Big4Bio s F B A Y

YEAR IN REVIEW

2019



Welcome

to the first edition of Big4Bio's Year-in-Review. These annual reports (one for each region we cover), give us the opportunity to look back at the year past and think about what 2020 may bring. In future reports we look forward to expanding the metrics we track as well as following the progress of our key metrics over time.

Twenty-nineteen saw private life sciences investors retreat a bit after a gang-buster year in 2018. Life sciences venture investment dropped in value by about 20%, which is consistent with the reduction in life sciences investment across the U.S.

We thank our financial data partner DealForma and JLL who shared their 2019 Life Sciences Industry Outlook with us. We also thank Biocom for sharing their 2020 Outlook with us. We look forward to continuing to share the important innovations developed by Bay Area life sciences companies with our readers in 2020.

Titton Little

Tilton Little | Executive Director/Publisher Big4Bio

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Life Sciences Industry Market Facts

Overview

- The San Francisco Bay Area ranks second among the Big4Bio markets in terms of the number of life sciences companies with 1,710, coming in behind Boston which has 2,270.
- The Bay Area also lags behind the Boston market in terms of the number of employees with 79,500 compared to Boston's 95,000.
- However, despite the area's notoriously high cost of living, the top ranking when it comes to wages goes to the newest Big4Bio market: Greater Philadelphia where the average salary is \$128,000.



1,710

Companies



79,525

Employees



\$126,957

Average Salary



4,271

Life Sciences
Graduates



7%

5-Year Employment Growth



0.1%

Year-Over-Year Enterprise Growth



\$1B

NIH Funding



20 msf

Real Estate Inventory



4%

Lab Vacancy Rate



\$48 psf

Rent Per Square Foot

Top NIH Recipients

\$599 M

\$473 M

\$113 M UC Berkeley

(Sources: JLL Life Sciences Outlook, BioSpace for salary, CLSA for NIH recipients)



Top Stories

Struggling companies, top leadership changes and the passing of an industry pioneer were among the top stories clicked by our readers in 2019.

1. Longtime Genentech exec retiring as new CEO settles in

Dr. Sandra Horning, who joined Genentech Inc. in the wake of the South San Francisco biotech giant's buyout by Roche, will retire at the end of the year as new Genentech leadership settles in. Full Article >

2. Gilead rocked by phase 3 failure of selonsertib in NASH

A phase 3 trial of Gilead's NASH prospect selonsertib has bombed. The ASK1 inhibitor was no better than placebo at improving fibrosis, wiping out hopes that selonsertib would spearhead Gilead's push into a new market. Full Article >

3. UBiome co-founders are placed on leave amid FBI investigation into company

UBiome, a microbiome-related startup under FBI scrutiny for its billing practices, announced Wednesday that its co-chief executives had been placed on administrative leave and that it had launched its own independent investigation into the matter. Full Article >

4. After swinging the ax on staffers, Five Prime Therapeutics loses CEO

Less than two years after taking the reins from founding chief Rusty Williams, Five Prime Therapeutics CEO Aron Knickerbocker is exiting the company. <u>Full Article ></u>

5. FibroGen Announces Passing of CEO Thomas B. Neff, Scientific Innovator and Pioneering Biopharmaceutical Executive

FibroGen, Inc. (NASDAQ:FGEN) announced today that Thomas B. Neff, Chief Executive Officer and Chairman of the Board of Directors of FibroGen, passed away unexpectedly this past weekend. Full Article >

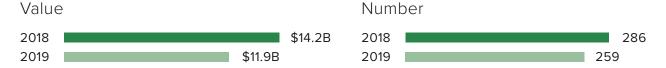


Financings

Bay Area Venture Rounds (Biopharma, Medtech, Diagnostics)



All US Venture Rounds (Biopharma, Medtech, Diagnostic)



Bay Area Seed and Series A Rounds (Biopharma, Medtech, Diagnostic)



Venture investment in Bay Area life sciences companies dipped from 2018 levels in 2019, as it did for life sciences nationally as well as across all sectors in 2019. But with over three billion in investment, 2019 was still a healthy, if not record setting year. Not surprisingly, cancer therapeutics and diagnostics led the way, accounting for 16 of the 59 investment rounds.

TOP THREE DEALS

- BridgeBio Pharma, an oncology company, raised \$299M in a Series D round
- · Maze Therapeutics, a genomics platform company, raised \$191M in a Series A round
- Lyell Immunotherapies, a cell therapy company working on cancer drugs, raised \$179M in a Series B round

On the M&A side, cancer plays also figured prominently. Five of the 24 M&A transactions of Bay Area companies involved companies working in cancer.

The largest deal of the year was Johnson & Johnson's acquisition of Auris Health, a maker of robotic surgical devices, for a total of \$5.75B that includes \$3.4B in upfront cash and up to \$2.35M in contingent payments based on milestones.

Astellas Pharma's acquisition of gene therapy company Audentes Therapeutics ranked second.

Rounding out the three biggest deals of the year, Exact Sciences paid \$2.8B for the cancer diagnostics company Genomic Health.



2020 Outlook from Biocom

We asked our friends at Biocom to give us a preview of the political and legislative agenda for 2020. Here's their take on what's next:

Gazing into California's Crystal Ball: A Look into 2020

2020 will inherit many industry challenges, and it will also bring new ones. From drug pricing to a new Food and Drug Administration (FDA) Commissioner, a wave of policies and reforms will impact California's life sciences this year.

In late 2019, the House of Representatives passed major drug pricing legislation imposing price controls on drugs marketed in the U.S. Because it was a partisan bill that gained very little Republican support, it remains unclear if both parties can collaborate on a comprehensive drug pricing package. However, we could see action on smaller bills that have gained bipartisan support – some of which passed on the House floor.

Drug pricing aside, a healthcare priority for Congress in 2020 will likely be surprise billing. Biocom will also be following the FDA with the confirmation of its new Commissioner, Dr. Stephen Hahn, who announced one of his first priorities will be implementing pathways for the importation of certain drugs originally intended for foreign markets. Other issues the FDA is prioritizing include using real-world data when approving new medicines, the opioid crisis and the upcoming reauthorization of the Prescription Drug User Fee Act (PDUFA).

In Sacramento, we will likely face similar challenges as Governor Gavin Newsom attempts to move California closer to a single payer system—including proposing that the state negotiate drug pricing on behalf of itself and other public and private payors, considering lowest available international pricing, and developing its own generic drug line. We also expect there may be state efforts to encourage foreign drug reimportation despite the public health risk. Finally, consumer privacy advocates will likely be active again, and Biocom will ensure their proposals include no unintended industry consequences.

In San Francisco, we continue to participate in conversations regarding a potential business tax overhaul in 2020. Biocom is also working with the City of South San Francisco on a proposal for a Community Facility District to fund transportation and transit improvements. Biocom was strongly involved in 2019 when the Los Angeles County Board of Supervisors passed a Bioscience Overlay Zone, streamlining permitting processes for life science developments. Biocom assisted in crafting the measure and will continue with its implementation, as well as potential similar zones in cities throughout Los Angeles County. In the City of Los Angeles, we are working with the Chamber on the implementation of Jobs and Economic Development Incentive (JEDI) Zones specific to life science. As with anything, the year ahead brings a mixture of challenges and opportunities. But amidst the predictions, one thing remains clear: California's life sciences remain stronger than ever.



Summary

While 2019 did not see the record levels of investment that 2018 saw, three billion dollars in investment is nothing to scoff at. And it is encouraging to see that, in a year that was hard for early stage funding across sectors, Seed and Series A rounds dropped less than overall funding for the sector in terms of both dollars and quantity.

Twenty-twenty promises to bring new challenges to the sector. Presidential election years always make markets queasy, and the fact that the only thing both parties seem to agree on is reining in prescription drug prices doesn't help.

But the Bay Area life sciences sector continues to enjoy healthy growth. The science that drives the sector continues to come into its own and producing therapies and cures that not long ago would have been unimaginable. We can be confident that the long-term success and continued growth of the Bay Area life sciences cluster is assured.

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