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Silicon Valley Bank

Healthcare Investments and Exits

New Records for Healthcare Fundraising,
Investments and Exits in 2020

Biopharma | HealthTech | Dx/Tools | Device

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Healthcare Investments

US and Europe

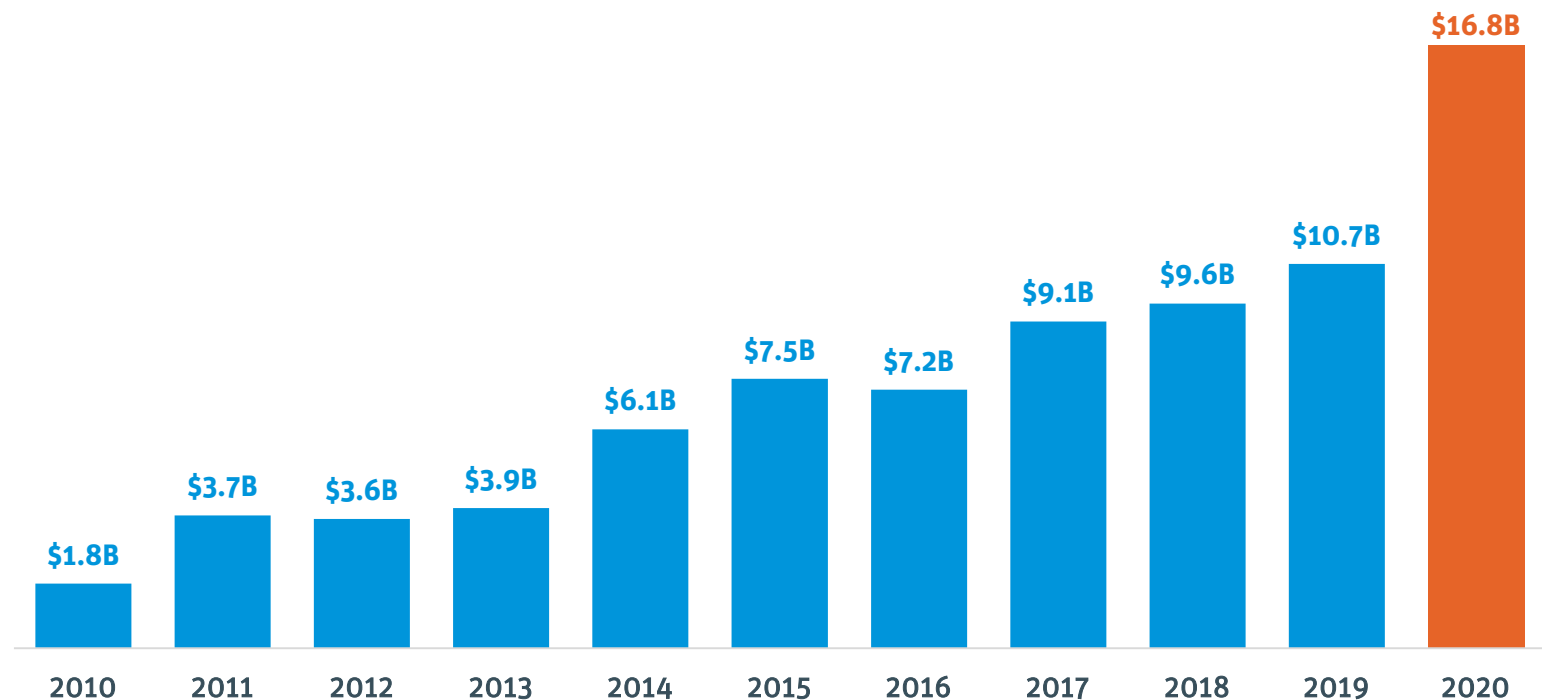
Healthcare VC Fundraising Skyrockets to \$16B+ in 2020

The frothy IPO environment, plus strong private M&A activity across multiple sectors, propelled a fourth straight record year in healthcare venture capital (VC) fundraising.

Big step-ups into mezzanine (mezz) rounds quickly flowed into IPOs and, more importantly, sustained performance in the aftermarket. Quick early-stage biopharma M&A deals have been augmented by multiple \$1B+ buyouts of private dx/tools deals. These positive trends provided substantial TVPI* and DPI* growth, enabling this sustained market.

2019–2020 showed the biggest year-over-year growth in fundraising (57%) since 2011. Many firms increased their fund size, and early-stage investors raised opportunistic later-stage funds. The number of life science-only funds in 2020 versus 2019 were the same (28 each), but median deal size was ~2x higher (\$415M versus \$217M). Newer funds with savvy veteran investors include DCVC Bio, Westlake and Define. We also observed a huge upswing in healthcare SPACs by VC and hedge funds (~\$2B), although not counted in this VC fundraising data.

US Healthcare Venture Capital Fundraising 2010–2020



Notable Venture Funds** Closed in 2020

ANDREESSEN
HOROWITZ

COWEN
HEALTHCARE
INVESTMENTS

Flagship
Pioneering

Longitude
CAPITAL

RACAPITAL

ARCH
VENTURE
PARTNERS

DEI Bio

FRAZIER
HEALTHCARE PARTNERS

NEA

SR One

venBio

ATLAS VENTURE

DEERFIELD[®]
Advancing Healthcare[®]

Lightspeed

QUESTA
CAPITAL

WESTLAKE VILLAGE
BIOPARTNERS

*TVPI is defined as the ratio of the current value of fund investments plus distributions to date divided by the total amount of capital invested to date; DPI is defined as the ratio of the money a VC fund has returned to limited partners divided by the total amount of capital invested to date. **Notable venture funds based on largest estimated allocation to healthcare. SPAC stands for special purpose acquisition company. 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. Source: PitchBook and SVB proprietary data.

Q3 Investment Surge Propels Healthcare to a Record \$51B

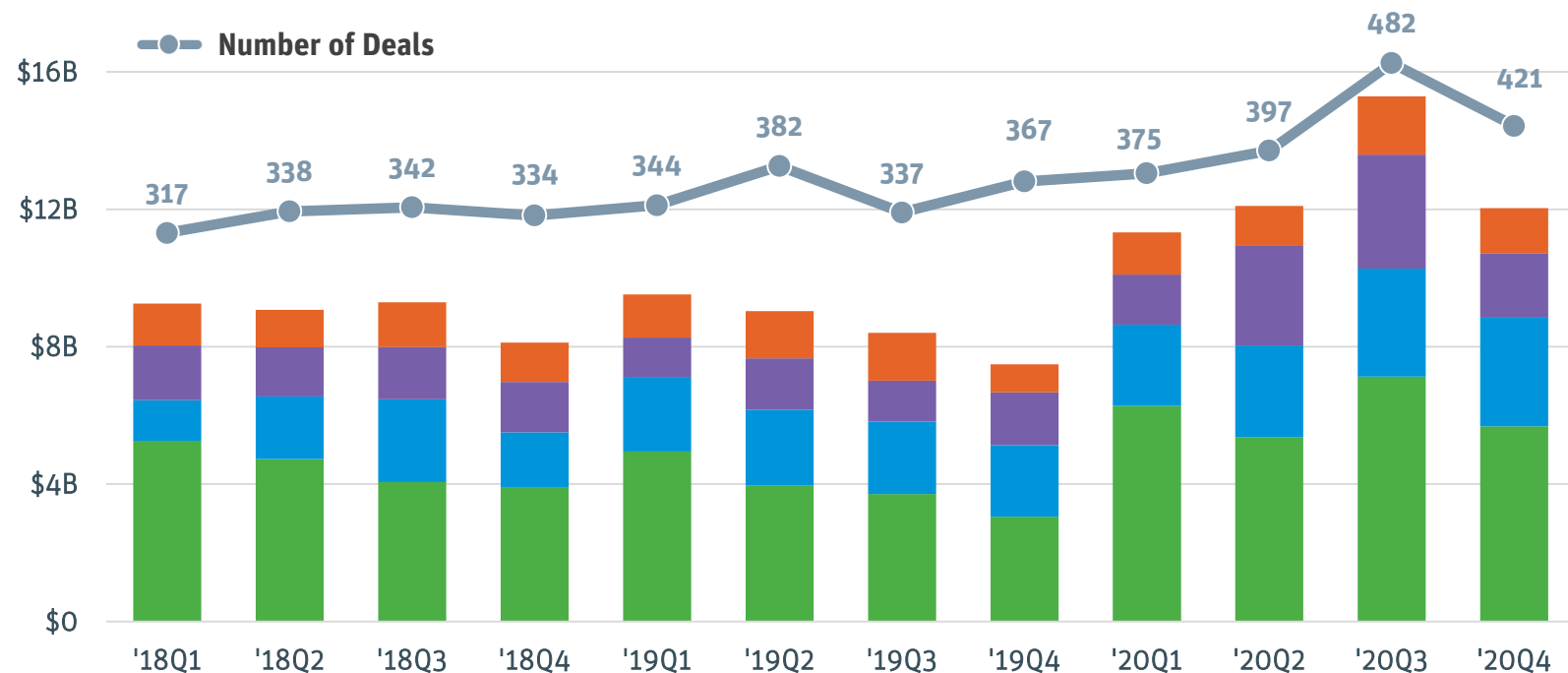
We saw a 50% jump in venture capital investment into companies from 2017–2018 and a small decrease in 2019. In 2020, we saw another investment surge of more than 47% to set a new healthcare investment high at \$51B.

Despite being in lockdown due to the pandemic, we saw noteworthy deal and dollar growth in Q2 2020. This demonstrated the resilience of healthcare, which is a tightly networked industry with many repeat entrepreneurs. The industry continued to complete deals, even without face-to-face interactions.

Every sector experienced record investment this year. Q3 2020 set a highwater investment mark of \$15B, the largest healthcare investment quarter ever recorded.

Venture-backed dx/tools and biopharma sectors were bright spots in battling the pandemic, with many venture-backed companies leveraging their technologies to develop COVID-19 tests and treatments. These two sectors showed the largest increases in investment versus 2019. HealthTech was thrust into the spotlight by the shift toward virtual care due to shelter-in-place restrictions.

VC Dollars and Deals by Healthcare Sectors US and Europe



| Sectors (\$M) | 2018 | | | 2019 | | | 2020* | | |
|---------------|---------------|--------------|---------------|---------------|--------------|---------------|---------------|--------------|---------------|
| | US | Europe | Total | US | Europe | Total | US | Europe | Total |
| Biopharma | 15,147 | 2,814 | 17,961 | 12,552 | 3,132 | 15,684 | 19,776 | 4,681 | 24,457 |
| HealthTech | 6,439 | 575 | 7,014 | 7,077 | 1,467 | 8,544 | 9,962 | 1,382 | 11,344 |
| Dx/Tools | 5,391 | 629 | 6,020 | 4,443 | 940 | 5,383 | 7,953 | 1,598 | 9,551 |
| Device | 4,134 | 609 | 4,743 | 3,953 | 883 | 4,836 | 4,832 | 569 | 5,401 |
| Total | 31,111 | 4,627 | 35,738 | 28,025 | 6,422 | 34,447 | 42,523 | 8,230 | 50,753 |

Series A Deals Bounce Back; Activity Ramps in Neurology

2020 Series A deals and dollars increased significantly versus 2019, and median deal size grew slightly from \$10M to \$13M. Corporate venture activity picked up, participating in more than one-third of all US Series A deals. European Series A investment also spiked, almost doubling 2019 dollars to \$1.1B in 2020.

Compared to other indications, neurology Series A deals saw the largest increase, jumping over 6x in dollars and 55% in funded deals.

Orphan/Rare deals and dollars plummeted. IPOs were stable (six orphan/rare IPOs in both 2019 and 2020). However, post-IPO performance was down for the class of 2020, and was also significantly lower than other indications. Despite this Series A drop-off, there is still a sizable backlog of Series B mezz-funded orphan/rare deals.

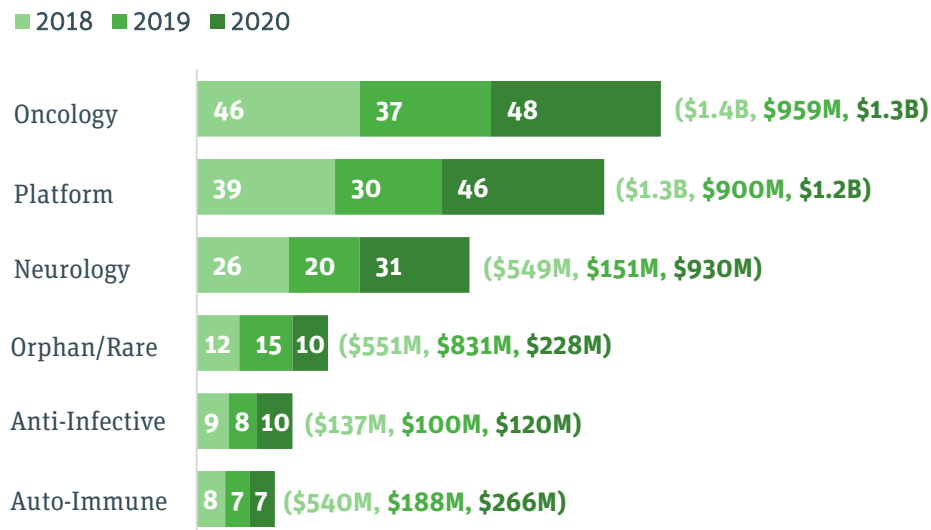
Anti-infective Series A activity was slightly up, though not as much as expected given the heightened focus of COVID-19 and excellent 2020 IPO activity in this indication (seven IPOs, +121% average post-IPO performance).

Top 15 Crossovers increased Series A activity, closing 12 LIPO* deals; one (Legend) is now public.

Series A Biopharma Deals US and Europe

| | 2018 | 2019 | 2020 | |
|-----------------------|-------------|-----------------|-----------------|-------------------|
| Number of Investments | US / Europe | 131 / 43 | 116 / 43 | 133 / 58 |
| | Total | 174 | 159 | 191 |
| Total Funding (\$M) | US / Europe | \$4,392 / \$768 | \$3,062 / \$637 | \$3,770 / \$1,120 |
| | Total | \$5,160 | \$3,699 | \$4,890 |
| Corporate Investments | US / Europe | 26% / 26% | 32% / 33% | 35% / 17% |

Series A Deals and (Dollars) by Top Indications



Top 2020 Series A Deals



Company went public

Led by LIPO Deals, Biopharma Hits \$24B Record Investment

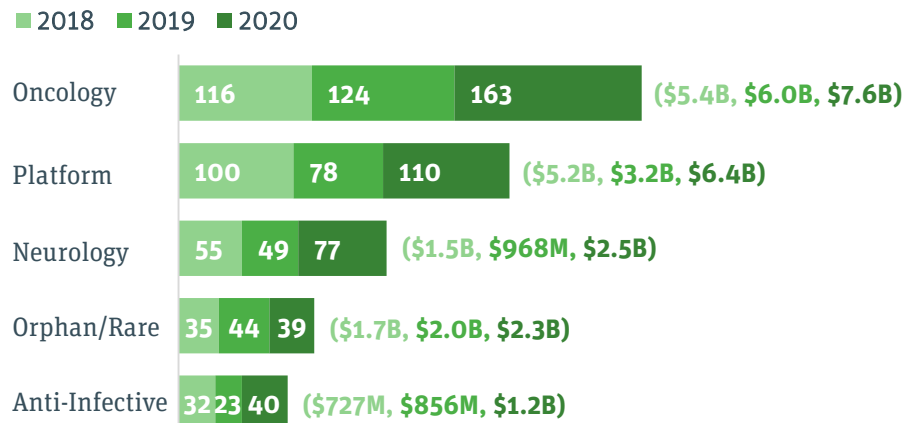
Investment in biopharma set a record in 2020. Neurology saw the largest jump in funding (+155% from 2019), helped by four \$100M+ deals; two early-stage (Arvelle and AavantiBio) and two later-stage (Praxis and ATAI Life Sciences).

Platform companies (programs targeting multiple indications at the same clinical stage, or early pre-clinical with multiple assets) saw a sharp increase from 2019, led by huge rounds by Roivant (\$1B), CureVac (\$633M) and Sana (\$435M). In addition, we saw an increase in LIPO platform deals, likely due to the hot early-stage IPO market. Nineteen platform LIPO financings closed in 2020, totaling \$2B. Six are now public.

Anti-infective investment was up, mostly in Series B or later deals. Two of the three largest private deals are now public (Atea and Vaxcyte).

Of the 93 LIPO* deals closed in 2020, 33 (35%) went public in the same year. From this group, the median time from mezz to IPO was just three months. The median step-up from venture post to mezz pre was 1.4x (slightly lower than 2019 LIPO deals), and the step-up from mezz post to pre-money IPO was 1.4x (slightly higher than 2019).

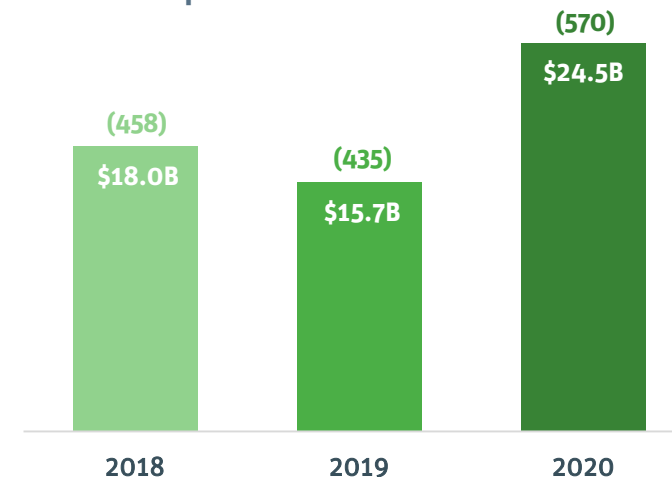
Biopharma Deals and (Dollars) by Top Indications US and Europe



2020 LIPO Deals That Have Gone Public This Year



Total Dollars and (Deals) US and Europe



2020 Highest Valued Private Companies**

| | | |
|--|----------------|---------------|
| | Platform | \$9,000M post |
| | Platform | \$2,765M post |
| | Oncology | \$2,493M post |
| | Oncology | \$2,101M post |
| | Platform | \$1,500M post |
| | Neurology | \$946M post |
| | Anti-Infective | \$940M post |
| | Oncology | \$740M post |

Company has since gone public

























Crossover Investment Swells; Massachusetts Leads Deals/\$\$

Crossover investors continued to dominate new investor activity, claiming six of the top 10 spots. Based on healthcare investment activity, we updated our Top 15 Crossover list. Arrowmark, BVF, Foresight and Tavistock dropped off, replaced by Janus, Logos, Viking and Wellington Management.

Biopharma had more China-headquartered investor activity than any other healthcare sector. Over the last two years, about 14% of US/European biopharma deals had a China-headquartered investor in their syndicate group, and these deals comprised 23% of total biopharma funding. Most were large, later-stage mezz financings (72%). The most active China-headquartered groups this year included Lilly Asia Ventures, Morningside and WuXi AppTec, and the most active US-headquartered funds with China affiliates included Qiming USA and Pivotal bioVenture Partners (Nan Fung).

By geography, Massachusetts dominated biopharma deals and dollars in 2020, both overall and in Series A (all deals: 132/\$6.5B; Series A: 38/\$1.4B). Northern California was second at about half the volume (72/\$4.3B; 20/\$705M), followed by Southern California (50/\$2.3B; 18/\$424M) and New York (33/\$2.6B; 15/\$471M).

Most Active New Biopharma Investors* Number of Deals (US and Europe, 2019–2020)

| Venture Capital Investor | | Corporate Investor | | Later-Stage/Crossover Investor | |
|--------------------------|---|--------------------|--|--------------------------------|---|
| 24 |  SAMSARA BIOCAPITAL | 37 |  ALEXANDRIA | 38 | RACAPITAL |
| 23 |  HBM Partners | 18 |  G/ NOVARTIS | 30 |  CORMORANT ASSET MANAGEMENT |
| 21 |  OrbiMed Healthcare Fund Management NOVO holdings Investors in life science | 16 |  Pfizer | 29 |  CITADEL |
| 15 |  ARCH Venture Partners | 14 |  Joff INNOVATION | 25 |  CASDIN CAPITAL LIFE SCIENCE INVESTMENTS |
| 13 |  PIVOTAL BIOVENTURE PARTNERS venBio | 10 |  EVENTIDE leaps | 24 | Janus Henderson INVESTORS |
| 12 |  polarispartners OMEGA FUNDS | 8 |  abbvie Lilly | 23 |  BOXER CAPITAL TAVISTOCK GROUP |
| |  OSAGE UNIVERSITY PARTNERS SOFINNOVA INVESTMENTS | |  Boehringer Ingelheim SANOFI | 21 |  PERCEPTIVE ADVISORS |
| 11 |  nextech VIDA ventures | 7 |  ACCESS BIOTECHNOLOGY | 20 |  INVUS Redmile Group |
| 10 |  MPM NEA MORNINGSIDE | |  PARTNERS HEALTHCARE 药明康德 WuXi AppTec | | |



CipherBio-Driven Deep Dive: Early-Stage Neurology Analysis

CipherBio is a life-science data platform that provides insights to investors and entrepreneurs. Neurology investment spiked substantially in 2020, and we used this platform to dive into early-stage neurology activity over the last two years. Alexandria and Perceptive Advisors were the most active investors, with portfolios covering a broad range of indications. Other investors focused on specific areas; Samsara, RA and Orbimed each closed four deals in orphan/rare, while Dementia Discovery Fund invested in neurodegenerative disease companies exclusively.

CipherBio's combination of funding and science data allows users to breakout the top indications and approaches by deals and dollars. Orphan/rare attracted the most deals and dollars, led by a huge \$235M deal from AskBio (acquired by Bayer for \$4B in Q4 2020). Next were neurodegenerative diseases (Alzheimer's and Parkinson's), primarily targeted with small molecule, neuroprotective drugs. Notably, despite fewer deals, psychiatric disorders had the highest count of companies with assets in clinical trials (62%). Pain (chronic/neuropathic) also made the top indication list, with most deals developing non-opioid analgesics and anti-inflammatories.

CipherBio Biopharma Neurology Insights US and Europe, (2019–2020)



Larger Series A Rounds; Alt. Care Leads w/ \$500M+ Raised

In 2020, healthtech Series A deal volume declined 6%, while total Series A funding increased 14% versus 2019. The 16% increase in median Series A deal size may have been driven by companies seeking to raise additional capital to weather the COVID-19 pandemic.

The rapid acceptance of virtual care has validated the alternative care (AC) subsector, with virtual care companies raising 77% (\$406M) of AC's total Series A funding this year.

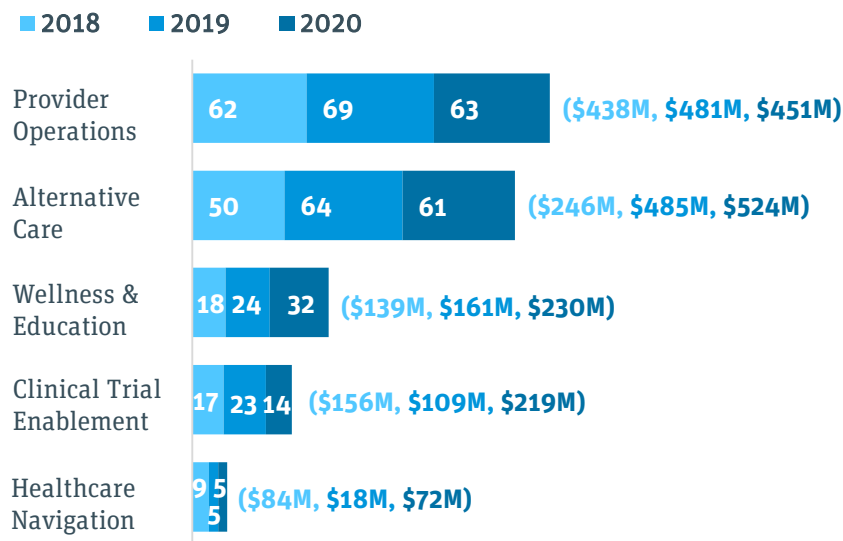
In-person clinics have now adopted virtual care services as well, resulting in a hybrid care* modality, which accounts for 15% of the total AC Series A financings in 2020. Two examples of hybrid primary care companies that went public this year are One Medical (\$ONEM, +212%) and Oak Street Health (\$OSH, +191%).

This year, New York led healthtech's Series A deal count with 31 deals (\$233M), while Massachusetts led in Series A investments (16 deals, \$273M). Northern California took second place for both Series A deals and dollars (30 deals, \$241M).

Series A HealthTech Deals US and Europe

| | 2018 | 2019 | 2020 | |
|-----------------------|-------------|---------------|-----------------|-----------------|
| Number of Investments | US / Europe | 125 / 40 | 161 / 35 | 131 / 54 |
| | Total | 165 | 196 | 185 |
| Total Funding (\$M) | US / Europe | \$897 / \$215 | \$1,121 / \$225 | \$1,171 / \$367 |
| | Total | \$1,112 | \$1,346 | \$1,538 |
| Corporate Investments | US / Europe | 19% / 18% | 16% / 17% | 15% / 6% |

Series A Deals and (Dollars) by Top Indications



Top 2020 Series A Deals



*Hybrid care is defined as companies that provide a combination of virtual and in-person care. **These companies overlap with other device and dx/tools sectors and are included in both sets of analyses. Series A includes first-time investments from institutional or corporate venture investment in the US and Europe and any first-round investments equal to or greater than \$2M, regardless of investor. Financing data are compiled through 12/23/20. Dates of financing rounds are subject to change based on add-on investments. Source: PitchBook, Capital IQ, SVB proprietary data and [SVB HealthTech Report](#).

3.5x More \$100M+ Rounds; Clinical Trial Enabl. Hits \$2B

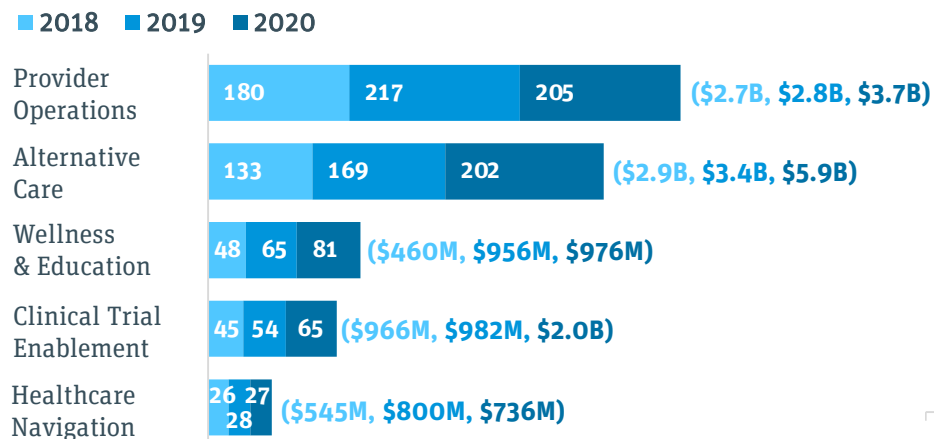
This year, 42 \$100M+ mega-rounds accounted for 42% of the total \$15.3B raised in healthtech (vs. 12, 28% of total in 2019). Q3 2020 was a record quarter with 13 \$100M+ accounting for 52% of the total \$4.6B raised (outpacing the previous record quarter, Q2 2020, by \$1.2B).

In 2020, alternative care (AC) accounted for 39% of total healthtech investments, led by primary care (66 deals, \$2.5B), mental health (42 deals, \$939M) and platform care (15 deals, \$814M).

AC saw the most mega-rounds this year (18, 42% of total subsector investment), followed by clinical trial enablement (CTE) (8, 54%) and provider operations (PO) (8, 29%).

CTE saw a 58% increase in funding from Q2 to Q3 2020. This may have been driven by the COVID-19 pandemic, which challenged players in the drug discovery and clinical trial spaces to adopt products from emerging CTE companies. Schrödinger (\$SDGR, +366%, drug discovery), is a notable CTE company that has a strategic partnership with Google's cloud computing platform to screen COVID-19 antivirals.

HealthTech Deals and (Dollars) by Top Subsectors US and Europe

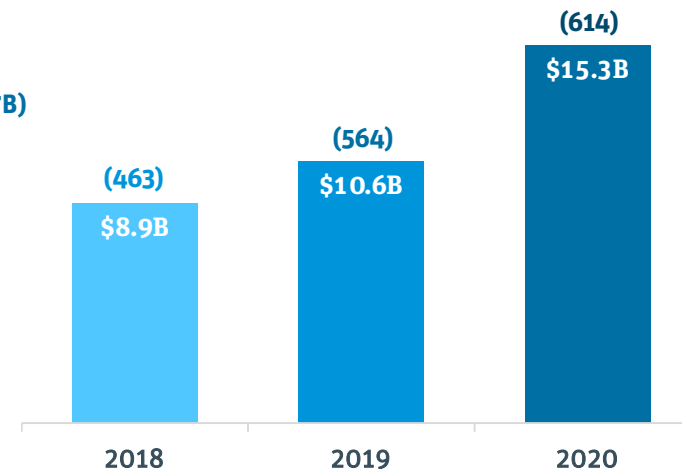


Top 2020 Deals*



Company has since gone public

Total Dollars and (Deals) US and Europe



2020 Highest Valued Private Companies**

| | | |
|----------------------|-----------------------|---------------|
| bright HEALTH | Insurance | \$4,000M post |
| Calm | Health & Wellness | \$2,000M post |
| Doctolib | Healthcare Navigation | \$1,797M post |
| Olive | Provider Operations | \$1,500M post |
| ro | Alternative Care | \$1,500M post |
| GRAND ROUNDS | Healthcare Navigation | \$1,340M post |
| WIHOOP | Health & Wellness | \$1,200M post |
| virta | Alternative Care | \$1,100M post |

Other 2020 \$1B+ companies were Sema4 (\$1.1B), Lyra Health (\$1.1B), Cityblock Health (\$1B) and MD Live (\$1B).

New VCs Focus on Later-Stage Alternative Care Deals

Venture capital (VC) investors on this page have skewed toward Series B or later-stage financings 57% of the time. Alternative care (AC) has drawn the most later-stage deals (\$2.3B across 71 deals).

Like VCs, corporates favored Series B or later-stage rounds 64% of the time, with provider operations (PO) (\$998M across 36 deals) and AC (\$950M across 29 deals) seeing the most deal activity.

Unlike other sectors, only 3% of healthtech deals (37/1,178) had a China-headquartered investor in their syndicate group; these deals comprised only 7% of total healthtech funding.

Massachusetts and New York have seen the most deal growth since 2019, increasing by 35% and 31%, respectively.

European companies received 21% of the healthtech deal flow in 2020. The UK had the most activity (all deals: 41/\$418M; Series A: 12/\$67M), followed by Germany and France.

Most Active New HealthTech Investors* Number of Deals (US and Europe, 2019–2020)

| Venture Capital Investor | | Corporate Investor | |
|--------------------------|--|--------------------|---------------------------------------|
| 13 | 8VC | 17 | BlueCross BlueShield |
| 11 | OAK HC/FT, DEFINE VENTURES | 14 | OPTUM VENTURES |
| 10 | DEERFIELD Advancing Healthcare, TIGERGLOBAL | 10 | Alphabet |
| 8 | GENERAL CATALYST, GREYGROFT, khosla ventures | 9 | UnityPoint Health Ventures |
| 7 | BainCapital VENTURES, LIFEFORCE CAPITAL, CITY LIGHT, F-PRIME, LU+ | 8 | MemorialCare Innovation Fund, PHILIPS |
| | bpi france, REVELATION PARTNERS, L2 VENTURES, VILLAGE GLOBAL | 7 | echo HEALTH VENTURES, MCKESSON, Cigna |
| 6 | Bessemer Venture Partners, COLLABORATIVE fund, CORRELATION VENTURES, Felicis Ventures, Frist Cressley Ventures, LRV HEALTH, maveron, MERIDIAN CAPITAL, PERCEPTIVE ADVISORS, SEQUOIA, town hall | 6 | MAYO CLINIC, OSF HEALTHCARE, SAMSUNG |

Other notable healthtech venture investors this year included Venrock, NEA, Bessemer, .406 Ventures, Maverick, 1315 Capital, and Flare Capital.

Series A Remains Stable, Led by Dx Analytics and R&D Tools

While the dx/tools sector raised record funding overall, Series A was flat.

ConcertAI, a commercial-stage dx analytics spin-out, raised the biggest dx/tools Series A deal this year (\$150M). This helped propel dx analytics dollars ahead of 2019. The next two largest dx analytics deals were GoodCell (\$18M for applying AI/ML to track health risks from blood samples) and Koneksa (\$16M for analyzing remotely-collected clinical data).

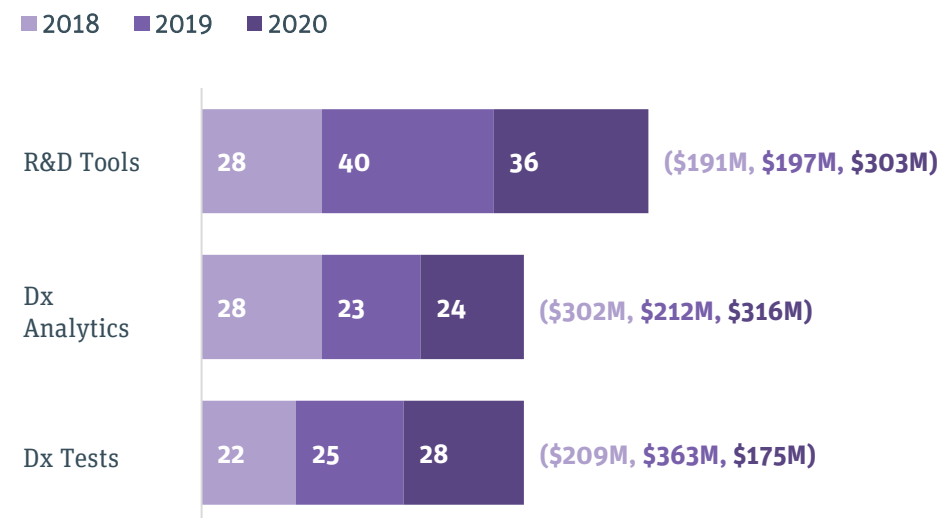
R&D Tools Series A deals were down, but dollars were up. The top three R&D tools companies were Tessera (\$50M for AI/wet lab gene-writing platform), Cyagen (\$41M for genetically-altered mouse/rat models) and Resolve Biosciences (\$24M for next-gen single-cell analysis).

Dx Tests funding was up overall in 2020, but Series A dollars were down. The top three Series A dx tests companies were C2N Diagnostics (\$20M for blood-based Alzheimer's test), Naveris (\$16M for blood-based early cancer detection) and Lumos Diagnostics (\$15M for point-of-care respiratory infection and COVID-19 tests).

Series A Dx/Tools Deals US and Europe

| | 2018 | 2019 | 2020 | |
|-----------------------|-------------|--------------|---------------|---------------|
| Number of Investments | US / Europe | 62 / 16 | 61 / 27 | 61 / 27 |
| | Total | 78 | 88 | 88 |
| Total Funding (\$M) | US / Europe | \$614 / \$89 | \$650 / \$122 | \$662 / \$153 |
| | Total | \$703 | \$772 | \$795 |
| Corporate Investments | US / Europe | 19% / 13% | 26% / 19% | 23% / 22% |

Series A Deals and (Dollars) by Top Indications



Top 2020 Series A Deals



Dx/Tools Help With COVID-19; Investment Rises Sharply

Dx/Tools innovation came to the forefront during the COVID-19 pandemic. Investment dollars surged across all subsectors, up 78%, and R&D tools doubled to \$4.1B, accounting for 43% of total dollars raised in this sector.

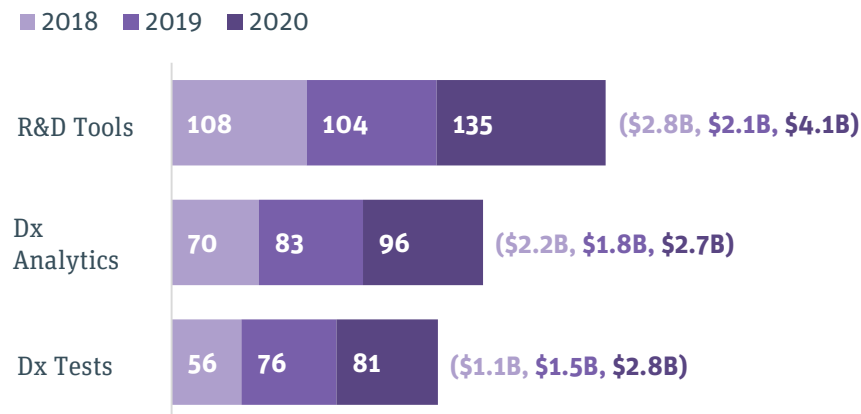
In 2020, R&D tools closed 12 \$100M+ deals, including two \$300M+ financings (Zymergen and XtalPi). The majority of these large deals were focused on AI/ML drug discovery platforms.

Dx analytics activity (i.e., actionable analytics to help clinicians treat patients) remained consistent in 2020. The subsector's positive sentiment was buoyed by three mezz financings that then went public: Seer, Progenity and Biodesix.

Dx Tests was led by three early cancer detection deals (GRAIL, Freenome and Thrive), with GRAIL (\$8B) and Thrive (\$2.2B) both acquired later in 2020. Additionally, we saw an uptick in financings for anti-infective and platform plays that pursued COVID-19 tests.

Among the highest-valued companies in the sector, we saw the biggest 2020 step-ups** for Omniome (3x), Visby and Zymergen (1.8x) and Sema4 (1.7x).

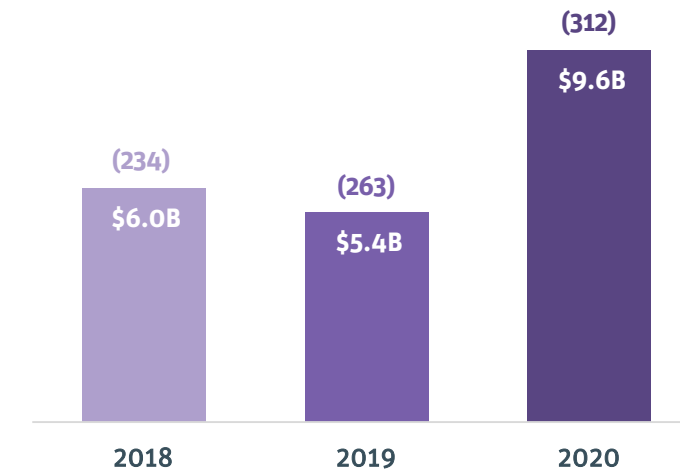
Dx/Tools Deals and (Dollars) by All Indications US and Europe



Top 2020 Deals



Total Dollars and (Deals) US and Europe



2020 Highest Valued Private Companies**

| | | |
|-----------------------|--------------|---------------|
| TEMPUS | Dx Analytics | \$8,100M post |
| GINKGO BIOWORKS | R&D Tools | \$4,860M post |
| GRAIL | Dx Tests | \$3,384M post |
| NANOPORE Technologies | R&D Tools | \$2,260M post |
| zymergen | R&D Tools | \$2,050M post |
| freenome | Dx Tests | \$1,120M post |
| sema4 | Dx Analytics | \$1,100M post |
| visby medica | Dx Tests | \$886M post |

Private M&A; Company has since gone public

*These companies overlap with healthtech and are included in both sets of analyses. **Only includes private post-money values from publicly disclosed 2020 financings in PitchBook. Financing data include private financings by venture-backed companies in the US and Europe. Financing data are compiled through 12/23/20. Dates of financing rounds are subject to change based on add-on investments. Source: PitchBook and SVB proprietary data.

Investment Led by Crossovers; NorCal Leads Dx/Tools Activity

Deal activity by the active later-stage/crossover investors doubled what we reported last year, when the most active later-stage investors closed five and three deals, respectively. Foresite Capital and ImpactAssets were added as top investors.

Notable new venture capital investors on the list include 8VC, Revelation Partners, Section 32, Investiere, Oxford Sciences and iSelect Fund (similar in format to Alumni Ventures Group).

In 2019–2020, roughly 9% of dx/tools deals had a China-headquartered investor in their syndicate group, and these deals comprised 22% of total dx/tools funding. The top China-headquartered investors were Horizons Ventures and Tencent Holdings.

By geography, European companies received 24% of the dx/tools deal flow in 2020. The UK had the most activity (all deals: 31/\$1B; Series A: 5/\$33M), followed by Germany and France.

In the US, Northern California dominated investment (all deals: 75/\$3.4B; Series A: 15/\$137M), followed by Massachusetts (39/\$1.8B; 13/\$289M), Southern California (28/\$714M; 8/\$51M) and New York (18/\$362M; 6/\$52M).

Most Active New Dx/Tools Investors*

Number of Deals (US and Europe, 2019–2020)

| Venture Capital Investor | | Corporate Investor | | Later-Stage/Crossover Investor | |
|--------------------------|--|--------------------|--|--------------------------------|--|
| 11 | | 9 | | 10 | |
| 8 | | 7 | | 9 | |
| 5 | | 4 | | 8 | |
| | | | | 5 | |
| 4 | | 4 | | 4 | |
| | | | | | |
| 4 | | 4 | | 4 | |
| | | | | | |
| | | | | | |
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| | | | | | |
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| | | | | | |

*Most Active New Investors calculated as new (first-time) investments into US and European companies from 2019–2020. Financing data are compiled through 12/23/20. Dates of financing rounds subject to change based on add-on investments. Corporate parent and corporate venture investment are combined under Corporate Investor. Alexandria investments typically average \$2M per deal, AREE, Inc. Earnings 12/31/19. Source: PitchBook and SVB proprietary data.



Series A Deals Drop Sharply as Investors Focus on Later-Stage

US Series A deals and dollars continued a two-year decline, as most investment focused on later-stage clinical and commercialized investments. European dollars were up versus 2019, and five of the top 15 Series A deals were European companies.

Cardiovascular Series A deal activity remained down but dollars were up as we saw three \$15M+ deals from InnovHeart and CardioMech (\$23M and \$19M for mitral valve replacement) and Reprieve Cardiovascular (\$15M for ADHF treatment).

Imaging deals and dollars also dropped in 2020. The top Series A deals were G-ray (\$31M for enhanced X-ray imaging technology), CathVision (\$14M for interventional electrophysiology) and Vergent (\$12M for tumor visualization technology).

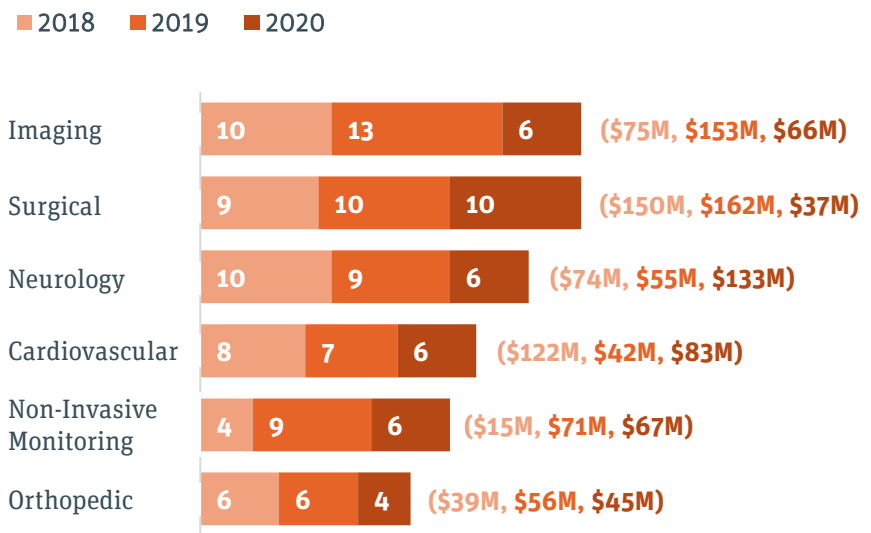
Neurology deals declined but investment was up, led by three notable \$30M+ financings by CereVasc (\$44M for endovascular shunt device) and ShiraTronics and Presidio Medical (\$36M and \$30M for neuromodulation technology).

NIM funding was slightly down, led by DawnLight (\$38M for inpatient and outpatient monitoring) and CloudCath (\$12M for remote monitoring of catheter-based treatments).

Series A Device Deals US and Europe

| | 2018 | 2019 | 2020 | |
|-----------------------|-------------|---------------|---------------|---------------|
| Number of Investments | US / Europe | 66 / 20 | 57 / 24 | 48 / 24 |
| | Total | 86 | 88 | 66 |
| Total Funding (\$M) | US / Europe | \$644 / \$269 | \$599 / \$133 | \$436 / \$178 |
| | Total | \$913 | \$732 | \$614 |
| Corporate Investments | US / Europe | 9% / 0% | 16% / 4% | 17% / 8% |

Series A Deals and (Dollars) by Top Indications



Top 2020 Series A Deals



*These companies overlap with healthtech and are included in both sets of analyses. Series A includes first-time investments from institutional or corporate venture investment in the US and Europe and any first-round investments equal to or greater than \$2M, regardless of investor. Financing data are compiled through 12/23/20. Dates of financing rounds are subject to change based on add-on investments. Source: PitchBook and SVB proprietary data.

Device Funding Up; Increases in NIM, Imaging and Neurology

Device investment was up in 2020. Imaging and cardiovascular saw increased investment, and neurology and NIM almost doubled 2019 dollars.

Three deals raised late-stage mezz rounds and then went public in 2020: Outset Medical (\$125M Series E), Pulmonx (\$83M Series G) and Eargo (\$82M Series E).

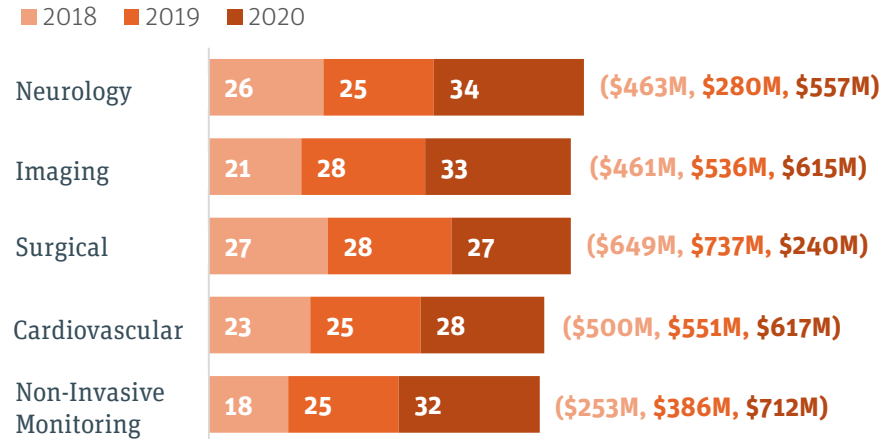
The two largest device deals of 2020 (Element Science and Preventice Solutions) both were wearable NIM solutions for cardiovascular outpatients. In fact, the top four NIM financings all dealt with cardiovascular measurements (the other two were Eko and AliveCor).

In neurology, there were seven \$30M+ deals. The top three deals (Relievent, NeuroPace and SetPoint Medical) have all raised significantly more than \$100M+ in total venture investment.

The top imaging deals focused on improving imaging workflow (Avail and Exo) and quality (Ionetix, Lumitron and G-ray).

Among the highest-valued companies in the sector, we saw the biggest 2020 step-ups** for Preventice (1.9x) and Pulmonx and Sight Sciences (1.3x).

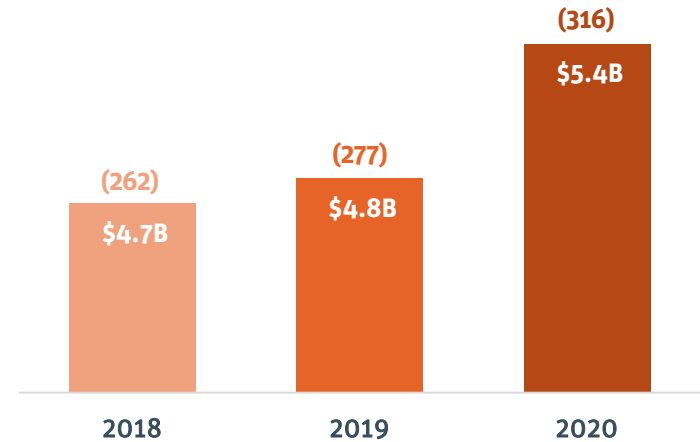
Device Deals and (Dollars) by Top Indications US and Europe











Top 2020 Deals



Total Dollars and (Deals) US and Europe



2020 Highest Valued Private Companies**

| | | |
|---|-------------------------|-------------|
|  | Renal | \$725M post |
|  | Non-Invasive Monitoring | \$623M post |
|  | Uro/Gyn | \$527M post |
|  | Oncology | \$475M post |
|  | Metabolic | \$380M post |
|  | Respiratory | \$316M post |
|  | Ophthalmology | \$300M post |
|  | Orthopedic | \$278M post |

 Company has since gone public






























MedTech Funds Grow Deal Pace; NorCal Leads Investment

New venture investors on the 2019–2020 list include USVP, Tech Coast Angels and HBM, joining medtech-focused funds Shangbay Capital, AMED, Vensana, Sonder and Treo Ventures. On the corporate side, Mayo Clinic, Rex Health Ventures, Mount Sinai and LifeSci were added.

Over the last two years, only 6% of device deals had a China-headquartered investor in their syndicate group; these deals captured 13% of device funding. China-headquartered investors tend to participate in later-stage (≥ Series B) device deals (88% of deals). Top China-headquartered investors were GT Healthcare and Ally Bridge Group, as well as Qiming USA, a US-headquartered fund with a China affiliate.

By geography, European deals accounted for only 16% of the deal flow but were responsible for 33% of all Series A funding. Switzerland led European deals, focusing on Series A (all deals: 10, \$82M; Series A: 7/\$63M), followed by France (9/\$103; 4/\$15M) and the UK (9/\$50M; 1/\$3M). Northern California led US deals (69/\$1.9B; 10/\$120M), followed by Southern California (31/\$510M; 2/\$7), Massachusetts (29/\$415M; 8/\$86M) and Minnesota (19/\$411M; 2/\$48M).

Most Active New Device Investors* Number of Deals (US and Europe, 2019–2020)

| Venture Capital Investor | | Corporate Investor | | Later-Stage/Crossover Investor | |
|--------------------------|---|---|--|--------------------------------|--|
| 7 |  SHANGBAY CAPITAL  | 4 |  MAYO CLINIC | 6 | DEERFIELD |
| 6 | AMED Ventures  | 3 |  | 3 |  Ally Bridge Group |
| 5 | USVP/  QUESTA CAPITAL  VENSANA CAPITAL | |  INNOVATION | |  ARROWMARK PARTNERS |
| 4 | AJAX HEALTH  SANTÉ  ALUMNI VENTURES GROUP  SONDER CAPITAL  STARTUP + HEALTH  KEIRETSU CAPITAL  treoventures  REVELATION PARTNERS  VIVO CAPITAL |  LIFE SCI PARTNERS  Mount Sinai  OSF HEALTHCARE  REX HEALTH VENTURES |  ATLANTIC BRIDGE  CORMORANT ASSET MANAGEMENT  D1 CAPITAL PARTNERS  INVUS  PERCEPTIVE ADVISORS  RTW Investments  SOLEUS CAPITAL | | |

*Most Active New Investors calculated as new (first-time) investments into US and European companies from 2019–2020. Financing data are compiled through 12/23/20. Dates of financing rounds subject to change based on add-on investments. Corporate parent and corporate venture investment are combined under Corporate Investor. Source: PitchBook and SVB proprietary data.

Healthcare Exits Global

SVB Global Healthcare Index Outperforms Broader Markets

We created the SVB Global Healthcare Index to track the post-IPO performance of private, venture-backed healthcare companies since 2018.

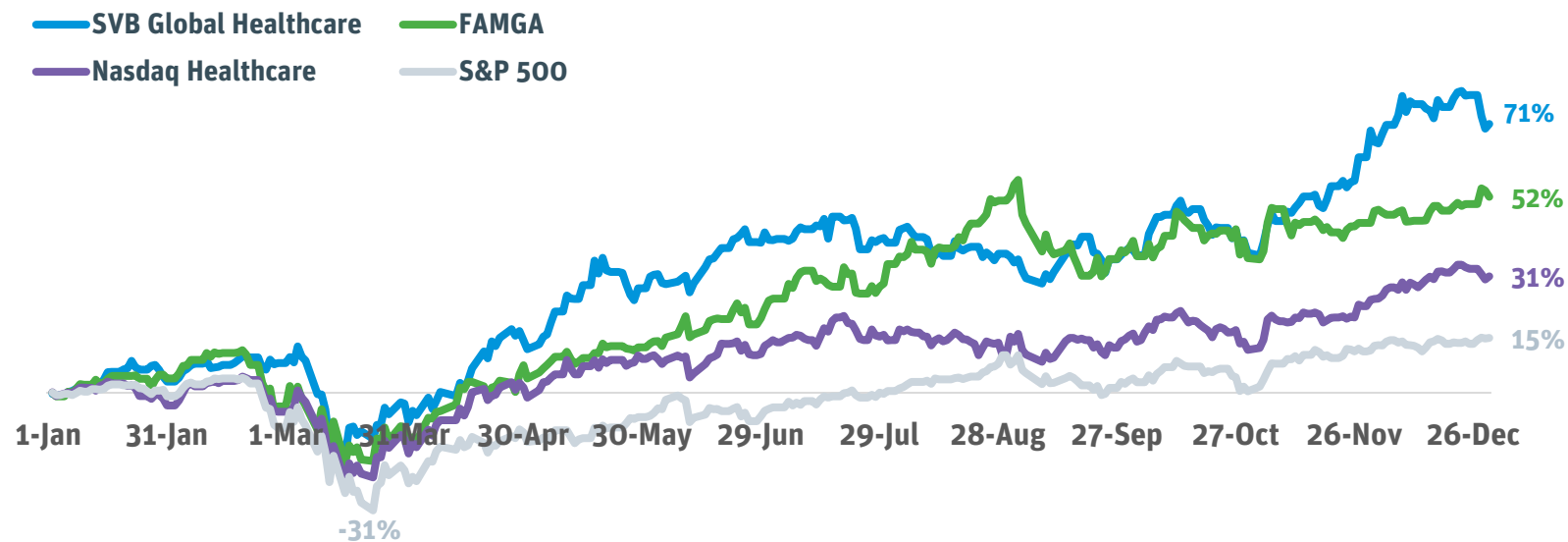
The SVB global healthcare index (+71%) has recovered faster and substantially outperformed the broader mid / large-cap Nasdaq healthcare index (+31%). It is even ahead of FAMGA** (+52%), which tracks the large cap tech growth companies – Facebook, Apple, Microsoft, Google and Amazon.

This strong performance is primarily driven by dx/tools companies, whose average performance (+183%) doubled that of biopharma (+85%). Interestingly, despite the class of 2018 global healthcare IPOs performing poorly in its first year, this class substantially outperformed in 2020.

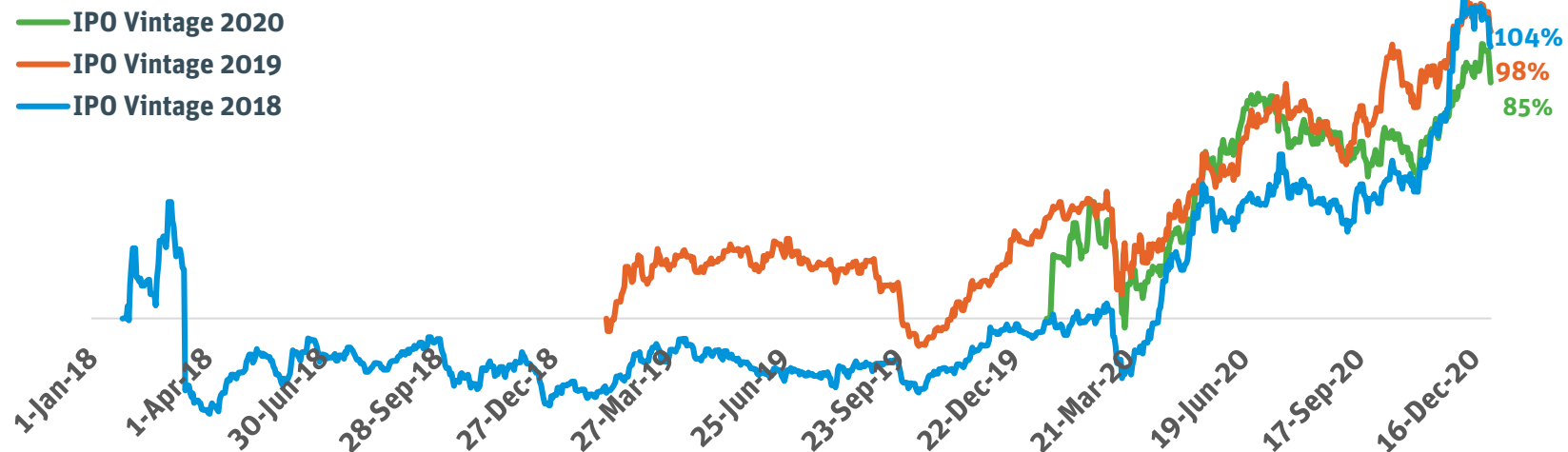
Notable top performers include Kodiak Sciences (biopharma, +1,369%), Inspire Medical Systems (device, +1,076%) and Twist Biosciences (dx/tools, +909%). The market cap of each of these companies account for 2–3% of the total index.

Moderna, CanSino Biologics and BioNTech shares vastly outperformed all biopharma this year, with a collective performance of +508%, likely due to their development of COVID-19 vaccines.

A) SVB Global Healthcare Post-IPO Performance Comparison



B) SVB Global Healthcare Post-IPO Performance



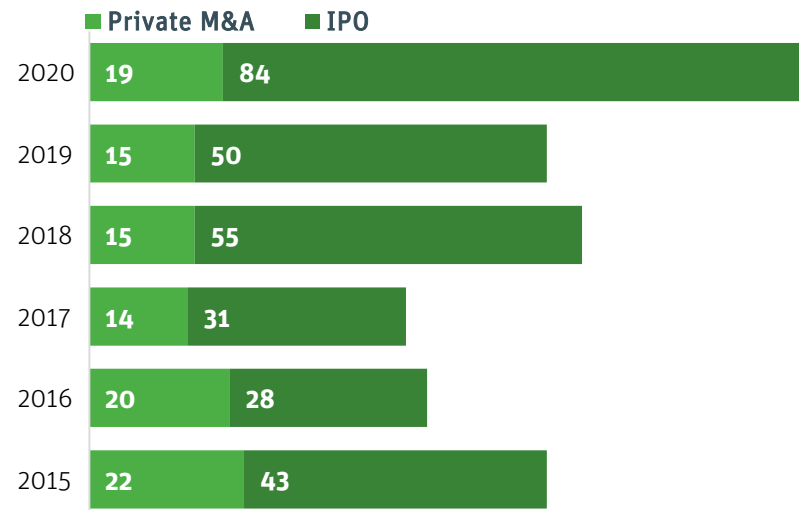
IPO Activity Sets a Record; Post-IPO Performance Excels

The biopharma exit environment reached new heights in 2020. The number of public offerings in 2020 beat 2014's previous record (66). Combined IPO market caps and private M&A nearly doubled 2018's record exit values.

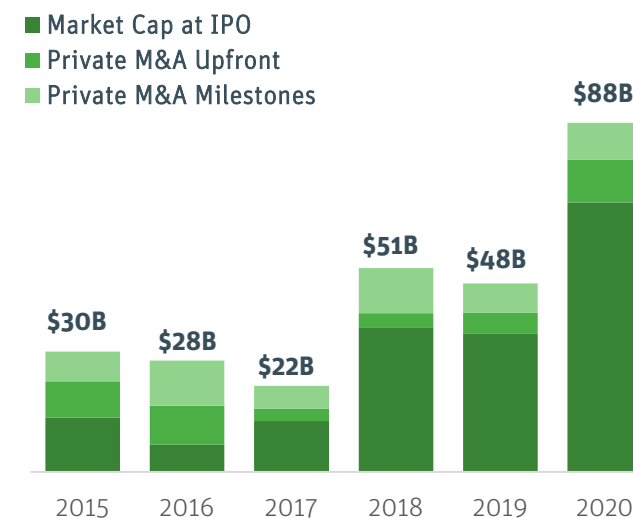
IPO valuations and dollars hit all-time records. As importantly, in Q4 we saw strong IPO activity and performance, especially by early-stage class of 2020 IPOs (as displayed in section C). We think post-IPO run-up, combined with robust Top 15 Crossover mezz activity (LIPO deals) that restocked the IPO pipeline, will generate positive momentum for public markets in 2021.

Large cap pharma have largely refrained from trying to compete against high-flying IPOs with private acquisitions over the past few years. However, we may be witnessing a turning point in early-stage exit strategy. Positive post-IPO performance continues to drive bigger market caps for newly-public early-stage companies, creating very expensive, high-premium buy-outs. In response, acquirers have been forced to move earlier, tendering large upfront M&A values to supplant potential IPOs. In Q4, three private M&As for \$1B+ in upfront payments were announced.

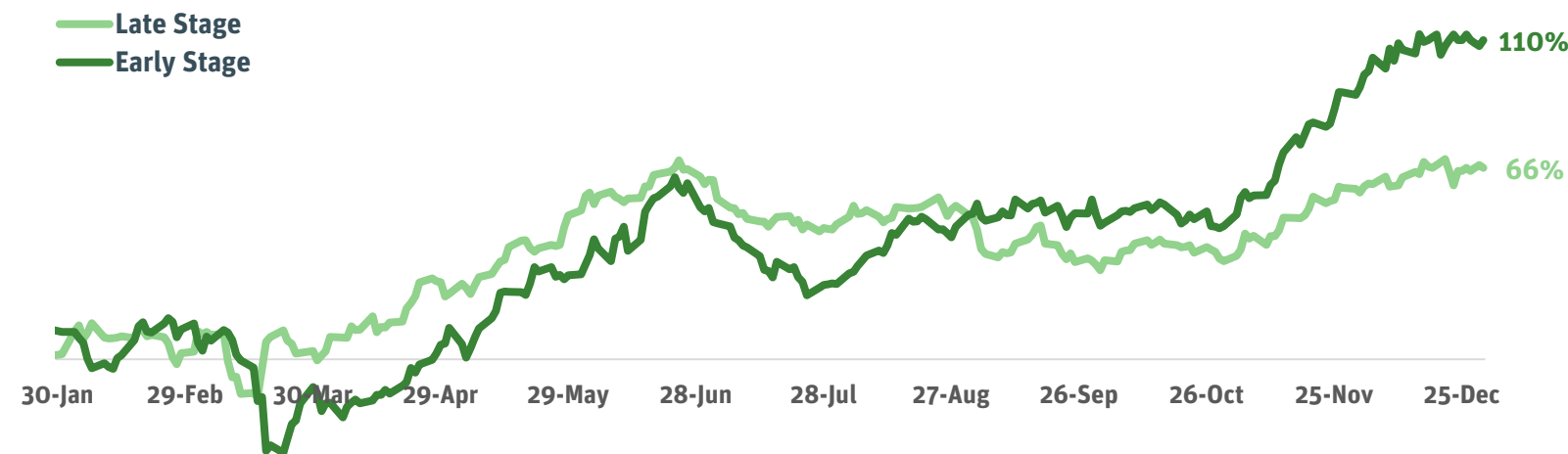
A) Biopharma Private M&A Deals and IPOs by Year



B) Biopharma Exit Values by Year



C) 2020 Post-IPO Biopharma Performance*



*Individual IPO stock performance equally weighted. 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. Market cap at IPO used to estimate value of public companies (B). Public market performance metrics calculated as of 12/31/20. Early-stage defined as Pre-Clinical and Phase I at time of IPO. Late-stage biopharma defined as Phase II, Phase III, and Commercial at time of IPO. Source: PitchBook, Capital IQ and SVB proprietary data.

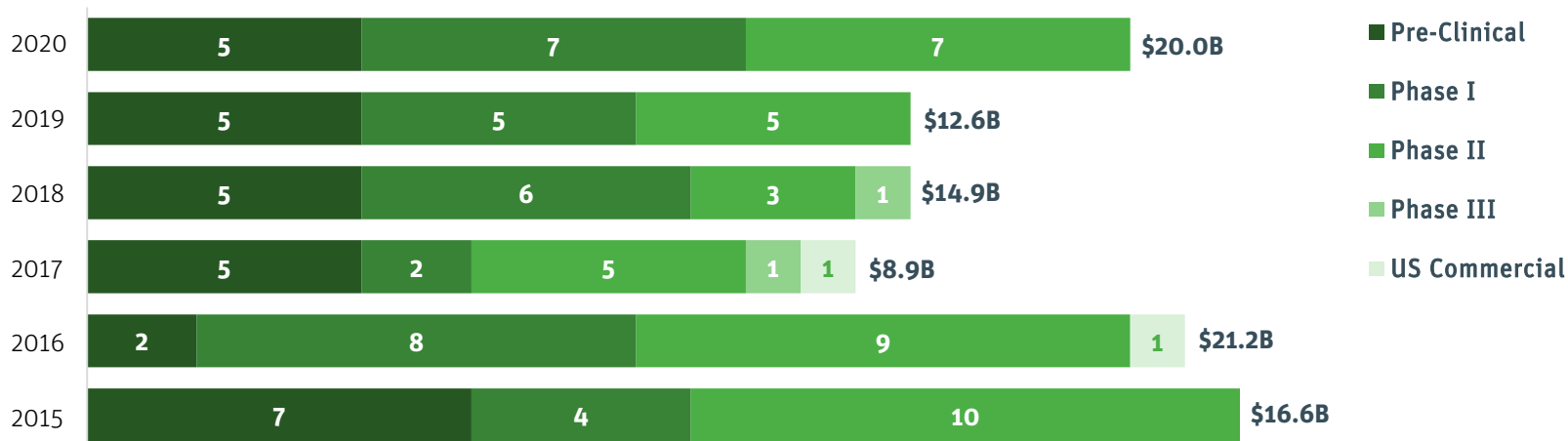
Mega-Sized Q4 M&A Showcase Acquirer Pre-IPO Appetite

While IPOs dominated overall exits, we continued to see early-stage (pre-clinical and phase I) private companies raised smaller venture rounds and then engage in M&A activity, as large cap pharma use venture-backed companies to repopulate their pipelines. The median time to exit for private M&A was just four years from the close of Series A. In 2020, these deals yielded quick, lucrative returns back to investors (median 6x upfront multiple on venture dollars invested).

Oncology and neurology led acquisition with four deals each. We saw anti-infective deals ramp up in Q4, with a \$425M deal focused on COVID-19 (OncoImmune by Merck) and a \$1.4B+ upfront deal for a late-stage hepatitis drug (MYR by Gilead). Gilead led acquirers with three VC-backed private acquisitions in 2020, followed by Merck, Takeda, Novartis and Bayer with two each.

We also noted large cap pharma paying larger upfront dollars in private M&A deals to compete with the aggressive IPO market. There were two \$2B+ upfront private M&A in Q4 2020 that fit this profile: AskBio (Bayer) and VelosBio (Merck). Both had raised \$200M+ and were likely IPO candidates.

A) Biopharma Private M&A Deals by Stage



B) Biopharma M&A Deal Median Values by Year

| IPO Year | Upfront | Total Deal | Years to Exit |
|----------|---------|------------|---------------|
| 2020 | \$300M | \$770M | 4.0 |
| 2019 | \$250M | \$600M | 2.7 |
| 2018 | \$140M | \$480M | 3.1 |
| 2017 | \$171M | \$461M | 3.5 |
| 2016 | \$200M | \$600M | 5.9 |
| 2015 | \$200M | \$570M | 4.2 |

C) 2020 Notable M&A Deals

| | |
|---|----------------|
| OncoImmune, MYR Pharmaceuticals | Anti-Infective |
| PVP BIOLOGICS | Auto-Immune |
| CORVIDIA | Cardiovascular |
| ALKAHEST, disarm THERAPEUTICS, CADENT THERAPEUTICS, ENGAGE THERAPEUTICS | Neurology |
| PIONYR, FORBIUS, VELOS BIO, TIZONA THERAPEUTICS | Oncology |
| vedere | Ophthalmology |
| AskBio, INFLAZOME Targeted Therapies for Inflammatory Diseases | Platform |
| kaNDy | Uro/Gyn |

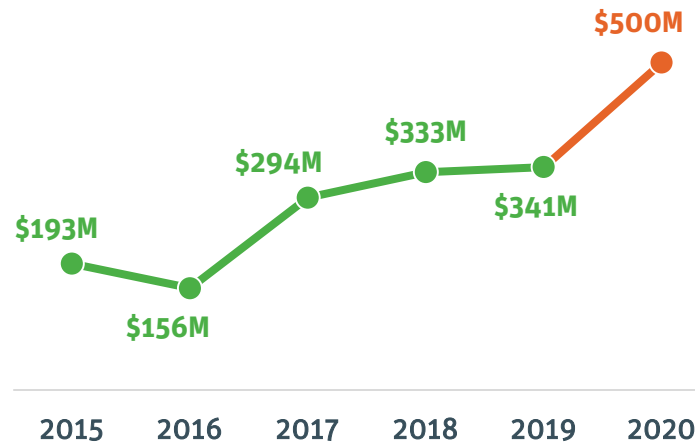
IPO Values and Proceeds Rise; Post-IPO Performance Excels

IPO pre-money valuations (up 47% vs. 2019) and proceeds (up 135%) set new highs in 2020. Most of these IPOs followed a familiar playbook: Top venture investors funded the Series A and savvy crossover investors provided an ample step-up mezzanine round. Then there was a smaller step-up to the pre-money IPO value and nice pop at IPO.

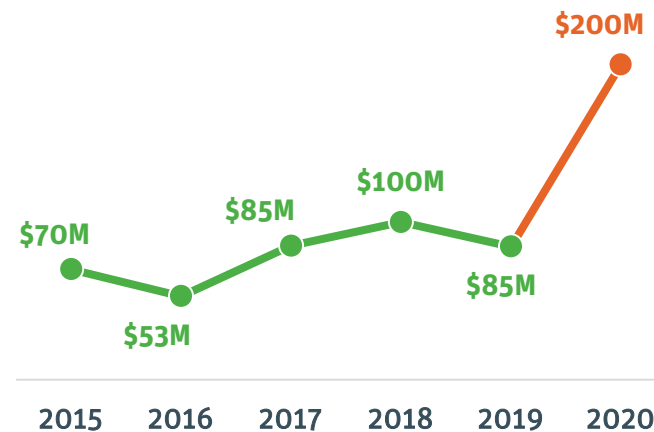
Top 15 Crossover backed deals accounted for 73% of 2020 IPOs (61 of 84) and out-performed all others in step-up to pre-money IPO (1.4x vs. 1.2x) and post-IPO performance (+99% vs. +60%).

From 2018 to 2020, biopharma post-IPO performance (including IPOs that were acquired) was incredible. Oncology (68 IPOs), led by BioNTech, Turning Point, Synthorx and Forty Seven had the best performance. Platform (43 IPOs), led by Moderna, Principia, Innovent and Beam and neurology (11 IPOs), led by Karuna and COMPASS were next, although neurology ended down from 2020 highs. Orphan/Rare (19 IPOs), led by Eidos and SpringWorks, showed the strongest Q4 uptick. Anti-infective (16 IPOs), led by CanSino and CureVac, had the lowest (but still very impressive) performance.

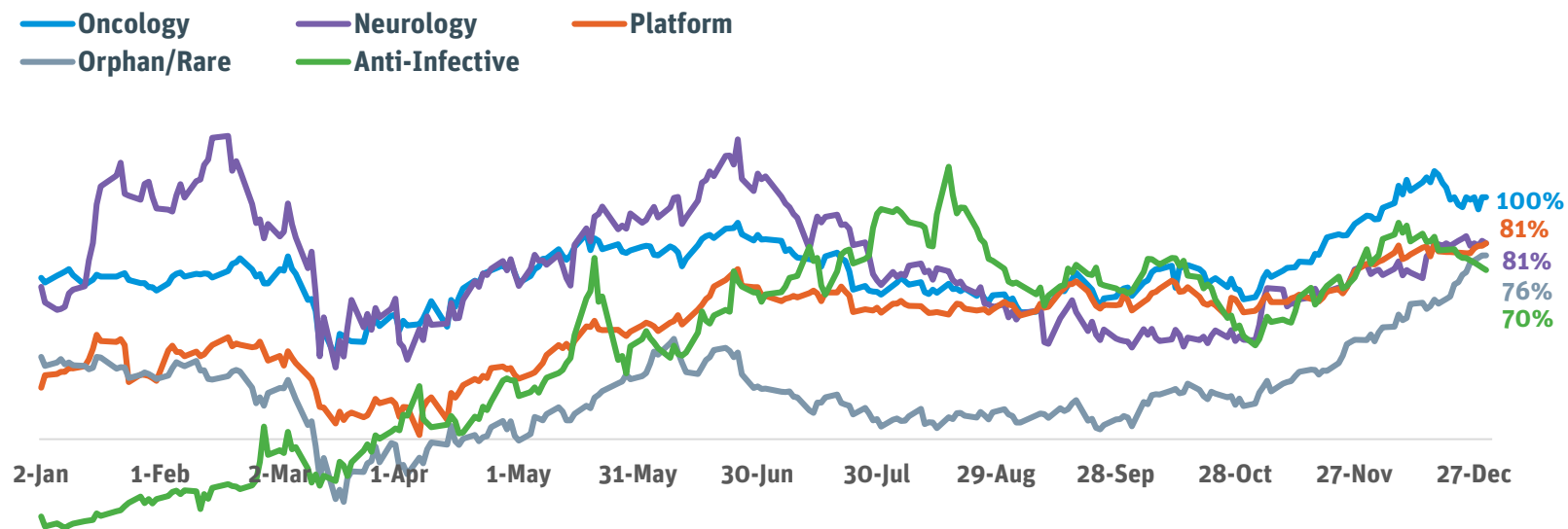
A) IPO Median Pre-Money Valuations



B) IPO Median Proceeds



C) 2018–2020 Post-IPO Performance by Top Indications*



\$1B+ VC-Backed Biopharma M&A and IPO Market Cap Values

\$1B+ M&A Deals by Year: 14 Private/9 Public



\$1B+ Public Deals by IPO Vintage: 92 Companies



Private M&A defined as all private, venture-backed M&A deals with upfront payments of at least \$75M and total deal value of \$1B+, globally. Public M&A defined as M&A total deal value of \$1B+ from a VC-backed company that went public between 2015–2020, globally. IPO defined as all private, venture-backed IPOs raising at least \$25M in proceeds, globally. Public market performance metrics calculated as of 12/31/20. Source: PitchBook, Capital IQ, and SVB proprietary data.

Alternative Care Leads 2020 Post-IPO Performance

The IPO market cap for the five venture-backed public offerings in 2020 represented 83% of total exit value, despite 10x more M&A deals than IPOs. (Note: GoodRx* was formerly venture-backed but is now PE-backed).

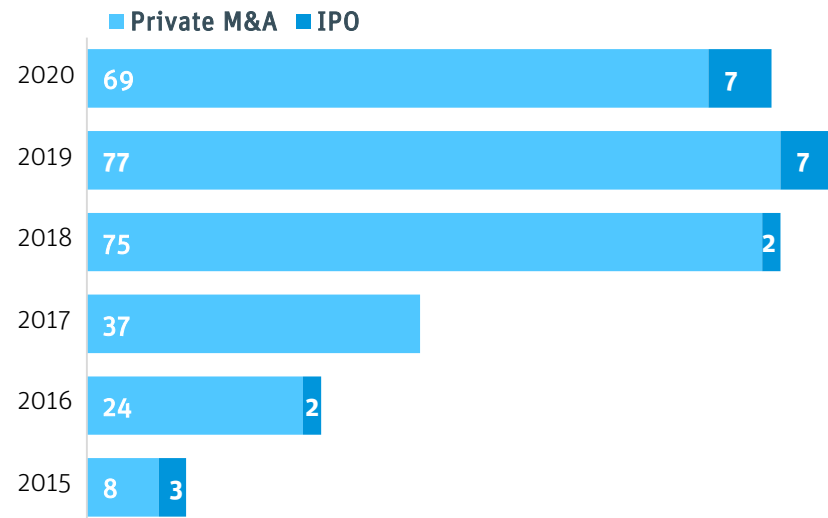
While 2019 had four \$1B+ publicly disclosed private M&A deals, 2020 had none. This could indicate that companies lack the optionality of a large private M&A, as acquirers are unwilling to compete directly with public market prices.

2020 was a banner year for post-IPO performance for the five venture-backed IPOs (average: +108%; median: +90%). In fact, all IPOs since 2015 have fared well, with a median performance of +71%.

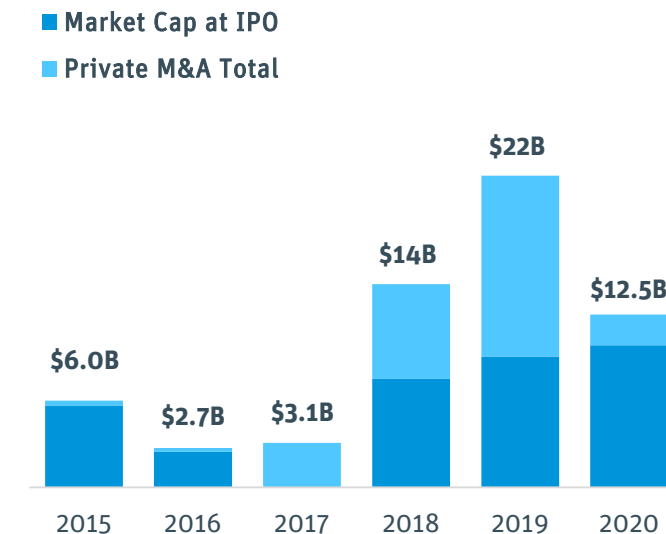
Alternative care (AC) post-IPO performance (average: +228%; median: +92%) beat all other subsectors in 2020 (average: +41%; median: +26%). As AC becomes the new standard of care, companies will shift accordingly. For example, this year Teladoc (\$TDOC) acquired Livongo (\$LVGO) for \$18.5B in the first venture-backed public M&A to increase their market share within AC. Accolade (healthcare navigation) also expanded into AC through a partnership with Ginger.io (alternative care).



A) HealthTech Private M&A Deals and IPOs by Year



B) HealthTech Exit Values by Year



C) 2020 Post-IPO Performance

| | SCHRODINGER** | one medical | OAK STREET HEALTH | 健康信息 | Accolade | amwell | GoodRx* |
|----------------------------|---|--------------------------------------|-------------------------------------|--------------------------------------|------------------------------------|---------------------------------------|------------------------------------|
| SVB Subsector | SHSE: SDGR Clinical Trial Enablement | NAS: ONEM Alternative Hybrid Care | NAS: OSH Alternative Hybrid Care | SHG: 605186 Medication Management | NAS: ACCD Healthcare Navigation | NAS: AMWL Alternative Virtual Care | NAS: GDRX Medication Management |
| IPO Price (Date) | \$17.00 (2/06/20) | \$14.00 (1/30/20) | \$21.00 (8/06/2020) | \$2.17 (12/22/20) | \$22.00 (7/02/20) | \$18.00 (9/16/2020) | \$33.00 (9/23/2020) |
| Price 12/31/20 | \$79.18 | \$43.65 | \$61.16 | \$4.31 | \$43.50 | \$25.33 | \$40.34 |
| Price +/- | +366% | +212% | +191% | +99% | +98% | +41% | +22% |
| Market Cap 12/31/20 | \$5.5B | \$5.8B | \$14.7B | \$586M | \$2.4B | \$5.9B | \$15.7B |

*This company is PE-backed and only included in A and C. **This company overlaps with dx/tools and is included in both sets of analyses. 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. Market cap at IPO used to estimate value of public companies. Public market performance metrics calculated as of 12/31/20. Source: PitchBook, Capital IQ, SVB proprietary data and [SVB HealthTech Report](#).

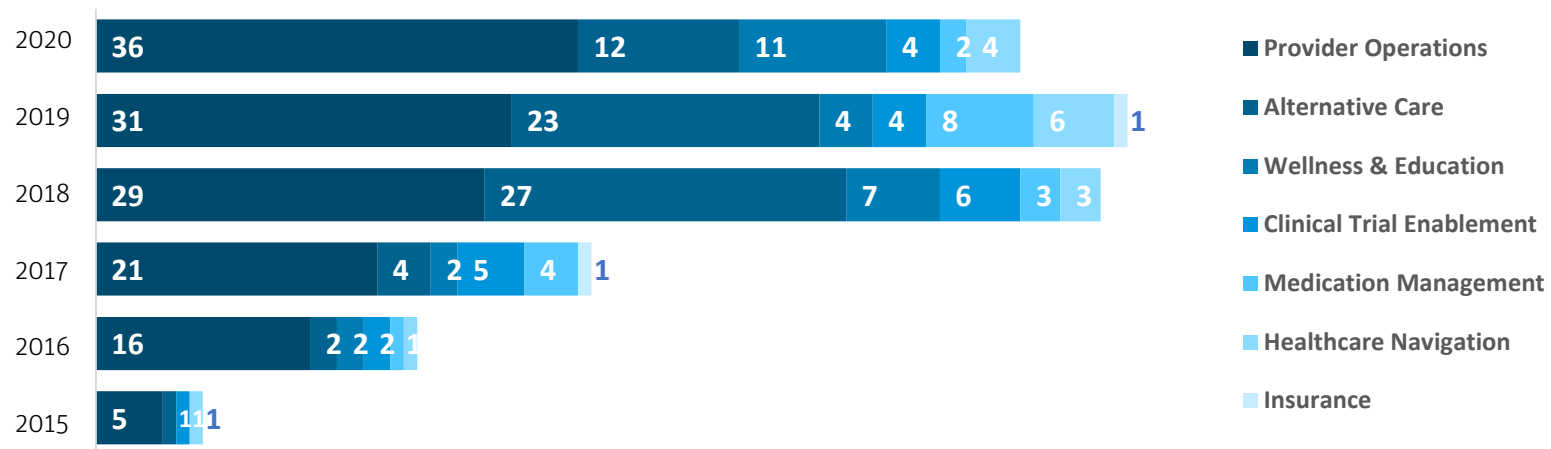
M&A Decline Linked to Public Market Interest; PO Leads

While 2020 saw 69 global private M&A deals, matching the rough pace of the previous two years, alternative care (AC) M&A activity dropped by more than 50%.

This decline could be attributed to the COVID-19 pandemic, as acquirers wanted to focus on handling changes to their own business. However, the global public markets are bullish on the industry (SVB HealthTech Index: +112%), with AC companies leading post-IPO performance (median +92%). This sentiment has presented top-tier companies with a new, more lucrative path to liquidity.

Even with strong public market sentiment, private M&A deals have continued. Provider operations (PO) represented 52% of all healthtech M&A deals this year. Of these exits, 90% were workflow optimization companies, such as NurseGrid (~\$21M) and ShiftWizard (undisclosed) both by Nashville-based HealthStream (NAS: HSTM) and Curisium (undisclosed) by venture-backed HealthVerity.

A) HealthTech Private M&A Deals by Subsectors



B) HealthTech M&A Deal Median Values by Year

| Year | Total Deal | Years to Exit |
|------|------------|---------------|
| 2020 | \$84M | 6.2 |
| 2019 | \$40M | 5.8 |
| 2018 | \$100M | 4.9 |
| 2017 | \$41M | 3.6 |
| 2016 | \$9.9M | 4.2 |
| 2015 | \$70M | 4.3 |

C) 2020 Notable M&A Deals

| | |
|---|-----------------------|
|   | Alternative Care |
|  | Medication Management |
|   | Provider Operations |
|   | |
|   | |
|   | |
|  | Wellness & Education |

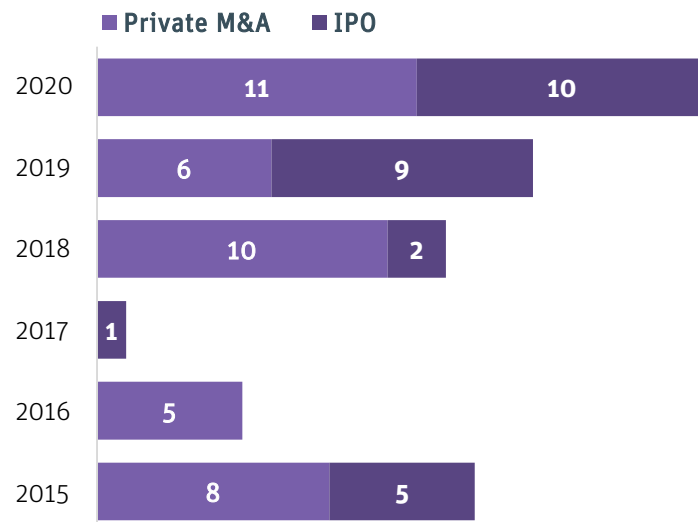
Private M&A, IPOs Drive Record Returns in Dx/Tools

Historically, we have seen few, if any, large private dx/tools acquisitions. As IPOs increased in both frequency and scale with multiple \$1B+ market cap IPOs over the past few years, private M&A dollars have remained low and often reserved for later-stage commercial companies. However, in 2020, we saw three multi-billion dollar private M&A (ArcherDX, GRAIL and Thrive Earlier Detection), two of which were pre-commercial. We believe these examples corroborate the thesis that a dual IPO/M&A exit track is available for private venture backed dx/tools companies.

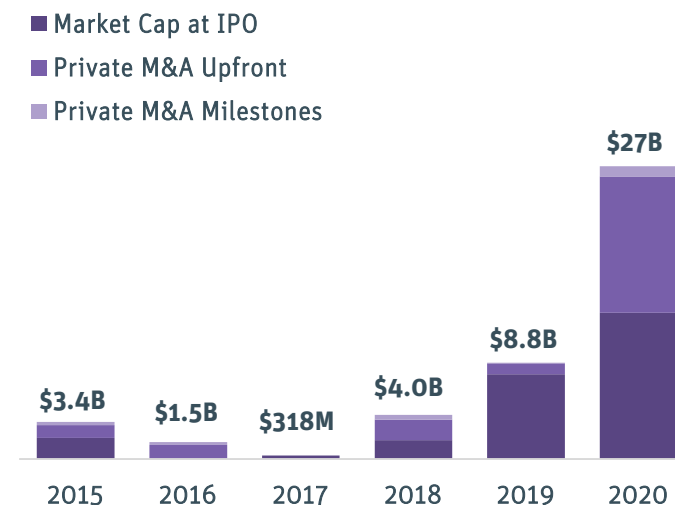
2020 produced a record nine \$1B+ market caps at IPO or private M&A deals, boosting exit values to a new high, almost 3x higher than any of the past five years.

Dx/Tools IPOs in 2020 skyrocketed past 2019 in median pre-money IPO (\$929M vs. \$222M), IPO dollars raised (\$178M vs. \$66M) and \$1B+ market cap companies at IPO (six vs. two). Average post-IPO performance has been exceptional for the IPO class of 2020 (+110%) and the IPO class of 2019 (+130%). Five of the 10 2020 IPOs are trading up 100%+ from their IPO price.

A) Dx/Tools Private M&A Deals & IPOs by Year



B) Dx/Tools Exit Values by Year



C) 2020 Post-IPO Performance

| | SCHRÖDINGER | BERKELEY LIGHTS | seer | 908devices | AbCellera | HITGEN | 燃石医学 Burning Rock Dx | biosix | GENETRON 冠生子 | progenity |
|----------------------------|------------------|-------------------|-------------------|--------------------|--------------------|------------------|-------------------------|--------------------|-------------------|-------------------|
| SVB Subsector | R&D Tools | R&D Tools | Dx Analytics | R&D Tools | R&D Tools | R&D Tools | Dx Test | Dx Analytics | Dx Test | Dx Analytics |
| IPO Price (Date) | \$17.00 (2/6/20) | \$22.00 (7/17/20) | \$19.00 (12/4/20) | \$20.00 (12/11/20) | \$20.00 (12/18/20) | \$2.91 (4/16/20) | \$16.50 (6/12/20) | \$18.00 (10/28/20) | \$16.00 (6/19/20) | \$15.00 (6/19/20) |
| Price 12/31/20 | \$67.99 | \$85.38 | \$60.94 | \$56.95 | \$40.24 | \$5.51 | \$25.52 | \$14.41 | \$13.54 | \$3.50 |
| Price +/- | +366% | +306% | +195% | +185% | +101% | +59% | +40% | +12% | -13% | -65% |
| Market Cap 12/31/20 | \$5.5B | \$5.8B | \$3.7B | \$1.5B | \$10.8B | \$1.8B | \$2.4B | \$535M | \$1.3B | \$296M |

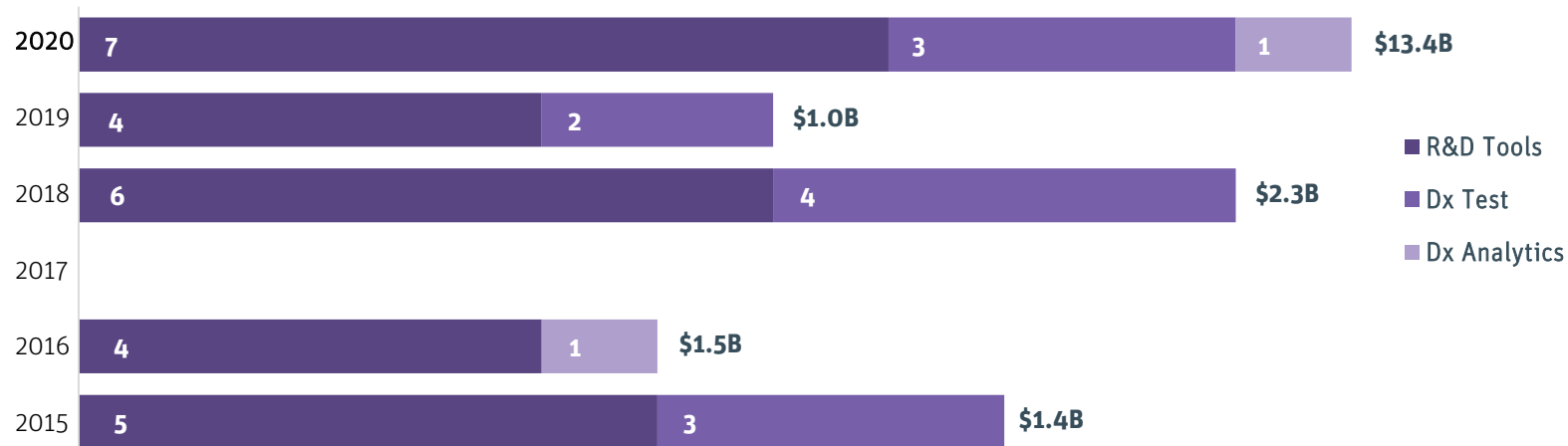
Large Private M&As Provide Dual-Track Options for Sector

We predicted that AI/ML-enabled companies in this space would finally break through with large acquisitions by tech companies. We experienced the breakthrough, but it was actually led by existing dx/tools players looking to expand or supplement their technologies. At \$13.4B, total M&A value in 2020 dwarfed any other year.

The largest purchases were made by Illumina (\$8B upfront/total for GRAIL), Invitae (\$890M upfront, \$1.4B total for ArcherDX) and Exact Sciences (\$1.7B upfront, \$2.2B total for Thrive Earlier Detection). ArcherDX filed to go public and Thrive had closed a large mezz round before their private acquisitions, which provides evidence that dual-track M&A/IPO optionality is available for private companies. All three deals exited in less than five years from the close of their Series A.

The GRAIL acquisition posted the largest private upfront (and total) deal value for any VC-backed biopharma, dx/tools or device company since we began tracking private deal values in 2005. This landmark deal outpaced the previous top deals, StemCentrx (\$5.8B in 2016) and Acerta (\$4B in 2015). Thrive Earlier Detection also landed on the list, placing eighth overall.

A) Dx/Tools Private M&A Deals by Indications



B) Dx/Tools M&A Deal Median Values by Year

| IPO Year | Upfront | Total Deal | Years to Exit |
|----------|---------|------------|---------------|
| 2020 | \$350M | \$350M | 5.4 |
| 2019 | \$68M | \$83M | 5.3 |
| 2018 | \$126M | \$161M | 9.1 |
| 2017 | — | — | — |
| 2016 | \$225M | \$325M | 8.5 |
| 2015 | \$164M | \$164M | 3.6 |

C) 2020 Notable M&A Deals

| | |
|--------------------------|--------------|
| | Dx Analytics |
| | Dx Test |
| | R&D Tools |

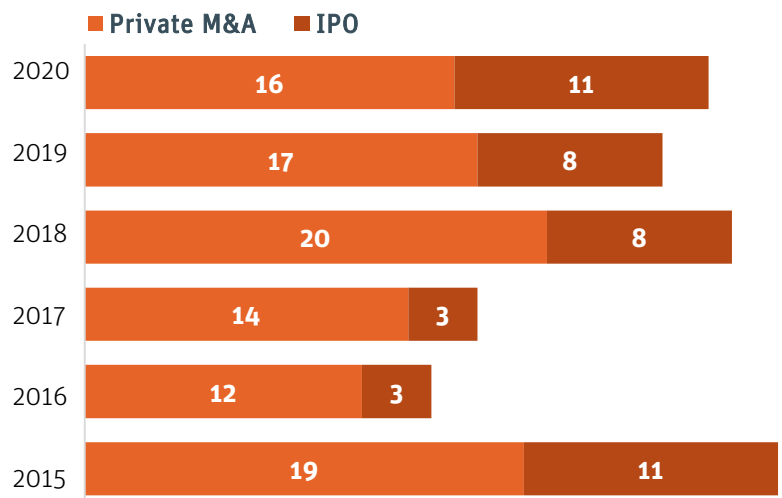
IPOs Drive Returns in Device; M&A Slows

During the COVID-19 pandemic, device companies were hit particularly hard by delays in clinical trials and commercialization, as both elective and emergency procedures were reduced. While 2020 M&A was down, IPO activity increased. Total exit values were dominated by IPO market caps.

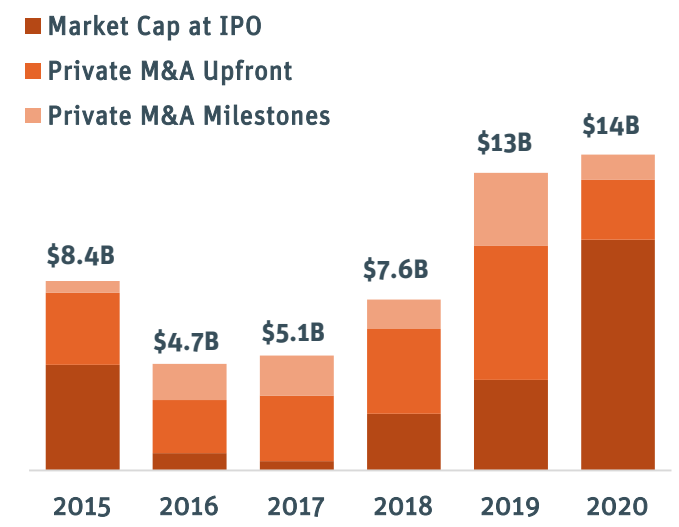
IPO median pre-money valuation (\$469M) and dollars raised (\$149M) both outpaced 2019's numbers by +58% and +59% respectively. Nine of 11 2020 IPOs were up at year-end, with amazing average and median post-IPO performance (+150%/+111%) leading all healthcare sectors in post-IPO performance this year. This is a trend, as the class of 2018 (+172%/+66%) and 2019 (+168%/+113%) have shown sustained after-market performance as well. Device acquirers may be pushed to strategically acquire new technologies earlier (likely pre-mezz round) as post-IPO market cap growth have made these companies quite expensive, while private M&A values have lagged.

Since 2018, Orbimed (seven deals) has been the most active VC investor in device deals that IPO'd. The top crossovers were Perceptive, Fidelity, Ally Bridge, Deerfield and Rock Springs (three each).




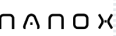







A) Device Private M&A Deals & IPOs by Year



B) Device Exit Values by Year



C) 2020 Post-IPO Performance

| |  |  |  |  |  |  |  |  |  |  |  |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|
| | SHG: 688050 | NAS: NARI | NAS: LUNG | NAS: NNOX | NAS: EAR | NAS: OM | SHSE: 688085 | SEHK: 9996 | NAS: AFIB | NAS: AZYO | NAS: LYRA |
| SVB Subsector | Ophth. | Vascular | Respiratory | Imaging | ENT | Renal | Orthopedic | Cardio | Imaging | Drug Delivery | Drug Delivery |
| IPO Price (Date) | \$5.03 (7/29/20) | \$9.00 (5/22/20) | \$19.00 (10/1/20) | \$18.00 (8/21/20) | \$18.00 (10/16/20) | \$27.00 (9/15/20) | \$2.97 (4/9/20) | \$1.98 (5/15/20) | \$18.00 (8/6/20) | \$17.00 (10/8/20) | \$16.00 (5/1/20) |
| Price 12/31/20 | \$26.50 | \$87.29 | \$69.02 | \$45.66 | \$44.82 | \$56.84 | \$5.94 | \$3.64 | \$28.81 | \$13.63 | \$11.40 |
| Price +/- | +416% | +359% | +263% | +154% | +149% | +111% | +100% | +84% | +60% | -20% | -29% |
| Market Cap 12/31/20 | \$2.8B | \$4.3B | \$2.5B | \$2.1B | \$1.7B | \$2.4B | \$1.2B | \$2.3B | \$802M | \$139M | \$147M |



Device Sees Quicker M&As; Deal Size Holds Steady

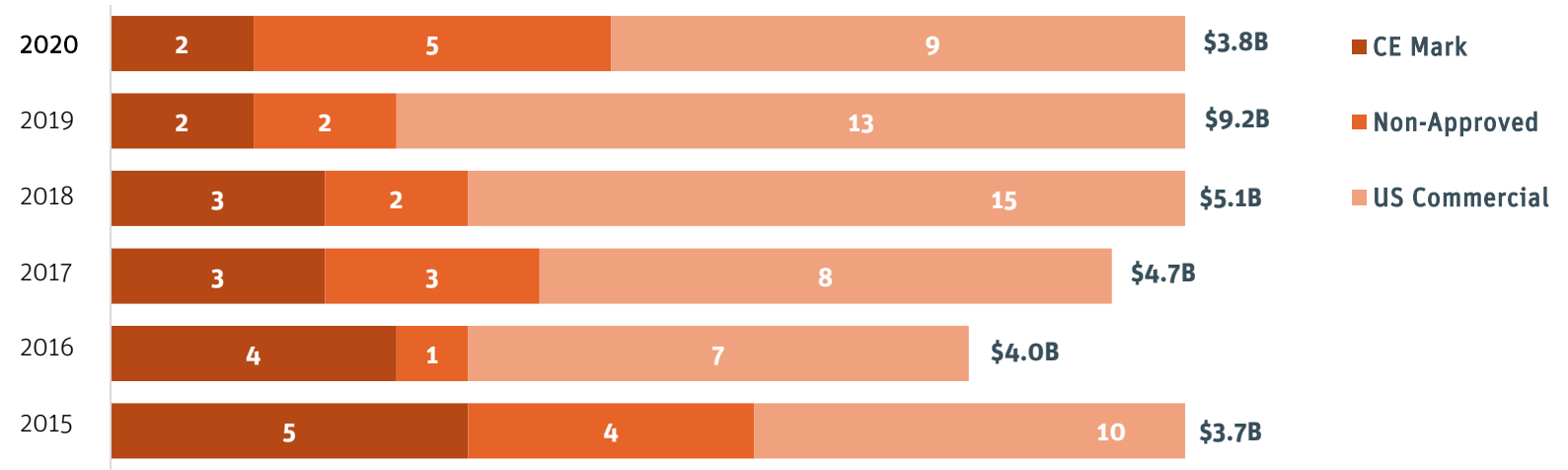
We continued to monitor M&A by regulatory pathway. 510(k) M&A typically are commercial, acquired for smaller values and take longer to exit. This year there were seven 510(k) deals, five of which were US commercial, with median deal values of \$80M upfront and \$200M total. This was a lower upfront value but more milestones versus 2015–2019 median 510(k) values (\$110M upfront, \$130M total). Median time to exit was 7.8 years.

PMA pathway deals are typically bought prior to US commercialization, at larger deal sizes and quicker than 510(k) deals. Five of seven PMA exits were pre-US commercial (three non-approved, two CE mark only), with median deal values of \$118M upfront and \$200M total. These fell below 2015–2019 PMA upfront value and had less milestone earn-outs (\$220M, \$325M).

In 2020, the median time to exit declined to just 4.8 years from the close of Series A. Four of the seven PMA deals exited quicker than 3.5 years.

Medtronic (four) and Stryker (three) continued to be active acquirers, leading VC-backed device M&A since 2019. Boston was the most active acquirer in 2018, but has not publicly announced a venture device deal since mid-2019.

A) Device Private M&A Deals by Indications



B) Device M&A Deal Median Values by Year

| IPO Year | Upfront | Total Deal | Years to Exit |
|----------|---------|------------|---------------|
| 2020 | \$132M | \$210M | 4.8 |
| 2019 | \$120M | \$220M | 7.9 |
| 2018 | \$195M | \$223M | 7.8 |
| 2017 | \$131M | \$283M | 7.7 |
| 2016 | \$173M | \$260M | 8.6 |
| 2015 | \$125M | \$141M | 7.0 |

C) 2020 Notable M&A Deals

| Company | Regulatory Pathway | Category |
|---------------------------------|--------------------|----------------|
| ASCYRUS MEDICAL | PMA Pathway | Cardiovascular |
| iota BIOSCIENCES | 510(k) Pathway | Neurology |
| arthrosurface | 510(k) Pathway | Orthopedic |
| VERAN MEDICAL TECHNOLOGIES | 510(k) Pathway | Imaging |
| fiagon. confidence in precision | 510(k) Pathway | |
| acessa | 510(k) Pathway | Uro/Gyn |
| NINE CONTINENTS MEDICAL | 510(k) Pathway | |
| intact vascular | 510(k) Pathway | Vascular |



M&A defined as all private, venture-backed M&A deals with upfront payments of at least \$50M, globally. CE Mark defined as achieving a CE Mark but not FDA approval. US Commercial defined as achieving FDA clearance or approval, with or without CE Mark. PMA stands for premarket approval. Source: PitchBook, and SVB proprietary data.

Healthcare Outlook: 2021 and Beyond

Fundraising and Investments: Coming off a record high in 2020 and with many funds recently raised, we predict a decline in fundraising in 2021 to be in line with 2019's \$10.7B pace. With fresh capital and a continued open IPO window, investments into companies should continue at a healthy pace, likely in the mid \$40Bs.

Biopharma: Strong investment is expected for both Series A and later-stage mezz financings, likely slightly below 2020's record numbers. IPOs should be robust, especially through mid-2021. We predict 50–60 IPOs for the year and more \$1B+ private M&A activity, as large cap pharma M&A deals will compete against going public.

HealthTech: Investments within the sector, at every stage, will remain strong with alternative care leading. As virtual and hybrid care became mainstream during the pandemic, we expect to see more companies in other healthtech subsectors expand into the alternative care space. We anticipate 10–15 IPOs in the next 18 months, with provider operations leading in the number of IPOs but alternative care showing the best post-IPO performance.

Dx/Tools: We predict continued record investment in the sector; deal numbers will likely fall but dollars invested should be similar to 2020. We anticipate an even split between \$1B+ IPOs and M&A, as big-deal IPO/M&A optionality has arrived in the sector.

Device: Series A should bounce back as we saw more medtech-focused firms raise new funds, but most investment will continue to focus on later-stage, mezz deals contemplating near-term IPOs. IPOs and private M&A will remain stable.



Silicon Valley Bank

About Silicon Valley Bank

For more than 35 years, Silicon Valley Bank has helped innovative companies and their investors move bold ideas forward, fast. SVB provides targeted financial services and expertise through its offices in innovation centers around the world. With commercial, international and private banking services, SVB helps address the unique needs of innovators.

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