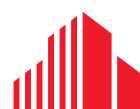


Cushman & Wakefield
Research Publication

LIFE SCIENCES: COVID-19 REPORT

June 2020



**CUSHMAN &
WAKEFIELD**



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EXECUTIVE SUMMARY

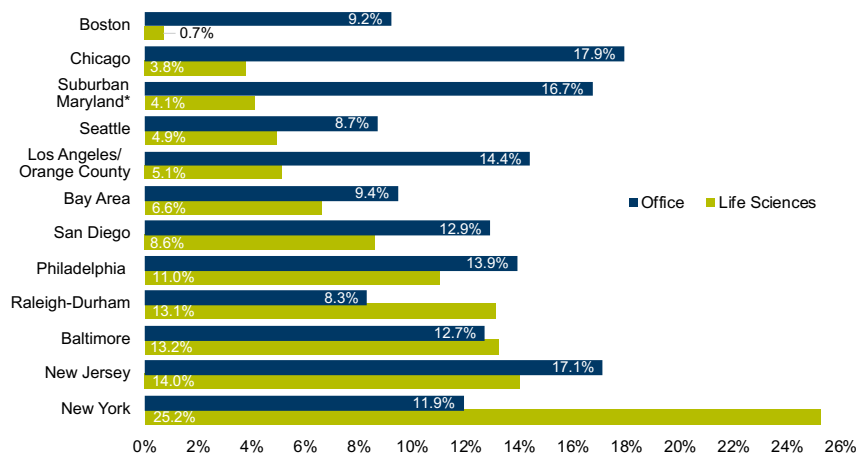
The life sciences sector holds a unique place in the disruptive new landscape resulting from COVID-19. Like most businesses, it has been negatively impacted by the lockdowns, but it is also the sector expected to produce a vaccine or treatment that will mitigate the pandemic.

One important challenge the industry faces is the impact on non-COVID-19-related research. As the pandemic has become the priority, other clinical trials have been placed on hold, creating headwinds to growth. In addition, life sciences companies are facing changes to workplace environments, especially in the case of offices as outlined in Cushman & Wakefield publications such as [The Future of the Workplace](#) and [The Six Feet Office](#). As a result, industry players are seeing a range of new financial challenges to their business.

However, many life sciences companies also have the potential to emerge stronger than they were pre-COVID-19, growing in both size and sophistication. Their role is critical in helping society address the current crisis and prevent and prepare for future threats.

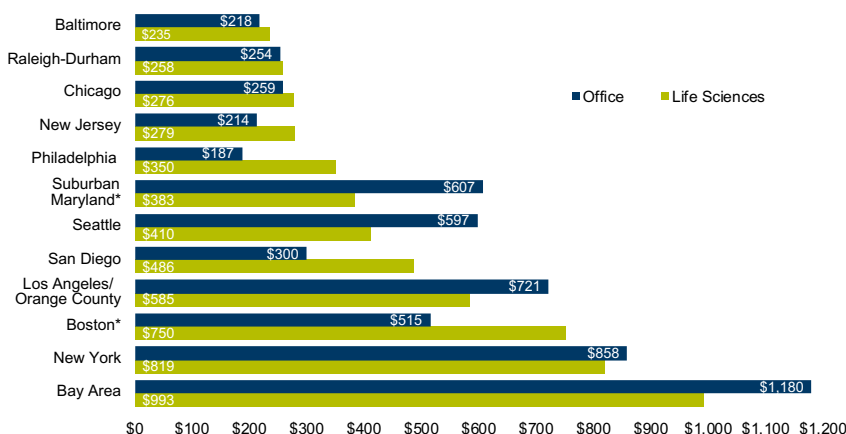
For example, prior to the downturn major life sciences markets experienced low vacancy rates and increasing property values measured by price per square foot (psf) (figures 2 and 3).

FIGURE 2 OFFICE VS. LIFE SCIENCES OVERALL VACANCY RATE Q1 2020



Source: Cushman & Wakefield

FIGURE 3 OFFICE VS. LIFE SCIENCES OVERALL PRICE PSF Q1 2020



Source: RCA, Cushman & Wakefield

*Boston suburban. CBD/Cambridge \$1,800 psf. Based on Q1 2020 sales. Washington, DC (Suburban Maryland).

FIGURE 1

COVID-19 TIMELINE

A new coronavirus, first identified in China in December 2019, has caused an outbreak of respiratory illness that the World Health Organization (WHO) named COVID-19 in February 2020.

JANUARY 21

U.S. has its first confirmed COVID-19 patient

JANUARY 30

WHO declares a global health emergency

JANUARY 31

President Trump restricts travel from China

FEBRUARY 29

U.S. reports its first COVID-19 related death

MARCH 4

U.S. reports 1,000 confirmed cases

MARCH 11

U.S. reports 10,000 confirmed cases

MARCH 13

President Trump declares a national emergency

MARCH 15

CDC recommends no gatherings of 50+ people

MARCH 26

U.S. leads the world in confirmed cases

MARCH 27

President Trump signs stimulus bill into law

MARCH 27

U.S. reports 100,000 confirmed cases

APRIL 2

More than 1.0 million confirmed cases globally

APRIL 26

Global deaths exceeds 200,000 with 2.8 million confirmed cases

APRIL 28

U.S. reports 1.0 million confirmed cases

MAY 1

FDA authorizes emergency use of antiviral drug Remdesivir

MAY 28

Global deaths exceed 353,300 with more than 5.6 million confirmed cases

MAY 31

U.S. deaths exceed 103,000 with more than 1.7 million confirmed cases

This report explores the life sciences industry's unique position in the COVID-19 landscape including the pre-pandemic situation, employment trends, financial performance and real estate. Key local market snapshots feature an overview into the life sciences sector and the impact of the pandemic, establishing a baseline for analyzing potential impact in the months to come.

Life Sciences Pre-COVID-19

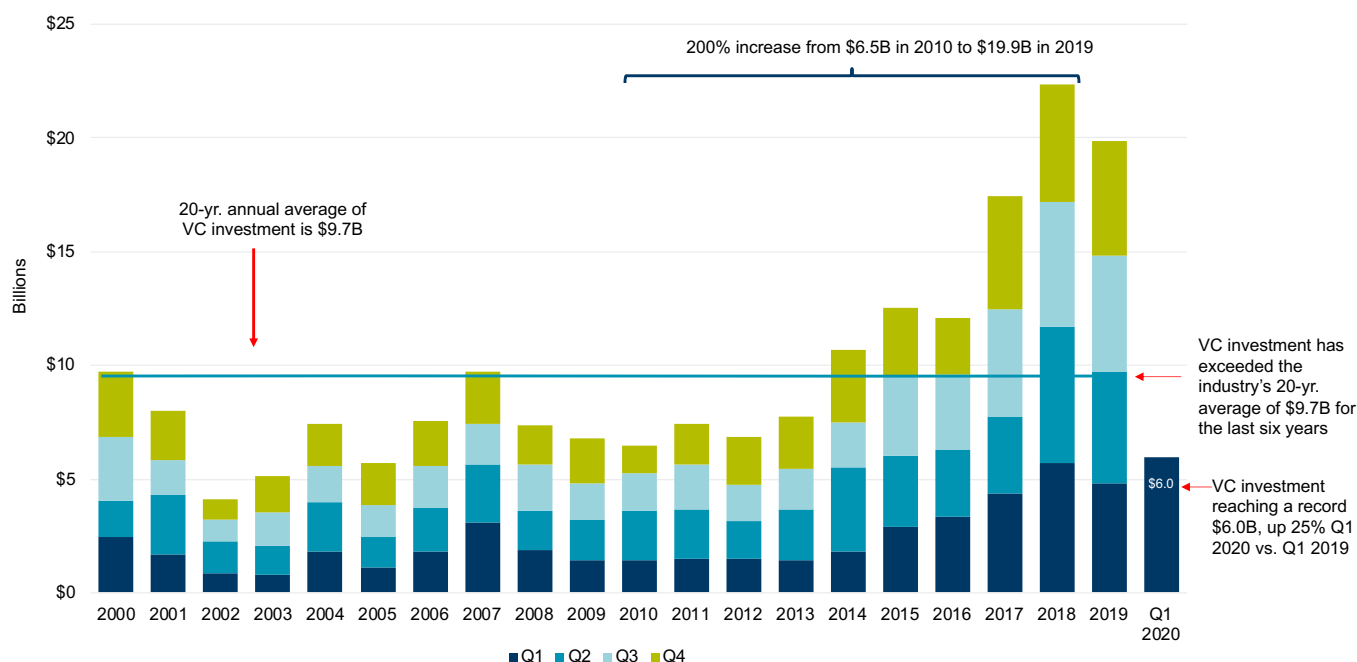
In Q1 2020, the life sciences industry was coming off an impressive growth period that spanned much of the preceding decade. The industry was boosted by several of its main drivers including:

- An aging population demanding new healthcare treatments
- Major advances in genomics, gene and cell therapy and artificial intelligence (AI) paving the way for innovations in testing and therapeutics
- The rise in popularity of consumer-focused ancestry testing

Increased demand for life sciences and biotech products generated record levels of investment, suggesting the pipeline for innovation was strong. As life sciences technology continued to advance, venture capital (VC) investment exploded throughout the most recent economic expansion, adding a boost to existing public sources of funding like the U.S. National Institutes of Health (NIH). Over the last decade, life sciences VC funding grew by more than 200%, and this upward trend was still in effect at the start of 2020 (figure 4).

This substantial capital investment helped launch new startups and research projects. However, life sciences ventures have a unique risk profile due to the extensive time needed to bring new treatments to market and deliver returns to investors—factors that could make some investors less willing to contribute capital in today's challenging environment. 45.7% of U.S. life sciences funding goes toward expansion of existing ventures, with just

FIGURE 4 U.S. VC FUNDING IN HEALTHCARE & LIFE SCIENCES SECTORS



Source: PwC / CB Insights MoneyTree™ Report Q1 2020. Healthcare sector includes biotechnology, drug development and discovery, medical devices and equipment, healthcare plans.

In Q1 2020, the life sciences industry was coming off an impressive growth period that spanned much of the preceding decade.



2.5% funneled into seed money (figure 5). In this context, some younger firms that are highly reliant on new rounds of funding may struggle with cash flow in the coming period.

FIGURE 5 U.S. VC FUNDING BY STAGE IN Q1 2020

U.S. Funding by Stage Q1 2020				
Stage	Total Deals	Funding in \$M	% of Total	25-Yr Qtr. Avg.
Expansion	326	\$12,081.6	45.7%	38.2%
Later	120	\$7,945.6	30.0%	23.7%
Early	379	\$4,199.0	15.9%	17.2%
Other	179	\$1,561.3	5.9%	17.7%
Seed	267	\$659.3	2.5%	3.2%
Total	1,271	\$26,446.8	100%	100%

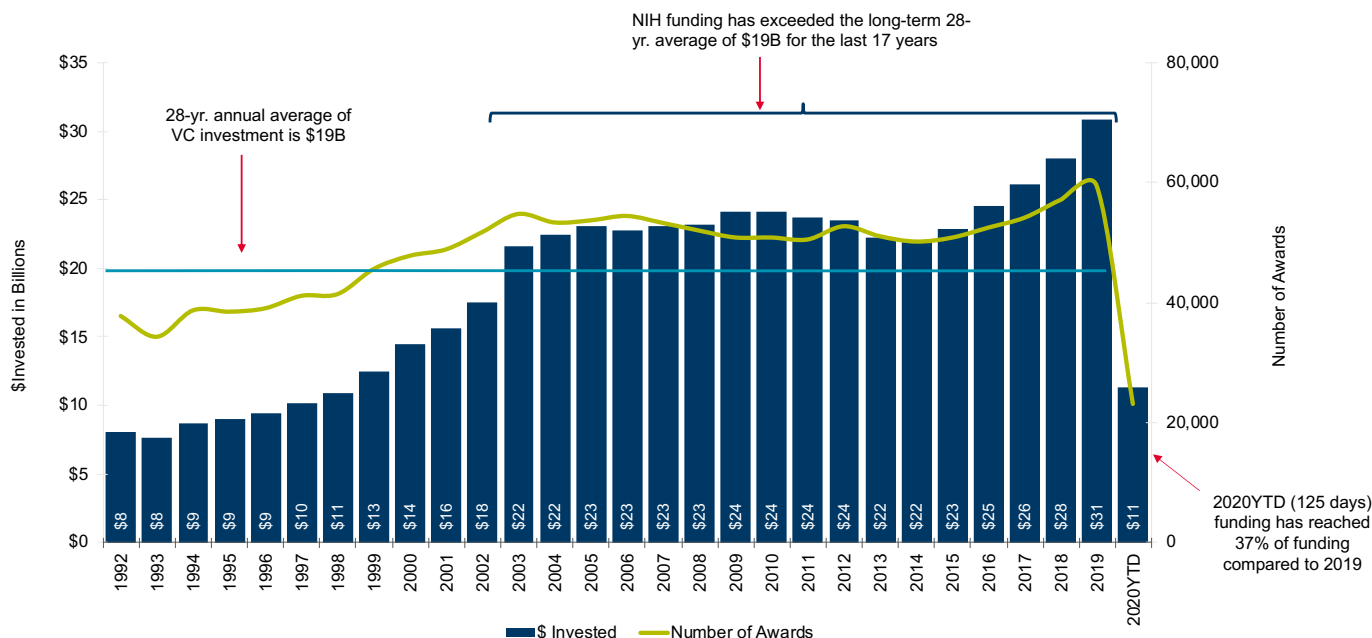
Capital flowing into later and expansion stages in Q1 2020 was well above the long-term average.

Seed deals, which are vital to the growth of young firms, saw a steep decline in Q1 2020, dropping to 267 compared to 367 deals in Q4 2019 and 471 in Q1 2019.

Source: PwC / CB Insights MoneyTree™ Report Q1 2020

Funding from the NIH, a critical source of public investment, also increased steadily during the economic expansion. In a sign of growth similar to the momentum in VC investment, NIH funding by Q1 2020 had already reached 37% of funding year-to-date compared to 2019 (figure 6).

FIGURE 6 U.S. NIH FUNDING



Source: NIH as of May 5, 2020

As of May 2020, the top 11 life sciences markets attracted nearly half of total funding awarded by NIH (figure 7). This directly impacts the life sciences pipeline that continues to feed from university research and development.

Public and private sector collaboration is expected to grow with the support of federally funded projects such as the 21st Century Cures Act. Signed into law in 2016, the legislation has helped to accelerate medical product development to provide patients with more efficient and innovative care. As of June 8, 2020, there were 45 COVID-19 vaccines and treatments in the works, and a total of 1,982 COVID-19 studies in various stages.

As the life sciences industry attracted capital over the years, the research and development (R&D) pipeline also grew by 82.6% with an additional 8,024 additional drugs in development over the last 10 years. In 2019, the number of drugs in the pharma pipeline grew by 6.0% compared to 2.7% in 2018 based on the total number of pharma drugs in various stages of development. In 2020, this increased by 9.6% (1,556 drugs in development), the biggest increase thus far.¹

Employment Trends in Life Sciences

This underlying growth trend, driven by innovation and capital, spans multiple economic cycles and has helped make the life sciences sector more resilient than others during past recessions. In the two downturns that occurred between 2000 and 2020, life sciences employment has continued to rise outperforming not just the U.S. overall, but other high growth sectors like high-tech.

Given the current circumstances and the need for research, employment in the scientific R&D services life sciences sector is forecasted to experience positive annual growth over the next five years (figure 8).

FIGURE 7

TOP U.S. LIFE SCIENCES MARKETS RECEIVING 45% OF TOTAL NIH FUNDING IN 2020YTD
NIH FUNDING AWARDED IN 2020YTD (125 DAYS AS OF MAY 5, 2020)

Ranking	Market	2020YTD
1	Boston	\$974M
2	New York	\$766M
3	San Francisco*	\$483M
4	Raleigh-Durham	\$442M
5	Los Angeles/OC	\$437M
6	Baltimore	\$431M
7	Seattle	\$411M
8	Philadelphia	\$387M
9	San Diego	\$365M
10	Chicago	\$300M
11	Washington DC	\$85M
12-480	Other	\$6,264M
Grand Total		\$11,345M

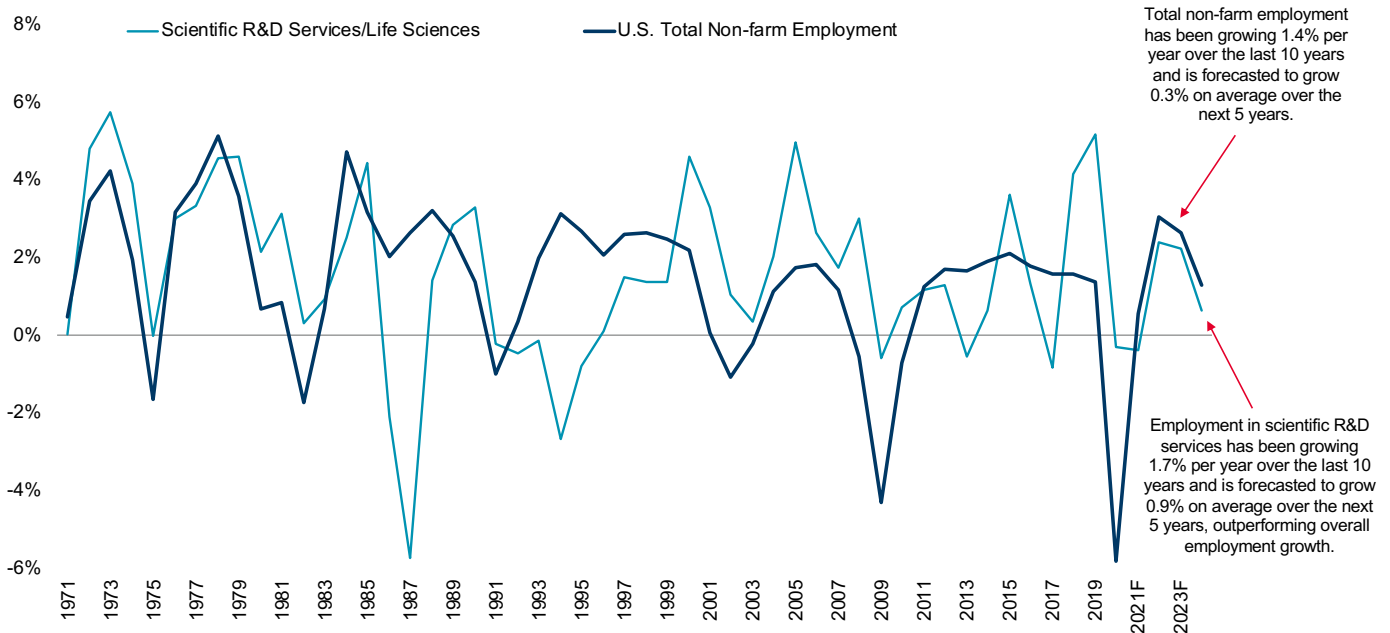
\$5.1B or 45% of \$11.3B

Source: Source NIH as of May 5, 2020. Boston includes Cambridge. Los Angeles/OC includes Santa Monica, Culver City, Beverly Hills and cities within Orange County.

* San Francisco includes Stanford, Palo Alto, Mountain View. Raleigh-Durham incl. Research Triangle and Chapel Hill.

FIGURE 8

U.S. EMPLOYMENT GROWTH IN COMPARISON
SINCE 2000, EMPLOYMENT IN LIFE SCIENCES HAS INCREASED 40.9% COMPARED TO 14.3% OF THE TOTAL U.S. EMPLOYMENT



Source: Moody's economy.com forecast as of 5/12/2020. Year-over-year 12 months % change. Scientific research & development services incl. life sciences, biotechnology.

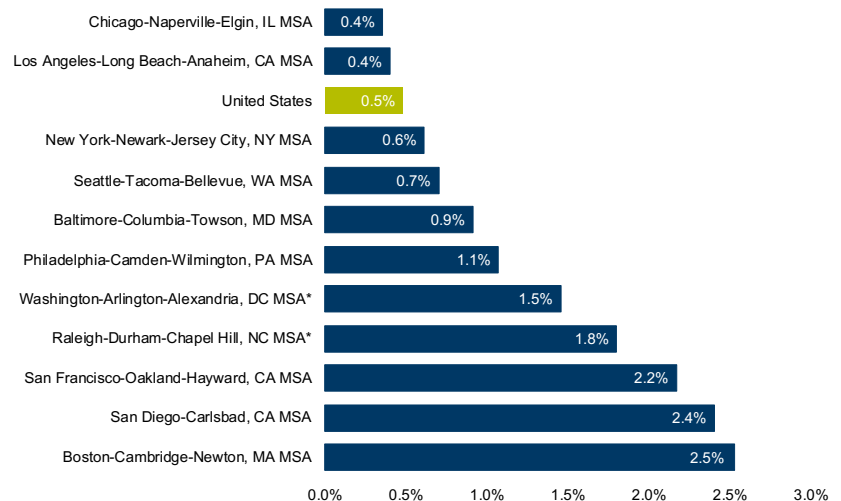
During this unprecedented time, will the life sciences sector prove to be as robust as it has in the past?

In most surveyed markets, the share of scientific R&D and life sciences employment relative to the total employment is above the U.S. average, and the forecast over the next five years is positive (figures 9 and 10).

The life sciences sector is understandably playing a key role in efforts to understand COVID-19, accelerate the development of better tests and treatments and ultimately deliver a vaccine. With the biotech and medical research fields seemingly more important than ever, life sciences companies could be positioned to achieve long-term gains in attracting capital, including government funding. Some industry observers and experts are projecting that previous barriers to innovation—such as lengthy approval periods and other regulations—may be relaxed by government authorities hoping to speed up the COVID-19 treatment discovery process. This shift could create a highly conducive climate for future breakthroughs.

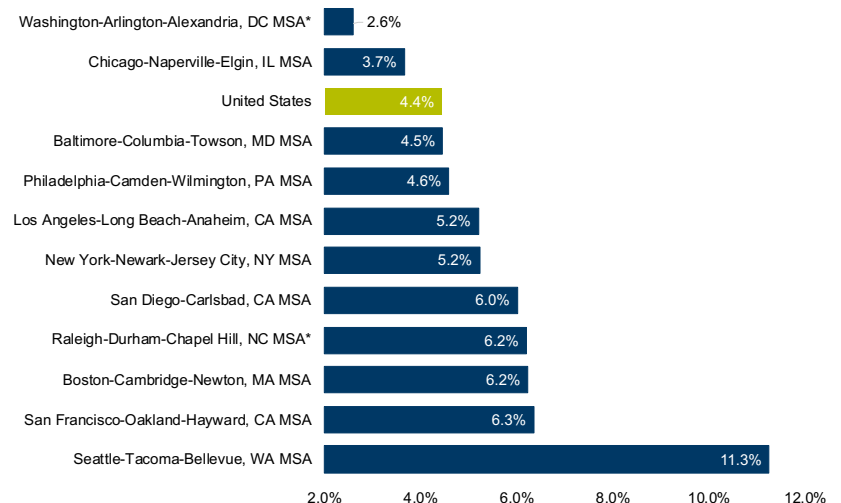
This resilience in employment strongly suggests that the underlying drivers of an aging population and rapid technological advances could be enough to support the value of life sciences real estate assets even in a new economic downturn. This theory is now being put to the test in the wake of COVID-19. During this unprecedented time, will the life sciences sector prove to be as robust as it has in the past? While initial data is limited, the sector may perform more strongly in the present downturn compared to many other industries. Investor interest and funding may stay on pace or even increase due to the sector's heightened importance for developing viral tests, treatments and vaccines.

FIGURE 9 SHARE OF SCIENTIFIC RESEARCH & DEVELOPMENT/LIFE SCIENCES EMPLOYMENT VS. TOTAL EMPLOYMENT IN 2019



Source: Moody's economy.com forecast as of 4/28/2020. Raleigh-Durham & Durham-Chapel Hill MSAs combined. Washington, DC (Suburban Maryland).

FIGURE 10 MARKETS WITH THE HIGHEST FORECASTED % INCREASE IN SCIENTIFIC RESEARCH & DEVELOPMENT/LIFE SCIENCES EMPLOYMENT OVER THE NEXT FIVE YEARS 2020-2024



Source: Moody's economy.com forecast as of 4/28/2020. Raleigh & Durham-Chapel Hill MSAs combined.

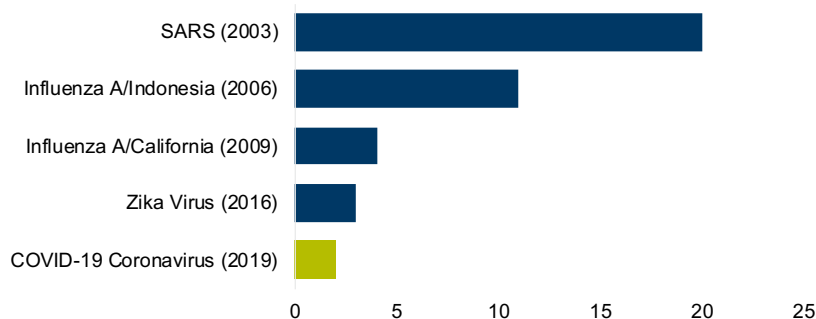
* Washington, DC (Suburban Maryland).

The Role of Life Sciences in Defeating COVID-19

Due to the nature of its work, many life sciences firms are on the front line to develop better COVID-19 testing and treatments. On the testing front, some companies are working to enhance the effectiveness of viral and antibody tests, both critical tools that will help public agencies and officials better track and control the spread of the pandemic. Meanwhile, there are currently no FDA-approved drugs available specifically for the treatment of COVID-19, nor is there a vaccine available for prevention. In response, the FDA is working with drug manufacturers, researchers and other partners to accelerate the process in finding effective therapies as well as a vaccine for the virus. Other institutions such as the NIH are devoting significant resources to the campaign, enabled in part by emergency funding authorized by Congress.

This sudden demand for new treatments and increase in funding has spurred the life sciences sector to rapidly mobilize in response. Scientists and researchers from more than a dozen companies have begun or accelerated development of vaccines and antiviral therapies.² The momentum so far has been strong—it took researchers just two months from the first publication of the viral genetic-sequence data to begin initial human vaccine studies, a record for the field (figure 11).

FIGURE 11 BIOTECH COMPANIES ARE RESPONDING FASTER THAN EVER TO EMERGING HEALTH THREATS
VACCINE DEVELOPMENT: MONTHS FROM VIRAL GENETIC-SEQUENCE DATA PUBLICATION TO FIRST HUMAN STUDY



Source: National Institute of Allergy and Infectious Diseases

Key players in these efforts include companies like Gilead Sciences, which attracted media attention after recent trial data suggested its antiviral treatment Remdesivir could be effective in reducing the duration of COVID-19 symptoms.³ Other firms pursuing COVID-19 therapies include Abbvie, Amgen, Genentech and Takeda, while vaccine development efforts are ongoing at Arcturus, Moderna, Inovio Diagnostics, Eli Lilly, GSK, Johnson & Johnson and Sanofi.⁴ On the testing front, several firms are working to pioneer more effective cheek swab testing and other diagnostics. This flurry of activity points to the sector's heightened importance in the COVID-19 era, raising the question of whether demand for new treatments and tests could help bolster the fortunes of life sciences companies during the present downturn.

Because the COVID-19 virus is a new disease previously unseen by scientists, the vaccines currently in development are still in early phases of research (figure 12). Vaccines generally need to undergo extensive clinical safety testing that could last as long as 10 years. In the case of the development of a COVID-19 vaccine, life sciences companies are using new techniques to advance vaccine research

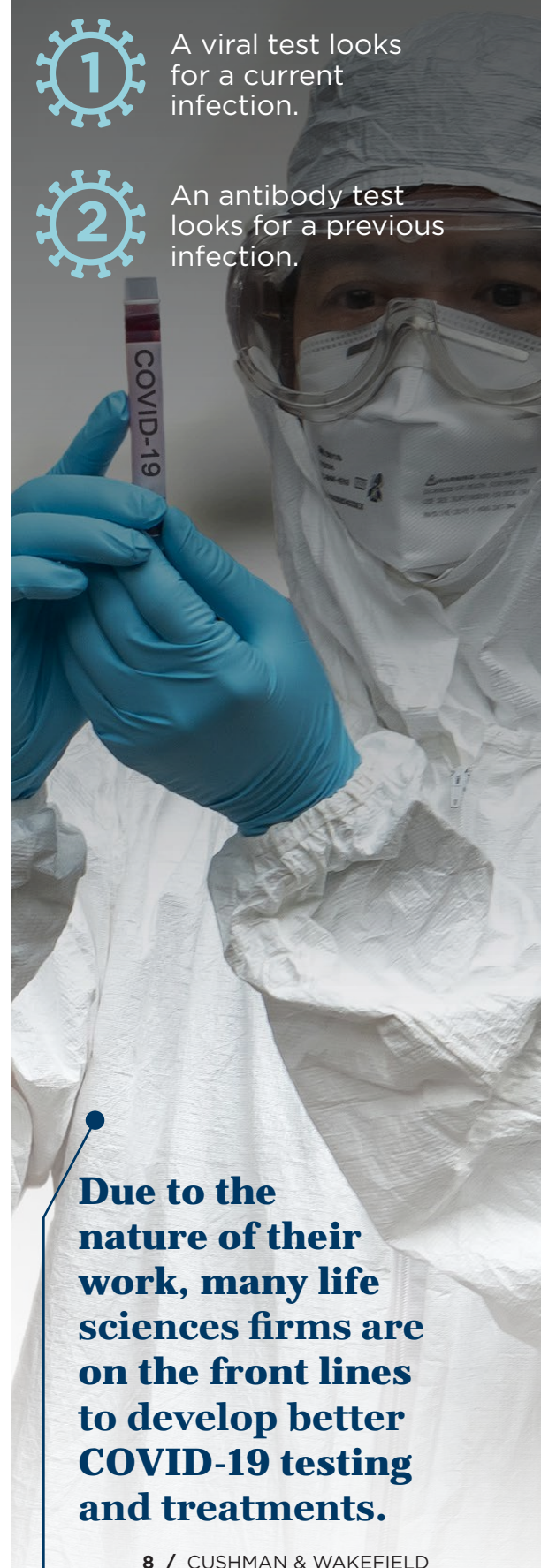
There are two kinds of tests for COVID-19: viral and antibody.



A viral test looks for a current infection.



An antibody test looks for a previous infection.

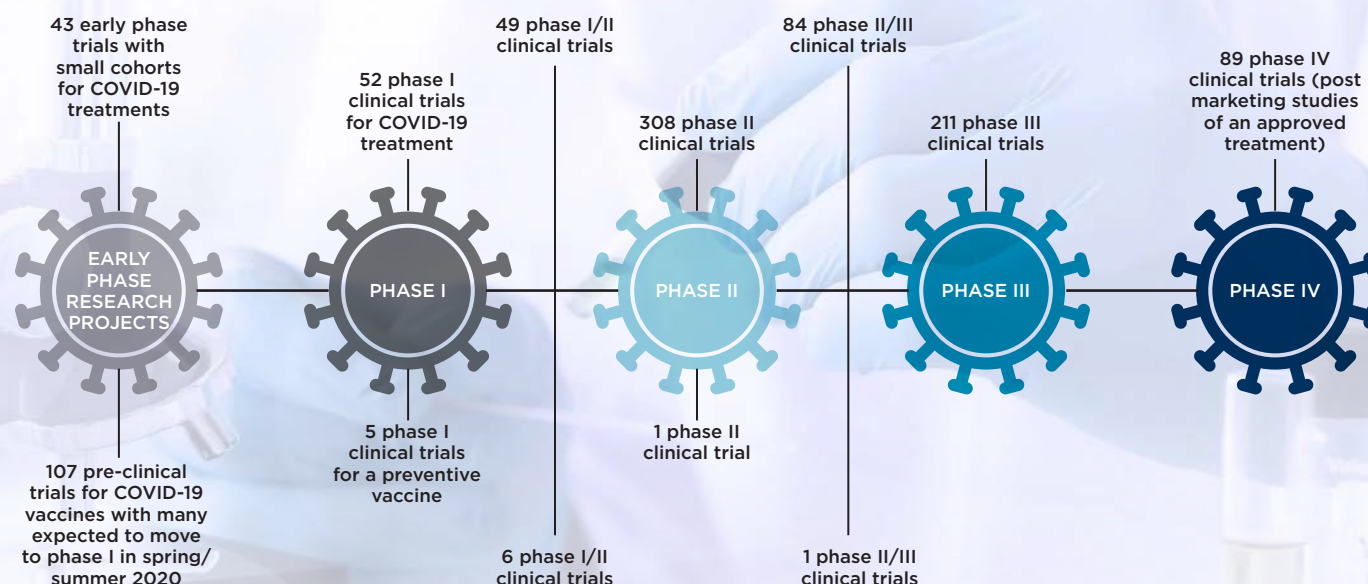


Due to the nature of their work, many life sciences firms are on the front lines to develop better COVID-19 testing and treatments.

and testing. Even with all these scientific advancements, it will most likely take 12 to 18 months before a vaccine is available according to industry experts. In other words, the life sciences sector will have plenty of work to keep researchers busy for at least the next 12 months, suggesting the field will witness a high level of innovation and research activity over the short-term.

FIGURE 12

COVID-19 VACCINE DEVELOPMENT PROCESS AS OF MAY 22, 2020



Dr. Anthony Fauci's, director of the National Institute of Allergy and Infectious Diseases, interview on June 8, 2020:

- Pharmaceutical companies are preparing to test its coronavirus vaccines on tens of thousands of people this summer.
- Moderna, a U.S.-based biotech company will begin giving its COVID-19 vaccine to 30,000 people in the first week of July. If it is proven to work safely the company plans to deliver one billion vaccine doses by 2021.
- Moderna was selected by the administration of U.S. President Donald Trump as one of the five candidates that are most likely to reach the goal of creating a vaccine.
- That is phase III of the clinical-development process, the final trial stage before a vaccine can gain approval from the U.S. Food and Drug Administration.
- Moderna will begin mass-producing the vaccines before they gain FDA approval. Planned for late 2020 – early 2021.

Source: Pharmaceutical Research and Manufacturers of America, 2020. *Business Insider* as of June 3, 2020 *CBS News* *Jama Network* as of June 8, 2020.

Impact on Life Sciences Financial Performance & Commercial Real Estate

With a massive economic shift underway worldwide, investors and owners of life sciences commercial real estate (CRE) are asking questions about potential impacts to the sector and its outlook moving forward. Initial reports point to a slowdown in financing and a small decrease in leasing activity in some key markets. At the same time, experts must wait for the release of Q2 2020 statistics before they will have comprehensive evidence of the extent the crisis has affected various markets and industries.

For now, we can form conclusions based on life sciences' strong historical performance on the backs of structural trends in demographics and technology, as well as its unique importance in the fight against COVID-19. With these factors in mind, our best forecast is that demand for life sciences CRE will prove stronger relative to other product types like office, industrial, retail and hospitality in the post-COVID-19 economy, and that life sciences will remain a strategic growth area for institutional and private investors in months and years to come.

Further, overall CRE fundamentals in existing life sciences hubs will likely hold up more strongly than in regions more vulnerable to COVID-19 disruptions—for example, markets where tourism and hospitality make up a larger share of the economic base. This advantage could be compounded since many life sciences hubs also have similarly large and often overlapping concentrations of tech and healthcare firms, two other industries critical to solving the pandemic.

Assuming demand and capital funding remain healthy enough, this coming cycle may also pose a good opportunity for life sciences firms to boost the talent level of its workforces. Prior to the downturn, total U.S. unemployment rates were at 50-year lows of 3.5%, creating a highly competitive “war for talent” particularly in specialized fields like technology and life sciences. Given that some life sciences firms will struggle to get through the recession, especially younger companies with limited cash reserves, it seems likely we may see a small decrease in life sciences employment and thus an expansion of the talent pool available to the employers who do weather the storm intact. Anecdotal reports from the field suggest many life sciences companies are continuing to hire at a high rate and may be accelerating recruitment to meet the new demands sparked by the pandemic.

In fact, many biotech leaders who experienced the downturns in 2000 and 2008 have described the COVID-19 situation as an important opportunity to build out their resources and capabilities and position themselves for future success. This convergence of technology and life sciences has been a topic of conversation for years, as the pressure for drug discovery and enhanced R&D process efficiency continues to rise. Our industry leaders have described the current push toward new anti-COVID-19 therapies as a “technology race” which few can afford to sit out. Right now, firms may be tempted to table new initiatives like building out critical facilities, at least temporarily, until the economic outlook is less uncertain. Yet doing so could ultimately mean having to play catch up with competitors who pressed ahead to get their facilities in place for when the economy does stabilize. With so much at stake in solving the massive public health challenge of COVID-19, “slowing down” is perhaps the exact opposite of what many firms want at this time.

Leading the Pack: Key Market Highlights

To provide a deeper analysis, the next section outlines the state of the life sciences in 12 key U.S. markets. The regions were selected for analysis due to their high concentration of life sciences companies, incubators and VC, as well as their high share of scientific R&D employment (figure 9), and their strong growth forecasts for these types of jobs going forward (figure 10). The selected markets also make up the nation's top recipients of NIH (figure 7). For each market, we examined fundamentals in life sciences CRE like vacancies and rents, while also exploring market-level changes to the sector resulting from COVID-19.



With so much at stake in solving the massive public health challenge of COVID-19, “slowing down” is perhaps the exact opposite of what many firms want at this time.

MARKET SUMMARY

Maryland was the first to map the human genome, develop a rapid test for Ebola and create an FDA-approved blood test for colon cancer. It ranks #1 in NIH R&D contract awards with Johns Hopkins University attracting \$324 million as of May 2020 as well as in concentration of employed doctoral scientists. This region is home to a highly educated workforce, with 48.7% obtaining a bachelor's degree or higher.

Educational institutions, the healthcare industry and federal government agencies—"Eds, Meds and Feds"—are the core drivers of Baltimore's economy. The life sciences industry has continued to gain momentum as an engine of growth due to support from Baltimore's largest universities. Baltimore's lower cost of living compared to Washington, DC, Boston, New York and New Jersey along with its world-class universities and research institutes, create an excellent environment for emerging and expanding life sciences companies. There are 4,443 people employed by the top 10 life sciences companies in the area.

COVID-19 IMPACT

Johns Hopkins' experts have been at the forefront of the international response to COVID-19. Their efforts include mapping the progression of the outbreak, advising governments on public health and emergency preparedness and advancing the public and scientific community's understanding of how the virus is spread.

Additionally, the University of Maryland is using robotics to handle tens of thousands of COVID-19 test kits that were recently purchased by the Governor of Maryland from South Korea.

LIFE SCIENCES IN THE NEWS

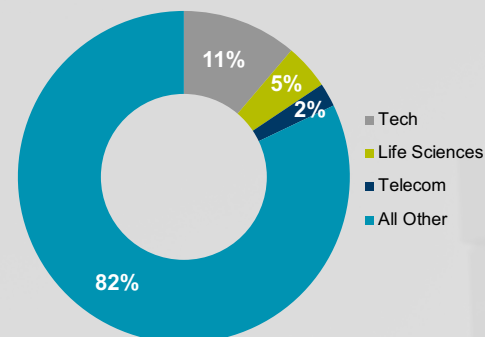
- Johns Hopkins' CancerSEEK in partnership with Thrive Earlier Detection raised \$110 million to commercialize a cancer-detecting blood test
- Paragon Bioservices was acquired by Catalent Pharma Solutions for \$1.2 billion

HOTTEST SUBMARKET

Bookended by Johns Hopkins and University of Maryland Medical Center, the Downtown Baltimore submarket makes up 48% of the inventory (sf) in the Baltimore metro market. The other half of the market falls into the Baltimore Washington Corridor, connecting Baltimore and Washington, DC.

- Johns Hopkins' technology venture, FastForward U, provides training and resources to empower emerging student entrepreneurs to develop ideas and disruptive technologies into successful startups. Twenty-four of its startups secured \$525 million in follow-on funding during the fiscal year of 2019
- Johns Hopkins Tech Ventures secured 761 patents in 2019

LIFE SCIENCES LEASING ACTIVITY



Source: Cushman & Wakefield. Life sciences leasing activity as a % of total leasing, including renewals, 2018-2019 combined.

LIFE SCIENCES MARKET METRICS

as of Q1 2020 (5-yr. chg. = Q1 2020 vs. Q1 2015)

\$25.00 **20%** ▲

ASKING RENT
(NNN)

13.2% **200** ▼

OVERALL VACANCY **BPS**

\$235 **20%** ▲

SALES PRICE
\$/SF

MARKET SUMMARY

The Bay Area is home to several of the country's leading life sciences institutions including Lawrence Livermore and Berkeley National Labs, UC San Francisco, UC Berkeley and Stanford. In conjunction with other non-government incubators, the Bay Area has become a hub for both established and startup life sciences companies. Key players in the market include Genentech and Gilead on the San Francisco Peninsula as well as Exelixis and Zymogen in the East Bay.

Proximity to a rich talent pool and institutional research facilities are attracting life sciences companies to the region. Location in the Bay Area also gives firms access to VC and incubator space—especially on the Peninsula and East Bay due to the general lack of available space within San Francisco city limits.

COVID-19 IMPACT

Before the pandemic made landfall in the U.S., the Bay Area life sciences market was already tight and only getting tighter, with vacancy hovering near 5.0%. While the virus has forced a slowdown in the office and industrial sectors, the life sciences industry has seen a considerable increase in activity due to the concentration of research institutions and firms in the region, though the ultimate effects remain to be seen.

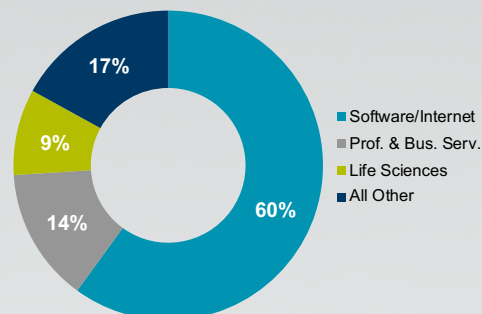
LIFE SCIENCES IN THE NEWS

- Zymogen, based in the East Bay, uses robots to help develop COVID-19 test kits
- Google-backed life sciences startup, Verily, launched a website that allows Bay Area residents to determine if they qualify for a free COVID-19 test kit
- Bio-Rad was the first Bay Area company to receive FDA authorization for COVID-19 antibody tests

HOTTEST SUBMARKET

As the center of life sciences activity in the region, the San Francisco Peninsula hosts roughly two-thirds of Bay Area inventory. North San Mateo County, comprising of South San Francisco, Brisbane and Burlingame is the hottest submarket on the peninsula where occupancy has grown by 1.1 million square feet (msf) in the last twelve months.

LIFE SCIENCES LEASING ACTIVITY



Source: Cushman & Wakefield. Life sciences leasing activity as a % of total leasing, including renewals, 2018-2019 combined.

LIFE SCIENCES MARKET METRICS

as of Q1 2020 (5-yr. chg. = Q1 2020 vs. Q1 2015)

\$50.06

92% ▲

ASKING RENT
(NNN)

6.6%

160 ▼

OVERALL
VACANCY

BPS

\$993

190% ▲

SALES PRICE
\$/SF

MARKET SUMMARY

As a national life sciences supercluster, Greater Boston benefits from the breakthrough developments of both established pharmaceutical companies and the cutting-edge, VC-funded biotechnology sector. In Greater Boston, lab inventory has grown by over 50% in the past decade. Throughout 2019, lab requirements in the urban core (Cambridge, Boston and the Inner Suburbs) outstripped existing supply by a ratio of 2:1. As a response, there is now nearly 4.0 msf of lab projects under construction with delivery dates through 2023. In the last few years VC firms have invested record breaking capital into the region. From the beginning of 2018 to year-end 2019, Massachusetts-based life sciences firms received over \$12 billion in VC funding.

COVID-19 IMPACT

As history indicates, Massachusetts is strongly positioned against financial crises due to its diverse mix of industries including higher education, healthcare, technology and life sciences. However, as we enter unprecedented times, recovery may look different than past downturns. With the shutdown of university campuses and world-renowned hospitals flooded and overexposed with COVID-19 cases, these major industries that stood strong in the past may struggle to recover. Greater Boston's life sciences industry has seen transactions impacted by the global pandemic, but overall demand continues to out-pace the limited supply in the market.

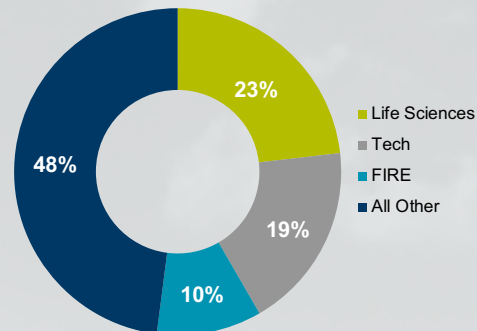
LIFE SCIENCES IN THE NEWS

The world is watching Greater Boston's life sciences industry as it plays a key role in the fight against the virus. Regionally based firms such as Moderna, Biogen and Alnylam are all actively working on possible vaccines and treatments to combat the disease. Currently, more than two dozen Massachusetts-based life sciences companies have announced plans to create treatments, devices and vaccines related to COVID-19.

HOTTEST SUBMARKET

Kendall Square, commonly referred to as "The most innovative square mile on the planet" and home to MIT, continues to be Massachusetts' hottest lab market. East Cambridge, the location of Kendall Square, has seen average weighted asking rents jump to \$102-\$105 psf on an annual triple-net basis. Over the last five years, limited supply coupled with Cambridge's escalating rents has resulted in the "The Kendall Effect"—a gradual migration of Cambridge based companies and life sciences requirements moving to alternative submarkets throughout Greater Boston. As a result, prospering life sciences clusters have expanded and formed in 128 Central, Somerville, Watertown and Boston's Seaport markets. Watertown, a city along the Charles River that was historically a mill town, has transformed into a growing life sciences hub. In the last year, lab inventory in Watertown has expanded by 15%, and asking rents have jumped to \$75-\$80 psf.

LIFE SCIENCES LEASING ACTIVITY



Source: Cushman & Wakefield. Life sciences leasing activity as a % of total leasing, including renewals, 2018-2019 combined.

FIRE = Finance, Insurance & Real Estate.

LIFE SCIENCES MARKET METRICS

as of Q1 2020
(5-yr. chg. = Q1 2020 vs. Q1 2015)

\$87.29 **51%** ▲

ASKING RENT
(NNN)

0.7% **200** ▼

OVERALL VACANCY BPS

CBD/Cambridge
\$1,800 **100%** ▲

SALES PRICE
\$/SF

Suburban
\$750 **275%** ▲

SALES PRICE
\$/SF

MARKET SUMMARY

Chicago and its suburbs host some of the world's leading pharmaceutical and biotechnology companies including Astellas, AbbVie, Horizon Therapeutics and Fresenius Kabi as well as medical device and diagnostics companies such as Abbott and Baxter. Chicago boasts a multitude of life sciences-oriented research and educational institutions that provide a consistent pipeline of talent and innovation including Northwestern University and the University of Chicago. Along with major industry presence, Chicago is also an incubator market with many life sciences startups such as Apintyx, Exicure and Pyxis Oncology emerging from university research initiatives. The city is seeing rising investment to create better infrastructure for these startups with developers building state-of-the-art facilities to attract them.

Chicago, as the top metropolitan area for VC returns, continues to be a hotbed of VC investment. In 2019, Chicago hit a 10-year VC record of \$2.2 billion largely due to momentum in healthcare and life sciences. In 2019, 22.9% of all Chicago VC deals were in healthcare and life sciences companies, buoyed by two mega-deals: Tempus (\$200m) and Phantom Pharmaceuticals (\$140m).

COVID-19 IMPACT

Amid the pandemic, the Chicago life sciences market is still humming along with several prominent developers continuing to evaluate opportunities in Chicago. COVID-19 may even accelerate the life sciences development cycle in Chicago. The Windy City boasts a lower cost of doing business and a lower cost of living than other gateway markets and will soon become an attractive, low-cost alternative to the coasts as companies increase focus on cost control. Even if cracks begin to appear, rental rates will not decrease much because of the high construction costs associated with the new planned developments, but we could see more free rent and other concessions come into play.

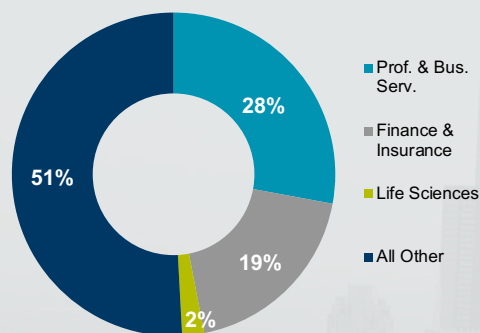
LIFE SCIENCES IN THE NEWS

Chicago-based life sciences companies and research institutions are on the front lines of COVID-19 and have gained national attention. Medline Industries continues to boost production of vital medical equipment and supplies, and Abbott Labs developed rapid testing kits for the virus. The University of Chicago is focused on developing a vaccine, while Northwestern University is testing a drug for severe COVID-19 cases.

HOTTEST SUBMARKET

The nexus of Chicago's life sciences activity is focused north of the city, where major companies such as Medline, Abbott Laboratories and AbbVie reside. In Q1 2020, 27.7% of new suburban leasing activity occurred in the North Corridor, buoyed by Medline's 150,000-sf lease in Libertyville. However, developers have released plans to expand the life sciences presence in the city with life sciences clusters now planned near the University of Chicago in Hyde Park, Illinois Medical District, Lincoln Park, Bronzeville and Fulton Market.

LIFE SCIENCES LEASING ACTIVITY



Source: Cushman & Wakefield. Life sciences leasing activity as a % of total leasing, including renewals, 2018-2019 combined.

LIFE SCIENCES MARKET METRICS

as of Q1 2020 (5-yr. chg. = Q1 2020 vs. Q1 2015)

\$27.49

24%



**ASKING RENT
(GROSS)**

3.8%

150



**OVERALL
VACANCY**

BPS

MARKET SUMMARY

Contrary to popular belief, Los Angeles (LA County & Orange County) has an active and robust life sciences industry. The laboratory inventory is spread out over a huge geographical area but is primarily located in several clusters—most located near large biotech companies such as AMGEN or KITE/Gilead or near major universities and research institutes. Universities in the area include California Institute of Technology (Caltech), UCLA, USC and UC Irvine. Major research institutes include City of Hope, Cedars Sinai, Lundquist Institute, HMRI and Children's Hospital.

The life sciences industry also draws from a massive talent pool within the region and accounts for 191,000 life science industry jobs within LA County and 141,000 jobs within Orange County with annual earnings averaging \$90,000. LA County's life sciences industry generates \$42.5 billion in economic activity while Orange County generates \$35.7 billion, making it a major business driver in the region.

The industry has grown significantly over the past few years due to an increasing presence of VC investment. With a record year, 2019 attracted \$8.2 billion worth of investments of which \$2.0 billion was invested in healthcare, including life sciences. That is a significant increase compared to an annual average investment of \$458 million in the sector over the last 10 years.

On average, the LA/OC region has attracted \$954 million in NIH grants per year since 2015 and received \$1.1 billion in 2019. As of May 6, 2020, \$437 million was awarded to the region, ranking it 5th in the U.S. While there are many large life science firms in LA, much of the demand and growth is from early stage companies. There are currently 13 life science incubators in LA, totaling over 130,000 sf with more coming. All are operating at capacity and continue to graduate firms.

COVID-19 IMPACT

Though lease transactions that were already in progress continue to move forward, most new transactions have been put on hold. However, this is expected to be a temporary situation as demand is expected to bounce back quickly as we begin to re-enter the economy. While most investment and capital activity were put on hold at the start of the pandemic, this sector is expected to come back and even increase as more people look to the life sciences industry as a place to invest.

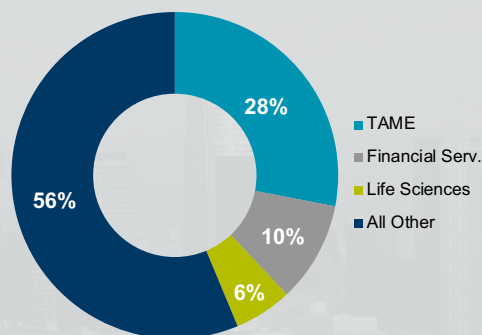
LIFE SCIENCES IN THE NEWS

Kite Pharmaceuticals (Gilead) recently leased an additional 87,000 sf in Santa Monica as well as additional space in El Segundo.

HOTTEST SUBMARKET

One of the issues with tracking the life sciences industry in LA is that there is not one specific submarket that dominates the area, but rather, several different clusters spread out over a large geographical area. Major clusters include Thousand Oaks (near AMGEN), Northridge (near Cal State Northridge), Santa Clarita Valley (near Mannkind Corporation), Pasadena (near Caltech and City of Hope), East LA (near USC and Cal State LA), West LA (from UCLA, to Kite Pharmaceuticals to the Lundquist Institute) and Irvine (near UC Irvine).

LIFE SCIENCES LEASING ACTIVITY



Source: Cushman & Wakefield. Life sciences leasing activity as a % of total leasing, including renewals, 2018-2019 combined.

TAME = Technology, Advertising, Media and Entertainment.

LIFE SCIENCES MARKET METRICS

as of Q1 2020 (5-yr. chg. = Q1 2020 vs. Q1 2015)

\$54.00 **33%** ▲

ASKING RENT
(NNN)

5.1% **110** ▲

OVERALL
VACANCY

BPS

\$585 **31%** ▲

SALES PRICE
\$/SF

MARKET SUMMARY

The life sciences sector continued to play a major role in the New Jersey economy as the state is home to numerous major life sciences corporations and startups. New Jersey also boasts major research universities such as Rutgers, Princeton University, NJIT and Seton Hall-Hackensack Meridian School of Medicine. The state has been known as “The Medicine Chest of the World” as the life sciences industry not only propels the lab/R&D real estate market but also the state’s office market. The number of small and mid-tier pharma and biotech companies has climbed in recent years, including spinoffs from larger life sciences firms. Companies such as Celgene, Insmid and more recently PTC Therapeutics have all experienced organic growth in the Garden State. The state’s ideal location along I-95, proximity to New York and highly educated workforce have been key factors in the industry’s attraction.

COVID-19 IMPACT

While much of the state is on lockdown, laboratory and R&D facilities are deemed as “essential” and are open for business, including the construction of lab/R&D space. Investors are seeing life sciences assets as being strong and resilient throughout the pandemic. New Jersey could benefit from tenants in New York seeking less densely populated locations for office space going forward as corporations look to re-open business in the future and reverse some of the dense workplace strategies.

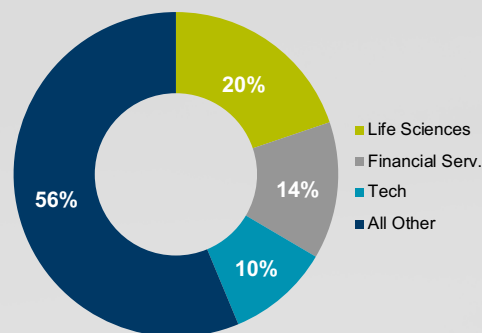
LIFE SCIENCES IN THE NEWS

Bristol Myers Squibb finalized its acquisition of Celgene in late 2019, which could have an impact on both companies’ real estate holdings in the area. Meanwhile, VC funding in Q1 2020 reached \$167.8 million for New Jersey, a quarterly high not seen in two years.

HOTTEST SUBMARKET

There have been three submarkets in New Jersey which have accounted for the bulk of life sciences demand, both for office space and for lab/R&D facilities. Morris County, the I-78 Corridor and Princeton/Route 1 Corridor have had a large concentration of life sciences transactions and occupiers historically. In 2019, these three market segments represented 86% of the deal volume recorded, including five deals 50,000 sf or greater.

LIFE SCIENCES LEASING ACTIVITY



Source: Cushman & Wakefield. Life sciences leasing activity as a % of total leasing, including renewals, 2018-2019 combined.

LIFE SCIENCES MARKET METRICS

as of Q1 2020 (5-yr. chg. = Q1 2020 vs. Q1 2015)

\$23.18 **42%** ▲

ASKING RENT
(GROSS)

14.0% **260** ▲

OVERALL
VACANCY BPS

\$279 **98%** ▲

SALES PRICE
\$/SF

MARKET SUMMARY

The life sciences industry is an emerging component of New York City's economy and increased VC funding. In addition, significant tax incentive programs are helping to accelerate growth in the area. As a result, New York City's life sciences market is gaining momentum as developers bring over 2.6 msf of dedicated office and lab space online over the next three years. Already maintaining the largest block of commercial lab space in New York City, Alexandria Real Estate Equities is set to begin construction on the \$700-million, 550,000-sf North Tower of the Alexandria Center for Life Science campus in 2020. This project will be the final phase of the East Side Medical Corridor development and is scheduled to be completed by the end of 2022, increasing its total footprint to nearly 1.3 msf.

COVID-19 IMPACT

Office market fundamentals in New York City began 2020 on solid footing, however the market "paused" during April and May due to COVID-19. Post-COVID-19, some softening in the near-term is expected, but emerging trends will determine future market health. Density and employment allocation to work-from-home are two main trends expected to be at the forefront of owner and occupier minds.

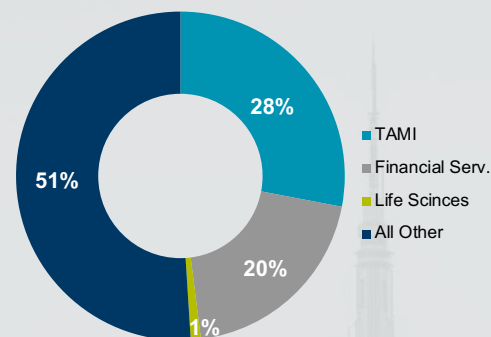
LIFE SCIENCES IN THE NEWS

Alexandria has additional plans to build out lab space at Pfizer's former 350,000-sf headquarters near Grand Central Station and the 175,000-sf Bindery in Long Island City. Other major projects include Deerfield's 326,368-sf redevelopment of 345 Park Avenue South, Janus Property's 350,000-sf Taystee complex in Harlem as well as GFP and King Street Properties' 263,000-sf development at 45-18 Court Square in Long Island City.

HOTTEST SUBMARKET

Midtown South is historically the hottest life sciences submarket in New York City. Driven by Alexandria's presence and the North Tower development, the submarket is also welcoming several new projects including Deerfield's 326,368-sf redevelopment of 345 Park Avenue South.

LIFE SCIENCES LEASING ACTIVITY



Source: Cushman & Wakefield. Life sciences leasing activity as a % of total leasing, including renewals, 2018-2019 combined.

TAMI = Technology, Advertising, Media and Information.

LIFE SCIENCES MARKET METRICS

as of Q1 2020 (5-yr. chg. = Q1 2020 vs. Q1 2015)

\$90.34

48% ▲

ASKING RENT
(GROSS)

25.2%

1,720 ▲

OVERALL
VACANCY

BPS

\$819

(N/A*)

SALES PRICE
\$/SF

*2015 \$/PSF
UNAVAILABLE

MARKET SUMMARY

One of the country's leading life sciences hubs, Philadelphia is home to world renowned academic research institutions, hospitals, large pharmaceutical companies and innovative biotech startups. The region's rich history in medical discovery, robust biomedical employment base and status as one of the nation's largest recipients of grants have made Philadelphia a leader in life sciences research. As a result, 80% of U.S. pharmaceutical and biotech companies have a presence in the New Jersey, Pennsylvania and Delaware corridor.

From this vibrant life sciences ecosystem, the region has emerged as a global leader in cell and gene therapy. Philadelphia is home to the first two FDA-approved cell and gene therapy drugs and is where 27 of the 30 approved gene therapy vectors used worldwide were developed. Cell and gene therapy's global market capitalization is poised to grow at a compound annual growth rate of 36.5% over the next five years, transforming both the life sciences industry and Philadelphia's economy.

COVID-19 IMPACT

The Philadelphia life sciences community, particularly companies specializing in viral infectious diseases, has pivoted to become part of the worldwide research efforts for testing drug and vaccine development for COVID-19. Regional companies involved in these efforts include Inovio, one of only three companies worldwide with a COVID-19 vaccine candidate being tested in humans, Integral Molecular, which is using its mapping technology to determine which antibodies are most effective at killing the virus, and OraSure Technologies, which is developing an at-home test to identify COVID-19 antigens in saliva. Additionally, there are 21 active clinical trials for COVID-19 related drugs taking place in the region's three largest hospitals.

LIFE SCIENCES IN THE NEWS

- Spark Therapeutics, which was acquired by Roche in 2019 for \$2.3 billion, signed a lease in April for a 64,000-sf building that will be converted into lab space at 3000 Market Street, next to its headquarters in University City. The developer, Brandywine Realty Trust said construction on the project would move forward once the pandemic related construction restrictions were lifted.
- Gene therapy company, Passage Bio signed a 37,000-sf lease for its new headquarters in April at One Commerce Square, a Philadelphia CBD trophy office tower. This lease comes shortly after the company's successful \$216 million IPO in February, which significantly outtraised its initial goal of \$125 million.
- WuXi Biologics leased 33,000 sf at the Discovery Labs in King of Prussia earlier this year and expects to add 100 jobs by the end of 2020. WuXi Biologics lease expands on parent company WuXi AppTec's presence in the region, where it occupies 380,000 sf in the Navy Yard submarket.

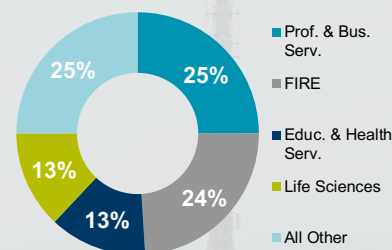
HOTTEST SUBMARKET

Philadelphia's research infrastructure, human capital, funding and commercialization center around the academic and research institutions located in University City, the heart of the region's life sciences ecosystem. More than three-quarters of the \$1 billion in annual NIH grant funding Philadelphia receives go to the institutions in University City, including the University of Pennsylvania and its health system, Children's Hospital of Philadelphia (CHOP), Drexel University and the Wistar Institute.

Institutional investment in commercialization, particularly around cell and gene therapy, is fueling demand for lab space from companies spinning out of these institutions as well as companies from outside the market that want to be part of this life sciences innovation hub. While Philadelphia has always been one of the top recipients of NIH grant funding nationally, private dollars in the form of life sciences VC and pharmaceutical R&D expenditures have grown exponentially reaching \$2.3 billion in 2018, a 350% increase since 2014. This has been matched with a 330% increase in biotechnology R&D employment in Philadelphia during the same period.

This growth in life sciences commercial activity in Philadelphia is why tenant demand has outpaced available space in the University City submarket, with vacancy under 2%. It is also driving new construction for lab space, with one project under construction and an additional 10 in the proposed stages. If completed, these projects represent an additional 4.3 msf of space which would triple commercial lab inventory in the submarket over the next five years. Asking rents for new construction labs in University City are some of the highest in the region, ranging from \$55-\$60 psf on an annual triple net basis.

LIFE SCIENCES LEASING ACTIVITY



Source: Cushman & Wakefield. Life sciences leasing activity as a % of total leasing, including renewals, 2018-2019 combined.

FIRE = Finance, Insurance & Real Estate.

LIFE SCIENCES MARKET METRICS as of Q1 2020 (5-yr. chg. = Q1 2020 vs. Q1 2015)

\$33.61

ASKING RENT (NNN)

58% ▲

11.0%

OVERALL VACANCY

850 ▲

BPS

\$350

SALES PRICE \$/SF

(N/A*)

*2015 \$/PSF UNAVAILABLE

MARKET SUMMARY

The Triangle area is home to one of the most dynamic life sciences clusters in the nation. The three separate tier-1 research universities, Duke University, University of North Carolina at Chapel Hill and North Carolina State University, have allowed the industry to blossom. Continuously bolstered by ~53,000 annual graduates from the Triangle's 12 universities, life science companies have an opportunity to recruit top talent from the area's abundant pipeline of graduates.

According to Forbes' latest *Best State for Business rankings in 2019*, North Carolina claimed the No. 1 spot for the third consecutive year. Notable factors included the area's low cost of doing business, minimal regulations and one of the lowest corporate tax rates in the nation (2.5%). Couple this with a proximity to both coastal and mountain environs, comfortable climate and a reasonable cost of living index (101.3), and one can see why the Triangle continues to receive countless accolades as a desirable place to live and work.

COVID-19 IMPACT

The Triangle's market fundamentals remained strong through the end of Q1 2020. Due to the area's diverse economy and stable economics built around growing and thriving industries (tech, life sciences/R&D, healthcare and financial services), impacts from COVID-19 have been minimal compared to other markets across the country.

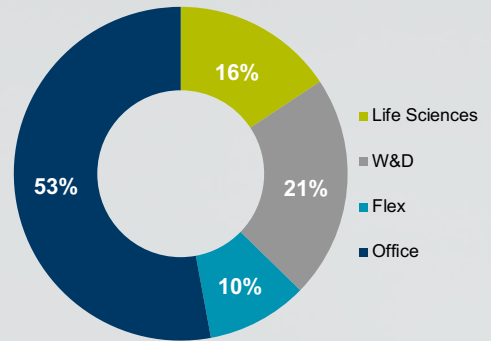
LIFE SCIENCES IN THE NEWS

In Q1 of 2020, three major life sciences companies inked deals in RTP for a total of 525,016 sf. Q2 Solutions, a subsidiary of IQVIA, leased 365,366 sf at 2400 Ellis Rd, Duke University leased 109,650 sf at 29 Parmer Way and UCB Biosciences, Inc. leased 50,000 sf at 4000 Paramount Pkwy.

HOTTEST SUBMARKET

The Research Triangle Park (RTP) continues to be a hotbed for life sciences companies in the Raleigh-Durham market. Centrally located between Raleigh and Durham, RTP is the largest research park in North America and home to approximately 450 companies, including industry giants such as GlaxoSmithKline, IQVIA, PPD and Biogen. RTP also includes prominent Fortune 100 multi-national corporations, university spinouts and startups in its sprawling 7,000-acre campus. The Research Triangle Park Foundation often describes RTP as a "global epicenter of technological innovation" boasting a range of R&D companies and research institutions.

LIFE SCIENCES LEASING ACTIVITY



Source: Cushman & Wakefield. Life sciences leasing activity as a % of total leasing, including renewals, 2018-2019 combined. W&D = warehouse & distribution.

LIFE SCIENCES MARKET METRICS

as of Q1 2020 (5-yr. chg. = Q1 2020 vs. Q1 2015)

\$21.92*

37% ▲

ASKING RENT (NNN)

(*\$15-\$35 depending on lease terms)

13.1%

490 ▼

OVERALL VACANCY

BPS

\$258

48% ▲

SALES PRICE \$/SF

MARKET SUMMARY

San Diego is one of the world's preeminent biotech hubs combining a highly collaborative environment, a committed investment community and an unparalleled academic research infrastructure. The core of 19.6 msf of San Diego's life sciences inventory is anchored in the coastal suburb of Torrey Pines, home to UC San Diego and private research institutions including Scripps Research, the Salk Institute and the Sanford Burnham Prebys Medical Discovery Institute. Over decades, public, private and academic collaboration, talented workforce, high quality of life of Southern California and strong anchors such as Illumina, Eli Lilly and Takeda have fueled the continued growth of the industry.

The life sciences cluster is a major driver of San Diego's innovation economy, generating \$39.4 billion in economic output, providing over 65,500 jobs with an average annual earning exceeding \$115,000. The region is home to more than 1,560 life sciences companies and more than 80 independent and university-affiliated research institutes. In 2019, San Diego research institutions received over \$1.0 billion in awards, followed by \$365 million in 2020 from NIH as of May.

Over the last 10 years combined, San Diego has attracted \$15.6 billion of VC with the life sciences sector attracting \$9.2 billion or 59% of the total. In Q1 2020, the biotech sector raised \$316 million, above the 5-year quarterly average of \$302 million.

COVID-19 IMPACT

Despite COVID-19, transactions continue to move forward and demand remains strong. Life sciences companies continue to be active in touring and searching for space while adhering to social distancing practices. The majority of pre-COVID-19 active negotiations are currently still tracking. In addition, San Diego has yet to experience any sublease availabilities hit the market since the pandemic environment began. There have also been additional new and expansion requirements entering the market due to it. The growing tech sector is also putting pressure on inventory otherwise earmarked for life sciences.

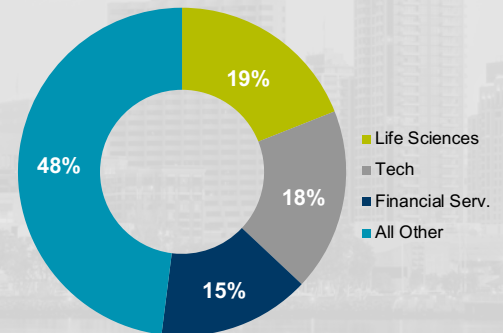
LIFE SCIENCES IN THE NEWS

A Scripps Ranch life sciences lab and office campus has been leased to Fate Therapeutics for its corporate headquarters. The company is based in Torrey Pines but plans to renovate Scripps Northridge Corporate Center, 12278 Scripps Summit Drive after signing a 200,000 sf lease with Dart Interests.

HOTTEST SUBMARKET

Torrey Pines remains the primary life sciences submarket in San Diego thanks to its overall density of companies and access to major institutions, though space is becoming increasingly limited. The neighboring submarkets of UTC and Eastgate are a home to Illumina's headquarters. The Sorrento Mesa submarket, a telecommunications hub and home to Qualcomm, is now the next phase of major growth for life sciences real estate as more and more projects are acquired and converted to laboratory space. In summary, San Diego's life sciences hub continues to be Torrey Pines and UTC, with Sorrento Mesa quickly becoming just as relevant. The overwhelming prospects of the industry are pushing expansion inland as landlords acquire and convert prime office and flex product to laboratory facilities in neighboring submarkets.

LIFE SCIENCES LEASING ACTIVITY



Source: Cushman & Wakefield. Life sciences leasing activity as a % of total leasing, including renewals, 2018-2019 combined.

LIFE SCIENCES MARKET METRICS

as of Q1 2020 (5-yr. chg. = Q1 2020 vs. Q1 2015)

\$54.60 **15%** ▲

ASKING RENT
(NNN)

8.6% **270** ▲

OVERALL VACANCY BPS

\$486 **74%** ▲

SALES PRICE
\$/SF

MARKET SUMMARY

With a strong presence of nonprofit foundations supporting University of Washington, Fred Hutchinson Cancer Research Center and the Allen Institute for Brain Science, Seattle's technology cluster has positioned the region as a hub for innovation. This innovation has attracted a more diverse pool of workers, which has allowed research institutions to grow its recruiting efforts.

With established companies like Juno Therapeutics, Seattle Genetics and many innovative startups, Seattle's biotechnology and life sciences firms are developing unique technologies with global impact. Supporting this growth, Seattle's life sciences companies account for 11.0 msf of lab space and affect over 36,000 jobs. Seattle has witnessed new alliances sprouting between tech and life sciences companies in the region following Microsoft's \$45 million investment in Adaptive Biotechnologies. Tech and life sciences companies working together in Seattle has created the need for new space, and over 600,000 sf of new life sciences space is planned for 2021.

COVID-19 IMPACT

Seattle's vacancy was near record lows and asking rates were at record highs at the end of 2019. COVID-19 has created an increased demand for the Pacific Northwest's life sciences research and production. Research institutions have grown to provide data for government decisions. Both life sciences and technology companies have stepped up to provide necessary protective equipment.

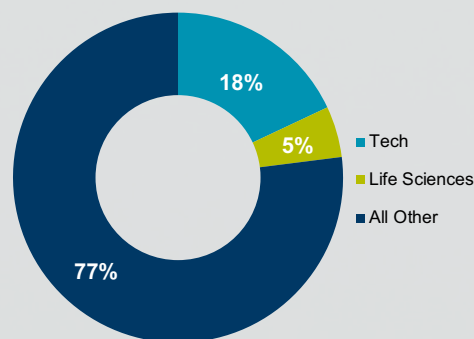
LIFE SCIENCES IN THE NEWS

Seattle is the top emerging life sciences hub in the U.S. Job growth has jumped over four times the national average and is tied closely to the growing talent pool moving to Seattle for both technology and life sciences jobs.

HOTTEST SUBMARKET

Seattle's life sciences economy is anchored by the life sciences ecosystem around South Lake Union, home to almost a half of the region's life sciences inventory. With research institutions and biotechnology companies continuing to grow in the region, new startups have discovered the fast growing talent pool. Investors have been increasing VC into Seattle-based companies so drastically that vacancies have hit record lows. Consequently, this has forced companies to begin moving East of Lake Washington to create two new life sciences hubs in Redmond and Bothell.

LIFE SCIENCES LEASING ACTIVITY



Source: Cushman & Wakefield. Life sciences leasing activity as a % of total leasing, including renewals, 2018-2019 combined.

LIFE SCIENCES MARKET METRICS

as of Q1 2020 (5-yr. chg. = Q1 2020 vs. Q1 2015)

\$40.38

24% ▲

ASKING RENT
(NNN)

4.9%

100 ▼

OVERALL
VACANCY

BPS

\$410

28% ▲

SALES PRICE
\$/SF

MARKET SUMMARY

The Washington, DC Metro region is home to one of the most vibrant life sciences clusters in the country. Suburban Maryland is a unique submarket due to its close proximity to relevant federal agencies, education/research institutions and top talent. Due to these drivers, Montgomery and Frederick Counties continue to make their way up the list of top-tier life sciences hubs. Maryland has been coined the BioHealth Capital Region (BHCR), striving to be one of the top three life sciences hubs by 2023. Large companies experiencing growth continue to invest in Maryland or have expanded operations along the I-270 Corridor. New life sciences technology has led to greater supply of new products, leading to historically high investment in this sector. In 2019, VC firms invested \$355.5 million into the life sciences sector. Investments have more than tripled within the past couple of years as VCs continue to see growth.

COVID-19 IMPACT

The Suburban Maryland life sciences market is poised to make a positive impact in the fight against COVID-19. With many firms receiving government funding as well as combining resources to produce a vaccine, the life sciences market in Suburban Maryland remains robust. Although it may be too early to tell, there may be a surge in companies looking for manufacturing facilities in an effort to keep operations stateside.

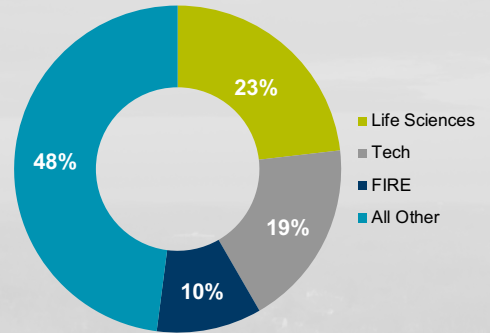
LIFE SCIENCES IN THE NEWS

RegenxBIO signed a lease for 132,000 sf at 9800 Medical Center Drive at the end of 2018 and recently expanded another floor, totaling 175,000 sf. This brings the company's footprint to a full building occupancy once the building delivers in Q3 2020. Supernus Pharmaceuticals also signed a large lease totaling 136,000 sf at 9715 & 9717 Key West Ave, which they moved into at the end of 2019.

HOTTEST SUBMARKET

The life sciences market in Suburban Maryland is especially concentrated in the I-270 Corridor. It has also catered to companies experiencing rapid growth including Neuraly and Cellular Biomedicine Group. In general, the entirety of Montgomery County and Frederick County are life sciences hubs.

LIFE SCIENCES LEASING ACTIVITY



Source: Cushman & Wakefield. Life sciences leasing activity as a % of total leasing, including renewals, 2018-2019 combined.

FIRE = Finance, Insurance & Real Estate.

LIFE SCIENCES MARKET METRICS

as of Q1 2020 (5-yr. chg. = Q1 2020 vs. Q1 2015)

\$28.70 **69%** ▲

ASKING RENT
(NNN)

4.1% **390** ▼

OVERALL
VACANCY BPS

\$383 **34%** ▲

SALES PRICE
\$/SF

KEY TAKEAWAYS

Much remains uncertain in the coming months as the economy and real estate markets continue to process the shocks caused by the pandemic. Despite the unprecedented circumstances, we believe it is reasonable to project the following general conclusions for the near-term future of the life sciences industry based on the data and findings collected in this report:



Life sciences entered the COVID-19 era from a position of historic strength fueled by changing demographics and technological innovation.



The sector's underlying strength and importance to COVID-19 response efforts are likely to make it more resilient than many other industries during the downturn. For example, we believe it is likely that life sciences occupancy will actually experience positive growth over the next 12 months due to existing low vacancy and growing demand for life sciences innovations in responses to COVID-19 and other health challenges.



Some smaller or less well-financed ventures will fail in today's new landscape, yet other companies will emerge as winners by delivering novel medical solutions (or by acquiring firms that do so through strategic M&A activity). By acquiring companies that already have produced approved products, or ones in late stage clinical development, major public companies can mitigate the costs and risks of R&D while still adding new innovations to its arsenal.

In the near term, we may also see a reduction in the number of startups being launched by entrepreneurs due to the challenges in attracting VC.



Capital investment into life sciences will likely continue to increase as scientific innovation and investment into next-generation medicines have never been more appreciated than now. Indeed, the life sciences sector will be crucial to helping society not just understand this and future pandemics, but to survive these crises and emerge stronger and healthier than before.



Competition for talent may lessen as struggling firms shed workers, allowing successful companies to recruit competitors' top former employees. A decrease in the number of new startups could also support this trend by further decreasing competition for talented professionals.

ENDNOTES

- 1 The Pharma R&D Annual Review 2020 report by Pharma Intelligence Informa.
- 2 <https://morningconsult.com/opinions/coronavirus-is-no-match-for-science-but-we-must-finish-job/>
- 3 <https://www.marketwatch.com/story/gileads-remdesivir-improves-time-to-recovery-for-covid-19-patients-in-peer-reviewed-results-nciaid-says-2020-05-22>
- 4 <https://www.bio.org/policy/human-health/vaccines-biodefense/coronavirus>

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CONTRIBUTORS

Jolanta Campion

Director of Research
Nevada, Utah & San Diego
jolanta.campion@cushwake.com

Joshua Chiles

Research Analyst
Raleigh-Durham
josh.chiles@cushwake.com

Jason S. Price

Director of Research
Tri-State Suburbs
jason.price@cushwake.com

Keith Reichert

Senior Research Analyst
Oakland/East Bay
keith.reichert@cushwake.com

FOR MORE INFORMATION

Ken McCarthy

Principal Economist
Americas Head of Applied Research
ken.mccarthy@cushwake.com

