

EMERGING TECH RESEARCH

Biopharma VC Trends

VC activity across the biopharma ecosystem

Q2
2025





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Biopharma landscape

- 1 Mature modalities
- 2 Advanced modalities
- 3 Emerging modalities

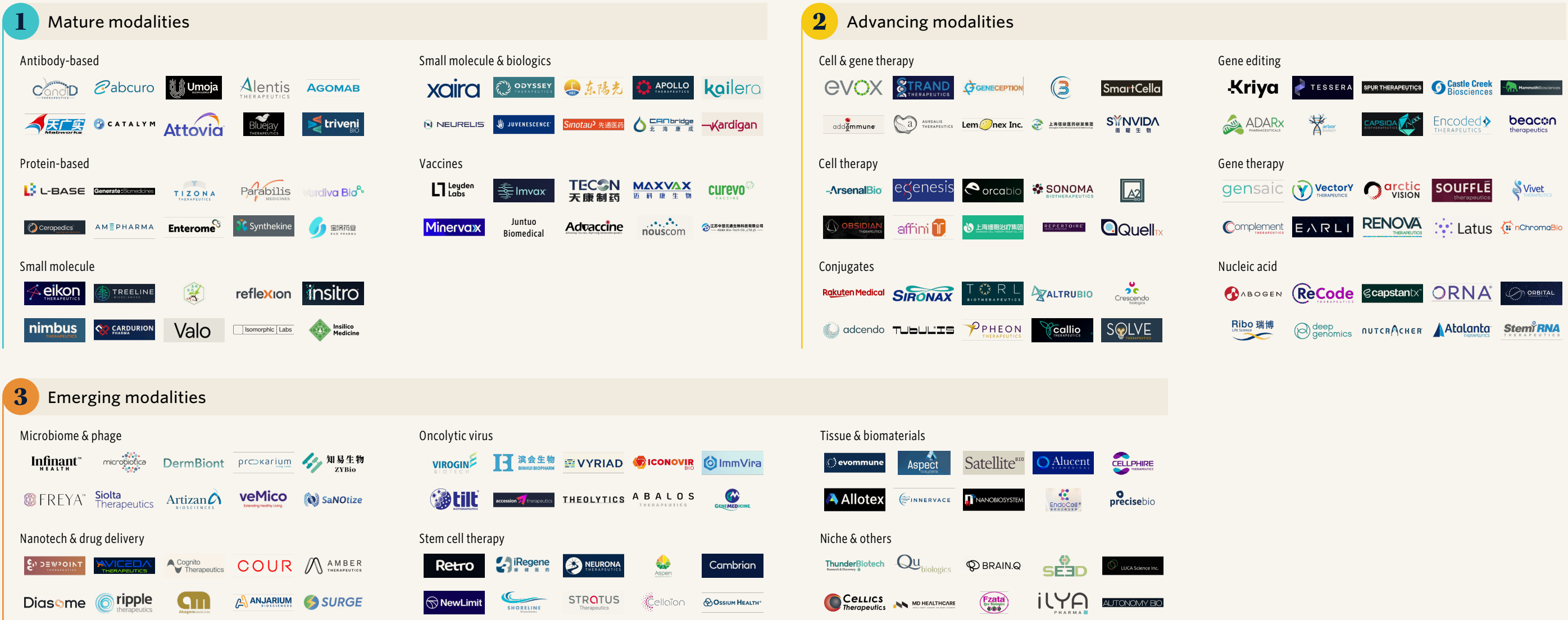




Biopharma VC ecosystem market map

This market map is an overview of venture-backed or growth-stage companies that have received venture capital or other notable private investments as of Q2 2025.

[Click to view the latest interactive map on the PitchBook Platform.](#)



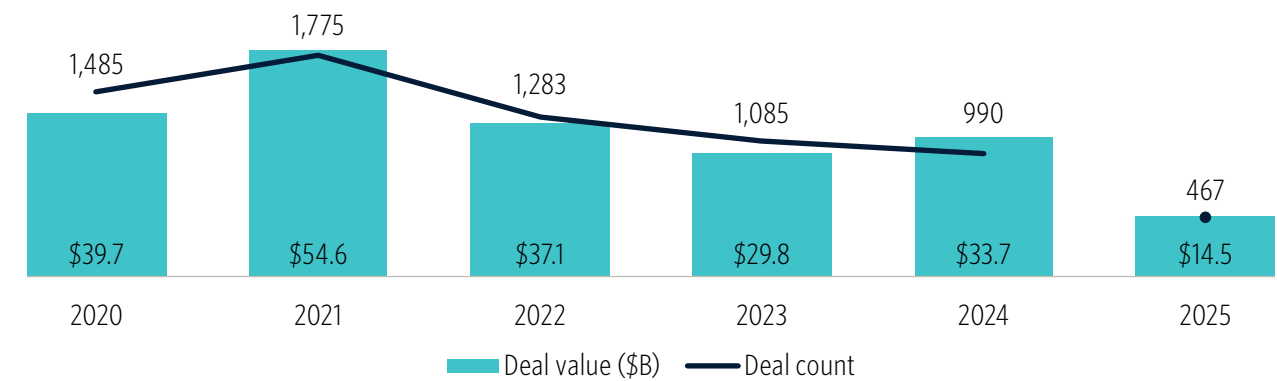


VC activity

In Q2 2025, biopharma VC investment totaled \$5.4 billion across 198 deals—both the lowest quarterly figures recorded since data tracking began in 2020. Persistent headwinds for both the broader VC asset class and the biopharma sector specifically have contributed to a steady decline in investment since activity peaked in 2021. Across industries, VC investors are prioritizing capital efficiency, investing in startups with faster exit timelines, and focusing on high-growth technologies such as AI. Within biopharma, this risk-off sentiment has shifted investment away from high-risk preclinical assets. Instead, capital is being consolidated in larger deals for assets that have demonstrated clinical trial success, as well as startups deploying AI to reduce research & development costs. Additionally, staffing cuts and evolving guidelines in the Food and Drug Administration have increased uncertainty around approval timelines, adding further risk to an already cautious investing environment.

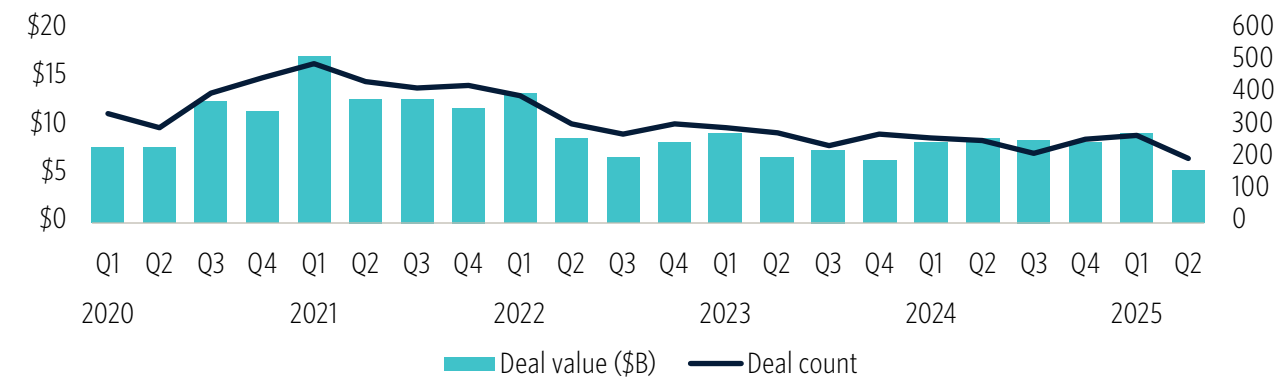
Through the first half of 2025, biopharma VC funding totaled \$14.5 billion across 467 deals, marking 14% and 9.7% declines, respectively, from H1 2024. On a trailing 12-month (TTM) basis, deal counts are down 8.6% YoY, while total funding is up 1.7%. With investors flocking to de-risked assets, the median pre-money valuation reached \$54 million in Q2, compared with \$42 million across 2024. However, median deal values have stayed flat, indicating investors are willingly to pay a premium for differentiated assets with faster exit timelines in the current environment.

Biopharma VC deal activity



Source: PitchBook • Geography: Global • As of June 30, 2025

Biopharma VC deal activity by quarter



Source: PitchBook • Geography: Global • As of June 30, 2025



VC ACTIVITY

Notable deals

Pathos closed the largest deal of the quarter, raising a \$365 million Series D at a \$1.6 billion valuation—a 2.1x valuation step-up from its previous round in October 2024. The startup is utilizing its AI-driven precision medicine platform to accelerate development and optimize clinical trials for assets previously licensed from Novo Nordisk and Prelude Therapeutics.¹ With investors exhibiting caution in the current funding environment, startups deploying AI to advance drug development, particularly of in-licensed or acquired clinical-stage assets, are gaining traction for their reduced costs and potential for shorter approval timelines. In a similar example, Kardigan raised \$300 million in Q1 to support its AI-driven development of acquired cardiovascular assets.

NewLimit's \$130 million Series B was the largest round for a preclinical startup. The deal values the company at \$825 million, a 4.1x step-up from its previous round in January 2025. The company, co-founded by Coinbase CEO Brian Armstrong, is deploying epigenetic reprogramming to rejuvenate aging cells and prevent age-related disease.² With Altos Labs and Retro also raising significant capital for cellular-reprogramming-based longevity solutions, the category has defied the broader market shift away from preclinical assets. Other notable Q2 deals included \$150 million for Juvenescence, developer of clinical-stage small molecules and biologics to treat age-related conditions, and Antares Therapeutics, which closed a \$177 million Series A to advance its clinical-stage oncology pipeline.

1: "Pathos AI Secures \$365M Series D to Fund Trial of Novo Nordisk Solid Tumor Drug," Fierce Biotech, James Waldron, May 15, 2025.

2: For a deeper dive into longevity biopharma and epigenetic reprogramming see our [Emerging Space Brief: Longevity Tech](#).

Exit activity

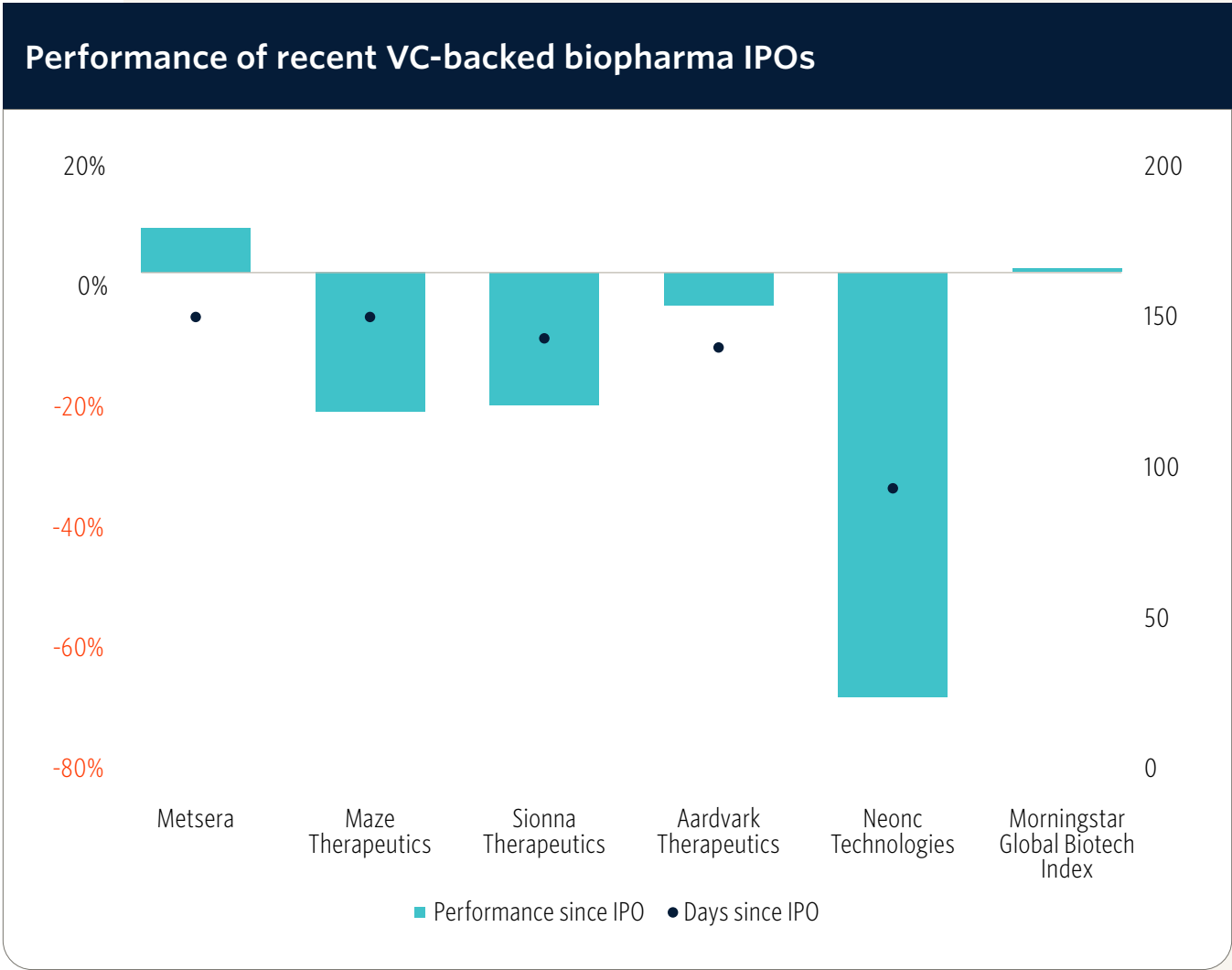
IPO activity in Q2 highlighted the divergent trends between US and Asia-Pacific (APAC) biopharma markets. While three Chinese biopharma startups listed on the Hong Kong Stock Exchange and three South Korean startups went public on the Korean Stock Exchange, the US saw only one public listing in Q2—a reverse merger that placed Tvardi Therapeutics on the NASDAQ. Notably, Q2 marks the first quarter in our dataset without a US biopharma IPO. As discussed in our [2025 APAC Healthcare Market Snapshot](#), large public listings for APAC healthcare startups have been largely nonexistent in recent years. But the region's biopharma sector has experienced rapid development, with major US and European pharma companies committing billions to license Chinese assets. This momentum has enabled APAC biopharma startups to defy the muted exit environment, as DualityBio, PegBio, and TransThera Bioscience collectively raised \$2.2 billion from public listings in Q2.

In contrast, US startups are facing a more uncertain exit landscape. The Morningstar US Biotech Index fell 20% YoY at the end of Q2, and while the five US biopharma IPOs in Q1 suggested a cautious reopening, market reception to the new entrants has been subdued, with share prices remaining flat or declining through the quarter. With only 14 public listings globally through Q2, 2025 is on pace to fall well below the 2020-2024 average of 83.



VC ACTIVITY

M&A activity remained robust in Q2, with eight transactions completed in the quarter. The top deal of the quarter was AstraZeneca’s \$1 billion acquisition of EsoBiotec, developer of a clinical stage in vivo cell therapy. While not included in the Q2 data as the deal has yet to close, AbbVie’s pending \$2.1 billion acquisition of Capstan Therapeutics marks a second major acquisition in the emerging in vivo cell therapy space. Both EsoBiotec’s and Capstan’s platforms deliver genetic payloads directly to T cells, bypassing the need for ex vivo cell manipulation in CAR-T cell therapy. Eli Lilly also completed a \$1 billion acquisition, with the purchase of SiteOne Therapeutics, developer of small-molecule inhibitors for chronic pain. With IPO opportunities still limited, M&A activity is expected to remain strong, particularly for clinical-stage assets with therapeutic differentiation.

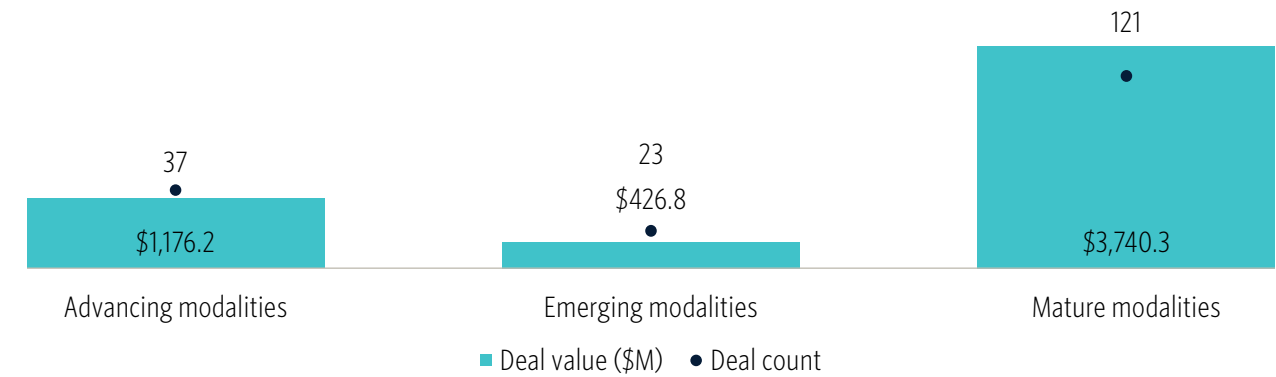


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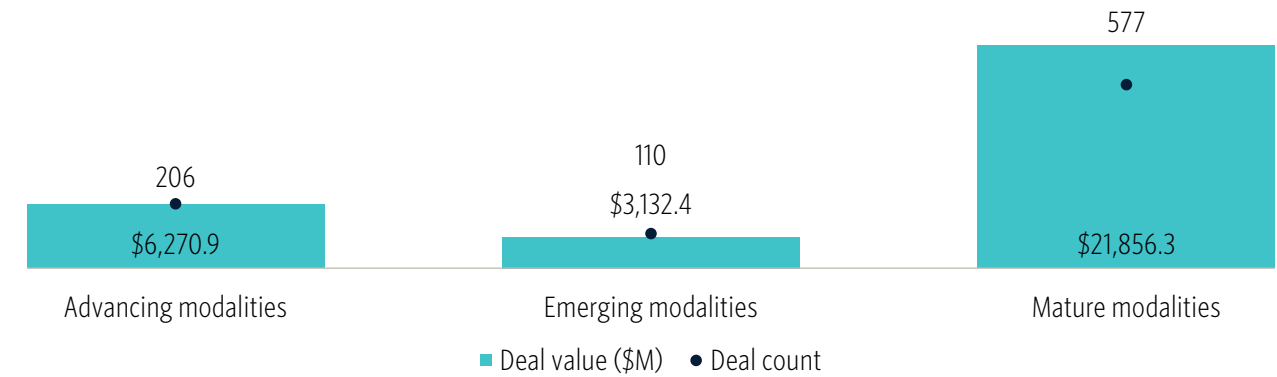
VC ACTIVITY

Q2 2025 biopharma VC deal activity by segment



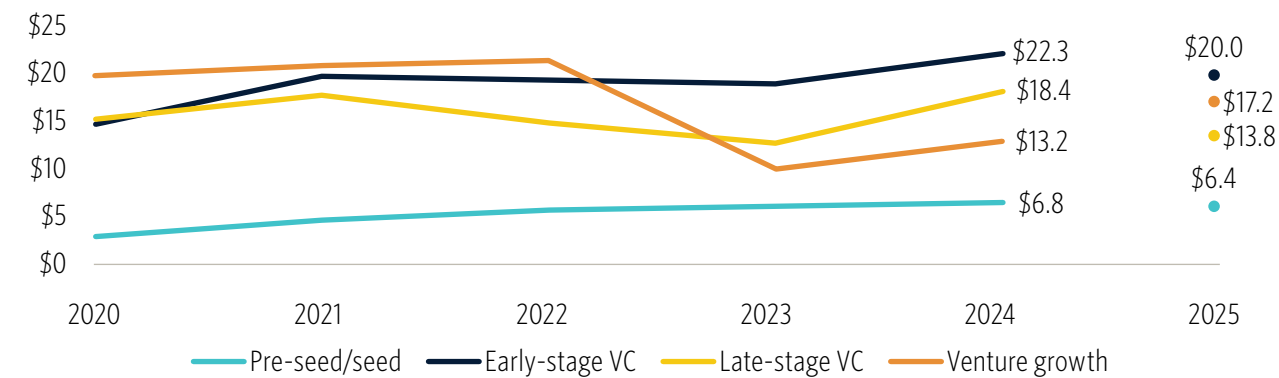
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TTM biopharma VC deal activity by segment



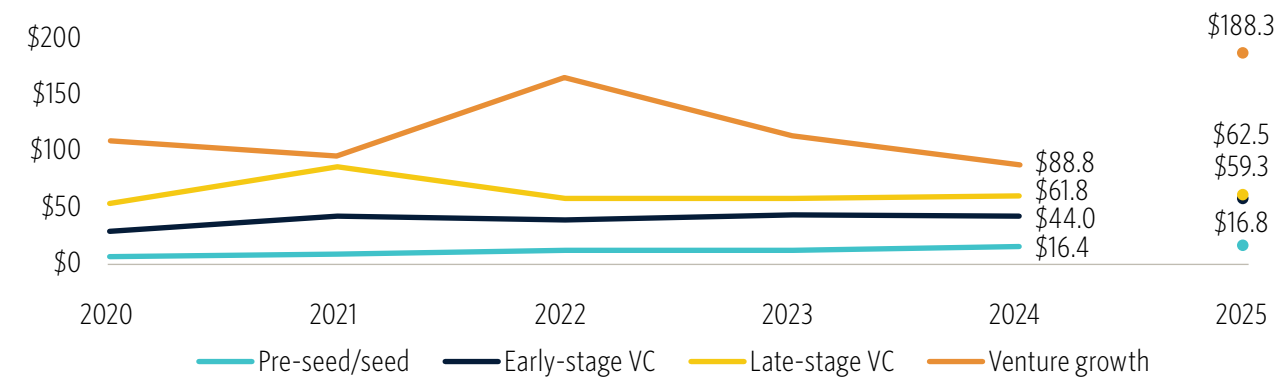
Source: PitchBook • Geography: Global • As of June 30, 2025

Median biopharma VC deal value (\$M) by stage



Source: PitchBook • Geography: Global • As of June 30, 2025

Median biopharma VC pre-money valuation (\$M) by stage

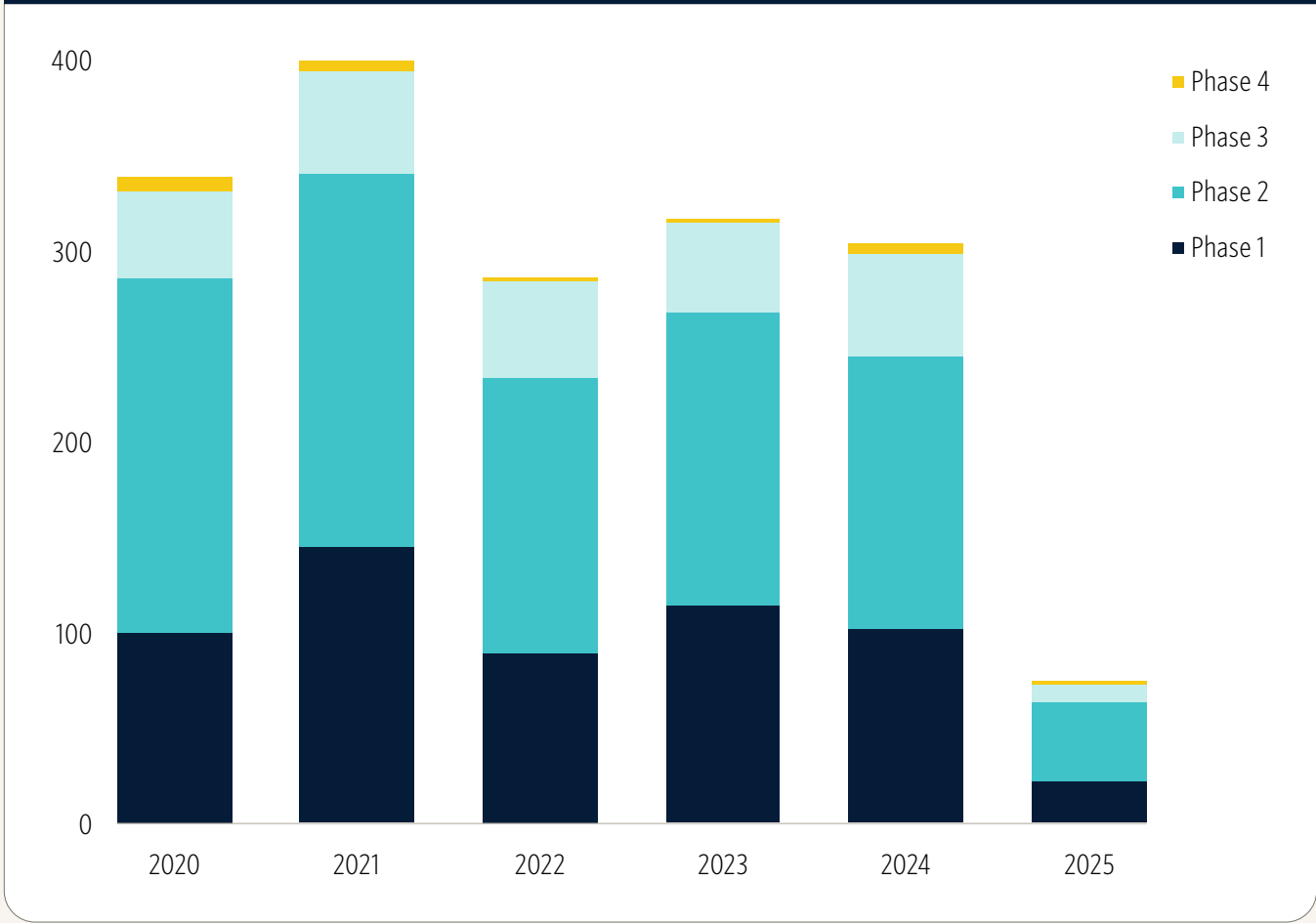


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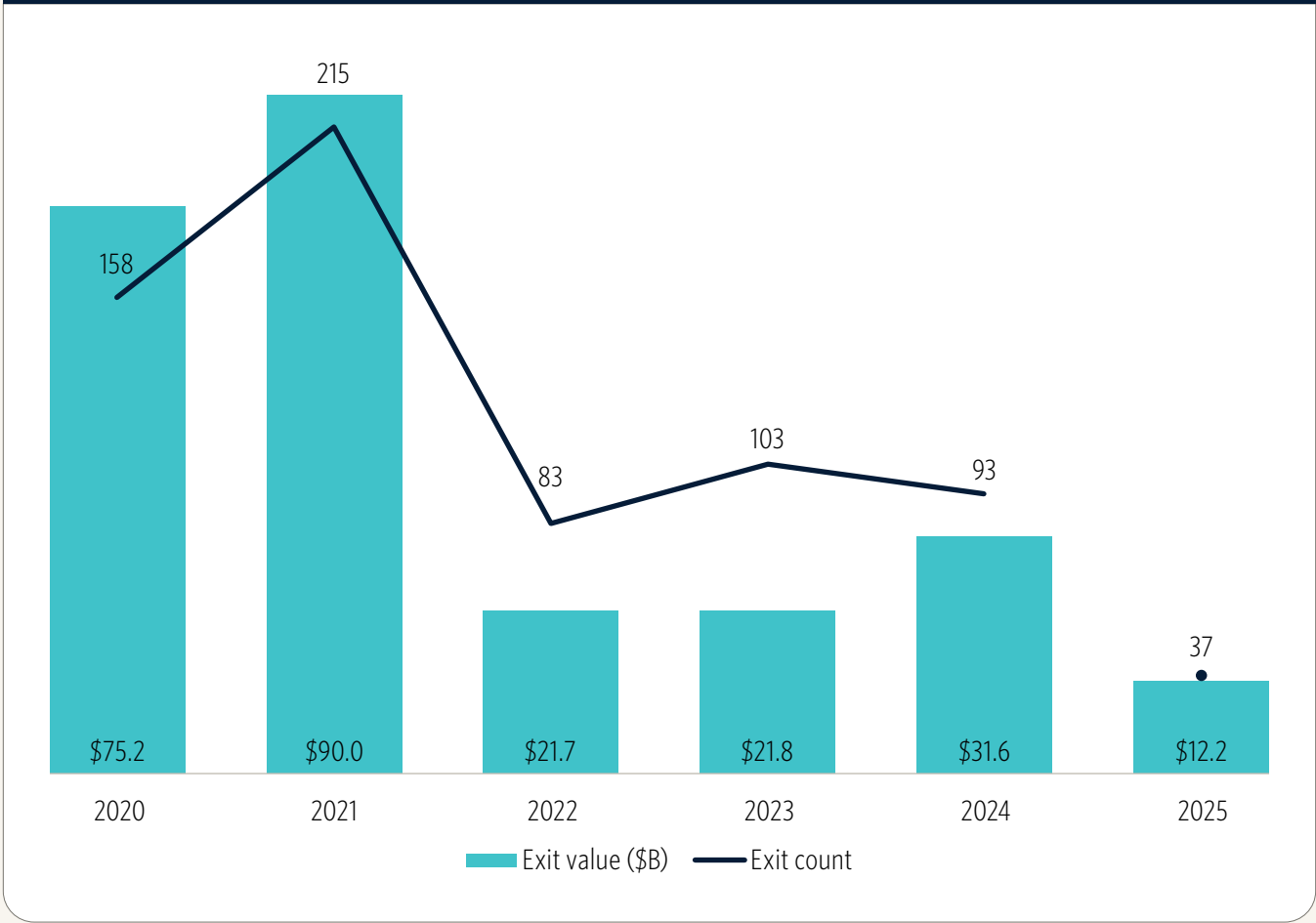
VC ACTIVITY

Biopharma VC deal count by highest clinical trial phase



Source: PitchBook • Geography: Global • As of June 30, 2025

Biopharma VC exit activity



Source: PitchBook • Geography: Global • As of June 30, 2025



VC ACTIVITY

Median biopharma pre-seed/seed deal value and pre-money valuation (\$M) by segment

	2020		2021		2022		2023		2024		2025	
Segment	Deal value	Pre-money valuation	Deal value	Pre-money valuation	Deal value	Pre-money valuation	Deal value	Pre-money valuation	Deal value	Pre-money valuation	Deal value	Pre-money valuation
Mature modalities	\$3.2	\$7.2	\$5.0	\$10.0	\$6.3	\$14.0	\$6.6	\$12.9	\$8.0	\$16.4	\$8.5	\$26.1
Advancing modalities	\$3.8	\$7.8	\$6.0	\$10.0	\$6.1	\$15.0	\$7.5	\$13.0	\$6.9	\$15.5	\$5.9	N/A
Emerging modalities	\$2.8	\$10.0	\$3.7	\$7.2	\$5.0	\$9.0	\$3.9	\$11.0	\$5.6	\$15.0	\$6.1	\$15.6

Source: PitchBook • Geography: Global • As of June 30, 2025



VC ACTIVITY

Median biopharma early-stage VC deal value and pre-money valuation (\$M) by segment

	2020		2021		2022		2023		2024		2025	
Segment	Deal value	Pre-money valuation	Deal value	Pre-money valuation	Deal value	Pre-money valuation	Deal value	Pre-money valuation	Deal value	Pre-money valuation	Deal value	Pre-money valuation
Mature	\$14.9	\$30.0	\$20.0	\$40.3	\$18.7	\$40.0	\$17.0	\$44.4	\$28.1	\$50.0	\$17.3	\$56.5
Advancing	\$24.0	\$35.3	\$36.1	\$60.0	\$30.0	\$52.0	\$29.0	\$65.0	\$25.0	\$48.0	\$23.8	\$61.0
Emerging	\$8.3	\$17.5	\$10.9	\$26.6	\$14.1	\$22.1	\$13.8	\$26.1	\$11.8	\$31.9	\$27.5	N/A

Source: PitchBook • Geography: Global • As of June 30, 2025



VC ACTIVITY

Median biopharma late-stage VC deal value and pre-money valuation (\$M) by segment

	2020		2021		2022		2023		2024		2025	
Segment	Deal value	Pre-money valuation	Deal value	Pre-money valuation	Deal value	Pre-money valuation	Deal value	Pre-money valuation	Deal value	Pre-money valuation	Deal value	Pre-money valuation
Mature	\$15.1	\$55.0	\$17.4	\$82.2	\$16.4	\$60.0	\$13.3	\$65.5	\$20.0	\$81.9	\$17.0	\$69.2
Advancing	\$30.6	\$100.0	\$31.3	\$127.4	\$24.4	\$65.6	\$14.0	\$77.2	\$22.5	\$76.8	\$23.1	\$45.7
Emerging	\$9.3	\$33.9	\$9.7	\$39.5	\$9.2	\$47.4	\$11.4	\$32.5	\$13.9	\$37.0	\$8.5	N/A

Source: PitchBook • Geography: Global • As of June 30, 2025



VC ACTIVITY

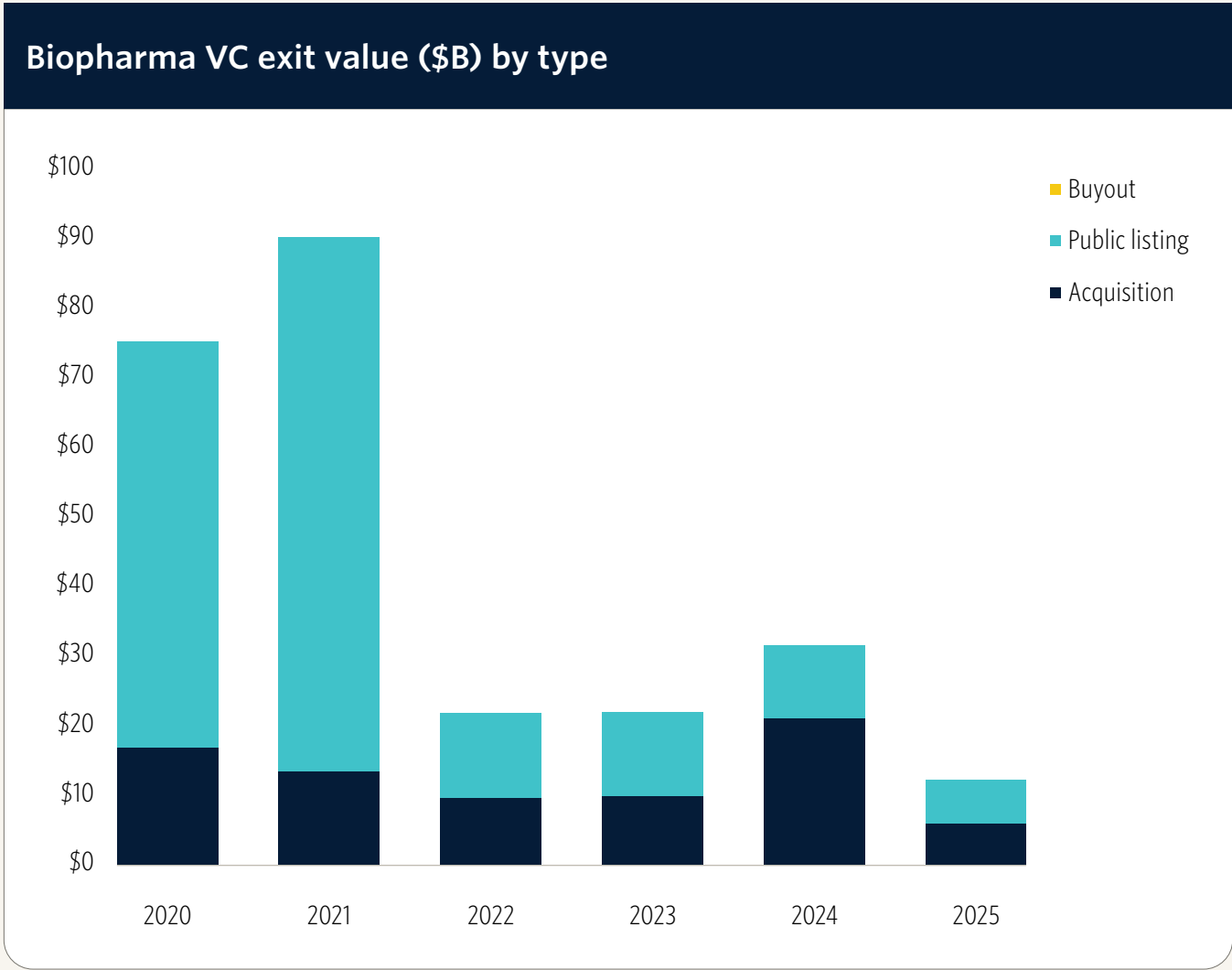
Median biopharma venture-growth deal value and pre-money valuation (\$M) by segment

	2020		2021		2022		2023		2024		2025	
Segment	Deal value	Pre-money valuation	Deal value	Pre-money valuation	Deal value	Pre-money valuation	Deal value	Pre-money valuation	Deal value	Pre-money valuation	Deal value	Pre-money valuation
Mature	\$20.1	\$103.7	\$21.3	\$101.2	\$22.0	\$150.0	\$10.8	\$103.9	\$13.5	\$80.0	\$10.4	\$180.4
Advancing	\$30.3	\$235.0	\$30.3	\$61.1	N/A	N/A	\$17.9	N/A	\$14.0	N/A	\$26.2	N/A
Emerging	\$7.8	N/A	\$9.7	N/A	N/A	N/A	\$9.0	N/A	\$11.7	N/A	N/A	N/A

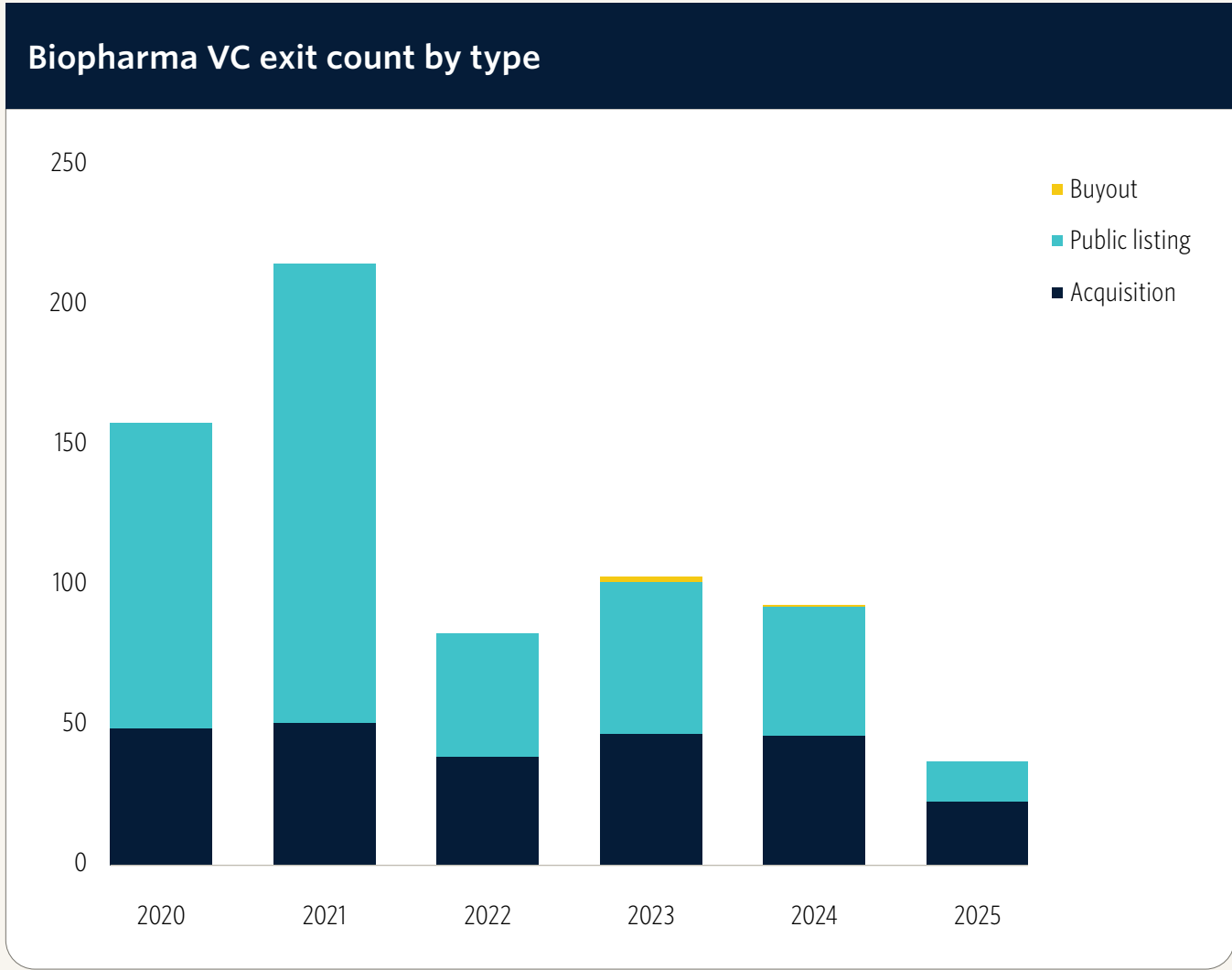
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VC ACTIVITY

Biopharma heatmap by subsegment

Segment	Subsegment	TTM total deal value (\$M)	TTM total deal count	YoY deal value growth	YoY deal count growth
Advancing modalities	Cell & gene therapy	\$163.6	5	53.4%	25.0%
	Cell therapy	\$1,815.1	60	-12.8%	-28.6%
	Conjugates	\$992.4	27	-32.2%	-27.0%
	Gene editing	\$1,858.9	48	0.2%	-27.3%
	Gene therapy	\$325.3	14	80.2%	0.0%
	Nucleic acid	\$1,115.7	52	-46.0%	-10.3%
Emerging modalities	Microbiome & phage	\$68.8	15	-72.2%	-46.4%
	Nanotech & drug delivery	\$409.9	24	19.5%	-25.0%
	Niche & others	\$70.1	8	265.7%	60.0%
	Oncolytic virus	\$71.0	6	-63.8%	-14.3%
	Stem cell therapy	\$2,257.6	50	237.8%	-16.7%
	Tissue & biomaterials	\$255.1	7	3.6%	-46.2%
Mature modalities	Antibodies	\$4,018.8	79	40.9%	-17.7%
	Protein-based	\$3,625.2	100	-39.2%	-6.5%
	Small molecules	\$12,604.4	358	12.0%	-24.2%
	Small molecules & biologics	\$986.3	14	80.2%	-36.4%
	Vaccines	\$621.6	26	-32.7%	-38.1%

Source: PitchBook • Geography: Global • As of June 30, 2025



VC ACTIVITY

Key biopharma early-stage VC deals in Q2 2025

Company	Close date	Category	Highest clinical trial phase	Therapeutic area	Deal value (\$M)	Deal type	Lead investor(s)
Antares Therapeutics	June 10	Small molecules	Phase 1/2	Oncology	\$177.0	Series A	Atlas Venture, BVF Partners, Cormorant Asset Management, Lightspeed Venture Partners, Omega Funds
NewLimit	May 6	Stem cell therapy	Pre-clinical	Longevity	\$130.0	Series B	Kleiner Perkins
Merida Biosciences	April 8	Protein-based	Pre-clinical	Autoimmune disease	\$121.0	Series A	BVF Partners, Bain Capital Life Sciences, Third Rock Ventures
Draig Therapeutics	June 18	Small molecules	Phase 2	Neurology	\$117.5	Series A	Access Industries
RayThera	April 4	Small molecules	Pre-clinical	Anti-inflammatory	\$110.0	Series A	Foresite Capital, OrbiMed
Syndeio Biosciences	May 27	Small molecules	Phase 2	Neurology	\$90.0	Early-stage VC	N/A
Stylus Medicine	May 14	Gene editing	Pre-clinical	N/A	\$85.0	Series A	N/A
Pheast Therapeutics	April 10	Small molecules	Phase 1	Oncology	\$76.0	Series A	ARCH Venture Partners, Catalio Capital Management
Actio Biosciences	June 18	Small molecules	Phase 1	Rare disease	\$66.0	Series B	Deerfield Management, Regeneron Ventures
ReproNovo	May 20	Small molecules	Phase 2	Fertility	\$65.0	Series A	AXA IM Alts, Jeito, M Ventures

Source: PitchBook • Geography: Global • As of June 30, 2025



VC ACTIVITY

Key biopharma late-stage VC deals in Q2 2025

Company	Close date	Category	Highest clinical trial phase	Therapeutic area	Deal value (\$M)	Deal type	Lead investor(s)
Pathos	May 1	Small molecules	Phase 1/2	Oncology	\$365.0	Series D	N/A
Juvenescence	June 17	Small molecules & biologics	Phase 1	Longevity/fibrosis	\$150.0	Series B1	M42
Atsena Therapeutics	April 11	Gene editing	Phase 1/2	X-linked retinoschisis	\$150.0	Series C	Bain Capital, Sofinnova Investments
Azafaros	May 13	Small molecules	Phase 3	Lysosomal storage disorders	\$149.3	Series B	Forbion, Jeito
GRIN Therapeutics	May 27	Small molecules	Phase 1/2	Neurodevelopemnt disorders	\$140.0	Series D	N/A
SpliceBio	June 11	Gene editing	Phase 1/2	Stargardt disease	\$134.7	Series B	EQT Life Sciences, Sanofi Ventures
GlycoEra	May 27	Protein-based	Pre-clinical	Autoimmune disease	\$130.0	Series B	Novo Holdings
InSilico Medicine	June 16	Small molecules	Phase 2	Idiopathic pulmonary fibrosis	\$123.0	Series E	PDVC, Value Partners Group, Wuxi Capital
CellCentric	May 19	Small molecules	Phase 1/2	Oncology	\$120.0	Series C	Forbion, RA Capital Management
Glycomine	April 16	Protein-based	Phase 2/3	Rare disease	\$115.0	Series C	Advent Life Sciences, CTI Life Sciences Fund

Source: PitchBook • Geography: Global • As of June 30, 2025



VC ACTIVITY

Key biopharma VC exits in Q2 2025

Company	Close date	Category	Therapeutic area	Exit value (\$M)	Exit type	Acquirers(s)/stock exchange
EsoBiotec	May 20	Cell therapy	Oncology	\$1,000.0	Acquisition	AstraZeneca
SiteOne Therapeutics	May 28	Small molecules	Chronic pain	\$1,000.0	Acquisition	Eli Lilly
DualityBio	April 15	Conjugates	Oncology	\$1,039.8	Public listing	Hong Kong Stock Exchange
PegBio	May 27	Small molecules	Cardiometabolic	\$772.9	Public listing	GSGT Holding Group
TransThera Bioscience	June 23	Small molecules	Oncology	\$665.3	Public listing	Hong Kong Stock Exchange
Beckley Psytech	June 3	Small molecules	Neurology	\$390.0	Acquisition	ATAI Life Sciences
Oviva Therapeutics	April 29	Protein-based	Women's fertility/longevity	N/A	Acquisition	Granata Bio
Focal Medical	June 4	Nanotech & drug delivery	Oncology	N/A	Acquisition	Continuity Biosciences
ImmuneOncia	May 19	Antibodies	Oncology	N/A	Public listing	Korea Stock Exchange
IntoCell	May 23	Conjugates	Oncology	N/A	Public listing	Korea Stock Exchange

Source: PitchBook • Geography: Global • As of June 30, 2025



VC ACTIVITY

Top strategic acquirers of biopharma companies since 2020

Acquirer	Deal count	Investor type
Eli Lilly	16	Corporation
Novartis	10	Corporation
Sanofi	9	Corporation
AbbVie	9	Corporation
Merck & Co.	9	Corporation
AstraZeneca	7	Corporation
Centessa Pharmaceuticals	7	Corporation

Source: PitchBook • Geography: Global • As of June 30, 2025

Top VC investors in biopharma companies since 2020

Company	Total deal count	Pre-seed/seed	Early-stage VC	Late-stage VC	Venture growth	Investor type
RA Capital Management	210	93	87	11	19	VC
OrbiMed	190	107	65	6	12	Growth/expansion
Alexandria Venture Investments	168	101	47	15	5	VC
ARCH Venture Partners	119	78	27	9	5	VC
Novo Holdings	104	36	54	6	8	CVC
Lilly Asia Ventures	96	57	31	3	5	CVC
Janus Henderson Investors	93	45	37	1	10	Asset manager
Samsara BioCapital	92	48	32	5	7	VC
GV	91	54	26	4	7	CVC
Logos Capital	89	51	33	0	5	Hedge fund

Source: PitchBook • Geography: Global • As of June 30, 2025



VC ACTIVITY

Top VC-backed biopharma companies by total VC raised to date

Company	VC (\$M) raised to date	Category	HQ location	IPO probability	M&A probability	No exit probability
L-base	\$3,258	Protein-based	Seoul, South Korea	85%	11%	4%
Retro	\$1,180	Stem cell therapy	Redwood City, US	51%	24%	25%
Eikon Therapeutics	\$1,157	Small molecules	Millbrae, US	96%	2%	2%
AbogenBio	\$1,136	Nucleic acid	Suzhou, China	N/A	N/A	N/A
Xaira Therapeutics	\$1,000	Small molecules & biologics	South San Francisco, US	94%	4%	2%
Treeline Biosciences	\$895	Small molecules	Watertown, US	75%	23%	2%
Rakuten Medical	\$776	Conjugates	San Diego, US	72%	24%	4%
Magpie Pharmaceuticals	\$769	Small molecules	Guangzhou, China	N/A	N/A	N/A
Generate:Biomedicines	\$693	Protein-based	Somerville, US	95%	3%	2%
insitro	\$643	Small molecules	South San Francisco, US	78%	16%	6%

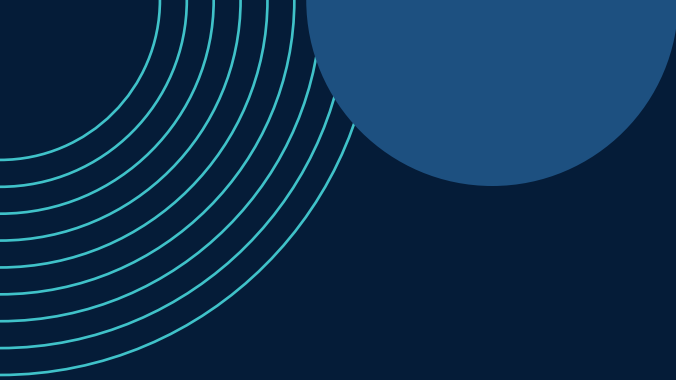
Source: PitchBook ▪ Geography: Global ▪ As of June 30, 2025
Note: Probability data is based on [PitchBook VC Exit Predictor methodology](#).



Biopharma VC deal summary

	Quarterly activity					Trailing 12-month activity	
	Q2 2024	Q3 2024	Q4 2024	Q1 2025	Q2 2025	Q3 2023 to Q2 2024	Q3 2024 to Q2 2025
Deal count	254	215	258	269	198	1,029	940
QoQ change	-3.4%	-15.4%	20.0%	4.3%	-26.4%	N/A	-8.6%
Share of total VC	2.5%	2.3%	2.7%	2.9%	2.6%	2.4%	2.6%
Deal value (\$B)	\$8.6	\$8.6	\$8.2	\$9.2	\$5.4	\$30.8	\$31.4
QoQ change	4.2%	-0.2%	-4.2%	11.2%	-41.6%	N/A	1.7%
Share of total VC	9.4%	10.1%	6.5%	7.1%	5.2%	9.0%	7.1%
Exit count	16	24	24	22	15	105	85
Public listings	8	12	11	15	8	49	46
Acquisitions	0	0	0	0	0	3	0
Buyouts	8	12	13	7	7	53	39

Source: PitchBook • Geography: Global • As of June 30, 2025



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