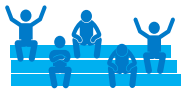
The Quarterly Rx: Q1 2025 U.S. Biopharma Recap

April 2025

William Blair

Q1 2025 U.S. Biopharma Market Summary – Key Takeaways

The optimism for biopharma entering 2025 proved short-lived as a combination of macroeconomic uncertainty, disappointing IPO performance, and anemic M&A activity weighed on the sector



Welcome (Back) to March Madness

- The biopharma sector finds itself pulled back into an existential crisis to close out Q1 2025, caught between rapid scientific progress and the ultimate need to develop commercially-viable drugs
- Major U.S. biopharma indices ended the quarter down, and biopharma was no exception; the sector experienced a flight to safety with small-caps significantly underperforming in Q1 2025 as investors look to digest and navigate political uncertainty from the new U.S. administration's policies, including large disruptions at the FDA and HHS, underscored most recently by the sudden departure of Peter Marks
- Healthcare/biotech-dedicated funds have experienced approximately $3.3 billion of net outflows in 2025YTD, prolonging a multi-year trend

One-and-Done with Mega-Series A Rounds?

- The private financing market was the only bright spot this quarter, with 61 deals announced for $6.3 billion in total proceeds, surpassing Q1 2024 activity (61 deals for $5.4 billion in total proceeds)
- Steady pace of large NewCo launches with eight $100M+ Series A financings this quarter raising nearly $2.2 billion in total proceeds
- After a brief comeback in 2024, "crossover" activity slowed in Q1 2025 as the IPO market soured, with only seven crossovers announced raising just under $900 million in total proceeds
- Investors remain laser-focused on clinical-stage opportunities with 57% of all deals in Q1 2025 for clinical-stage stories (up from 54% in 2024 and 46% in 2023)

Early Clinical Setbacks, an IPO Bracket Buster

- Five IPOs priced in Q1 2025, raising ~$900 million in total proceeds – all five priced in the first half of the quarter before year-end financial staleness
- Despite strong pricing and first day performance, aftermarket returns have not proven durable with three of the five trading below issue and a median return of (31.2%).
- Early lead asset setbacks in recent IPOs (i.e., BioAge, Septerna) are acting to temper investor enthusiasm for new issuances
- Alternative listings also slowed with only one reverse merger announced in Q1 2025 and one additional SPAC merger

Lack of Cinderella Stories in the Public Markets

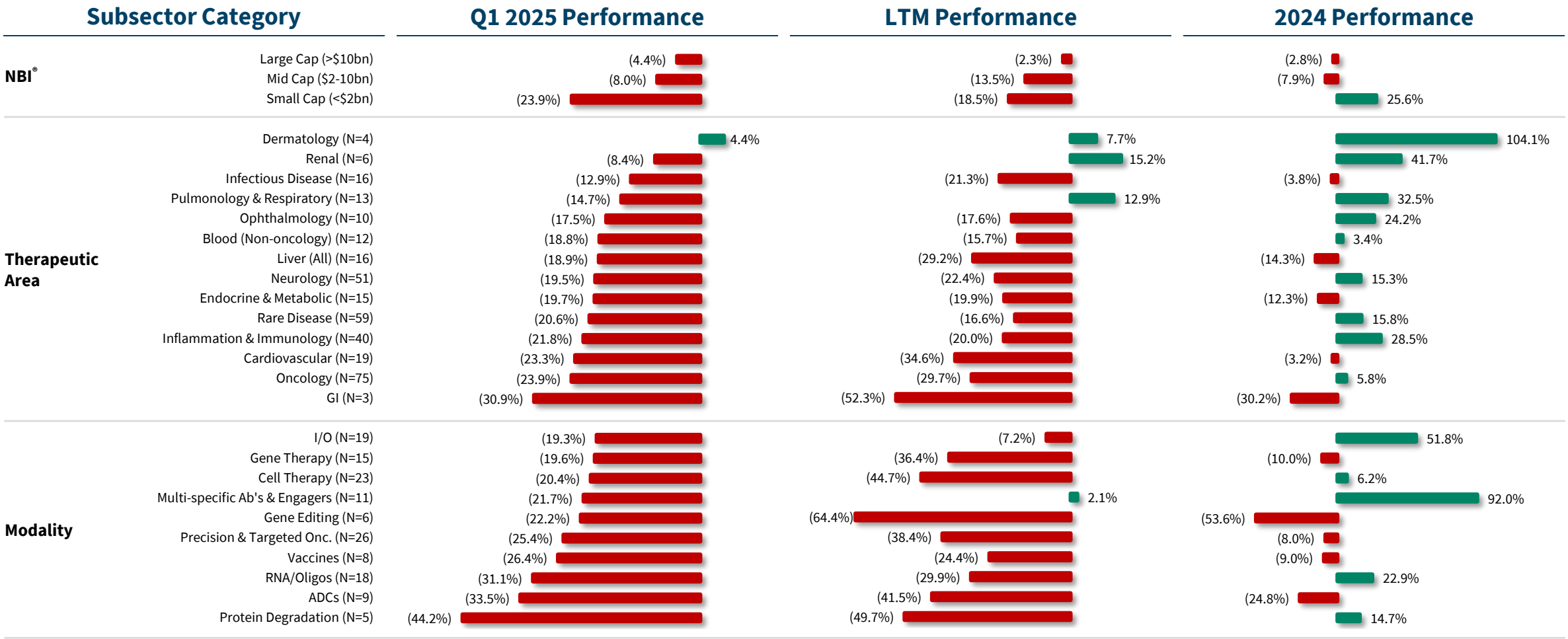
- Secondary activity slowed significantly in Q1 2025 with only 30 financings announced, raising $4.3 billion in total proceeds, a 70% and 76% decrease in deal volume and total proceeds, respectively, compared to Q1 2024
- Direct placements remain in vogue with PIPEs/RDs accounting for 40% of all secondary activity as investors look for an information edge and issuers look to minimize risk
- Aftermarket performance of recent follow-ons has been weak, with a flat median one day return and 72% of issuers breaking issue price in the first month post pricing
- Restructurings remain rampant with 38 public SMID-cap companies announcing a pipeline prioritization and/or workforce reduction and 126 public biopharma companies trading at negative enterprise value
- Catalysts drove majority of SMID-cap activity in Q1 2025 with 63% of follow-ons/RDs catalyzed by clinical data and/or regulatory updates

Full Court Press for Big Pharma and China

- Despite U.S. FTC leadership changes, meaningful M&A in biopharma has yet to rebound, with the Intra-Cellular/J&J acquisition being the only sizable public M&A deal announced this quarter for $14.6 billion in deal value
- Large M&A (over $1B+ in transaction value) remains concentrated on the private side as companies continue to dual track processes, while public M&A focused on consolidation of distressed companies
- Partnering activity off to a strong start, with 51 deals announced in Q1 2025 bringing in $4.9 billion in total upfront payments and 19 of these deals having an upfront of over $50 million
- Asia continues to be an important source of innovation, accounting for 50% of big pharma asset-specific partnerships and leading to six NewCo launches in Q1 2025

NBI® Subsector Market Performance

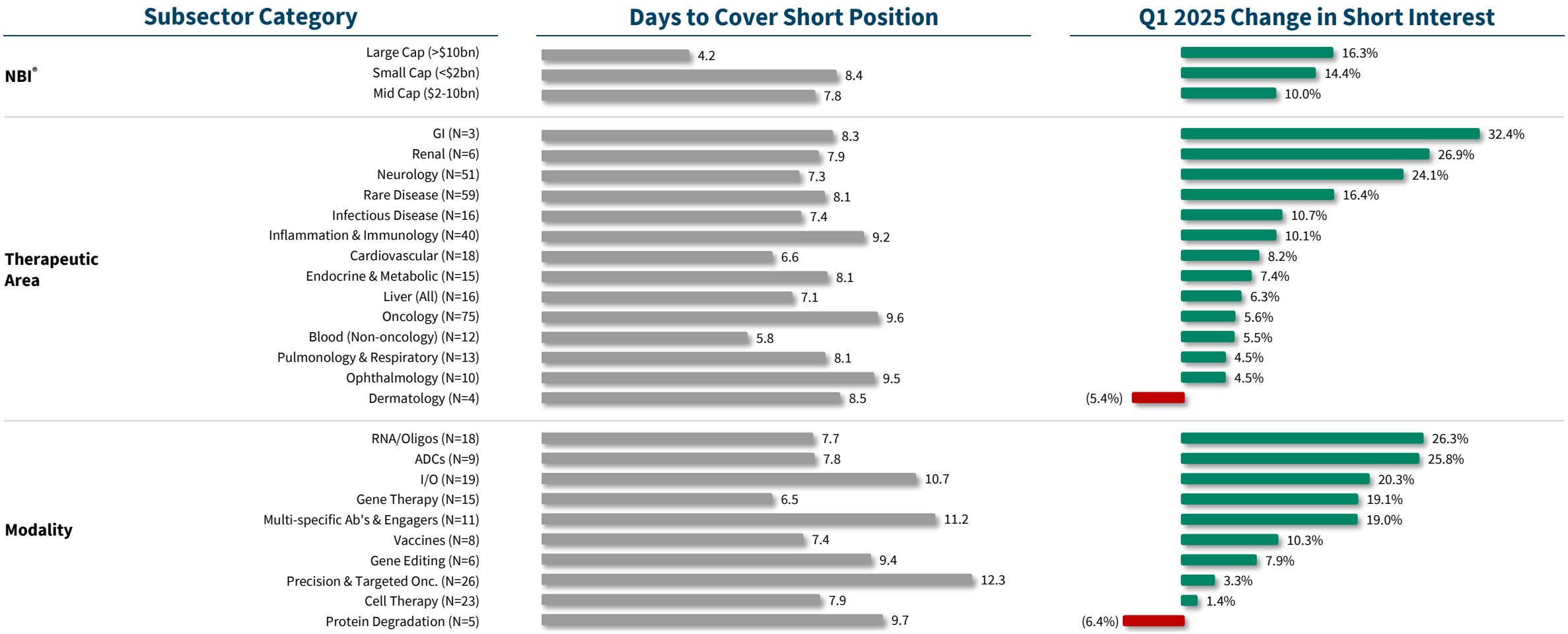
- "Flight to Safety" as small-caps significantly underperformed in Q1 2025 following an outperformance in 2024
- Dermatology was the only therapeutic area in Q1 2025 with positive performance, led by Trevi's Phase II data announcement



Note: Market capitalizations are as of the first trading day of each graph's performance period.
Subsector indices are equally weighted and averaged. Includes NBI® constituents' as of March 31, 2025, and excludes non-therapeutic focused companies in the NBI®.
Source: FactSet and William Blair internal reporting. Therapeutic area and modality based on William Blair analysis.

NBI® Subsector Q1 2025 Short Interest Trends

Short interest increased across all market caps, therapeutic areas, and modalities in Q1 2025, as investors reassess the biopharma sector in light of renewed headwinds



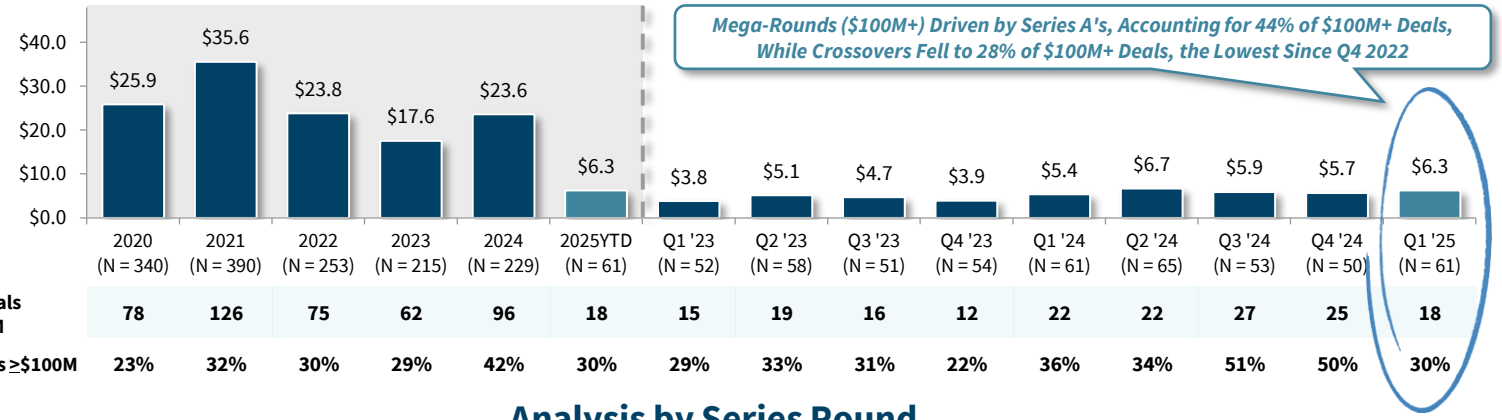
Note: NBI® constituents are equally weighted and averaged. Excludes non-therapeutic focused companies in the NBI®. Market capitalizations are as of the first trading day of the quarter. Days to cover short position calculated as total number of shares shorted / 3-month ADTV. Source: FactSet, CapIQ, and William Blair internal reporting.
Days to cover short position as of 3/14/25 settlement date. Short interest change measured from 12/31/24 to 3/14/25 settlement dates.

Biopharma Private Financings Trends

- 61 transactions raised $6.3 billion, with 30% (18 deals) exceeding $100 million
- Oncology and I&I tied as the most active TA this quarter, each representing 22% of financings

Total Proceeds and Deal Volume

($ in billions)



Mega-Rounds ($100M+) Driven by Series A's, Accounting for 44% of $100M+ Deals, While Crossovers Fell to 28% of $100M+ Deals, the Lowest Since Q4 2022

	2020 (N = 340)	2021 (N = 390)	2022 (N = 253)	2023 (N = 215)	2024 (N = 229)	2025YTD (N = 61)	Q1 '23 (N = 52)	Q2 '23 (N = 58)	Q3 '23 (N = 51)	Q4 '23 (N = 54)	Q1 '24 (N = 61)	Q2 '24 (N = 65)	Q3 '24 (N = 53)	Q4 '24 (N = 50)	Q1 '25 (N = 61)
# of Deals ≥$100M	**78**	**126**	**75**	**62**	**96**	**18**	**15**	**19**	**16**	**12**	**22**	**22**	**27**	**25**	**18**
% Deals ≥$100M	**23%**	**32%**	**30%**	**29%**	**42%**	**30%**	**29%**	**33%**	**31%**	**22%**	**36%**	**34%**	**51%**	**50%**	**30%**

Analysis by Series Round

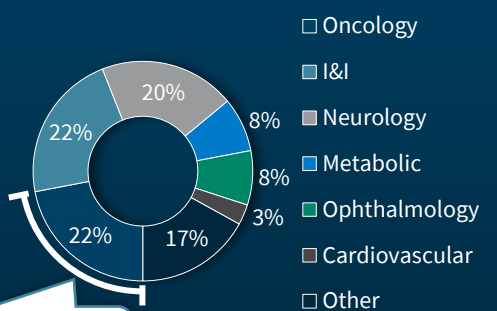
($ in millions, deal size represents mean, includes extension rounds)

	2023				2024				Q1 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	$69	93	13%	27%	$106	94	14%	34%	$128	25	8%	40%
Series B	$80	77	23%	47%	$90	76	22%	59%	$71	21	19%	62%
Series C	$115	28	18%	86%	$110	39	13%	77%	$100	10	10%	70%
Series D+	$103	17	6%	82%	$128	20	0%	85%	$114	5	0%	100%
All Rounds	**$82**	**215**	**17%**	**46%**	**$103**	**229**	**15%**	**54%**	**$103**	**61**	**11%**	**57%**

Rising Average Deal Sizes in Recent Years Coincides With a Broader Polarization in the Market Funding Environment, Exemplified by a 22% Increase in the Gini Coefficient from 2020 to 2025YTD (0.355 to 0.434), a Measure of Market Inequality

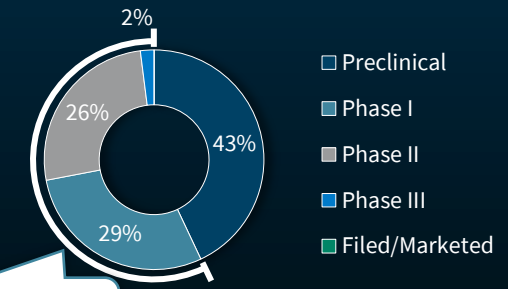
Q1 2025 Analysis by TA and Stage

Therapeutic Area



<25% of All Financings in Oncology, Well Below Historical Norms, Reflecting Headwinds for the TA

Stage of Development



57% Clinical-Stage, Reflecting Continued Bias Towards De-Risked Assets

Source: CapIQ, PitchBook Data, Inc., and SEC Filings as of March 31, 2025.
Note: Includes private financing deals and extension rounds with a minimum disclosed deal size of $25M, involving at least one U.S./EU healthcare investor. Excludes seed rounds. Ext = Extensions.

Biopharma Crossover Financing Trends

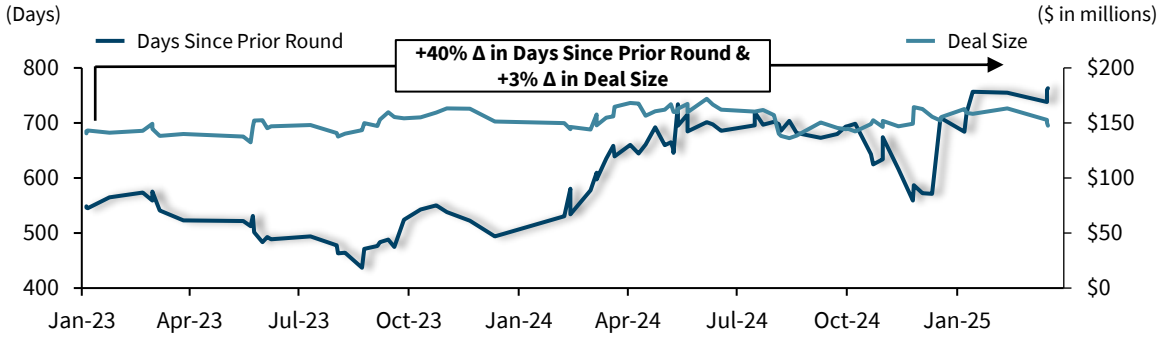
Q1 2025 put the brakes on the "crossover" comeback witnessed in 2024, with only 7 deals announced for a median deal size of $110 million; the market will be closely watching the next crop of biopharma IPOs as a leading indicator of "crossover" appetite

Q1 2025 Crossovers

($ in millions)

Deal Date	Company	Series	Deal Size	Lead Investors	Days Since Prior Round	Stage	Modality	Therapeutic Area
1/7/25	Viceda 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
3/17/25	Latigo Bio	Series B	$150	Blue Owl	397	Phase I	Small Molecule	Neurology
3/17/25	curevo Vaccine	Series B	$110	medicxi	852	Phase II	Vaccine	Infectious Disease
1/14/25	Umoja Biopharma	Series C	$100	DCVC, Double Point Ventures	1,309	Preclinical	*in vivo* Cell Therapy	Oncology, I&I
3/18/25	arbor biotech	Series C	$74	Arch Venture Partners, TCGX	1,225	Preclinical	Gene Editing	Hepatology, Neurology
1/9/25	NUMAB	Series C – Extension	$55	Forbion, HBM Healthcare Investments, Cormorant Asset Management, novo	1,330	Phase I	T-Cell Engager	I&I, Oncology

Rolling Average of Last 20 Crossover Deals by[1]



Crossover Deals Analysis

($ in millions)

Quarter	Number of Deals	Median Deal Size	Median Pre-Money	Median Step-Up	Currently Public	Acquired
Q1 '25	7	$110	$350	1.4x	0	0
Q4 '24	13	$135	$347	1.5x	2	0
Q3 '24	11	$120	$299	1.1x	1	1
Q2 '24	15	$133	$197	1.3x	1	0
Q1 '24	10	$160	$280	0.8x	3	1
Q4 '23	5	$165	$184	1.0x	2	1
Q3 '23	11	$150	$244	1.2x	4	1
Q2 '23	7	$150	$744	1.5x	2	1
Q1 '23	9	$135	$150	1.3x	4	2
Q4 '22	3	$149	$129	2.1x	1	1
Q3 '22	4	$146	$370	1.2x	2	1
Q2 '22	7	$125	$145	1.8x	1	0
Q1 '22	9	$111	$250	1.5x	2	1

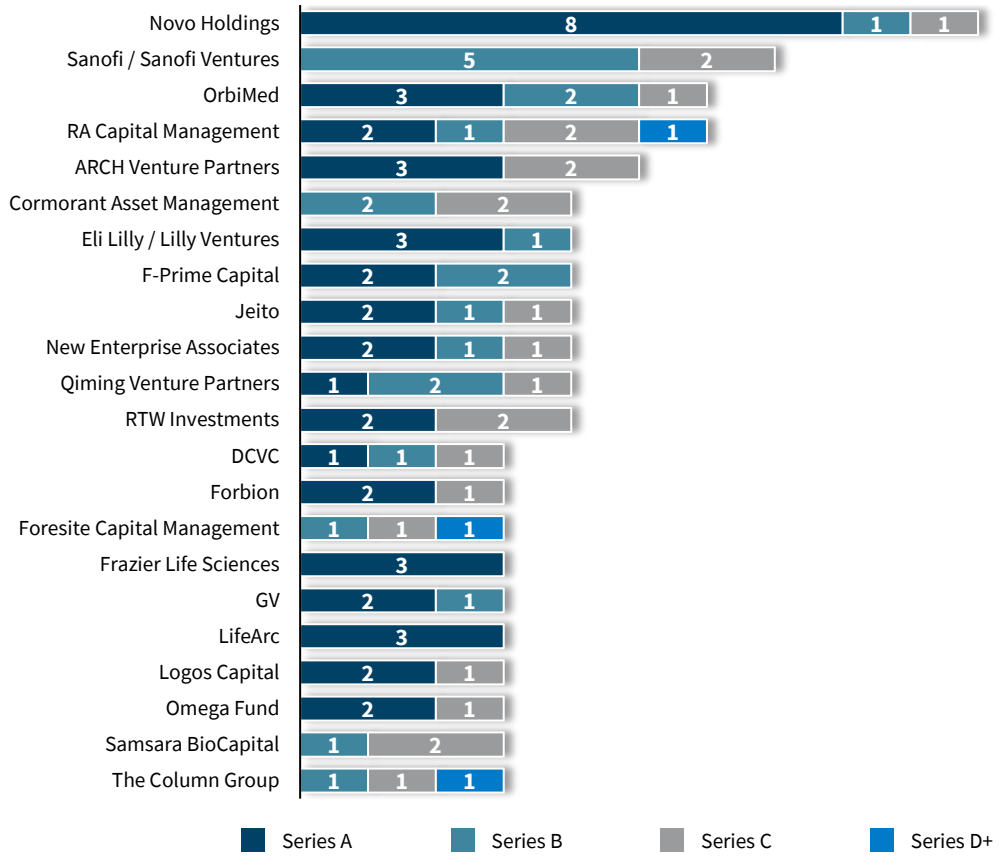
Q1 2025 Marked the End of a Double-Digit Crossover Streak

Source: CapIQ, PitchBook Data, Inc., and SEC Filings as of March 31, 2025.
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) 20-deal rolling average of 2023-2025YTD crossover deals.

Q1 2025 Most Active Private Biopharma Investors and New Funds Closed

- Novo emerged as the most active private investor in a quarter that saw a pullback from crossover and mutual funds
- Life sciences funds raised just under $2.7B in new capital — in line with Q1 2024's $2.4B, but a sharp decline from the nearly $13B raised in Q1 2023

Most Active Investors



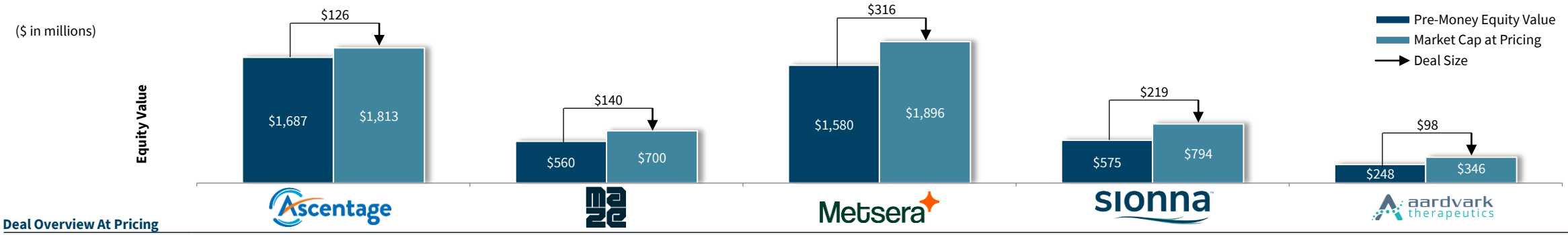
New Funds Closed

Investor	Fund Name	Close Date	Location	Fund Size ($M)
Aditum Bio	Aditum Bio Fund III	1/6/2025	Oakland, CA	$428
a16z	Biotech Ecosystem Venture Fund	1/10/2025	Menlo Park, CA	$500
Curie.Bio	Curie Bio Seed Fund II	1/29/2025	Boston, MA	$340
Sofinnova partners	Sofinnova Partners Life Sciences Fund	3/4/2025	Paris, France	$1,250
	Sofinnova Biovelocita II	3/18/2025	Paris, France	$175

Source: PitchBook Data, Inc., and internal William Blair research as of March 31, 2025.
Note: Includes private financing deals and extension rounds with a minimum disclosed deal size of $25M, involving at least one U.S./EU healthcare investor. Excludes seed rounds. Ext = Extensions.

Q1 2025 Biopharma IPOs

- 2025 opened with a flurry of IPO activity despite challenging macro conditions — five IPOs priced in the first half of the quarter, with an average 15% one-day return, however 60% of the newly public companies are now trading below their issue price
- Continued interest in clinical-stage stories, with 100% of issuers in the clinic and 60% in late-clinical stages
- One additional company, Odyssey Therapeutics, publicly on file



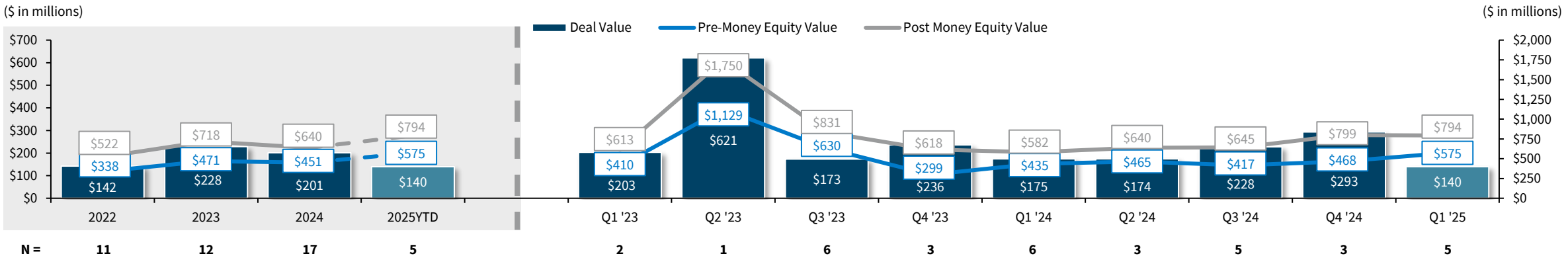
Deal Overview At Pricing					
Pricing Date	1/23/25	1/30/25	1/30/25	2/6/25	2/12/25
Offer Price	$17.25	$16.00	$18.00	$18.00	$16.00
Enterprise Value	$1,707	$335	$1,177	$394	$166
Step-Up	NA	1.20x	1.52x	1.26x	1.07x
Initial File/Offer vs. Range	NA	In Range	Above	In Range	In Range
Deal Value as % of Mkt. Value	7%	20%	17%	28%	28%
Key Pre-IPO/Crossover Investors	NA	a16z, ARCH, Casdin, Deep Track, Foresite, Frazier HC, General Catalyst, GV, Janus, Logos, Matrix, Third Rock, Woodline	ARCH, Deep Track, Fidelity, GV, Janus, RA, SoftBank, T. Rowe, Venrock, Viking, Wellington	Atlas, Enavate, OrbiMed, Perceptive, QIA, RA, T. Rowe, TPG, Viking	Cormorant, Decheng, Sorrento, Surveyor
Post-IPO Performance					
Offer/1 Day	+1%	0%	+47%	+39%	(11%)
Offer/Current	+27%	(31%)	+51%	(42%)	(53%)
Lead Asset at Pricing					
Name	olverembatinib	MZE829	MET-097i	SION-3067	ARD-101
Phase	Phase III	Phase IIb	Phase I/II	Phase I	Phase III
Therapeutic Area	Oncology	Renal	Metabolic	Fibrosis & Pulmonology	Metabolic
Modality	Small molecule	Small molecule	Protein	Small molecule	Small molecule
Indication	Chronic myeloid leukemia	APOL1 kidney disease	Obesity	Cystic fibrosis	Prader-Willi syndrome associated hyperphagia
Next Major Catalyst (Months)	11 to 23	11 to 13	5 to 7	1 to 4	11 to 13

Source: CapIQ, Dealogic, FactSet and SEC Filings as of March 31, 2025.
Note: All valuations performed on basic share count basis. Includes U.S. IPOs only. Excludes best efforts IPOs and IPOs less than $25 million in gross proceeds.

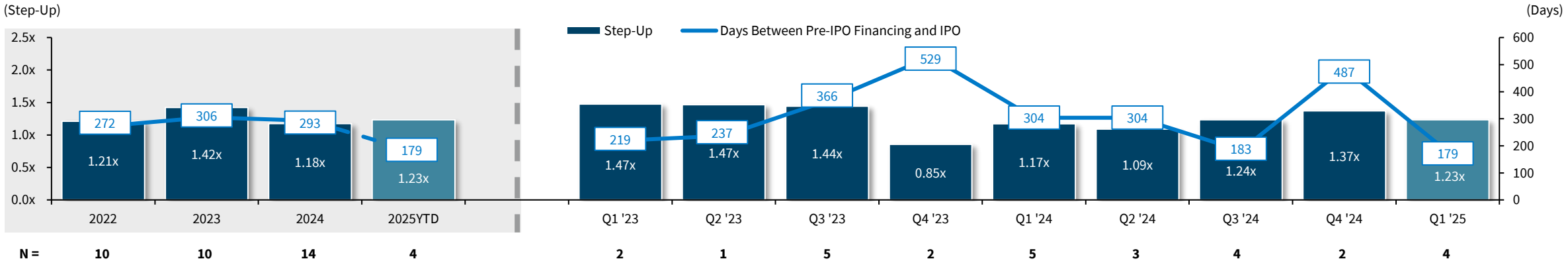
Biopharma IPO Trends

- Median pre-money valuation was slightly elevated at $575 million, however, median deal sizes shrunk by 30% compared to 2024 as issuers look to limit dilution and remain conservative amidst the volatile market backdrop
- IPO step-ups have remained in line with 2024 levels, while days between crossover to IPO decreased to ~180 days, although those levels are expected to increase as the IPO market remains challenging

Deal Sizing and Valuation



Crossover-to-IPO Metrics[1]



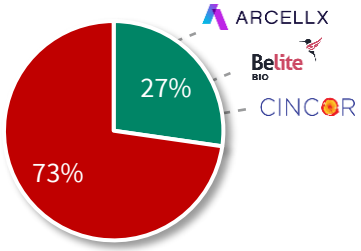
Source: CapIQ, Dealogic, FactSet, and SEC Filings as of March 31, 2025. Note: All valuations performed on basic share count basis.
Note: Represents median values. Includes U.S. IPOs only. Excludes best efforts IPOs. Excludes IPOs less than $25 million in gross proceeds.
(1) Crossover-Financing rounds defined as pre-IPO financings completed that included multiple crossover and/or large mutual funds in the investor syndicate.

Major Setbacks in Recent IPOs Remain a Headwind for the Asset Class

Recent biotech IPOs have experienced unexpected lead asset discontinuations ahead of key data readouts — many within the lockup period — contributing to increased investor caution and tempering enthusiasm for IPOs broadly

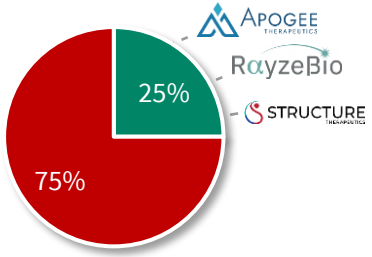
2022 Cohort (N = 11)

Offer to Current
Mean: **+65%**
Median: **(84%)**



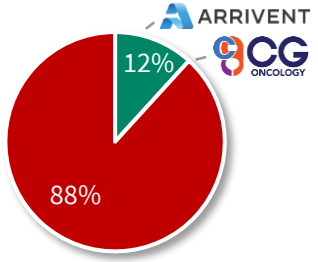
2023 Cohort (N = 12)

Offer to Current
Mean: **(21%)**
Median: **(71%)**



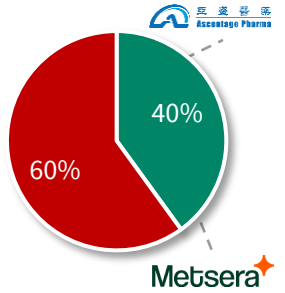
2024 Cohort (N = 17)

Offer to Current
Mean: **(57%)**
Median: **(64%)**



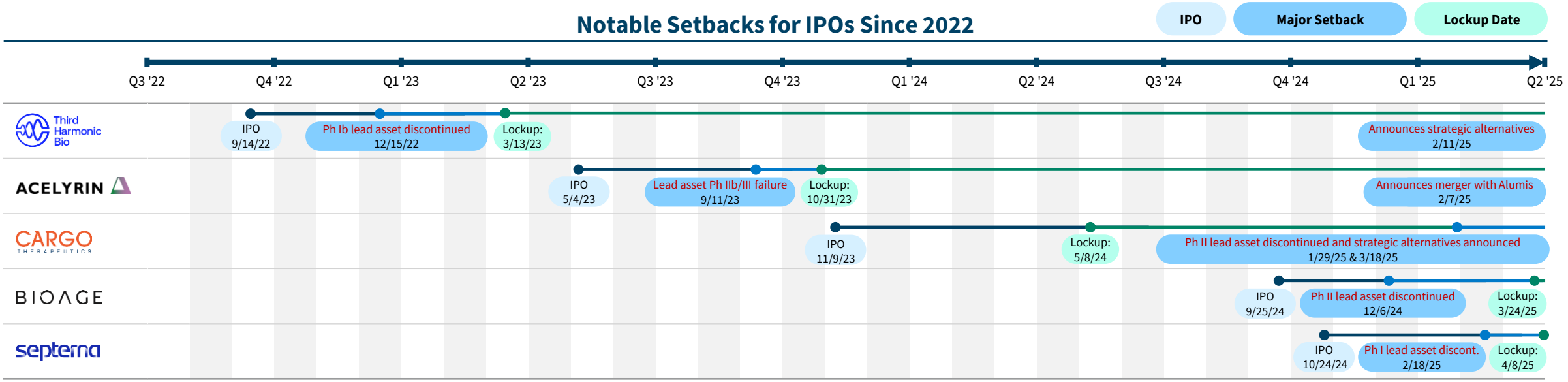
Q1 2025 Cohort (N = 5)

Offer to Current
Mean: **(10%)**
Median: **(31%)**



Trading Below Offer Price Trading Above Offer Price

Notable Setbacks for IPOs Since 2022

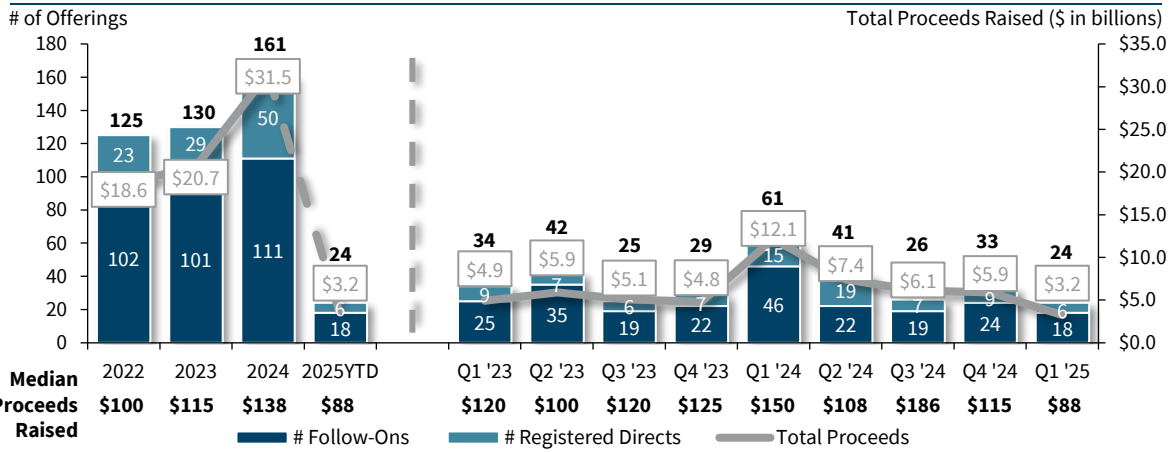


Source: CapIQ, Dealogic, Factset and SEC Filings as of March 31, 2025.
Note: Includes select U.S. IPOs that have had notable clinical setbacks prior to expected data readout. Excludes best efforts IPOs. Excludes IPOs less than $25 million in gross proceeds. Current share price for acquired companies based on the announced price to acquire outstanding shares.

Biopharma Follow-on & Registered Direct Trends

Secondary issuance in Q1 2025 was the slowest since Q1 2022; deals that did price struggled in the aftermarket with 67% breaking issue within 1 week; catalysts drove majority of SMID-cap activity in Q1 2025 with 63% of follow-ons/registered directs catalyzed by clinical data and/or regulatory updates

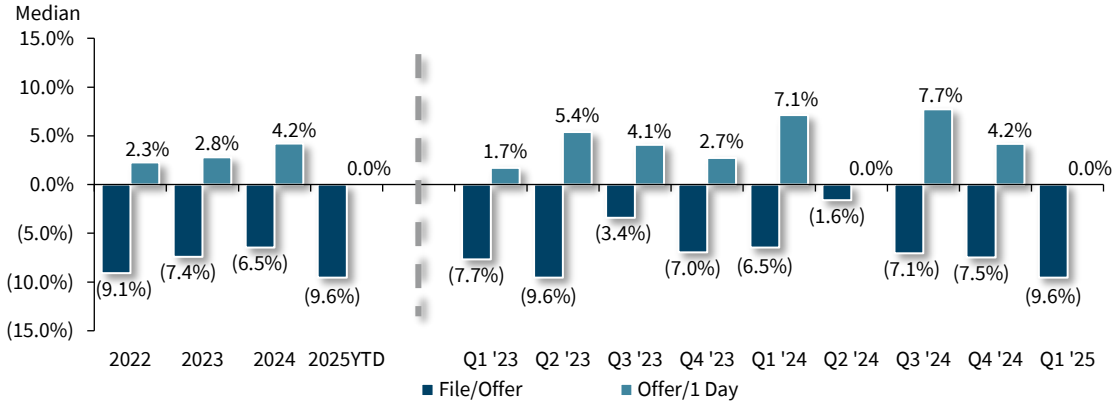
Deal Volume and Proceeds



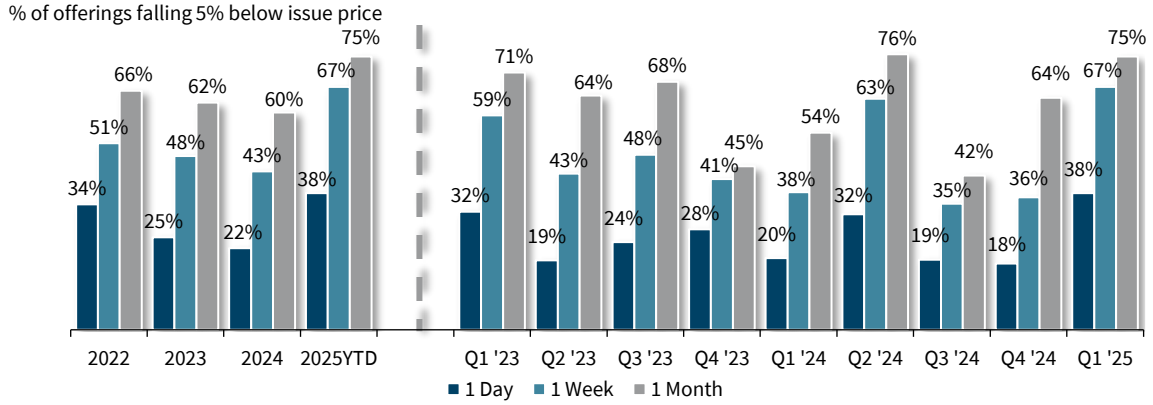
Issuers Used Registered Directs More Frequently to Share New Data With Investors, Mirroring How PIPEs Were Used in 2024

Pricing Date	Company	Deal Value	1-Day Return	Stage of Development	Announced Concurrently
3/10/25	Beam Therapeutics	$500	(9.8%)	Phase I/II	✓
2/18/25	Solid Biosciences	$200	+31.5%	Phase I/II	✓
2/18/25	Arcus Biosciences	$150	(0.4%)	Phase III	✓
2/13/25	Oculis Next Generation Topical Ophthalmics	$100	+7.9%	Phase III	✗
1/28/25	Sellas Life Sciences Group	$25	(7.9%)	Phase III	✓

Wider Discounts And Muted Aftermarket Performance in Q1 2025



Performance Has Suffered With Volatility in the Broader Market

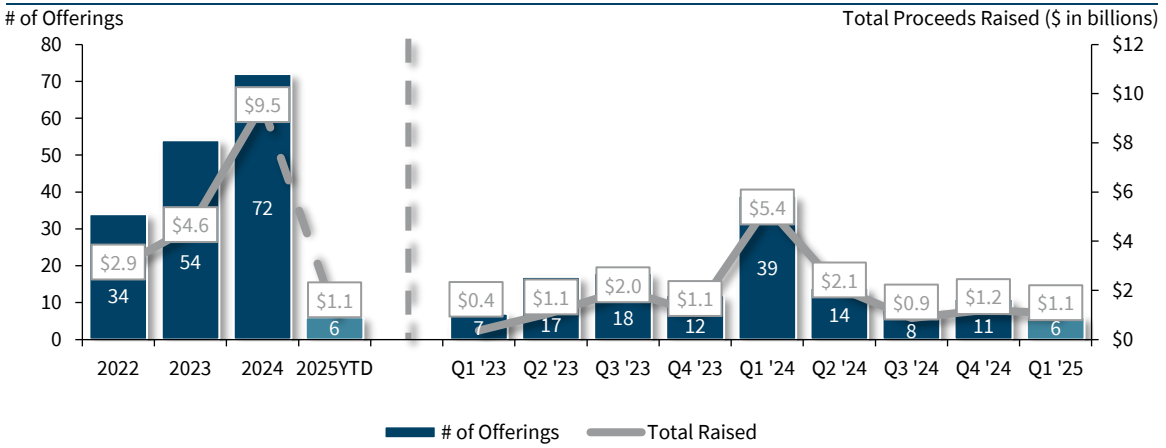


Source: Dealogic as of March 31, 2025.
Note: Includes fully marketed follow-on offerings, confidentially marketed follow-on offerings, bought deals, and registered directs. Excludes offerings with gross proceeds below $20 million. Median Pricing and Performance includes offerings with warrants.

Biopharma PIPE Trends

PIPE activity slowed dramatically in Q1 2025 with only 6 deals announced; however, issuers still looked to opportunistically raise large amounts of capital, with median deal sizes up 50% from the prior quarter and just 2 out of 6 deals being catalyst-driven

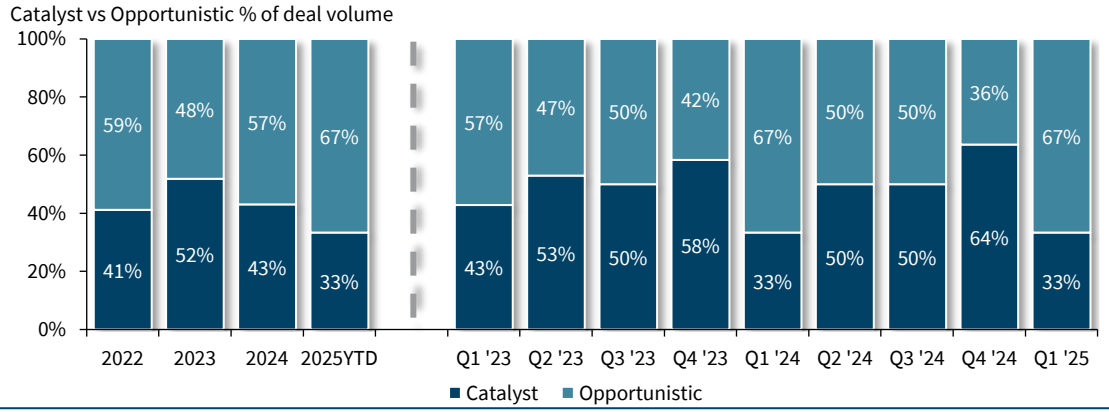
Deal Volume and Proceeds



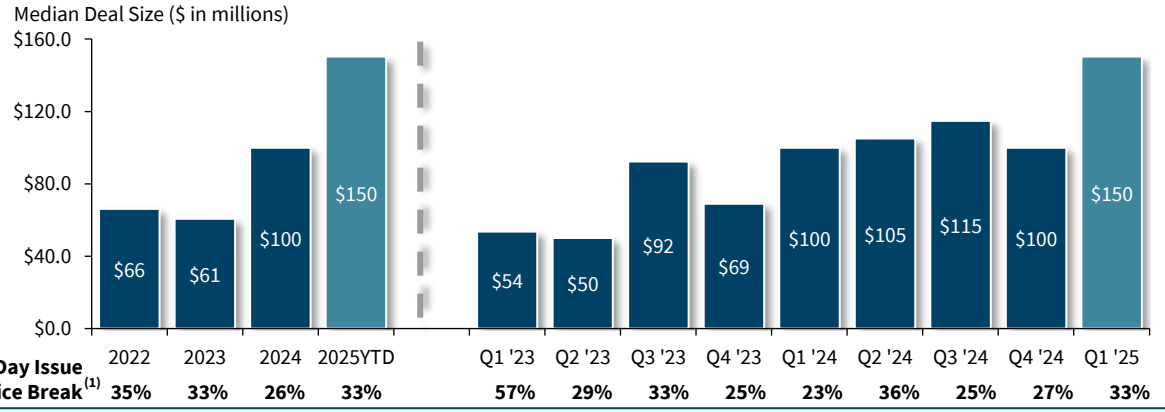
Market Remains Receptive to PIPE Offerings Despite Limited Issuance

Pricing Date	Company	Deal Value	1-Day Return	Stage of Development	Catalyst/ Opportunistic
1/13/25	IMMUNOVANT	$450	+13.8%	Phase III	Opportunistic
2/3/25	TECTONIC Therapeutic	$185	+1.2%	Phase II	Catalyst
3/24/25	SURROZEN	$175	+3.4%	Preclinical	Opportunistic
3/28/25	dbv technologies	$126	+3.2%	Phase III	Catalyst
2/12/25	ALIGOS THERAPEUTICS	$105	(19.4%)	Phase I	Opportunistic
3/5/25	TENAX THERAPEUTICS	$25	+3.1%	Phase III	Opportunistic

Given Light Deal Volume, Opportunistic Raises Overweighted



Offerings Remain Large; Aftermarket Performance Declines from '24



1-Day Issue Price Break[1]	2022	2023	2024	2025YTD	Q1 '23	Q2 '23	Q3 '23	Q4 '23	Q1 '24	Q2 '24	Q3 '24	Q4 '24	Q1 '25
	35%	33%	26%	33%	57%	29%	33%	25%	23%	36%	25%	27%	33%

Source: Dealogic as of March 31, 2025.
Note: Excludes offerings with gross proceeds below $20 million.
(1) Includes transactions where intra-day low fell more than 5.0% below offer price.

Venture Debt in Biopharma

Following a record year for venture debt[1] where volume hit an all-time high, new-issue activity for public biopharma companies cooled in the first quarter of 2025 amid uncertainty in the equity markets

Market Overview

- Increased market volatility and questions about the health of the overall economy caused new-issue loan volume for public biopharma companies to cool in the first quarter of 2025
- However, lofty growth expectations from VCs has been a tailwind for the broader venture debt market as borrowers look for alternative financing solutions
- An uptick in the number of venture debt lenders has led to a more competitive market with improved structures and terms, though this has been limited to higher-quality, performing companies
- The most favorable terms are being reserved for more established borrowers and those that recently raised equity
- Companies facing growth headwinds and those without a recent equity raise to tout are not getting the same looks as their high-performing counterparts
- Activity has largely been supported by direct lenders in an environment where commercial banks are facing regulatory pressures
- Average deal size rose sharply in 2024 with lenders patiently picking their spots, waiting for high-quality deals to emerge before deploying capital
- With a significant amount of dry powder available and its minimally dilutive nature, venture debt will continue to be an attractive source of capital in 2025

Q1 2025 Venture Debt[1] Financings for Public Biopharma Companies

($ in millions)

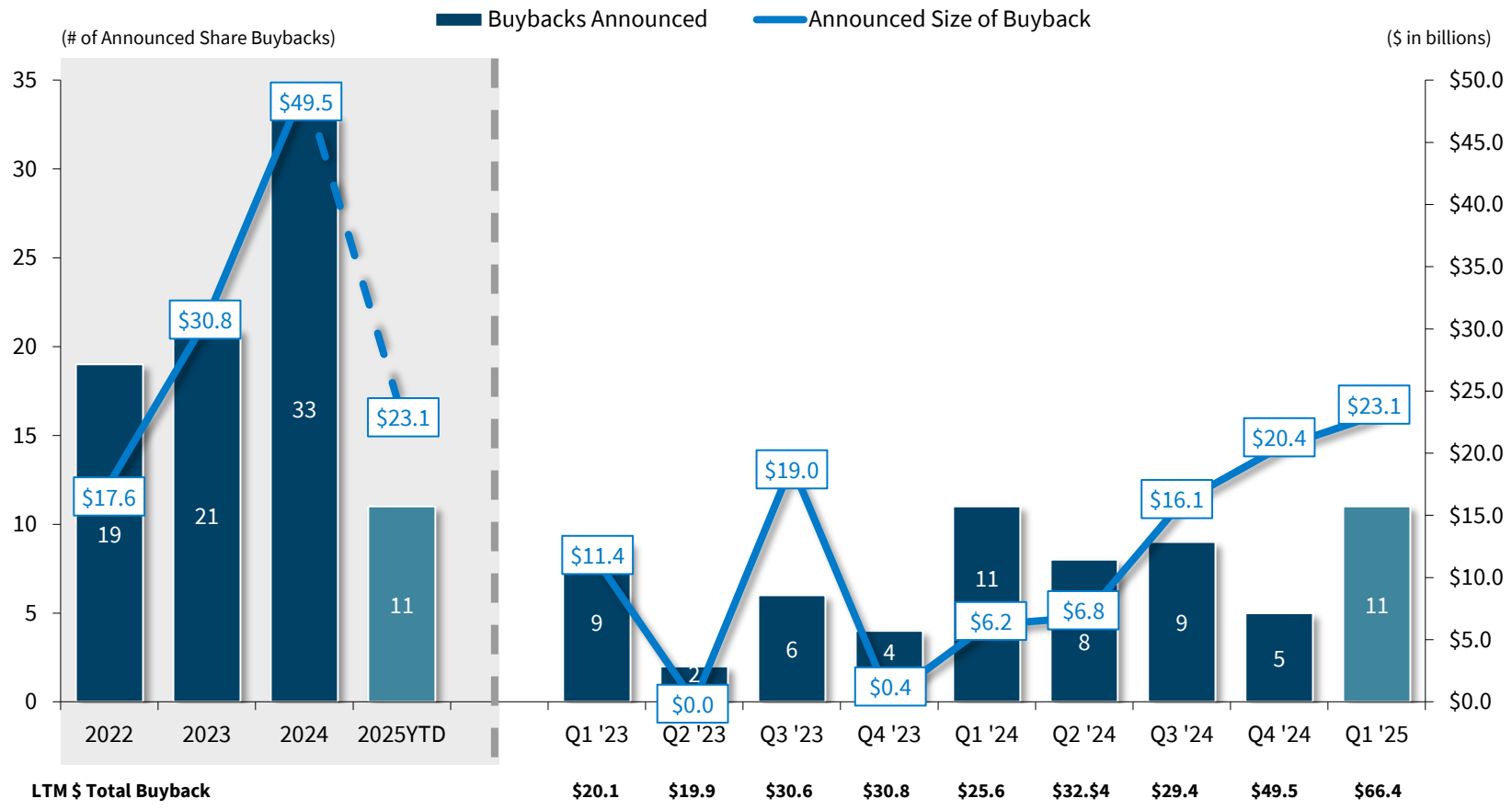
Date	Company	Available at Close	Total Facility[2]	Interest Rate	LTM at Close[3] Revenue	LTM at Close[3] EBITDA	Market Cap at Close	Debt / Mkt Cap	Facility / Mkt Cap	Phase of Development
3/26/25	SAVARA	$30	$200	8.95%	$0	($103)	$566	5.3%	35.4%	BLA Filed
3/12/25	ARMATA PHARMACEUTICALS	$10	$10	14.00%	$5	($40)	$68	14.6%	14.6%	Phase III Ready
3/5/25	CalciMedica	$10	$33	12.75%	$0	($22)	$29	34.8%	113.2%	Phase II
3/4/25	Nuvation Bio	$0	$100	10.32%	$8	($167)	$613	0.0%	16.3%	NDA Filed
1/13/25	INHIBRX	$100	$150	9.95%	$2	($301)	$197	50.6%	76.0%	Phase II/III
Mean		**$30**	**$99**	**11.19%**	**$3**	**($127)**	**$295**	**21.1%**	**51.1%**	
Median		**$10**	**$100**	**10.32%**	**$2**	**($103)**	**$197**	**14.6%**	**35.4%**	
Minimum		**$0**	**$10**	**8.95%**	**$0**	**($301)**	**$29**	**0.0%**	**14.6%**	
Maximum		**$100**	**$200**	**14.00%**	**$8**	**($22)**	**$613**	**50.6%**	**113.2%**	

Source: CapIQ, PitchBook Data, Inc., and SEC filings as of March 31, 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.

Biopharma Share Buyback Trends

Q1 2025 saw the largest total dollar value of announced share buybacks since Q1 2021. Many of the largest biopharma companies have implemented programs to signal confidence in their outlook and opportunistically return excess cash to shareholders, however these programs have potential to reduce overall M&A firepower

Buyback Announcements and Sizing



Q1 2025 Buyback Announcements by Size

Announcement Date	Company	Size ($ in millions)
1/28/25	MERCK	$10,000
1/30/25	sanofi	$5,212
2/4/25	REGENERON	$3,000
2/24/25	GSK	$2,527
1/30/25	Takeda	$648
3/25/25	Genmab	$578
2/20/25	EXELIXIS	$500
2/21/25	NEUROCRINE BIOSCIENCES	$500
3/24/25	AnaptysBio	$75
2/12/25	ascendis pharma	$18
3/3/25	allarity THERAPEUTICS	$5

Source: CapIQ as of March 31, 2025.
Note: Includes announced program size of all common stock share buybacks for US-listed biopharma companies. Includes market repurchases, negotiated buybacks, fixed price buybacks, and accelerated share repurchases. Excludes buybacks announced for less than $5.0 million USD.

2024-2025 Strategic Alternatives Outcomes and Restructurings

While strategic alternatives outcomes have slowed in Q1 2025, we expect reverse mergers to be active in 2025 given the large number of high-profile shells with significant capital

Strategic Alternatives Outcome	Q1 2024	Q2 2024	Q3 2024	Q4 2024	Q1 2025	Total
Reverse Merger Traditional reverse mergers with private companies	AVROBIO / TECTONIC	KINTARA / TUHURA / ARCA / ORUKA ONCONOVA / TRANSPHYTOX / Reneo / OnKure	VYOME / ReShape Lifesciences / -pieris- / palvelic HERON / NLS Pharmaceutics / KADMASTEM	GlycoMimetics, Inc. / CRESCENT / allo VIR / Kaleris aerovate / Jade / pulmatrix / cullgen CARA / tvardi / Keno / INMAGENE	Salarius PHARMACEUTICALS / DECOY therapeutics	**16 Deals**
Other Strategic Outcomes Includes program or full company buyouts, mergers, and/or in-licensings following strategic alternatives review	2seventybio / REGENERON / gamida cell / HIGHBRIDGE Comera / Existing Investors / ngmBIO / THE COLUMN GROUP KINNATE / XOMA	eliem / Tenet Medicines		lumos / DOUBLE POINT / KINETA / TUHURA Galecto / BRIDGE / Ara / PANNONIA ACHILLES / AstraZeneca / aclaris / BIOSION MARINUS / Immedica	ACELYRIN / alumis	**14 Deals**
Chapter 11/ Closure/ Delisting Voluntary delisting/ liquidation/ dissolving	Ampio / aravive / Athenyx / DMK Humanigen / INVIVO / neubase nanoString / soligenix	ACORDA / eFFECTOR / EIGER merrimack / vaxxinity	ASLAN / Galera VBI / TRACON	tem / gritstone ONCTERNAL / SELLOS ST THERAPEUTICS	OMEGA / SYROS viracta	**26 Co.'s**
# of Outcomes	16	10	8	17	5	56

Q1 2025 Biopharma Restructuring Announcements (N=38)

Pipeline Prioritizations

Adaptimmune*, ALX ONCOLOGY, Apellis, Arbutus BIOPHARMA, ATEA, BARINTHUS, bicatla, CRISPR THERAPEUTICS, CytomX THERAPEUTICS, Galápagos, generation bio, I-MAB BIOPHARMA, Intellia THERAPEUTICS, inventiva, Ironwood, nkarta, PassageBio, PYXIS ONCOLOGY, 32 BIO, REPARE THERAPEUTICS, SUTRO BIOPHARMA, TC BIOPHARM, X4 PHARMACEUTICALS, mAbs, zentalis

Restructurings Following Clinical/Regulatory Setbacks

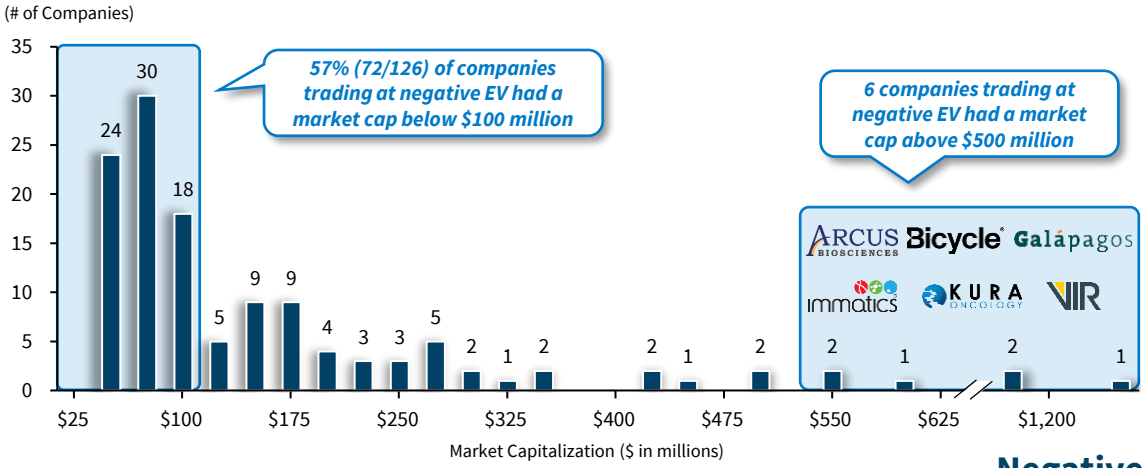
Allakos*, ATARA BIO, CARGO THERAPEUTICS*, carisma THERAPEUTICS*, CASSAVA sciences, ELEVATION ONCOLOGY*, igm biosciences*, LAVA THERAPEUTICS*, OMEGA, Third Harmonic Bio*, TURNSTONE BIOLOGICS*, VAXART, viracta*

Source: SEC Filings, Company Press Releases, and William Blair analysis as of March 31, 2025.
Note: * indicates companies which have also announced a strategic alternatives process. Restructuring announcements only include U.S.-listed SMID-cap biopharmas.
⬚ indicates companies which are officially winding down operations or have announced that they will do so.

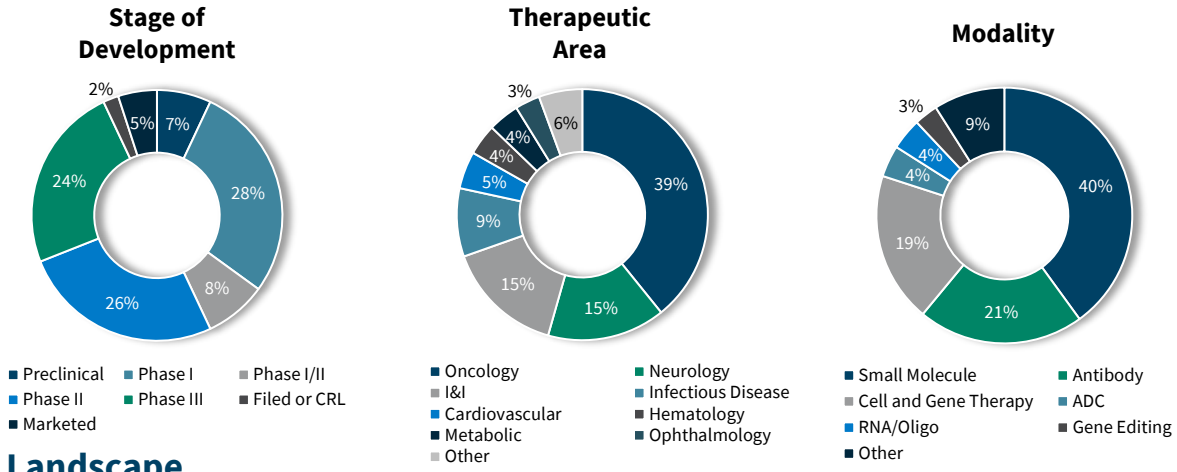
Analysis of Negative Enterprise Value (EV) Biopharma Companies

- 126 out of 452 U.S.-listed biopharma companies trading at negative EV, collectively holding ~$34B in net cash despite having a cumulative market cap of only ~$20B
- Over half of these companies have market caps less than $100 million; 43% early-stage and nearly 40% focused in oncology

Negative EV Companies by Market Cap



Breakdown of Negative EV Companies



Negative EV Landscape

35% (44/126) of negative EV companies announced a restructuring since 2024, with 10 of these announcing a strategic alternatives processes during the same period

alector, ALX ONCOLOGY, AN2Therapeutics, ATARA BIO, ATEA, BARINTHUS, BLACK DIAMOND THERAPEUTICS, BOUNDLESS BIO, C4Therapeutics, CENTURY, Compass, connect, CYTOMX THERAPEUTICS, editas, FOGHORN THERAPEUTICS, Galápagos, generation bio, HILLEVAX, I-MAB, Lexicon, nkarta, PMVPharma, PYXIS ONCOLOGY, Rallybio, RAPT, RELAY, REPARE THERAPEUTICS, SHATTUCK LABS, SPERO THERAPEUTICS, SUTRO BIOPHARMA, TENAYA, VIR, xilio, zentalis, Adaptimmune, CARGO THERAPEUTICS, CASSAVA sciences, ESSA, igm biosciences, ikena ONCOLOGY, KRONOS BIO, LAVA THERAPEUTICS, Sage Therapeutics, Third Harmonic Bio

4DMT, Acrivon, ACUMEN, Adicet Bio, ADVERUM, ALIGOS THERAPEUTICS, ALTO NEUROSCIENCE, AMARIN, ANNEXON biosciences, ANNOVIS, ARCUS BIOSCIENCES, artiva, ARVINAS, assembly bio, avalo THERAPEUTICS, Bicycle, BIOAGE, Cabaletta Bio, Caribou, celularity, CLIMBIO, context, CONTINEUM, CORBUS PHARMACEUTICALS, DESIGN THERAPEUTICS, entrada, Fate THERAPEUTICS, Fulcrum, immatics, INOVIO, inozyme, iTEOS, JASPER THERAPEUTICS, KEROS, KEZAR, KODIAK, KURA ONCOLOGY, kyverna, Larimar Therapeutics, LEXEO, Lyell, MACROGENICS, MBX, Mersana, Metagenomi, Monte Rosa Therapeutics, NEKTAR, Neumora, NEUROGENE, Olema, OnKure, ORAMED, PepGen, PERSPECTIVE, PLIANT, PRECISION BIOSCIENCES, Prelude, ProQR, PROTARA, SAGIMET, SCYNEXIS, septerna, SILENCE THERAPEUTICS, SOLID BIOSCIENCES, TANGO, TERNS, TSCAN, UpstreamBio, VANDA, ventyx BIOSCIENCES, verve, vigil, Vistagen, VOR, voyager, Werewolf THERAPEUTICS, XBiotech, Zenas BioPharma

Announced Restructuring (2024-2025YTD)

Announced Strategic Alternatives (2024-2025YTD)

Source: SEC Filings, Company Press Releases, and William Blair analysis as of March 31, 2025.
Note: Includes active US-listed public biotech companies with market capitalization above $25 million. Excludes companies with ongoing M&A processes. Early-stage defined as pre-Phase II.

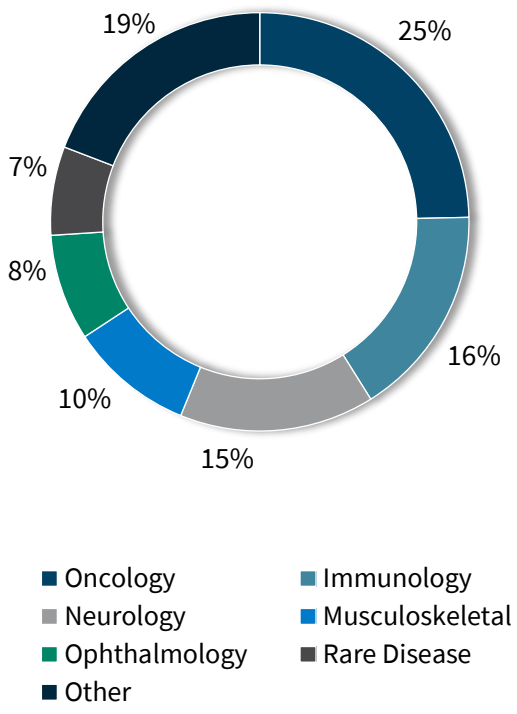
Q1 2025 SMID-Cap Clinical Catalysts Analysis

- Continued wave of negative SMID-cap clinical updates to start the 2025, including unexpected lead program discontinuations from recent IPO issuers, CARGO and Septerna
- Only 3 of the top 10 movers raised catalyst-driven equity offerings following data announcements

Key Takeaways

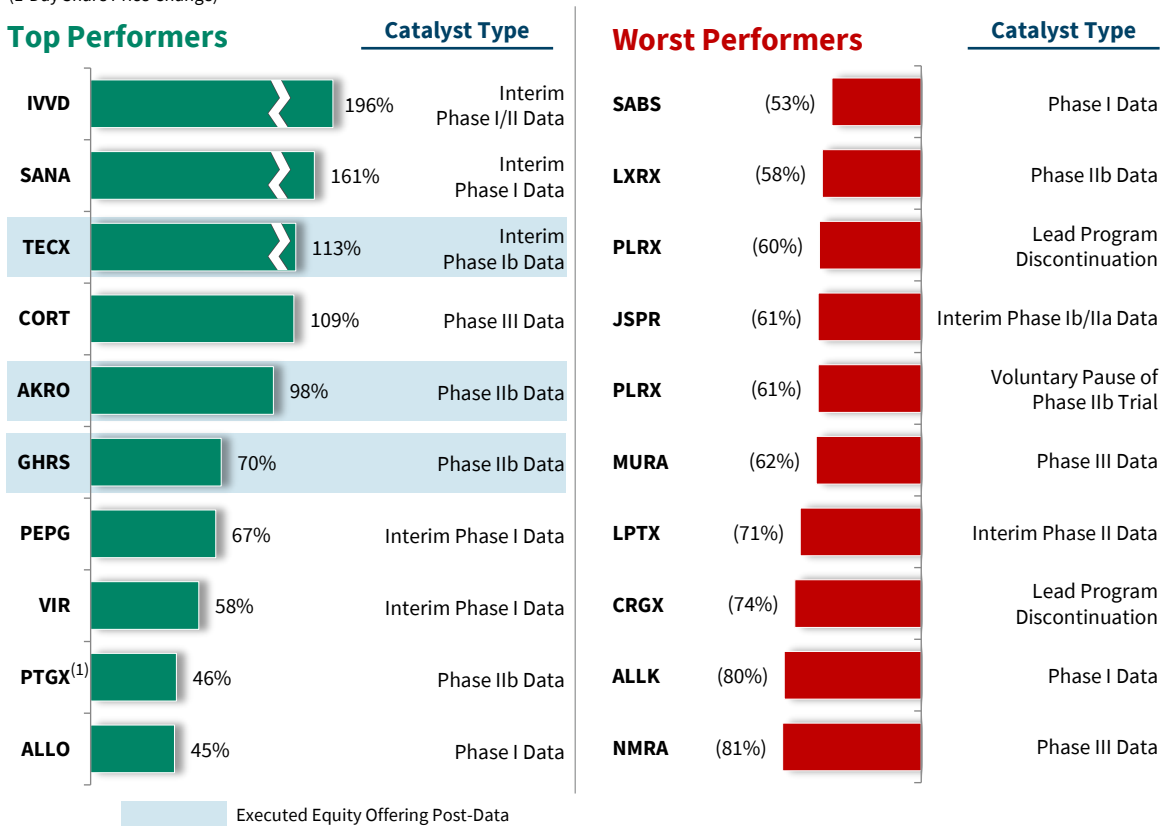
- William Blair analyzed 73 key clinical data readouts in Q1 2025 for U.S.-listed SMID-cap biopharma companies
- Average stock price performance for "positive" clinical data (N=55):
  - 1-day performance: **+13.2%**
  - 1-week performance: **+14.6%**
- Average stock price performance for "negative" clinical data (N=18):
  - 1-day performance: **(46.0%)**
  - 1-week performance: **(46.9%)**
- 14 pivotal / Phase III trial readouts – 8 were positive and 6 were negative
- Only ~$850 million in cumulative 1-day market cap **gained** across all SMID-cap clinical catalysts
  - Corcept was the largest positive catalyst (~$6 billion gained in 1-day market cap) while Vaxcyte was the largest negative (~$4 billion lost in 1-day market cap)

Breakdown by Therapeutic Area



Top 10 Positive/Negative Movers

(1-Day Share Price Change)

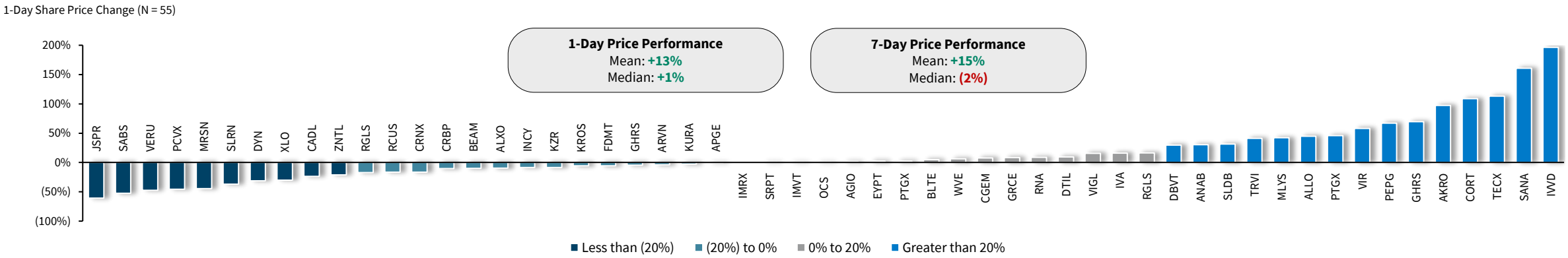


Source: FactSet, Company press releases, SEC Filings and William Blair analysis as of March 31, 2025.
Note: Includes biopharma companies listed on major U.S. exchanges with market capitalization >$25M and <$30 billion at the time of catalyst. Positive/negative based on Company press releases.
(1) Icotrokinra (JNJ-2113) partnered with J&J.

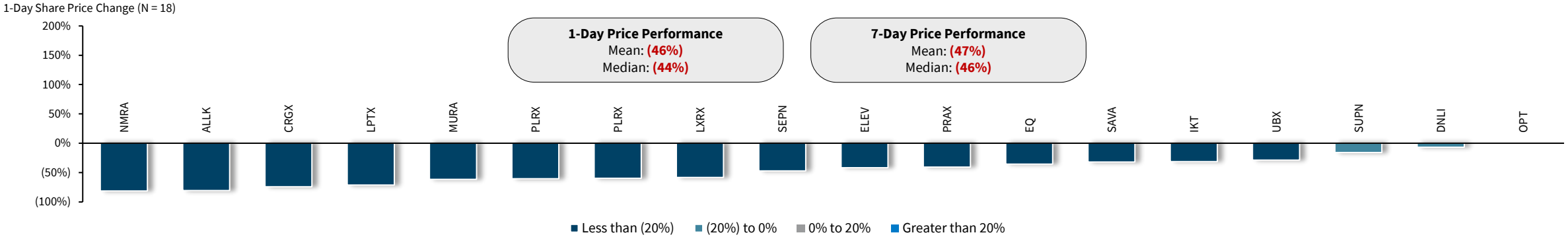
Q1 2025 Positive/Negative Clinical Catalyst Performance Detail

27% of positive clinical catalysts had a >20% one-day stock price movement, while 83% of negative clinical catalysts experienced a one-day price decline greater than 20%

Performance Following a Positive Clinical Catalyst



Performance Following a Negative Clinical Catalyst

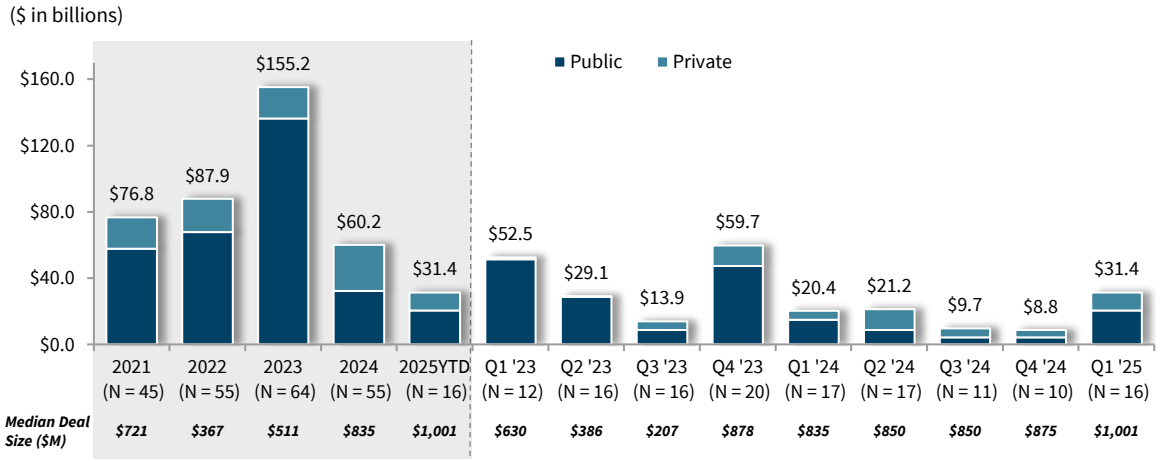


Source: FactSet, Company press releases, SEC Filings and William Blair analysis as of March 31, 2025.
Note: Includes biopharma companies listed on major U.S. exchanges with market capitalization >$25M and <$30 billion at the time of catalyst. Positive/negative based on Company press releases.

Q1 2025 Biopharma M&A Recap

- Total M&A deal value rebounded in Q1 2025 to $31 billion, largely driven by J&J's $14.6 billion acquisition of Intra-Cellular
- While public company M&A activity increased in Q1, many deals focused on consolidation of distressed assets
- The bluebird story concluded with both bluebird and 2seventy being acquired within 3 weeks of each other

Total Deal Value & Volume



Key Takeaways

- Uptick in median Q1 2025 total deal values and decline upfront values compared to 2024:
  - **Total Deal Value:** $1,000M in Q1 2025 (vs. $835M in 2024)
  - **Upfront (Cash + Equity):** $428M in Q1 2025 (vs. $684M in 2024)
  - **Milestones:** $150M in Q1 2025 (vs. $311M in 2024)
- J&J led with the largest deal, paying $14.6B for Intra-Cellular Therapies, a commercial-stage acquisition that expanded their presence in neuropsychiatry with the addition of CAPLYTA
- Public market M&A activity ramped up in Q1 2025, reaching the highest volume of biopharma public deals in the past four quarters; however, the median total deal size fell to just $423M—the lowest in over a decade
- Private market M&A median total deal size remains larger than public M&A for a 3rd consecutive quarter at $1.2B, as dual and even triple-track processes become the norm
- Surge in acquisitions of commercial-stage public companies, driven by spec pharma and new interest from private equity
  - 100% (8/8) of public M&A and 60% of all M&A (9/15) for companies with approved products or upcoming PDUFA dates
- Oncology attracted significant interest in Q1 2025, representing 38% (3/8) of public M&A and 47% of all M&A (7/15)

Q1 2025 M&A Activity Detail

Public Company Transactions

Date	Target	Acquiror	Total Deal Value	Upfront Cash	Upfront Equity	Premium to Last Unaffected Date	Phase	Therapeutic Area	Modality
3/19/25	optinose	PARATEK	$330	$212	$212	50%	Marketed	Spec Pharma, Immunology	Small Molecule
3/13/25	endo	Mallinckrodt	$3,423	$80	$3,343	-	Marketed	Spec Pharma	Small Molecule
3/10/25	2seventybio	Bristol Myers Squibb	$286	$286	-	88%	Marketed	Oncology	Cell Therapy
3/9/25	Checkpoint	SUN PHARMA	$416	$355	-	66%	Marketed	Oncology	Monoclonal Antibody
3/5/25	CHIMERIX	Jazz Pharmaceuticals	$935	$935	-	72%	Filed	Oncology	Small Molecule
2/21/25	bluebirdbio	CARLYLE / SK CAPITAL	$96	$29	-	(57%)	Marketed	Hematology, Rare Disease	Gene Therapy
2/20/25	mayo pharma	Cosette	$430	$430	-	37%	Marketed	Spec Pharma	Small Molecule
1/13/25	Intra-Cellular THERAPIES	Johnson&Johnson	$14,600	$14,600	-	39%	Marketed	Neurology	Small Molecule

Private Company Transactions

Date	Target	Acquiror	Total Deal Value	Total Upfront	Phase	Therapeutic Area	Modality
3/20/25	adrenbio (DR-0201)	sanofi	$1,900	$600	Phase I	Immunology	Bispecific Antibody
3/17/25	araris	TAIHO PHARMA	$1,140	$400	Preclinical	Oncology	ADC
3/17/25	EsoBiotec	AstraZeneca	$1,000	$425	Preclinical	Oncology	*in vivo* Cell Therapy
3/11/25	Paladin	Knight	$135	$120	Marketed	Spec Pharma	NA
2/11/25	ANTHOS	NOVARTIS	$3,100	$925	Phase III	Cardiometabolic	Monoclonal Antibody
1/13/25	SCORPION (STX-478)	Lilly	$2,500	ND	Phase I/II	Oncology	Small Molecule
1/13/25	IDRx	GSK	$1,150	$1,000	Phase I/Ib	Oncology	Small Molecule

Source: PitchBook Data, Inc., Company press releases and websites as of March 31, 2025.
Note: M&A activity includes biopharma deals with disclosed total deal value of $20M+. ND = Not Disclosed.

Summary of Investor Capital Returned from Q1 2025 Public Biopharma Acquisitions

Public biopharma acquisitions announced in Q1 2025 freed up an estimated $12.0 billion in institutional investor capital, largely driven by Johnson & Johnson's acquisition of Intra-Cellular Therapies

($ in millions)

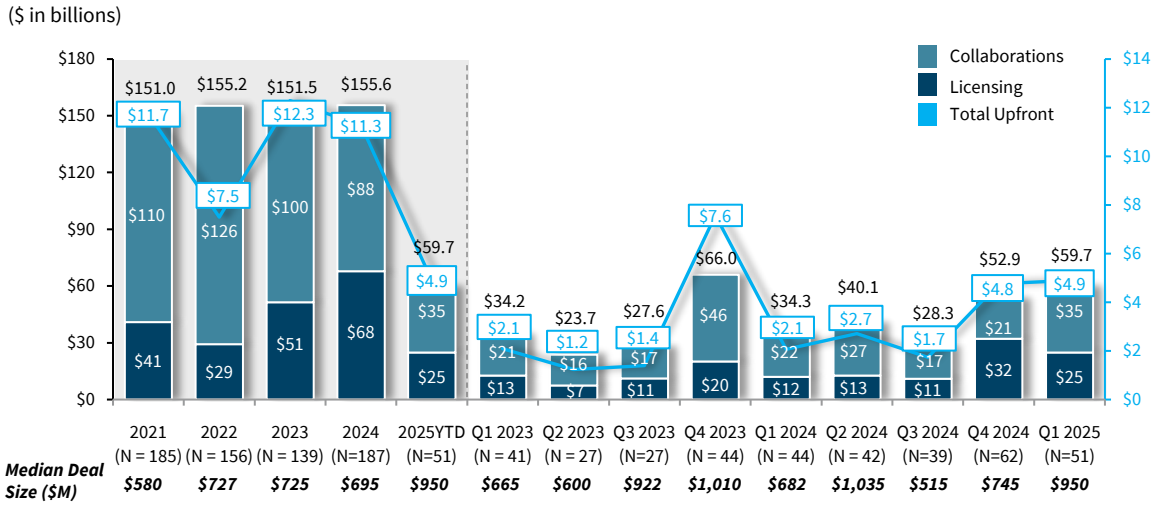
#	Institution	Total Estimated Capital Returned to Fund[1]	CHIMERIX	Intra-Cellular THERAPIES
1	BlackRock Fund Advisors	$710.4	✓	✓
2	JPMorgan IM, Inc.	$581.9		✓
3	Wasatch Advisors LP	$428.8		✓
4	Norges Bank Investment Management	$424.1		✓
5	Avoro Capital Advisor LLC	$402.6		✓
6	Invesco Advisers, Inc.	$388.1		✓
7	Fidelity Management & Research Co. LLC	$355.7	✓	✓
8	Bellevue Asset Management AG	$322.1		✓
9	Deep Track Capital LP	$264.0		✓
10	ClearBridge Investments LLC	$222.6		✓
11	Pictet Asset Management SA	$203.3		✓
12	Franklin Advisers, Inc.	$200.0		✓
13	Suvretta Capital Management LLC	$190.0		✓
14	GW&K Investment Management LLC	$183.1		✓
15	Perceptive Advisors LLC	$170.1		✓
16	Marshall Wace LLP	$161.5	✓	✓
17	Westfield Capital Management Co. LP	$160.9		✓
18	Holocene Advisors, LP	$158.2		✓
19	AllianceBernstein LP	$139.5		✓
20	Wellington Management Co. LLP	$130.9		✓
21	Raymond James & Associates, Inc.	$120.8	✓	✓
22	Charles Schwab IM, Inc.	$120.1	✓	✓
23	TimesSquare Capital Management LLC	$110.9		✓
24	First Trust Advisors LP	$101.1		✓
25	DWS Investment GmbH	$92.4		✓
26	Millennium Management LLC	$90.6	✓	✓
27	Adage Capital Management LP	$89.5	✓	✓
28	Hood River Capital Management LLC	$81.2		✓
29	RA Capital Management LP	$75.2	✓	
30	Principal Global Investors LLC	$72.7		✓

Source: FactSet and William Blair Analysis as of March 31, 2025.
Note: The analysis does not include insiders, index funds, private brokerages, retail, strategic investors, and non-filers. $ value position calculated based on Q4 2024 publicly disclosed institutional ownership of target company multiplied by announced per share acquisition price, excluding contingencies. Excludes deals <$500 million in upfront cash.
(1) Total estimated capital in millions returned to fund based on the cumulative $ value position of all target companies for shareholders.

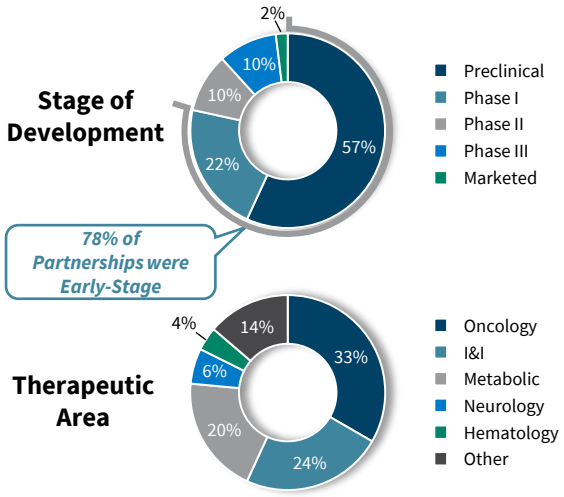
Q1 2025 Biopharma Partnership Trends

Partnering activity has improved YoY with 51 transactions announced in Q1 2025 for $4.9 billion in upfront value and $59.7 billion in total deal value; amylin-focused deals in the obesity space accounted for the two largest partnerships by upfront value this quarter

Total Deal Value and Volume



Breakdown of Deals in Q1 2025



Most Active Partners in Q1 2025

($ in millions)

		Total Upfront	Total TDV
novo nordisk	5	$515	$8,029
abbvie	4	$402	$4,377
AstraZeneca	3	$400	$9,500
Lilly	3	$40	$2,706
Roche	3	$1,766	$7,366
MERCK	2	$200	$1,977
NOVARTIS	2	$80	$1,858

Key Takeaways

Licensing (N=28)

- Median deal terms for licensing agreements in Q1 2025:
  - **Total Deal Value:** $885M in Q1 2025 (vs. $610M in 2024)
  - **Upfront (Cash+Equity):** $47M in Q1 2025 (vs. $45M in 2024)
  - **Milestones:** $786M in Q1 2025 (vs. $673M in 2024)
- AbbVie emerged as a new entrant to the metabolic space through a licensing deal with Gubra
- Small molecule deals only comprised 21% of licensings in Q1 2025, down from 39% in 2024
- 36% of licensing deals were for preclinical-stage programs

Collaborations (N=23)

- Median deal terms for collaborations in Q1 2025:
  - **Total Deal Value:** $1,058M in Q1 2025 (vs. $755M in 2024)
  - **Upfront (Cash+Equity):** $70M in Q1 2025 (vs. $46M in 2024)
  - **Milestones:** $1,125M in Q1 2025 (vs. $810M in 2024)
- Metabolic deals represented 21% of collaborations in Q1 2025, up from only 12% in 2024
- 87% of collaborations were early-stage this quarter, with a median upfront of $52M (85% of early-stage deals were platform-focused)

Top 5 Partnerships by Total Upfront in Q1 2025

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
3/3/25	gubra	abbvie	$2,225	$350	$1,875	Phase I	Metabolic	Peptide	Amylin
3/21/25	HARBOUR BIOMED	AstraZeneca	$4,680	$280	$4,400	Preclinical	I&I, Oncology	Multispecific Antibody	ND
3/11/25	IONIS	ONO PHARMA	$940	$280	$660	Phase II	Hematology	ASO	TMPRSS6
1/11/25	LEO	GILEAD	$1,950	$250	$1,700	Preclinical	I&I	Small Molecule	ND

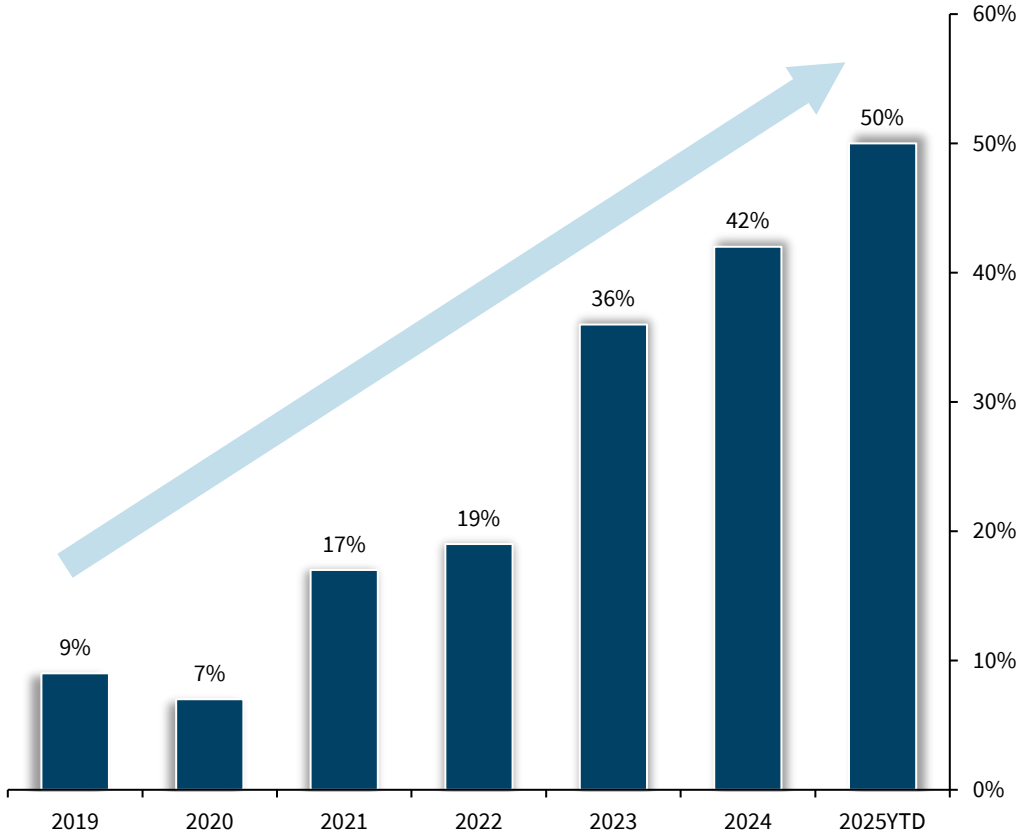
Source: Company press releases and SEC filings as of March 31, 2025.
Note: Excludes regional partnerships, partnerships with undisclosed deal terms, and partnerships with deal terms less than $20M. Early-stage partnerships defined as Phase I or earlier. Upfront includes near-term milestones.

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

- Assets originated in Asia drove over $4 billion[1] in upfront payments since 2024 as large pharma companies increasingly look towards the East for assets, with the majority of activity focused on fast follower / best-in-class programs for validated targets
- Q1 2025 saw the launch of 6 new biotech companies sourcing their lead assets from Asian licensors

Large Pharma is Sourcing Half of External Molecules from Asia[2]

(% of large pharma in-licensing activity)



Q1 2025 Activity with Asian Licensors[3]

New Company Formations

SCIWIND / Verdiva Bio	$411M *(Series A)* — Peptide, Phase II Ready, Target: GLP-1	
HARBOUR BIOMED / KELUN-BIOTECH / Windward Bio	$200M *(Series A)* — Antibody, Phase II Ready, Target: TSLP	
Hummingbird Bioscience / callio THERAPEUTICS	$187 *(Series A)* — ADC, Preclinical, Target: HER2	
康诺亚 Keymed Biosciences / TIMBERLYNE THERAPEUTICS	$180 *(Series A)* — Antibody, Phase I/II Complete, Target: CD38	
康诺亚 Keymed Biosciences / OURO MEDICINES	$120 *(Series A)* — Bispecific TCE, Phase 2, Target: BCMAxCD3	
HARBOUR BIOMED / Élancé Therapeutics	Financing ND — Bispecific Antibody, Preclinical, Targets: ND	

Top Large Pharma Asset-Focused Licensings by Upfront and Year

聯邦制藥 UNITED LABORATORIES / novo nordisk	$2,000M *($200M Upfront)* — Peptide, Phase Ib Complete, Targets: GLP-1, GIP, GCG	
HENGRUI / MERCK	$1,977M *($200M Upfront)* — Small Molecule, Phase 2, Target: Lp(a)	
Innovent / Roche	$1,080M *($80M Upfront)* — Bispecific Antibody, Phase I/II, Targets: CD3xCD19	
Kyorin / NOVARTIS	$833M *($55M Upfront)* — Small Molecule, Preclinical, Target: MRGPRX2	

Source: Company press releases and SEC filings as of March 31, 2025.

(1) Includes upfront payments from asset-focused partnerships and asset acquisitions involving a large pharma licensee and Asia-headquartered licensor occurring since 2024. Upfronts include near-term milestones.

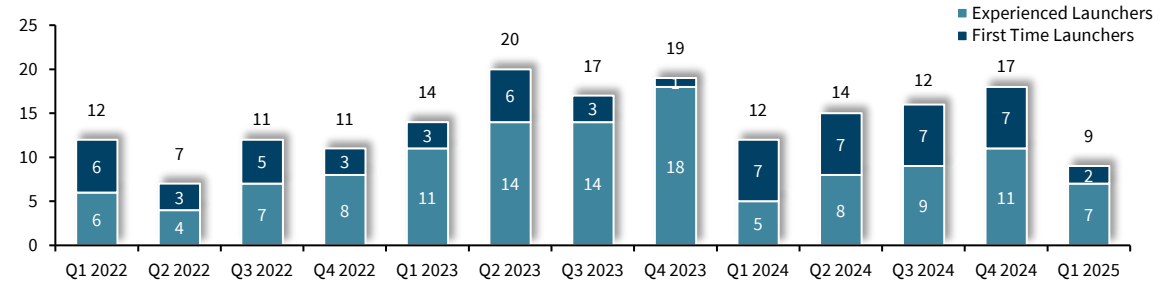
(2) Includes asset-focused partnerships and asset acquisitions with an upfront size of at least $50 million, involving large pharma licensees and Asia-headquartered licensors.

(3) Licensing transactions ordered by upfront payment size. New company formations shown in order of total deal size. ND = Not Disclosed.

FDA Approval and First-Time Launcher (FTL) Trends

- Despite a slower quarter for FDA approvals with 2 FTLs (Neurotech and Soleno) and 7 experienced launchers, 25 key PDUFAs are on the horizon for SMID-cap biopharma companies in 2025
- FTLs from the last two years continue to have strong launches, with more than half beating consensus estimates(1)

FDA Approvals by Quarter



Select Upcoming 2025 SMID-Cap PDUFA Dates

Company	Product	Indication	Modality	PDUFA Date
Aldeyra	Reproxalap	Dry eye disease	Small Molecule	4/2/2025
Abeona	Pz-cel	Recessive dystrophic epidermolysis bullosa	Cell Therapy	4/29/2025
Urogen	Mitomycin	Low-grade intermediate-risk NMIBC	Small Molecule	6/13/2025
KalVista	Sebetralstat	Hereditary angioedema	Small Molecule	6/17/2025
Nuvation	Taletrectinib	Advanced ROS1+ NSCLC	Small Molecule	6/23/2025
Unicycive	OLC	Hyperphosphatemia in CKD	Small Molecule	6/28/2025
Fortress	CUTX-101	Menkes disease	Small Molecule	9/30/2025
Verastem	Avutometinib+Defactinib	KRAS-mutant LGSOC	Small Molecule	6/30/2025
Replimune	RP1	Advanced melanoma	Oncolytic Virus	7/22/2025
PTC	Sepiapterin	Phenylketonuria	Small Molecule	7/29/2025
Lenz	Aceclidine	Presbyopia	Small Molecule	8/8/2025
Insmed	Brensocatib	Non-cystic fibrosis bronchiectasis	Small Molecule	8/12/2025
Tonix	TNX-102	Fibromyalgia	Small Molecule	8/15/2025
Chimerix	Dordaviprone	H3 K27M-mutant diffuse glioma	Small Molecule	8/18/2025
Ultragenyx	UX111	MPS type IIIA	Gene Therapy	8/18/2025
PTC	Vatiquinone	Friedreich's ataxia	Small Molecule	8/19/2025
Ionis	Donidalorsen	Hereditary angioedema	Oligonucleotide	8/21/2025
Precigen	PRGN-2012	Recurrent respiratory papillomatosis	Gene Therapy	8/27/2025
Capricor	Deramiocel	Duchenne muscular dystrophy	Cell Therapy	8/31/2025
Scholar Rock	Apitegromab	Spinal muscular atrophy	Antibody	9/22/2025
Crinetics	Paltusotine	Acromegaly	Small Molecule	9/25/2025
Cytokinetics	Aficamten	Obtrusive hypertrophic cardiomyopathy	Small Molecule	9/26/2025
Glaukos	Epioxa	Keratoconus	Cell Therapy	10/20/2025
Arrowhead	Plozasiran	Familial chylomicronemia syndrome	RNAi	11/18/2025
Corcept	Relacorilant	Cushing's syndrome	Small Molecule	12/30/2025

56% of Recent FTLs Beat Consensus Estimates (2023-2025YTD)(1)

Product	Company	Indication	2025 Share Price %Δ	Share Price %Δ Since Approval	Approval Date	Total Sales to Date ($M)	*Sales vs. Consensus Estimates*
Ogsiveo	SpringWorks	Desmoid Tumors	22%	112%	11/27/2023	$177	392%
Xdemvy	Tarsus	Demodex Blepharitis	(7%)	185%	7/23/2023	$195	187%
Ojemda	Day One	pLGG	(37%)	(52%)	4/23/2024	$57	169%
Anktiva	ImmunityBio	BCG-Unresponsive NMIBC	18%	(39%)	4/22/2024	$14	158%
Vyjuvek	Krystal	COL77A1-mutated Dystrophic Epidermolysis Bullosa	15%	88%	5/19/2023	$341	140%
Lumryz	Avadel	Cataplexy or Excessive Daytime Sleepiness	(25%)	(33%)	5/1/2023	$197	134%
Ohtuvayre	Verona Pharma	Respiratory Tract Infections	37%	332%	6/26/2024	$42	128%
Rytelo	geron	Myelodysplastic Syndrome	(55%)	(59%)	6/6/2024	$77	123%
Amtagvi	IOVANCE BIOTHERAPEUTICS	Metastatic Melanoma	(55%)	(64%)	2/16/2024	$104	120%
Mean (N=9)			**(10%)**	**52%**		**$134**	
Median			**(7%)**	**(33%)**		**$104**	

Source: FDA.gov, Company press releases, SEC Filings, CapitalIQ, and William Blair analysis as of March 31, 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) As a percentage of 2023-2025YTD FTLs with disclosed product sales. Consensus estimates reflect annual sales forecasts 6 months prior to launch, divided equally on a per-quarter basis and compared to corresponding quarterly product sales.

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