

YEAR IN REVIEW





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 past year and think about what the new year 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.

In a year when venture investment was down across the board, San Diego life sciences investment took a particularly hard hit at first glance, but the year-over-year drop was partly the result of the absence of the kind of mega-deals that the region saw in 2018.

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 San Diego life sciences companies with our readers in 2020.

Titton Little

Tilton Little | Executive Director/Publisher

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Life Sciences Industry Market Facts

Overview

- While San Diego ranks last among the Big4Bio markets in terms of number of life sciences companies, the highly concentrated nature of the market allows it to 'punch above its weight' in terms of its significance.
- With a total of 66,000 employees the market comes in at third place above Greater Philadelphia with 54,000 and below the San Francisco Bay Area with a total of 80,000 life sciences employees.
- San Diego life sciences employers enjoy the lowest average wages among the Big4Bio markets at \$108,000. The next highest average wage market is Boston at \$124,000.



1,503

Companies



5% 5-Year Employment Growth



66,781

Employees



2%

Year-Over-Year Enterprise Growth



7% Lab Vacancy Rate



\$108,041

Average Salary



\$921.1M

NIH Funding



\$47

Rent Per Square Foot

(Sources: JLL Life Sciences Outlook, BioSpace for salary data)



2,684
Life Sciences

Graduates

18.4 msf

Real Estate

Inventory

Top Stories

Changes in leadership teams dominated the top stories of the year based on clicks by our readers. Some changes at the top were tainted by scandal and some, like the death of Bradley Fikes, were tainted with sadness.

1. Top Scripps scientist and biotech co-founder makes an abrupt — and unexplained — exit

The scientific founder at the newly public biotech Synthorx has abruptly left La Jolla's prestigious Scripps Research. But we don't know why. Full Article >

2. Equillium Announces Leadership Updates

Equillium, Inc. (Nasdaq: EQ), a clinical-stage biotechnology company leveraging deep understanding of immunobiology to develop products to treat severe autoimmune and inflammatory disorders, today announced the appointment of Bruce Steel, the company's current president and chief business officer, as president and chief executive officer effective January 1, 2020. Full Article >

3. Why Gossamer Bio Shares Are Plunging

Gossamer Bio Inc shares are tumbling to their lowest level since Oct. 22 as a rival to the company's lead product candidate that's being developed by Novartis AG NVS 0.3% failed in two late-stage studies, prompting the latter to shelve the study. <u>Full Article</u> >

4. Epic Sciences Expands Executive Leadership Team

Epic Sciences, Inc. today announced the appointment of Joel Smith as its general counsel and executive vice president of corporate development. Mr. Smith joins the company's impressive roster of industry veterans. Full Article >

5. The USC-UCSD lawsuit settlement

A bitter fight between two of Southern California's most prestigious universities for control of a famous Alzheimer's research program has come to an end after years of alleged thievery, sabotage and the use of double agents. Full Article >

(tie)5. Union-Tribune biotech writer Bradley J. Fikes, beloved by colleagues, dies at 61

Bradley J. Fikes, an ever-on-the move ball of energy who roamed the labs of San Diego as the Union-Tribune's biotech writer, chronicling scientists' efforts to find ways to alleviate human suffering, died on Wednesday. He was 61. <u>Full Article</u> >



Financings

San Diego Venture Rounds (Biopharma, Medtech, Diagnostics)



San Diego Seed and Series A Rounds (Biopharma, Medtech, Diagnostic)



All US Venture Rounds (Biopharma, Medtech, Diagnostic)



The value of venture investment in San Diego life sciences companies dipped significantly in 2019 due to the absence of big deals such as Samumed's \$438M Series A round and Rakuten Medical's \$384M round in 2018. There were three deals in 2019 valued at \$100M or more, and total investment came in at \$930M. The value of Seed and Series A investments dropped by almost half from 2018 to 2019 as did the number of deals.

TOP THREE DEALS

- Gene therapy company, Poseida Therapeutics, netted the largest venture investment of the year with a \$142M Series C round.
- Acutus Medical, a cancer diagnostic company, took in a \$100M Series D round.
- Cancer antibody company, Avidity Biosciences, also received a \$100M investment in a Series D round.

Cancer plays also led the way on the M&A side with five deals, including the largest acquisition of the year, Sanofi's take out of Synthorx for \$2.5B announced in December. Outside of the cancer space, Merck acquired Calporta Therapeutics, a small molecule company in the neurologic space, for \$576M. The deal was announced in November and is contingent on the achievement of certain milestones.

Boston Scientific bought device company Vertiflex, also in the neurologic space, for \$465M with no contingencies. Rounding out the largest deals of the year is H. Lundbeck's purchase of another neurologic play, small molecule company Abide Therapeutics. The deal, which was announced in May is valued at \$400M, \$250M paid up front.



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, consider lowest available international pricing, and develop 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.

Biocom is participating on the City of San Diego's University Community Plan Update Committee, helping to dictate development of San Diego's life science hub for the next 20 years. Biocom will also continue its leadership at the City of San Diego, pursuing land use changes to make it easier to build housing, reform the community planning process and examine changes to life science development projects—all of which Biocom will have a voice in.

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 venture funding was down across all sectors in 2019, including biotech as a whole, in year-over-year numbers, San Diego saw a bigger drop than most markets. Some of that can be ascribed to a robust 2018 when San Diego saw three mega-round investments of more than \$200M, but it can't be denied that 2019 was a tough year, especially for early stage investments.

Looking forward, it's unlikely we will see investment levels bounce back significantly in 2020. Presidential election years make investors nervous and, in turn, cautious. It doesn't help that the perception of high drug prices is a rallying cry for candidates at both ends of the political spectrum.

As one of the oldest and most established biotech clusters, San Diego is well placed to face these headwinds. The presence of world class research institutions, seasoned entrepreneurs and experienced investors will ensure that the San Diego cluster continues to reign as a hotbed of innovation.

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