% | $7 | ($34) | $89 | 16.8% | 16.8% | Phase III Ready |
| 7/22/25 | Madrigal | $350 | $500 | 8.44% | $516 | ($308) | $6,959 | 5.0% | 7.2% | Marketed |
| 6/30/25 | Dyne | $100 | $275 | 9.95% | $0 | ($439) | $1,082 | 9.2% | 25.4% | Reg. Phase I/II |
| 6/11/25 | cogent BIOSCIENCES | $50 | $400 | 8.90% | $0 | ($286) | $827 | 6.0% | 48.4% | Phase III |
| 6/3/25 | vera | $75 | $300 | 8.70% | $0 | ($193) | $1,971 | 3.8% | 15.2% | Phase III |
| 5/13/25 | axsome | $370 | $370 | 8.48% | $432 | ($231) | $5,218 | 7.1% | 7.1% | Marketed |
| 5/13/25 | altimmune | $15 | $100 | 9.95% | $0 | ($98) | $467 | 3.2% | 21.4% | Phase III Ready |
| 5/09/25 | Neumora | $40 | $125 | 10.45% | $0 | ($274) | $107 | 37.3% | 116.6% | Phase III |
| 4/21/25 | INVIVYD | $0 | $30 | 12.50% | $37 | ($146) | $67 | 0.0% | 44.6% | Marketed |
| 3/31/25 | MoonLake | $75 | $500 | 8.45% | $0 | ($169) | $2,470 | 3.0% | 20.2% | Phase III |
| 3/26/25 | SAVARA | $30 | $200 | 7.45% | $0 | ($102) | $566 | 5.3% | 35.4% | BLA Filed |
| 3/12/25 | ARMATA PHARMACEUTICALS | $10 | $10 | 14.00% | $5 | ($41) | $68 | 14.6% | 14.6% | Phase III Ready |
| 3/5/25 | CalciMedica | $10 | $33 | 12.75% | $0 | ($24) | $29 | 34.8% | 113.2% | Phase II |
| 3/4/25 | Nuvation Bio | $0 | $100 | 10.00% | $8 | ($167) | $613 | 0.0% | 16.3% | NDA Filed |
| 1/13/25 | INHIBRX | $100 | $150 | 9.95% | $0 | ($261) | $197 | 50.6% | 76.0% | Phase II/III |
| **Mean** | | **$108** | **$243** | **10.07%** | **$162** | **($298)** | **$1,561** | **13.2%** | **33.2%** | |
| **Median** | | **$50** | **$138** | **9.85%** | **$1** | **($156)** | **$589** | **8.2%** | **21.7%** | |
| **Minimum** | | **$0** | **$10** | **7.45%** | **$0** | **($3,255)** | **$29** | **0.0%** | **7.1%** | |
| **Maximum** | | **$600** | **$1,500** | **14.00%** | **$2,232** | **($24)** | **$9,436** | **50.6%** | **116.6%** | |

Source: CapIQ, PitchBook Data, Inc., and SEC filings as of December 19, 2025.
(1) "Venture debt" defined here as debt to borrowers who do not yet have positive cash flow.
(2) Represents total commitment and includes undrawn revolvers and additional tranches of debt / delayed draw facilities.
(3) LTM financials at time of close are as calculated by CapIQ.

# Strategic Alternatives Outcomes

- Strategic alternative processes typified 2025 as companies navigated financial turmoil and clinical setbacks
- 13 financially-driven take private acquisitions by Concentra and XOMA/XOMA-affiliated entities and 16 cryptocurrency strategies differentiated 2025 as investors found creative way to maximize shareholder value

## 2025 Strategic Alternatives Outcomes

Indicates biopharma companies that have announced a cryptocurrency treasury strategy

| Outcome Type | Q1 2025 | Q2 2025 | Q3 2025 | Q4 2025 | Total |
|---|---|---|---|---|---|
| **Reverse Merger**<br>Traditional reverse mergers with private companies | Salarius Pharmaceuticals / Decoy Therapeutics | carisma Therapeutics / OrthoCellix | Barinthus Biotherapeutics / Clywedog Therapeutics | Galecto / Damora Therapeutics<br>VYNE Therapeutics / Yarrow | 5 Deals |
| **Other Strategic Outcomes**<br>Includes program or full company buyouts, strategic mergers, cryptocurrency treasury strategy announcements, and/or in-licensings | Acelyrin / alumis | eyenovic<br>VOR / RemeGen | 180 Life Sciences, Artelo Biosciences, equillium, Liminal Pharma, Lixte, MEI Pharma, portage, SilaPharma, Sonnet BioTherapeutics, Windtree Therapeutics<br>Adaptimmune / US WorldMeds | Enlivex, Enveric Biosciences, leaptherapeutics, Propanc, THARIMMUNE<br>Applied Therapeutics / Cycle Pharma, Tempest Therapeutics / Factor Bioscience, 32BIO / Akebia | 6 Deals / 16 Crypto Strategies |
| **Financially-Driven Take Private Acquisitions**<br>Cash acquisition of companies for existing capital on hand and/or royalty rights following strategic review | | Allakos, Elevation Oncology, Kronos Bio / Concentra<br>Turnstone Biologics / XOMA | Cargo Therapeutics, IGM Biosciences, iTeos Therapeutics / Concentra<br>Lava Therapeutics, Mural Oncology, Hillevax / XOMA<br>ESSA / Xeno Therapeutics | Repare Therapeutics / Xeno Therapeutics<br>generation bio / XOMA | 13 Deals |
| **Return of Capital**<br>Excess cash return to shareholders through dividend, often including concurrent liquidation | | Keros Therapeutics[1], Third Harmonic Bio | | | 2 Co.'s |
| **Chapter 11 / Closure**<br>Voluntary delisting/ liquidation/bankruptcy<br>*These companies did not have excess cash to distribute to shareholders at closure* | Omega Therapeutics, Syros, viracta | Affimed, Vincerx Pharma | | carisma Therapeutics | 6 Co.'s |
| # of Outcomes | 5 | 11 | 19 | 13 | 48 |

Source: SEC Filings, Company Press Releases, and William Blair analysis as of December 19, 2025.
(1) Keros plans to return $375M in capital to existing shareholders and continue operations and development of KER-065.

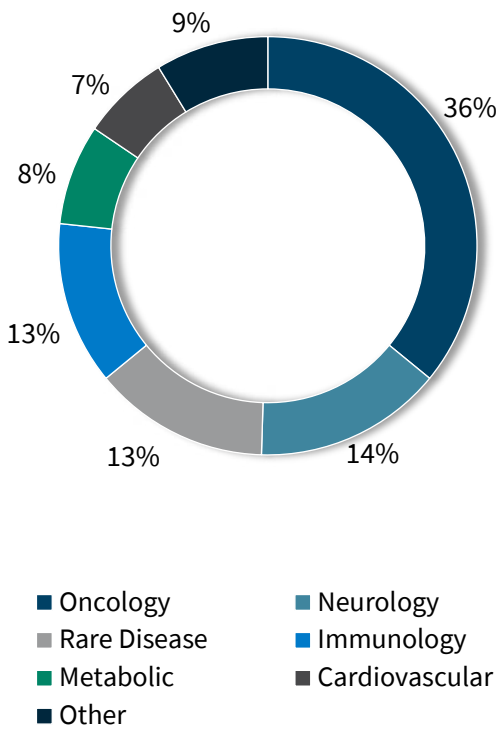
# Q4 2025 SMID-cap Clinical Catalysts Analysis

- Stand out datasets continue to delivery outsized returns for investors, with average 1-day stock reaction of over +20%
- 6 of the top 10 movers raised catalyst-driven equity offerings following data announcements raising over $3 billion in proceeds
- 3 of the top 10 movers were in the cardiometabolic space, with Wave, Structure and Ventyx announcing obesity data updates

## Key Takeaways

- William Blair analyzed 103 key clinical data readouts in Q4 2025 for U.S.-listed SMID-cap biopharma companies
- Average stock price performance for "positive" clinical data (N=83):
  - 1-day performance: **+20.3%**
  - 1-week performance: **+16.9%**
- Average stock price performance for "negative" clinical data (N=20):
  - 1-day performance: **(43.1%)**
  - 1-week performance: **(44.8%)**
- ~$13.5B in cumulative 1-day market cap **gained** across all SMID-cap clinical catalysts driven by positive late-stage readouts from Cogent, Praxis, and Structure, each gaining >$2B in 1-day market cap
  - Agios, Exelixis, Intellia, Incyte and Janux each lost >$1B in 1-day market cap

## Breakdown by Therapeutic Area




## Top 10 Positive/Negative Movers

(1-Day Share Price Change)

| Top Performers | | Catalyst Type |
|---|---|---|
| CAPR | 371% | Phase III Data |
| PRAX | 184% | Phase III Data |
| WVE | 147% | Interim Phase I Data |
| COGT | 119% | Phase III Data |
| ARMP | 103% | Phase IIa Data |
| GPCR | 102% | Phase IIb Data |
| INBX | 102% | Pivotal Phase II Data |
| ARTV | 91% | Interim Phase I/II Data |
| VTYX | 71% | Phase II Data |
| TERN | 70% | Interim Phase I Data |

| Worst Performers | | Catalyst Type |
|---|---|---|
| ARCT | (50%) | Interim Phase II Data |
| AGIO | (51%) | Phase III Data |
| JANX | (53%) | Interim Phase I Data |
| PRLD | (56%) | Lead Program Discontinuation |
| SKYE | (60%) | Phase IIa Data |
| NEUP | (69%) | Phase III Data |
| KRRO | (79%) | Phase I/IIa Data |
| VTGN | (80%) | Phase III Data |
| TVRD | (84%) | Phase II Data |
| RZLT | (87%) | Phase III Data |

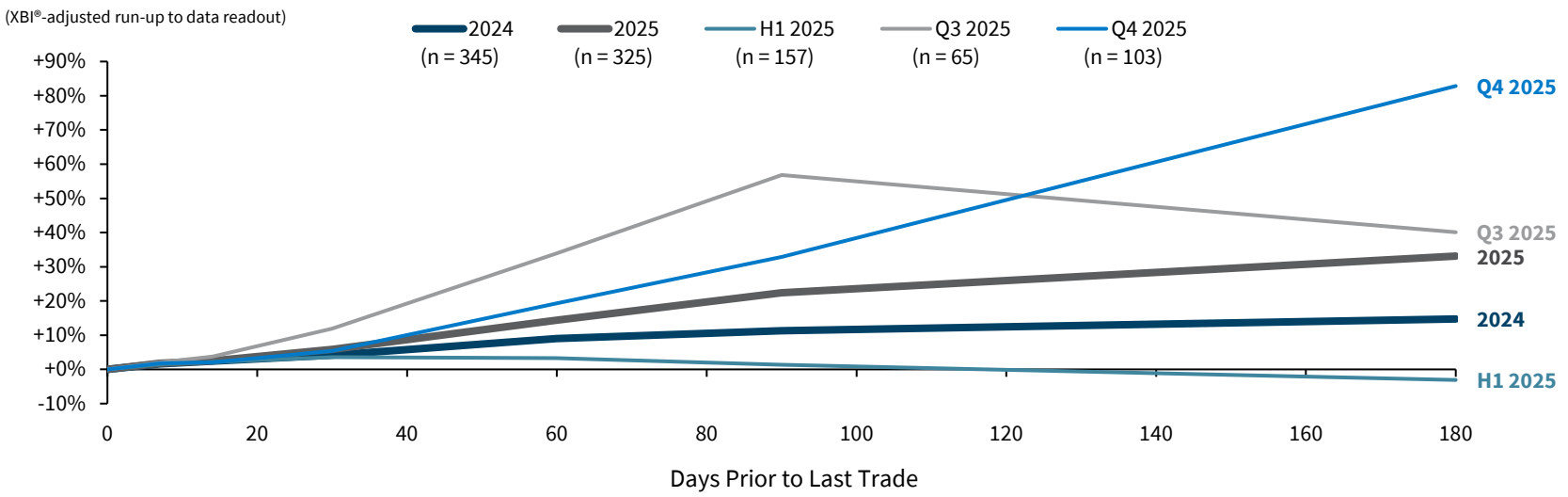
Executed Equity Offering Post-Data

Source: FactSet, Company press releases, SEC Filings and William Blair analysis as of December 19, 2025.
Note: Includes biopharma companies listed on major U.S. exchanges with market capitalization >$25M and <$30B at the time of catalyst. Positive/negative based on Company press releases.

# Clinical Catalyst Stock Performance Run-Up Trends

William Blair analyzed 670 SMID-cap public company clinical catalysts since 2024 and found that there has been unprecedented stock price run-ups heading to key clinical catalysts in Q3 and Q4 2025, compared to historical norms

## Average XBI®-Adjusted Run-Up to Data Readout




## Key Takeaways

- H2 2025 catalyst names saw substantial price appreciation as investors have been more "risk-on"
- This is being driven by several factors:
  - More favorable market backdrop that is rewarding positive clinical news
  - Significant capital that needs to be deployed after recent M&A activity
  - View that M&A will persist in 2026, pushing investors to redeploy near-term
  - Increased generalist participation as capital rotates out of AI and tech

## Top 90-Day Run-ups Ahead of Clinical Catalysts

| Company | Catalyst Date | Area of Focus | 90-Day Market Cap Run-Up Δ% | Pre-Data Market Cap($M) | 1-Day Post-Catalyst Market Cap Δ% | Catalyst Detail | Modality |
|---|---|---|---|---|---|---|---|
| VOR | 8/13/25 | I&I | +871% | $210 | +22% | Phase III Data | Fusion Protein |
| NEKTAR | 9/18/25 | I&I | +493% | $971 | +15% | Additional Phase IIb Data | Protein |
| Ovid (1) Therapeutics | 10/3/25 | Neurology | +385% | $117 | +12% | Phase I Data | Small Molecule |
| Prelude Therapeutics | 11/4/25 | Oncology | +373% | $303 | (56%) | Lead Program Discontinued | Small Molecule |
| biocxcel therapeutics | 8/27/25 | Neuropsych | +316% | $76 | (24%) | Drug Delivery Data | Small Molecule |

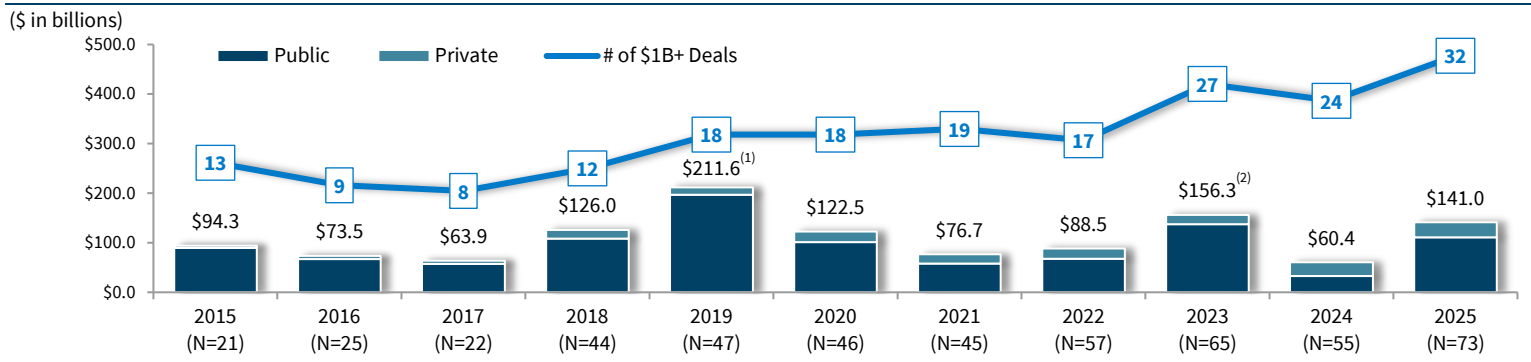
| Company | Catalyst Date | Area of Focus | 90-Day Market Cap Run-Up Δ% | Pre-Data Market Cap($M) | 1-Day Post-Catalyst Market Cap Δ% | Catalyst Detail | Modality |
|---|---|---|---|---|---|---|---|
| KALA BIO | 9/29/25 | Ophtho. | +312% | $134 | (89%) | Phase IIb Data | Cell Therapy |
| TERNS | 12/8/25 | Oncology | +307% | $2,645 | +37% | Interim Phase I Data | Small Molecule |
| PRAXIS | 12/5/25 | Neurology/ Rare Disease | +306% | $4,751 | +31% | Interim Piv. Phase II Data | Small Molecule |
| celcuity | 10/20/25 | Oncology | +282% | $2,204 | +36% | Phase III Data | Small Molecule |
| cogent | 12/8/25 | Oncology/ Hematology | +197% | $5,898 | +4% | Pivotal Phase II Data | Small Molecule |

Source: FactSet, Company press releases, SEC Filings and William Blair analysis as of December 19, 2025.
Note: Includes biopharma companies listed on major U.S. exchanges with market capitalization >$25M and <$30B at the time of catalyst.
(1) Ovid priced a $175M private placement on October 3, 2025, concurrent with data release.

# 2025 Biopharma M&A Trends

- M&A activity surged in 2025 with 32 deals for $1B+ in total deal value, the most seen in the last 20 years
- Nearly $120B in aggregate upfront deal volume infusing critical fresh capital for the biopharma ecosystem

## Total Deal Value and Volume




| | 2015 (N=21) | 2016 (N=25) | 2017 (N=22) | 2018 (N=44) | 2019 (N=47) | 2020 (N=46) | 2021 (N=45) | 2022 (N=57) | 2023 (N=65) | 2024 (N=55) | 2025 (N=73) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Median Public Total Deal Size ($M)** | **$5,873** | **$1,500** | **$1,150** | **$855** | **$1,310** | **$1,070** | **$2,260** | **$557** | **$935** | **$680** | **$935(3)** |
| **Median Private Total Deal Size ($M)** | **$245** | **$460** | **$525** | **$270** | **$479** | **$438** | **$453** | **$281** | **$496** | **$850** | **$1,070** |

## Key Takeaways

- Overall M&A activity has surged in 2025, supported by a rebound in larger public acquisitions, with aggregate public M&A TDV over 3x 2024
  - **Total Deal Value:** $795M in 2025 (vs. $850M in 2024)
  - **Upfront Payments:** $412M in 2025 (vs. $658M in 2024)
  - **Milestones:** $187M in 2025 (vs. $311M in 2024)
- Public M&A activity more than doubled to 47 deals (vs. 23 in 2024)
- Robust pace of large private M&A, with 15 deals announced for $1B+ in TDV (vs. 13 in 2024)
- Strategic acquisitions in 2025 saw:
  - Shift toward de-risked assets (Phase III and later), representing over 50% of deals vs. ~30% in 2024
  - Increased neurology interest at 16% of deals (up from 12% across 2022–2024), while oncology remained steady at ~30% and I&I normalized to ~10% after a strong 2024 at ~30%
  - CVRs were prevalent, featured across 64% of deals

## Top 5 M&A Transactions by Total Deal Size in 2025

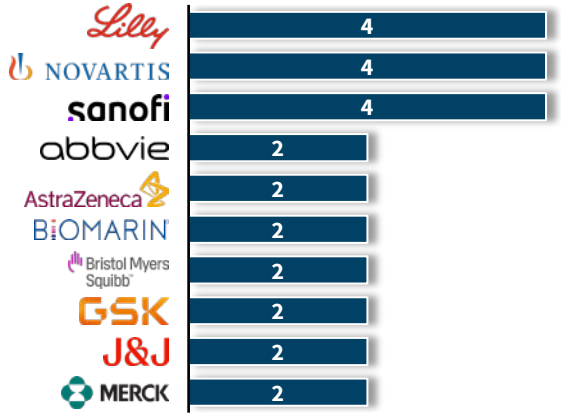
### Private Company Transactions

| Date | Target | Acquiror | Total Deal Value | Total Upfront | Phase | TA | Modality |
|---|---|---|---|---|---|---|---|
| 2/11/25 | ANTHOS | NOVARTIS | $3,100 | $925 | Phase III | Cardio-vascular | Antibody |
| 11/17/25 | HALDA THERAPEUTICS | J&J | $3,050 | $3,050 | Phase I/II | Oncology | Small Molecule |
| 1/13/25 | SCORPION (STX-478) | Lilly | $2,500 | ND | Phase I/II | Oncology | Small Molecule |
| 6/30/25 | capstan therapeutics | abbvie | $2,100 | $2,100 | Phase I | I&I | *in vivo* CAR-T Cell Therapy |
| 5/14/25 | BOSTON Pharmaceuticals (efimosfermin) | GSK | $2,000 | $1,200 | Phase II | Hepatology | Fusion Protein |

### Public Company Transactions

| Date | Target | Acquiror | Total Deal Value | Total Upfront | Phase | TA | Modality |
|---|---|---|---|---|---|---|---|
| 1/13/25 | Intra-Cellular THERAPIES | J&J | $14,600 | $14,600 | Marketed | Neurology | Small Molecule |
| 10/26/25 | AVIDITY BIOSCIENCES | NOVARTIS | $12,000 | $12,000 | Phase III | Neuro-muscular | Antibody-Oligo Conjugate |
| 11/7/25 | Metsera | Pfizer | $10,000 | $7,600 | Phase IIb | Metabolic | Peptide |
| 7/9/25 | Verona Pharma | MERCK | $10,000 | $10,000 | Marketed | Pulmon-ology | Small Molecule |
| 6/2/25 | blueprint MEDICINES | sanofi | $9,500 | $9,100 | Marketed | I&I | Small Molecule |

## Top Strategic Acquirors in 2025




Source: CapIQ, PitchBook Data, Inc., and SEC Filings as of December 19, 2025.
Note: Includes biopharma M&A with disclosed total deal value of $20M+.
(1) Includes Bristol Myers Squibb's $80.4B acquisition of Celgene. (2) Includes Pfizer's $43.0B acquisition of Seagen.
(3) Excludes take-privates of public companies for cash and/or royalty rights by Concentra and XOMA/XOMA-related entities.

# 2025 Public Company M&A Deep Dive

- William Blair analyzed 15 public company M&A deals announced in 2025 with deal values greater than $1B
- Typical public company M&A target phenotype: late-stage with unencumbered commercial rights
- Large public M&A rebounded in 2025 following a drought in 2024; four $10B+ deals this year tied the all-time record set in 2023

## Key Takeaways

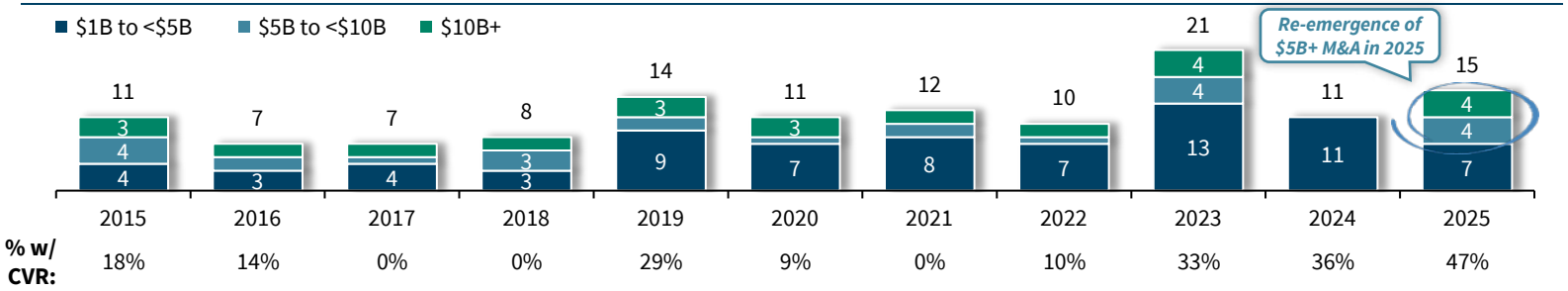
### Public M&A Target Phenotype

- Median total deal value of $5.2B and median 42% premium to the last unaffected trade price
- Continued preference for wholly owned assets, with 80% of lead assets unpartnered at announcement
- Broad TA focus, led by deals in metabolic (N=3) and neurology (N=3)
- Small molecules accounted for 40% of transactions
- Late-stage (Phase III or later) remained the focus representing 74% of activity, as big pharma looks to fill upcoming patent cliffs
- Verve was the only company with a global partnership, and ultimately was acquired by that partner (Eli Lilly)

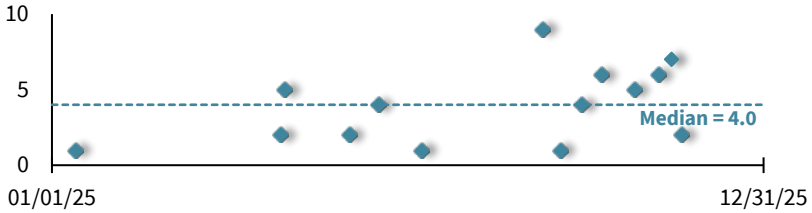
### Bid/Process Dynamics

- 64% of deals analyzed were catalyzed by unsolicited bids (down from 80% in 2024, and 100% in 2023)
  - Of processes catalyzed by unsolicited-bidders, 89% (all but Tourmaline Bio) ultimately transacted with the unsolicited bidder
- Continued use of CVR structures in public company M&A, with 47% of deals having a CVR
  - 36% of deals in 2024 and 33% of deals in 2023 also utilized CVRs, however, these structures were relatively absent in 2020–2022
- Median total parties engaged in outreach was 4.0, with 50% of transactions having 1+ bidders beyond the acquiror
- All deals experienced an increase in offer price from initial IOI, with a median increase of 29%
- Both Avadel and Metsera benefited from post-announcement bidding lifting final TDV by 13% and 37%, respectively
- Median time of 3.2 months between initial IOI and announcement of the acquisition

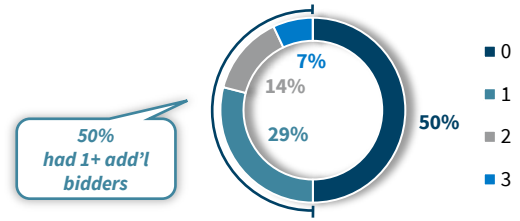
## Public M&A Volume Trends



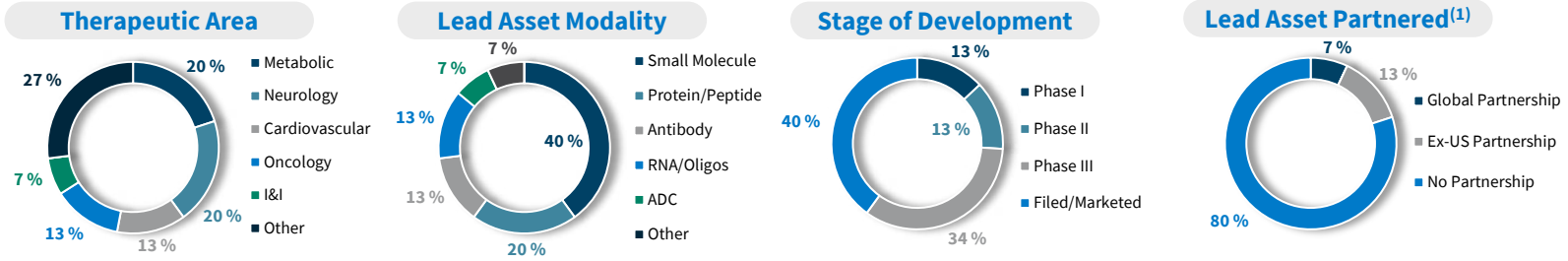

## Number of Total Parties Engaged




## Number of Additional M&A Bids (Ex-Acquiror)




## Target Phenotype




Source: CapIQ, Company Press Releases as of December 19, 2025. Note: Includes strategic acquisitions with a public biopharma target for greater than $1 billion in total deal value. Excludes all-stock deals.
Bid/process dynamics based on transactions where relevant SEC documentation (Schedule 14D-9 / Schedule 14A) was available as of December 19, 2025: SEC documentation unavailable for Amicus Therapeutics.
Public M&A volume labels shown only for 3+ deals.
(1) Lead asset partnerships include development/commercialization licenses and co-promotion agreements. Excludes clinical trial collaborations, supply/distribution agreements, and academic collaborations.

# Summary of Investor Capital Returned from Q4 2025 Public Biopharma Acquisitions

## Public biopharma acquisitions announced in Q4 2025 freed up an estimated $24 billion in institutional investor capital, largely driven by Novartis's acquisition of Avidity Biosciences and Merck's acquisition of Cidara

($ in millions)

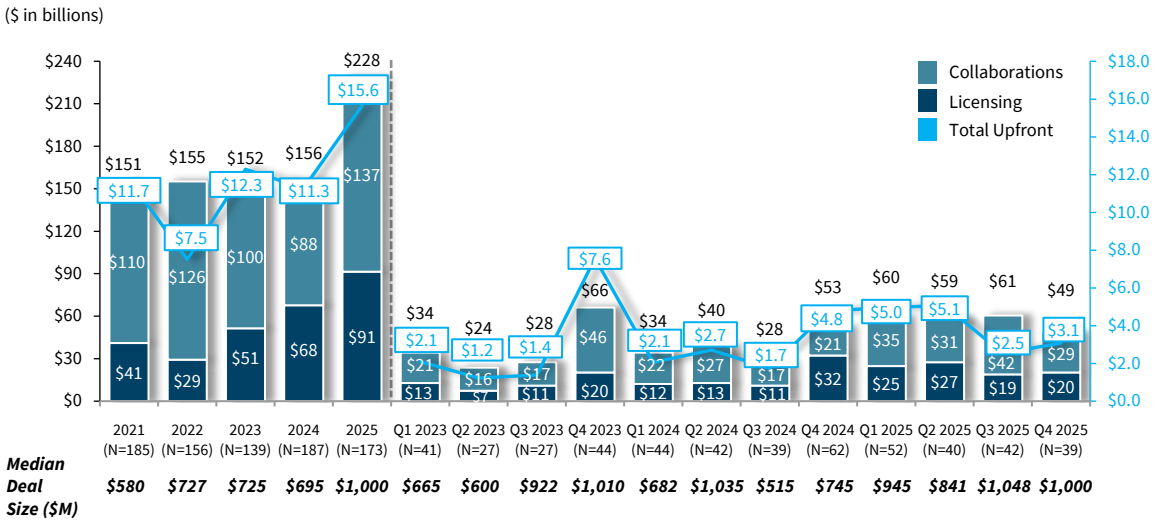
| # | Institution | Total Estimated Capital Returned to Fund[1] | akero | Amicus Therapeutics | Avadel | Avidity Biosciences | Cidara Therapeutics | Metsera |
|---|---|---|---|---|---|---|---|---|
| 1 | Fidelity Management & Research Co. LLC | $1,926.1 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 2 | Janus Henderson Investors US LLC | $1,813.7 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 3 | Wellington Management Co. LLP | $1,406.2 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 4 | RA Capital Management LP | $1,382.8 | ✓ | | | ✓ | ✓ | ✓ |
| 5 | RTW Investments LP | $1,114.6 | ✓ | | ✓ | ✓ | | |
| 6 | Avoro Capital Advisor LLC | $981.9 | ✓ | ✓ | | ✓ | | |
| 7 | T. Rowe Price Associates, Inc. (IM) | $907.5 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 8 | Geode Capital Management LLC | $569.7 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 9 | Point72 Asset Management LP | $544.1 | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 10 | Polar Capital LLP | $338.5 | ✓ | | ✓ | ✓ | | |
| 11 | Citadel Advisors LLC | $327.9 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 12 | BVF Partners LP | $313.2 | | | | | ✓ | |
| 13 | Bellevue Asset Management AG | $284.0 | ✓ | | | ✓ | | ✓ |
| 14 | Deep Track Capital LP | $282.5 | ✓ | | | ✓ | ✓ | ✓ |
| 15 | UBS Securities LLC | $256.2 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 16 | Pictet Asset Management SA | $245.0 | ✓ | ✓ | ✓ | ✓ | | |
| 17 | Vestal Point Capital LP | $230.0 | | ✓ | | | ✓ | |
| 18 | William Blair Investment Management LLC | $228.4 | | ✓ | | | | |
| 19 | Darwin Global Management Ltd. | $220.9 | | | | ✓ | ✓ | |
| 20 | Millennium Management LLC | $220.7 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 21 | Charles Schwab Investment Management | $213.6 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 22 | Paradigm BioCapital Advisors LP | $212.9 | ✓ | | | | ✓ | |
| 23 | Northern Trust Investments, Inc. | $201.2 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 24 | Morgan Stanley & Co. LLC | $197.1 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 25 | Logos Global Management LP | $191.1 | ✓ | | | ✓ | ✓ | ✓ |
| 26 | Adage Capital Management LP | $186.1 | ✓ | | ✓ | ✓ | ✓ | |
| 27 | Soleus Capital Management LP | $181.2 | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 28 | Marshall Wace LLP | $174.4 | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 29 | Holocene Advisors, LP | $164.9 | ✓ | | | | ✓ | |
| 30 | Perceptive Advisors LLC | $153.7 | ✓ | ✓ | ✓ | | | |

Source: FactSet and William Blair Analysis as of December 19, 2025.
Note: The analysis does not include insiders, index funds, private brokerages, retail, strategic investors, and non-filers. $ value position calculated based on Q3 2025 publicly disclosed institutional ownership of target company multiplied by announced per share acquisition price, excluding contingencies. Includes deals >$1 billion in upfront cash.
(1) Total estimated capital in millions returned to fund based on the cumulative $ value position of all target companies for shareholders.

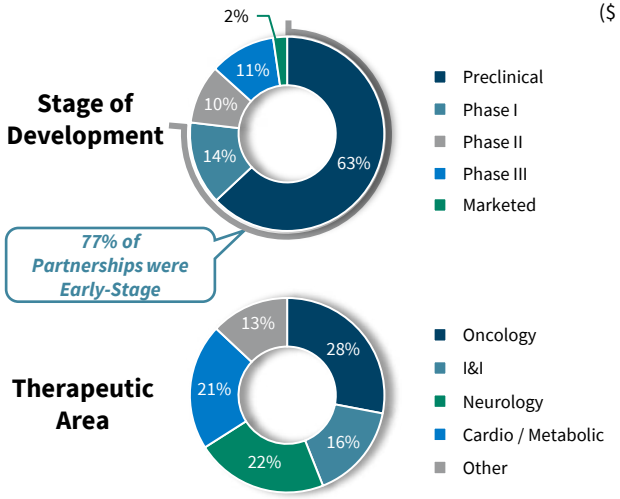
# 2025 Biopharma Partnership Trends

- Licensing and collaboration TDV and upfront payments soar to record highs, up ~46% compared to 2024
- Multi-specific antibodies fetched four of the five largest upfront payments, highlighting excitement in the modality

## Total Deal Value and Volume




## Breakdown of Deals in 2025




## Most Active Partners in 2025

($ in millions)

| | | Median TDV | Median Upfront |
|---|---|---|---|
| Lilly | 15 | $863 | $29 |
| Novartis | 9 | $1,060 | $55 |
| Novo Nordisk | 9 | $1,538 | $195 |
| Boehringer Ingelheim | 8 | $655 | $30 |
| Roche | 7 | $1,525 | $80 |
| abbvie | 6 | $2,152 | $343 |
| AstraZeneca | 6 | $3,475 | $93 |
| sanofi | 6 | $807 | $90 |
| Bristol Myers Squibb | 4 | $1,238 | $350 |
| Genentech | 3 | $460 | $13 |
| MERCK | 3 | $1,235 | $200 |

## Key Takeaways

### Licensing (N=84)

- Median deal terms for licensing agreements in 2025:
  - **Total Deal Value:** $940M in 2025 (vs. $610M in 2024)
  - **Upfront (Cash+Equity):** $50M in 2025 (vs. $45M in 2024)
  - **Milestones:** $989M in 2025 (vs. $610M in 2024)
- Small molecules represented 29% of all licensing deals, a modest decline from 36% in 2024
- 63% of licensing agreements focused on earlier-stage assets, down from 78% in 2024
- 57% of licensing agreements involved an Asia-headquartered licensor, up from 32% in 2024

### Collaborations (N=89)

- Median deal terms for collaborations in 2025:
  - **Total Deal Value:** $1,010M in 2025 (vs. $755M in 2024)
  - **Upfront (Cash+Equity):** $58M in 2025 (vs. $46M in 2024)
  - **Milestones:** $1,000M in 2025 (vs. $810M in 2024)
- Early-stage collaborations totaled 79 deals (89% of collaborations) with a median upfront of $50M for licensors, up from $45M in 2024
- The top 5 multi-program collaborations by TDV involving an Asia-headquartered partner contributed nearly $40B, or 29% of collaboration TDV

## Top 5 Partnerships by Total Upfront in 2025

($ in millions)

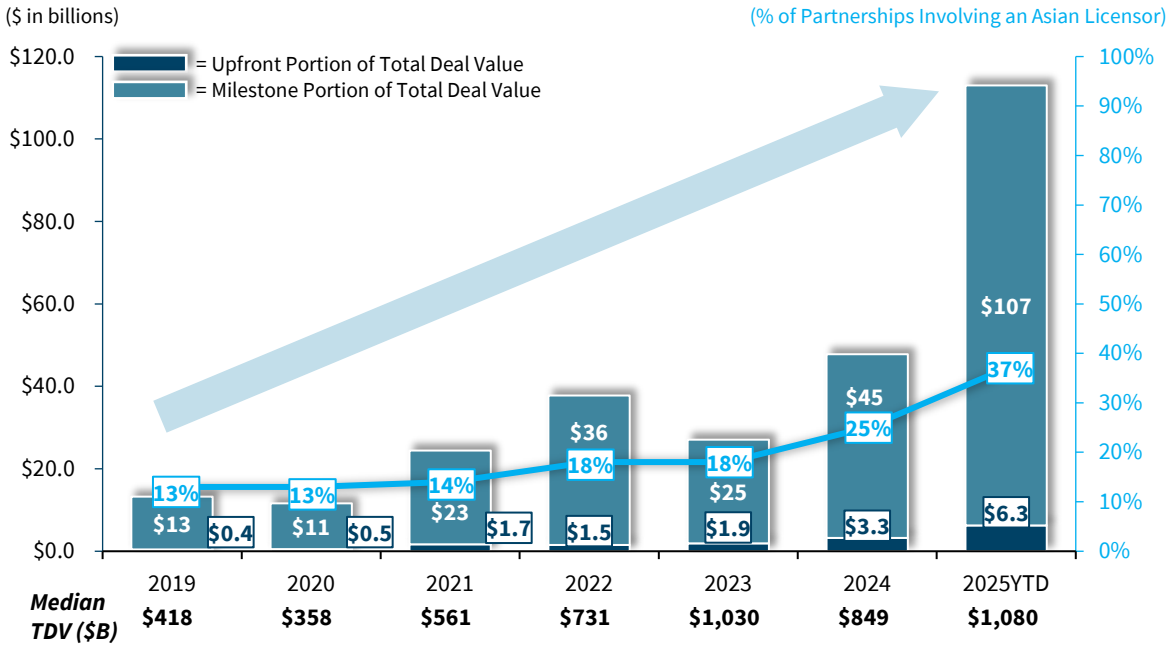
| Date | Licensor | Licensee | Total Deal Value | Total Upfront | Milestones | Phase | Therapeutic Area | Modality | Target(s) |
|---|---|---|---|---|---|---|---|---|---|
| 3/12/25 | Zealand Pharma | Roche | $5,250 | $1,650 | $3,600 | Phase II | Metabolic | Small Molecule | Amylin |
| 6/2/25 | BioNTech | Bristol Myers Squibb | $11,100 | $1,500 | $9,600 | Phase III | Oncology | Bispecific Antibody | PD-L1 x VEGF |
| 5/19/25 | 三生製藥 | Pfizer | $6,150 | $1,350 | $4,800 | Phase III | Oncology | Bispecific Antibody | PD-1 x VEGF |
| 10/21/25 | InnoVent | Takeda | $11,400 | $1,200 | $10,100 | Multiple | Oncology | Multiple | Multiple |
| 7/10/25 | IGI | abbvie | $1,925 | $700 | $1,225 | Phase I | Oncology | Trispecific Antibody | CD38 × BCMA × CD3 |

Source: Company press releases and SEC filings as of December 19, 2025.
Note: Excludes regional partnerships, partnerships with undisclosed deal terms, and partnerships with deal terms less than $20M. Early-stage partnerships defined as Phase I or earlier. Upfront includes near-term milestones.
TDV = Total Deal Value.

# Asia's Growing Role as an Important Innovation Engine for the West

$6.3 billion in upfront payments went to Asia-headquartered licensors in 2025 to bring assets and development programs to the West, representing over 40% of all upfront spent on partnerships this year with a shift from basic licensing to platform collaborations

## 37% of Pharma and SMID-Cap Partnering with Asia(1)




## 2025 Asian Partnerships Overview

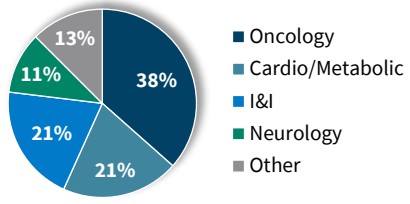
### Top Large Pharma Licensees

(# of Partnerships)




### Partnerships by Therapeutic Area

(% by # of Partnerships)




## 2025 Activity with Asian Licensors(2)

### Top Asset-Focused Large Pharma Partnerships

**5/19/25** — $6,150M ($1,350M Upfront); BsAb; Phase III; Target: PD-1xVEGF
三生制药 (3SBIO INC) / Pfizer

**10/21/25** — $11,400M ($1,200M Upfront); BsAb, ADC; Phase III; Targets: PD-1xIL-2, CLDN18.2
InnoVent / Takeda

**7/28/25** — $12,500M ($500M Upfront); Small Molecule; Phase I; Target: PDE3/4
HENGRUI / GSK

**9/3/25** — $1,977M ($200M Upfront); Small Molecule; Phase 2; Target: Lp(a)
HENGRUI / MERCK

**9/3/25** — $2,000M ($200M Upfront); Peptide; Phase Ib Complete; Targets: GLP-1, GIP, GCG
聯邦制藥 (United Laboratories) / novo nordisk

**9/3/25** — $5,200M ($160M Upfront); siRNA; Phase II; Target ND
Argo Biopharma / NOVARTIS

### Top Discovery-Stage Platform Collaborations

**8/6/25** — $6,000M ($1,000M Upfront); ND; Multi-Target
XtalPi / DoveTree

**6/13/25** — $5,330M ($110M Upfront); Small Molecule; Multi-Target
CSPC / AstraZeneca

**3/21/25** — $4,680M ($280M Upfront); Multispecific Ab; Multi-Target
HARBOUR BIOMED / AstraZeneca

**3/21/25** — $3,475M ($75M Upfront); Peptide; ND
Syneron / AstraZeneca

**4/6/25** — $2,821M ($149M Upfront); Ab, Oligonucleotide; Multi-Target
ablbio / GSK

**5/15/25** — $5,200M ($160M Upfront); RNA Editing; ND
Rznomics / Lilly

### Top New Company Formations

**1/9/25** — $411M (Series A); Peptide; Phase II Ready; Target: GLP-1
SciWind / Verdiva Bio

**1/10/25** — $200M (Series A); Antibody; Phase II Ready; Target: TSLP
HARBOUR BIOMED / KELUN-BIOTECH / Windward Bio

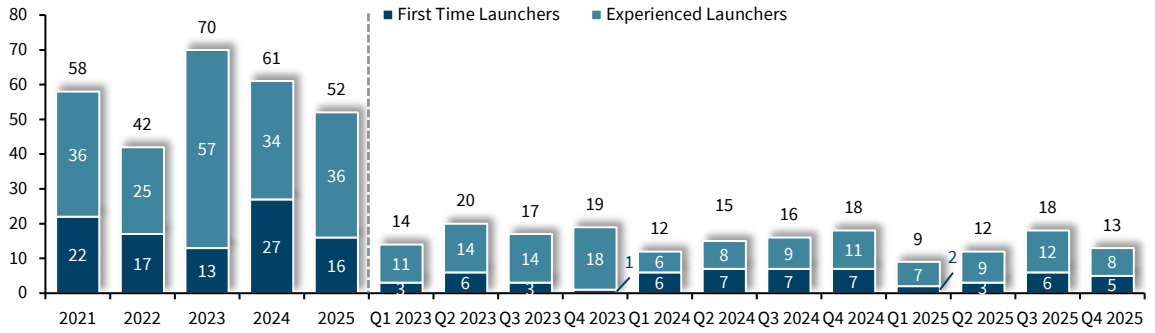
**3/3/25** — $187 (Series A); ADC; Preclinical; Target: HER2
Hummingbird Bioscience / callio therapeutics

Source: Company press releases and SEC filings as of December 19, 2025.
Note: Excludes partnerships in which Daiichi-Sankyo, Otsuka, and Takeda are licensors. Excludes partnerships with undisclosed financials or total financials below $20M. TDV = Total Deal Value. ND = Not Disclosed.
(1) Includes partnerships for assets and development programs involving an Asia-headquartered licensor and ex-Asia licensee covering regions WW or US ex-Asia.
(2) Asset-focused partnerships ordered by upfront size. Discovery-stage collaborations ordered by total deal value. New company formations ordered by total deal size.

# 2025 FDA Regulatory Environment Recap

- Slight slowdown in approvals in 2025, down ~15% from 2024 for all approvals
- Analysis of 2025 biopharma CRLs highlights manufacturing as a decisive factor impacting FDA approval outcomes
- FDA Commissioner's National Priority Voucher program launched in June to accelerate approvals addressing US health priorities

## FDA Approvals by Quarter(1)




Wave 1 | Wave 2 | Ad Hoc/Catalyst

## FDA Commissioner's National Priority Vouchers(2)

| Company | Product | Indication | Modality | Stage (US) |
|---|---|---|---|---|
| ACHIEVE LIFE SCIENCES | Cytisinicline | Nicotine vaping addiction | Small Molecule | Filed |
| disc medicine | Bitopertin | Porphyria | Small Molecule | Filed |
| Dompé | Cenegermin-bkbj | Blindness | Recombinant Protein | Marketed |
| MERCK | Pergoveris | Infertility | Recombinant Protein | Filed |
| REGENERON | DB-OTO | Deafness | Gene Therapy | Phase I/II |
| Revolution Medicines | RMC-6236 | Pancreatic cancer | Small Molecule | Phase III |
| sanofi | Teplizumab | Type I diabetes | Antibody | Filed |
| Boehringer Ingelheim | Zongertinib | HER2 lung cancer | Small Molecule | Marketed |
| Lilly | Orforglipron | Obesity and related health conditions | Small Molecule | Phase III |
| GSK | Dostarlimab | Rectal cancer | Antibody | Marketed |
| Johnson&Johnson | Bedaquiline | Drug-resistant tuberculosis in young children | Small Molecule | Marketed |
| novo nordisk | Wegovy | Obesity and related health conditions | Peptide | Marketed |
| VERTEX | Casgevy | Sickle cell disease | Gene Therapy | Marketed |
| Johnson&Johnson | Tec-Dara | r/r Multiple myeloma | Antibody | Filed |
| MERCK | Enlicitide decanoate | Atherosclerotic cardiovascular disease | Small Molecule | Phase III Complete |
| MERCK | sac-TMT | Solid tumors | ADC | Phase III |

*Faster review times (1-2 months) with enhanced communication and multidisciplinary team-based evaluation*

*Potential for accelerated approval with support of onshore manufacturing*

## 2025 Complete Response Letters

Seeking First Approval

### 10 NDA CRLs(1)

- aldeyra — *(Reproxalap, Dry Eye Disease)* **Clinical**
- Biogen — *(Nusinersen, Spinal Muscular Atrophy)* **CMC**
- biohaven — *(Troriluzole, Spinocerebellar Ataxia)* **Endpoint Alignment**
- elevar therapeutics (3) — *(Rivoceranib, Liver Cancer)* **CMC**
- Milestone Pharmaceuticals — *(Etripamil, PVST)* **CMC**
- PTC Therapeutics — *(Vatiquinone, Friedreich's ataxia)* **Clinical**
- SAOL Therapeutics — *(SL1009, PDCD)* **Clinical**
- Stealth BioTherapeutics — *(Elamipretide , Barth Syndrome)* **CMC**
- UNICYCIVE — *(OLC , Hyperphosphatemia )* **CMC**
- Vyluma — *(NVK002 , Myopia )* **Statistical Deficiency**

### 11 BLA CRLs(1)

- ATARA BIO — *(Tabelecleucel , EBV+ PTLD)* **CMC**
- Capricor Therapeutics — *(Deramiocel, DMD)* **Clinical**
- Immedica Pharma — *(AEB1102, ARG1-D)* **Clinical**
- HENGRUI (3) — *(Camrelizumab, Liver Cancer)* **CMC**
- OUTLOOK THERAPEUTICS — *(ONS-5010 , wAMD)* **Clinical**
- REGENERON — *(Aflibercept , wAMD + DME + DR)* **CMC**
- Replimune — *(Odronextamab, Follicular Lymphoma)* **CMC**
- Scholar Rock — *(Apitegromab , SMA)* **CMC**
- SEIKAGAKU CORPORATION — *(Condoliase, Lumbar Disc Herniation)* **CMC**
- SFJ Pharmaceuticals — *(Bentracimab , Clotting)* **Quality**
- ultragenyx — *(UX111 , MPS IIIA)* **CMC**



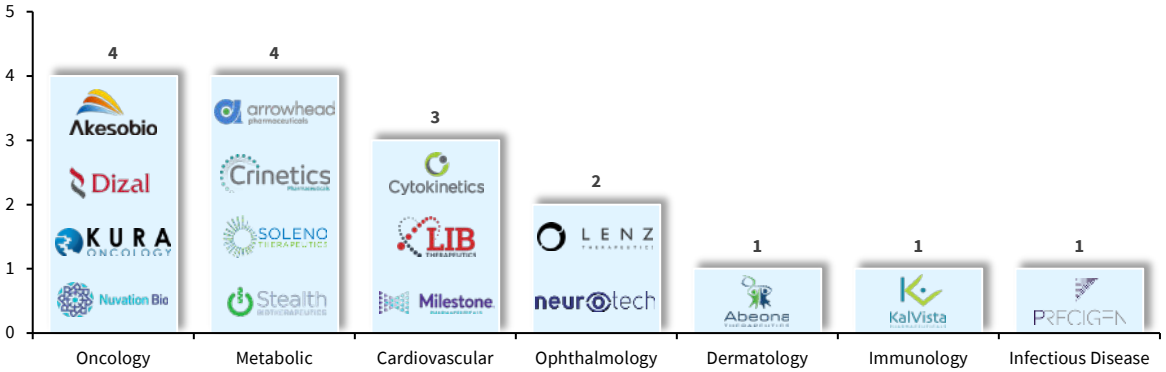

*Representative of all CRLs issued 2025 (N = 38)*

Source: FDA.gov, Company press releases, SEC Filings, and William Blair analysis as of December 19, 2025.
(1) Reflects approvals and CRLs of NCEs/NMEs that are submitted via BLA/NDA (excluding diagnostics, biosimilars, generics, source plasma and 505b2s without clinical trial data).
(2) Includes vouchers received by pharma and biotech companies. Excludes vouchers received solely for manufacturing priority.
(3) FDA issued two separate CRLs to Elevar and Hengrui in response to their joint filing for rivoceranib + camrelizumab combination therapy.

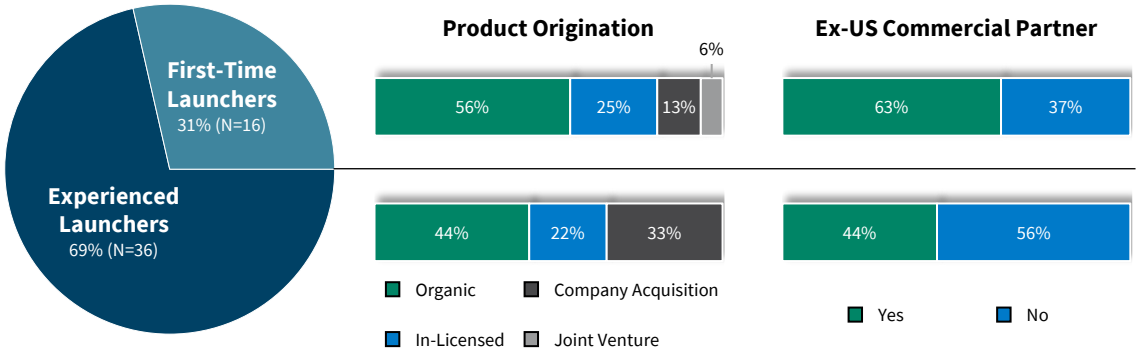
# 2025 FDA Approval and First-Time Launcher (FTL) Trends

- First-time launchers comprised just 31% of approvals in 2025, down from 44% in 2024
- 8 of 16 (50%) of 2025 first-time launchers targeted oncology and metabolic indications
- 52% of 2025 launchers commercialized in-licensed or acquired assets, compared to 61% in 2024

## 2025 FTLs by Therapeutic Area




## 2025 Development and Commercialization Strategy Overview




## Successful FTLs (2023-2025YTD)[1]

**Less than 1 Year Since Launch** *Exceeding Consensus*

Akebia Therapeutics, Autolus, KalVista, mesoblast, Nuvation Bio, SOLENO Therapeutics, Syndax, ZEVRA Therapeutics

**$51M** Sales (Avg.)

**+40%** Outperformance (vs. Consensus, Avg.)

**+31%** Share Price Since Approval (Avg.)

**More than 1 Year Since Launch** *Greater than $100M in Sales and Exceeding Consensus*

Avadel[2], Day One Biopharmaceuticals, IOVANCE Biotherapeutics, Krystal, Madrigal Pharmaceuticals, SpringWorks[2], Tarsus, Verona Pharma[2]

**$353M** Sales (Avg.)

**+42%** Share Price 2025YTD (Avg.)

**+54%** Share Price Since Approval (Avg.)

## Select 2025 PDUFA Delays

Approved | CRL | Upcoming

| Company | Product | Indication | Modality | Original Date | New Date | Reason for Delay |
|---|---|---|---|---|---|---|
| Stealth Bio | Elamipretide | Barth syndrome | Peptide | 1/29/2025 | 4/29/2025 ND[3] | Submission amendment *(New analyses, ND)* |
| KalVista | Sebetralstat | Hereditary angioedema | Small Molecule | 6/17/2025 | 7/11/2025 | FDA resource constraints |
| Axogen | Avance Nerve Graft | Nerve damage | Allograft | 9/5/2025 | 12/5/2025 | Submission amendment *(New CMC data)* |
| Omeros | Narsoplimab | TA-TMA | Antibody | 9/25/2025 | 12/26/2025 | Submission amendment *(ND)* |
| Cytokinetics | Aficamten | Obstructive hypertrophic cardiomyopathy | Small Molecule | 9/26/2025 | 12/26/2025 | Submission amendment *(REMS review)* |
| Biohaven | Troriluzole | Spinocerebellar ataxia | Small Molecule | 9/30/2025 | Q4 2025 | Submission amendment *(ND)* |
| REGENXBIO | RGX-121 | Hunter syndome | Gene Therapy | 11/9/2025 | 2/8/2026 | Submission amendment *(Longer-term clinical data)* |
| Ascendis | TransCon CNP | Achondroplasia | Peptide | 11/30/2025 | 2/28/2025 | Submission amendment *(Post-marketing information)* |
| Aldeyra | Reproxalap | Dry eye disease | Small Molecule | 12/16/2025 | 3/16/2026 | Additional trial review |
| Denali | Tividenofusp alfa | Hunter syndrome | Fusion Protein | 1/5/2026 | 4/5/2026 | Submission amendment *(Pharmacology data)* |

Source: FDA.gov, Company press releases, SEC Filings, FactSet, and William Blair analysis as of December 19, 2025.
Note: Reflects approvals and PDUFAs of NCEs/NMEs that are submitted via BLA/NDA (excluding diagnostics, biosimilars, generics, source plasma and 505b2s without clinical trial data). PDUFAs do not include label extensions or supplemental applications.
(1) Excludes companies with market capitalization less than $250 million. Includes products approved since 2023.
(2) Denotes companies that have been acquired in 2025.
(3) Stealth BioTherapeutics' PDUFA date was delayed twice; the length of the second delay was not disclosed.

# Large Pharma Have Mitigated U.S. Drug Pricing Concerns with Wave of MFN Deals

- Acceleration of direct-to-patient programs, including TrumpRx, for drugs at MFN pricing in exchange for 3-year tariff grace period
- Pfizer was the first to strike a bilateral agreement; AbbVie, J&J and Regeneron have yet to announce a deal, though additional announcements expected near-term

| Company | Announced | Select Product(s) | % Direct-to-Patient Discount[1] | Commentary |
|---|---|---|---|---|
| Pfizer | September 2025 | Various primary care/specialty drugs (e.g. Eucrisa, Xeljanz, Zavzpret) | 85% | "We successfully addressed the administration's call to lower prescription drug costs and align prices with those in other developed countries, and **we will have a 3-year grace period from certain U.S. tariffs** with our commitment to further invest in manufacturing in the U.S." (11/4/25) |
| AstraZeneca | October 2025 | Various chronic disease drugs (e.g. AIRSUPRA, BEVESPI, BREZTRI) | 80% | "AstraZeneca will **provide Direct-to-Consumer sales** to eligible patients with prescriptions for chronic diseases at a discount of **up to 80% off list prices** [...] AstraZeneca has also reached an agreement with the US Department of Commerce to **delay Section 232 tariffs for three years**" (10/10/25) |
| MERCK | October 2025 | Gonal-f, Ovidrel, Cetrotide | 84% | "When all three therapies are used in a typical IVF protocol, patients will **access an 84% discount off list prices**. [We] will participate in the **TrumpRx.gov direct purchasing platform**, which will go live in January 2026 [...] EMD Serono has entered an agreement with the U.S. Secretary of Commerce to **exclude its pharmaceutical products and ingredients from Section 232 tariffs**" (10/16/25) |
| Lilly | November 2025 | Zepbound, Mounjaro, Trulicity, Emgality, Orforglipron (if approved) | 68% | "As part of the agreement, Lilly is addressing all four of the Administration's priorities, including launching new medicines with a more balanced pricing approach across developed nations. In return, Lilly will receive **three years of tariff relief and will not be subject to future pricing mandates**" (11/6/25) |
| novo nordisk | November 2025 | Ozempic, Wegovy, various insulin products, oral Wegovy (if approved) | 74% | "Nordisk has agreed with the U.S. Administration to lower drug prices beginning in 2026 and expand patient access and affordability for semaglutide medicines, including Wegovy and Ozempic, in U.S. Medicare Part D and Medicaid and in **direct-to-patient cash channel**. [...] In addition, Novo Nordisk is expected to receive a **three-year tariff exemption**" (11/6/25) |
| AMGEN | December 2025 | Repatha, Aimovig, Amjevita | 80% | "Amgen will **expand its direct-to-patient program**, AmgenNow, to include Aimovig and Amjevita. Both will be available at [...] **nearly 60% and 80% lower than their current U.S. list prices**, respectively. [...] **Amgen will receive relief from industry-specific tariffs for the next three years**" (12/19/25) |
| Boehringer Ingelheim | December 2025 | Jentadeuto | 90% | "[The agreement] **includes participating in a direct purchasing platform, TrumpRx.gov**, that will allow American patients to purchase medicines from Boehringer at a significant discount [...] The agreement with the U.S. administration **excludes Boehringer Ingelheim from potential Section 232 tariffs**" (12/19/25) |
| Bristol Myers Squibb | December 2025 | Eliquis, Baraclude, OrenciaSC, Reyataz, Sotyktu, Zeposia | 80% | "[BMS will] enable **direct-to-patient access for cash-paying patients** to Sotyktu, Zeposia, Reyataz, Baraclude, and Orencia, making these important medicines available at discounts **approximately 80% off current list** prices. [...] BMS will receive **three years of tariff relief and will not be subject to future pricing mandates**" (12/19/25) |
| GILEAD | December 2025 | Epclusa | 90% | "[Three-year agreement includes] **launching a Direct-to-Patient Program** where individuals [...] can obtain Gilead's Hepatitis C treatment and cure, Epclusa, at a discounted cash price. [...] An agreement with the U.S. Department of Commerce to be **exempt from Section 232 pharmaceutical tariffs for three years**" (12/19/25) |
| GSK | December 2025 | Advair Diskus, other inhaler portfolio products | 66% | "The Company will also make most of its inhaled respiratory portfolio and other products available to patients on a **direct purchasing platform that will offer savings of up to 66%**. [...] The agreements [...] **exclude GSK and ViiV from s232 tariffs for 3 years**" (12/19/25) |
| MERCK | December 2025 | Januvia, Janumet, Janumet XR, Enlicitide (if approved) | 70% | "Merck plans to provide key products through a **direct-to-patient program at affordable prices for eligible patients** in the U.S. [...] Additionally, the company reached an understanding with the U.S. Department of Commerce to **delay Section 232 tariffs for three years**" (12/19/25) |
| NOVARTIS | December 2025 | Mayzent, Rydapt, Tabrecta | 89% | "Novartis has voluntarily agreed to take actions aimed at meeting the US Administration's drug pricing priorities, **including building direct-to-patient platforms** for Mayzent, Rydapt and Tabrecta. These new platforms will be accessible through TrumpRx [...] **Novartis expects to receive three years of tariff relief** " (12/19/25) |
| Roche | December 2025 | Xofluza | 70% | "Influenza portfolio to be made available **through TrumpRx.gov and through Genentech's recently-launched direct-to-patient program** [...] Genentech also reached an agreement with the U.S. government for a **three year exemption from tariffs** [...] In addition, **Genentech will not be subject to future pricing mandates**" (12/19/25) |
| sanofi | December 2025 | Plavix, insulin products | 98% | "Offer patients direct access to certain medicines including insulins at **substantial discounts through TrumpRx.gov and other direct-to-patient platforms**, including Sanofi's affordability program [...] The agreement provides a **three-year period free from Section 232 tariffs on products imported by Sanofi**" (12/19/25) |

Source: CapIQ, Company Filings, Earnings Call Transcripts, Press Releases as of December 19, 2025.
Note: Includes select global pharma companies with recently disclosed direct-to-patient initiatives in collaboration with the U.S. government.
(1) Represents the highest of disclosed discounts across products in connection with the company's MFN deal.

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