2024 Life Sciences Real Estate Perspective and Cluster Analysis

Assessing the future biopharma, medtech and biomanufacturing landscapes

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Research

United States

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What's inside?

Observations

2024 U.S. Cluster Analysis

2024 Top Market Tiles

This report is interactive!

Click on the topics to go straight to that section.

This report seeks to do a few core things. We first detail 10 observations relating to life sciences real estate in the U.S., all try to answer one of the following:

- What are the current dynamics in the U.S. lab market?
- What macro forces are driving real estate decision-making?
- Where are we in the real estate cycle?
- When will markets advance to equilibrium?

After this, we move to our annual cluster analysis, in which we look at the fundamental building blocks of the major life sciences clusters in the country. Where is innovation accelerating? Where is the best talent pool to grow a company? What locations are most attractive for medical device or biomanufacturing companies? Which locations are seeing AI reshape the landscape? Which have promising real estate fundamentals in an otherwise down market?

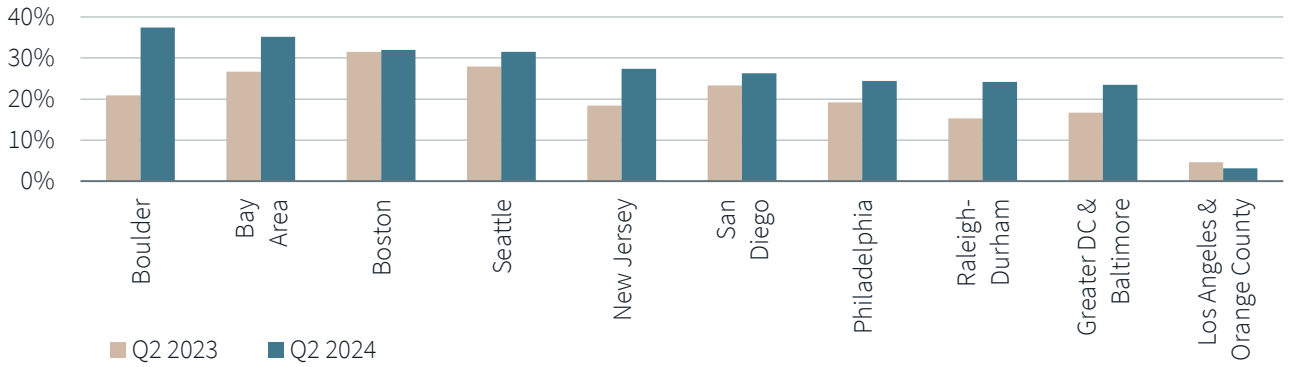
The U.S. lab market is in a prolonged slump. We do not shy away from showcasing what its root causes are and what the prognosis is. The central question today is when, not if, the sector will begin to recover and potentially return to the strong growth this sector has delivered on for nearly two decades. That is what we hope to deliver to our readers.

1 What has changed in a year?

In the past year, the pre-existing supply-demand imbalance has grown more acute in most major lab markets. At the heart of today's market pressure sits lackluster demand and robust subleasing. Even though the pipeline of new lab space has halved year over year, in most markets, key occupancy metrics have worsened. With the addition of over three million s.f. of sublease space, the overall national lab availability rate has pushed to 30%.

With that downward pressure, rents have fallen by nearly -9%, back to where rents were at the start of the downturn in Q1 2022. This next year will likely see further asking rent erosion as landlords with large availabilities in oversupplied submarkets increasingly compete on price to get deals signed. Our projections show this supply super cycle will end in the next 6-12 months, followed by an extended period characterized by limited new supply and potential repurposing of struggling life sciences assets. That will help the market recover because after the slowest market in a decade, we still have nearly as much occupied lab space today as a year ago. When the market turns back on, expect that figure to begin to climb again.

Lab availability rate



U.S. lab	Mid-2024	Mid-2023	Change
Total inventory	171.6 MSF	151.1 MSF	+20.5 MSF
Occupied lab space	130.8 MSF	131.0 MSF	-0.2 MSF
Pipeline	19.1 MSF	38.4 MSF	-19.2 MSF
Availability rate	30.0%	24.8%	+520 bps
Sublease availability	9.9 MSF	6.4 MSF	+3.5 MSF
H1 leasing	4.13 MSF	4.54 MSF	-9.1%
Avg direct asking rents	$71.62 NNN	$78.47 NNN	-8.7%

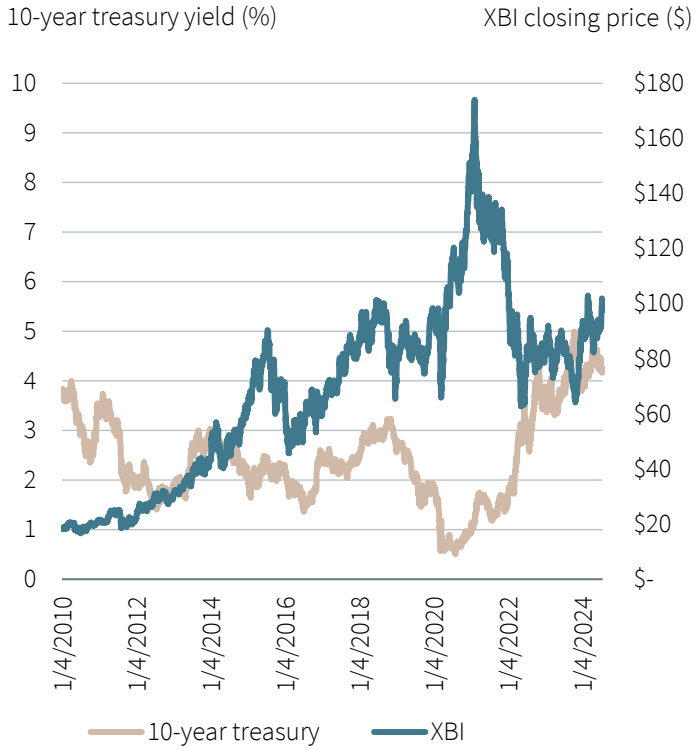
Source: JLL Research; Bay Area, Boston, Boulder, Greater DC & Baltimore, New Jersey, Philadelphia, Raleigh-Durham, San Diego, Seattle

2 Interest rates are the “canary in the coal mine”

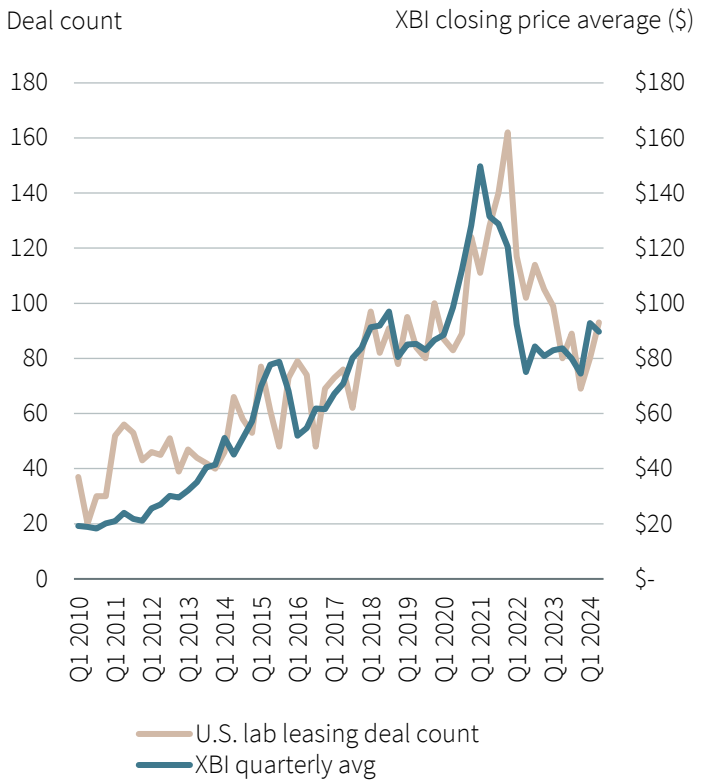
Biotech is an interest-rate-sensitive sector, with its capital-intensive, long-dated assets where VCs realize exits many years down the line. For the recovery in demand to truly begin, the first domino to fall will be a reduction in interest rates. The graphs to the right illustrate the relationship best: prominent adjustments to rate expectations have an equal and opposite effect not only on biotech equity values, but also on the propensity of these companies to lease more real estate.

As of writing, we stand on the precipice of a lower rate environment than the one we’ve lived in in the past 30 months. The correlation between a healthier XBI (sector ETF) and real estate leasing deals across the U.S. is startling—a near one-to-one relationship between public valuations and deal volume in the past 15 years. Should public values rebound, VCs will begin to see healthier exits on the horizon, which should invite a more robust level of risk capital into the space, thus, helping privately backed startups grow their infrastructure needs as well.

10-year treasury yield and XBI



Quarterly U.S. lab leasing deal count and XBI average



Sources: The Wall Street Journal, JLL Research; Bay Area, Boston, Boulder, Greater DC & Baltimore, New Jersey, Philadelphia, Raleigh-Durham, San Diego, Seattle

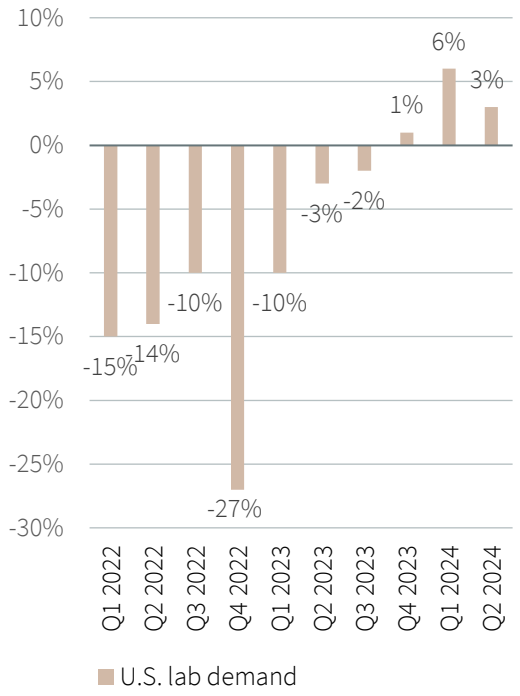
3 Venture funding has morphed and so has demand

The predominant source of funding for commercial lab users is risk capital, in particular venture funding. Understanding the nature of venture funding is critical to understanding and predicting demand for lab space. This past year, the quantity of funding and who is getting funded have shifted significantly.

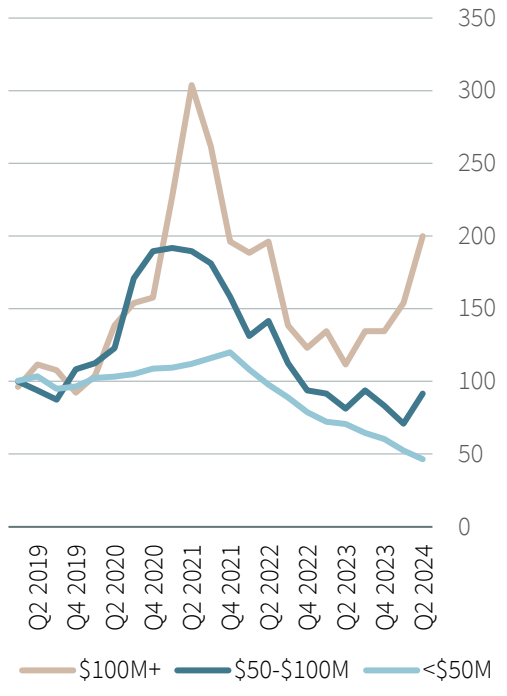
Lab demand across the U.S. has shown three quarters of growth. In the major markets, Boston uncharacteristically lags its peer markets of San Diego and the Bay Area in their recovery. Boston is just about even with pre-COVID funding levels; same for the demand for lab space in Q2 2024—about even with 2019 levels. The Bay Area is trending about 30% above pre-COVID levels in both demand and funding. San Diego is on pace for its second-best VC year ever while experiencing levels of demand over 60% higher than in Q1 2019, showcasing its relative strength to begin 2024.

The nature of venture funding has also shifted, with VC firms seeking haven in more mature, later-stage clinical assets. Mega rounds of over $100M are now driving much of the activity, masking broader fundraising challenges by smaller, early-stage biotechs. Mega rounds now represent 60% of venture funding inflows, up from 40% a year ago; and the number of these large rounds have doubled since 2019. At the same time, early-stage and smaller rounds for longer-dated (and generally pre-clinical) assets are seeing half the deal flow they experienced in 2019. Overall, while H1 2024 saw a 34% increase in total venture investment in the U.S. life sciences sector, the concentration of funding within mega rounds is tempering real estate demand historically driven by a broad base of smaller tenants.

U.S. lab quarterly demand change



Life sciences venture capital deals, rolling 2 quarters (100 = 2019 avg)



Sources: PitchBook Data, Inc. (data has not been reviewed by PitchBook analysts), JLL Research; Bay Area, Boston, Greater DC & Baltimore, Los Angeles, Philadelphia, Raleigh-Durham, San Diego, Seattle

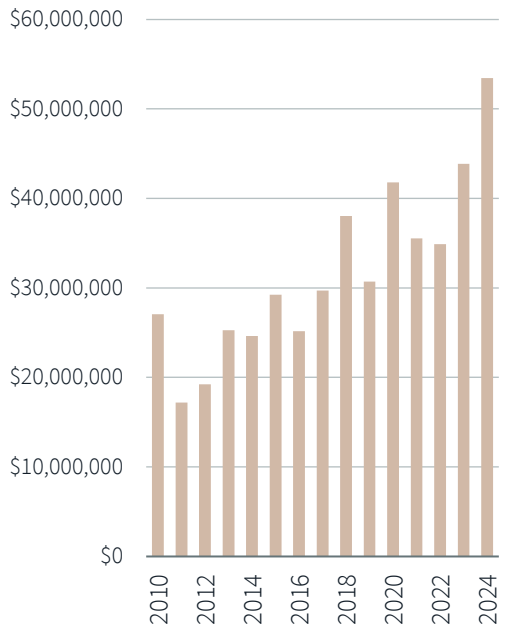
4 Tenants extend decision-making and then take less space

Two events have the power to shape the demand dynamics in biopharma market: capital events (VC, IPOs, secondary offerings, etc.) and acquisitions by large pharma. In most major markets, privately held startups make up the majority of tenant requirements, and thus venture rounds are the biggest indicator of future demand.

With less growth capital available, tenants now are spending far more time looking for space. When they finally do sign, lessees are taking much less given their level of funding. To wit, the median time on market in the Big 3 markets (Boston, Bay Area and San Diego) today is now nearly 250 days, up 67% from two years ago. In Boston, over 20% of active tenants in the market in July 2024 had started their process over 12 months ago—double the rate from two years ago. To yield 10,000 s.f. of leasing, over 50% more capital is required than two years ago as investors have continued to push their startups to stay in incubators longer or make do with the real estate they have today, while contributing nearly nothing to buildouts.

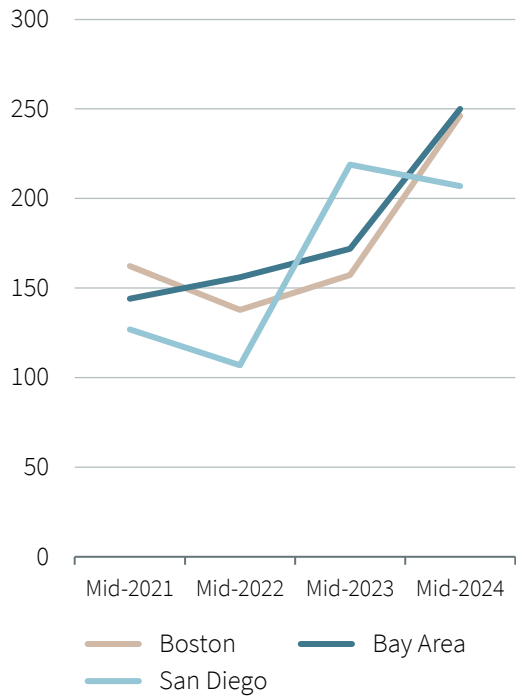
One potential headwind in real estate demand is elevated levels of acquisitions. But after looking at five years of data, we found that in the Big 3 markets, 72% of acquired startups retained or grew their footprint (mostly retained). In only one-quarter of the times did an acquisition result in a net reduction in immediate space needs in the year after acquisition. This is a sign that pharma has a prevailing tendency to retain footprints rather than dispose of them after acquiring a new company.

VC dollars per 10,000 s.f. of leasing, U.S.



Tenants in the market

Median time in the market



Sources: PitchBook Data, Inc. (data has not been reviewed by PitchBook analysts), JLL Research; Bay Area, Boston, Boulder, Greater DC & Baltimore, New Jersey, Philadelphia, Raleigh-Durham, San Diego, Seattle

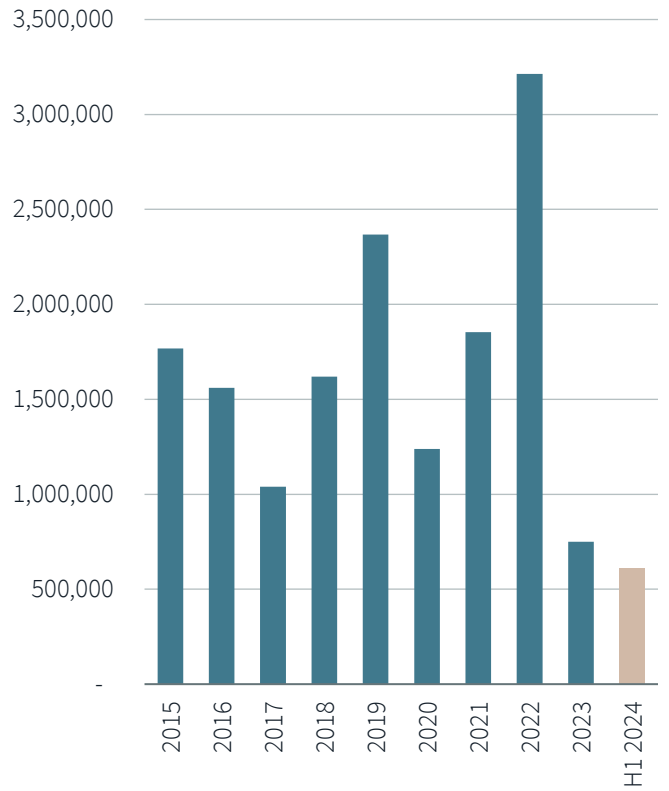
5 Large pharma seeks to optimize, not maximize

Large biopharma today is laser-focused on optimizing their real estate holdings across the U.S. Top of mind is how to re-assess space needs after a barrage of acquisitions. First among equals in driving real estate needs is access to the right talent. This depends on which modalities and type of science these companies are focusing on. But unlike in 2022 when the market began to slump and large pharma was taking on large, strategic leases, they are instead retrenching today. On the hiring front, only 5 of the top 20 U.S. pharma companies saw increased job openings for scientific roles in the past year.

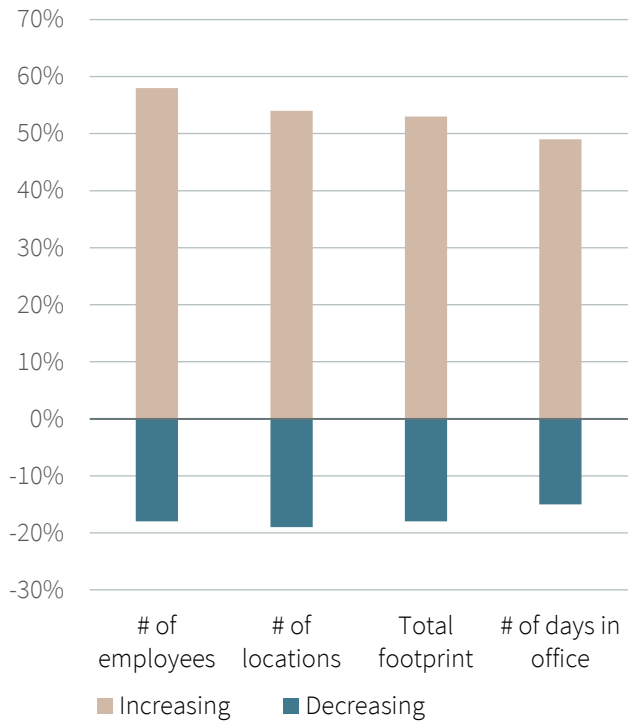
After leasing more than 3 million s.f. in 2022, the top 30 or so pharma companies did one-fourth of that in 2023, their lowest volume of leasing in a decade. Of the 30 large pharma real estate moves we've tracked in H1 2024, 67% resulted in a reduction of space and only 20% were expansionary in nature. Despite this short-term dynamic, a JLL survey of global pharma decision-makers found that by a 3-to-1 margin leaders predict an increase in headcount, footprint and number of locations by the end of the decade. Supporting business development by adjacencies to startups and supporting innovation are two of the top results these companies are looking to unlock with their real estate decisions in the next five years.

Source: JLL Research (The Future of Work, 2024)

Large pharma leases (s.f.), U.S.



How life sciences companies foresee the following factors changing for their organizations between now and 2030



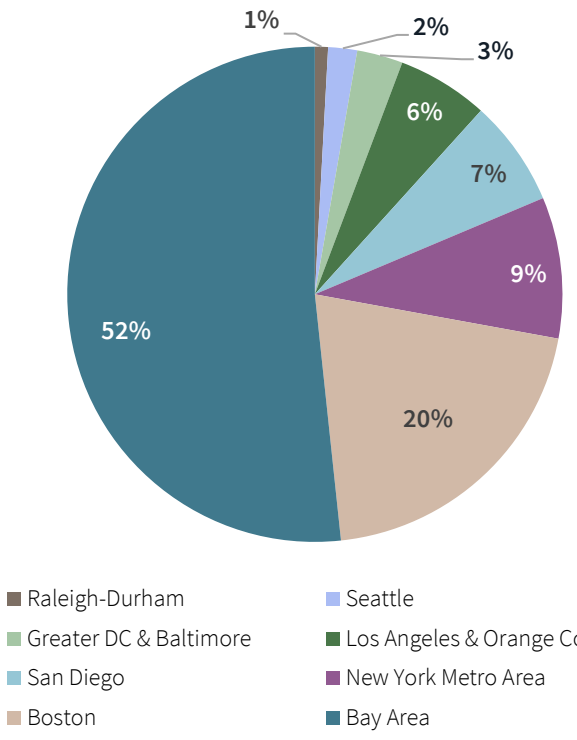
6 Growing share of all sector VC dollars heading to AI/ML companies

Artificial intelligence and machine learning (AI/ML) has been deployed in the biopharma space for years. The cost to develop a therapy has jumped from $1.3 billion 10 years ago to $2.3 billion today, according to Deloitte. Through the application of AI/ML in the drug discovery phase, companies can focus earlier on more promising molecules and cut down on the time and cost to get a drug to market. McKinsey projects that AI/ML could eventually yield $15-$28 billion in annual savings across the sector in drug discovery applications alone.

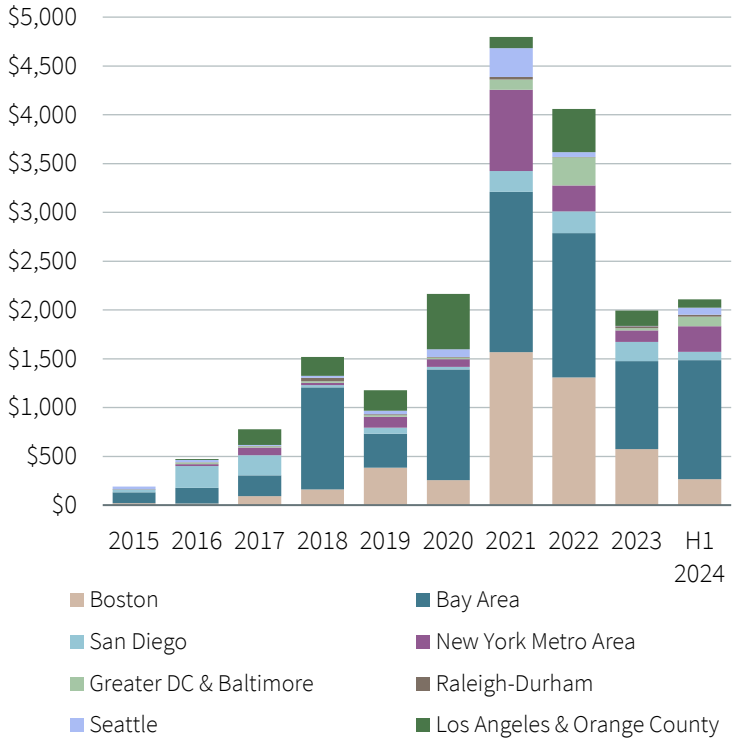
While life sciences venture funding is up 34% in the first half of 2024, AI/ML venture funding exceeded the 2023 full-year total in the first six months of the year. It now represents 12% of all life sciences venture funding. Notwithstanding AI/ML's technological portability, life sciences AI/ML ecosystems are even more highly concentrated than the sector overall. The Bay Area garnered half of all AI/ML venture funding within biopharma since January 2023. Boston accounts for a fifth, and San Diego, Los Angeles and NYC account for another fifth. These geographies have in relative abundance the proper admixture of ideas and talent that life sciences AI/ML needs to thrive.

Source: PitchBook Data, Inc. (data has not been reviewed by PitchBook analysts)

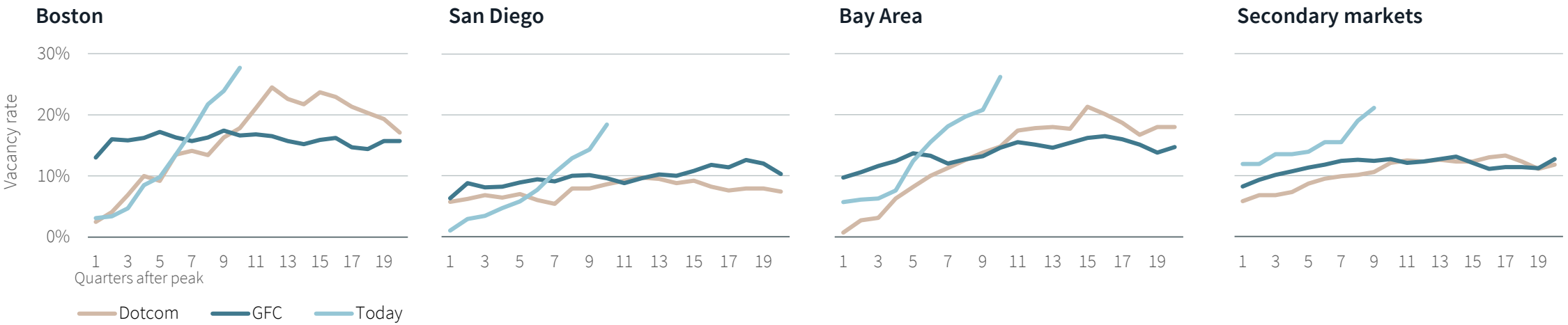
AI&ML/biopharma VC, 2023-July 2024



AI&ML/biopharma VC ($M)



7 This downturn is different than any other this century



In any market correction there is a tendency to look to past recessions to map out what the return to normalcy may be this go-around. In a sector like life sciences, it is much more difficult, considering it is such a fast-growing sector. Still, there are insights to learn from doing such an analysis.

In general, the GFC saw a slightly higher long-term structural addition to vacancy that in many markets stayed around for a half-decade. The best testcase for this cycle is the aftermath of the dotcom bust, specifically in mature markets like the Bay Area and Boston. Then, as there is now, there was a rapid increase in vacancy after a deluge of tenants space-banked prior to the popping of a capital bubble. Then vacancies rose sharply for three to four years before a return to normalcy began. This would imply another year or so of elevated vacancy levels before coming back to more palatable levels for landlords if we follow that precedent.

Yet, either way you cut it, this market downcycle is markedly different than any other this sector has experienced. In nearly every major market we have the highest vacancies, and much sooner into the cycle, than at any other time in history. This is driven entirely by a mismatched supply cycle.

Source: JLL Research

8 The return to market equilibrium will vary widely by geography

	Seattle
Existing inventory	**5.5 MSF**
Last 12 months absorption	210 KSF
H1 2024 leasing	63 KSF
Q2 '24 available s.f. (%)	2.0 MSF (32%)
YOY rental growth	↓7.6%
Recovery time frame	**Medium**

	Boston	East Cambridge	Seaport	Core suburbs
Existing inventory	**49.5 MSF**	**12.3 MSF**	**4.6 MSF**	**7.7 MSF**
Last 12 months absorption	1.1 MSF	545 KSF	355 KSF	77 KSF
H1 2024 leasing	1. 1 MSF	81 KSF	50 KSF	195 KSF
Q2 '24 available (%)	17.4 M (32%)	2.6 MSF (18%)	2.4 MSF (37%)	3.0 MSF (35%)
YOY rental growth	↓8.2%	↓7.6%	↓7.4%	↓6.0%
Recovery time frame	**Long**	**Short**	**Medium**	**Long**

	Bay Area	South San Francisco	Berkeley/ Emeryville	Redwood City/ San Carlos
Existing inventory	**39.6 MSF**	**12.9 MSF**	**4.8 MSF**	**2.9 MSF**
Last 12 months absorption	-336 KSF	-139 KSF	-97 KSF	-784 KSF
H1 2024 leasing	1.0 MSF	350 KSF	35 KSF	277 KSF
Q2 '24 available s.f. (%)	15.8 MSF (35%)	4.7 MSF (33%)	2.2 MSF (45%)	2.33 MSF (53%)
YOY rental growth	↓1.9%	↓1.8%	↓8.4%	↓0.9%
Recovery time frame	**Long**	**Medium**	**Medium**	**Long**

	Philadelphia	University City	New Castle City
Existing inventory	**7.4 MSF**	**2.3 MSF**	**1.6 MSF**
Last 12 months absorption	-46 KSF	-77 KSF	0 s.f.
H1 2024 leasing	16 KSF	0 s.f.	0 s.f.
Q2 '24 available s.f. (%)	2.3 MSF (24%)	1.0 MSF (28%)	214 KSF (14%)
YOY rental growth	↑8.0%	↑8.9%	0.0%
Recovery time frame	**Medium**	**Medium**	**Short**

	Los Angeles & Orange County
Existing inventory	**12.0 MSF**
Last 12 months absorption	-158 KSF
H1 2024 leasing	300 KSF
Q2 '24 available s.f. (%)	306 KSF (3%)
YOY rental growth	↑6.3%
Recovery time frame	**Short**

	Boulder
Existing inventory	**3.9 MSF**
Last 12 months absorption	-3 KSF
H1 2024 leasing	109 KSF
Q2 '24 available s.f. (%)	1.5 MSF (37%)
YOY rental growth	↑9.3%
Recovery time frame	**Medium**

	DC Metro	Shady Grove	Gaithersburg
Existing inventory	**14.1 MSF**	**4.0 MSF**	**3.2 MSF**
Last 12 months absorption	-15 KSF	164 KSF	3 KSF
H1 2024 leasing	665 KSF	348 KSF	42 KSF
Q2 '24 available s.f. (%)	3.4 MSF (24%)	1.5 MSF (31%)	341 KSF (11%)
YOY rental growth	↓10.8%	↓20.3%	↓13.2%
Recovery time frame	**Medium**	**Short**	**Medium**

	San Diego	Torrey Pines	UTC	Sorrento Mesa
Existing inventory	**24.3 MSF**	**6.4 MSF**	**3.5 MSF**	**7.3 MSF**
Last 12 months absorption	-4 KSF	-225 KSF	8 KSF	-273 KSF
H1 2024 leasing	1.0 MSF	284 KSF	53 KSF	306 KSF
Q2 '24 available s.f. (%)	7.5 MSF (26%)	1.0 MSF (15%)	0.5 MSF (12%)	3.1 MSF (36%)
YOY rental growth	↓4.7%	↓5.4%	↓3.3%	↓3.6%
Recovery time frame	**Medium**	**Medium**	**Short**	**Long**

	Raleigh-Durham	RTP / RDU
Existing inventory	**17.1 MSF**	**11.7 MSF**
Last 12 months absorption	-576 KSF	-694 KSF
H1 2024 leasing	143 KSF	143 KSF
Q2 '24 available s.f. (%)	4.4 MSF (24%)	3.2 MSF (25%)
YOY rental growth	↑5.6%	↑7.1%
Recovery time frame	**Medium**	**Medium**

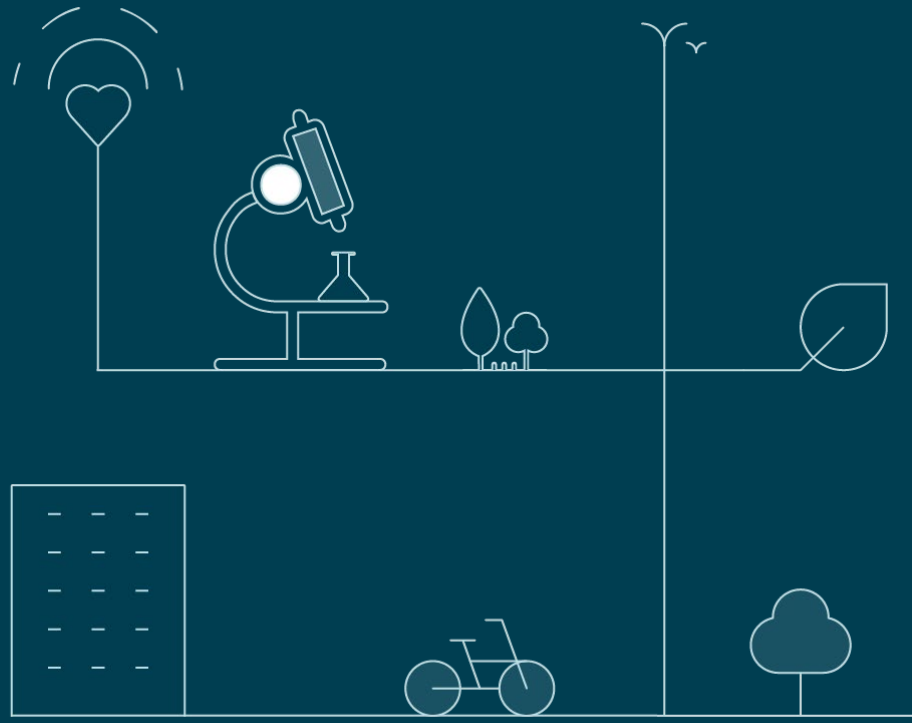
Recovery time frame = estimated time until market equilibrium
Source: JLL Research

Continued next page

8 The return to market equilibrium will vary widely by geography

When the life sciences real estate sector does recuperate, it will not do so in uniform fashion. Amid tepid demand, a flight to asset quality is already well underway. Landlords with scale and sector experience will find ways to get deals done. Across the Big 3 markets, landlords with both scale and experience have done 72% of the leases in the past 18 months yet have only 42% of the available space. Those with neither scale nor experience have half the available space but have done only one-fifth of the leasing volume. A winning edge in a down market appears to be those two features.

The dominant factors today in assessing the outlook of a submarket is how much excess supply was delivered in the downturn, whether it had a critical mass of tenancy prior to COVID and the quality of its landlord base. As seen on the map on the previous page, these factors vary widely across the U.S. Los Angeles has a 3% availability rate, while Boston and the Bay Area are over 10 times higher. Even within regions there are pockets of resiliency—think Torrey Pines and UTC in San Diego or Kendall Square in Boston. These were well established and did not take part in the supply excesses of 2020-2022, so they will face a shorter road to normalcy. Nascent submarkets lacking a historical tenant base have an uphill climb.

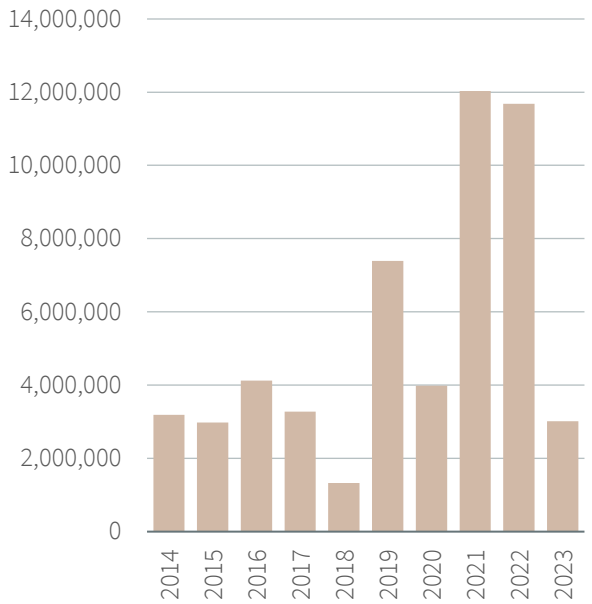


9 If we resume a pre-pandemic trendline, the sector will fall short of absorbing the oversupply

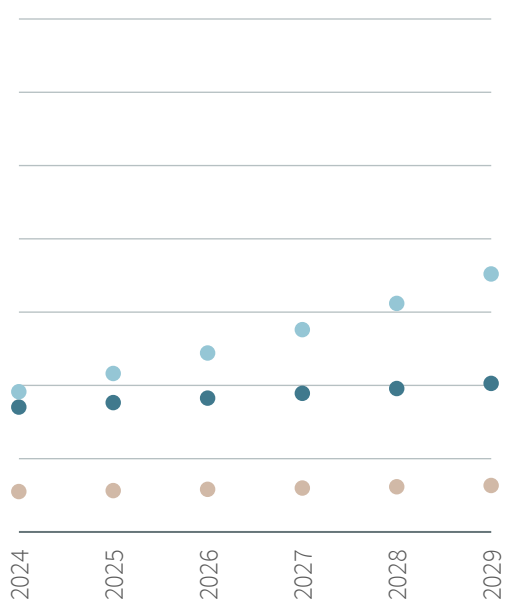
Today, everyone is interested in figuring out when things will get back to "normal." We will most definitely see the speed of recoveries contingent on some mix of location, sponsorship and asset quality. Metrics like biotech equity values, venture deployment, scientific leaps and revenue generation will all interplay in the coming years to determine what is the actual need for lab R&D space across the country. By year's end we could have something in the ballpark of 45 million s.f. of vacant space, with some more potentially delivering in 2025.

Holding all other factors constant (no additional preleasing, no new starts, no substantial space give-backs, no assets coming out of inventory), we would need something on the order of 32 million s.f. of absorption in the next five years to get to a point of equilibrium at the national level. As shown in the graphic, if we take the past 18 months to be the new norm, it will only yield one-quarter of the needed absorption of space. A more reasonable base-case of resuming pre-COVID need for space would get us to around a mid-high teens vacancy rate in 2029—a decent market but by no means as tight as 2018-2021 nor approaching a market in equilibrium of around 10%. If we see labs convert to other asset types, it may hasten the return to normalcy.

Occupancy growth, U.S.



Scenario-based forecast



Worst case: This is the new norm

Better case: Pre-COVID trendline resumes

Absorption needed for equilibrium by 2029

Better case
22.3 MSF of net new occupancy 2024-29

Worst case
7.1 MSF of net new occupancy 2024-29

Q2 2024
40.9 MSF of vacant space (forecast)

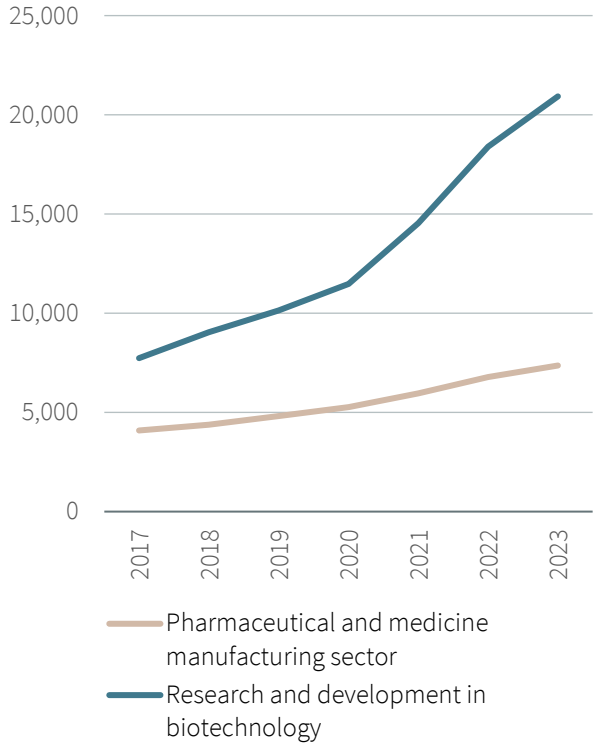
Sources: JLL Research; Bay Area, Boston, Boulder, Greater DC & Baltimore, New Jersey, Philadelphia, Raleigh-Durham, San Diego, Seattle

10 There are still plenty of reasons to expect long-term sector growth

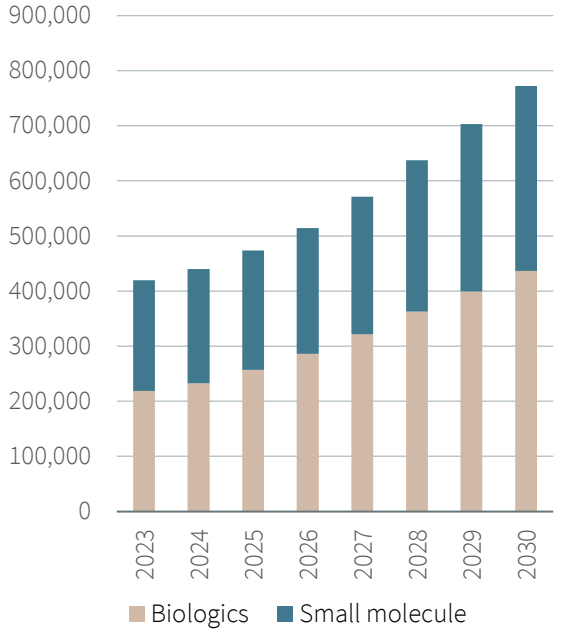
While the short-run real estate picture may be challenging, the signs for long-term growth in the space are plentiful. We are now in a brief respite from what was a 13-year super cycle—a bull run where every quarter had more occupied lab space than the same quarter a year prior. The need for leasable lab infrastructure grew 74% in that time frame. Despite a rash of layoffs, consolidations and a difficult funding environment, sector employment grew by 2% last year and there were 3,000 additional companies than the year prior.

The outlook remains solid. Last year was a banner year for FDA approvals. This year will fall back slightly but still be in line with recent years. Biotechnology patent innovation is 22% higher in 2023 than it was a decade prior, which will result in further company creation. Evaluate Pharma forecasts that worldwide pharma sales are going to be over 80% higher in 2030 than they were in 2023, driven in large part by a doubling of revenue generated by biologics. Furthermore, growth capital is poised to rebound.

Establishments



Worldwide sales forecast



2030 sales projected to be 84% higher than 2023

9.1% annual growth rate, 2024-2030

Sources: QCEW, Evaluate Pharma

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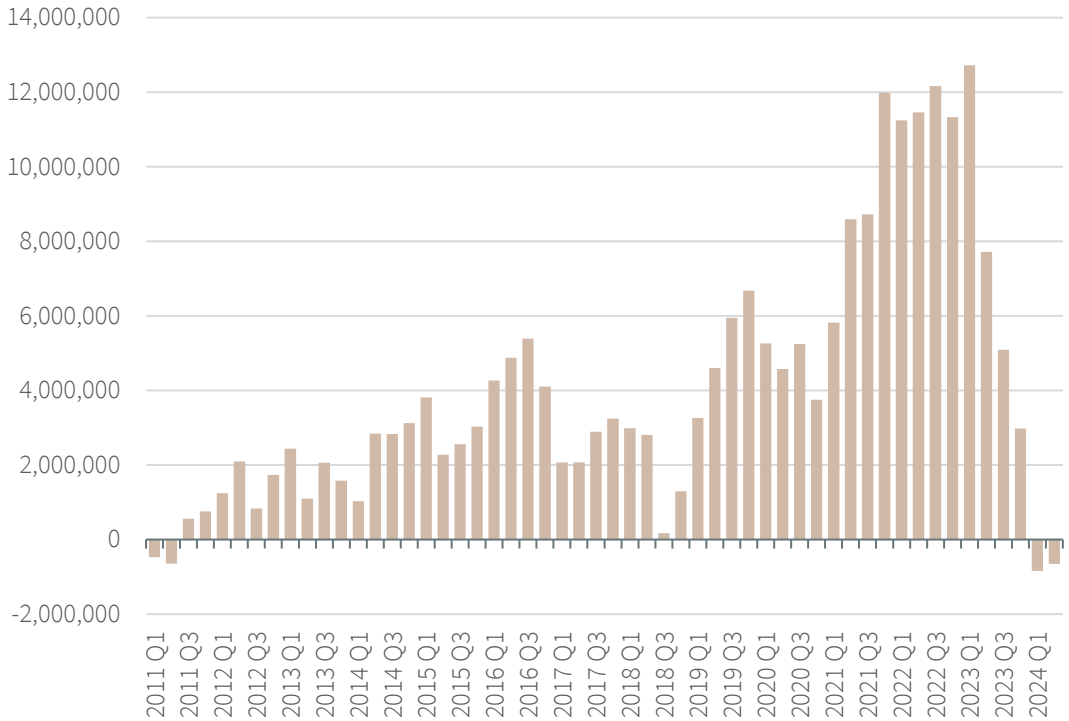
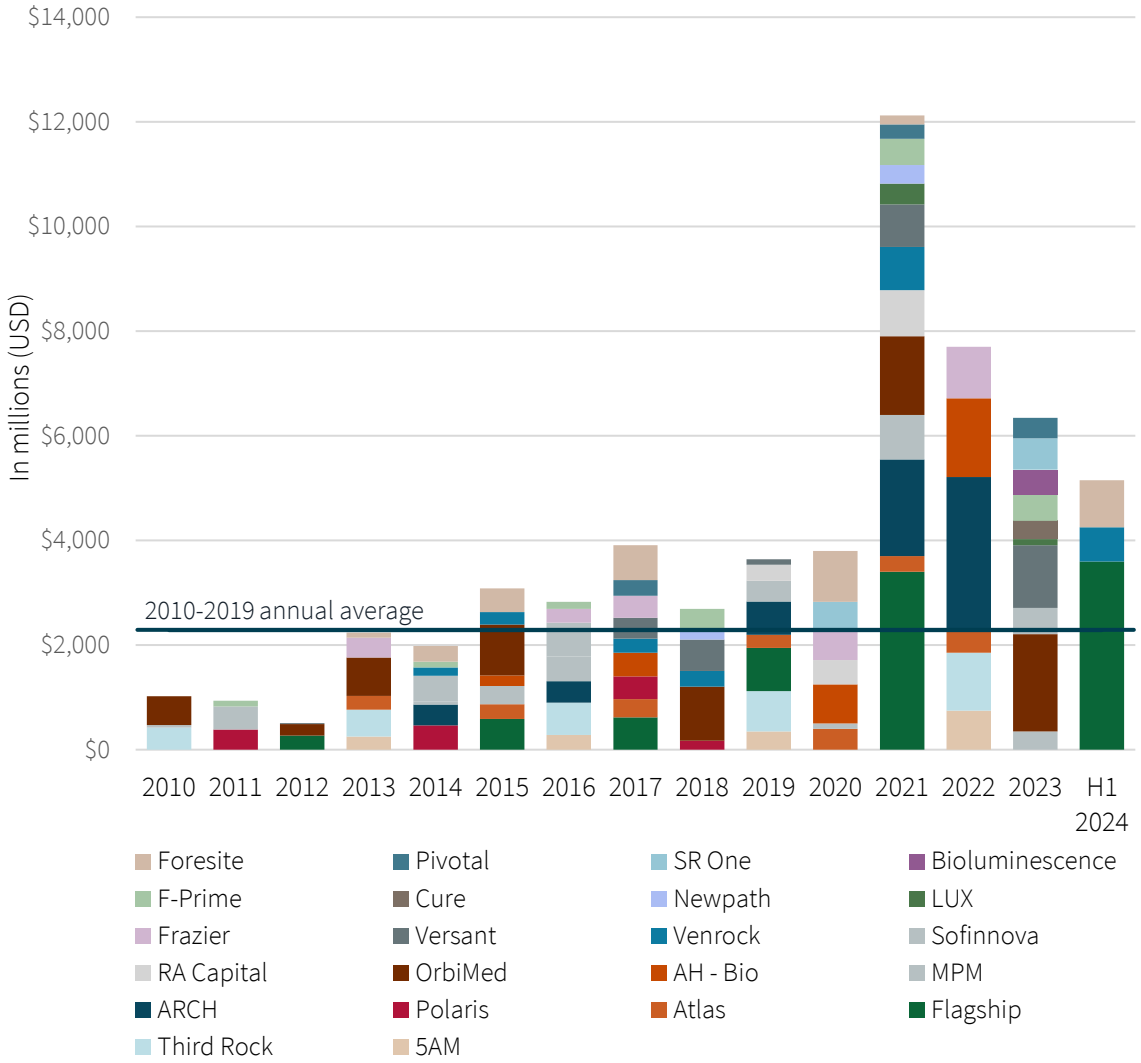
The largest 20 or so life sciences venture firms raised $2.4 billion a year in the last decade. Since January 2023, those venture firms have raised that amount every four months. It is likely they are sitting atop record dry powder. Once the macro signals turn to green, we expect material growth in deployment that should result in additional demand for space that will help kickstart this recovery in earnest.

Occupied lab s.f. YOY change



Fundraises by largest life sciences VCs



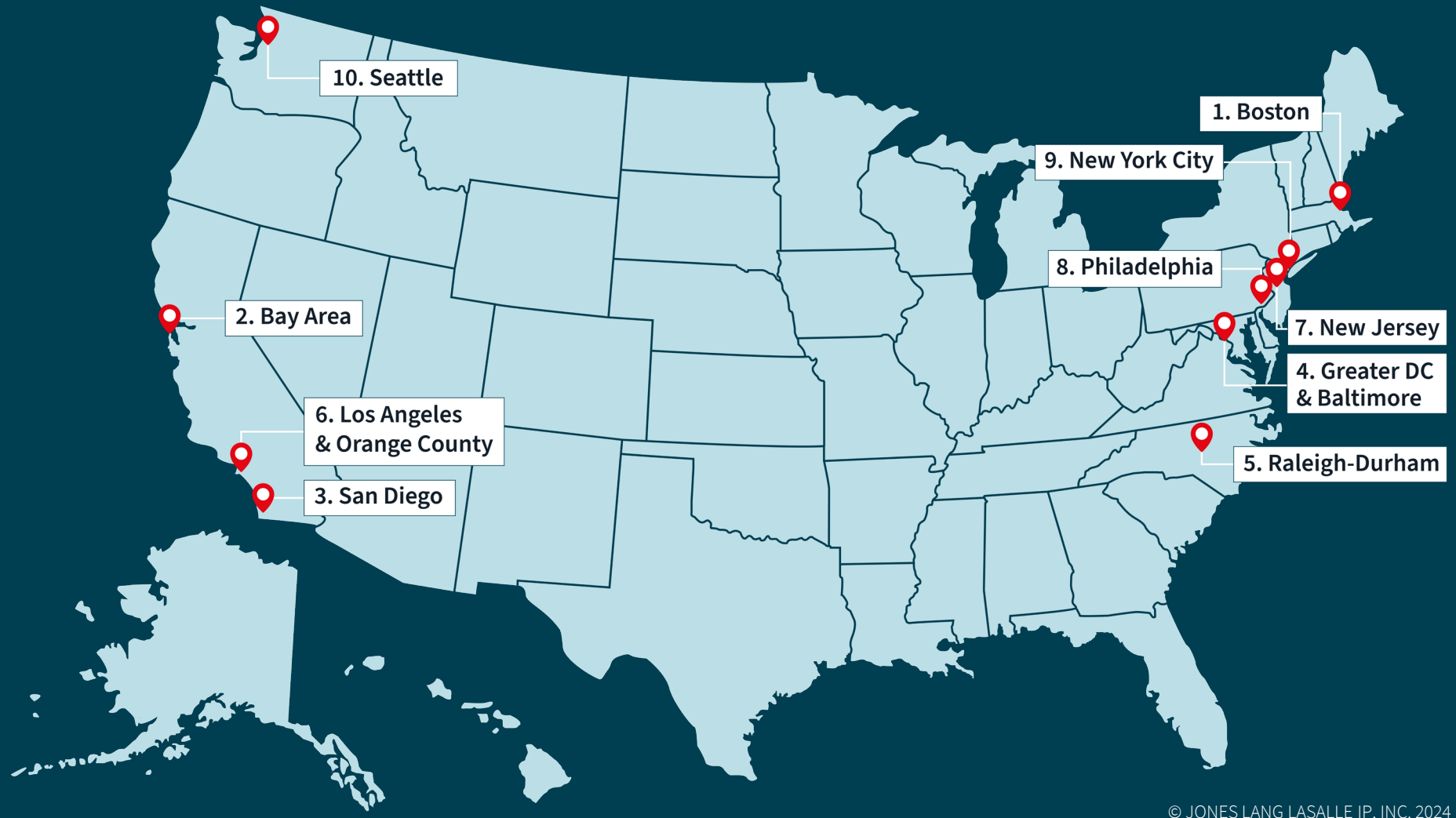
Sources: PitchBook Data, Inc. (data has not been reviewed by PitchBook analysts), JLL Research; Bay Area, Boston, Boulder, Greater DC & Baltimore, New Jersey, Philadelphia, Raleigh-Durham, San Diego, Seattle

2024 Life Sciences Cluster Analysis

With the observations of the major life sciences industry trends in mind, its important to consider the key fundamentals and drivers that differentiate markets. By analyzing data on growth, density and momentum across talent, funding and real estate fundamentals, we can discern how specific markets have positioned themselves as leaders in the life sciences industry. The interplay between market dynamics and industry trends provides a unique perspective on the competitiveness and attractiveness of various regions, highlighting both their current strength and future potential.

Top U.S. life sciences clusters

1	Boston
2	Bay Area
3	San Diego
4	Greater DC & Baltimore
5	Raleigh-Durham
6	Los Angeles & Orange County
7	New Jersey
8	Philadelphia
9	New York City
10	Seattle



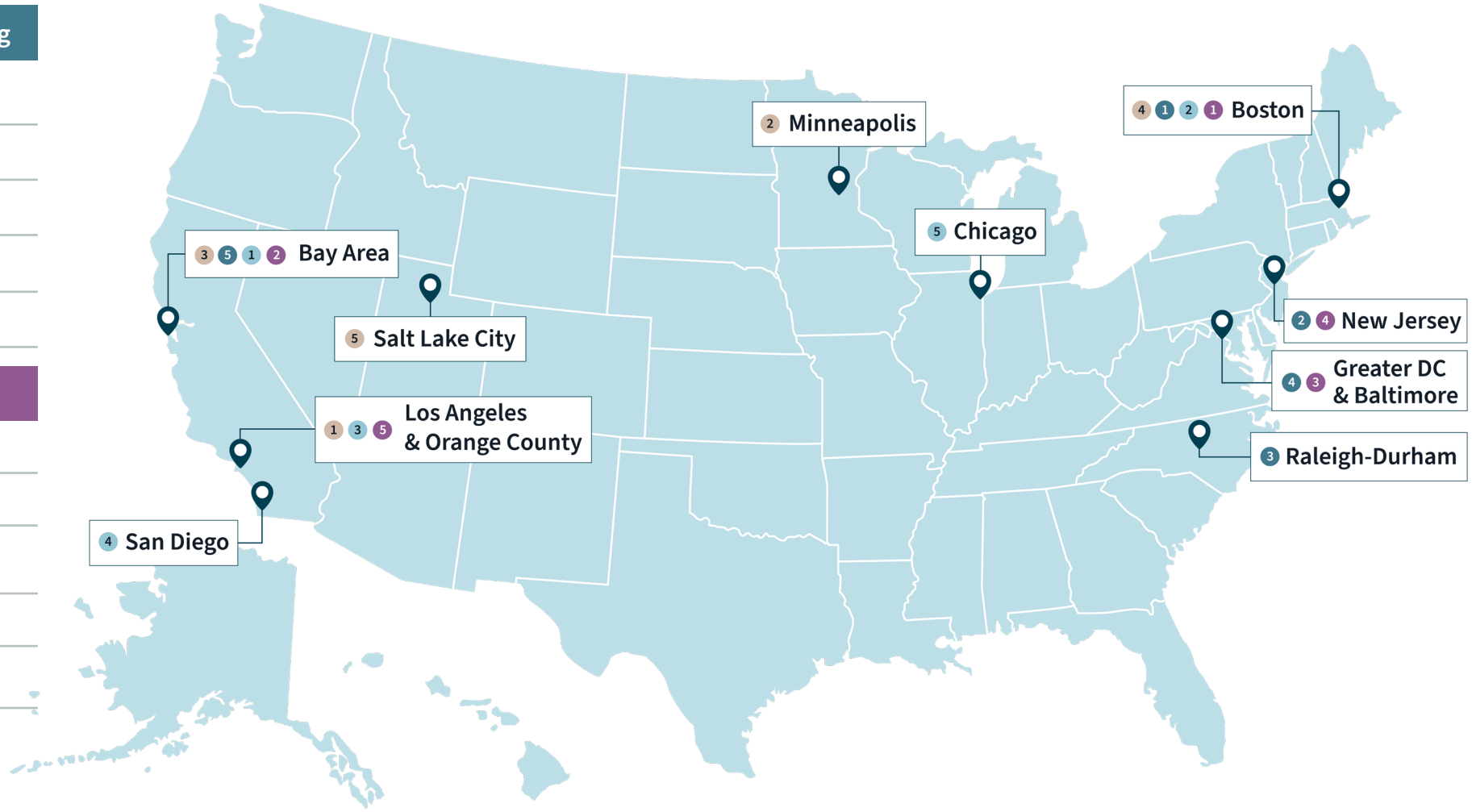
2024 subsector analysis

Medtech	
1	Los Angeles & Orange County
2	Minneapolis
3	Bay Area
4	Boston
5	Salt Lake City

Biomanufacturing	
1	Boston
2	New Jersey
3	Raleigh-Durham
4	Greater DC & Baltimore
5	Bay Area

AI	
1	Bay Area
2	Boston
3	Los Angeles & Orange County
4	San Diego
5	Chicago

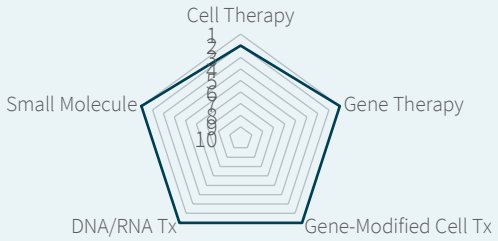
Talent	
1	Boston
2	Bay Area
3	Greater DC & Baltimore
4	New Jersey
5	Los Angeles & Orange County



2024 Top Market Tiles

1 Boston

U.S. pipeline rank by type

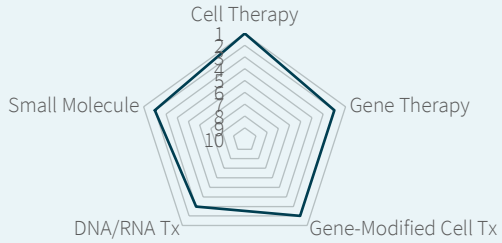


49.5M	32%	$85.39	5.0M
Inventory (s.f.)	Availability	NNN rents	Pipeline (s.f.)
#2	**#4**	**#1**	**#1**
AI cluster	Medtech cluster	GMP cluster	Talent cluster

- Boston remains the top life sciences cluster in the U.S. with depth of talent and innovation.
- 6x more supply than demand, making short-term recovery challenging amid tepid demand.
- Small tenants have driven demand for the past 18 months and most deals are in prebuilt space.

2 Bay Area

U.S. pipeline rank by type

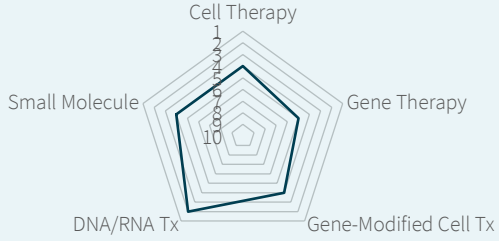


39.6M	35%	$81.84	5.4M
Inventory (s.f.)	Availability	NNN rents	Pipeline (s.f.)
#1	**#3**	**#5**	**#2**
AI cluster	Medtech cluster	GMP cluster	Talent cluster

- Demand is starting to rebound, with 2.8 MSF of demand as of August 2024, a 34% increase year-over-year. 54% of the demand is concentrated in small spaces of under 30,000 s.f.
- Similarly, leasing activity has seen 76% of deals YTD 2024 below 30,000 s.f.
- Vacancy is projected to peak in 2025 as all new deliveries will be completed by then.

3 San Diego

U.S. pipeline rank by type

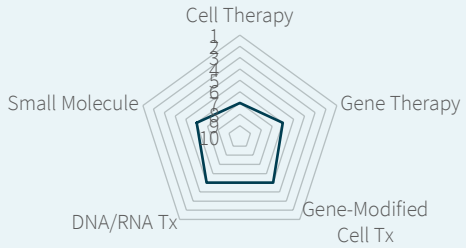


24.3M	26%	$70.68	4.2M
Inventory (s.f.)	Availability	NNN rents	Pipeline (s.f.)
#4	**#10**	**#10**	**#7**
AI cluster	Medtech cluster	GMP cluster	Talent cluster

- Venture investment on pace for second-best year on record with $3.0 billion YTD as mega rounds proliferate.
- Average deal size is up to 36,000 s.f., reflecting the VC trend of fewer, but larger rounds.
- YTD net absorption is -306,360 as several company shutdowns and subleases afflict the market.

4 Greater DC & Baltimore

U.S. pipeline rank by type

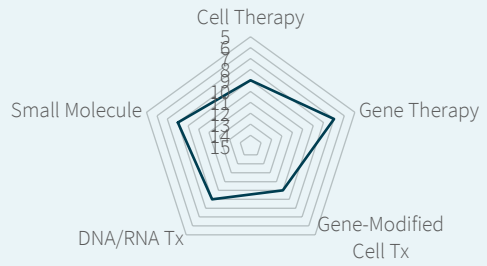


13.7M	24%	$37.21	0.5M
Inventory (s.f.)	Availability	NNN rents	Pipeline (s.f.)
#7 AI cluster	#12 Medtech cluster	#4 GMP cluster	#3 Talent cluster

- There has been a considerable cooling in demand, with less than 1 million s.f. set to deliver by 2025.
- Over 3 million s.f. of proposed projects remain in the pipeline but are unlikely to break ground until demand catches up to existing supply.
- The supply dynamic in Greater DC and Baltimore will provide downward pressure on the rental rate growth after past three years of positive growth.

5 Raleigh-Durham

U.S. pipeline rank by type

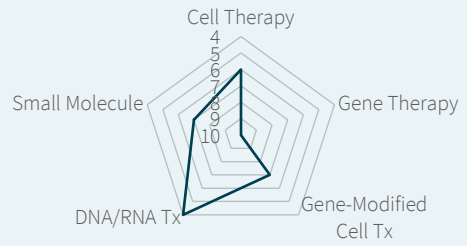


17.1M	25%	$38.13	0.9M
Inventory (s.f.)	Availability	NNN rents	Pipeline (s.f.)
#12 AI cluster	#14 Medtech cluster	#3 GMP cluster	#6 Talent cluster

- Conversions continues as some traditional flex tenants vacate, accounting for most negative absorption in Q2 2024. This offers an opportunity for firms to transact in a tighter R&D market.
- Demand increased to a 12-month high, with a plurality between 10,000 and 25,000 s.f.
- Recent deliveries of cGMP facilities continue to be the main driver of vacancy in the market.

6 Los Angeles & Orange County

U.S. pipeline rank by type

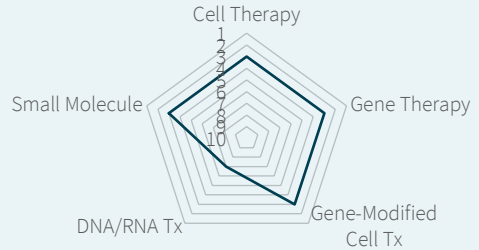


12.0M	3%	$66.00	0.0M
Inventory (s.f.)	Availability	NNN rents	Pipeline (s.f.)
#3 AI cluster	#1 Medtech cluster	#8 GMP cluster	#5 Talent cluster

- LA faces a supply-demand imbalance, particularly for smaller-scale companies.
- The manufacturing sector accounts for over 60% of the total inventory in Los Angeles.
- Los Angeles has strong tenant activity, with over 1 million s.f. of active requirements. The majority of demand remains on the smaller scale (5,000-15,000 s.f.).

7 New Jersey

U.S. pipeline rank by type



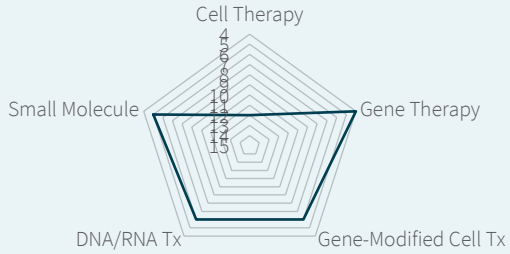
10.1M	27%	$29.98	0.0M
Inventory (s.f.)	Availability	NNN rents	Pipeline (s.f.)
#6 AI cluster	#9 Medtech cluster	#2 GMP cluster	#4 Talent cluster

- With one of the highest concentration of scientists and engineers in the world, as well as top teaching hospitals and universities, New Jersey remains a biopharma hub.
- Startup and smaller-sized life sciences companies seeking less than 5,000 s.f. of space remain active in the market but face limited product.
- Flight-to-quality migration will continue to drive life sciences workspace requirements, as tenants shed outdated workspaces and move into new developments and recently renovated buildings offering premium amenities.

These top clusters are just the tip of the iceberg. JLL's proprietary methodology utilizes a variety of data points to evaluate top markets. **Start a conversation with us** to explore these clusters further and discover other geographies that made our list.

8 Philadelphia

U.S. Pipeline Rank By Type

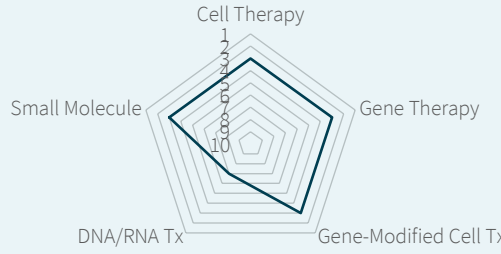


7.4M	24%	$46.65	2.0M
Inventory (s.f.)	Availability	NNN rents	Pipeline (s.f.)
#10	**#20**	**#6**	**#11**
AI cluster	Medtech cluster	GMP cluster	Talent cluster

- Cementing its status as a global gene therapy hub, Philadelphia is currently home to 12% of CGT companies worldwide.
- Supply has increased 24% in the last three years, causing vacancy to hit record highs amid waning demand.
- Deal velocity has slowed, with volume for the first half of 2024 at -86% of 2023's first half.

9 New York City

U.S. Pipeline Rank By Type

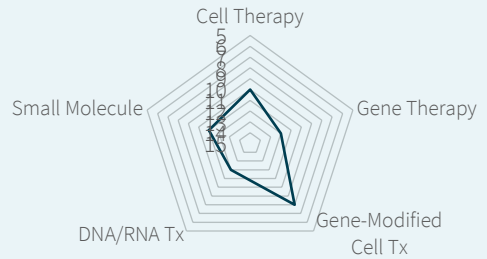


2.5M	N/A	$96.53	0.2M
Inventory (s.f.)	Availability	NNN rents	Pipeline (s.f.)
#8	**#15**	**#11**	**#13**
AI cluster	Medtech cluster	GMP cluster	Talent cluster

- NIH funding is on track to surpass recent years at $1.5B in H1 2024, with top recipients including Columbia University, Icahn School of Medicine, and NYU School of Medicine.
- Life sciences clusters have formed across the New York metro, with Manhattan's East and West sides anchored by prominent buildings, while the Outer Boroughs, including Long Island City, show higher vacancy rates due to their distance from Manhattan's institutions.
- Notable life sciences deals signed in the past year include RegenLab, Firmenich and Mount Sinai.

10 Seattle

U.S. Pipeline Rank By Type



5.5M	32%	$70.55	0.7M
Inventory (s.f.)	Availability	NNN rents	Pipeline (s.f.)
#9	**#29**	**#21**	**#8**
AI cluster	Medtech cluster	GMP cluster	Talent cluster

- Seattle's biotech labor pool remains among the fastest growing and most affordable in the U.S.
- Muted demand has coincided with an influx of supply, lifting availability to a record 2.0 MSF. Given the smaller relative size of Seattle's biotech tenants, absorption will be gradual.
- Research institutions account for 48% of all existing lab product and continue to attract significant funding.

Canada Market Intelligence

Toronto

7.4M Inventory (s.f.)	**314k** 2023 deliveries	**376k** Pipeline
$210M* 2023 CIHR funding	**46k** LS labor pool	**24%** 5-yr LS job growth
$84M* 2023 VC funding	**-39%** VC funding 2023 vs. 5-yr avg.	

- Sanofi opened a new, 200,000 s.f., US$800 million vaccine manufacturing facility at its North York campus. It is building a second facility at the same campus to increase production of its flu vaccine.
- AIMCO's Catalyst is expected to be completed in early 2025. The 166,000 s.f. project will be Toronto's first purpose-built lab delivery in over a decade.
- AstraZeneca is expanding its presence in suburban Mississauga with a new R&D center that will add over 500 new jobs.

Montreal

4.2M Inventory (s.f.)	**341k** 2023 deliveries	**211k** Pipeline
$153M* 2023 CIHR funding	**32k** LS labor pool	**12%** 5-yr LS job growth
$110M* 2023 VC funding	**-23%** VC funding 2023 vs. 5-yr avg.	

- Jadco Group is partnering with lab operator CellCarta on a multi-phase, US$350 million purpose-built lab development that will add approximately 450,000 s.f. to the market when complete.
- Moderna completed construction of a new mRNA manufacturing facility in Laval's Biotech City research park. The development was financed by Investissement Québec.
- Alexandria RE has completed multiple office-to-lab conversions at Nexus 4013 Business Park and is now offering them for lease.

Vancouver

3.2M Inventory (s.f.)	**314k** 2023 deliveries	**915k** Pipeline
$96M* 2023 CIHR funding	**21k** LS labor pool	**31%** 5-yr LS job growth
$160M* 2023 VC funding	**-10%** VC funding 2023 vs. 5-yr avg.	

- UBC was the top university recipient of CIHR funding for 2023 with over US$70 million in grants awarded.
- Vancouver led all Canadian cities in VC funding for 2023 and so far in 2024 has commanded 37% of all Canadian life science VC funding. The top three recipients over the past year and a half—Aspect Biosystems, Borealis and Abera Therapeutics—all hail from Vancouver.
- Vancouver has the largest proposed life science development pipeline in Canada, with over 2 MSF announced—much of it in the Mount Pleasant node. However, development headwinds and a softening VC market have led to the postponement of many of these projects. Still, Vancouver's pipeline of projects under construction remains the highest in Canada.

Southwestern Ontario

1.5M Inventory (s.f.)	**114k** 2023 deliveries	**245k** Pipeline
$57M* 2023 CIHR funding	**7.6k** LS labor pool	**22%** 5-yr LS job growth
$84M* 2023 VC funding	**-39%** VC funding 2023 vs. 5-yr avg.	

- Though a smaller market than the others, Southwestern Ontario is one of the fastest-growing regions in Canada and boasts one of the largest concentration of university students and some of the country's top science and engineering universities, including McMaster, U of Waterloo and Western.
- AstraZeneca acquired Hamilton's Fusion Pharmaceuticals for US$2.4 billion, targeting the company's precision medicine therapy and diagnostic technology.
- Phase 1 of development is now complete at the OmniaBio plant in Hamilton. The facility is expected to be Canada's largest contract drug manufacturing plant upon full completion, and anchors McMaster Innovation Park.

LATAM Market Intelligence

Brazil

- The pharmaceutical market in Brazil is growing, with Brazil ranking ninth in global revenue. São Paulo is the main market, but there are also companies in other states such as Rio de Janeiro, Pernambuco and Rio Grande do Sul.
- São Paulo's South Zone is a hub for life science companies, with a concentration of 102 companies and 120 office sites in 94 buildings.
- The distribution of life science companies in São Paulo is well diversified among different property classes, with a majority located in Class B buildings.
- Recent investments in the life science industry include Novo Nordisk expanding its unit in Montes Claros, Hypera receiving a credit for research and innovation, Merck opening a new distribution center in Cajamar and Sanofi investing in logistics capacity in Extrema.

Costa Rica

- Costa Rica is actively attracting life sciences investments in rising cities in the western region of the Central Valley, leveraging high-quality talent, strategic location and sustainability-friendly vision.
- Recent projects and investments include Boston Scientific's new manufacturing plant in Cartago, Johnson & Johnson's new facility in Grecia, Roche's 800,000 s.f. building in San Jose and Establishment Labs' state-of-the-art facility in Alajuela.
- Costa Rica is a hub for the medtech industry, hosting over 90 multinational companies and being the third-largest exporter of high-technology products in Latin America.
- The country's medtech exports reached US$7.6 billion in 2023, making it the highest-earning industrial product in Costa Rica, with a highly educated workforce and flexible free trade zone regime.

Argentina

- Argentina's pharmaceutical sector is the third-largest market in Latin America after Brazil and Mexico.
- Pharma exports from Argentina were valued at US$712 million in 2023.
- The industry ranks third in terms of industrial added-value in Argentina, following the oil refinery and iron and steel sectors.
- Argentina has approximately 230 authorized plants for manufacturing medicinal specialties, with 182 being domestically owned companies.

Mexico

- Mexico is the second-largest medical device market in Latin America, with significant growth and job creation in the industry.
- Mexico is an important exporter of medical devices, with the U.S. being the main export destination.
- Mexico City is home to central offices of major pharmaceutical companies, and there have been significant office transactions in the sector in recent years.
- Mexico has many hospitals and universities, with a strong legal framework for healthcare regulation and promotion.

JLL SEE A BRIGHTER WAY

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