

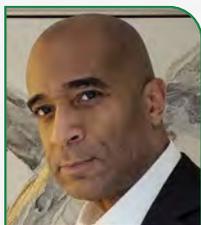
A photograph of the Golden Gate Bridge in San Francisco, viewed from a low angle looking up at one of the towers. The bridge's red-orange steel structure is prominent against a clear blue sky. In the background, there are rolling hills and a body of water.

# Big4Bio

S F B A Y

**YEAR IN REVIEW**  
**2020**

# Welcome



2020 will be remembered as the year that everyone would like to forget. But the life sciences sector provided one of the few rays of hope in a very dark time.

Bringing not one but two vaccines to market in less than ten months is an unprecedented, if not

miraculous, feat. Researchers at companies large and small pivoted their diagnostic, vaccine and therapeutic programs to address the challenges of the pandemic. Venture investors stepped up, demonstrating their faith in the industry by more than doubling their investments in Boston life sciences companies.

This report crunches the numbers that tell the story of a sector rising to the occasion. As always, we couldn't do it without our data partners DealForma and JLL. We also thank MassBio for sharing their insights.

Stay tuned to Big4Bio's daily summary of industry newsletters [[Big4Bio.com](http://Big4Bio.com)] to see how the pandemic, hopefully, plays itself out and how the industry moves forward.

Tilton Little, Executive Director, Publisher  
Big4Bio



Industrialist Henry J. Kaiser is remembered for the adage, "Problems are only opportunities in working clothes." Perhaps it is fitting that the man who transformed healthcare delivery coined the phrase that so aptly sums up the life sciences sector in 'the year that has been like no other'.

For the life sciences industry, 2020 delivered both problems and opportunities in spades. Innovation and investment soared as the world confronted a pandemic the likes of which hasn't been seen in a century. Moderna, a previously stealthy Boston biotech company, became a household name. Diagnostics became sexy. Infectious disease therapeutics made headlines.

Crises can create sea-changes. The pandemic has spurred an explosion of innovation that, with hope, will be maintained well beyond the current crisis. But the pandemic has also put a spotlight on the industry that won't disappear after the current crisis. The industry needs to prepare for a new reality where they will be subject to much more public scrutiny.

For more than a dozen years, I have helped life sciences companies take control of their messaging and communicate with stakeholders who sometimes have competing or conflicting agendas. I can help you manage the new realities you may face in the coming year. To learn more, visit [www.KMAandCo.com](http://www.KMAandCo.com) or email me at [cassie@KMAandCo.com](mailto:cassie@KMAandCo.com).

Cassie Arnold, Founder  
KMA & Company

## TABLE OF CONTENTS

|  |   |
|--|---|
| Welcome .....                            | 2 |
| Life Science Industry Market Facts ..... | 3 |
| Top Stories of 2020 .....                | 4 |
| Financings .....                         | 5 |
| 2021 Outlook .....                       | 7 |
| Summary .....                            | 8 |

# Life Science Industry Market Facts

## Overview

- The San Francisco Bay Area jumped ahead of Boston in 2020 in terms of both the number of life sciences enterprises and the number of employees, although Boston salaries were slightly higher.
- The Bay Area ranks second in terms of NIH funding receiving \$1.2 billion in grants. Boston continued to lead the pack in 2020, taking in an impressive \$2.8 billion.
- While the pandemic has devastated the market for commercial office space and residential rentals in San Francisco, lab space is one of the few bright spots in the Bay Area real estate market.



**3,391**  
Companies



**137,368**  
Employees



**\$136,119**  
Average Salary



**5.9%**  
YOY Increase



**21%**  
5-year Employment  
Growth



**25.5%**  
5-year  
Enterprise Growth



**\$1.2B**  
NIH Funding



**15.57<sup>m</sup> sq ft**  
Real Estate  
Inventory



**7.3%**  
Lab  
Vacancy Rate



**\$58.30/sq ft (NNN)**  
Rest per Sq ft

(Data Source: JLL)

## Top NIH Recipients (by number of grants)

**1,251**

University of California,  
San Francisco

**976**

Stanford  
University

**311**

University of  
California, Berkeley

# Top Covid-19 Stories

Given the predominance of COVID-19 news coverage in 2020, we have broken out our ranking of the top Big4Bio stories of the year into COVID-19 and non-COVID-19 related stories. When it came to COVID-19 stories, our readers were most interested in the thoughts of tech leaders and investors.

In other news, cuts by Genentech, a new CEO at Five Prime, a Nobel for UC Berkeley's Jennifer Doudna, and Gilead's suit against the CDC came out on top.

## 1. COVID-19

### *Tech entrepreneur Steve Kirsch needs \$20M to grant old drugs new life against Covid*

In August, Steve Kirsch launched the Covid-19 Early Treatment Fund with the goal of raising \$20 million to accelerate the development of as many as 15 potential COVID-19 treatments.

[Full Article >](#)

### *Biotech VC Bob Nelsen called it right on the coronavirus. Now he has thoughts on therapeutics — and masks*

In March, the co-founder of Arch Venture Partners, who long cautioned that we weren't prepared for a novel virus, shared his thoughts on efforts to control the pandemic.

[Full Article >](#)

### *Gilead shares slip as a 2nd remdesivir COVID-19 trial halted in China*

In April, Gilead announced it was halting enrollment in its second trial for remdesivir in the treatment of COVID-19.

[Full Article >](#)

### *Biotech Bay Companies Fighting Against COVID-19*

In May, BioSpace published a catalog of Bay Area life sciences companies' efforts to combat COVID-19.

[Full Article >](#)

## 2. Non-COVID-19

### *Genentech to slash nearly 500 staffers*

In July, news broke that Genentech was cutting almost 500 jobs on the west coast as part of a "new customer-engagement approach."

[Full Article >](#)

### *Five Prime Therapeutics Appoints Tom Civik as Chief Executive Officer*

In April, Five Prime Therapeutics announced the appointment of Tom Civik as CEO, citing Civik's experience in launching and commercializing blockbuster products.

[Full Article >](#)

### *UC Berkeley's Jennifer Doudna wins 2020 Nobel Prize in Chemistry*

In October, Jennifer Doudna won the 2020 Nobel Prize in Chemistry for co-developing CRISPR-Cas9. She shared the award with colleague Emmanuelle Charpentier.

[Full Article >](#)

### *Gilead sues U.S., claiming it 'secretly' obtained patents on HIV research that led to Truvada*

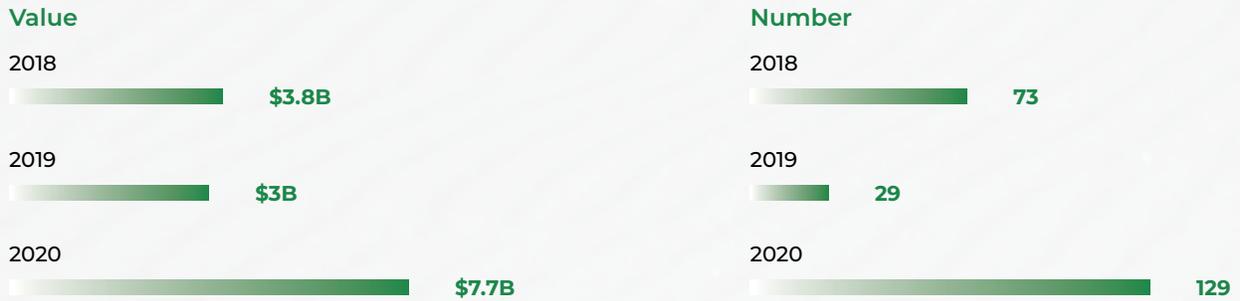
In April, Gilead claimed the Centers for Disease Control and Prevention violated the terms of a 15-year old collaboration.

[Full Article >](#)

# Financings

Venture investment in Bay Area life sciences companies more than doubled in 2020 in terms of both the value and number of deals, well outpacing the impressive performance of the sector across the U.S. The Bay Area also enjoyed a significant increase in early-stage deals.

## Bay Area Venture Rounds (Biopharma, Medtech, Dx)



## All US Healthcare and Life Sciences Venture Rounds



## Bay Area Seed and Series A Rounds



## Top three deals

- Lyell Immunotherapy closed a Series C round for \$493 million in March. GlaxoSmithKline was the sole investor in the cancer immunotherapy play.
- GRAIL, Inc., a cancer diagnostic company, completed a \$390 million Series C round in May.
- Zymergen, a biomaterials company received a \$300 million Series C round from Perceptive Advisors in September.

## M&A

GRAIL also makes the list of the largest M&A transactions of the year. In September, it was announced that Illumina would acquire the diagnostics company for \$8 billion. The deal is expected to close early this year.

The largest M&A deal of the year was Teladoc's \$18.5 billion take out of diabetes monitoring company Livongo. Combining Livongo's digital health tools with Teledoc's virtual care platform plays into the explosive growth of telemedicine during the pandemic. With such favorable headwinds, the deal which was announced in August, closed in three months.

Rounding out the top three deals of the year was Siemens' acquisition of Varian Medical for \$16.4 billion. The deal, which was announced in August, is expected to bolster Siemens' cancer diagnostics portfolio.

## Year-in-Review Data and Information Partners



# 2021 Outlook

## State of Life Science Legislation: Bay Area

2020 brought unprecedented challenges to the world, and the life science industry in California was no exception. In the Bay Area, the challenge of the COVID-19 pandemic was met with collaboration and communication. Our industry monitored local public health orders, worked with local governments to secure essential worker status for life science employees, and adapted our workplaces, schedules and lives to ensure that safety came first while innovation could still prosper.

In the meantime, our industry's normal priorities did not stop. Bay Area life science leaders began the year with a roundtable discussion with the Mayor and City Manager of South San Francisco, convened by Biocom California. Event attendees discussed the proposed Community Facility District, a specified geographic area of businesses that could be subjected to a new per square footage fee that would be directed to transportation improvements. The group also addressed commuter transportation issues, the need for additional middle-income housing, and colocation—issues that will continue to be in the spotlight in 2021.

In San Francisco, the Board of Supervisors considered a variety of tax and fee proposals. As a result of the pandemic and subsequent economic uncertainty, Supervisors placed several tax increases on the November ballot, all of which were passed by voters. Proposition F, the business tax overhaul, will finish the planned phase-out of the payroll tax resulting in only a gross receipts tax on businesses, and will gradually increase the tax beginning in 2022.

Other Bay Area activities included Biocom California's Return to Work session for Facility professionals, support for the City of South San Francisco's request for a feasibility study on expanded water taxi service to Oyster Point, and opposition to a proposed 60% work-from-home mandate from the area's regional transportation authority, the Metropolitan Transportation Commission. After backlash from the business community, MTC revised its proposal in late November to require companies with more than 50 employees to identify and fund incentives to achieve a goal of limiting the portion of their workforce that commutes to work by car on an average workday to 40% by 2035.

Looking ahead to the new year, some in the life science community would like to address the ongoing issue of gross receipts tax parity in San Francisco. In the various regional governments of the Bay Area, we anticipate that decision-makers will continue to pursue methods to address pandemic-related budget shortfalls. We will closely monitor whether it is proposed that businesses be subjected to new taxes and fees to fill the gaps. This is all speculative, though, as these governments are still focused on public health orders surrounding the pandemic, vaccine rollout, and public safety.

Finally, we anticipate a new need for local governments to analyze their business policies as companies weigh the prospect of leaving the Bay Area for places that are perceived as more business-friendly. Funding for public transportation, significantly hit by decreased ridership due to the pandemic, is at emergency status and must be addressed. The South San Francisco General Plan update draft will be released in the spring, and Berkeley is currently looking at updates to their zoning policies. Finally, San Francisco will begin implementation of the aforementioned business tax overhaul in 2021.

Biocom California

# Summary

2020 saw record levels of investment and innovation. It also saw a divisive presidential election, economic turmoil, and a social justice awakening.

After a year like 2020, it seems foolhardy to make predictions, but here goes. A Biden administration should bring healthcare and drug pricing reform, now informed by the experience of the pandemic. That will be a focus on the resilience of both our healthcare delivery system and pharmaceutical and device supply chain. The concept of 'equity' will play a prominent role in all policy decisions.

The life sciences sector may not enjoy the unprecedented levels of funding it saw in 2020, but the momentum of the last year should ensure investment remains at historically high levels. Generalist investors who have avoided the sector in the past will be more comfortable as a result of all of the visibility the sector and the nuts of bolts of drug development and commercialization has received during the pandemic.

But that increased visibility brings its own challenges. A bright light has been shown on the 'sausage making' of clinical trials and drug development. Going forward stakeholders from politicians to administrators to patients will expect and demand more visibility into, and influence over, how therapies are developed and brought to market.



Wow, what a year thinking back over the past 12 months. As a company we quickly went into an action as the world around was in such a state of upheaval. So, I thought I would share some of our year's accomplishments and how remarkable it's been.

After we shut down the office on March 12<sup>th</sup> we moved seamlessly into virtual mode without missing a beat. One thing we did almost immediately was to create and sustain a community of leadership in thought and action. On March 18<sup>th</sup>, one week after our shut down, we began weekly town halls to create an environment for peers to share ideas on how to navigate the challenges. We continued our tradition of holding monthly Clinops breakfasts and moved our Speaker Series virtual. The growth and collaboration in our community was astounding. Over the course of the past 8 months, we held 35 virtual events with over 3000 attendees as we shared insights on navigating the pandemic!

We created a new offering to respond to the pandemic supporting our clients who were impacted by the clinical trials interruption. We have been working with leading clients who have embraced the goal of resilient clinical trials with a focus on data access and analytics, decentralized trial technology and services, and risk management, and we joined Decentralized Trial & Research Alliance as a founding member to bring technology into mainstream practice.

Our clients sought our expertise on more than 30 COVID related programs and efforts, and our work has paved the way for 6 FDA approvals this year alone, bringing new treatments for multiple types of cancers, cardiovascular, ultra-rare and rare diseases to patients without treatment.

Our efforts will never stop as we continue to support our community and push innovation forward!

Laurie Halloran  
CEO, Halloran Consulting



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