

# Healthcare Investments and Exits

Mid-Year 2023 Update

Biopharma | Healthtech | Dx/Tools | Device



# Executive summary

## Diamonds formed under pressure

We are pleased to bring you the Healthcare Investments and Exits Mid-Year 2023 Update, a comprehensive analysis of the trends, opportunities and challenges in today's healthcare innovation market.

We began 2023 with a cautious outlook, and there's no disputing that the first half of the year has been difficult for stakeholders across the innovation economy. However, a lot has changed since the start of the year. Public markets show early signs of improvement, inflation is decelerating, interest rates may be near their apex and the general pullback in investment has stabilized.

Still, the current investment environment presents ongoing challenges, marked by fewer deals, slower investment pace and pressured valuations. The time has likely come for companies previously avoiding down rounds through insider extensions to seriously consider valuation resets. Companies also face more investor scrutiny and are working against heightened demand for clinical milestones (page 9) and paths to profitability.

Despite these challenges, there are reasons for optimism. We see signs of growth at the early stage where investment has been buoyed by strong interest from investors (page 11). There are promising bright spots in investment, such as women's health expanding into platform, menopause and mental healthcare (page 18), genomic diagnostics solutions (page 12), and devices with robust digital platforms that increase the efficiency of provider care teams (page 13).

The new investment environment has reset valuations to match sustainable growth and profitability targets in 2023. This adjustment, while painful for many, will lead to a more sustainable future. Venture fundraising has rebounded since its dip in H2'22, and ample capital remains for right-sized investment into the healthcare innovation economy. While the near-term outlook appears uncharted, our belief in the resilience of the innovation economy remains unwavering.

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# Healthcare market highlights: fundraising, investments and exits

New private investment landscape marked by valuation corrections, slower investment pace and smaller check sizes; IPO window largely closed but acquirers active on selective basis in H1'23

## Fundraising

Fundraising rebounded after a relatively slow H2'22, hitting \$6.8B in Q1'23 and \$6.9B in Q2'23. This uptick is driven by expectations for lowering Federal Reserve interest rates, a resetting of valuations and very early signs of a rebounding stock market (mostly in the tech and healthtech sectors). The IPO window remains largely closed, tying up limited partner (LP) capital in late-stage companies and limiting return distributions. Consequently, more investors slowed late-stage fundraising. Seventy funds closed in H1'23, signaling that overall interest in healthcare investment remains strong. There is still an unprecedented amount of healthcare-dedicated venture capital (VC) to be deployed to top companies at rational, investor-driven valuations.

## Investments

After a major drop in 2022, investment dollars and pace have remained relatively flat for the last three quarters, signaling the dawn of a new market cycle marked by corrected valuations (focused on fundamentals like clinical assets and paths to cash flow operations), smaller check sizes and more concentrated cohorts of investors. There is a major increase in insider-led bridge rounds as companies continue to face difficulty attracting new investors and avoid “valuation haircuts” that come with bringing in new capital. Anecdotal evidence indicates that a wave of down rounds and “structured” term sheets have come to market alongside continued cost-saving measures. While this shift has been a painful reset, the market right-sizing can lead to a more sustainable future. Ample capital remains for right-sized investment into the healthcare innovation economy, albeit on a more diligent basis.

## Biopharma

Early-stage investment jumped this year but at massively reset valuations. Focus is increasingly on companies led by veteran management teams with in-human proof-of-concept/proven modalities with compelling stories at “2023 market prices” and realistic exit prospects that do not rely upon the IPO window opening in the next 12-18 months. At the later stage, pre-IPO rounds hit single-digit pace per quarter as investors are more selective and public markets performance by biotechs remains mixed but largely negative. Promisingly, 2023-vintage biopharma IPOs are performing well with six of eight trading in positive territory. The IPO window shows early signs of opening, with three biopharma IPOs priced in July 2023 raising \$465M combined.

## Healthtech

Investment kicked off relatively strong in Q1, especially for seed/Series A companies. However, dollars slowed significantly from Q1 to Q2'23. Seed/Series A investment slowed 63%, and overall investment slowed 39%. We are on track to hit 2019 investment paces if this investment pace continues into H2'23. At the later stages, we are seeing fewer mega-deals, with median check sizes dropping substantially. The market downturn has put pressure on companies to add value in critical places where reimbursement is attainable in the near-term. It has also put pressure on D2C models to turn to enterprise to scale. Demand for proven value-based care models and chronic condition management remains high. The public markets remain closed, with zero IPOs in H1'23. Private M&A activity remains strong, but acquisition prices are down as acquirers struggle with valuation disconnect at the later stage. We anticipate that healthtech companies will continue to delay IPO plans until at least late 2023.

## Dx/Tools

Investment in H1'23 matched that of H2'22 for Series A and late-stage investments, driven mostly by Q1'23 activity. There were zero IPOs in H1'23, marking the first year since 2018 with no IPOs in the first half. Public markets remain closed for new entrants, and all indicators point toward a higher bar for IPO hopefuls, both in terms of revenue run rate and ability to generate cash flow. Investors are driving a rotation in strategy: trading high-cost revenue growth for line of sight to cash-flow positive operations. We expect IPOs to continue to be muted in 2023 as the market watches for a rebound in performance for 2020 and 2021 IPO cohorts (33 of 38 are trading negatively). Private companies with unicorn valuations will likely need to wait until 2024 for big M&A exits.

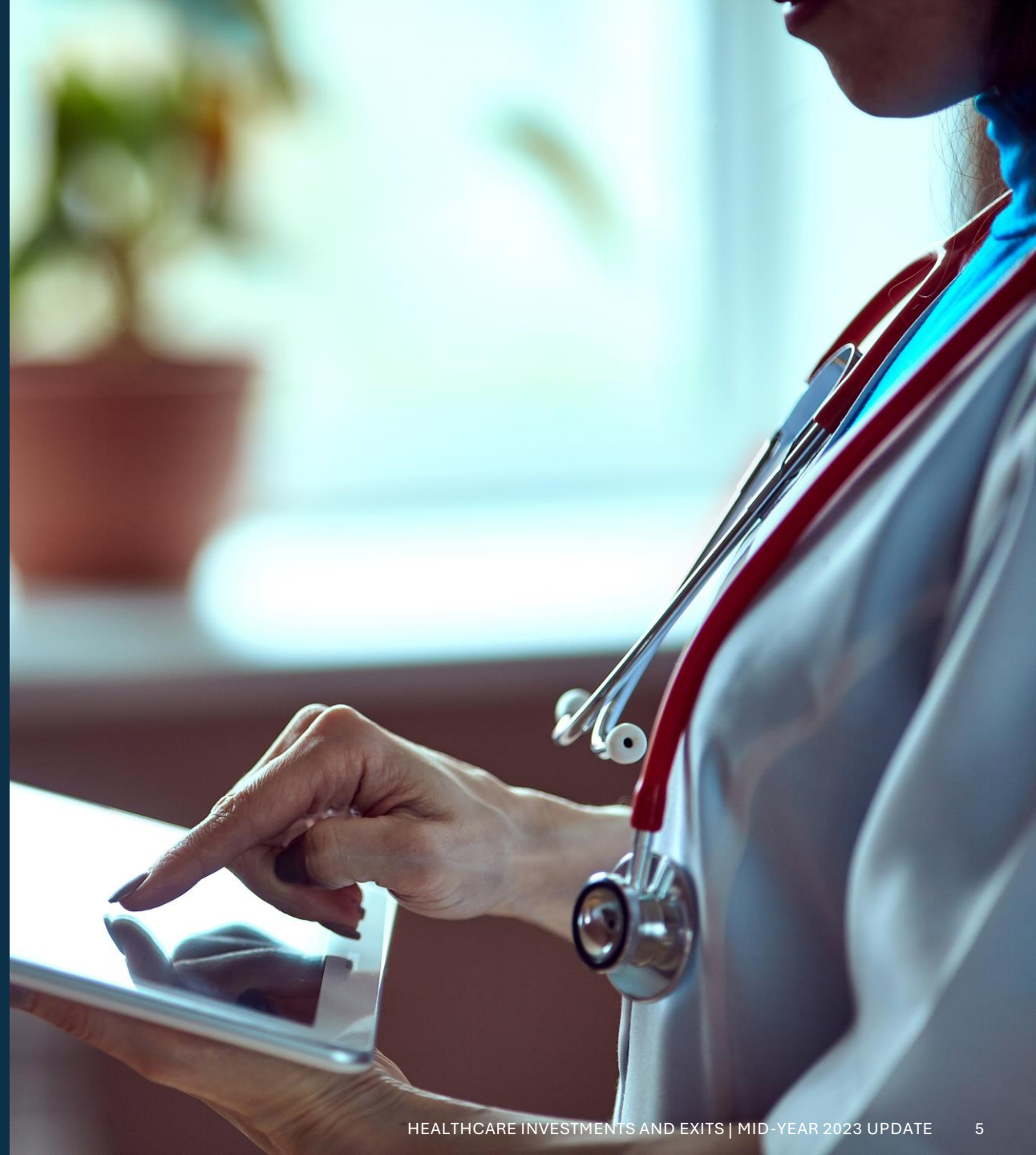
## Device

Investment in H1'23 is down 8% from H2'22, but early-stage investment is up 44% and remains a bright spot for investment activity. There are fewer \$100M+ deals in 2023 as many top companies raised rounds in 2022, and it is uncertain how many later-stage opportunistic device investors will continue to be active. Device companies are hit hard by supply-chain issues and the decline in elective procedures. Companies are working to enable profitable long-term growth while achieving necessary near-term cost savings. We've seen more investment dollars poured into remote monitoring, at-home care and early detection as demand to reduce medical costs and keep patients out of high-cost, acute-care settings grows. The IPO window remains largely closed, with two China-based IPOs in H1'23 but zero US-based IPOs. M&A remains muted, but we continue to see spinouts from big device players like Medtronic, which creates more acquirers down the road.



# Healthcare fundraising and investments

US, EU and UK



# Life science funds see the opportunity

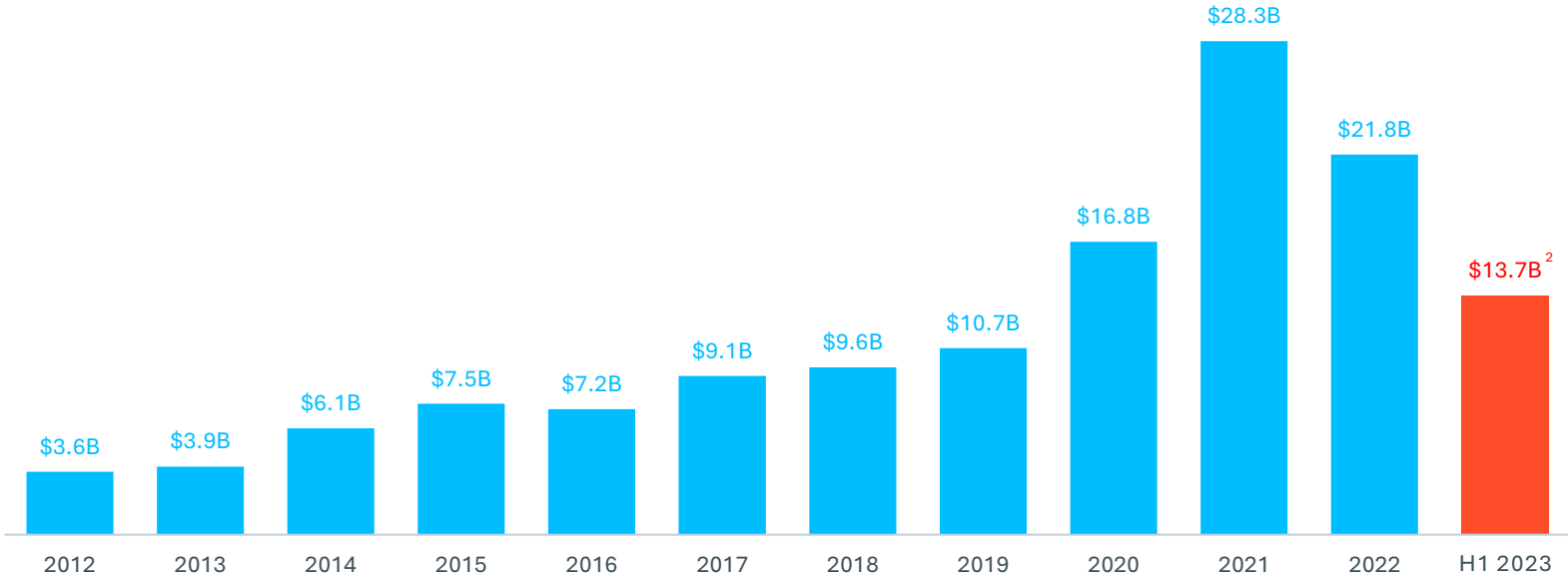
After a relatively slow H2'22, investor fundraising accelerated to \$6.8B in Q1'23 and held steady at \$6.9B in Q2'23. If this pace were maintained, 2023's life-science-focused fundraising would near 2021's record pace. This uptick comes amid expectations for a more dovish Fed (with a pause at the June meeting), a near wholesale resetting of valuation expectations in the private market, and early signs of a rebounding stock market. Savvy investors know these conditions bring opportunity.

However, 2021 saw debuts by opportunity funds and new managers, whereas 2023 activity is largely focused on veteran managers. As this cadre finishes building capital, the pace of fundraising could slow if emerging fund managers can't win LPs' confidence.

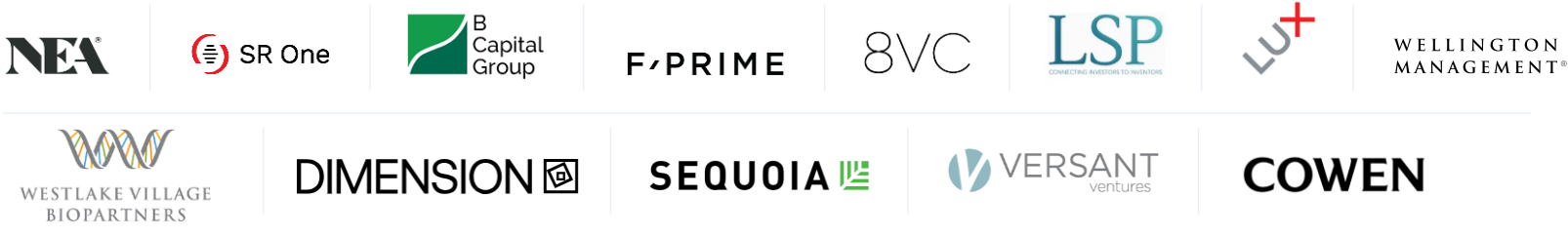
The IPO window is still largely closed, public valuations are under pressure and late-stage investors are focused on shoring up existing investments and bargain shopping public names. Consequently, capital remains tied up in mid- and late-stage private companies with uncertain exit opportunities. The biggest change we've seen is increased willingness by both founders and investors to "find a deal" to move assets forward. This unsticking should drive increased activity and opportunities for all parties.

VCs remain well-positioned to fund new healthcare companies with more than \$35B raised in the last 18 months.

## US Healthcare Venture Capital Fundraising<sup>1</sup> 2012-H1 2023



## Notable Funds with Allocations to Healthcare<sup>3</sup>



Notes: 1) US Healthcare Venture Capital Fundraising defined as an approximation of healthcare investment dollars to be invested by firms that historically invest in +50% US companies. 2) Estimates based on anecdotal conversations with investors and expert analysis of last fund deal pace and focus on healthtech. 3) Notable funds based on largest estimated allocation to venture healthcare.  
Source: PitchBook and SVB proprietary data.  
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# Have we found a floor?

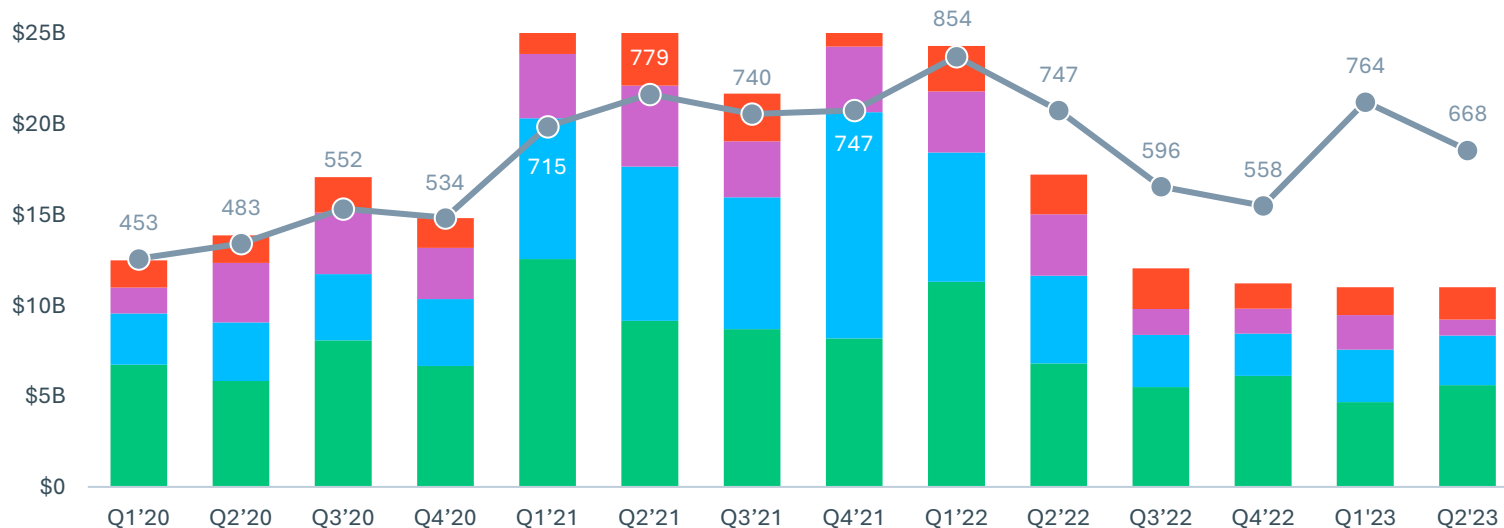
In 2022, the public market's dramatic pullback and federal interest rate hikes caused sharp drops in investment dollars from 2021's historic highs. Hinting at a bottom, quarter-over-quarter (QoQ) investment has been relatively flat the last three quarters. Perhaps investors have found an "idling speed" as they evaluate portfolios and market conditions.

One nuance to this period: down rounds are more prevalent than ever, but many go unreported. It's possible this translates into additional investment activity not captured here, albeit "painful" activity for stakeholders.

The S&P Biotech Index ended H1'23 flat but is up 15% since late March. Public market momentum is driven by better alignment between market expectations and Fed interest rate projections, a bloom in M&A activity (e.g., Seagen, DICE, Chinook), and a number of noteworthy data readouts. This has bred optimism and a trickle of IPOs, but more needs to happen before markets are deemed healthy. Mainly, investors and Boards aligning on terms to drive research forward, later-stage investors working through a backlog of companies they'd expected to be public by now or are public but trading at bargain prices, and reckoning with a large supply of companies needing additional private rounds.

We believe we're firmly in a new phase defined by focus on valuation and "fundamentals" like clinical assets and paths to cash flow operations. While a painful reset, the spring is loaded with ample capital and a golden age of science.

## VC Dollars and Deals by Healthcare Sectors US, EU & UK



























Sectors (\$M)	2020			2021			2022			H1 2023		
	US	EU & UK	Total	US	EU & UK	Total	US	EU & UK	Total	US	EU & UK	Total
Biopharma	22,532	4,795	27,327	31,630	6,946	38,576	24,960	4,787	29,747	8,338	1,960	10,298
Healthtech <sup>1</sup>	11,770	1,605	13,374	33,133	2,881	36,014	13,293	3,861	17,154	5,021	588	5,609
Dx/Tools	9,128	1,755	10,883	11,988	2,713	14,701	7,968	1,582	9,550	1,924	878	2,801
Device	5,764	850	6,615	6,794	2,383	9,176	6,798	1,549	8,347	2,380	912	3,293
<b>Total</b>	<b>49,197</b>	<b>9,040</b>	<b>58,237</b>	<b>83,581</b>	<b>14,927</b>	<b>98,508</b>	<b>53,043</b>	<b>11,783</b>	<b>64,826</b>	<b>17,691</b>	<b>5,088</b>	<b>22,779</b>

Note: 1) Healthtech deals that overlap with other sectors are not included in healthtech totals on this slide but are included in healthtech-specific analyses on page 11. Financing data include private financings by venture-backed companies in the US, EU and UK. Dates of financing rounds are subject to change based on add-on investments.

Source: PitchBook and SVB proprietary data.

# Most active<sup>1</sup> healthcare investors

Deal count (2022-H1 2023)

Overall		Biopharma		Healthtech		Dx/Tools		Device	
46	<b>Gaingels</b> 	21	 ALEXANDRIA	32	<b>PLUGANDPLAY</b>	6	<b>Ascension</b>	9	<b>JobsOhio</b>
44	<b>PLUGANDPLAY</b>	18	RACAPITAL	26	<b>Gaingels</b> 	6	 CASDIN CAPITAL LIFE SCIENCE INVESTMENTS	7	<b>Startx</b> 
35	 <b>Alumni Ventures</b>	15	 ARCH VENTURE PARTNERS	21	 <b>Alumni Ventures</b>	6	<b>breyercapital</b>	6	 <b>Alumni Ventures</b>
34	<b>GENERAL</b>  <b>CATALYST</b>	12		20	<b>GENERAL</b>  <b>CATALYST</b>	6	<b>PLUGANDPLAY</b>	6	 <b>PICARD ANGST</b>
30		11	 <b>OrbiMed</b> Healthcare Fund Management	16	<b>10X</b> CAPITAL	6	<b>AIX Ventures</b>	5	 HealthTech CAPITAL
29	 ALEXANDRIA	10	<b>Gaingels</b> 	16	 First Trust Capital Partners	6	<b>CATALIO</b> CAPITAL MANAGEMENT	5	 <b>SHANGBAY</b> CAPITAL
29	<b>10X</b> CAPITAL	9	<b>DEERFIELD</b> <sup>®</sup> Advancing Healthcare <sup>®</sup>	11	 BOX GROUP	5	<b>octopus</b> ventures	4	<i>Johnson &amp; Johnson</i> INNOVATION
29	RACAPITAL	9	 Pfizer Ventures	11	8VC	5	 <b>Bristol Myers Squibb</b> <sup>™</sup>	4	 Ally Bridge Group



## Increased pace at decreased valuations

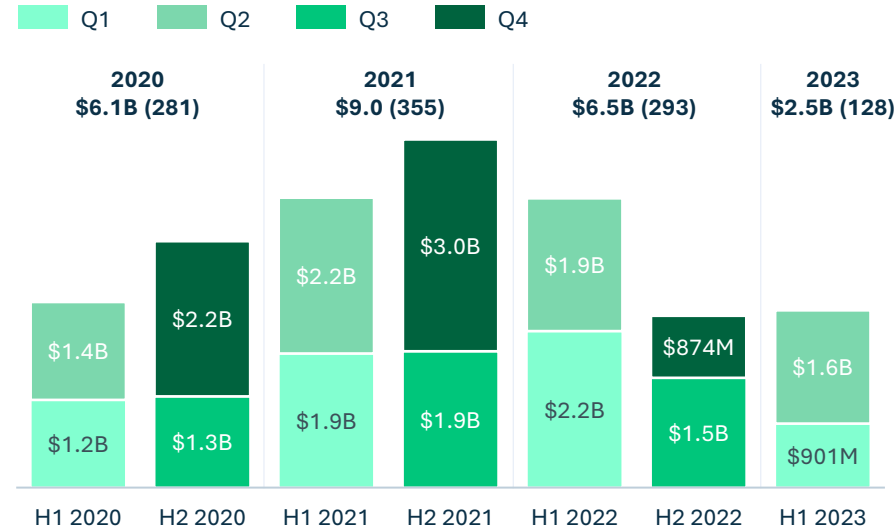
Early-stage investment jumped in Q2'23 but at massively reset valuations. The pace of investment was nearly equal to the prior two quarters combined, but valuations during Q2 brought median Series A pre-money valuation down from \$16M during Q1 to \$11M for Q2'23.

One quarter is not a trend, but these data reinforce market anecdotes that Series A deal activity revolves around: (i) top-tier profiles with a mixture of veteran management teams, in-human data, proven modalities, de-risked targets, or (ii) compelling stories at a "2023 market price." The large Series A deals are rarer but drive total investment dollars (e.g. Orbital, ReNAgade, CARGO), while more common, smaller deals moderate the median valuation.

Surprising no one, platform and oncology companies continue to capture the most investment while respiratory indications have seen steep declines during 2023. It will be interesting to see if recent approvals in neurology (e.g., Eisai/Biogen, Amylyx) drive additional investment like we saw following the approval of Aduhelm.

Investors are looking for Series A candidates that can draw lines between a palatable valuation, runway through meaningful milestones (for which the bar has been raised), and realistic exit prospects that do not rely upon the IPO window opening in the next 12-18 months.

## Seed/Series A<sup>1</sup> Dollars and (Deals)



## Seed/Series A Dollars and Deals by Top Indications

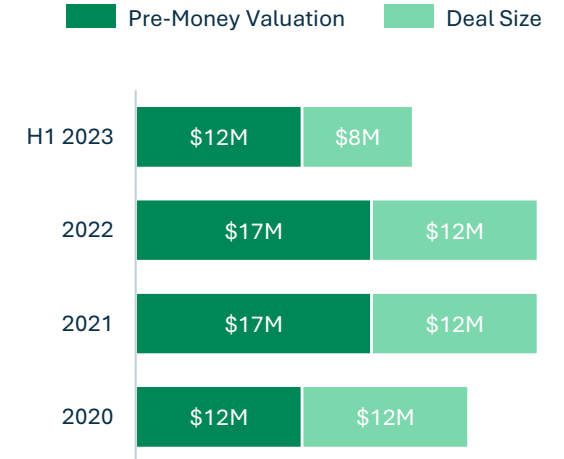
Indications	2021		2022		H1 2023	
	Dollars (\$)	Deals	Dollars (\$)	Deals	Dollars (\$)	Deals
Platform	3.4B	97	2.2B	81	964M	32
Oncology	1.6B	77	1.8B	76	507M	48
Ophthalmology	194M	9	202M	9	289M	3
Neurology	1.7B	56	294M	24	270M	10
Cardiovascular	62M	6	66M	9	148M	3
Auto-Immune	355M	11	479M	14	148M	4
Orphan/Rare	379M	16	141M	6	59M	2

Note: 1) Seed/Series A includes first-time investments from institutional or corporate venture investment in the US, EU and UK and any first-round investments equal to or greater than \$2M, regardless of investor. Dates of financing rounds are subject to change based on add-on investments.

Source: PitchBook and SVB proprietary data.

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## Median Seed/ Series A Valuations



## Largest H1 2023 Seed/ Series A Deals



# Later-stage investment plods along, but there could be a hidden story

Despite an improved interest rate outlook and glimmers of momentum in the public equity and M&A markets, available data for late-stage biotech investment trends near pre-2020 levels.

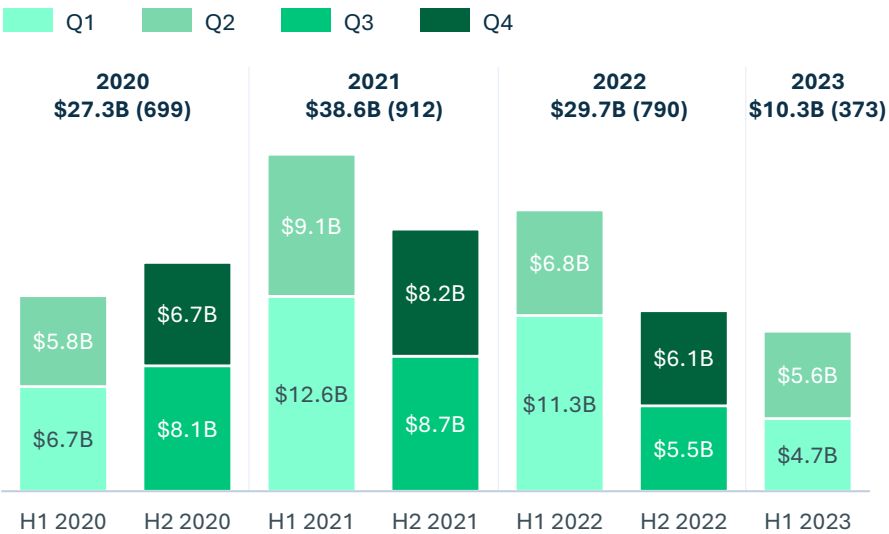
The IPO window remains largely closed, many public company stocks are fighting to eclipse IPO prices (or even current cash balances), and private valuations are under intense scrutiny. The building backlog of LIPO<sup>1</sup> companies is increasing competition for capital. Compounding this, traditional late-stage investors remain focused on existing investments and public companies trading at attractive valuations.

In our last report, we predicted that capital for insider bridge rounds to preserve valuation was unlikely to last through 2023. Anecdotal evidence indicates that a wave of down rounds and “structured” term sheets have come to market alongside continued cost-saving measures.

Of note, many of these down rounds and structured term sheets come from existing insiders and go unreported. It’s likely there is a hidden story of even greater investment but at reset valuations or with terms punitive to early investors.

While painful, this could be the beginning of a sea change that unsticks machinery in the life science capital recycler, opening the way forward for private companies’ next rounds and eventual paths to public markets.

## Total Dollars and (Deals)



## LIPO Deal Activity in Biopharma<sup>1</sup>

Quarter	LIPO Deals	Median Pre-Money (\$M)	Median Deal Size (\$M)	IPO %
Q1'20	17	245	108	88%
Q2'20	21	150	86	62%
Q3'20	28	140	92	57%
Q4'20	15	140	87	60%
Q1'21	37	184	100	57%
Q2'21	31	200	105	10%
Q3'21	24	169	90	21%
Q4'21	16	172	102	13%
Q1'22	14	160	100	0%
Q2'22	2	-	-	0%
Q3'22	3	-	-	0%
Q4'22	14	120	95	0%
Q1'23	3	-	-	0%
Q2'23	8	-	-	0%

Note: 1) The LIPO (likely to IPO) list tracks the top 15 crossover-funded private mezzanine deals (\$40M+) as a proxy for IPO sentiment and pipeline. 2) Only includes private post-money values from publicly disclosed 2023 financings in PitchBook. Financing data includes private financings by venture-backed companies in the US, EU and UK. Dates of financing rounds are subject to change based on add-on investments.

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## Highest-Valued H1 2023 Financings<sup>2</sup>

	Platform	\$3.6B post
	Oncology	\$1.3B post
	Auto-Immune	\$715M post
	Platform	\$702M post
	Auto-Immune	\$680M post
	Platform	\$602M post
	Gastrointestinal	\$525M post
	Orphan/Rare	\$491M post
	Platform	\$455M post
	Oncology	\$380M post
	Platform	\$330M post
	Oncology	\$315M post



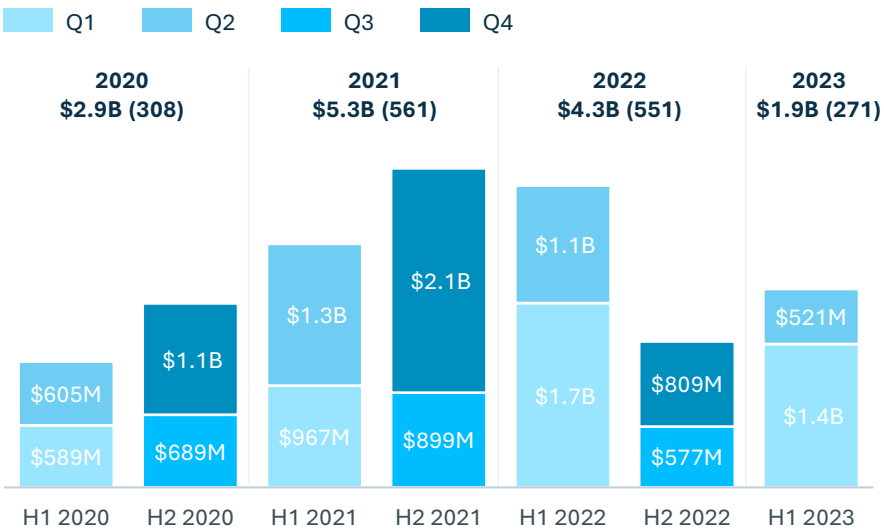
# Flat rounds are the new up rounds

Healthtech investment kicked off relatively strong in Q1, especially for seed/Series A companies. However, dollars slowed significantly from Q1 to Q2'23: Seed/Series A investment slowed 63%, and overall investment slowed 39%. We are on track to hit 2019's pace if this investment pace continues into H2'23.

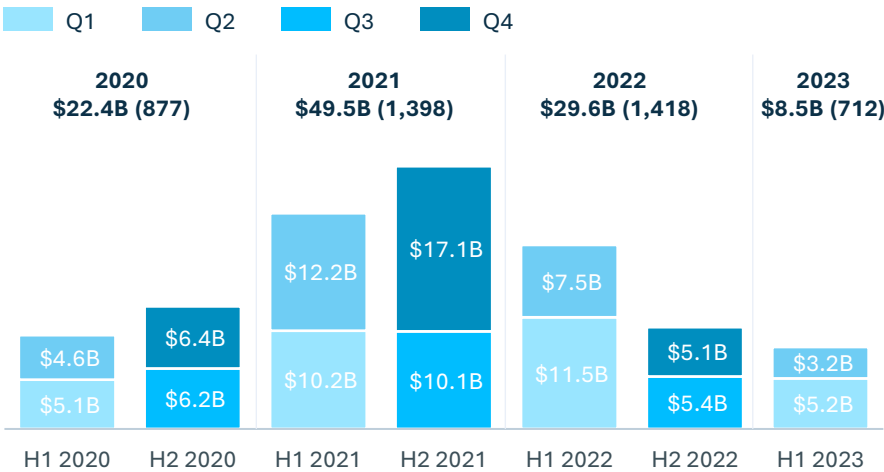
Although early-stage investment slowed in Q2'23, early-stage companies still took a significant share of investment in 2023 (22% in 2023, up from 15% in 2022 and 11% in 2021). These companies present new opportunities to invest at conservative valuations that reflect the current funding environment. We expect investment to remain firmly rooted in early-stage, as market uncertainty continues to put pressure on valuations.

Difficulty bringing in new capital in 2023 is driven by two main challenges: 1) how to attract new investors and 2) how to bring in new capital without crushing previously established high valuations in a down or flat round. Challenges attracting new investors in 2023 created more insider-lead rounds, which comprised 60% of all healthtech deals in Q2'23, nearly double the rate in Q1'23 (34%) and 2022 (30%). As investors increasingly focus on shoring up their existing portfolio companies, we expect insider-led rounds to continue but likely at revised valuations. More and more down or flat rounds are closing as the market remains difficult. These rounds are often kept private without a label to delay valuation haircuts. We project more rounds like this will occur in H2'23.

## Seed/Series A<sup>1</sup> Dollars and (Deals)



## Total Dollars and (Deals)

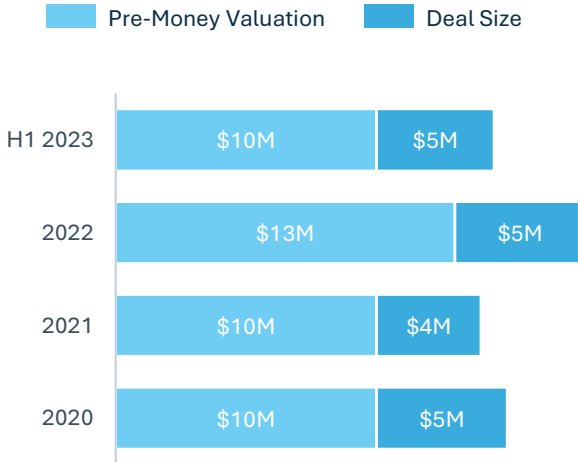


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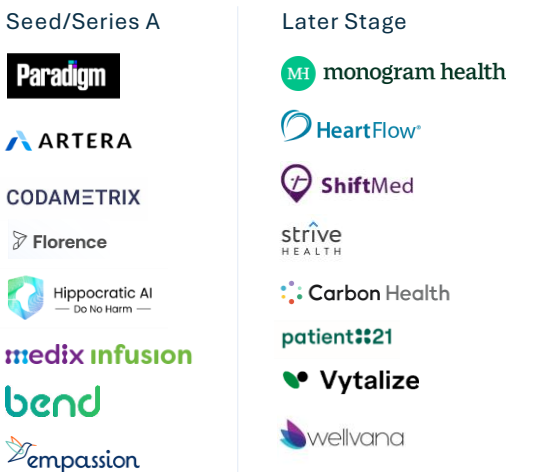
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## Median Seed/Series A Valuations



## Largest H1 2023 Deals



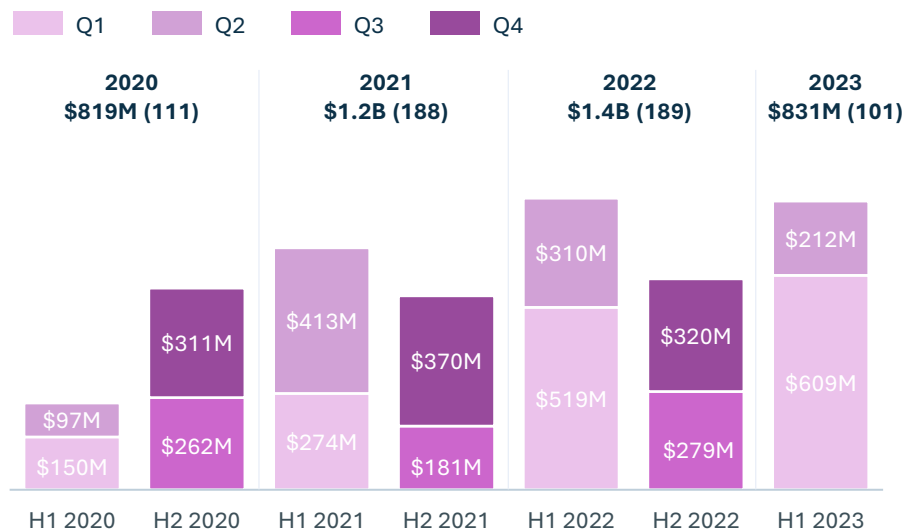
## R&D tools and early-stage activity promising

Dx/Tools investment in H1'23 matched that of H2'22 for Series A and late-stage investments, carried by Q1'23 activity in both cases.

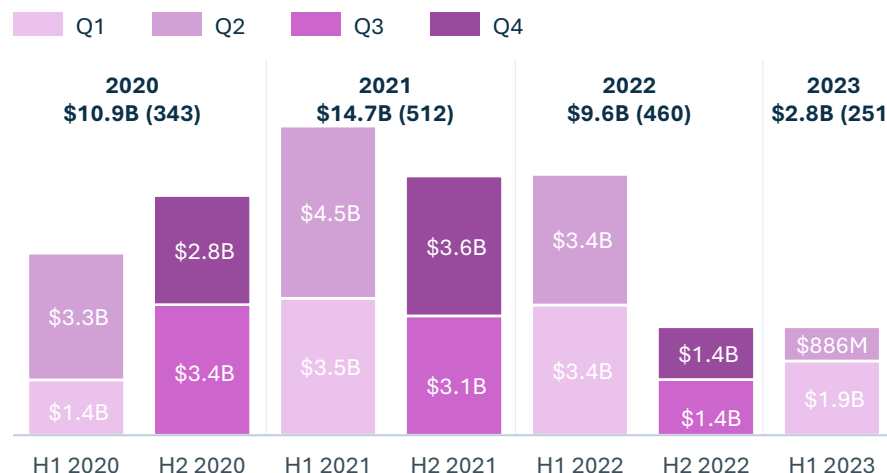
The public markets remain closed for new entrants, and all indicators point toward a higher bar for IPO hopefuls both in terms of revenue run-rate and ability to generate cash flow. Investors are driving a rotation in strategy: trading high-cost revenue growth for line of sight to cash-flow positive operations. Many teams have been asked to do more with less and recraft financial plans to focus on achieving self-sufficient operations rather than target revenue run-rate "exit velocity." This could be, in part, due to depressed demand for new tools as R&D customers also refocus on preserving spend to fewer initiatives.

One bright spot for investment has been sequencing and genomic health solutions. As new sequencing technology comes to market at lower costs, dx/tools companies can quickly scale up genomic diagnostic services, including testing methods for precision medicines. In April 2023, Genome Insight and Ultima Genomics announced a partnership to lower the cost of genome sequencing for cancer patients, and the startup will join Ultima Genomics' early access program for its next-generation sequencing platform. As the demand for genomic sequencing grows along with testing for precision medicine, there could be an increasing demand for sequencing equipment. This presents a strong opportunity for R&D tools companies in the space.

## Seed/Series A<sup>1</sup> Dollars and (Deals)



## Total Dollars and (Deals)

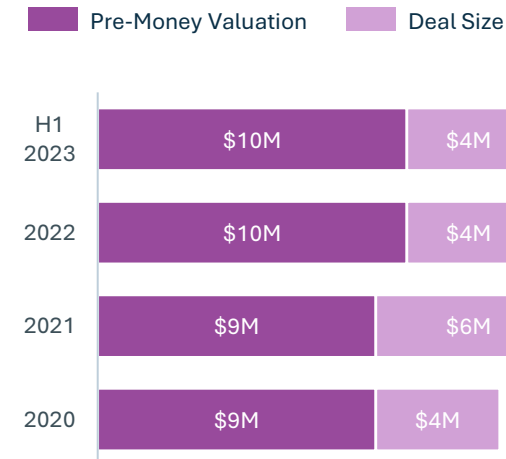


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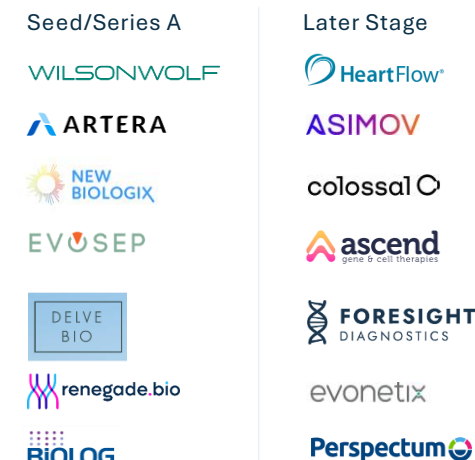
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## Median Seed/Series A Valuations



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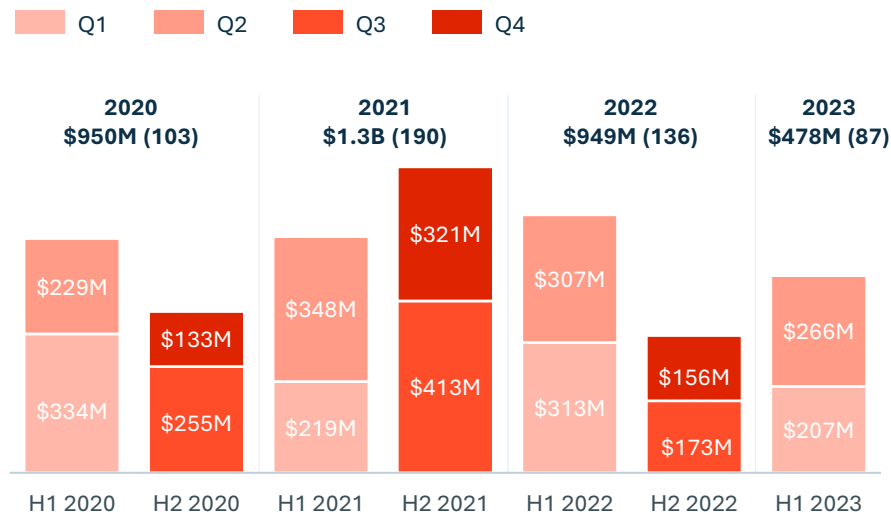


# Doubling down on early-stage technology

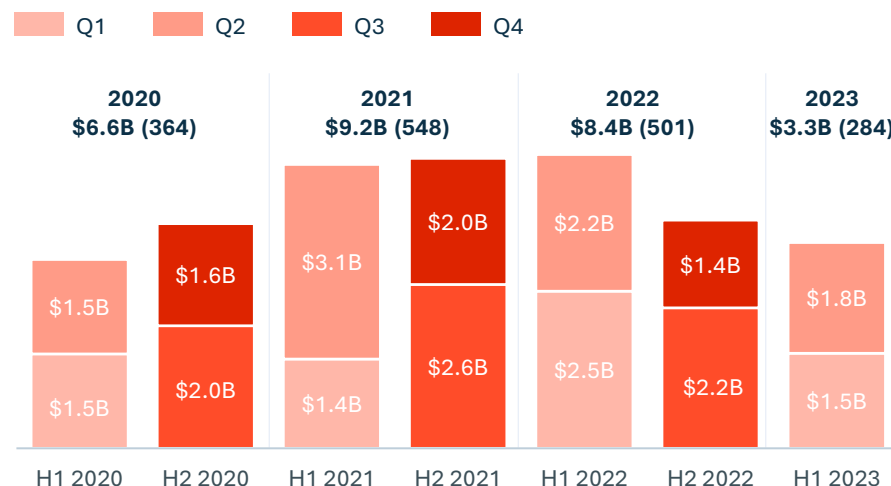
Device investment is slightly down from 2022's pace, with H1'23 investment reaching \$3.3B, down 9% from H2'22 (\$3.6B). However, early-stage investment remains a bright spot and is up 44% from H2'22. Investors doubled down on early-stage opportunities in Q2, a notable change from 2022 activity when investors migrated away from new early-stage deals and toward portfolio preservation to help existing later-stage portfolio companies extend cash runways. Investment in early-stage companies is a promising trend as it demonstrates investors' willingness to invest in pioneering technology that may have a long road to commercialization and payer reimbursement.

In our Q1 update, we noted device companies are facing increased challenges selling devices to hospitals. This remains true in Q2 as providers face mounting cost pressures, driving device companies to pivot from "value" to "willingness to pay", as their technology must have clearer paths to monetization. Leading device companies deliver technological innovations to increase the efficiency of their staff by decreasing both administrative and labor burdens. Devices could be expected to have more seamless integration with electronic health records and patients' mobile devices, allowing virtual support from specialists and robust digital platforms to increase the efficiency of care teams.

## Seed/Series A<sup>1</sup> Dollars and (Deals)



## Total Dollars and (Deals)

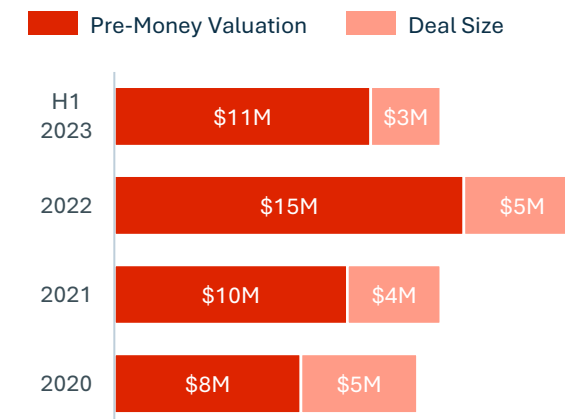


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## Median Seed/Series A Valuations



## Largest H1 2023 Deals



# National Institutes of Health (NIH) investment activity

The NIH is the largest public funder of biomedical research in the world. NIH investment is an increasingly important source of early-stage funding in the US. It provides capital and positive signals to private venture markets, helping companies secure funds needed to bring new technology to market. As VC firms increasingly focus on conserving capital to preserve existing investment portfolios, we expect NIH funding to remain important in the healthcare innovation economy.

2018-H1 2023 deals for venture-backed companies that have received NIH funding:

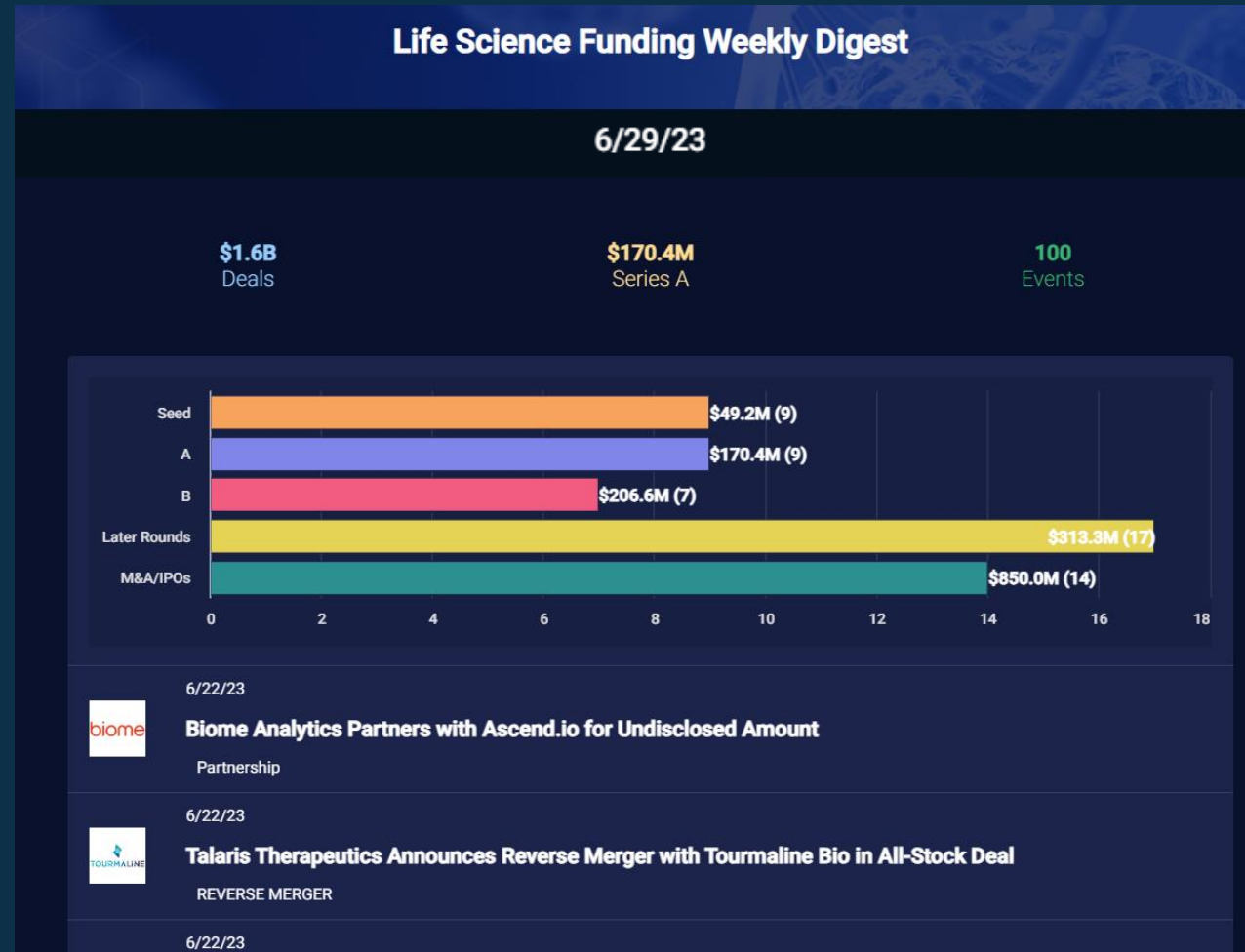
Total deals  
\$46.8B

Companies  
2,141

MOST ACTIVE SYNDICATE PARTNERS		
Investor		# of Companies
 Alexandria Venture Investments	<div></div>	20
 RA Capital Management	<div></div>	17
 North Carolina Biotechnology Center	<div></div>	13
 Perceptive Advisors	<div></div>	10
 Northpond Ventures	<div></div>	10
 Connecticut Innovations	<div></div>	8
 SOSV	<div></div>	8
 5AM Ventures	<div></div>	8

COMPANIES BY LOCATION			
City	Country	# of Companies	\$
San Diego	United States	87	\$3.1B
San Francisco	United States	80	\$3.6B
New York	United States	63	\$2.8B
Cambridge	United States	52	\$1.2B
Boston	United States	45	\$1.9B
Seattle	United States	41	\$1.0B

To get weekly, real-time life science fundraising activity, head to [CipherBio](#).





# Sector to watch: Women's health

US, EU and UK



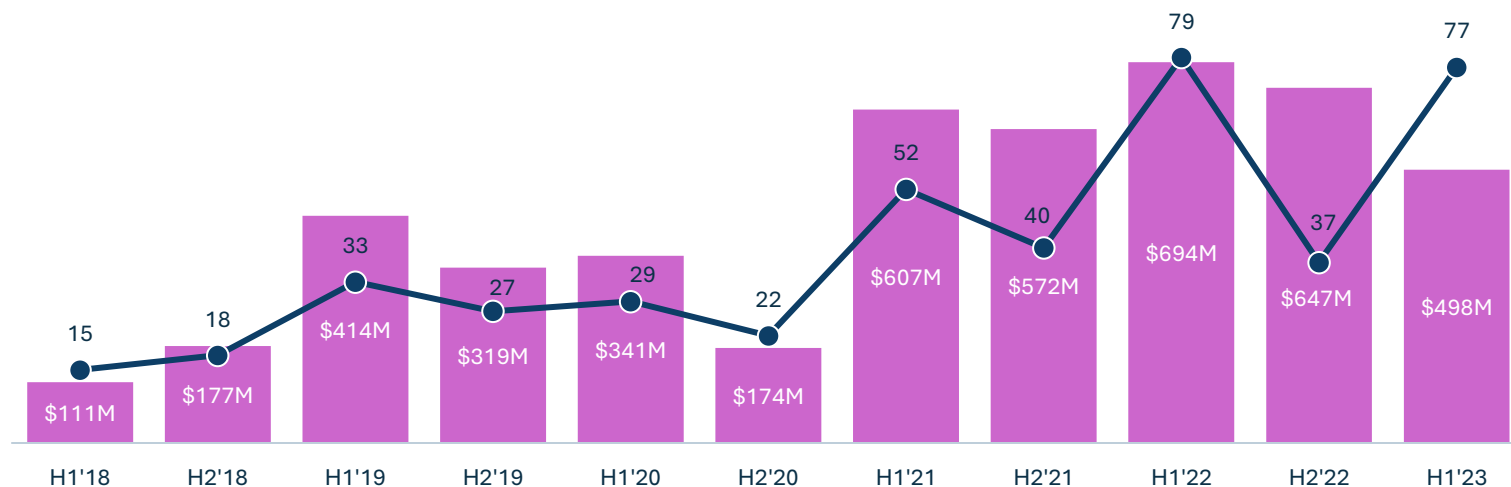
# Women's health investment growing despite headwinds

Despite broader market headwinds driving healthcare investment down, women's health (WH) has achieved impressive momentum. Many women, WH company founders, scientists, and investors have been beating this drum for years. Now more than ever, it is evident that investment into this space can bring impressive returns for multiple players, including investors, providers and payers.

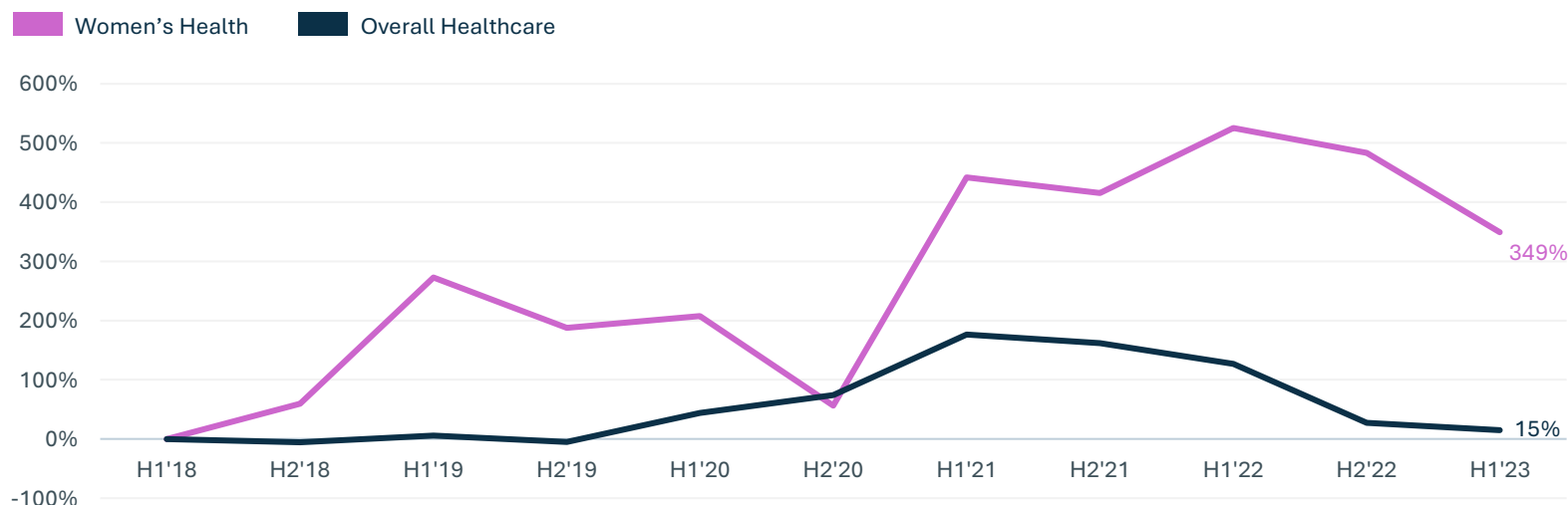
In line with overall trends, total investment into WH in 2023 has continued to drop from the record levels seen in 2021 and 2022. However, long-term trends show remarkable growth in the WH sector. Between H1'18 and H1'23, investment in WH increased 349% compared to just 15% in all healthcare. H1'23 also saw 77 WH deals, the second-highest number on record and a 108% increase from the previous six months.

Why are the tides turning in recent years? We're just over a year past of the Roe v. Wade reversal that propelled WH disparities into the spotlight. And despite old policies — this year marks the 30-year anniversary of the FDA's reversal of their policy of excluding women of child-bearing age from participating in clinical drug trials — progress is still necessary. Today, women only account for 29-34% of early-phase trial participants.<sup>1</sup> Conditions that disproportionately affect women still attract less funding in proportion to the burden they exert on the US population. As WH needs loom large and remain mostly unmet, we expect to see more WH investment in H2'23.

## Women's Health Investment



## Percent Change in Investment Dollars Relative to H1 2018





# Menopause and pelvic health picking up speed

Both in terms of legislation and investment volume, 2022 was a landmark year for reproductive health. In recent years, more attention has been put toward other areas of WH with high unmet needs like menopause, pelvic health, and mental health. More investment has been funneled into these companies, and investment is no longer dominated by fertility/pregnancy companies. Fertility and pregnancy companies, which accounted for over half of total dollars invested in 2022, only comprised 23% of deal dollars in H1'23. At the same time, platform companies received more investment in H1'23 than both fertility and pregnancy companies combined.

With this change in investment comes a broader shift in understanding of what constitutes WH. While WH is often primarily associated with infertility, breast health, menopause, and other gynecological conditions, many medical conditions uniquely and/or disproportionately affect women. In recognition of this, several companies are embracing a holistic-care-based approach to WH. In May, Parsley Health announced the launch of a new program providing coordinated medical care to comprehensively address common chronic conditions and comorbidities that affect women. "[Women] need comprehensive care that spans each phase of her life and supports her beyond her reproductive health goals," said Dr. Robin Berzin, M.D., Founder and CEO of Parsley Health.<sup>1</sup> Similarly, Gennev, a menopause care company, announced a partnership with mental health care provider LifeStance.

We expect that as WH becomes more of a priority, we may see more investment and attention in areas outside pregnancy and fertility.



A Division of First Citizens Bank

## Top Investors in Women's Health

Deal count since 2015

31	Combinator	14	G/	13	STEELSKY VENTURES
19	National Science Foundation	13	Springboard ENTERPRISES	13	Gaingels
17	techstars	13	PORTFOLIA	13	NEA
16	Alumni Ventures	13	NIH National Institutes of Health Turning Discovery Into Health	12	Avestria Seeding Women's Health and Life Science Ventures
14	PLUGANDPLAY	13	U.S. Department of Health and Human Services Enhancing the health and well-being of all Americans	11	FEMALE FOUNDERS FUND

## Dollars and Deals by Indication

Indications	2021		2022		H1 2023	
	Dollars	Deals	Dollars	Deals	Dollars	Deals
Platform	\$447M	16	\$179M	18	\$142M	12
Pregnancy	\$237M	17	\$447M	34	\$77M	18
Fertility	\$255M	19	\$274M	16	\$33M	10
Pelvic Health	\$53M	12	\$51M	8	\$96M	10
Women's Oncology	\$12M	5	\$308M	19	\$107M	13
Women's Mental Health	\$9M	3	\$13M	7	\$7M	5
Menopause	\$22M	7	\$44M	4	\$11M	4

Notes: 1) [Parsley Health Launches Comprehensive Women's Health Program for Employers](#)

Source: PitchBook, SVB proprietary data and SVB analysis.

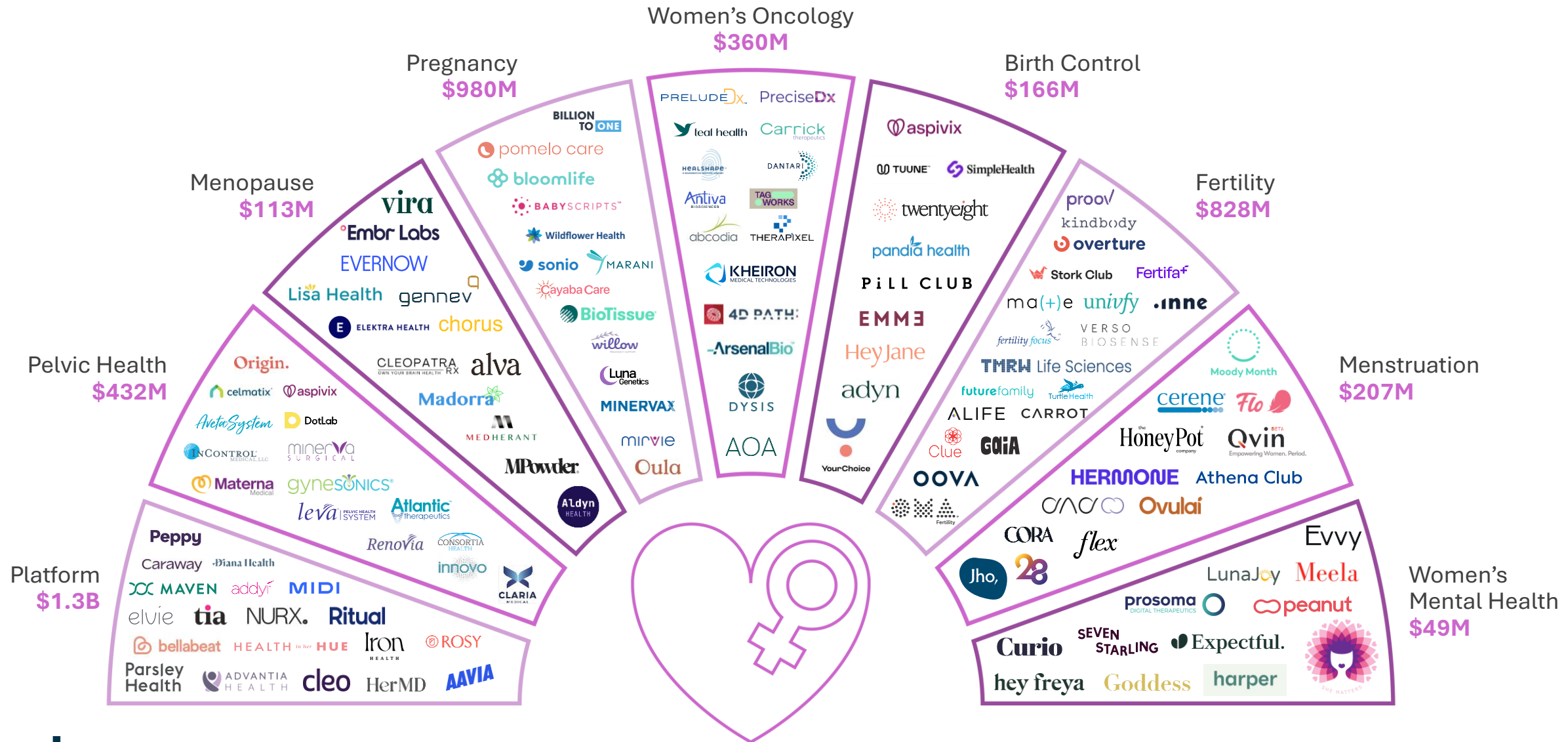
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## Highest-Valued Financings H1 2023

4D PATH	Women's Oncology	\$113M post
Peppy	Platform	\$90M post
Oula	Pregnancy	\$89M post
pomelo care	Pregnancy	\$75M post
Embr Labs	Menopause	\$69M post
HerMD	Platform	\$47M post
Caraway	Platform	\$35M post
leva PELVIC HEALTH SYSTEM	Pelvic Health	\$32M post



# Women's health market map by total VC raised since 2018





# Healthcare M&A and IPO activity

Global



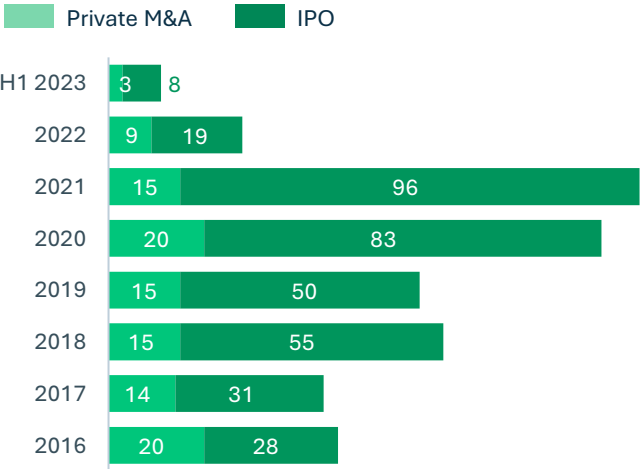
# IPO market invite-only as M&A favors publics

IPOs continue to be reserved for the highest-caliber companies and driven largely by a mixture of brand name investors; veteran management teams; indications, targets or modalities that are in-focus; and clinical assets with near-term milestones.



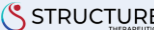
The performance, or lack thereof, by 2020 and 2021’s historically large IPO cohorts has made capital scarce for IPO-hopefuls for a number of reasons:

- Valuation mismatch
  - Pressured public stocks left no headroom for private companies caught in the IPO backlog with 2020-2022 vintage valuations. Many private companies are beginning to solve for this with down round or highly structured rounds that preserve valuation but erode value for early investors.
- Traditional investors refocusing
  - Late-stage investors have directed resources toward attractively priced stocks rather than new IPOs. Extra emphasis is also being placed on near-term clinical milestones.
- Non-traditional investors leaving the space
  - As the pace of crossover-to-IPO jumps stalled and returns evaporated, newcomers to the space have retreated.
- Competition for LIPO deals
  - As the number of companies having raised a \$40M deal while remaining private nears 150, there may be steep competition for IPO funding even as the window reopens.

## Biopharma Private M&A Deals and IPOs by Year, Global<sup>1</sup>

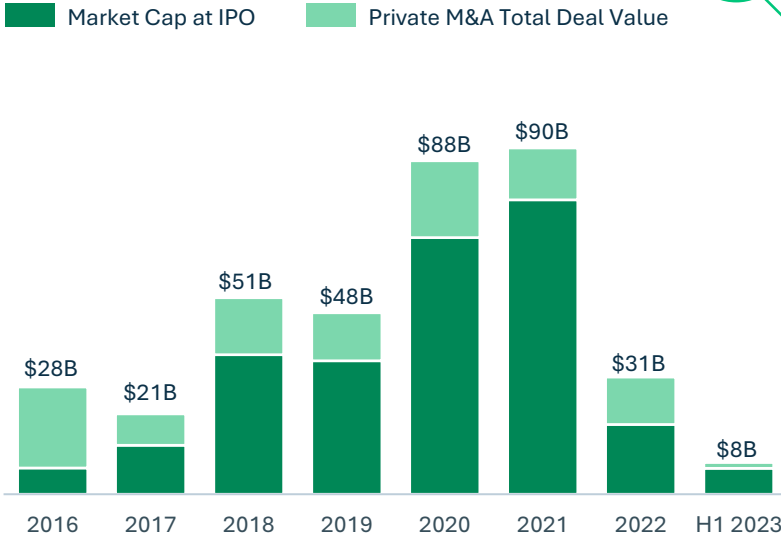


## 2023 Largest US IPOs by IPO Market Cap

	 ACELYRIN	 MINERALYS	 STRUCTURE THERAPEUTICS
SVB Indication	Platform	Cardiovascular	Platform
IPO Price (\$) (Date)	18 (5/5/23)	16 (2/10/23)	15 (2/7/23)
Market Cap at IPO (\$)	1.7B	625M	599M
Price (\$) 6/30/23	20.90	17.05	41.57
Price +/-	16%	7%	177%
Market Cap (\$) 6/30/23	2.0B	697M	1.6B

Note: 1) All exit data is global. M&A defined as all private, global, venture-backed M&A deals with upfront payments of at least \$75M. IPO defined as all private, global, venture-backed IPOs raising at least \$25M in proceeds.  
Source: PitchBook, S&P Capital IQ and SVB proprietary data.  
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## Biopharma Exit Values by Year



## IPO Performance by IPO Year

		IPO Cohort Year			
		2019	2020	2021	2022
Number of IPOs		50	83	96	19
Median Pre-\$/Median Dollars Raised		337M / 85M	495M / 200M	428M / 133M	501M / 155M
Median/Average Performance	2020	31% / 89%	74% / 89%		
	2021	-6% / 76%	-12% / 12%	-27% / -18%	
	2022	-51% / 27%	-63% / -36%	-71% / -47%	-2% / 21%
	2023	-54% / 21%	-57% / -38%	-70% / -40%	1% / 3%

# M&A activity shifts to smaller deals

There has been ample chatter about a red-hot M&A market, but the charts here show historically low activity. Where are all the deals?

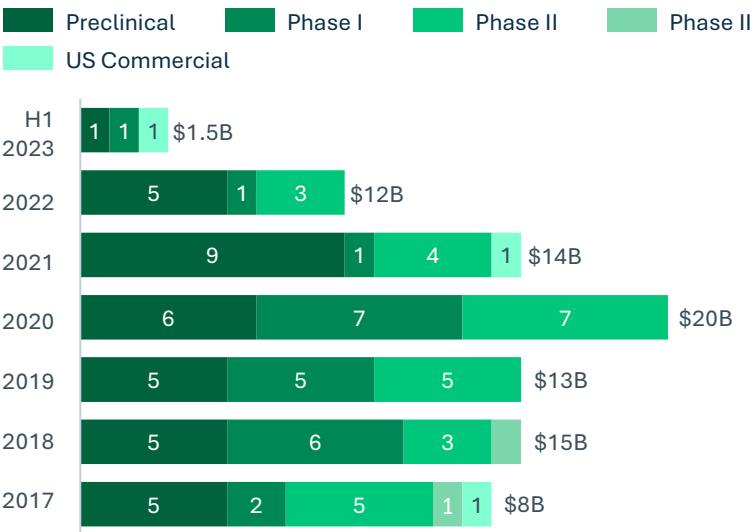
We track exits in terms of companies graduating from private status via IPOs of \$25M+ or M&A with \$75M+ upfront. In these cohorts, activity has been muted as Pharms focus on public companies with good data. In many cases, these companies are trading near or below all-time highs despite proof-of-concept milestones.

M&A deals for private companies have largely focused on deals under \$75M upfront; mergers of equals in hopes that 1+1=3, reverse mergers to access public markets, or deals with “undisclosed terms,” which likely fall into the first bucket.

While it can be hard to garner Pharms’ attention as they cherry-pick the best public companies, many companies are striking partnerships to get on their radar while extending runway and adding a feather of validation to their caps.

Indications are that the market could remain relatively muted throughout 2023, but pieces are beginning to align for a stronger 2024. This includes valuation resets for many private names, investors and acquirers working through a backlog of public companies of interest and a veritable war chest of cash on pharma balance sheets.

## Biopharma Private M&A Deals by Stage<sup>1,2</sup>



## Biopharma M&A Activity by Indication 2017-H1 2023

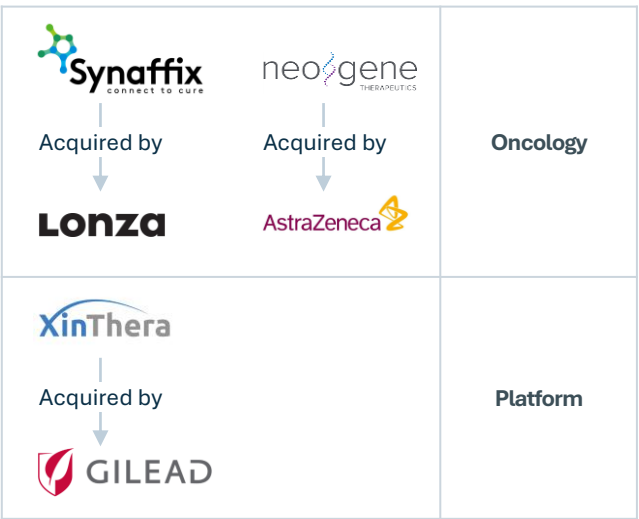
Indication	# M&A	Total Deal Value (\$B)	# \$B+ Exits	Median Years to Exit
Oncology	27	27.7	9	3.4
Platform	16	17.1	7	4.4
Neurology	13	8.3	3	3.8
Orphan/Rare	11	6.5	2	2.4
Autoimmune	7	9.4	1	-
Anti-Infective	4	6.0	2	-

Note: 1) Stage defined as last completed clinical trial prior to M&A announcement. 2) All exit data is global. 3) Each dot represents an M&A deal. M&A defined as all private, venture-backed M&A deals with at least \$75M upfront, globally.

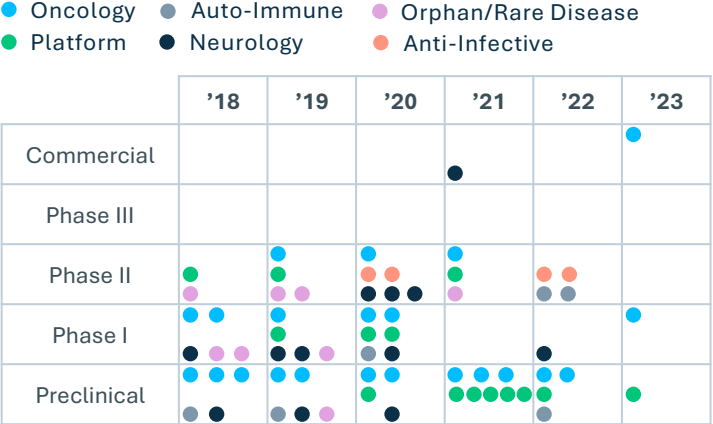
Source: PitchBook and SVB proprietary data.

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## Private M&A Deals H1 2023



## M&A by Life Stage and Top Indications<sup>3</sup> 2018-H1 2023



# Still-frozen IPO market, favorable M&A conditions

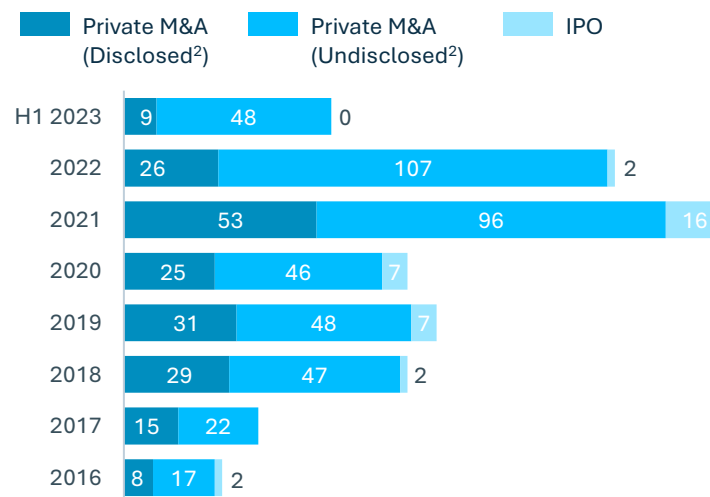
Last year marked the sudden end to the robust healthtech venture-backed IPO activity seen in 2019-2021. This year, the IPO window remains closed with zero IPOs in H1'23.

Macroeconomic factors affecting market volatility hit healthtech stocks harder than other sectors, as median performance fell to -67% in 2022. This year, however, despite ongoing public market headwinds, the healthtech sector started to demonstrate resiliency, trading up +13% in Q1'23 and +32% in Q2'23 (vs. +18% for the S&P) as many notable names posted double-digit gains. YTD performance leaders include Lunit (+369%), a 2022-vintage IPO based in South Korea and Oscar Health (+227%).

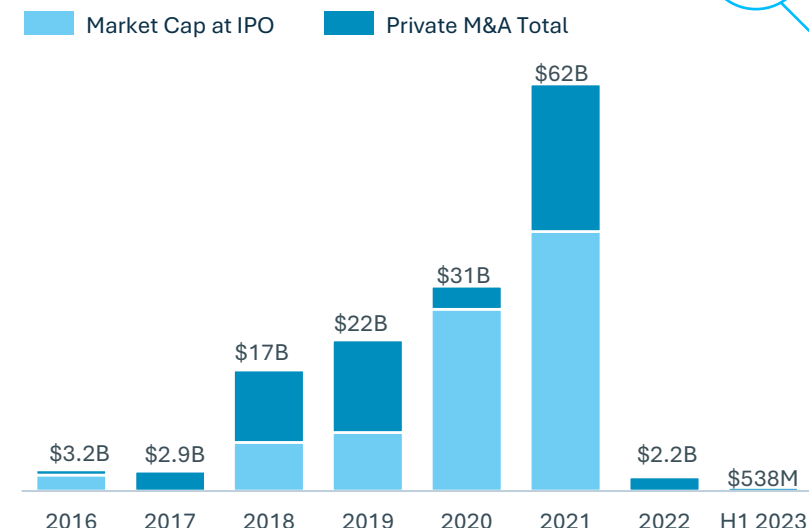
Similarly, the M&A market has started to show signs of life with rising deal volume. Strategic acquirers lead the way in notable public M&A: CVS's acquisition of Oak Street Health for \$10.6B and Amazon's acquisition of One Medical for \$3.9B.

While the market remains challenging for financing and deal activity, the "green shoots" experienced in H1'23 represent the first positive trends experienced in more than a year. The slow but steady thawing of the market is marked by rising levels of investor dry powder, high demand for new capital, and a narrowing bid/ask between investors/buyers and companies.

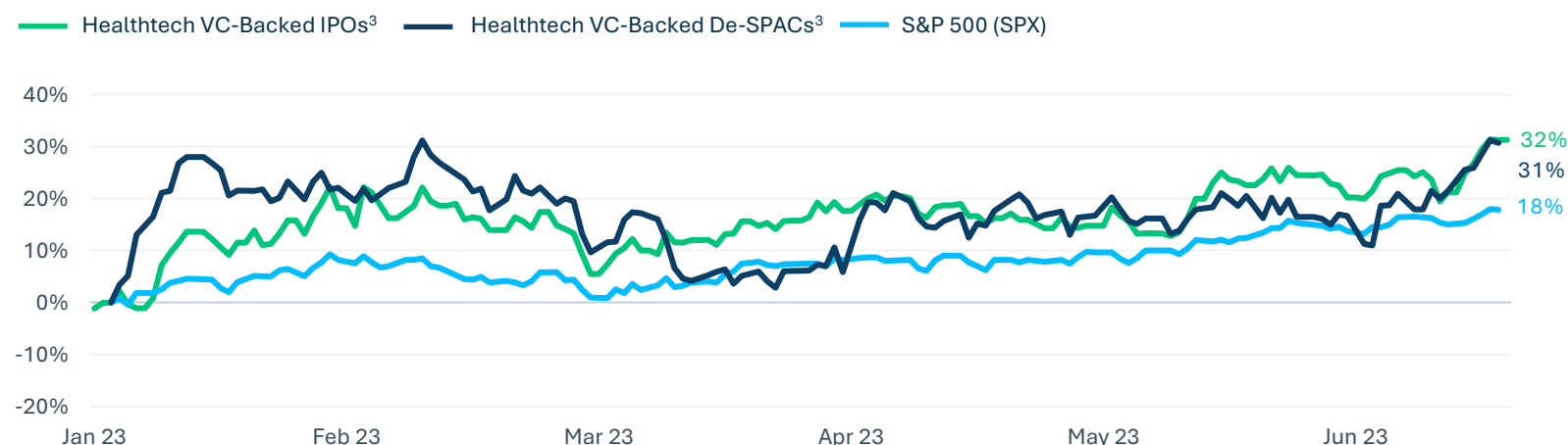
## Healthtech Private M&A Deals and IPOs by Year<sup>1</sup>



## Healthtech Exit Values by Year



## Healthtech Average Post-Exit Performance



Note: 1) All exits are global. 2) Disclosed/undisclosed refers to a disclosed/undisclosed acquisition price for the M&A deal. 3) Healthtech VC-backed IPOs or De-SPACs from 2015-2023. Index performance is weighted equally. M&A defined as all private, venture-backed M&A deals with no upfront limitations, globally. IPO defined as all private, venture-backed IPOs raising at least \$25M in proceeds, globally.

Source: PitchBook, S&P Capital IQ, SVB proprietary data and SVB Future of Healthtech 2022 Report.

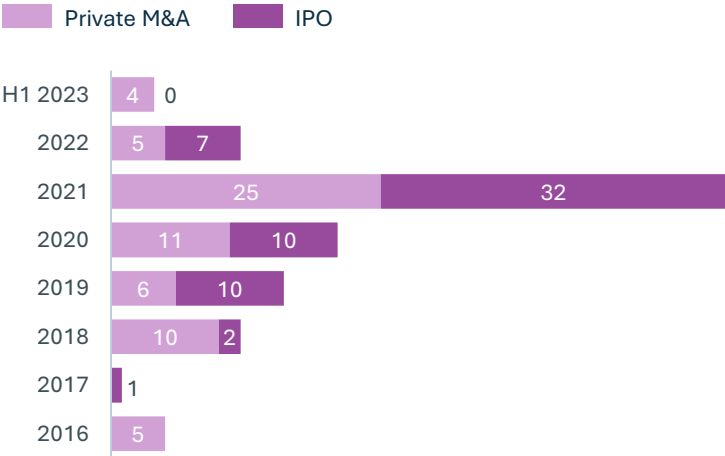
# IPO window firmly shut but showing signs of improvement

The exits environment for diagnostics has stagnated following a two year boom in 2020 and 2021. COVID-19 changed the game — at least temporarily — by casting a spotlight on diagnostics’ importance and creating an influx of interest in the space. IPOs came to a screeching halt in 2022 and 2023, and last year marked the first year since 2016 with no US venture-backed IPOs. The IPO window remained tightly shut this year, which marked the first with no global venture-backed IPOs since 2016.

There are, however, early signs of an improving public market, with mixed but improved performance in 2023 from 2022. Median performance for 2021 IPOs jumped from -69% in 2022 to -16% in 2023. At year-end 2022, Schrödinger was the only 2020 IPO in positive territory. This year, three are trading positively, including Schrödinger (+167%), Progenity (+16%) and HitGen (+10%).

Capital intensity remains high for many dx companies as IPOs typically require commercialization. Nearly all dx companies since 2015 (65/67) hit commercialization at the time of their IPO. With financing withering in the diagnostics space, we expect to see more consolidations this year. We’ve seen traditional labs acquiring early development point-of-care technologies, such as Quest’s recently announced \$300M acquisition of liquid biopsy maker Haystack Oncology. We hold out hope that acquirers will use the tough private financing environment to acquire early-stage companies in H2’23.

## Dx/Tools Private M&A Deals & IPOs by Year, Global<sup>1</sup>



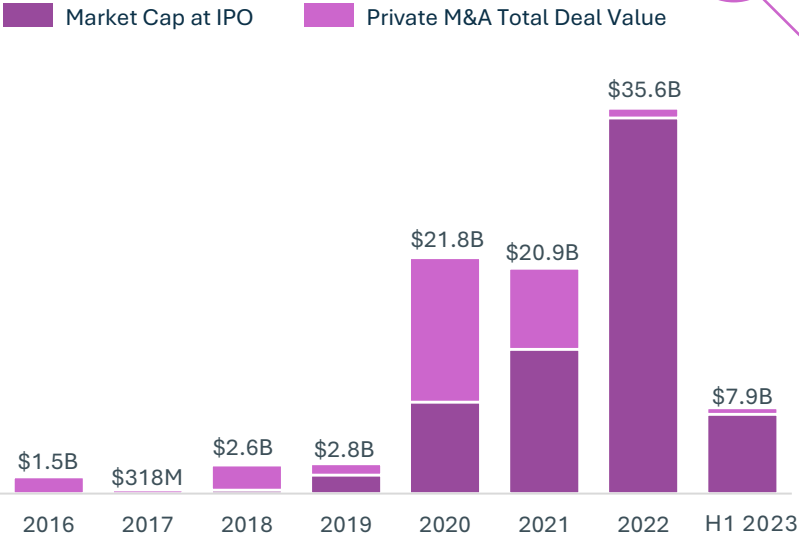
## Dx/Tools M&A by Indication 2017-H1 2023

Indication	# M&A	Total Deal Value (\$B)	# \$B+ Exits	Median Years to Exit
Dx Tests	20	15.9	2	6.2
R&D Tools	30	8.1	1	5.7
Dx Analytics	11	1.6	0	6.1

Note: 1) All exit data is global. M&A defined as all private, venture-backed M&A deals with at least \$50M upfront, globally. IPO defined as all private, venture-backed IPOs raising at least \$25M in proceeds, globally. Market cap at IPO used to estimate value of public companies. Source: PitchBook, S&P Capital IQ and SVB proprietary data.

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## Dx/Tools Exit Values by Year



## Private M&A Deals H1 2023



# Early signs of public performance improvement

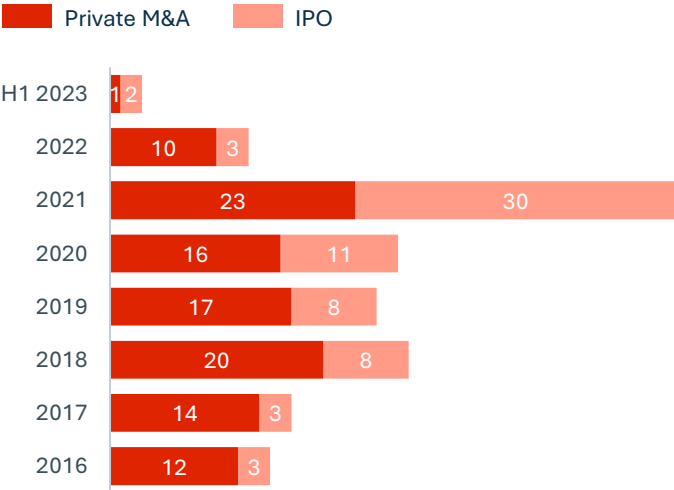
Following 2021's record for the number of venture-backed IPOs and M&A, public market volatility caught up with the device sector, effectively closing the IPO market in 2022 and H1'23. The only IPOs since 2023 are China-based companies, with the majority (three of five) trading negatively except for United-Imaging (+23%) and BMC Medical (+21%). Interestingly, US-based company Avertix announced its \$195M de-SPAC in May 2023, marking the first US public device exit since 2021.

While the 2021 vintage IPOs suffered deep performance lows in 2022, median performance has markedly improved from -49% in 2022 to -12% in H1'23. While 15 were performing at less than 50% in 2022, only one is trading that negatively in H1'23 (Sonendo, -51%). Early signs of an improving public market could bring much-needed relief to the device sector.

Acquisitions are a routine exit strategy in the device sector, and large players often acquire new technologies that can be scaled through their existing networks beyond what smaller companies could accomplish themselves. Still, M&A activity remains light, with acquirers focusing internally on existing revenue lines and cost-cutting efforts.

As private valuations continue to adjust to the current market and pricing discrepancies between buyers and sellers settle, we may see a rebound in M&A activity. Prospective buyers may wait until the path to regulatory approval is clear to limit operational and financial risks.

## Device Private M&A Deals & IPOs by Year, Global<sup>1</sup>



## Device M&A by Indication

2017-H1 2023

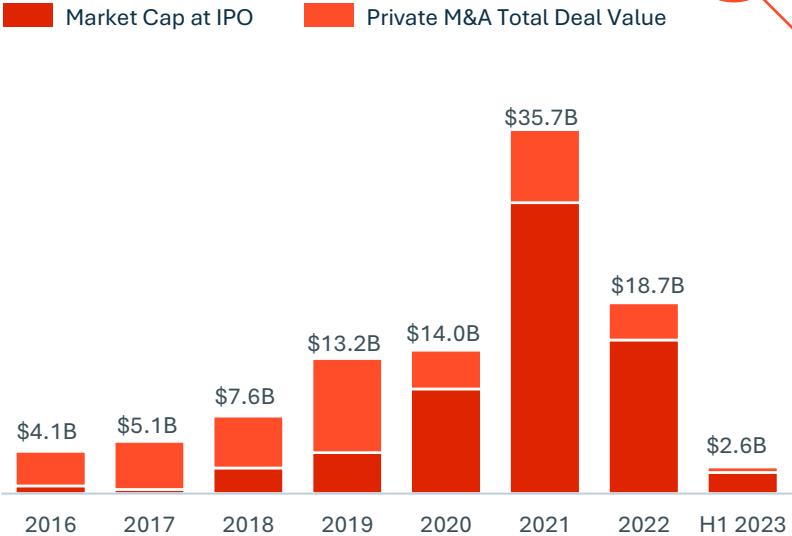
Indication	# M&A	Total Deal Value (\$B)	# \$B+ Exits	Median Years to Exit
Surgical	13	7.7	1	8.5
Cardiovascular	15	5.4	0	4.8
Vascular	15	5.0	1	5.2
Orthopedic	16	3.2	0	8.2
Non-Invasive Monitoring	7	2.6	1	-
Neurology	5	1.1	0	-

Note: 1) All exit data is global. M&A defined as all private, venture-backed M&A deals with at least \$50M upfront, globally. IPO defined as all private, venture-backed IPOs raising at least \$25M in proceeds, globally. Market cap at IPO used to estimate value of public companies.

Source: PitchBook, S&P Capital IQ and SVB proprietary data.

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## Device Exit Values by Year



## Private M&A Deals H1 2023



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Jackie graduated from St. Mary's College of California with honors, receiving a bachelors in finance.



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He graduated from the University of Notre Dame with honors and can be found hiking or playing music when he's not working with the most interesting companies on the planet.



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Prior to SVB, Raysa worked as a healthcare consultant focusing on health systems revenue cycle management and operations.

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# Glossary

## Descriptions

**All-In Deal** defined as an acquisition where the full deal value is paid at deal close.

**Series A** defined as all first-round institutional or corporate venture investment, and all first-round investments equal to or greater than \$2M, regardless of investor.

**Upfront Payments** defined as initial proceeds from an acquisition paid upon the close of a structured deal; they do not include milestones.

**Milestones to be Earned** defined as proceeds from an acquisition that are paid once predetermined milestones are met.

**Total Deal Value** defined as the full value of the acquisition, including milestones to be earned.

**Time to Exit** defined as the time from the close of a company's first institutional round of financing to the exit.

**Step-Up** defined as the valuation change from the last round post-money value to the next round pre-money value.

**Corporate Investor** defined as a corporate venture and parent company investment into venture-backed companies.

**Computational Biology:** To qualify as a computational biology company in this analysis, per review of their website, the company must (1) focus on drug discovery and/or development (biopharma/R&D tools), (2) apply novel computational tools to gain biological and/or chemical insights, (3) have the ability or potential for platform creation and (4) have a team with computational experience.

**European Data:** All European data and statistics include data from the European Union and the United Kingdom.

## Device regulatory definitions

**Non-approved** defined as a device product that has not obtained regulatory clearance or approval for its product.

**CE Mark** defined as a device company that has CE Mark approval but has not received FDA approval. CE Mark is a European Union designation that is typically less difficult to obtain than FDA approval, and the approval process often has a faster timeline.

**US Commercial** defined as a device company that has received FDA approval or clearance of its product and is usually in a commercial stage.

**510(k):** FDA process of scientific and regulatory review to evaluate the safety and effectiveness of Class II medical devices. Typically there are little to no human clinical trials required for 510(k) clearance.

**PMA:** Premarket approval (PMA) is the FDA process of scientific and regulatory review to evaluate the safety and effectiveness of Class III medical devices. Typically there are extensive human clinical trials involved for PMA approval.

## Indication Definitions

**Neurology** defined as CNS, pain and psychology companies, as well as neurology implant technologies.

**Non-Invasive Monitoring (NIM)** defined as medical data collection through sensors and other technology worn outside the body.

**Dx Tests** defined as proprietary yes/no diagnostic tests.

**Dx Analytics** defined as actionable data analytics to help determine treatment.

**R&D Tools** defined as research equipment/services for biopharma and academia.

## Healthtech subsector definitions

**Provider Operations** defined as companies that provide solutions to increase the efficiency and accuracy of provider-provider and provider-patient interactions.

**Alternative Care** defined as companies that provide primary or specialty care outside a hospital or private practice.

**Clinical Trial Enablement** defined as companies that develop solutions to accelerate drug discovery and the digitization of clinical trials.

**Healthcare Navigation** defined as companies that guide users to relevant providers and/or payers based on their needs.

**Medication Management** defined as companies that aid users in access and adherence to their prescribed medication.

**Wellness & Education** defined as companies that inform users of healthy lifestyle and medical best practices, as well as medical education companies.

## Biopharma Top 15 crossover investors

Biopharma Top 15 Crossover Investor defined as a public-minded investor who strategically invests in private companies. The Top 15 list includes: RA Capital, Perceptive Advisors, Deerfield Management, Redmile Group, Cormorant Asset Management, The Invus Group, Fidelity (et al.), EcoR1, Casdin Capital, Janus, Logos, Viking, Citadel, Rock Springs Capital and Wellington Management.



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Are not insured by the FDIC or any other federal government agency	Are not deposits of or guaranteed by a bank	May lose value
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## About Silicon Valley Bank

Silicon Valley Bank (SVB), a division of First Citizens Bank, is the bank of some of the world's most innovative companies and investors. SVB provides commercial and private banking to individuals and companies in the technology, life science and healthcare, private equity, venture capital and premium wine industries. SVB operates in centers of innovation throughout the United States, serving the unique needs of its dynamic clients with deep sector expertise, insights and connections. SVB's parent company, First Citizens BancShares, Inc. (NASDAQ: FCNCA), is a top 20 U.S. financial institution with more than \$200 billion in assets. First Citizens Bank, Member FDIC. Learn more at [svb.com](https://svb.com).

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