



# 2022 PHILADELPHIA VENTURE REPORT



Data provided by



# Introduction

We did it! Philadelphia continued its momentum in 2022 by cracking the top five nationally in closed deals, trailing only San Francisco/Silicon Valley, NY, LA, and Boston! In the past two years, the deal volume and dollars raised by Philadelphia companies eclipsed the total of the previous decade combined. While the COVID pandemic did have an appreciable impact on our communities, I believe that the region's growing entrepreneurial community—in tandem with its focus on equitable growth—will support the continued rise of Philadelphia across many sectors. For one, the wave of cell & gene therapy successes—in addition to traditional biotechs—can trace its roots back to the early days of biotech. Frank Baldino and Hubert Schoemaker cultivated those roots with the early success of Cephalon and Centocor, demonstrating that success could be achieved outside of traditional pharmaceutical giants. In addition, Baldino and Schoemaker created the precursor of PACT to support the next generation of entrepreneurs, a goal our organization continues to focus on today. And, as our community continues to mature, and so do our companies, with many raising significant capital from large private equity investment firms across the globe over the past two years. And the next generation of early-stage companies has never been stronger thanks to the growing seed investment activity led by Ben Franklin Technology Partners and BioAdvance, startup support expertise of the Science Center, and Ballard Spahr and their BASE program. From cell & gene therapy to enterprise technology to the growing consumer goods sector, Philadelphia has a solid foundation of entrepreneurial activity and a community poised to support its growth! Please join me in thanking our 2022 report sponsors—PACT looks forward to working with them and all of you to continue to elevate Philadelphia.

Dean Miller, President & CEO 

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Data pull date: December 31, 2022

Note: This report covers the Philadelphia-Camden-Wilmington Metropolitan Statistical Area (Philadelphia), which includes parts of Pennsylvania, New Jersey, Delaware, and Maryland. All data and charts cited throughout the report are based on companies and/or investors headquartered in this region. References to data for the US and other MSAs sources from the Q4 2022 PitchBook-NVCA Venture Monitor.

The Chamber, through its CEO Council for Growth and Select Greater Philadelphia programs, is strengthening the region's innovation economy by promoting Greater Philadelphia's assets and strengths in the cell therapy, gene therapy, and gene editing sectors. By telling the story of our 11-county region, helping companies expand locally, connecting businesses to valuable resources, assessing, and solving for the talent needs of the sector and supporting the development of critical infrastructure for the sector's growth, the Chamber is ensuring that the Greater Philadelphia region is recognized as a worldwide leader in life sciences.

For more information, visit <https://selectgreaterphl.com/>

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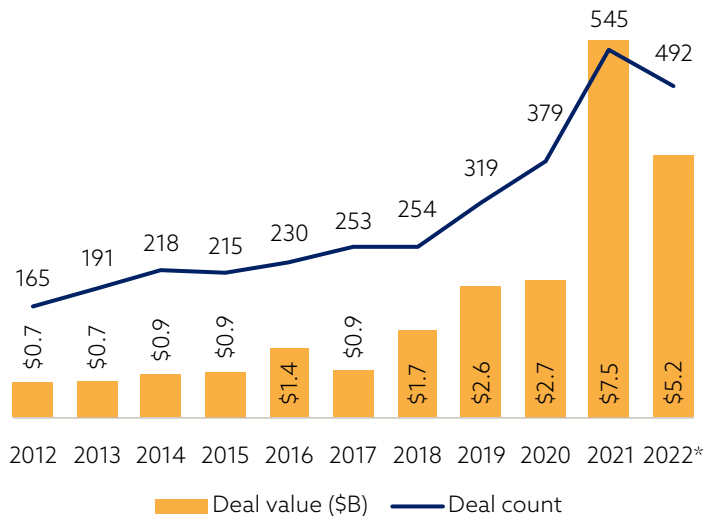
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# Dealmaking

## Philadelphia VC deal activity



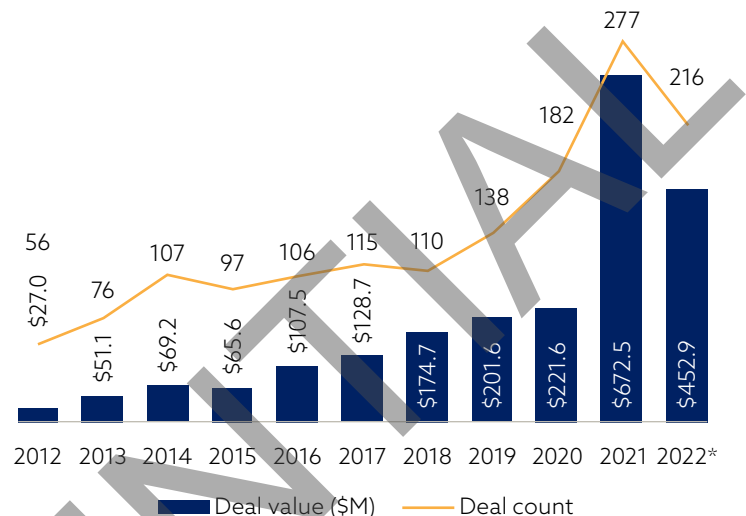
Source: PitchBook | Geography: Philadelphia  
\*As of December 31, 2022

Like other VC ecosystems, Philadelphia enjoyed a banner year in 2021. Investment hit \$7.5 billion for the first time, across 545 rounds altogether. The dollar amount was so great it almost tripled the previous record set in 2020.

On the heels of such a year, 2022 was bound to come down to earth. Total investment topped \$5 billion last year, while deal flow declined marginally to 492 rounds. A down year, to be sure, but also a surprisingly strong year for the Philadelphia ecosystem. Taken together, the city recorded more than 1,000 rounds—worth a combined \$12.7 billion—over the past two years. And while most VC-related headlines focus on the declines between 2021 and 2022, a comparison between 2020 and 2022 is equally valid. When the outlier year is removed, 2022 saw almost double the amount of capital raised in 2020, riding the crest of a 30% increase in deal flow. Philadelphia's VC scene had been on a steady, upward trajectory, and 2022 provides strong evidence for the city's underlying strength as a VC hub.

Angel- and seed-stage activity is a useful barometer; activity at the earliest—and riskiest—stages provides an unvarnished view of entrepreneurship and investor confidence. 2021, of course, set another record for angel- and seed-stage activity, but capital levels more than doubled between 2020 and 2022, from \$221.0 million to almost \$453 million. On top of that, Philadelphia saw 216 more angel- or seed-stage rounds during that period, which bodes well for the Series A, B, and later stages down the road.

## Philadelphia angel- and seed-stage deal activity



Source: PitchBook | Geography: Philadelphia  
\*As of December 31, 2022

### Climbing the ranks

According to PitchBook, the Philadelphia MSA was the fifth most active metro area in the country in 2022. The 492 rounds taken in last year were only behind the biggest ecosystems in the US: Silicon Valley, New York, Los Angeles, and Boston. But they were ahead of more familiar ecosystems in venture, including Seattle, Austin, Miami, Chicago, and Denver. Buttressing that strength is Philadelphia's biotech scene, which ranked even higher in a new industry report. JLL's 2022 Life Sciences Research Outlook & Cluster Rankings ranked Philadelphia as the fifth-strongest "cluster" in the country, citing its "deep and growing pool of talent coming from the region's strong universities." Philadelphia outranked cities such as Seattle and New York, as well as many other established ecosystems. For a more in-depth look at those sector trends, please see page 6.

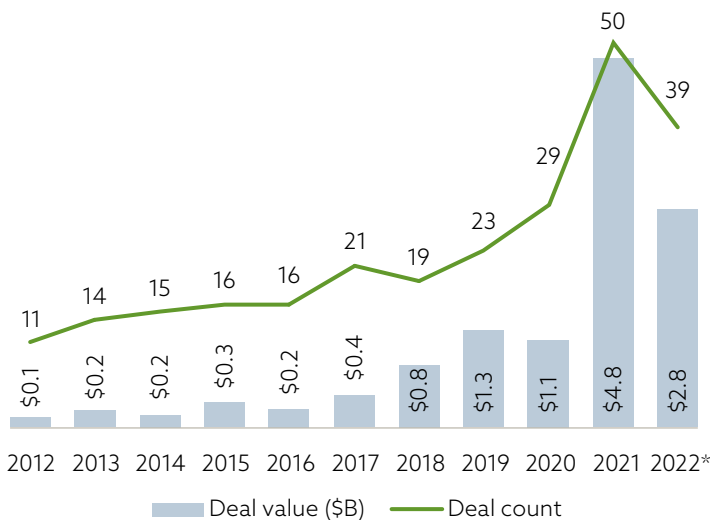
### Private equity has noticed

A significant shift over the past two years has involved PE investors, who are taking more notice of Philadelphia-based startups. Since 2021, almost 100 rounds have involved PE participants (See chart on page 5). PE involvement was much rarer in years past, but high-profile success stories have drawn in bigger investment firms—and bigger check sizes. In 2021, PE investors participated in almost \$5 billion worth of Philadelphia VC rounds and recorded another \$2.8 billion in 2022. PE represents another sturdy source of capital and follow-on funding that will strengthen Philadelphia's foundation going forward.

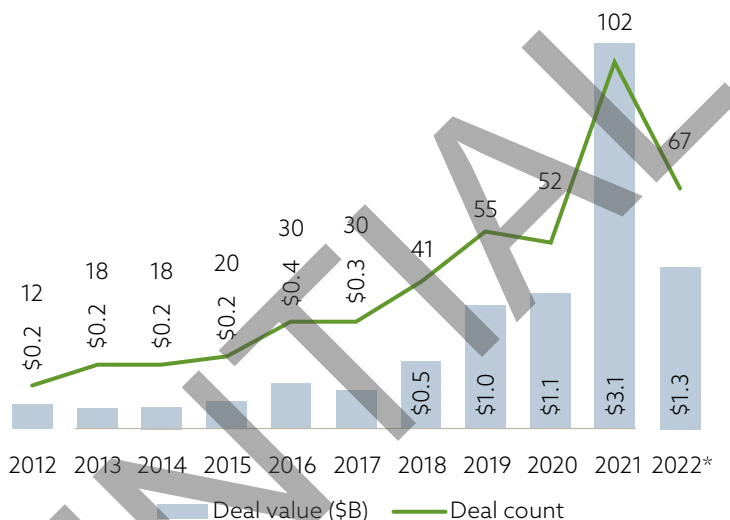
1: "2022 Life Sciences Research Outlook & Cluster Rankings," JLL, 2022, Accessed January 20, 2022.

# Market trends

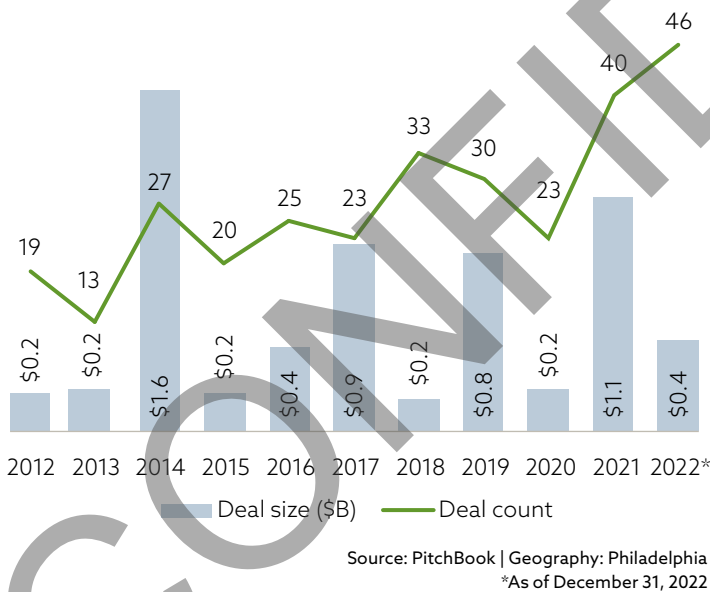
Philadelphia VC deal activity with PE participation



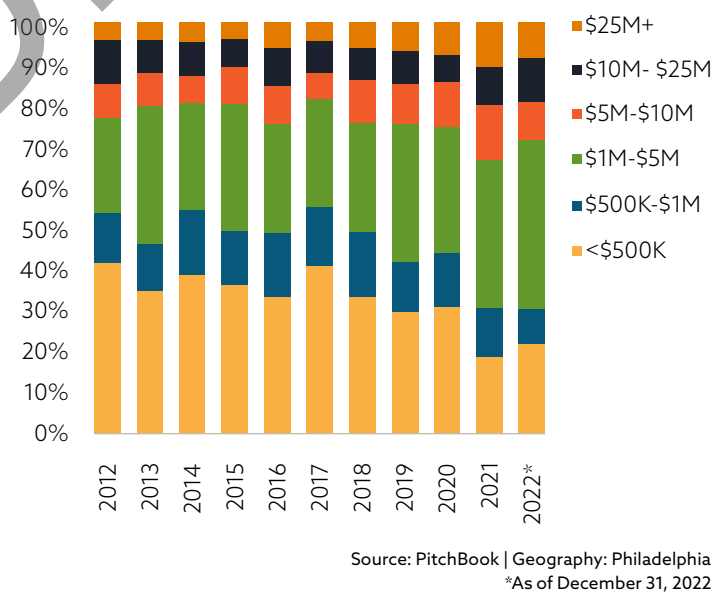
Philadelphia VC deal activity with corporate VC participation



Philadelphia PE deal activity

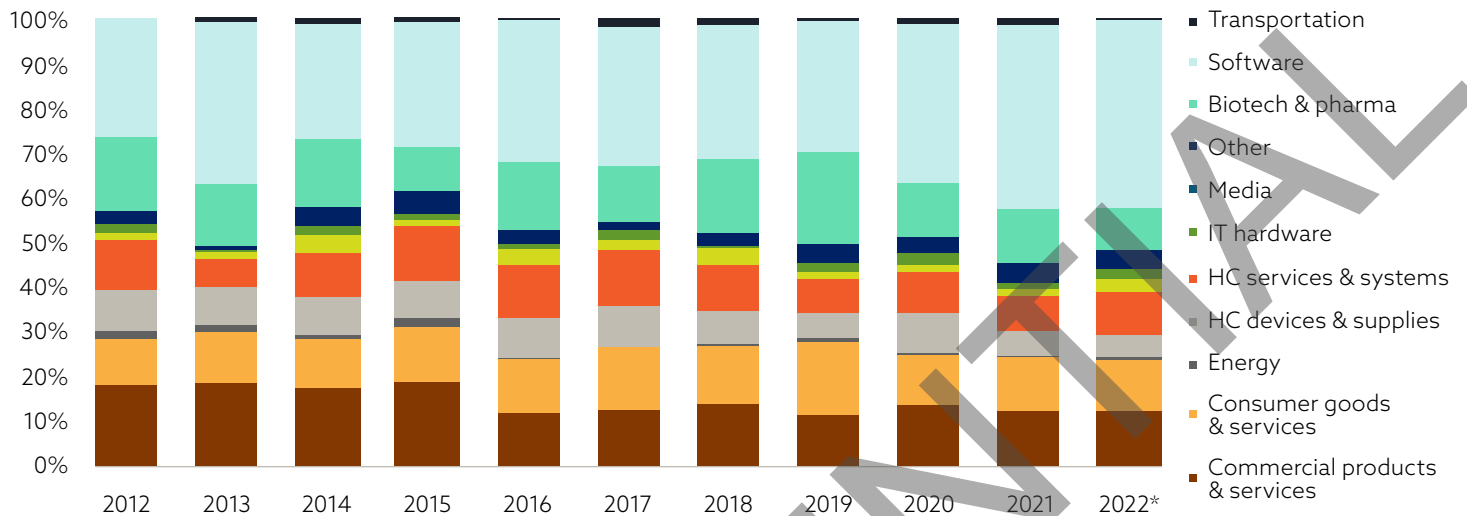


Share of Philadelphia VC deal count by deal size



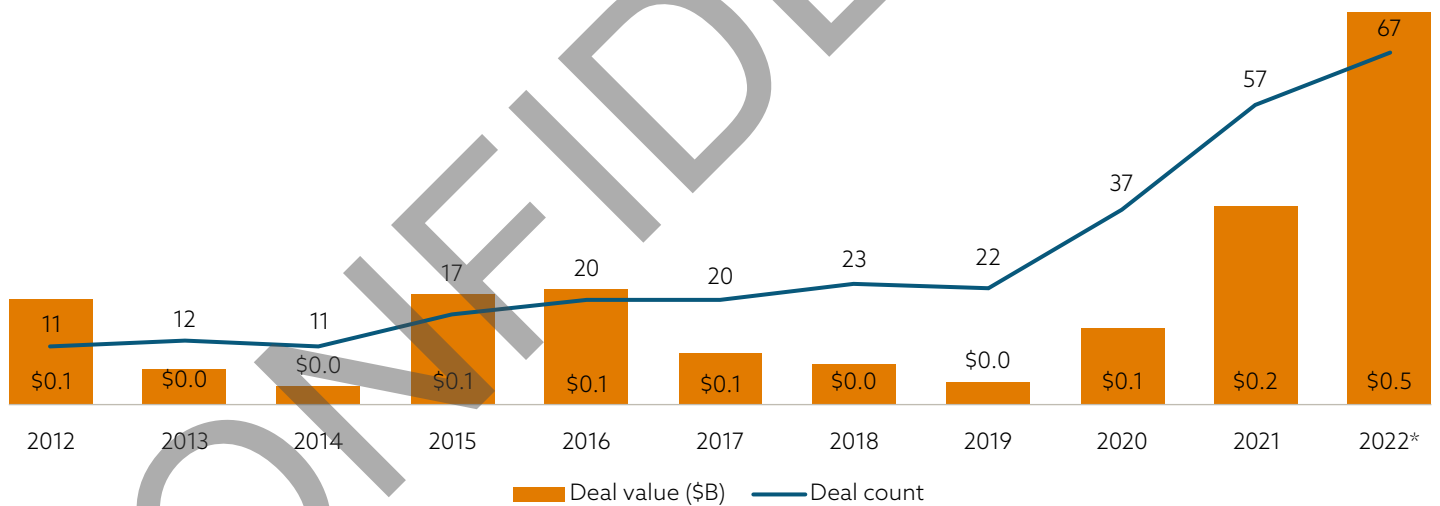
# Sector trends

Share of Philadelphia VC deal count by sector



Source: PitchBook | Geography: Philadelphia  
\*As of December 31, 2022

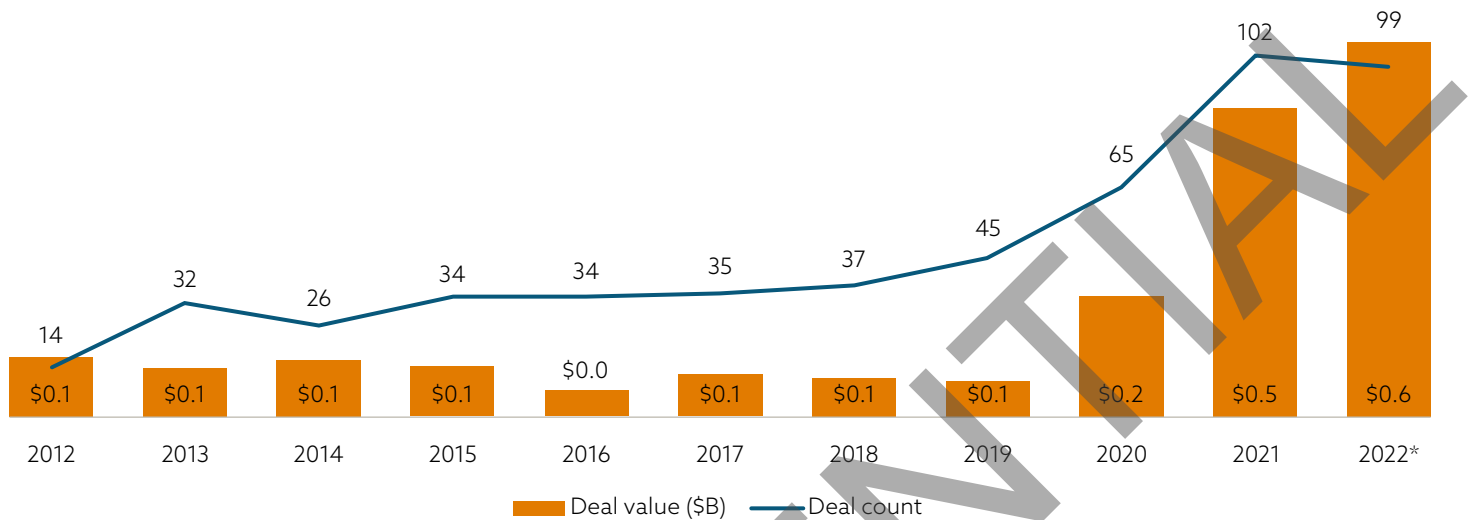
Philadelphia fintech VC deal activity



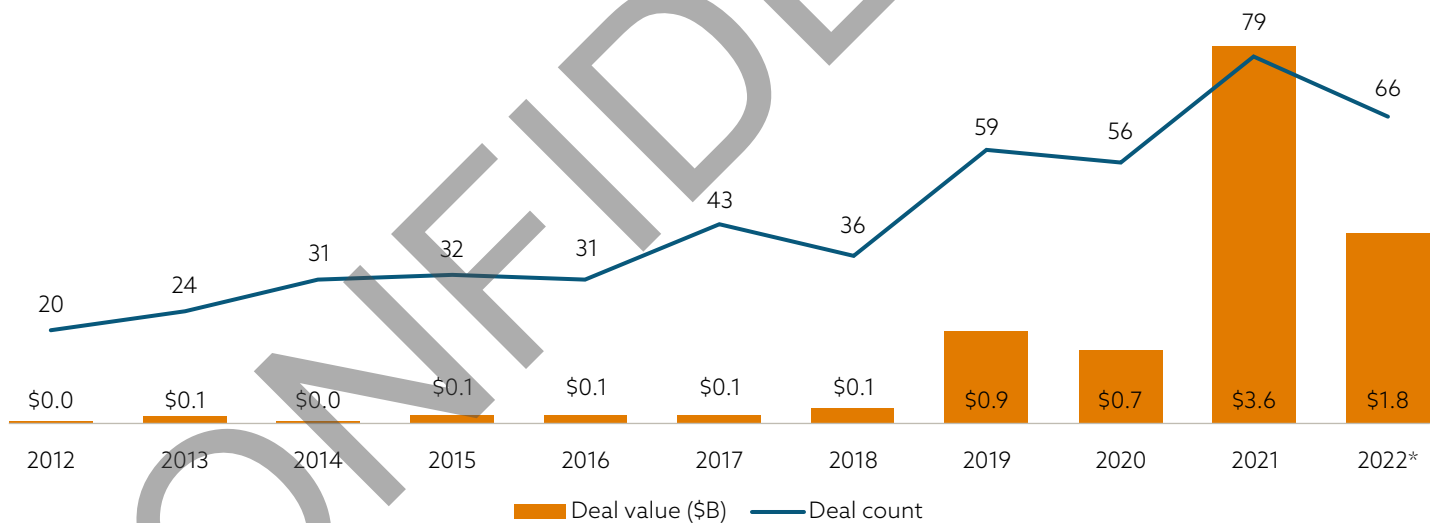
Source: PitchBook | Geography: Philadelphia  
\*As of December 31, 2022

## SECTOR TRENDS

### Philadelphia enterprise technology VC deal activity



### Philadelphia B2C VC deal activity

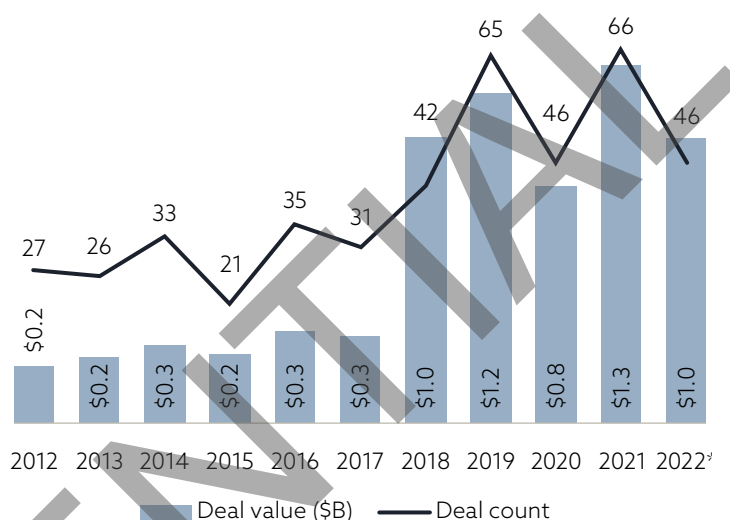


# The biotech sector

For the fourth time in five years, more than \$1 billion was funneled into Philadelphia-based biotech & pharma startups in 2022. Deal flow to the sector was steady as well—last year saw 46 rounds to the industry, in line with the five-year average. All told, more than \$5 billion of VC has been invested in Philadelphia's biotech market since 2018.

Life sciences investments tend to march to the beat of their own drum. They also tend to be relatively capital intensive. While the broader VC market experienced some pullback in late 2022, investor sentiment in biotech & pharma did not necessarily follow suit; promising medical technologies and drug candidates are prioritized in strong and down markets alike. iECURE, for example, raised \$65.0 million in a November Series A1, on top of \$50.0 million its Series A raised in September 2021. The company, a gene editing effort that was spun out of the University of Pennsylvania Gene Therapy Program, treats rare liver disorders and is beginning clinical development with the funding.

**Philadelphia biotech & pharma VC deal activity**



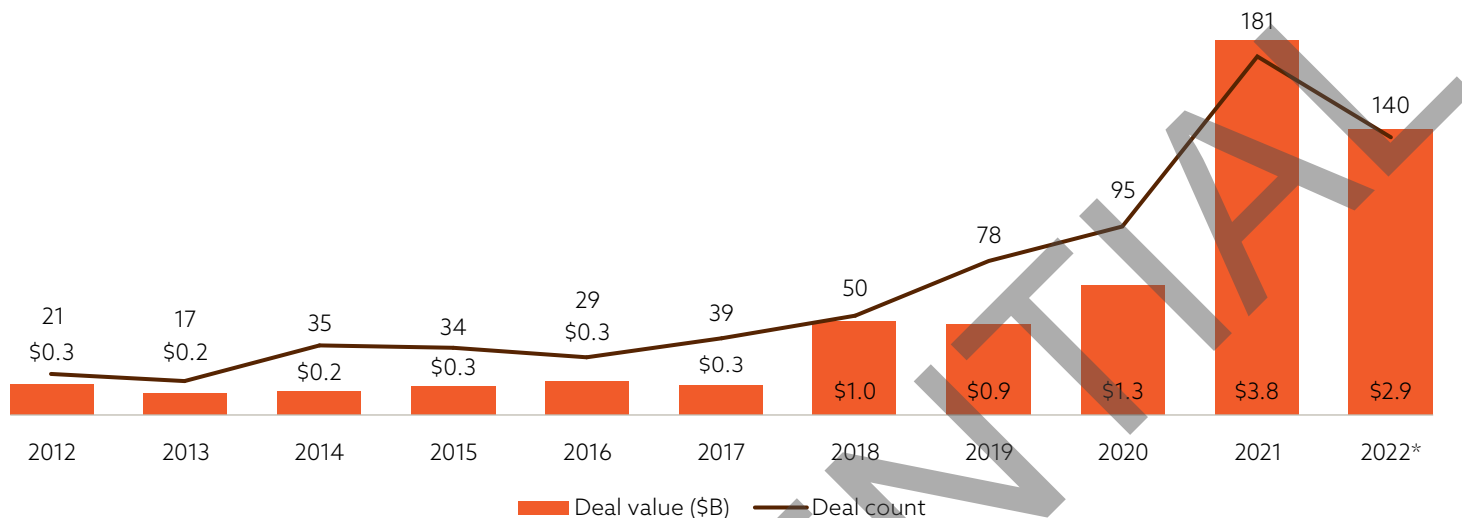
**Top Philadelphia biotech & pharma deals in 2022\***

Company	Close date (2022)	Deal size (\$M)	Pre-money valuation (\$M)	Post-money valuation (\$M)	Deal series
ArriVent Biopharma	February 14	\$150.0	\$45.0	\$195.0	Series A
Castle Creek Biosciences	May 2	\$124.6	N/A	N/A	Series D
Mineralys	June 1	\$118.0	\$150.0	\$268.0	Series B
ArriVent Biopharma	December 29	\$110.0	\$225.0	\$335.0	Series B
Code Bio	May 25	\$75.0	\$65.0	\$140.0	Series A
iECURE	November 30	\$65.0	\$90.0	\$155.0	Series A1
Venatorx Pharmaceuticals	April 4	\$34.0	\$35.7	\$69.7	Series C
Aro Biotherapeutics	December 28	\$24.0	\$200.0	\$224.0	Series B
Neuraptive Therapeutics	October 14	\$19.5	\$130.0	\$149.5	Series B
Geneos Therapeutics	March 21	\$17.0	\$50.0	\$67.0	Series A2
DermalIQ Therapeutics	January 18	\$15.0	\$40.0	\$55.0	Series A

Source: PitchBook | Geography: Philadelphia  
\*As of December 31, 2022

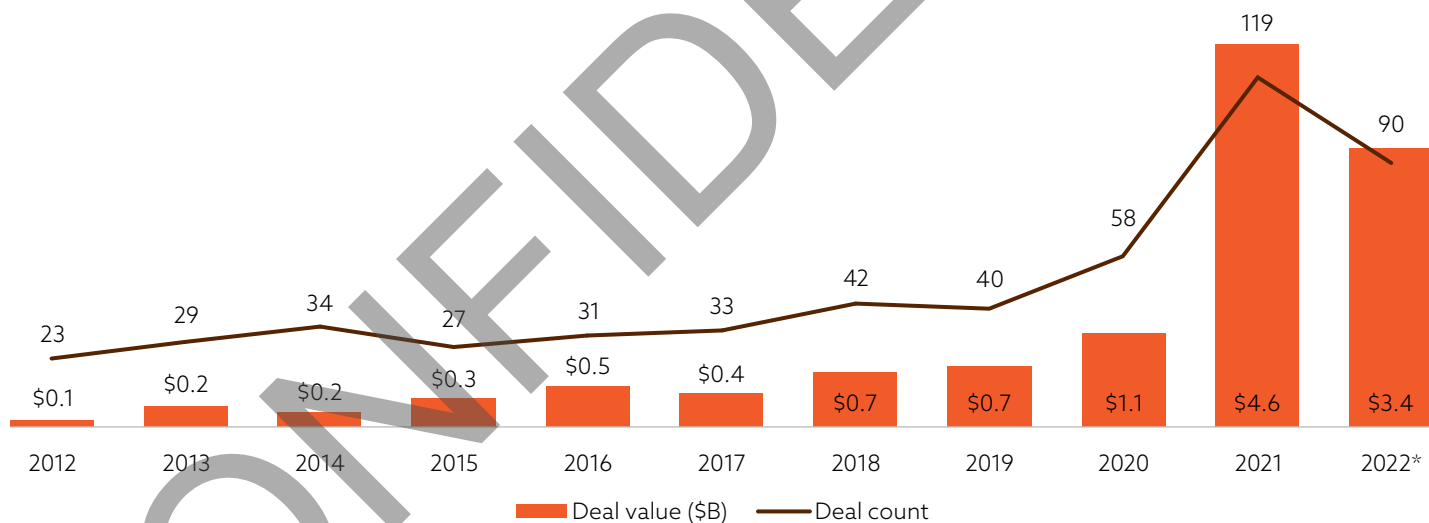
# Outside support

## Philadelphia VC deal activity with Bay Area investor participation



Source: PitchBook | Geography: Philadelphia  
\*As of December 31, 2022

## Philadelphia VC deal activity with New York investor participation



Source: PitchBook | Geography: Philadelphia  
\*As of December 31, 2022

One of the most consequential developments in VC last year was the surge in outside investment, especially from New York and Silicon Valley. Philadelphia startups reaped the benefits—to the tune of almost \$4 billion from Bay Area investors and nearly \$5 billion from New York investors. Unlike hedge funds and other “tourists,” however, VC firms invest with the intent to follow up in later rounds, no matter where they’re headquartered. In 2022, investors from both cities almost matched their 2021 levels, with \$2.9 billion invested from Silicon Valley firms and \$3.4 billion from New York ones.

As capital becomes increasingly mobile, ecosystems like Philadelphia’s can benefit mightily from premier firms based in both coasts. This provides a validation opportunity for Philly-based startups, as long as exit activity remains strong and an entrepreneurial pipeline remains intact. Philadelphia has a solid history of exits, and its proximity to renowned universities and global corporations will continue to source future entrepreneurs. The influence of outside investors is often quiet because their dollars blend in seamlessly with local investors, making their impact easy to overlook. But their strong capital bases, noses for talent, and penchant for follow-on rounds will have an outsized impact on future investment figures—a trend that’s already well underway.



# Q&A with Dean Miller

**After a record-shattering 2021, how do you assess this past year? Did the Philadelphia ecosystem show signs of resiliency?**

By nature, Philadelphia is a resilient community and the entrepreneurial community embodies this ethos. When assessing 2022, the first thing I look at is the number of deals closed in a year compared to other cities. On that front, Philadelphia placed fifth nationally in 2022 with 492 deals closed. We were sixth in 2021 and outside of the top ten less than a decade ago. The enterprise tech sector showed strength in 2022 with 99 deals done—almost matching 2021 and setting a high water mark for total capital raised of more than \$600 million. For the fourth time in the last five years, the biotechnology sector eclipsed \$1 billion in capital raised. Lastly, Philadelphia hit a high water mark for growth-stage PE deals in 2022 with 46 closed transactions.

**What do you expect to see in the Philadelphia ecosystem this year? Do you sense any breakout companies that will make names for themselves over the next couple years?**

I expect to see continued growth in Philadelphia, and there are a ton of companies that will drive that growth—Acumen, Crossbeam, Guru, Piano, Trice, Greenphire, Cigniti, Suvoda, Infinite Blue, Cesium, Vybe, Circonus, Relay, Biomeme, Healthverity, IntegriChain, Clutch, Excellis, SwanBio, Tendo, Astarte, Cagent, Mindcracker, FinPay, Neuroflow, CodeBio, Grovara, Osciflex, Patina, Proscia, Carisma, Spirovant, DataCrest, Phenom People, Roar for Good, FloBio, Lula, Employee Cycle, and Stimulus to name several!

**A recent Wall Street Journal article highlighted signs of recovery for downtown Philadelphia, especially with Comcast employees returning to work. What kind of impact do stories such as these have on the city's startup scene? Is a sense of normalcy returning to Philadelphia, and do you think that will have an impact on smaller, venture-backed companies as well?**

Philadelphia continues to be a great place to start a company in tech, life sciences, and increasingly, the consumer goods space. We have the talent and talent pipeline with more than 100 colleges and universities including top-tier research institutions such as CHOP, Delaware, Drexel, Jefferson, Penn, Princeton, Temple, Villanova, and Wistar. We have a high quality of living and relative affordability compared to other major east coast metropolitan areas. More companies are starting here than ever before, and as a result, more investors from outside the region are focused on Philadelphia. In addition, coming out of COVID, the city is increasingly focused on inclusive growth. Leaders from the city and the Chamber of Commerce for Greater Philadelphia, along with its members, are partnering to enhance the reality and the perception of the city's cleanliness and safety for all residents and workers. Other organizations such as the PHL Equity Alliance are focused on gun violence and poverty. PACT continues to focus on engaging and supporting more underrepresented entrepreneurs to promote equitable growth.



**Dean E. Miller**  
President & CEO, PACT

**From a VC standpoint, Philadelphia's healthcare scene has been a bit overshadowed by GoPuff's recent success. For the uninitiated, please talk about the strength of Philadelphia's biotech & pharma scene. Is the city earning a more rightful reputation as a home for cutting-edge medicine?**

Philadelphia biotechs have raised on average more than \$1 billion each year over the past five years, and that is just in the private markets. When you take into account the dollars raised via IPOs, the capital flowing into Philadelphia-based biotechs is significant and on parallel with top centers nationally. Penn, CHOP, and the Center for Breakthrough Medicines are driving major innovation in cell and gene therapy, two areas considered to be the future of personalized and curative medicine. One of the biggest deals of 2022 was a fundraise by Castle Creek, a company employing both cell and gene therapy approaches. Another company, Mineralys, which focuses on traditional small molecules, just secured a massive IPO in the first quarter of 2023 on the heels of a \$118.0 million private capital raise in 2022. There is a real depth to Philadelphia's biotech scene, and the top investors globally are investing in our companies.

**There's plenty of uncertainty these days, including in the VC space. What would set Philadelphia apart in the event of a downturn in VC funding? What advantages do Philly-headquartered companies enjoy that could come in handy in a down market?**

Philadelphia entrepreneurs are scrappy, dare I say gritty! They can get more done with less, but they also have the ability to raise significant capital and scale—look at dbt Labs \$222.0 million funding in 2022. Philadelphia also does not rely on a single sector—there is significant depth of companies, entrepreneurs, and innovators in biotech, enterprise tech, fintech, digital health, medtech, and a growing base of consumer-focused companies on the heels of GoPuff and Misfits Market.