

Big4Bio

S F B A Y

YEAR IN REVIEW
2022

Introduction

What a difference a year makes. 2021 had been a record-breaking year for investment according to virtually every metric. But after a strong start in the first quarter of 2022, the bear market took hold. Life sciences venture investment in the Bay Area dropped by a third year-over-year. While those numbers look grim, they actually outperformed the 44% drop in US life sciences venture investment. IPOs and M&A activity were down as well.

The bear market is the result of macroeconomic issues rather than the performance of any particular region or sector. When the Federal Reserve Bank started raising interest rates for the first time since 2008, tighter credit and fears of a recession caused public and private investors across the board to pull back.

From mid-January year-over-year the Dow Jones Industrial Average dropped from 35,300 to 33,900, up from its nadir in late September of 28,700. The tech heavy Nasdaq dropped 23% during the same period. In contrast, the Nasdaq Biotech Index was up slightly year-over-year from 4,200 a year ago to 4,400 in mid-January after dropping as low as 3,300 in June.

So, it is in the spirit of “things could be worse” that we take a look back at the year that was.

PRESENTED BY:

Big4Bio



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Life Science Industry Market Facts

Overview

- Average salaries at life sciences companies dropped by just over 10% in 2022 year-over-year, after a huge jump in 2021, however salaries in the San Francisco Bay Area are still the highest in the four markets we track.
- Enterprise and employment growth both increased in 2022 despite a tighter funding environment.
- Rents for lab space increased 13.5% while the vacancy rate dropped by a percentage point – at a time when office vacancies remain stubbornly high.



3,783

COMPANIES



166,691

EMPLOYEES



\$192K

AVERAGE SALARY



31.4%

5-YEAR

ENTERPRISE GROWTH



33.4%

5-YEAR

EMPLOYMENT GROWTH



\$2.2B

NIH FUNDING



6.5%

LAB VACANCY RATE



\$86.12

ANNUAL RENT

PER SQ FT

AS OF Q3

Top NIH Recipients

VALUE

\$824M

UC SAN FRANCISCO

\$651M

STANFORD

\$144M

UC BERKELEY

NUMBER OF GRANTS

1510

UC SAN FRANCISCO

1144

STANFORD

350

UC BERKELEY

Top Stories of 2022

Stories of job cuts, economic setbacks and reorganizations were among your most clicked stories this year.

After clinical trial failures, Peninsula drug developer opts to cut 35% of jobs, Mar 3, 2022

The company is in the process of moving into new, larger quarters in San Carlos that it got in anticipation of FDA approval of its lead drug...

Two drug companies cut Bay Area jobs. Is it a sign of things to come? Mar 28, 2022

Despite layoffs, one life sciences industry observer predicts a “massive talent crisis” over the next five to 10 years...

Another small biotech watches its lead drug implode as its stock price tanks, Mar 23, 2022

Close to 2 years after ORIC Pharmaceuticals went public with an IPO boasting of the potential of its lead cancer drug...

Mammoth Biosciences Announces Key Leadership Appointments, Mar 23, 2022

Mammoth Biosciences, a biotech company building the next generation of CRISPR products to cure and detect disease, today announced the appointment of Elaine...

Nektar Therapeutics Announces Strategic Reorganization Plan and Corporate Outlook, April 26, 2022

Nektar Therapeutics (Nasdaq: NKTR) today announced a new strategic plan focused on prioritizing key research and development efforts that will be most impactful...

With millions of dollars at stake, a small biotech and an activist investor clash, July 19, 2022

The company says its plans to wind down and distribute cash is being blocked by a board proxy fight, culminating with an August shareholder election, by activist...

Astellas Unveils Plans to Open New Biotech Campus in South San Francisco, July 21, 2022

Astellas Pharma Inc. (TSE: 4503, President and CEO: Kenji Yasukawa, Ph.D., “Astellas”) today announced plans to create an integrated biotechnology...

Layoffs hit East Bay biotech research tools company as it aims to become more ‘resilient’, Aug 8, 2022

“Lingering macro headwinds” have slowed international orders for a company that books about 45% of its revenue from outside the United States....

Why star-studded Peninsula biotech NGM Biopharmaceuticals saw its stock fall more than 70%, Oct 17, 2022

Merck & Co. now must decide whether it will exercise an option for the drug...

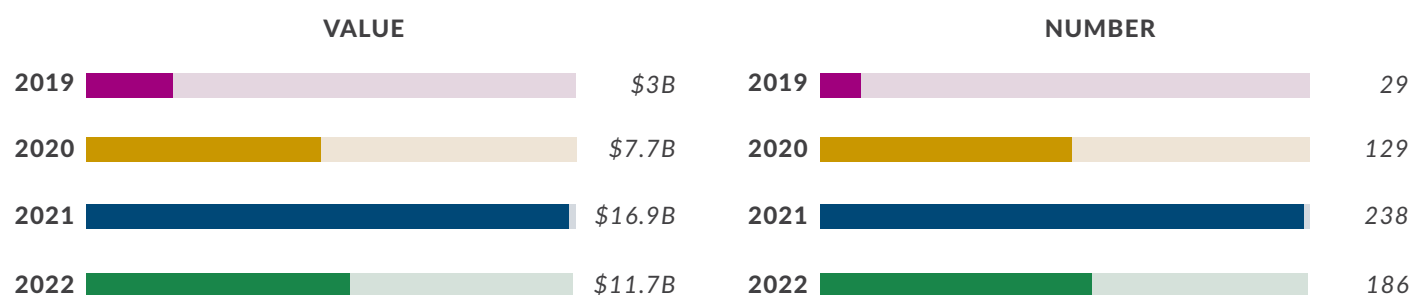
Ex-Theranos CEO Elizabeth Holmes Convicted of Fraud, Sentenced to 11 Years, Nov 21, 2022

Elizabeth Holmes, the former CEO of Theranos Inc., will serve 11 years in prison on four counts of fraud, according to her sentencing...

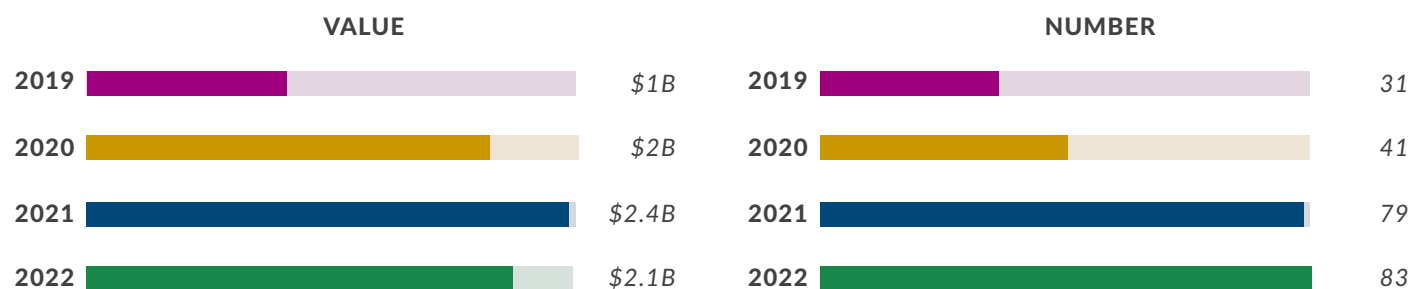
Financings

Venture investment in Bay Area life sciences companies overall dropped by a third in 2022 after jumping 120% from 2020 to 2021. However, the value of early-stage deals has remained surprisingly stable over the past three tumultuous years.

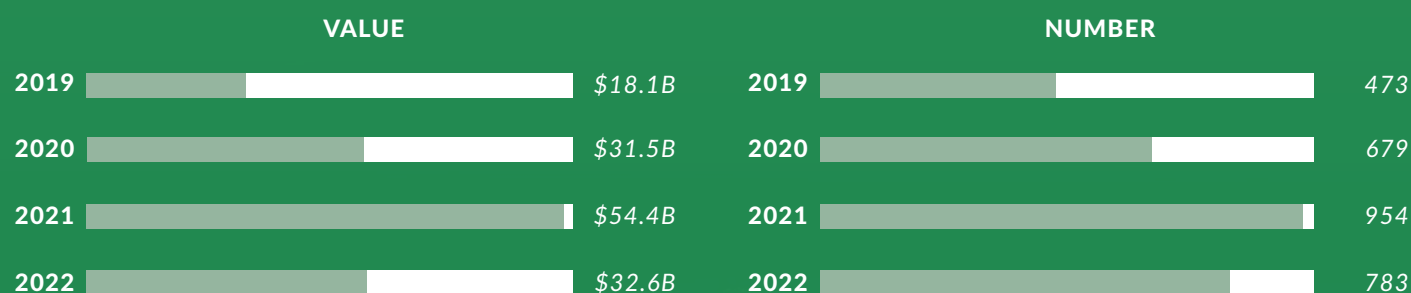
Bay Area Venture Rounds (Biopharma, Medtech, Diagnostics)



Bay Seed and Series A Rounds (Biopharma, Medtech, Diagnostics)



All US Healthcare & Life Sciences Venture Investments



Financings

Top Three Deals

- In the biggest deal of the year, Alphabet made a \$1B investing in its healthtech focused subsidiary Verily Life Sciences, based in South San Francisco. The deal coincided with the announcement of a shake up of the firm's leadership team.
- The second largest deal, in another unspecified series, was a \$600M investment that went to Newark, CA-based Ultima Genomics in early September. The investors included General Atlantic, Andreessen Hoirowitz, D1 Capital Partners, Khosla Ventures, Lightspeed Venture Partners, aMoon Fund, Playground Global and Founders Fund.
- Rounding out the top deals of the year, Elkon Therapeutics, based in Hayward, CA, received a \$517.6M Series B investment that was led by Schroders Capital and Harel Insurance & Finance.

Source: DealForma

M&A

There were a total of 22 M&A deals involving Bay Area companies in 2022. The largest deal for a Bay Area company was Pfizer's \$5.4B acquisition of Global Blood Therapeutics. The South San Francisco company is developing small molecule therapies for the treatment of sickle cell disease.

The second largest deal, Amgen acquired ChemoCentryx for \$4.7B in a deal announced in August. The San Carlos-based company has three early-stage drug candidates for the treatment of inflammatory and renal diseases as well as peripheral vascular disease. Amgen paid \$52 per share for the company, a premium of 116%.

Rounding out the top M&A deals, Amazon's purchase of One Medical for \$3.9B. Amazon bought the public company at \$18 per common stock share and includes \$300M in debt financing payable in ten tranches of \$30M each. One Medical, based in San Francisco, provides in-person, digital and virtual care services.

Source: DealForma

IPOs

The IPO window didn't close entirely for Bay Area companies in 2022, but it came close. Only two life sciences companies went public in 2022 compared to a dozen in 2021. The other large biotech hub, Boston fared better in 2022. It had five companies make their public debut last year, but that compares to 21 in 2021.

Third Harmonic Bio raised \$185.3M in September. The San Francisco-based company is developing small molecule therapies for dermal, respiratory and gastrointestinal diseases.

AN2 Therapeutics of Menlo Park, CA was the other Bay Area company to make its debut in 2022. It raised \$69M in its March IPO. It develops therapeutics for rare, chronic and serious infectious diseases.

Source: Goodwin

Life Science Cares Bay Area 2022 Recap

Life Science Cares is a non-profit organization that operates in Boston, Philadelphia, San Diego, San Francisco Bay Area, and New York. Its mission is to activate the financial and human capital of the Life Sciences industry and partner with nonprofits to disrupt the cycle of poverty in its communities. One of the key tenets of Life Science Cares is “active caring.” Life Science Cares prides itself in not being simply a grantmaking organization but one that actively seeks to partner with its grantees and help solve societal problems through a combination of volunteerism and thought partnership from Life Science employees. Life Science Cares focuses on three areas of core needs:

#1

SURVIVAL

or meeting the basic needs of individuals ensuring they have adequate food, healthcare, shelter and that they are living as respected members of society.

#2

EDUCATION

providing basic skills to youth and augmenting educational pathways of under-represented individuals.

#3

SUSTAINABILITY

or providing opportunity to vulnerable adults so that they can become thriving and productive members of society.

In the Bay Area, Life Science Cares was formed less than two years ago when leaders from the Life Sciences industry got together and agreed that there is so much they and their organizations could do collectively to help the communities in which they live and operate. George Scangos, CEO of Vir Bio, Chairman of the Life Science Cares Bay Area chapter, and Ted Love, former CEO of Global Blood Therapeutics, were the founding members of the Bay Area chapter. They wanted to emulate the success of Life Science Cares in Boston and carry the vision of Life Science Cares founder Rob Perez. They believed the Bay Area has infinite potential and they were right: Life Science Cares Bay Area has gained tremendous

momentum since its launch. Since its formation in 2021 Life Science Cares Bay Area has enlisted many new supporters, small and large companies alike. Together, they have tackled some of the Bay Area’s most persistent problems around poverty and equity.

While the organization is proud of the close to \$2M in grants they have made to 18 nonprofit partners in under 2 years, they are equally proud of the manner in which they have engaged those community partners, and of the platform they have given life science employees to give back. In each of the areas of core needs (Survival, Education and Sustainability), Life Science Cares Bay Area has forged meaningful partnerships that embody the active caring (grants + human capital) that is the signature of the organization:

	 Survival • Vaccine Equity & Health Access • Domestic Violence • Food Security • Homelessness	 Education • STEM • General Education • Adult Learning	 Sustainability • Job Training & Readiness • Mentorship • Prison/Justice System
 San Francisco	 		
 East Bay	 	   	
 North Bay			
 Peninsula/South Bay			
 Virtual			

SURVIVAL: One of Life Science Cares Bay Area's first grantees was GLIDE, a San-Francisco based organization that provides service to the homeless. At the beginning of 2021, GLIDE with other key partners launched and operated a vaccination clinic in the Tenderloin, a famously underserved neighborhood in San Francisco. Life Science Cares Bay Area provided funding and volunteer efforts that supported approximately 3,500 vaccinations in 2021 and over 6,000 care packages to support vaccinated individuals. Life Science Cares Bay Area supported a similar effort in Oakland through La Clinica de La Raza where it provided funding to hire a vaccination site manager.

EDUCATION: In addition to Health Equity, one of the focus areas for Life Science Cares Bay Area has been supporting underrepresented students in exploring careers in the Life Sciences industry. Building on the success, provided in 2021 to organizations that support under-represented students such as The Center for Excellence in Life (TCLE) and Oakland-based Umoja Health, Life Science Cares Bay area launched Project Onramp. Building on the success of its sister affiliate in Boston, the Bay Area Chapter launched its first cohort in the summer 2022 thanks to a grant from Global Blood Therapeutics. In its first year, Life Science Cares Bay Area placed 25 interns in 15 Life Science companies, opening doors for under-represented students that may not have otherwise considered a career in Life Sciences and prompting new Life Science companies to welcome interns for the first time.

SUSTAINABILITY: Life Science Cares Bay Area also seeks to support vulnerable and underserved populations with opportunity so they can thrive economically and socially. In 2022, in collaboration with ALAS (Ayudando Latinos a Sonar), Life Science Cares Bay Area launched the Equity Express, an innovative initiative to bring a wifi equipped / retrofitted bus to remote farmworkers and bring needed programs such as telemedicine, mental health support, tutoring and adult learning to address some of the disparities experienced by that population. This collaboration was supported through a generous grant from the Gilead Foundation, the primary funder, as well as hands-on expertise from Genentech and other financial contributions specifically directed towards the initiative from donors such as Abbvie. The vision is that this pilot will bear fruitful learnings and be an example for other farming communities across the state and nation.

The examples above constitute a sampling of the partnerships Life Science Cares Bay Area has established across its 18 nonprofit partners. In addition to financial grants, Life Science Cares Bay Area has activated many volunteers in the community and provided in kind-donations in 2022. See Summary of impacts below and full impact report [here](#).

OUR 2022 IMPACT BY THE NUMBERS

\$2M

AWARDED IN GRANTS TO
18 NONPROFIT PARTNERS

50+

LIFE SCIENCE
COMPANIES ENGAGED

5,375+

CARE PACKAGES
ASSEMBLED

25+

INTERNSHIPS
PROVIDED

3,500+

VACCINATIONS
FACILITATED

50+

MENTORSHIPS OFFERED TO
UNDERREPRESENTED STUDENTS

1,445+

WORTH OF GOODS DONATED
TO COMMUNITIES IN NEED

In 2023, Life Science Cares Bay Area seeks to continue to deepen relationships across a broad base of community partnerships as well as continue to engage Life Science stakeholders. Corporate sponsorships are available for Life Science companies; they unlock volunteer engagements for employees, as well as access to signature events, and recognition for the Life Science company as a supporter. Life Science Cares Bay Area is also looking to expand its board of advisors to include Life Science leaders interested in acting as champions and ambassadors of the mission of Life Science Cares. If you are interested in learning more about how to get engaged with Life Science Cares, including becoming a corporate partner and engaging your employees or joining the board of advisors, please reach out to Aisha Baro at aisha@lifesciencecares.org

2023 Outlook

Biocom California

Going into 2023, the life science industry can expect elected officials to focus their attention on healthcare access and affordability, climate change, transportation, and economic development.

The new year marks the beginning of the 118th Congress, which comprises a Democratic-led Senate and a newly Republican-led House, both of which operate with very slim majorities. Internal party divisions, as exemplified by the House's chaotic Speaker election, will add to the already daunting task of legislating in an evenly divided Congress. Congress may consider legislation pertaining to drug pricing, data privacy, taxes, trade, and intellectual property. We can also anticipate the House to conduct oversight hearings of federal agencies and signature programs of the current Administration.

In the California Legislature, some lawmakers may continue to press for harmful price-setting initiatives in the healthcare system and the discussion around "single payer" will likely continue behind the scenes, if not openly, in legislation. Although the legislature will likely be dogged by a significant budget shortfall that limits new programs and coverage decisions. As part of Biocom California's proactive agenda, the life science industry will continue to work to expand access to therapies and reduce patients' costs at the pharmacy counter. Biocom California will also work to protect supply chains from disruptive legislation that could conflict with federal regulations. Finally, the new Office of Health Care Affordability could present new challenges for providers and hospitals by pressing for price setting within the healthcare system with far reaching consequences for all entities in the system.

In the Bay Area, Biocom California continues to participate in conversations on land-use changes by working with local municipalities on policies dictating where labs can locate and allowable activities within facilities. We are watching to see how a major budget deficit will impact businesses in San Francisco, and any effects from prolonged drought conditions. Several counties might not meet their state-required housing development goals, which could result in a "builder's remedy" allowing housing to be built freely in places like San Francisco and Marin. We will continue to advocate for additional housing to accommodate the ever-growing life science workforce and efficient transit options for commuters.

As we move into another year, Biocom California looks forward to continuing to advocate for the growth and success of our incredible life science partners.



Conclusion

As emergency Covid measures were dialed back, the world economy found itself facing serious headwinds by the second quarter of 2022 fueled by price inflation, tighter credit and, to top it off, a war on the eastern fringe of Europe.

The life sciences sector is not immune from these macroeconomic forces, but there are signs that it is faring a bit better than the economy overall. Early-stage investment remains stable. On the public investment side, the Nasdaq Biotech Index, which began its decline in September 2021 is back above January 2022 levels.

While the IPO window is still firmly shut, venture investors will have to put more capital into the LIPO (“Likely to IPO”) companies in their portfolios and impose harsh new spending priorities on all of their companies. But it appears that there is still an appetite for investment in Seed and Series A companies.

And while M&A activity was also anemic in 2022, buyers are sitting on a lot of dry powder (as are VCs) while they inch nearer and nearer to the patent cliff. It is expected that that money will be put to work as the macroeconomic picture improves towards the end of the year.





Telling Stories

with Numbers

I work with companies in the life sciences space to help them tell compelling, persuasive and well-researched stories.

What story can I help you tell?

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