

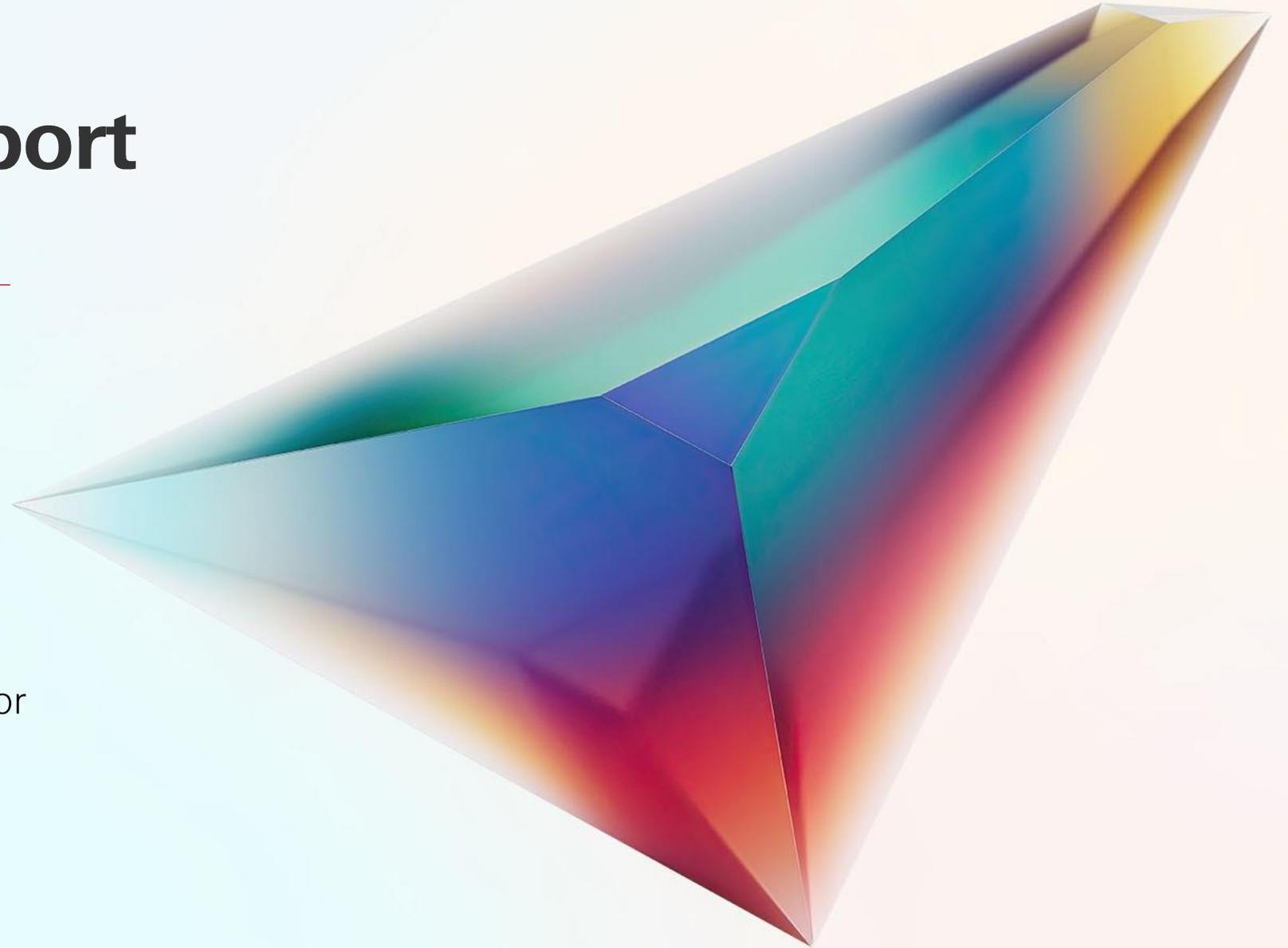
# HSBC Venture Healthcare Report

*Shake it off*

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HSBC Innovation Banking Analysis  
1H 2024

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July 17, 2024  
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# HSBC Venture Healthcare Report: 1H 2024

HSBC Innovation Banking's mid-year 2024 Venture Healthcare Report, written by our Life Science & Healthcare team, provides a deep dive into the venture investment and exit activity across both U.S. and Europe. We balanced our robust data set with the team's deep sector expertise to provide thought provoking analysis and predictions for the balance of 2024.

The first half of 2024 provided real glimmers of hope - increased investment across every sector and numerous new investor-led financings. While insider-rounds continued, the percentage of new investor-led rounds increased from 2023, and at an overall step-up of 1.3x. Broadly speaking, the exit environment for the industry was tepid, but the biopharma sector saw IPO interest and a sharp increase in high deal-value private M&A.

We hope you enjoy our 2024 mid-year report and leverage it as part of your own analysis of current industry trends. HSBC Innovation Banking is here to be your partner, your trusted advisor, and an extension of your team – with the strength and stability of HSBC's global platform.



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Jonathan Norris joined HSBC's Innovation Banking Division in April 2023. He manages healthcare venture relationships and works with investors and companies on commercial banking and debt products.

In addition, for more than a decade, Jonathan has written comprehensive reports on the venture healthcare ecosystem, covering venture fundraising, investment, valuations and exits. These reports have been widely cited in the ecosystem and he often speaks at major investor and industry conferences. He has more than 24 years of healthcare banking experience.

Jonathan earned a B.S. in business administration from the University of California, Riverside, and a J.D. from Santa Clara University.



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# HSBC Venture Healthcare Report



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# HSBC Venture Healthcare Report: 1H 2024 Mid-year Recap

## General Overview

In 2023, venture healthcare faced a challenging IPO market and limited M&A opportunities, grappling with the valuation and investment froth from 2020-1H 2022. It became the year of triage, with companies closing insider-rounds<sup>1</sup> as investors slowed their pace and prioritized existing portfolios. On the other hand, 1H 2024 saw increased investment across every sector and numerous new investor-led financings. These deals demonstrated a median step-up<sup>2</sup> of 1.3x, with only 20% experiencing down-rounds. Although many companies still rely on dwindling insider-round cash and will need to find a new lead investor or else face consolidation or shut down, the industry has largely shaken off 2023's malaise.

## Healthtech

In 2023, HealthTech investments significantly declined from Q1 to Q2 due to the banking crisis. The trend reversed in 1H 2024, with deal activity rising each quarter. The high volume of insider bridges and round extensions decreased in 1H 2024 as investors completed their triage and started to rebuild their portfolio by funding new deals. Although investments took longer to finalize, Healthtech experienced a surge in earlier-stage deals, where valuation overhang is less problematic.

## Med Device

Med device investments remained stable, buoyed by a surge in first-financing deals and dollars in 2Q 2024. These deals were led by strong venture capital syndicates, along with some corporate investment. There was also an increase in early-stage investment in deals requiring robust clinical trials, particularly in neurology. Overall, PMA pivotal trial funding and 510(k)<sup>2</sup> commercialization rounds attracted capital from VC, growth, crossovers, and corporates. In 2023, one in three new investor-led Series B and later med device deals experienced down-rounds, but this declined to 20% in 1H 2024, with median pre-money valuations increasing across the sector. Despite stable investment and strong M&A in 2023, private M&A in 1H 2024 has been lackluster, with only two notable private deals.

## Biopharma

Exits were a bright spot in 1H 2024 for biopharma, driven by opportunistic IPOs and a strong private M&A market. While Seed and Series A dollars doubled, the number of first-financing deals declined, and the average deal size jumped from \$25M to \$75M. Many of the large first-financing deals were venture spin-outs or led by management teams with recent successful exits. Overall investment in biopharma increased by 35% as later stage deals benefited from the reentry of crossover investors. In 1H 2024, there were fifty-one private deals exceeding \$100M, with thirty of these involving a new crossover investor. Southern California emerged as the leader in \$100M+ deals with twelve, surpassing Massachusetts (eleven) and Northern California (nine).

## Dx/Tools

Dx/Tools mimicked its 2H 2023 first-financing decline, maintaining stable numbers in 1H 2024 which were markedly lower than the past three years. Early-stage investors were constrained by a closed IPO market and the challenge of securing its Series B investor to bridge to its commercialization growth round. However, companies reaching commercialization experienced a resurgence of growth investors, who invested in six of the top eight highest valued financings in 1H 2024. While early-stage valuations remained strong, companies with lofty valuations from 2020-2021 experienced flat or down rounds. Private M&A activity continues to lag, with just two private M&A deals over \$50M upfront in 1H 2024.

<sup>1</sup>Insider rounds defined as equity/convertible financings where only insiders participate, typically at smaller amounts. <sup>2</sup>Step-ups based on available PitchBook data that contains valuation information for the new and previous round as of 6/28/24. <sup>3</sup>PMA requires clinical trials to get FDA approval. 510(k) typically need little to clinical data for FDA clearance for commercialization. Data Sources: PitchBook, company websites, internal analysis.

# Venture Capital ("VC") Investment in Healthcare 2023-1H 2024 US & Europe

## New investor-led rounds boosted investment in 1H 2024, led by biopharma



**2023 Recap – the year of insider rounds**  
 Valuations fluctuated in 2023 as the healthcare ecosystem recognized the frothy investment and exit environment of 2020 through 1H 2022 had given way to a challenging market. IPOs were scarce in biopharma and non-existent in other sectors, with recent IPOs experiencing significant declines in value. Nearly 50% of all deals were insider rounds<sup>3</sup>, with investors focusing on portfolio management. A high-bar was set for new investment, forcing companies to secure additional insider support to meet revised value inflection points demanded by new lead investors.

**Investors return to lead new deals in 1H 2024, led by biopharma**  
 New investor-led rounds in healthcare rose in 1H 2024, led by biopharma, the largest healthcare sector. An influx of large biopharma deals in 1H 2024 increased investment by 34% from 2H 2023, driven by a rise in private M&A and an opportunistic IPO environment. This provided needed liquidity to venture investors and crossover investors, encouraging their return to private investment.

The other healthcare sectors also saw increased investment compared to 2H 2023: Healthtech rose by 52%, dx/tools by 25%, and med device by 18%.

Data from PitchBook as of 6/28/24. <sup>1</sup>Healthtech deals that overlap with other healthcare sectors are not counted in the healthtech totals in this slide – including overlap, healthtech investment was \$12.9B in 2023 and \$6.9B in 1H 2024. <sup>2</sup>Using specific PitchBook search functions to approximate sector specific funding from previous years. <sup>3</sup>Insider rounds defined as equity/convertible financings where only insiders participate, typically at smaller amounts. Data Sources: PitchBook, company websites, internal analysis. Thanks to Mind Machine for slide strategy, creative and design.



# Biopharma Early-Stage: First-Financing Analysis

1H 2024

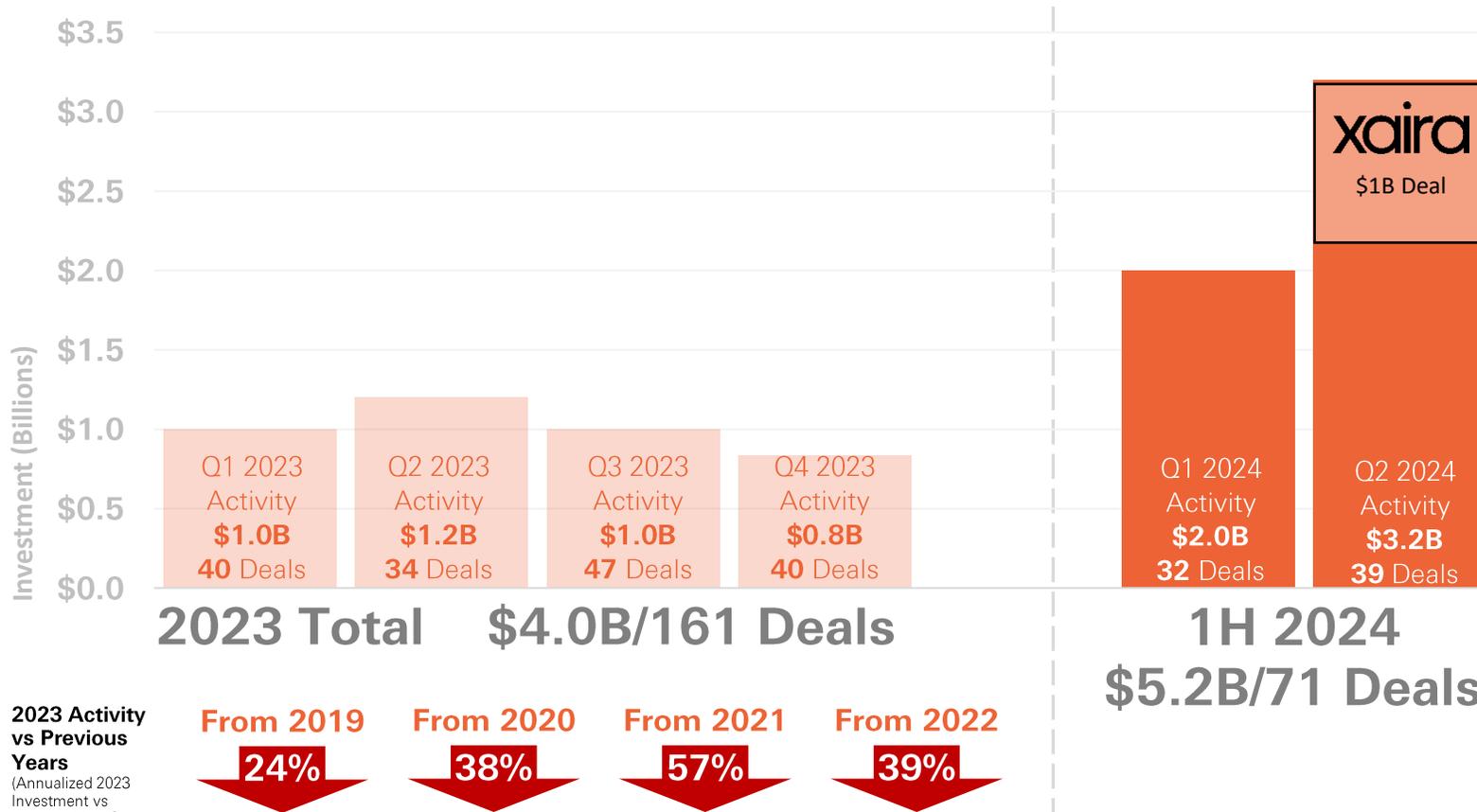
# Biopharma First-Financing<sup>1</sup> Analysis

2023-1H 2024 US & Europe



Investment pace lags, but large “mega deals” bump-up investment dollars

## Early-Stage Investment and Deal Activity (\$s/Deals)



### Investment dollars surge in 1H 2024

In 2023, dollar activity significantly decreased from 2021 and 2022 levels, as investors focused on portfolio triage and navigating fluctuating values. New investments in 2023 focused on later-stage clinical data generating companies. In 2024, first-financing dollars trended back to large pre-clinical deals, with total dollars at mid-year already surpassing the 2023 year-end total.

### Fewer deals, significantly larger amounts

There were fewer deals per quarter in 1H 2024 (thirty-six) compared to 2023 (forty) and significantly lower than 2022 (~seventy per quarter) and 2021 (~ninety per quarter). However, as deals decreased, the average deal size tripled from \$20-25M in 2021-2023 to \$75M in 1H 2024. This increase was driven by investors mitigating financing risk by expanding the investor syndicate, in effect combining two rounds into one. These large rounds provided multiple years of runway and additional insider support if needed. In 1H 2024, there were twenty-three first financing deals of at least \$50M, with nineteen (83%) of these deals including four or more investors in the syndicate. Many of these large deals were either incubated within venture firms or founded by executive teams following a large exit.

### The mega early-stage deal returns

There were thirteen first-financing deals of \$100M+ versus just seven in full-year 2023. The thirteen deals totaled \$3.7B, accounting for 71% of all first financing dollars. Ten of the thirteen were pre-clinical or phase I.

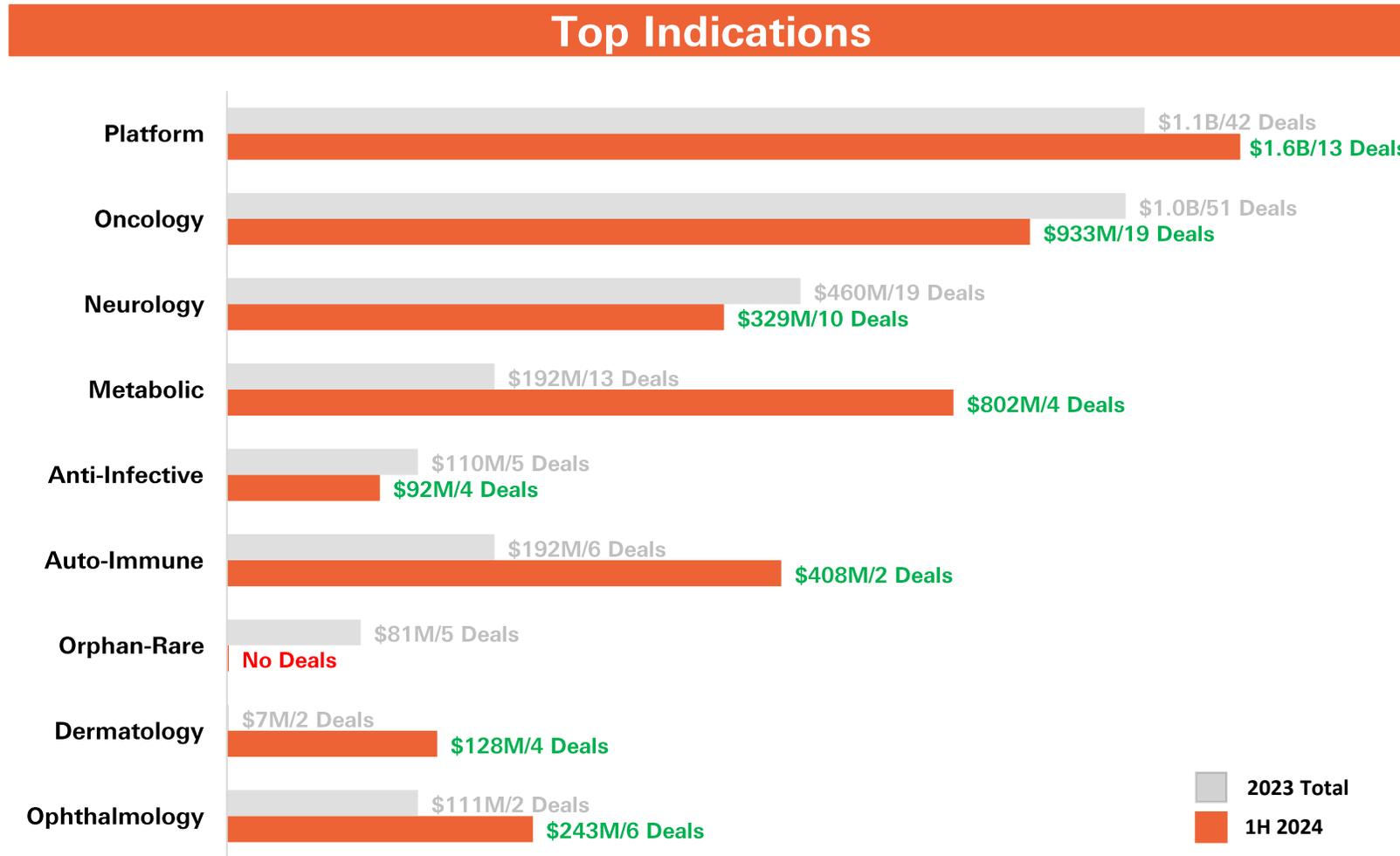
Data from PitchBook as of 6/28/24. Covers private, venture-backed investment. <sup>1</sup>First-financing defined as initial Seed or Series A financing of \$2M+. <sup>2</sup>Using specific PitchBook search functions to approximate sector specific funding from previous years. Data Sources: PitchBook, company websites, internal analysis. Thanks to Mind Machine for slide strategy, creative and design.

# Biopharma First-Financing<sup>1</sup> by Indication

2023-1H 2024 US & Europe



*Huge deals drive metabolic and auto-immune indications*



#### Early-stage continues to dominate first financing

In 1H 2024, early-stage deals dominated, making up 73% of deal activity (60% pre-clinical; 13% phase I). This was similar to 77% in 2023.

#### Platform dollars up but deals down; oncology and neuro investment soars while deals remain stable

The number of platform deals declined in 1H 2024. However, seven large deals, exceeding \$50M each, boosted investment dollars beyond 2023 year-end levels, matching 2022's investment pace.

Oncology reached an 18-month high in Q2 with 15 first financing deals, making it one of the few indications, along with neuro, to maintain stable deal activity in 1H 2024. In neuro, almost half of 2023's first financings were clinical stage (eight of nineteen), but only two out of ten were clinical stage in 2024.

#### Metabolic, auto-immune see surge in large deals while orphan/rare decrease

In 1H 2024, a few outsized deals created buzz in the metabolic and autoimmune sectors, with Hercules (\$400M), Metsera (\$350M), and Mirador (\$400M). There were no first financing deals in Orphan/Rare in 1H 2024.

#### First-financing Seed and Series A pre-money valuations drop slightly

Seed pre-money median valuation was \$10M in 1H 2024, down from \$15M in 2023. Series A pre-money was \$42M, compared to \$50M in 2023.

Data from PitchBook through 6/28/24. Covers private, venture-backed investment. <sup>1</sup>First-financing defined as initial Seed or Series A financing of \$2M+. Data Sources: PitchBook, company websites, internal analysis. Thanks to Mind Machine for slide strategy, creative and design.

# Biopharma First-Financing<sup>1</sup> Largest Financings 1H 2024 US & Europe



Large deals dominate first-financing dollars, led by pre-clinical platform companies

		Indication Stage	Size of Round	Deal Date	Location			Indication Stage	Size of Round	Deal Date	Location
1		Platform Pre-Clinical	1,000	4/24	SF, CA	11		Renal Phase I	105	1/30	Skokie, IL
2		Respiratory Phase III	425	2/13	Chapel Hill, NC	12		Derm Pre-Clinical	100	2/12	Boston, MA
3		Auto-Immune Pre-Clinical	400	3/21	San Diego, CA	13		Neuro Phase III	100	1/5	San Jose, CA
4		Metabolic Phase II	400	5/16	Boston, MA	14		Platform Pre-Clinical	94	3/26	South SF, CA
5		Metabolic Phase I	350	4/3	Short Hills, NJ	15		Platform Pre-Clinical	85	6/13	Seattle, WA
6		Oncology Phase I	223	4/2	San Diego, CA	16		Platform Pre-Clinical	82	1/23	Oslo, Norway
7		Oncology Phase I	200	5/2	Palo Alto, CA	17		Platform Unknown	82	6/25	Boston, MA
8		Oncology Pre-Clinical	150	3/20	Rockville, MD	18		Neuro Pre-Clinical	69	5/14	Watertown, MA
9		Ophthalmology Pre-Clinical	150	1/26	Redwood City, CA	19		Oncology Pre-Clinical	67	5/2	Cambridge, MA
10		Platform Pre-Clinical	128	4/3	Cambridge, MA	20		Neuro Pre-Clinical	65	4/3	Geneva, Switzerland

## Numbers at a glance (largest 20 deals):

The top twenty deals raised \$4.2B, accounting for 29% of all first-financing deals and a breathtaking 82% of all dollars.

### Stage

Pre-Clinical:	12 deals
Phase I:	4 deals
Phase III:	2 deals

### Indication

Platform:	6 deals
Oncology:	4 deals
Neuro:	3 deals
Metabolic:	2 deals

### Location

MA:	6 deals
NorCal:	5 deals
SoCal:	2 deals

Data from PitchBook through 6/28/24. Covers private, venture-backed investment. <sup>1</sup>First-financing defined as initial Seed or Series A financing of \$2M+. Data Sources: PitchBook, company websites, internal analysis. Thanks to Mind Machine for slide strategy, creative and design.



# Biopharma Investment: All Venture Deals

1H 2024

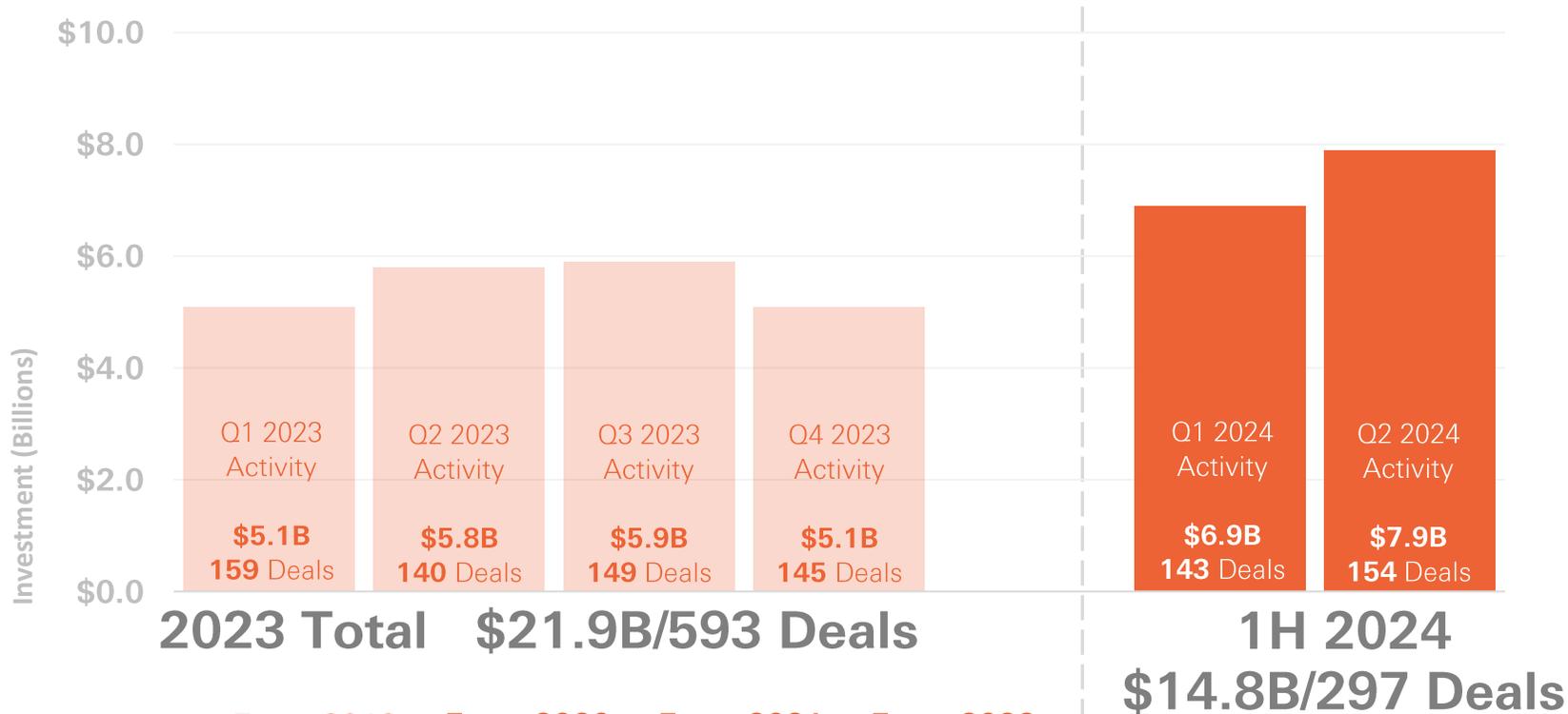
# Biopharma Analysis (All Deals)

2023-1H 2024 US & Europe



Dollars up, deals stable in 2024; investment led by SoCal \$100M+ financings

## Venture Investment and Deal Activity (\$s/Deals)



### Investment surged in 1H 2024

In 2023, insider rounds comprised almost half of the equity financings, making it the smallest investment year in four years. Renewed optimism from IPO activity and strong M&A lifted investment pace as crossover activity returned. This helped boost investment 34% in 1H 2024, on pace to exceed 2023 and 2022's year-end dollars.

### Less activity, led by mega \$100M+ deals

Investment surged in 1H 2024, while deal activity remained steady, resulting in larger deal sizes. There were fifty \$100M+ financings (ten over \$200M). Twenty nine of the fifty \$100M+ deals in 1H 2024 included new crossover investors.

VC-incubated early ideas or backing repeat teams after successful exits drove many of the \$100M+ deals. Clinical stage was bifurcated, as 50% of the \$100M+ deals were pre-clinical or Phase I and 50% were Phase II or later.

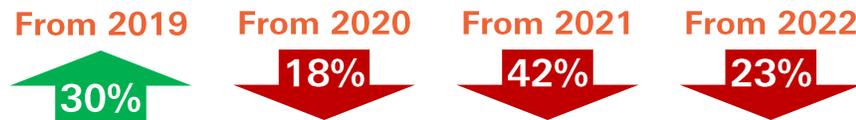
### SoCal leads big deal activity

In 1H 2024, Southern California has emerged as the leader in \$100M+ deals (twelve), surpassing Massachusetts (eleven) and Northern California (nine).

### Mega Seed and Series A deals

Twelve of the fifty \$100M+ deals were first-financings in 1H 2024, versus just six in all of 2023. Of these twelve, there were five pre-clinical deals, four Phase I, one Phase II, and two Phase III. Crossovers joined eight of these investor syndicates, anticipating continued IPO optionality.

2023 Activity vs Previous Years  
(Annualized 2023 Investment vs Previous Years<sup>2</sup>)



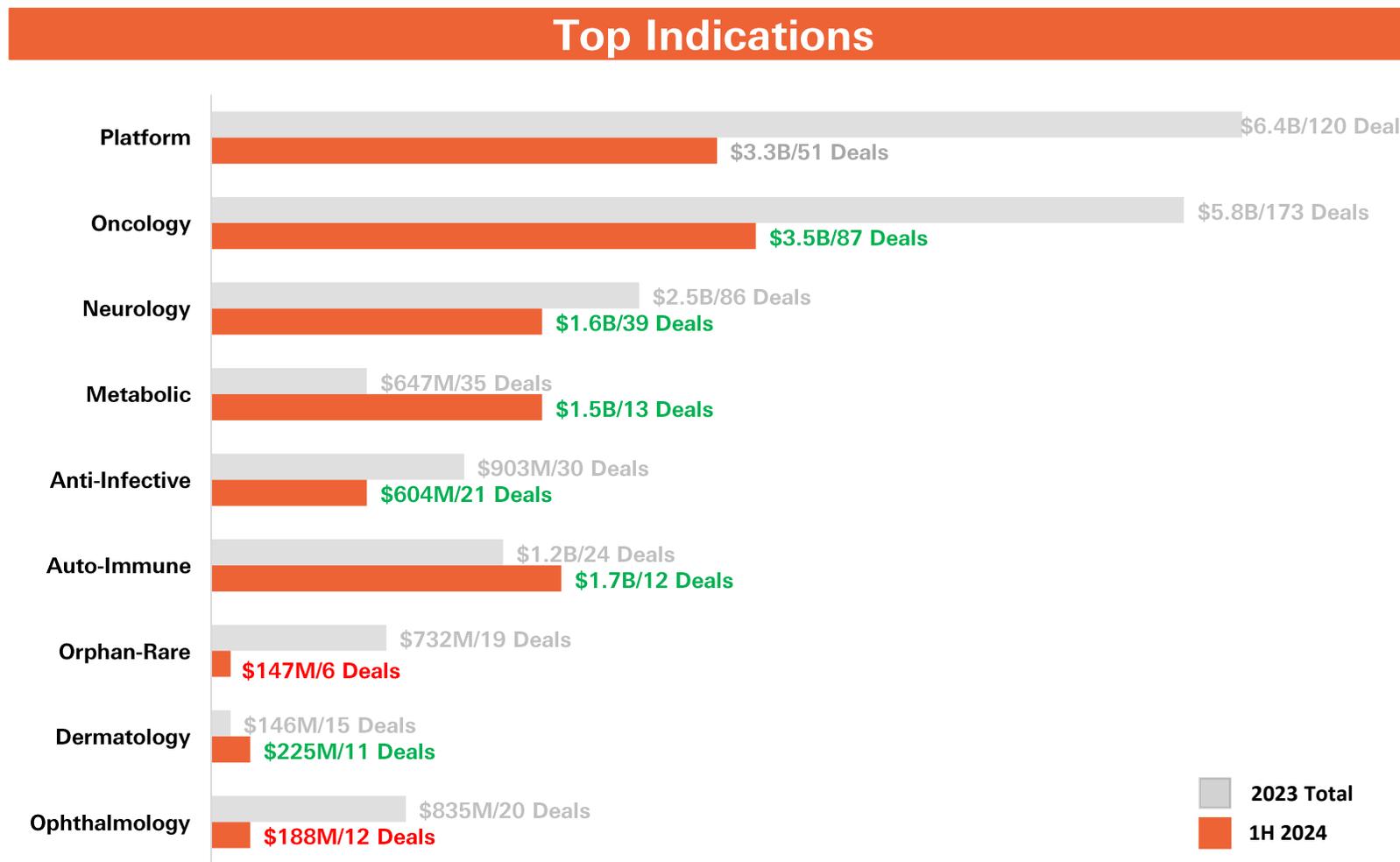
Data from PitchBook as of 6/28/24. Covers private, venture-backed investment. <sup>2</sup>Using specific PitchBook search functions to approximate sector specific funding from previous years. Data Sources: PitchBook, company websites, internal analysis. Thanks to Mind Machine for slide strategy, creative and design.

# Biopharma Investment by Indication

2023-1H 2024 US & Europe



**Oncology exceeds Platform; Auto-Immune, Metabolic raise large, late-stage dollars**



Six of the top nine biopharma indications are ahead of 2023's investment pace.

#### Oncology supplants Platform

Oncology investment surpassed platform investments by midyear, a first since 2020. Key take-aways around oncology and platform deal activity: 1) Investors continued to shift from new mechanism of action that are multiple years from clinic (Xaira excluded) to early-stage ventures with identified lead programs; 2) IPOs trended towards later-stage clinical-stage companies (two of three oncology IPOs were Phase III). As a result, companies with clinical-stage assets are securing large crossover-backed rounds.

#### Auto-Immune and Metabolic go big with later-stage

In 1H 2024, There were eight auto-immune deals over \$150M, five of which have assets in phase II or III. Five metabolic deals raised \$150M+, with three in Phase II.

#### Neuro remains stable, later-stage; Dermatology up

Neuro investment dollars increased while deal numbers are on pace to match 2023. Similar to 2023, the ten largest neuro deals were clinical stage: three Phase III, four Phase II, and three Phase I.

Dermatology investment scaled up through three \$60M+ deals, with Formation Bio, Alys and Timeline.

Orphan/Rare continued its decline in investment in 1H 2024, with no first financing deals.

Ophthalmology investment spiked with three \$100M+ financings in 2023. Deals numbers are up in 1H 2024 but with only one \$100M+ deal (Eyconis).

Data from PitchBook though 6/28/24. Covers private, venture-backed investment. Data Sources: PitchBook, company websites, internal analysis. Thanks to Mind Machine for slide strategy, creative and design.

# Biopharma Largest Financings (All Deals)

1H 2024 US & Europe



## First-financing deals drove largest investment; Auto-Immune deals shine

						Valuation <sup>1</sup>				
						Step-Up	Flat Rd	Step-Down		
		Indication Stage	Size of Round	Date/Round	Location	Indication Stage	Size of Round	Date/Round	Location	
1	Xaira	Platform Pre-Clinical	1,000	4/24 A	SF, CA					
2	Aroteia Therapeutics	Respiratory Phase III	425	2/13 A1	Chapel Hill, NC					
3	Mirador Therapeutics	Auto-Immune Pre-Clinical	400	3/21 A	San Diego, CA					
4	Hercules CM	Metabolic Phase II	400	5/16 A	Boston, MA					
5	Formation Bio	Dermatology Phase III	372	6/26 D	New York, NY					
6	Metsera	Metabolic Phase I	350	4/3 A	Short Hills, NJ					
7	APOLLO THERAPEUTICS	Platform Pre-Clinical	260	1/2 C	Cambridge, UK					
8	Alumis	Auto-Immune Phase II	259	3/6 C	South SF, CA					
9	ALTRUBIO	Auto-Immune Phase II	225	5/21 B	SF, CA					
10	AVENZO THERAPEUTICS	Oncology Phase I	223	4/2 A	San Diego, CA					
11	Zenas BioPharma	Auto-Immune Phase III	200	5/7 C	Waltham, MA					
12	bridgebio therapeutics	Oncology Phase I	200	5/2 A	Palo Alto, CA					
13	BIOAGE	Metabolic Phase II	194	2/1 D	Richmond, CA					
14	Bluejay therapeutics	Anti-Infective Phase II	182	5/9 C	San Mateo, CA					
15	sionna	Metabolic Phase I	182	3/6 C	Waltham, MA					
16	capstan therapeutics	Auto-Immune Pre-Clinical	175	3/20 B	San Diego, CA					
17	Enveda	Platform Pre-Clinical	174	6/14 B	Boulder, CO					
18	cerevance	Neuro Phase III	163	4/25 B	Boston, MA					
19	OBSIDIAN THERAPEUTICS	Oncology Phase II	161	3/27 C	Cambridge, MA					
20	T A R L BIOTHERAPEUTICS	Oncology Phase I	158	4/10 B2	Culver City, CA					

### Numbers at a glance (largest 20 deals):

In 1H 2024, the four largest deals were Seed or Series A first-financings, with seven first-financing deals in the top twenty raises.

The twenty largest deals in biopharma raised \$5.7B in 1H 2024, representing 7% of total biopharma deals but 39% of total investment dollars.

Of the deals with available valuation information, three were up-rounds and two were flat, with just one down-round.

Two of the top five financings (Xaira and Formation Bio) were computational bio deals.

#### Stage

Phase II:	6 deals
Pre-Clinical:	5 deals
Phase I:	5 deals
Phase III:	3 deals

#### Indication

Auto-Immune:	5 deals
Oncology:	4 deals
Metabolic:	4 deals

#### Location

NorCal:	6 deals
MA:	5 deals
SoCal:	4 deals

Data from PitchBook through 6/28/24. Covers private, venture-backed investment. <sup>1</sup>Step-up analysis uses PB supplied valuations if available. Data Sources: PitchBook, company websites, internal analysis. Thanks to Mind Machine for slide strategy, creative and design.

# Biopharma Most Active Investors<sup>1</sup>

1H 2024 US & Europe



Activity up in 1H 2024; growth activity strong as IPO optionality remains viable

## FIRST-FINANCING<sup>2</sup>

All Investors	
7	
5	
5	
3	
3	
3	
2	
24	

## ALL DEALS

VC		Growth <sup>3</sup>		Corporate	
8		10		8	
7		7		6	
6		6		6	
6		6		5	
4		5		5	
4		5		3	
4		4		3	
44		44			

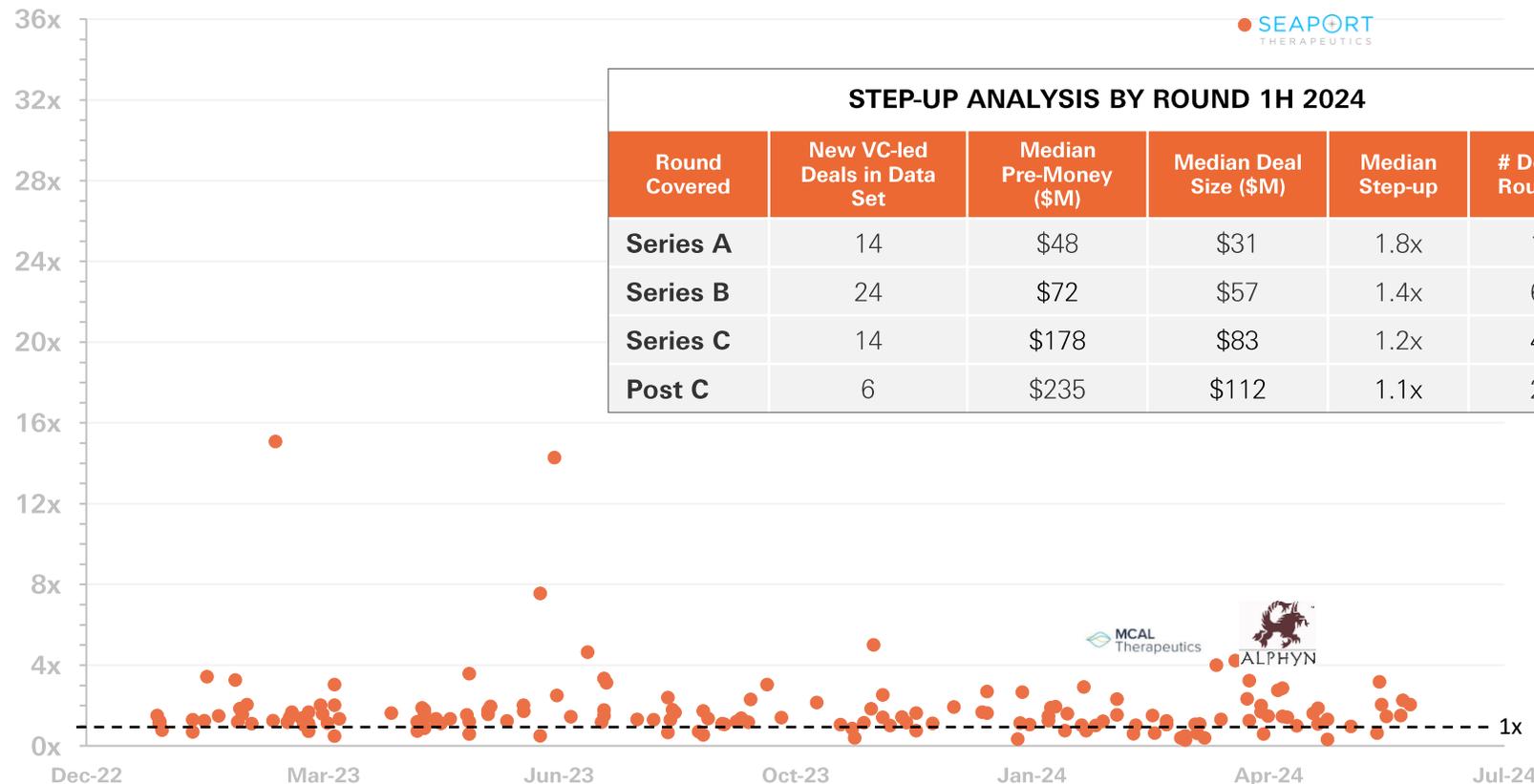
Data from PitchBook as of 6/28/24. Covers private, venture-backed investment. <sup>1</sup>Most Active Investors only include first investment into a portfolio company, not follow-on financings. <sup>2</sup>First-financing defined as initial Seed or Series A financing of \$2M+. <sup>3</sup>Growth Investors defined as investment firms that typically invest in later-stage companies that either are revenue scaling or the round is anticipated to be the last before an IPO. <sup>4</sup>Some categories had ties for number of deals, and list was curtailed due to space. Note that families of funds are combined for this slide, as are corporate and corporate venture with the same parent. Data Sources: PitchBook, company websites, internal analysis. Thanks to Mind Machine for slide strategy, creative and design.

# Biopharma New Investor Step-Up<sup>1</sup> Analysis 2023-1H 2024 US & Europe



Higher step-ups but lower valuations, more down-rounds mark a “tale of two cities”

## Step-Up Scatterplot



**Valuations inflections bifurcated in 1H 2024**  
 With data available for approximately 23% of deals, the overall median step-up multiple in biopharma was 1.3x, slightly below 2023’s median of 1.4x. There were more step-downs in 1H 2024 (thirteen) than for full-year 2023 (twelve). The 1H 2024 down-rounds clustered around the March timeframe, with the largest step-ups occurring in Q2.

**Series A step-ups boosted by access to crossovers, IPOs**  
 Seed to A step-ups in 1H 2024 had the highest median in biopharma at 1.8x, exceeding both 2022 and 2023. Pre-money valuations at Series A were also higher. The elevated step-up median and valuation were driven by the increase in large mezzanine round activity of the last twelve months, which flows down to Series A and impacts valuations in a positive way. Recent IPOs and strong private and public M&A activity have delivered returns to investors, allowing crossover investors with dollars to re-invest back into mezzanine deals.

**Series B and later deals exhibit increased funding, despite lower pre-money values**  
 The median deal sizes for Series B and later were up across the board. However, contrary to Series A, pre-money medians declined versus 2023, with Series B down 42%, Series C down 30% and D or later down 24%. This is likely related to the many insider-led rounds from 2023 that finally secured the next new financing.

Data from PitchBook as of 6/28/24. Covers private, venture-backed investment. <sup>1</sup>New Investor Step-Up refer to companies that had a new investor in its recent 2023 – 1H '24 financing, with that equity financing equal to or greater than the last financing round. Companies included if valuation information was available for both the new and last financing. Step-Ups calculated using Pitchbook valuation data for previous and new 2023 – 1H '24 financing as follows: Divide new pre-money valuation by previous round post-money valuation. Data Sources: PitchBook, company websites, internal analysis. Thanks to Mind Machine for slide strategy, creative and design.

# Biopharma Largest Post-Money Values<sup>1</sup>

1H 2024 US & Europe



Later-stage clinical deals replace pre-clinical as highest valued, as crossovers return

## LARGEST POST-MONEY VALUATIONS BY BIOPHARMA INDICATION

Indication	Company	Date	Deal Size (\$M)	Round	Post \$ (\$M) Step-up?	Stage	Notable/Lead New Investor(s)
Platform	xaira	4/24/24	\$1,000	A	\$2,700 (N/A)	Pre-Clinical	VC
Agbio	INARI	1/30/24	\$103	F	\$1,650	Clinical Trials	LP, VC
Auto-Immune	alumis	3/6/24	\$259	C	\$1,000	Phase II	Xover, Growth, VC
Respiratory	areteia therapeutics	2/13/24	\$425	A1	\$843	Phase III	Xover, Growth, Corporate, VC
Oncology	Rakuten	3/6/24	\$119	E	\$819	Phase III	Unknown
Respiratory	ENDEAVOR Biosciences	4/24/24	\$133	C	\$663	Phase II	Xover, VC
Metabolic	Hercules CM	5/16/24	\$175	A	\$540	Phase II	Growth, Corporate, VC
Auto-Immune	capstan therapeutics	3/20/24	\$175	B	\$500	Pre-Clinical	Xover, Corporate, VC, Sovereign
Oncology	OBSIDIAN THERAPEUTICS	3/27/24	\$161	C	\$500	Phase II	Xover, Growth, Corporate, VC

Valuation<sup>1</sup> ■ Step-Up ■ Flat Rd ■ Step-Down

### Clinical-stage IPOs fueled high-value deals

In 2023, six of the top eight highest valued companies were pre-clinical or phase I. However, in 1H 2024 IPO activity trended later-stage, and VCs and crossovers funded mezzanine rounds for later-stage clinical stories (six of eight highest valued deals were Phase II and Phase III).

### Top valuations mirrored those of 2023 but remained down compared to 2022

The 1H of 2024 had three publicly disclosed private financings with post-money valuations of \$1B+, which matched the output of 2023. Similarly, the median post-money valuation for the top ten deals remained around \$800M in both 2023 and 1H 2024, however it was only half the post-money median of top 2022 deals.

### Crossovers' momentum continued

Crossover activity resumed in 2H 2023, driven by robust public M&A and opportunistic IPO returns from the past year. Investors then reallocated these returns to the private biopharma sector. In 1H 2024, Five of the highest eight valuations included new crossover investors, with RTW, Viking, and Woodline Partners each making two new investments.

Data from PitchBook as of 6/28/24. Covers private, venture-backed investment. <sup>1</sup>Financing data based on information available from PitchBook, including post-money values. Step-Ups calculated using Pitchbook valuation data for previous and new financing as follows: Divide new pre-money valuation by previous round post-money valuation. Data Sources: PitchBook, company websites, internal analysis. Thanks to Mind Machine for slide strategy, creative and design.



# Biopharma Investment: Private M&A and IPO Analysis

1H 2024

# Biopharma Private VC-Backed M&A<sup>1</sup> Analysis

2018-1H 2024



Private M&A deal size skyrocketed as acquirers targeted exciting early-stage deals

## M&A MEDIAN VALUES

Date	2018	2019	2020	2021	2022	2023	1H 2024
Deals	15	15	20	15	9	6	10
Up-Front (\$M)	\$140	\$250	\$315	\$370	\$320	\$305	\$1,000
Milestone TBE (\$M)	\$400	\$375	\$138	\$350	\$100	\$500	\$125
Total Deal (\$M)	\$480	\$600	\$608	\$525	\$405	\$828	\$1,325
\$1B+ Total Deal Value Exits	4 (27%)	3 (20%)	7 (35%)	5 (33%)	3 (33%)	3 (50%)	7 (70%)

**2023 M&A focused on recently public IPOs**  
M&A remained robust in 2023, particularly targeting venture-backed public companies that completed IPOs over the past few years.

All six private M&A deals in 2023 took place in 2H, suggesting valuation capitulation by both companies and investors, setting up 2024 to be a strong M&A year.

**\$1B+ private deals abound in 1H 2024**  
Private M&A activity in 2024 continued the momentum of 2H 2023, with significantly larger deal sizes. Companies accepted healthy M&A deals instead of pursuing top-up private rounds and an uncertain IPO and public market.

Of the ten private deals, seven exceeded \$1B in value, and the median up-front deal size was more than three times the annual average of the past six years. The median time to exit was just 3.3 years from the first institutional round.

Activity remained early-stage, with seven of ten deals at pre-clinical stage (two) or Phase I (five).

After a surge of early-stage Neuro M&A in 2023, there have been no Neuro deals in 1H 2024 so far.

## NOTABLE 1H 2024 M&A DEALS

□ \$1B+ Total Deal Value M&A

	→			→	
	→			→	
	→			→	
	→			→	
	→			→	

<sup>1</sup>Biopharma M&A defined as private, venture-backed M&A with an upfront payment of at least \$75M. Data Sources: PitchBook, public news articles and conversations with investors and companies. Thanks to Mind Machine for slide strategy, creative and design.

# Biopharma Private VC-Backed IPO<sup>1</sup> Analysis

2018-1H 2024



2024 IPO medians: Phase II and quick to IPO (4.3 years); flat step-up, poor performance (-16%)

## IPO ACTIVITY 2018-2024

Date	2018	2019	2020	2021	2022	2023	1H 2024
Venture-Backed IPOs	55	50	83	96	19	11	10

## 1H 2024 BIOPHARMA IPOs

Date	Company	Indication/ Stage	Time to IPO <sup>2</sup>	Step-up to IPO <sup>3</sup>	IPO Dollars Raised (\$M)	IPO Post Money (\$M)	Performance to IPO Price
1/25/24	CCG ONCOLOGY	Oncology Phase III	9.5	1.3x	380	1,210	+71%
1/26/24	ARRIVENT	Oncology Phase III	1.9	1.1x	175	575	+ 5%
2/2/24	FRACTYL	Metabolic Pre-Clinical	12.7	0.7x	110	714	-56%
2/2/24	ALTO NEUROSCIENCE	Neurology Phase II	4.2	1.3x	129	409	-23%
2/8/24	kyverna.	Auto-Immune Phase II	4.0	2.0x	319	898	-40%
2/9/24	Metagenomi	Platform Pre-Clinical	4.5	Unknown	94	563	-57%
3/28/24	BOUNDLESS BIO	Oncology Phase I	4.5	1.0x	100	356	-40%
4/5/24	CONTINEUM Therapeutics	Neurology Phase II	6.0	1.2x	110	402	-8%
6/7/24	rapport Therapeutics	Neurology Phase I	1.3	1.1	136	601	+49%
6/27	alumis	Auto-Immune Phase II	3.3	0.6	210	830	0%

At mid-year, biopharma IPOs were just shy of 2023 full-year numbers and on pace to beat 2022 activity. However, post-IPO performance was mixed, with six of ten IPOs trading below IPO price.

The biopharma IPO market relies on generalist investor support to really drive returns for public biopharma specialist and venture capital investors. Currently, this support has waned as generalists pursue opportunities in other non-biopharma sectors.

On the positive side, follow-on and PIPE activity has been robust, providing the necessary capital for public biopharma companies to achieve key milestones. However, specialists believe the small-to-mid-cap public biopharma market is overcrowded and requires further consolidation.

### Numbers at a glance:

#### Stage

Phase II	4 deals
Phase III	2 deals
Phase I	2 deals
Pre-Clinical	2 deals

#### Indication

Oncology	3 deals
Neurology	3 deals
Auto-Immune	2 deals

Biopharma IPOs defined as private, venture-backed deals with an IPO raise of at least \$25M. <sup>2</sup>Time to IPO calculated as time between first venture financing or spin-out and date of IPO. <sup>3</sup>Step Up/Down to IPO calculated as follows: divide last private round post-money valuation with IPO pre-money valuation. Data Sources: PitchBook, public news articles and conversations with investors and companies. Thanks to Mind Machine for slide strategy, creative and design.

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# Dx/Tools Early-Stage: First-Financing Analysis

1H 2024

# Dx/Tools First-Financing<sup>1</sup> Analysis

2023-1H 2024 US & Europe



**First-financing slowdown persists; Dx Tests remain a bright spot**

## Early-Stage Investment and Deal Activity (\$s/Deals)



**2023 Activity vs Previous Years**  
(Annualized 2023 Investment vs Previous Years<sup>2</sup>)



**First financing malaise continues**  
 First financing in Dx/Tools averaged \$300-400M quarterly in recent years. However, deals and dollars declined significantly in 2H 2023, a trend that continued into 1H 2024.

This reduction in new activity and investment is partly due to investor focus on optimizing their existing portfolios for another financing round or exit. Additional headwinds include the limited public market access and poor IPO performances from the previous open IPO window, the retreat of new tech investors who flooded into the Dx/Tools market during COVID, and the overall challenges in securing an investor to lead the Series B round.

**Slight increase in Q2 driven by Dx Test deals**  
 Q2 2024 saw a modest investment increase, led by the six largest first financings in 1H 2024. New Dx Test activity accounted for four of the top five deals. The leading deal, PinkDx, targeted women's health, while NeuraCure, Holobeam and Curve focused on liquid biopsy.

**Smaller funds and Corporates form a diverse investor base**  
 PinkDx, led by a repeat entrepreneur, received investments from large venture funds and included corporate support. However, the bigger venture and corporate funds appear to have shifted to later-stage investments. Most first-financing deals were backed by smaller venture and angel funds. The question remains: will larger funds be interested in leading pre-commercial Series B rounds?

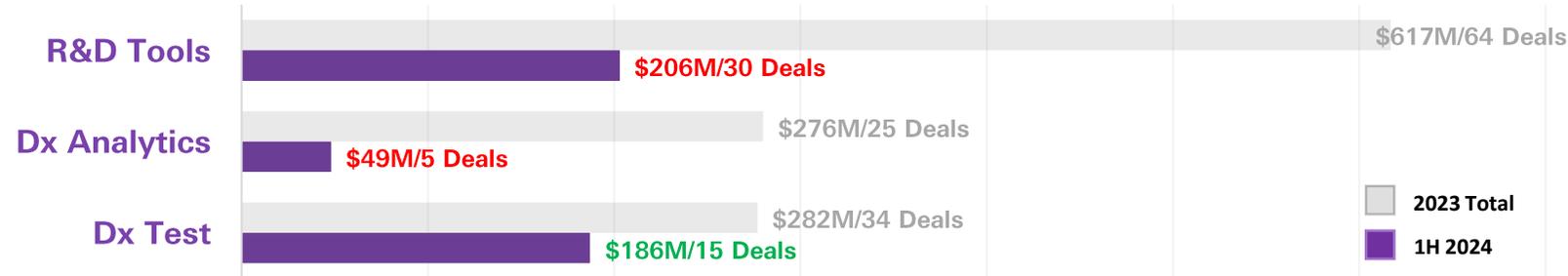
Data from PitchBook as of 6/28/24; Covers private, venture-backed investment. <sup>1</sup>First-financing defined as initial Seed or Series A financing of \$2M+. <sup>2</sup>Using specific PitchBook search functions to approximate sector specific funding from previous years. Data Sources: PitchBook, company websites, internal analysis. Thanks to Mind Machine for slide strategy, creative and design.

# Dx/Tools First-Financing<sup>1</sup> by Subsector

2023-1H 2024 US & Europe



**Liquid biopsy Dx Test deals shine, as Tools slow and Analytics suffer sharp drop**



	Indication	Size of Round	Deal Date	Location
1 <b>PinkDX</b>	Dx Test	40	4/25	Daly City, CA
2 <b>BIOP TIMUS</b>	R&D Tool	35	2/19	Paris, France
3 <b>moleculent</b>	R&D Tool	26	6/11	Solna, Sweden
4 <b>ASTRINBIOSCIENCES</b>	Dx Test	23	6/11	Saint Paul, Minnesota
5 <b>NERACARE</b>	Dx Test	22	5/23	Frankfurt, Germany

	Indication	Size of Round	Deal Date	Location
6 <b>curve BIOSCIENCES</b>	Dx Test	20	5/13	Mountain View, CA
7 <b>Limber</b>	Dx Analytics	16	5/31	Bethesda, MD
8 <b>Holobeam TECHNOLOGIES</b>	Dx Test	16	4/18	Hicksville, NY
9 <b>imu biosciences</b>	Dx Analytics	15	1/24	London, England
10 <b>DeepOrigin</b>	R&D Tool	12	2/1	New York, NY

### 2023 Recap

Dx Analytics and Dx Test investment both declined significantly in 2023. Cell and gene therapy tools helped R&D Tools to increased investment.

### Dx Test resurge in 2024 as Analytics and Tools fall

Dx Test investment jumped in 1H 2024, with four of the top six deals focused on liquid biopsy.

Dx Analytics had four \$20M financings in 2023, led by Artera's \$90M financing. However, there were just two deals of \$10M+ in 1H 2024, Limber Health and IMU Biosciences.

### Numbers at a glance:

#### Subsector

Dx Test	5 deals
R&D Tools	3 deals
Dx Analytics	2 deals

#### Location

OUS	4 deals
NorCal	2 deals
NY	2 deals

Data from PitchBook as of 6/28/24. Covers private, venture-backed investment. <sup>1</sup>First-financing defined as initial Seed or Series A financing of \$2M+. Data Sources: PitchBook, company websites, internal analysis. Thanks to Mind Machine for slide strategy, creative and design.



# Dx/Tools Investment: All Venture Deals

1H 2024

# Dx/Tools Analysis (All Deals)

2023-1H 2024 US & Europe



## Growth and corporate investors boost funding for commercial-stage deals

### Venture Investment and Deal Activity (\$s/Deals)



**2023 Activity vs Previous Years**

(Annualized 2023 Investment vs Previous Years<sup>2</sup>)



#### Investment uptick driven by mega deals

As valuations settled and investors emerged from portfolio triage, larger Dx/Tools financings increased in 2H 2023. This trend continued into 1H 2024, with six \$100M+ financings, although four of them were valuation reducing down-rounds. These large financings, backed by new lead investors, provided significant runway for commercialization. Dx Test companies accounted for four of the top six largest equity rounds, maintaining the strong investment pattern observed in first-financing deals.

The top 10% of deals accounted for almost 50% of all Dx/Tools investment in 1H 2024.

#### PE/Growth investors return

Growth investors returned, participating in five of the seven \$100M+ financings, focused mainly on scaling revenue. This is critical for the sector, as acquirers typically wait for commercial scale-up and a clear path to profitability before engaging in M&A, necessitating companies to raise commercialization ramp capital. These ramps should position numerous companies for potential IPOs or strong private M&A in 2025.

Corporate equity support in these larger financings built on an uptick in corporate investment in 2023. In 1H 2024 we noted Quest, Merck and GE joining these larger later-stage rounds.

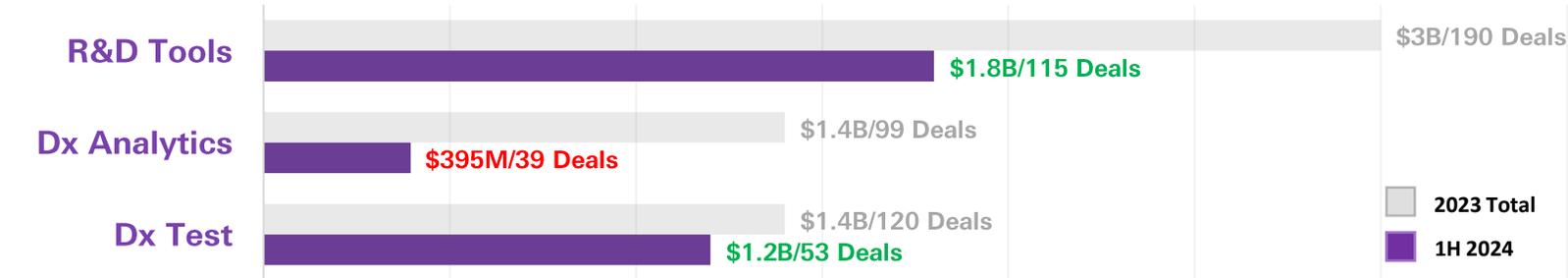
Data from PitchBook as of 6/28/24; Covers private, venture-backed investment. <sup>2</sup>Using specific PitchBook search functions to approximate sector specific funding from previous years. Data Sources: PitchBook, company websites, internal analysis. Thanks to Mind Machine for slide strategy, creative and design.

# Dx/Tools VC Investment by Subsector

2023-1H 2024 US & Europe



## Dx Analytics struggles while Dx Test investment surges and Tools see uptick



### Dx Test investment up, R&D Tools stable and Dx Analytics down sharply

Investment in 1H 2024 was significantly lower compared to 2020-2022. However, compared to 2023, there was an uptick in Dx Tests investment, reaching 86% of 2023 levels. R&D Tools investments and deals were slightly up, while Dx Analytics dollars continued to decline, hitting only 28% of 2023's already reduced activity.

The decline in Dx Analytics was partly due to the withdrawal of tech-focused investors who had previously supported SAAS technology in healthcare. This resulted in a lack of new tech-focused Series B leads to fund tech-backed early round deals. Additionally, these opportunities were hindered by slower than anticipated revenue ramp from widespread standardization challenges, regulatory barriers, and difficulties in penetrating hospitals and doctors' practices.

Key investment areas for R&D Tools in 1H 2024 included organ-on-chip, cell manufacturing, and computational drug discovery companies. The three largest deals were led by growth funds Premji and Sands, with the third co-led by VC firm Eclipse and corporate GE Healthcare.

Within Dx Test, the top three deals were computational bio-enabled, and four of the largest five deals were at the commercialization stage. Investors included growth funds Premji and Novo, venture firms 5AM, Gilde and Khosla, and corporate Merck Global Health. By indication, fifteen deals focused on oncology, twelve focused on anti-infective, six on general platforms, and four each on neuro and cardiovascular.

	Indication	Size of Round	Date/Round	Location
1	freanoma	Dx Test	254	2/15 F SF, CA
2	cellanome	R&D Tool	150	1/29 B Palo Alto, CA
3	BILLION TO ONE	Dx Test	130	6/21 D Menlo Park, CA
4	ALAMAR BIOSCIENCES	R&D Tool	128	2/26 C Fremont, CA
5	KARIUS	Dx Test	100	5/2 C Redwood City, CA

	Indication	Size of Round	Date/Round	Location
6	DELFI	Dx Test	100	6/3 B Baltimore, MD
7	ClevelandDx	Dx Test	75	1/16 E Cleveland, OH
8	Nucleus RadioPharma	R&D Tool	66	4/11 A Rochester, MN
9	binx	Dx Test	65	4/5 F Cambridge, MA
10	AZI isotopes	R&D Tool	58	5/29 B Bunker Hill, IN

Valuation<sup>1</sup> ■ Step-Up ■ Flat Rd ■ Step-Down

Data from PitchBook as of 6/28/24. Covers private, venture-backed investment. <sup>1</sup>Step-up analysis uses PB supplied valuations if available. Data Sources: PitchBook, company websites, internal analysis. Thanks to Mind Machine for slide strategy, creative and design.

# Dx/Tools Most Active Investors<sup>1</sup>

1H 2024 US & Europe



*Diverse group of investors; Traditional VC retreated*

## FIRST-FINANCING<sup>2</sup>

All Investors	
2	LifeX
2	labcorp

## ALL DEALS

Angel/VC		Growth <sup>3</sup>		Corporate	
3	bpifrance	3	mercia asset management	2	labcorp
2		2	BroadOak Capital Partners	4	Agilent Technologies
2	Alumni Ventures	2	PremjiInvest	3	M. VENTURES
2	Gaingels				
2	Teampact Ventures				
2	VESALIUS				
2	ALLATUS  VENTURES				

Data from PitchBook as of 6/28/24. Covers private, venture-backed investment. <sup>1</sup>Most Active Investors only include first investment into a portfolio company, not follow-on financings. <sup>2</sup>First-financing defined as initial Seed or Series A financing of \$2M+. <sup>3</sup>Growth Investors defined as investment firms that typically invest in later-stage companies that either are revenue scaling or the round is anticipated to be the last before an IPO. Note that families of funds are combined for this slide, as are corporate and corporate venture with the same parent. Data Sources: PitchBook, company websites, internal analysis.

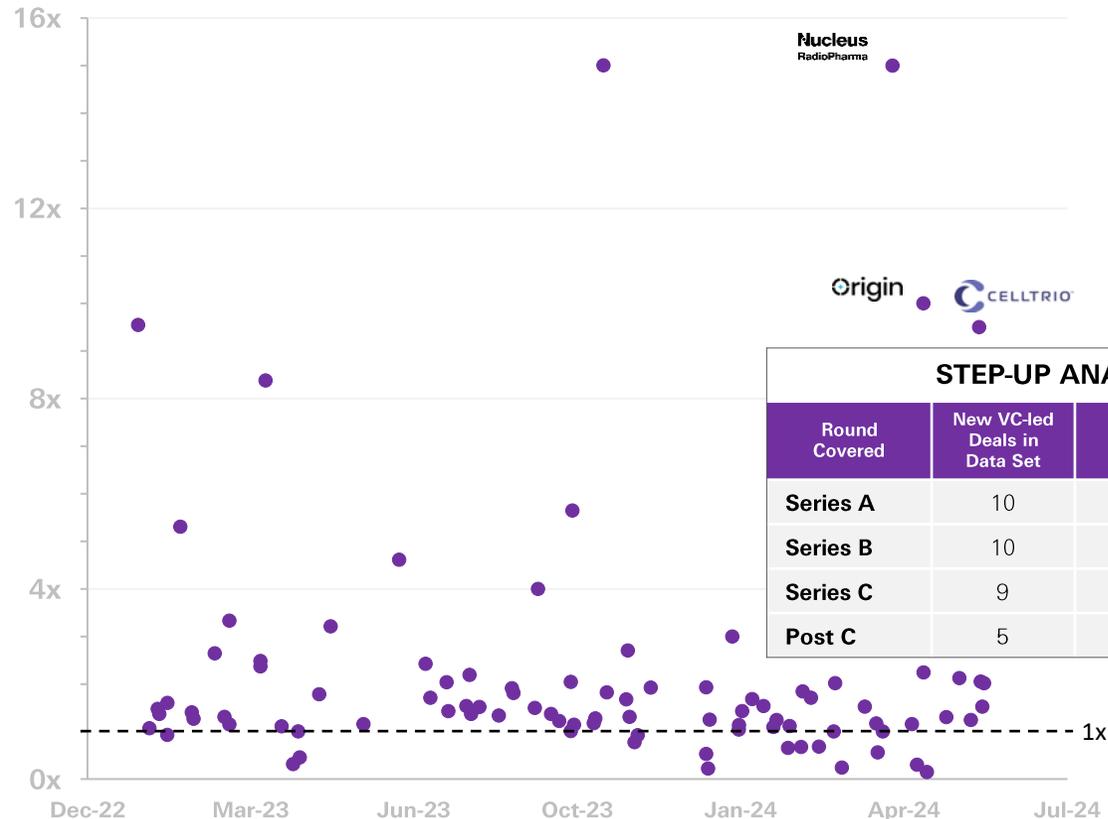
# Dx/Tools New Investor Step-Up<sup>1</sup> Analysis

2023-1H 2024 US & Europe



**Strong Seed to Series A step-ups; Flat to down valuations in later rounds**

## Step-Up Scatterplot



With data available for approximately 22% of deals, the overall median step-up in 1H 2024 was 1.3x, down from 1.5x in 2023. In 1H 2024, Dx Test deals had the lowest median step-up median at 1.1x, while R&D Tools logged the highest median step-up of 1.4x.

### Series A step-ups rise but pre-money declined

Series A median step-up increased from 1.7x in 2023 to 1.9x in 1H 2024. However, the median pre-money value dropped from \$44M to \$35M, likely affected by the valuation drops seen in the public market and recent private M&A.

R&D Tools deals led the way in step-up activity. Tools companies in the hot areas of radiopharma, automation and cell/gene therapy accounted for three of the top four step-ups in 1H 2024, led by Series A deals Nucleus Radiopharma (15x), Cell trio (9.5x) and CRISPRQC (3x). The other top step-up was later-stage Dx Test company Origin (10x).

### Later-stage deals try to hold valuations

A group of Series C and later deals that last raised in 2021/2022 returned to the market in 1H 2024. Those deals maintained a flat median valuation overall, however, 6 out of 14 were down-rounds. Many of those down-rounds were valuation re-sets, with all six down-rounds below 0.7x and three deals under 0.5x.

Data from PitchBook as of 6/28/24. Covers private, venture-backed investment. <sup>1</sup>New Investor Step-Up refer to companies that had a new investor in its recent 2023 – 1H '24 financing, with that equity financing equal to or greater than the last financing round. Companies included if valuation information was available for both the new and last financing. Step-Ups calculated using Pitchbook valuation data for previous and new 2023 – 1H '24 financing as follows: Divide new pre-money valuation by previous round post-money valuation. Data Sources: PitchBook, company websites, internal analysis. Thanks to Mind Machine for slide strategy, creative and design.

# Dx/Tools Largest Post-Money Values<sup>1</sup>

1H 2024 US & Europe



**Growth investors return to fuel later-stage commercialization**

## LARGEST POST-MONEY VALUATIONS BY DX/TOOLS SUBSECTOR

Subsector	Company	Date	Deal Size (\$M)	Round	Post \$ (\$M) Step-up?	Focus	Notable/Lead New Investor(s)
Dx Test	freenoma	2/15/24	\$254	F	\$2,200	Oncology/ Development	Corporate, Growth
Dx Test	BILLION TO ONE	6/21/24	\$130	D	\$1,000	Oncology/ Commercial	Growth, VC
Dx Test	D E L F I	6/3/24	\$100	B	\$725	Oncology/ Commercial	Corporate
Dx Analytics	Overjet	3/5/24	\$57	C	\$550	Dental/ Commercial	PE, Growth, VC
R&D Tool	cellanome	1/29/24	\$150	B	\$525	Sequencing/ Development	Growth
R&D Tool	ALAMAR BIOSCIENCES	2/29/24	\$128	C	\$400	Biomarker Disc./ Commercial	PE, Growth
R&D Tool	UNLEARN	2/8/24	\$50	C	\$360	Comp Clin Trial/ Development	VC
Dx Test	ClevelandDx	1/16/24	\$75	E	\$271	Oncology/ Commercial	Growth

Valuation<sup>1</sup> ■ Step-Up ■ Flat Rd ■ Step-Down

### Top valuations exhibit a mix of step-ups

In 2023, most of the highest disclosed valuations were step-ups (five of seven), with two remaining flat. In 1H 2024 valuations stabilized at lower levels due to the closed IPO window and limited, lower-value M&A activity. Among the eight companies with the highest disclosed valuations, only two were up-rounds, with three down rounds, and three flat. BillionToOne and Delfi, also listed as top valuations in 2022, increased their valuations since 2022 but their 1H 2024 rounds were down and flat, respectively.

### Corporate and VCs led big deals

Compared to 2023, fewer new corporate and venture investors financially backed the highest-valued companies. Instead, growth and PE investors led most of these deals, which we think is a positive trend since these late-stage investors are essential for supporting commercial expansion. Most recent exits in this last cycle, both IPO and M&A, followed significant revenue growth, highlighting the importance of PE and growth-funded commercialization rounds for positioning companies for exit discussion.

Data pulled from PitchBook as of 6/28/24. Covers private, venture-backed investment. <sup>1</sup>Financing data based on information available from PitchBook, including post-money values. Step-Ups calculated using Pitchbook valuation data for previous and new financing as follows: Divide new pre-money valuation by previous round post-money valuation. PitchBook, company websites, internal analysis.



# Dx/Tools Investment: Private M&A Analysis

1H 2024

# Dx/Tools Private VC-Backed M&A<sup>1</sup> by Indication

2018-1H 2024



**Focus on commercial-stage expansion and private/private consolidation in 2024**

## M&A MEDIAN VALUES

Date	2018	2019	2020	2021	2022	2023
Deals	10	6	11	25	5	6
Up-Front (\$M)	\$126	\$68	\$350	\$225	\$100	\$117
Milestone TBE (\$M)	\$-	\$-	\$-	\$-	\$-	\$13
Total Deal (\$M)	\$161	\$83	\$350	\$270	\$100	\$129

### 2023 M&A activity remains cautious

In 2023, M&A activity slightly increased deal number and value from 2022 but remained well below 2021 levels. Four of the six 2023 deals secured their first institutional round in 2020 or later, yielding an attractive median exit time of 3.3 years. Five of the six deals were commercial stage, except for liquid biopsy deal Haystack.

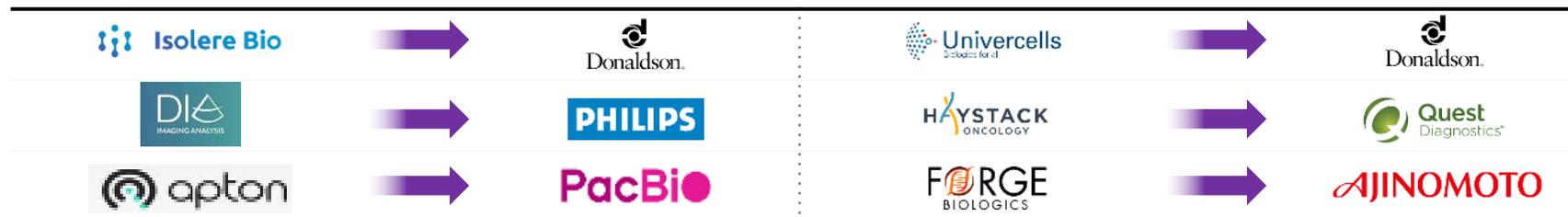
Four of the six deals were R&D Tools companies. The sole Dx Analytics company was Dia Imaging Analysis.

### 1H 2024 M&A activity slows down

Private M&A activity has been subdued in 2024. Without an IPO window, acquirers are cautious about paying premiums for early-stage companies, instead looking to expand their markets with commercial stage tuck-in acquisitions. This was exemplified by Veracyte's acquisition of commercial-stage C2i to expand its reach with oncology physicians, paying \$70M up-front with up to \$25M in earn-outs. However, with the tougher private financing market, we may see more private-to-private venture acquisition such as Tome acquisition of Replace Therapeutics for \$60M up-front and up to \$120M in earn-outs.

Given the larger commercialization rounds observed in 2023 and 1H 2024, we anticipate a few significant M&A deals in 2H 2024 for companies that have scaled to substantial revenues of \$50M+.

## NOTABLE 2023 M&A DEALS



## NOTABLE 1H 2024 M&A DEALS



<sup>1</sup> Dx/Tools M&A defined as private, venture-backed M&A with an upfront payment of at least \$50M. Data Sources: PitchBook, public news articles and conversations with investors and companies. Thanks to Mind Machine for slide strategy, creative and design.



# Deep Dive: Computational Biology Analysis

1H 2024

# Computational Biology: Landscape

1H 2024, US and Europe

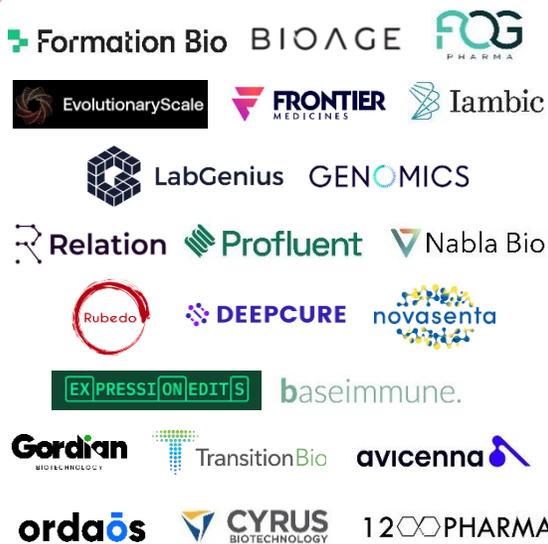


## Four main comp bio categories

↑ Logos arranged in ascending order based on increasing deal size

### AI Discovery (AID)

Post First-Financing



First-Financing



<b>First-Financing:</b>	<b>All deals:</b>
\$1.3B Raised	\$2.61B Raised
8 Deals	30 Deals

### Insight Platforms & Infrastructure (IPI)

Post First-Financing



First-Financing



<b>First-Financing:</b>	<b>All deals:</b>
\$89M Raised	\$746M Raised
12 Deals	32 Deals

### Diagnostics (Dx)

Post First-Financing



First-Financing



<b>First-Financing:</b>	<b>All deals:</b>
\$59M Raised	\$633M Raised
6 Deals	16 Deals

### Clinical Response Predication (CRP)



<b>First-Financing:</b>	<b>All deals:</b>
\$33M Raised	\$314M Raised
3 Deals	11 Deals

In 2024, we identified and analyzed 89 computational biology (comp bio) companies, resulting in a cumulative funding of \$4.3B from 89 financing rounds.

For this analysis, to qualify as a comp bio company, firms must apply computational tools to acquire novel chemical or biological insights in therapeutics, R&D Tools, and Dx sectors only; have a leadership member with computational expertise; and raised over \$2 million in a financing round.

**Companies were classified into four categories**, based on their products and use of computation:

- **AID:** optimization and discovery of novel targets, molecules, chemicals, and delivery systems.
- **IPI:** bio/chem characterization, development of data banks, computational infrastructure, and bio-manufacturing.
- **Dx:** diagnostics and long-term monitoring of biological markers.
- **CRP:** personalized medicine, clinical decision support software, and drug response prediction.

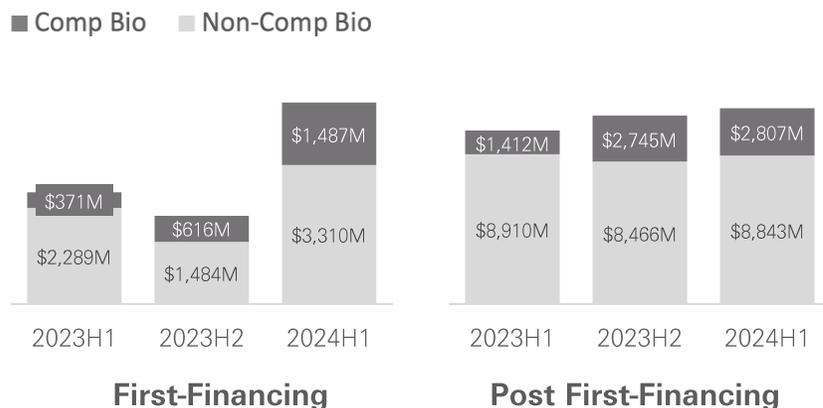
Data Sources: PitchBook deals of \$2M+, company websites, internal analysis.

# Computational Biology: Top Indicators

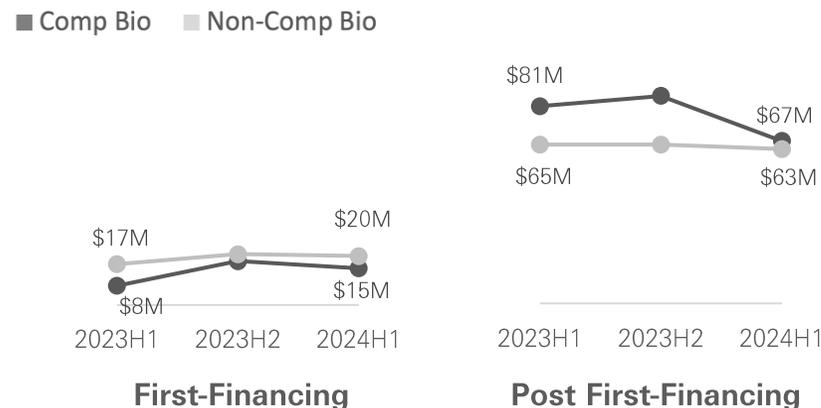
1H 2024, US and Europe



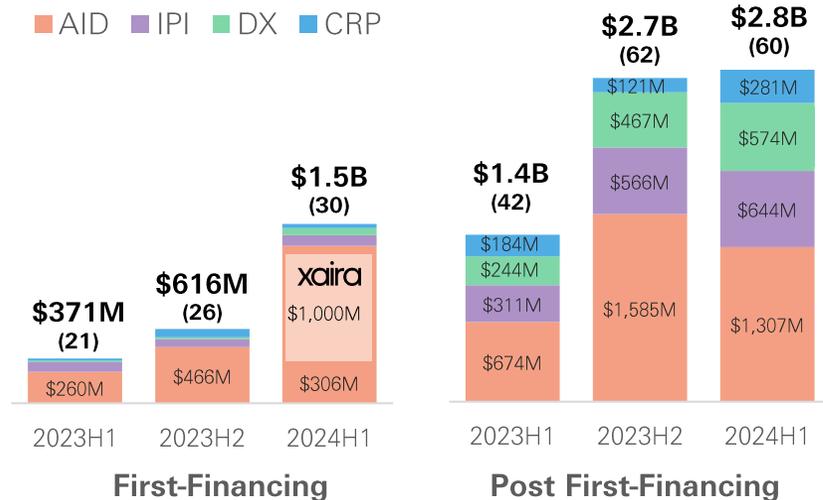
## Dollar Raised Comp vs. Non-Comp Bio



## Median Pre-Money Valuation



## Dollars Raised by Half (Deals)



## Top Post-Money Valuations by Category<sup>1</sup>

Company	Deal Size	Valuation
<b>xaira</b>	\$1B	\$2.7B
<b>FRONTIER MEDICINES</b>	\$80M	\$430M
<b>FOG PHARMA</b>	\$145M	\$400M

Company	Deal Size	Valuation
<b>INARI</b>	\$103M	\$1.65B
<b>Enveda BIOSCIENCES</b>	\$174M	\$400M
<b>CLARAPATH</b>	\$39M	\$231M

Company	Deal Size	Valuation
<b>Freenome</b>	\$254M	\$2.2B
<b>BillionToOne</b>	\$130M	\$1.0B
<b>KARIUS</b>	\$100M	\$185M

Company	Deal Size	Valuation
<b>UNLEARN</b>	\$50M	\$360M
<b>Flagship BIOSCIENCES</b>	\$5M	\$57M
<b>KRYPTOS BIOTECHNOLOGIES, INC.</b>	\$10M	\$47M

In 1H 2024, comp bio first-financing funding continued its rise from 2H 2023, with investments surging to \$1.5B from \$616M, after increasing from \$371M in 1H 2023. This surge was driven by a \$1B deal (Xaira) quadrupling the highest 2023 deal of \$245M (Metagenomi). Comp bio deals comprised 31% of all first-financing deals, up from 20% in 2H 2023 and 16% in 1H 2023. Contrastingly, in post first-financing rounds, comp bio investments remained consistent.

After doubling from 1H to 2H 2023, first-financing comp bio pre-money values remained stable in 1H 2024, while later-stage valuations saw a small decline.

In 1H 2024, AID companies secured 86% of first-financing funds, up from 75% in 2H 2023, driven Xaira and AID's overall high median deal size (\$35M). In post first-financing rounds, AID, though still the largest recipient, accounted for only 46% of the funding, down from 58% in 2H 2023. Contrastingly, capital for Dx and IPI increased for two consecutive halves. Notably, CRP investment more than doubled, from \$121M to \$281M, underscoring the growing interest in personalized care.

Thirteen companies raised rounds over \$100M. Zephyr AI, the first CRP company to exceed this amount in the past eighteen months, raised \$111M in Series A (no disclosed valuation).

Four companies passed the \$1B evaluation mark, already eclipsing the three +\$1B valuations from all of 2023.

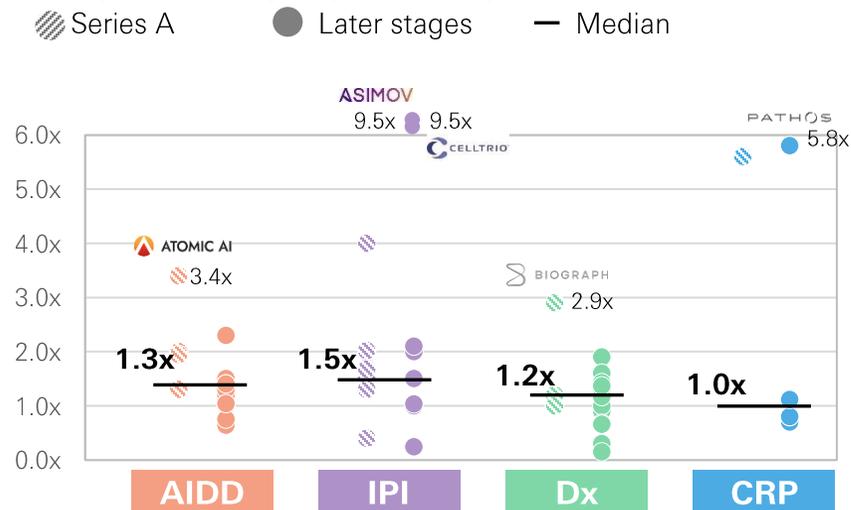
Data from PitchBook as of 06/28/24, including deals of \$2M+. <sup>1</sup>Companies shown include only ones with reported new-round valuation on PitchBook as of 06/28/24. Data Sources: PitchBook, company websites, internal analysis.

# Computational Biology: 18-Month Recap<sup>1</sup>

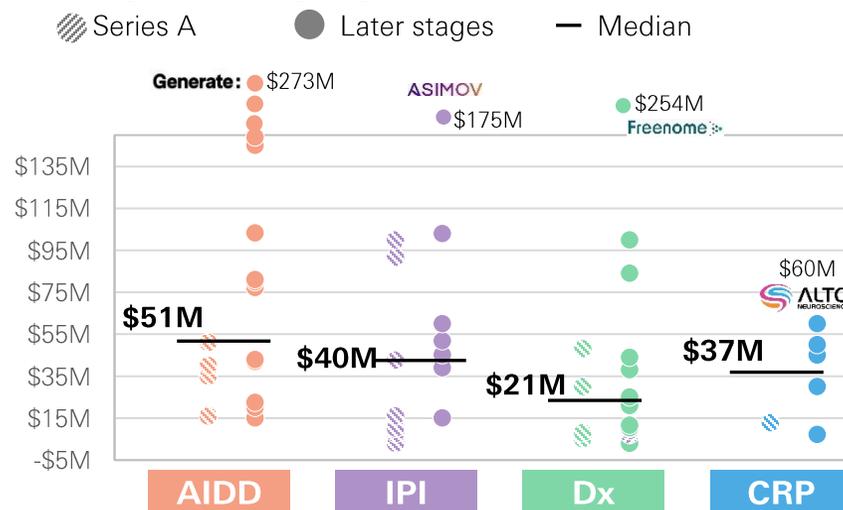
2023- 1H2024, US and Europe



## Comp Bio Step-Ups Multipliers



## Comp Bio Step-Up Deal-Sizes



Over the past eighteen months, sixty-one newly investor-led comp bio ventures disclosed valuations, 25% of the deals, with a median step-up of 1.3x. Among comp bio categories, IPI had the highest median step-up at 1.5x, followed by AID (1.3x) and Dx (1.2x). CRP was the sole category with a flat valuation of 1.0x. However, with only six CRP companies with disclosed step-ups, it may not represent the category fully. AID led in step-up deal sizes, with a median of \$51M.

Interestingly, of the top ten companies with highest step-ups, only Celltrio (9.5x), closed during 1H 2024. Wobble Genomics (2x) and Rubedo (2x) completed the top three 1H 2024 step-ups.

## Step-Up Analysis by Round

Round	New VC-led Deals	Pre-Money (Median)	Deal Size (Median)	Step-Up (Median)	# Down Rounds
Series A	17	\$23M	\$16M	1.7x	1
Series B	21	\$63M	\$21M	1.4x	3
Series C	12	\$183M	\$55M	1.1x	4
Post C	6	\$228M	\$124M	0.9x	3

## Top Investors<sup>1</sup> – First-Financing

Investor	Deals
KdT Ventures	4
RACAPITAL	4
Flagship Pioneering	4
ARCH VENTURE PARTNERS	3
M. VENTURES	2

## Top Investors – All Deals

Investor	Deals
NVIDIA	7
Gaingels	7
RACAPITAL	6
Alumni Ventures	5
ALEXANDRIA Venture Investments	5

Series A companies had the highest median step-ups, with multiples decreasing in later stages, a trend also observed in non-comp bio. Despite a median step-down for companies in Series D and beyond, these companies still secured substantial funding (median \$124M) for continued development.

The top investors included traditional biopharma, VCs, and crossover funds. KdT Ventures and RA Capital Management led first-financing with two new investments each in 1H 2024. RA Capital and Alumni Ventures emerged as new leaders among overall active investors in comp bio. Interestingly, three of the top four AID companies gained new corporate investors in their latest financing.

Data from PitchBook as of 06/28/24, including deals of \$2M+. <sup>1</sup>Companies shown include only ones with reported new-round valuation on PitchBook as of 06/28/24. <sup>1</sup>Top Investors only include first investment into a portfolio company, not follow-on financings. Data Sources: PitchBook, company websites, internal analysis.

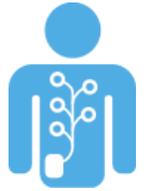


# Med Device Early-Stage: First-Financing Analysis

1H 2024

# Med Device First-Financing<sup>1</sup> Analysis

2023-1H 2024 US & Europe



After weak 2H 2023 investment, 2024 logs massive Q2 dollars

## Early-Stage Investment and Deal Activity (\$s/Deals)



**2023 Activity vs Previous Years**  
(Annualized 2023 Investment vs Previous Years<sup>2</sup>)



### In 2023, funding declined quarter by quarter

Each successive quarter in 2023 saw decreased funding. We attribute this decline to three primary factors:

- 1) Reduced investor activity due to valuation concerns and managing existing portfolios.
- 2) Challenges in syndicating first-financing risk.
- 3) Perceived difficulties in securing new Series B lead investors for PMA deals.

### Dollar surge in Q2 2024

First-financing activity remained subdued in Q1. However, Q2 marked a significant upswing, nearly doubling the highest quarter of 2023 and setting a four-year quarterly investment record. Notably, four of the six largest first-financing deals in the past eighteen months occurred in Q2 2024. The overall number of deals in Q2 increased as well.

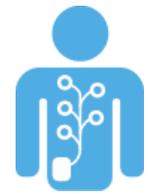
### Traditional VC and Corporates fund new deals

In 1H 2024, investor participation in first-financings remained stratified, with traditional venture and corporates investors maintaining a cautious pace for early-stage deals. However, several multi-syndicated deals featured both VC and corporate investors. Notable venture investors in first-financing deals in 1H 2024 included F-Prime, Lightstone, NEA, Hatteras, Treo, Vensana, Xontogeny, and MVM, while corporate investors included Intuitive Ventures, OSANG, and Laborie.

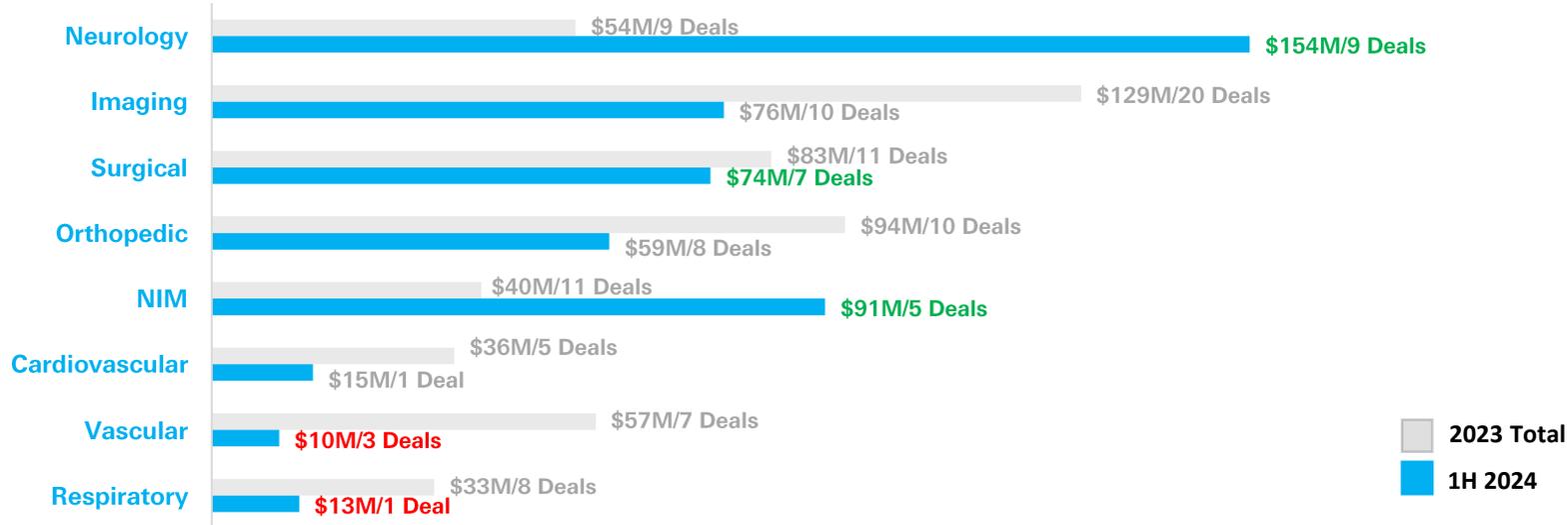
Data from PitchBook as of 6/28/24. Covers private, venture-backed investment. <sup>1</sup>First-financing defined as initial Seed or Series A financing of \$2M+. <sup>2</sup>Using specific PitchBook search functions to approximate sector specific funding from previous years. Data Sources: PitchBook, company websites, internal analysis. Thanks to Mind Machine for slide strategy, creative and design.

# Med Device First-Financing<sup>1</sup> by Indication

2023-1H 2024 US & Europe



## PMA deals rise; Neuro and NIM up, Vascular and Respiratory down



### PMA deals gain momentum in 1H 2024

In 2023, 510(k) activity increased in categories such as imaging and orthopedics, while PMA and De Novo deals were rare, leading to funding declines for brand-new technologies, especially in neuro and cardiovascular.

In 1H 2024 investor confidence increased. Larger traditional investors sought new opportunities, leading to a resurgence in big-market, new technology deals, particularly in neuro. However, cardiovascular activity remained muted.

First-financing investment activity remained consistent in imaging (covering urology, cardiovascular and oncology) and orthopedic (implants, surgical robotics). There was a notable increase in investment in non-invasive monitoring (NIM) which had experienced significant investment decline over the past two years. NIM indications were directed towards diabetes, vital sign monitoring, urology, and neuro.

### Numbers at a glance (largest 10 deals):

#### Indication

NIM 3 deals  
Neuro 2 deals

#### Focus

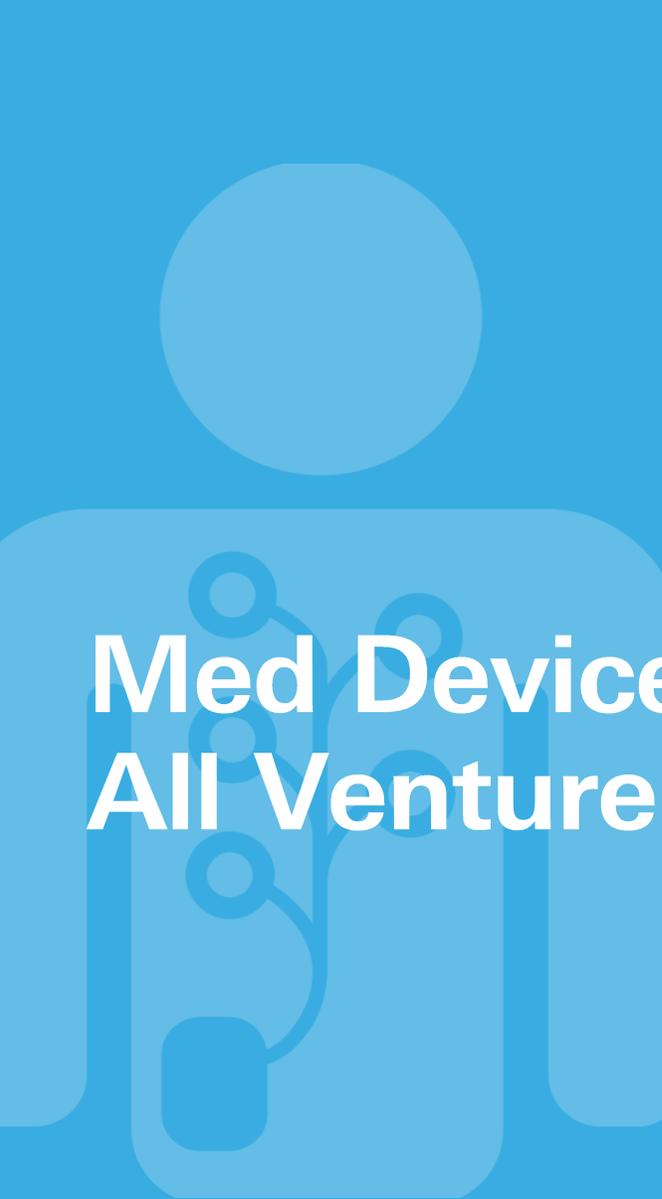
Urology 2 deals  
Neurostim 2 deals

#### Location

MA 2 deals  
CA 2 deals  
OUS 2 deals

	Indication Focus	Size of Round	Deal Date	Location		Indication Focus	Size of Round	Deal Date	Location		
1	AMBER THERAPEUTICS	Neuro Neurostim	100	6/9	London, UK	6	IVEAcare	Neuro Neurostim	28	1/24	Minneapolis, MN
2	Cradle	Surgical Regenerative	48	6/5	SF, CA	7	brighturo™	Imaging Urology	23	5/10	Irvine, CA
3	Alle Health	NIM Metabolic	36	4/6	US	8	Adaptilens	Ophthalmology I/O Lens	18	4/29	Newton, MA
4	COACHCARE	NIM Vital Signs	32	6/13	New York, NY	9	IUROLOGY	NIM Urology	16	1/2	Knoxville, TN
5	ico cet	Orthopedic Implant	30	1/24	Altstatten, Switzerland	10	MEACOR	Cardiovascular Valve Repair	15	5/13	Ayer, MA

Data from PitchBook through 6/30/24. Covers private, venture-backed investment. <sup>1</sup>First-financing defined as initial Seed or Series A financing of \$2M+. Data Sources: PitchBook, company websites, internal analysis. Thanks to Mind Machine for slide strategy, creative and design.

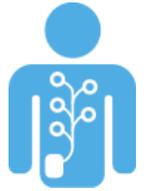


# Med Device Investment: All Venture Deals

1H 2024

# Med Device Analysis (All Deals)

2023-1H 2024 US & Europe



**Investment stable, driven by pivotal trial and commercialization deals**

## Venture Investment and Deal Activity (\$s/Deals)



### Despite slowdown fears, investment was steady

We thought device investment would decrease in 2023, however, it remained consistent with previous years. For 2024, we again anticipated a decline in investment, as investors were expected to concentrate on assisting their portfolio companies in securing the next round of funding, with unsuccessful fundraises potentially facing consolidation or closure.

However, investments persisted and grew in both deals and dollars in 1H 2024. Investments are on track to surpass 2023 and match 2022's total. Larger pivotal trial fundings and 510(k) cleared commercialization rounds drove this increased investment.

### Growth/Crossover investors fund larger rounds

In 1H 2024, growth and crossover investors funded many of the larger deals. Prominent growth and later-stage investor activity included Ally Bridge, HealthQuest, Norwest, Novo, Bain, Endeavor Vision, Gilde, Deerfield, and Care Capital. Crossovers included Viking, Perceptive, Fidelity, and RA Capital.

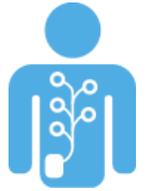
### 2024 Series B deals find new investors, step-ups

Series B deals have been a challenge to fund. These companies are often midway through early-stage trials or at initial commercialization after 510(k) clearance and tend to close more insider bridge rounds than new investor lead round, especially in 2023. However, in 1H 2024, twenty-six new-investor led Series B deals were funded. The median step-up for these new investor-led Series B deals (based on seventeen deals with available valuation data) was 1.7x, with a median pre-money valuation of \$56M and median round size of \$21M.

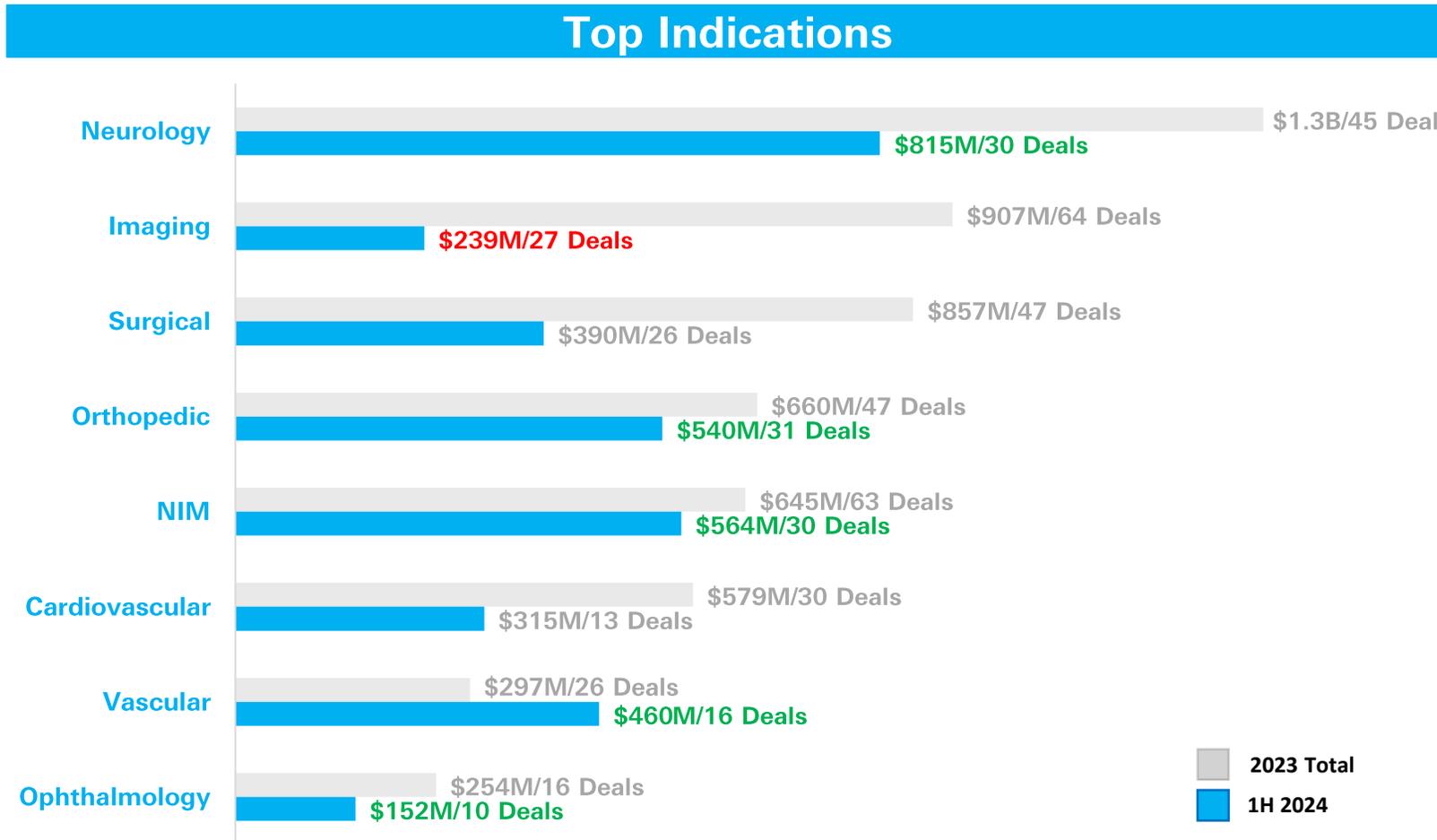
Data from PitchBook as of 6/28/24; Covers private, venture-backed investment. \*Using specific PitchBook search functions to approximate sector specific funding from previous years. Data Sources: PitchBook, company websites, internal analysis. Thanks to Mind Machine for slide strategy, creative and design.

# Med Device Investment by Indication

2023-1H 2024 US & Europe



**Neuro, Orthopedic, Vascular up: NIM stages comeback while Imaging stumbled**



#### Neuro investment grew, imaging dropped in 1H 2024

In 2023, imaging and neuro sectors saw increased investment. In 1H 2024, neuro continued its upwards trajectory with thirty deals, on pace to exceed 2023 investment. Neuro deals focused on neurostim (twelve) and brain/computer interface technologies (four).

Conversely, imaging funding declined sharply, dropping from the top indication to eighth place. More deals were completed in general surgical applications (nine) than in oncology (seven), which was the primary focus in 2023.

#### NIM rebounds

Following the decline in 2023, NIM investment grew in 1H 2024, both in first-financing deals and overall. NIM is on track to match the investment dollars raised in both 2020 and 2021. NIM deals focused on cardiovascular (seven), metabolic (five), and general vital signs (five).

#### Cardiovascular deals secure pre-commercial rounds

Securing first-financings rounds in cardiovascular has remained challenging. However, in 1H 2024, there was significant support for Series B or later cardiovascular companies. Notably, five of the top six \$20M+ cardiovascular deals were pre-commercial rounds, including three pivotal trial rounds and two early development fundings.

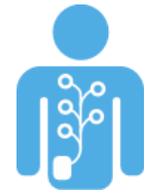
#### Vascular funding outpaces total 2023 levels

Vascular deals experienced a surge in investment, already exceeding 2023 dollars. The financings included a mix of companies pursuing 510(k) clearance and those on the PMA/De Novo pathway. The two largest deals were both funding pivotal trials.

Data from PitchBook through 6/28/24. Covers private, venture-backed investment. Using specific PitchBook search functions to approximate sector specific funding from previous years. Data Sources: PitchBook, company websites, internal analysis. Thanks to Mind Machine for slide strategy, creative and design.

# Med Device Largest Investment in 1H 2024

1H 2024 US & Europe



## Neuro and Vascular led largest deals at flat and up-round valuations

		Indication Focus	Size of Round	Date/Round	Location
1	Blackrock Neurotech	Neuro Brain/Comp	200	4/29 D	Salt Lake City, UT
2	Mainstay Medical	Orthopedic Neurostim	128	2/26 Late Stage	San Diego, CA
3	MMI	Surgical Robotic	110	2/21 C	Pisa, Italy
4	AMBER THERAPEUTICS	Neuro Neurostim	100	6/9 A	London, UK
5	Nectero Medical	Vascular AAA	96	5/10 D	Tempe, AZ

		Indication Focus	Size of Round	Date/Round	Location
6	SPR Therapeutics	Neuro Neurostim	92	2/1 D1	Cleveland, OH
7	VASCULAR	Vascular Bio scaffold	87	5/9 B	Mountain View, CA
8	nalu neurostimulation	Neuro Neurostim	85	3/12 E	Carlsbad, CA
9	IMPACT VITALS	NIM Vitals	77	1/12 B	Boston, MA
10	Aveta	Vascular Tissue Removal	77	5/17 C	San Jose, CA

Valuation<sup>1</sup> ■ Step-Up ■ Flat Rd ■ Step-Down

**Numbers at a glance (largest 10 deals):**  
Seven of the largest ten deals in 1H 2024 were commercialization-focused, split between 510(k) (three deals) and PMA/De Novo (four deals). The pre-commercial deals included pivotal trial funding (two deals) and one development stage deal.

Among the largest ten deals with valuation information available, there were no down rounds, three were flat, and two were up-rounds.

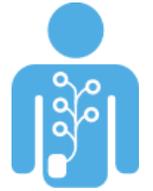
**Indication**  
Neuro 4 deals  
Vascular 3 deals

**Location**  
NorCal 2 deals  
SoCal 2 deals  
OUS 2 deals

Data from PitchBook through 6/28/24. Covers private, venture-backed investment. <sup>1</sup>Step-up analysis uses PB supplied valuations if available. Using specific PitchBook search functions to approximate sector specific funding from previous years. Data Sources: PitchBook, company websites, internal analysis. Thanks to Mind Machine for slide strategy, creative and design.

# Med Device Most Active Investors<sup>1</sup>

1H 2024 US & Europe



**Stratified list of investors; return of traditional VCs with multiple deals in 1H 2024**

## FIRST-FINANCING<sup>2</sup>

All Investors	
2	
2	
2	

## ALL DEALS

VC	Growth <sup>3</sup>	Corporate
3 	3 	2 
2 	2 	2 
2 	2 	
2 		
2 		
2 		
2 		
2 <sup>4</sup> 		

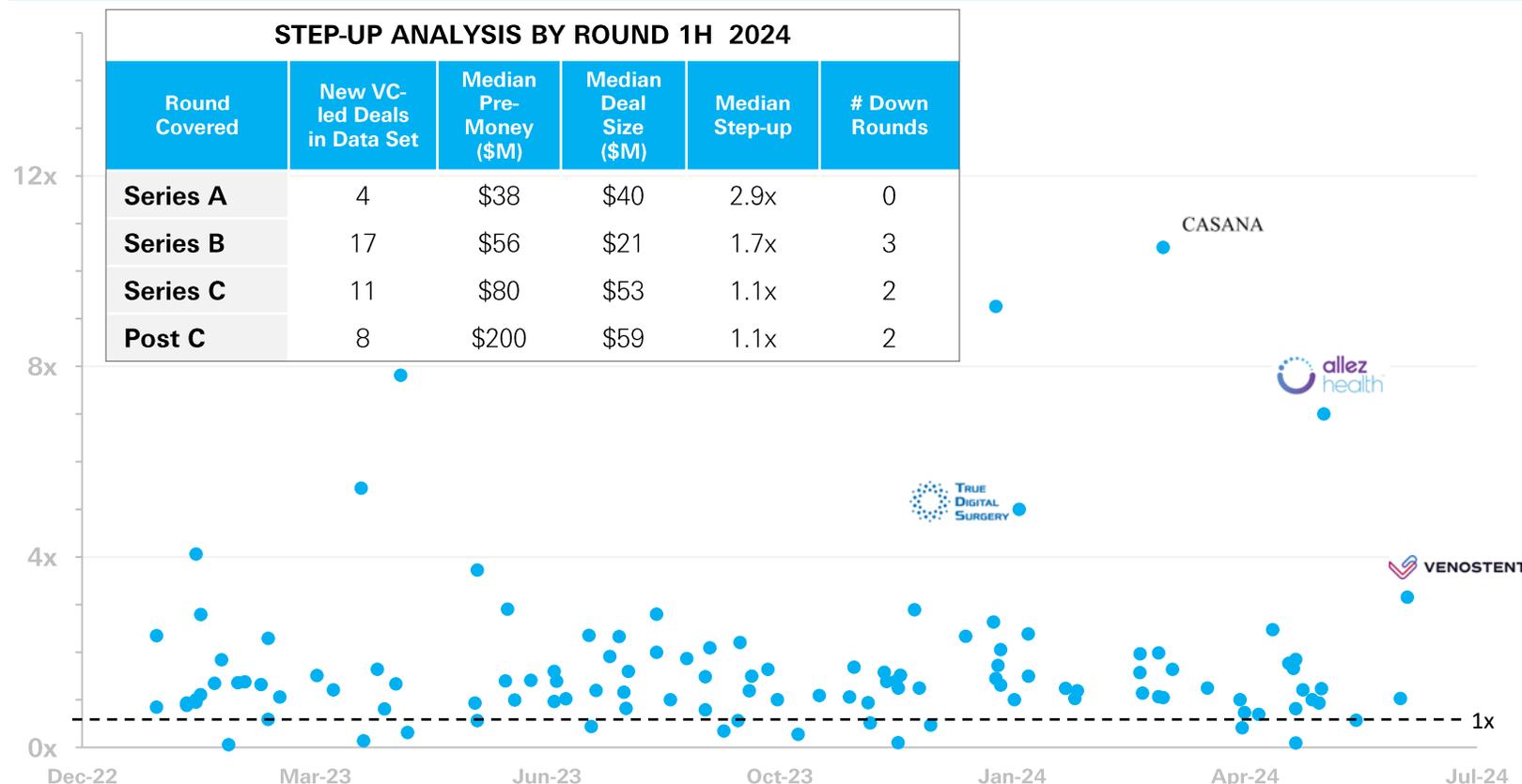
Data from PitchBook as of 6/28/24. Covers private, venture-backed investment. <sup>1</sup>Most Active Investors only include first investment into a portfolio company, not follow-on financings. <sup>2</sup>First-financing defined as initial Seed or Series A financing of \$2M+. <sup>3</sup>Growth Investors defined as investment firms that typically invest in later-stage companies that either are revenue scaling or the round is anticipated to be the last before an IPO. <sup>4</sup> Some categories had ties for number of deals, and list was curtailed due to space. Note that families of funds are combined for this slide, as are corporate and corporate venture with the same parent. Data Sources: PitchBook, company websites, internal analysis. Thanks to Mind Machine for slide strategy, creative and design.

# Med Device New Investor Step-Up<sup>1</sup> Analysis 2023-1H 2024 US & Europe



**Top deals secured up-round valuations, yet later-stage median step-ups dropped**

## Step-Up Scatterplot



With data available for approximately 23% of device deals, the median step-up in 1H 2024 was 1.2x, down from 1.5x.

### Down rounds remain rare (for now)

Contrary to expectations, 1H 2024 saw fewer valuation re-sets and down-rounds despite dwindling insider-round cash and forced fundraising. There were only seven down-rounds in 1H 2024, compared with twenty-one in the full year of 2023. We anticipate more down-rounds later in 2H 2024 and into 2025 as companies exhaust their insider cash.

### High multiples prevalent in early-stage

The highest step-ups in 1H 2024 were two Series B and two Series A deals: NIM deals Casana (9.2x) and Allez Health (7x) led, then imaging deal True Digital Surgery (5x) and vascular company Venostent (3.2x).

### Series B deals exhibited strong median multiples and pre-money valuations

Historically, Series B financing in device has been challenging, often relying on existing Series A investor syndicates for early clinical trial funding or initial commercialization. However, in 1H 2024, new investor-led Series B deals saw a resurgence with a strong median pre-money value of \$56M and a median step-up of 1.7x over seventeen deals.

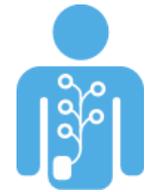
### Later stage deals embraced flat medians

In 2023, one in three later-stage deals were step-downs, with median multiples at 1.2x. In 1H 2024, the number of step-downs reduced to just 20%, but median multiples decreased to 1.1x.

Data from PitchBook as of 6/28/24. Covers private, venture-backed investment. <sup>1</sup>New Investor Step-Up refer to companies that had a new investor in its recent 2023 – 1H '24 financing, with that equity financing equal to or greater than the last financing round. Companies included if valuation information was available for both the new and last financing. Step-Ups calculated using Pitchbook valuation data for previous and new 2023 – 1H '24 financing as follows: Divide new pre-money valuation by previous round post-money valuation. Data Sources: PitchBook, company websites, internal analysis. Thanks to Mind Machine for slide strategy, creative and design.

# Med Device Largest Post-Money<sup>1</sup> Values

1H 2024 US & Europe



**Biggest post-money values on 510(k) commercialization deals**

## LARGEST POST-MONEY VALUATIONS BY MED DEVICE INDICATION

Indication	Company	Date	Deal Size (\$M)	Round	Post \$ (\$M) Step-up?	Stage	Notable/Lead New Investor(s)
Neuro Neurostim	 nalu neurostimulation	3/12/24	\$85	E	\$345	Commercial 510(k)	Growth, VC
NIM Cardiovascular	 casana	1/2/24	\$40	B	\$340	Commercial 510(k)	Corporate, VC
Dental Robotics	 neocis	1/10/24	\$60	D	\$311	Commercial 510(k)	Corporate, VC
NIM Vitals	 Eko	6/5/24	\$40	D	\$278	Commercial 510(k)	VC, Corporate
Neuro Neurostim	 SPR SPR Therapeutics	2/1/24	\$92	D1	\$270	Commercial 510(k)	PE, Growth, VC
Respiratory Inhaled NO	 THIRD POLE Therapeutics	2/6/24	\$57	B2	\$250	Pivotal Trial	VC
Orthopedic Implant	 carlmed Data Driven Surgery™	3/18/24	\$53	C	\$233	Commercial 510(k)	VC
Imaging Oncology	 promaxo	3/25/24	\$32	B3	\$216	Commercial 510(k)	Family Office, Corporate, VC

Valuation<sup>1</sup> ■ Step-Up ■ Flat Rd ■ Step-Down

### Highest valuations dropped from 2023

Private valuation median for the top eight deals in 1H 2024 declined by 50% compared to 2023 highest valuations. This decline in 2024 may be due to most top deals being 510(k) commercial rounds, which typically yield smaller sized M&A deals. Over 50% of the 2023 deals were PMA-focused, involving unique technology and targeting bigger markets.

### Corporate support for larger deals

In 2023, the largest post-money valuation deals were funded by a mix of growth and traditional VC investors. In 1H 2024, corporate support increased, with contributions from Intuitive, LG Technology Ventures, Zepp Health, and Microport. Med device has the highest correlation of corporate investors transitioning into acquirers, so we will watch for near term acquisitions for these deals.

### What was the impact of M&A activity on valuations?

After a slow start, the exit environment improved in 2H 2023, prompting expectations of more exits in 2024. 1H 2024 featured mostly up-rounds and increased median pre-money valuations. However, private M&A deals slumped, with only two transactions and lower exit values than in 2023.

Data from PitchBook as of 6/28/24. Covers private, venture-backed investment. <sup>1</sup>Financing data based on information available from PitchBook, including post-money values. Step-Ups calculated using Pitchbook valuation data for previous and new financing as follows: Divide new pre-money valuation by previous round post-money valuation. Data Sources: PitchBook, company websites, internal analysis. Thanks to Mind Machine for slide strategy, creative and design.

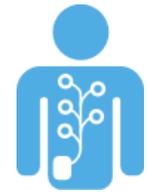


# Med Device Investment: Private M&A Analysis

1H 2024

# Med Device Private VC-Backed M&A<sup>1</sup> by Indication

2018-1H 2024



**A strong 2H 2023 private M&A market transitioned to sparse activity in 1H 2024**

## M&A MEDIAN VALUES

Date	2018	2019	2020	2021	2022	2023
Deals	20	17	16	23	11	9
Up-Front (\$M)	\$195	\$120	\$132	\$250	\$138	\$400
Milestone TBE (\$M)	\$43	\$35	\$100	\$---	\$130	\$120
Total Deal (\$M)	\$223	\$220	\$223	\$300	\$255	\$600

### Strong deal sizes but longer time to exit in 2023

In 2023, M&A deal values were robust, however time to exit and venture capital invested medians hit all-time highs. Six of nine deals were commercial-stage PMA approved companies.

### Limited private deals in 1H 2024

High-value exits from 2023, with later-stage down-rounds to M&A and early-stage upstarts like Laminar, have emboldened investors to lead new rounds. Eight of the nine deals were in 2H 2023.

Despite expectations for a strong private M&A environment in 1H 2024, Exits instead focused on larger public company acquisitions and divestitures.

There were only two private VC-backed exits so far this year, both commercial 510(k) plays. Attune Medical, the only publicly disclosed deal over \$50M up-front in 1H 2024, sold to Haemonetics for \$160M plus earn-out.

## NOTABLE 2023 M&A DEALS

Kerecis	→	Coloplast	UROTRONIC	→	Laborie <sup>1</sup> FOR DIGNITY. FOR LIFE.
relievant	→	Boston Scientific	Palette LIFE SCIENCES	→	Teleflex
EMBODY <sup>®</sup> Repair. Regenerate. Restore.	→	ZIMMER	LimFlow	→	INARI MEDICAL
bigfoot <sup>™</sup> BIOMEDICAL	→	Abbott	LAMINAR	→	Johnson & Johnson

## NOTABLE 1H 2024 M&A DEALS

Artelon	→	stryker	attune medical	→	HAEMONETICS <sup>®</sup>
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<sup>1</sup>Med Device M&A defined as private, venture-backed M&A with an upfront payment of at least \$50M. Data Sources: PitchBook, public news articles and conversations with investors and companies.

# Healthtech Early-Stage: First-Financing Analysis

1H 2024

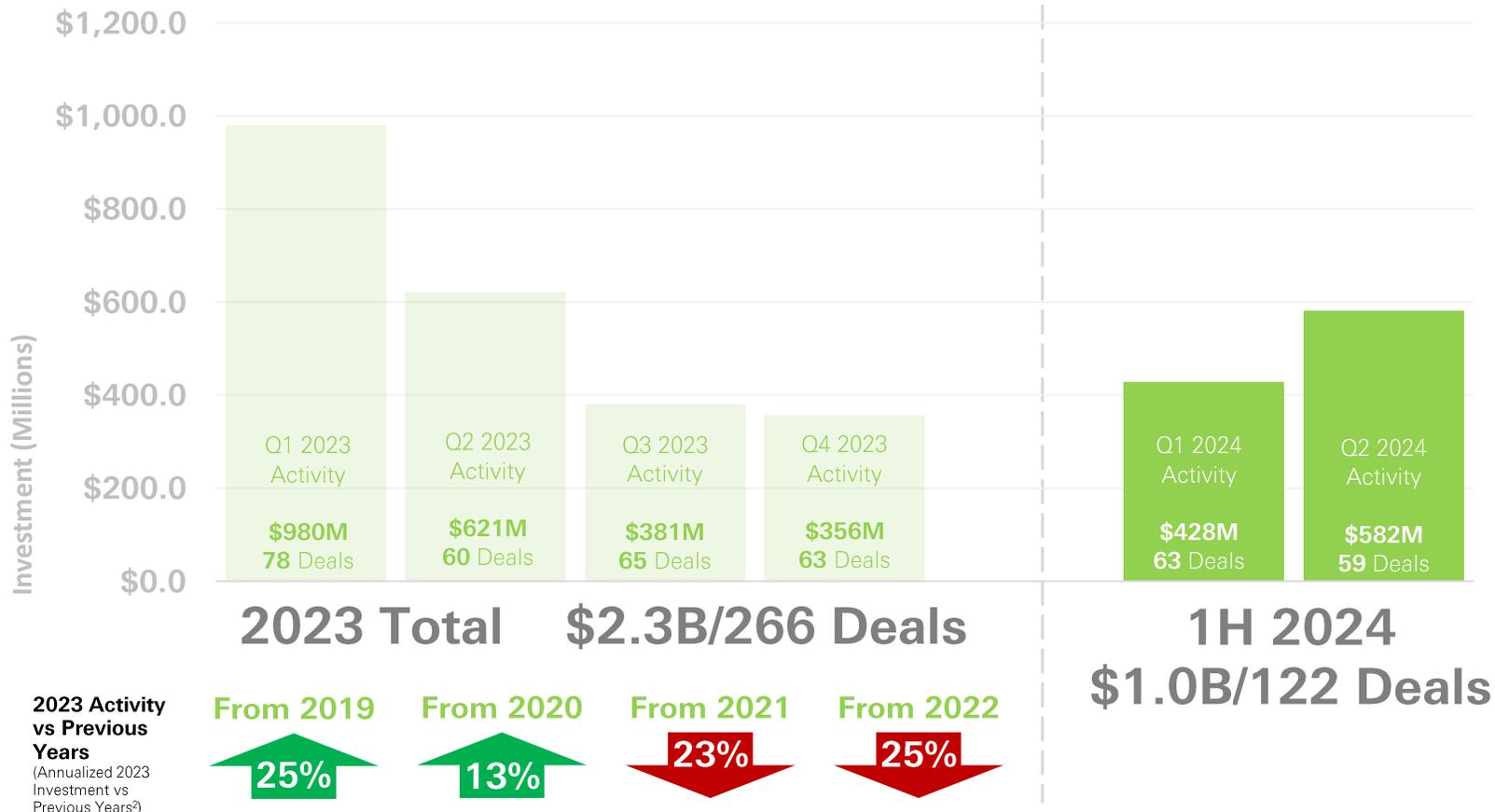
# Healthtech First-Financing<sup>1</sup> Analysis

2023-1H 2024 US & Europe



**Series A deal sizes up, even as companies focus on “smart growth”**

## Early-Stage Investment and Deal Activity (\$s/Deals)



### 2024 investment picked up

In 2H 2023, healthtech first financing dropped precipitously as investors focused on existing portfolios and their own fundraising plans. 1H 2024 saw a similar deal count, but investment grew. This was driven by companies focusing on fundamentals and revenue traction to attract a larger first financing.

### Larger Series A rounds emerging in 2024

Average and median deal sizes remained stable for first-financing (Seed and Series A) deals over the past two years. However, specifically for Series A, deal sizes did appear to pick up in 1H 2024, with companies such as Advanced Medicine Partners (\$60M), Pi Health (\$30M), Axena Health (\$30M) and Blackbird Health (\$23M).

### First-financing rises for Healthcare Navigation

Provider operations deals remained stable in 1H 2024 with fifty deals totaling \$355M. Alternative investment remained low at thirty-one deals and \$264M, down over 50% from 1H 2023 but steady compared to 2H 2023. Healthcare navigation activity rose to seven deals totaling \$62M, nearly matching 2023 year-end totals of nine deals and \$68M.

### Generative AI/LLM (large language models) remain in their early stages

Despite some high valuation investments, these platforms are still in their infancy. Traditional healthcare investors appear cautious, discerning the applications and possible benefits before making any significant investments.

Data from PitchBook as of 6/28/24. Covers private, venture-backed investment. Healthtech defined as companies or product/solutions that help in delivering care, helping doctors or other forms of medical solution deliver care, or helping the broader ecosystem deliver care. <sup>1</sup>First-financing defined as initial Seed or Series A financing of \$2M+. <sup>2</sup>Using specific PitchBook search functions to approximate sector specific funding from previous years. Data Sources: PitchBook, company websites, internal analysis. Thanks to Mind Machine for slide strategy, creative and design.

# Healthtech Investment: All Venture Deals

1H 2024

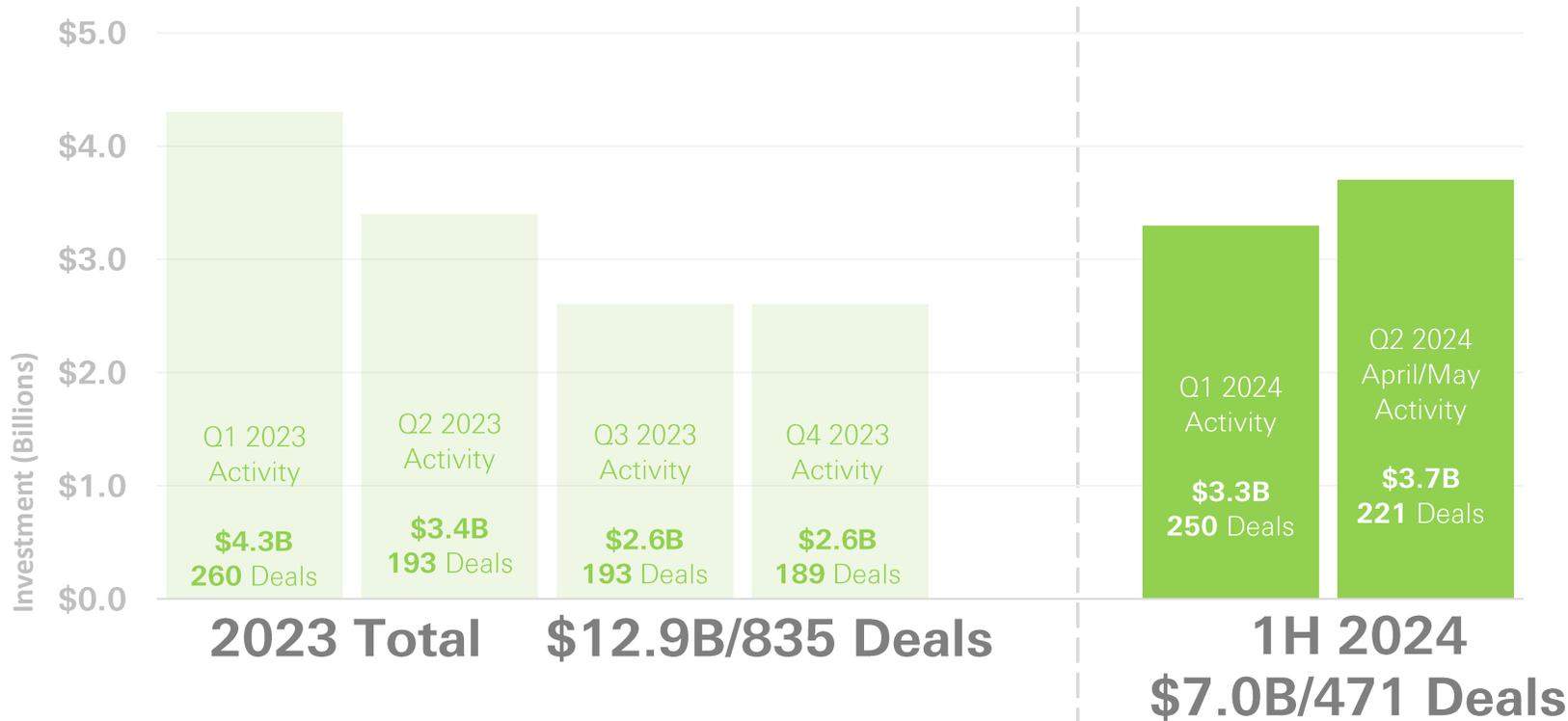
# Healthtech VC Investment (All Deals)

2023-1H 2024 US & Europe



**Healthtech coming out of the cycle bottom in 1H 2024?**

## Venture Investment and Deal Activity (\$s/Deals)



**2023 Activity vs Previous Years**  
(Annualized 2023 Investment vs Previous Years<sup>2</sup>)



### Investment picks up in 1H 2024

2023 saw insider rounds, valuation resets and a general investment slowdown. In 1H 2024, investors gradually returned; 52% of post first-financing deals had a new lead investor, up from 49% in 2023.

### Later-round deals attract new funding

In 2023, later-stage companies raised insider-rounds to extend runway and try to catch-up to their 2021/2022 growth-driven valuations. In 1H 2024, investors still sought growth but also wanted a clear path to profitability. Companies that secured new investors were largely ones that demonstrated additional growth potential, adopted capital-efficient models, and significantly reduced burn.

In 1H 2024, among twenty-three Series C or later deals with valuation data, fourteen had step-up rounds and nine had step-down rounds.

### Big deals on the decline

In 2022, there were fourteen \$200M+ deals, decreasing to six in 2023 and just one so far in 1H 2024 (Innovaccer).

### Market normalization returns

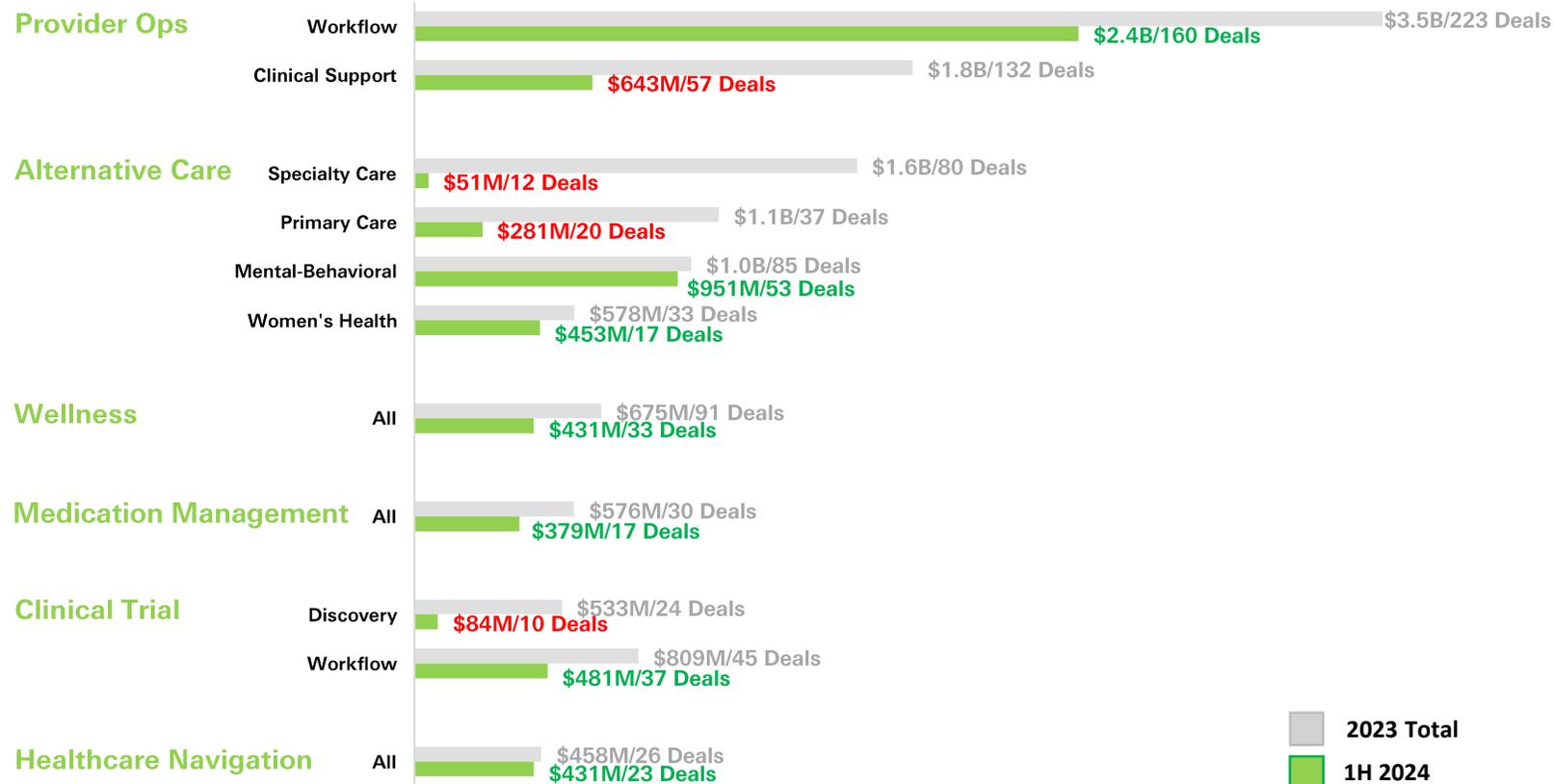
1H 2024 data has revealed improving Series A trends and more early-stage investment from a volume perspective. Combined with fewer insider/unlabeled rounds and larger investment in mature later-stage companies, this suggests a return to a "normalized" market.

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### Provider Ops and Alternative Care see mixed subsector activity

#### Top Subsectors



#### Provider Ops, Clinical Trial workflow solutions saw higher investment

Similar to 2023, provider ops continued to secure the most investment. Workflow-focused companies in both provider ops and clinical trial support attracted the lion share of dollars.

AI-enabled technology drove significant investment in the provider ops space, as early adopters focused on reducing administrative friction, cutting unnecessary costs and identifying new revenue opportunities.

#### Divergent Alternative Care investment

Alternative Care saw contracting trends: primary and specialty care experienced a sharp decline in investment, while mental/behavioral and women's health companies saw almost the same investment dollars as in all of 2023.

Capital intensive alternative care businesses drove significant deals and dollars during the 2021/2022 bull run. However, these companies struggled to meet valuation expectations, despite raising insider and add-on rounds. This contributed to the decline seen in 1H 2024, as investors focused on consolidating these models into broader platforms rather than perusing new opportunities. Additionally, challenges in the Medicare/MA landscape with v28, which changed the underlying Medicare revenue model, have created headwinds in the sector.

The growth in women's health investment reflects the subsector's maturation. Historically, funds were directed at early-stage ventures focused primarily on fertility and pregnancy. Now, investors are backing mature models with larger rounds and adopting a broader, holistic approach to women's health, encompassing maternal care, menstruation, menopause, mental health, and other related areas.

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# Healthtech Largest Financings

1H 2024 US & Europe



**Big deals sizes decline, but best performing companies still saw step-ups**

		Subsector	Size of Round	Date/Round	Location
1	innovaccer	Provider Ops Workflow	250	4/30 F	SF, CA
2	abridge	Provider Ops Workflow	150	2/23 C	Pittsburgh, PA
3	INFINX	Provider Ops Workflow	150	5/21 B	Cupertino, CA
4	sword	Alternative Care Specialty Care	130	6/4 E	Draper, Utah
5	Talkiatry	Alternative Care Mental/Behavioral	130	6/18 C	New York, NY
6	transcarent	Healthcare Nav Provider Matching	126	3/7 D	Denver, CO
7	Capital Rx	Medication Mgmt. Pharmacy Benefits	115	3/21 E	New York, NY
8	rightway™	Medication Mgmt. Prescription	109	3/29 D	New York, NY
9	ESSENCE HEALTHCARE	Insurance	100	4/22 A2	Saint Louis, MO
10	Harbor Health	Provider Ops Workflow	96	1/11 A2	Austin, TX

		Subsector	Size of Round	Date/Round	Location
11	amino	Healthcare Nav Provider Matching	90	5/22 B	SF, CA
12	grow therapy	Alternative Care Mental/Behavioral	88	4/8 C	New York, NY
13	Advantia HEALTH	Alternative Care Women's Health	83	1/16 C	Arlington, VA
14	willow	Alternative Care Women's Health	81	1/22 A1	Mountain View, CA
15	reveleer	Provider Ops Workflow	81	2/26 F	Glendale, CA
16	LORE Contagious health	Wellness/Education Health & Wellness	80	5/9 A	San Diego, CA
17	two chairs	Alternative Care Mental/Behavioral	72	4/16 C	SF, CA
18	SmithRx	Medication Mgmt. Pharmacy Benefits	60	1/23 C	SF, CA
19	ADVANCED MEDICINE PARTNERS	Clinical Trials Workflow	60	6/6	Lake Forest, IL
20	fabric	Provider Ops Workflow	60	2/21	New York, NY

Valuation<sup>1</sup> ■ Step-Up ■ Flat Rd ■ Step-Down

## Numbers at a glance (largest 20 deals):

The top twenty deals in 1H 2024 raised \$2.1B, which represented 4% of Healthtech deals and 30% of total investment. The workflow subsector recorded the most top 20 deals with seven. Mental and behavioral health companies also secured significant funding with three large deals, with the common investment theme of a strong and diverse network of therapists.

### Sector

Alternative Care:	6 deals
Provider Ops:	4 deals
Medication Mgmt	3 deals
Clinical Trials	2 deals
Healthcare Navigation	2 deals
Wellness/Education	2 deals

### Subsector

Workflow	7 deals
Mental/Behavioral	3 deals
Pharmacy Benefits	2 deals
Women's Health	2 deals

### Location

NorCal:	6 deals
NY:	5 deals
SoCal:	2 deals

Data from PitchBook through 6/28/24. Covers private, venture-backed investment. <sup>1</sup>Step-up analysis uses PB supplied valuations if available. Data Sources: PitchBook, company websites, internal analysis. Thanks to Mind Machine for slide strategy, creative and design.

# Healthtech Most Active Investors<sup>1</sup>

1H 2024 US & Europe



*Stratified group of investors, but top VCs active in early-stage deals*

## FIRST-FINANCING<sup>2</sup>

All Investors	
3	
2	
2	
2	
2	
2	
2	
2	
2 <sup>4</sup>	

## ALL DEALS

VC	Growth <sup>3</sup>	Corporate	
6		7	
5		3	
4		2	
3		2	
3		2	
3		2	
	2		

Data from PitchBook as of 6/28/24. Covers private, venture-backed investment. Healthtech sector analysis contains companies that overlap with other healthcare sectors. <sup>1</sup>Most Active Investors only include first investment into a portfolio company, not follow-on financings. <sup>2</sup>First-financing defined as initial Seed or Series A financing of \$2M+. <sup>3</sup>Growth Investors defined as investment firms that typically invest in later-stage companies that either are revenue scaling or the round is anticipated to be the last before an IPO. <sup>4</sup> Some categories had ties for number of deals, and list was curtailed due to space. Note that families of funds are combined for this slide, as are corporate and corporate venture with the same parent. Data Sources: PitchBook, company websites, internal analysis. Thanks to Mind Machine for slide strategy, creative and design.

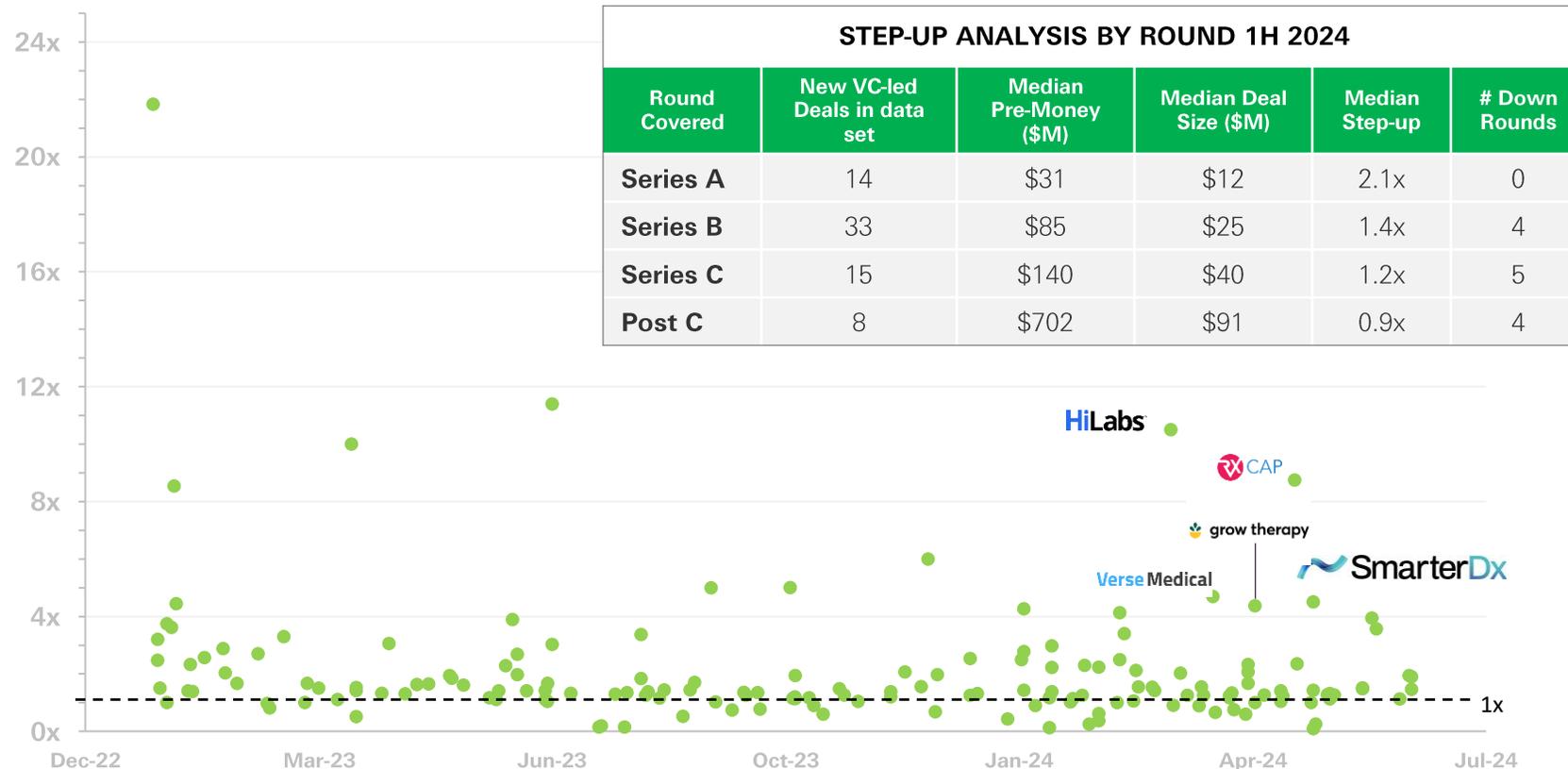
# Healthtech New Investor Step-Up<sup>1</sup> Analysis

2023-1H 2024 US & Europe



**Series A achieved the highest step-up multiples, later-stage multiples dropped**

## Step-Up Scatterplot



### Step-ups mirrored 2023; Series A multiples increased

In 1H 2024 healthtech's median step-up multiple remained at 1.4x, consistent with 2023. The Series A multiple increased by 30% compared with 2023, while Series A pre-money valuations remained similar.

Every round except Series A saw a decline in median step-up multiples in 1H 2024. Post series C step-up medians even dropped below 1x, marking the only step-down median multiple across venture healthcare. The majority of these companies had large post-money valuations from the previous round, so flat or slightly decreased valuations were considered a relative success. Notably, all three companies with \$1B+ valuations raising Series C or later rounds in 1H 2024 - Sword Health, Capital Rx, and Innovaccer - achieved step-ups.

### Highest multiples in workflow and mental health

Workflow solutions had the most 3x step-up deals, with seven provider ops companies and one clinical trial support deal. Alternative care had the next highest number of 3x step-up companies, with four mental health deals and one each in primary care and women's health.

Data from PitchBook as of 6/28/24. Covers private, venture-backed investment. <sup>1</sup>New Investor Step-Up refer to companies that had a new investor in its recent 2023 - 1H '24 financing, with that equity financing equal to or greater than the last financing round. Companies included if valuation information was available for both the new and last financing. Step-Ups calculated using Pitchbook valuation data for previous and new 2023 - 1H '24 financing as follows: Divide new pre-money valuation by previous round post-money valuation. Data Sources: PitchBook, company websites, internal analysis. Thanks to Mind Machine for slide strategy, creative and design.

# Healthtech Largest Post-Money Values<sup>1</sup>

1H 2024 US & Europe



*Up-rounds and corporate investment highlight highest valued companies*

## LARGEST POST-MONEY VALUATIONS BY SUBSECTOR

Subsector	Company	Date	Deal Size (\$M)	Round	Post \$ (\$M) Step-up?	Subsector Focus	Notable/Lead New Investor(s)
Provider Ops	innovaccer	4/30/24	\$250	F	\$3.500	Workflow	Corporate, Sovereign
Alternative Care	sword	6/4/24	\$130	E	\$3,000	Specialty Care	PE, VC
Insurance	ESSENCE HEALTHCARE	4/22/24	\$100	A2	\$2,145	Insurance	Corporate, VC
Healthcare Navigation	transcarent	3/7/24	\$126	D	\$2,100	Provider Matching	VC
Medication Mgmt	Capital Rx	3/21/24	\$115	E	\$1,455	Pharmacy Benefits	Corporate
Provider Ops	abridge	2/23/24	\$150	C	\$850	Workflow	VC, Corporate
Alternative Care	grow therapy	4/8/24	\$88	C	\$800	Mental Health	PE, Growth, VC, Angel
Provider Ops	beam healthcare	5/15/24	\$30	F	\$615	Workflow	Undisclosed

Valuation<sup>1</sup> ■ Step-Up ■ Flat Rd ■ Step-Down

### Later-Stage Rounds see up and flat valuations

Later-stage high-growth companies continued to secure substantial funding rounds, with five of the top eight highest-valued private financings achieving step-ups. Corporate investors remained actively involved, maintaining a strong focus over the past three years, which we expect to continue in the second half of 2024.

### Diversification of Companies

No direct competition/crossover among these highest valued deals. Later-stage profiles that are performing in their respective spaces are securing attractive rounds. Contrastingly, in prior years, there was heavy concentration of later-stage deals within certain sectors, such as value-based primary care.

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# Healthcare Outlook: Reviewing 2024 Predictions

# Healthcare Outlook: Reviewing our 2024 Predictions

## General

At 1H 2024, our prediction of a continued downturn with bright spots for the top companies in 2024 largely held true. While insider-rounds persisted, the percentage of new investor-led rounds increased compared to 2023, resulting in a robust overall step-up multiple of 1.3x. Despite limited company consolidation (private/private mergers) or shutdowns in 1H 2024, we anticipate an increase in 2H 2024 as cash from insider rounds runs out. Although we expected a stronger exit environment, only biopharma showed IPO interest and added a sharp increase in high-value private M&A deals.

## Biopharma

We anticipated fewer but larger first-financing deals due to investors' restrained pace. However, the market surprised us with the sheer size of the financings, which doubled 1H 2023's first-financing investment. Pre-clinical financing returned stronger than expected, as did later-stage crossover mezzanine rounds focused on Phase II companies. Metabolic and neuro increase aligned with our expectations, with autoimmune mega deals propelling increased investment in that indication. Story-driven clinical-stage IPOs continued, accompanied by a resurgence in early-stage private M&A.

## Healthtech

Our 1H 2024 Healthtech predictions have proven accurate. Investors focused on supporting their high-performing growth companies, often demanding clear profitability paths while also revitalizing their early-stage pipelines. Generative AI became a hot topic, with high valuations and competitive deals. Insider bridge rounds tapered off, replaced by dual-track (financing or trade sale) processes. Despite this, valuation bid/ask gaps continued to impede a surge in M&A activity. Looking ahead, while we anticipated many mature companies going public, the impact of the few IPOs so far remains uncertain for 2H 2024.

## Med Device

First-financing investment for 510(k) and PMA-focused deals met expectations, with increased early-stage corporate investment. Neuro deals, especially in neurostim technologies, maintained strong investor interest. However, there was an unexpected decline in imaging deals and funding, and a surprising resurgence of NIM investment. Later-stage deals continued to attract financing from VCs and growth investors, with new corporate investors participating in four of the top eight highest valued deals. Despite a promising setup from the strong private M&A market in late 2023, acquisition activity has been disappointing.

## Dx/Tools

First-financing struggles persisted in 1H 2024, aligning with our predictions. Unexpectedly, there was a surge in early-stage Dx Test deals, particularly in liquid biopsy. Computational investment in dx/tools remained steady, while cell and gene manufacturing investments lagged 2023 levels. Significant pivots from tools to drug development were not observed, but we anticipate several future cases, especially in computational bio, by year-end 2024. The closed IPO market and challenging M&A environment unfolded as expected, requiring larger deals from 2020-2021 to raise new rounds at flat or reduced valuations.

Thank you

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