

FIGURES | U.S. LIFE SCIENCES | Q4 2022

Despite Economic Headwinds, Life Sciences Market Finishes 2022 with Solid Fundamentals



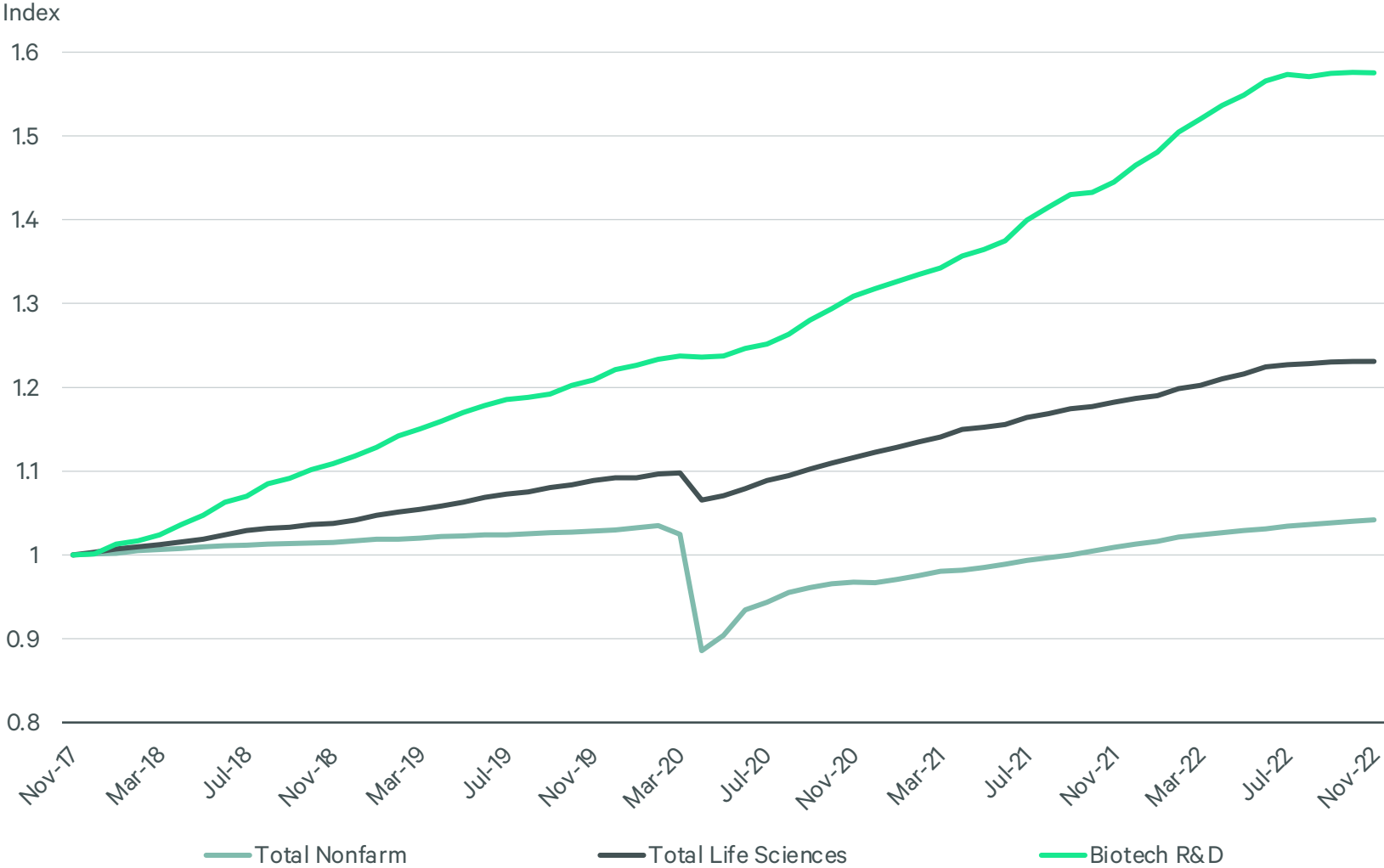
Note: Arrows indicate change from previous quarter.

Executive Summary

- The rate of life sciences employment growth slowed in Q4 as companies reduced job openings and laid off staff to maintain cash flow.
- Growth in venture capital funding resumed in Q4 and exceeded pre-2020 levels.
- Vacancy rose across most markets, bringing the national average to 5.7% in Q4 from 5.1% in Q3. However, this was the same rate as a year ago and less than any quarter before 2021. This suggests vacancy is beginning to return to normal levels after the frenetic activity of 2021 pushed vacancy to historic lows.
- The average asking rate hit a record-high \$62.16 per sq. ft. NNN, driven by record levels of new premier lab space construction.
- Lab space under construction as of Q4 is two and a half times more than in 2020 and up by 8 million sq. ft. from Q4 2021. Nearly 1.4 million sq. ft. was delivered in Q4 2022 alone.

Figure 1
Total U.S. & life sciences
employment growth

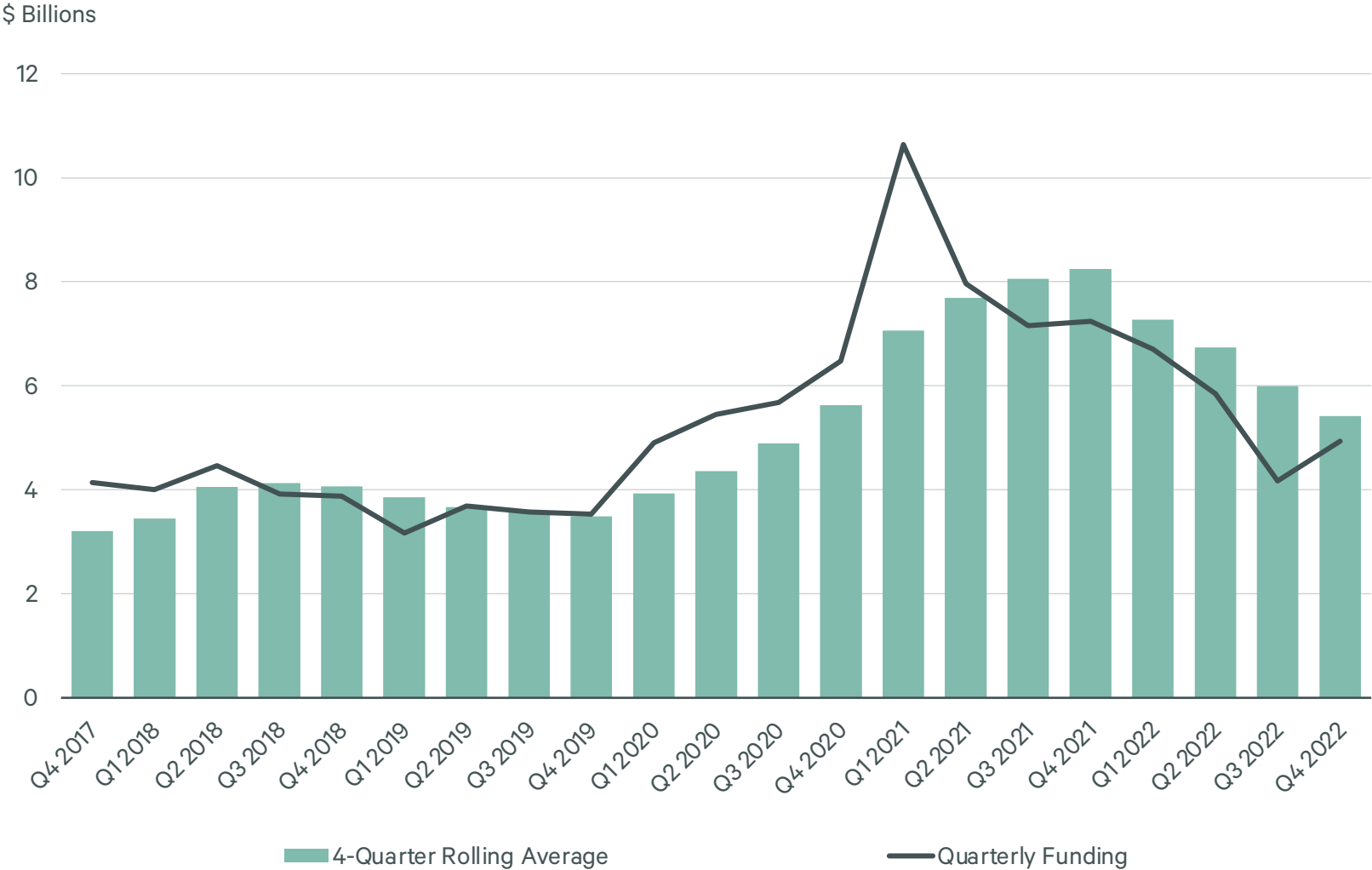
- Total life sciences employment grew by 80,415 jobs or 4.0% year-over-year in November, down from 4.7% in September and 6.0% in November of 2021.
- Biotech R&D annual job growth has declined since the peak of 13.8% in June 2022, but year-over-year growth remained high at 9.0% compared with total life sciences (4.0%) and total nonfarm employment (3.3%).
- With increasing layoffs at year’s end, month-over-month Biotech R&D employment fell by 0.03% in November, only the second monthly loss since early 2020.



Note: Indexed to 1.0 in November 2017.
Source: CBRE Research, U.S. Bureau of Labor Statistics, Q4 2022.

Figure 2
U.S. life sciences venture capital funding

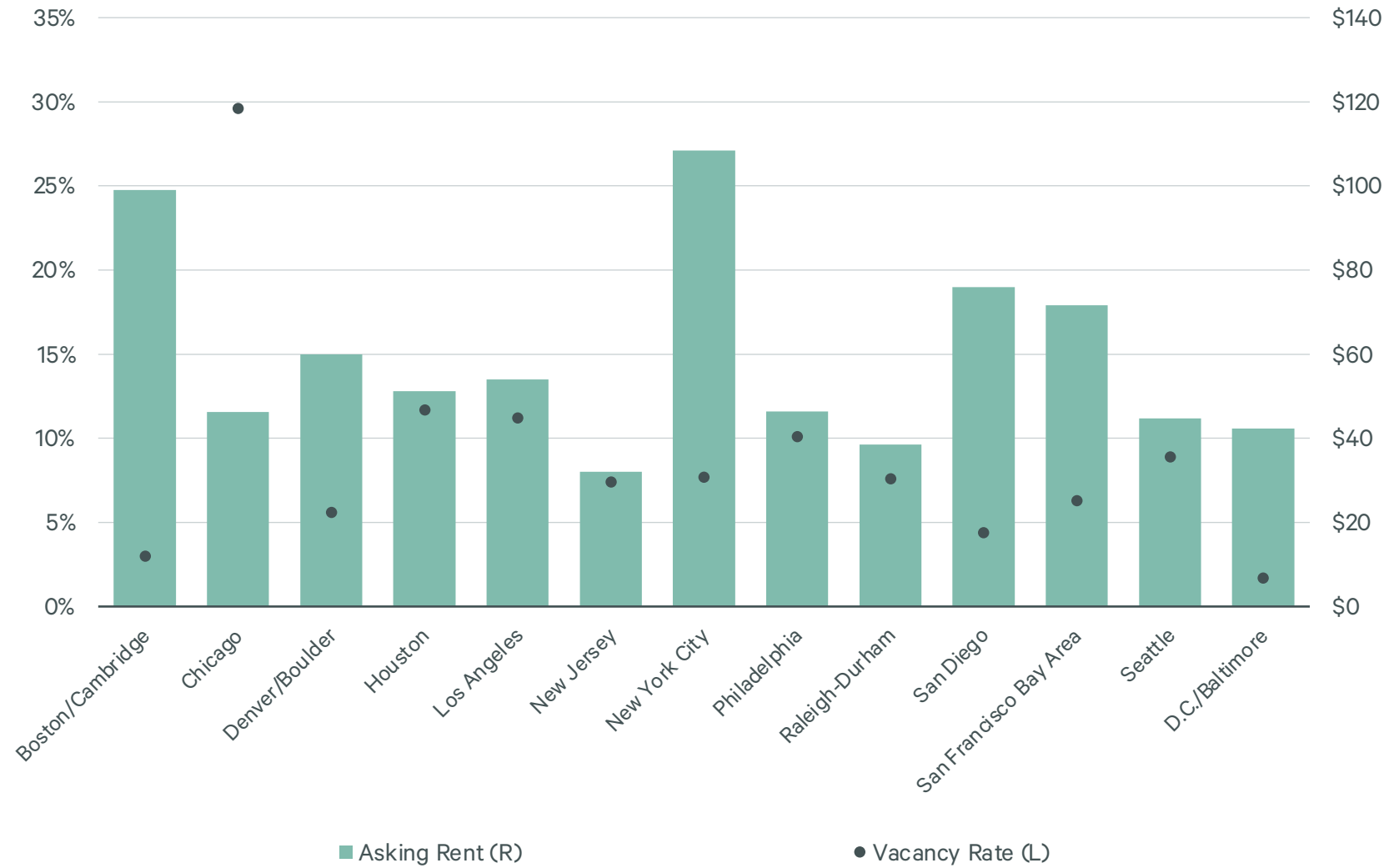
- After declining for three consecutive quarters, venture capital (VC) funding increased by 18.4% in Q4. VC funding totaled \$21.7 billion for the year, down by 34.4% from 2021 but only 3.7% below 2020 funding and well above pre-pandemic annual totals.
- Quarterly funding averaged \$5.4 million in 2022 compared with \$5.6 million in 2020. With VC firms allocating more funds for life sciences in 2023, the annual total could surpass pre-2021 levels again.



Source: CB Insights, CBRE Research, Q4 2022.

Figure 3
Q4 2022 lab vacancy rates & asking rents, top 13 markets

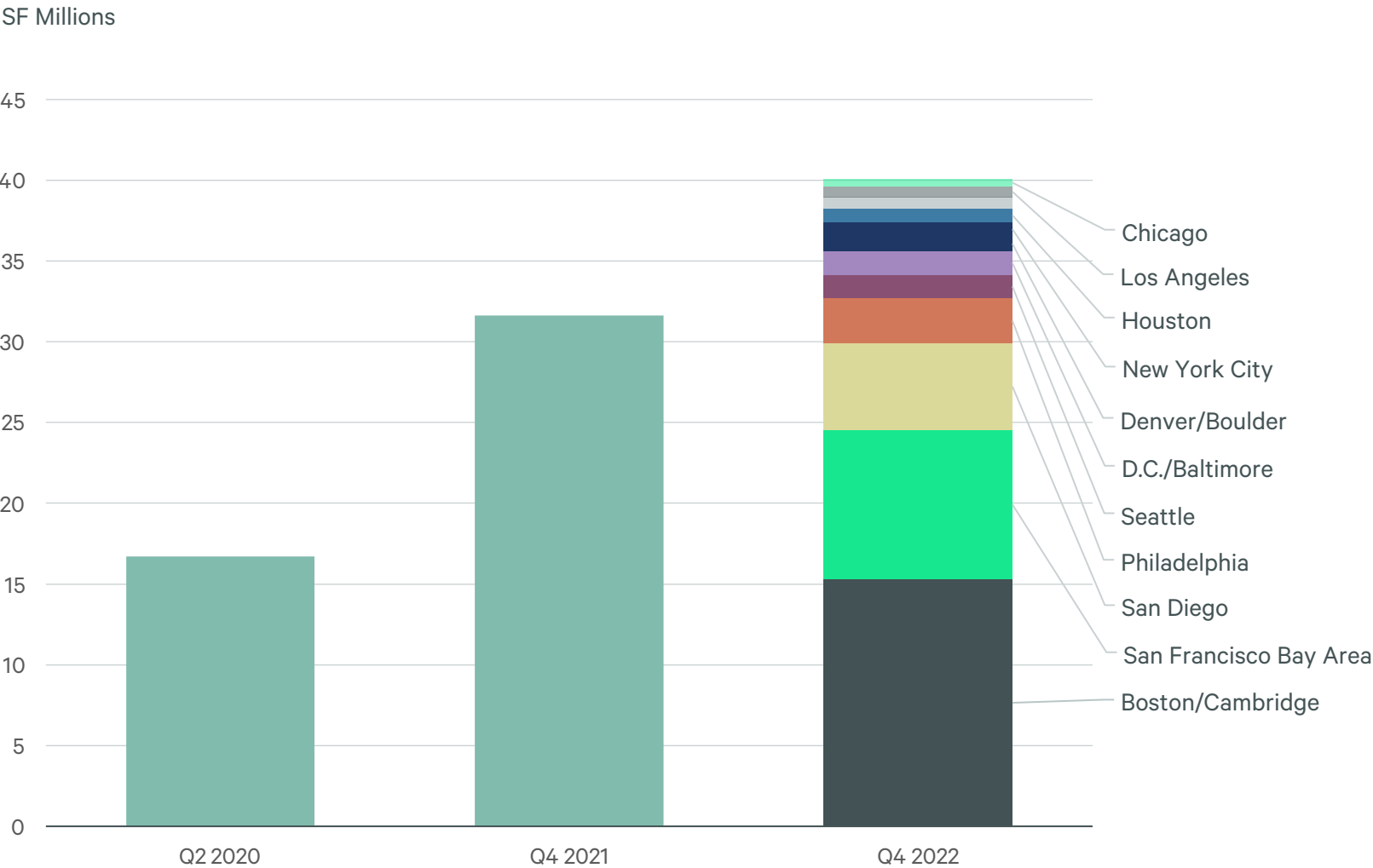
- The overall lab vacancy rate increased by 60 basis points (bps) quarter-over-quarter to 5.7% but was the same as a year ago, suggesting a normalization in the market rather than fewer life sciences tenants.
- Despite higher vacancy, average lab asking rents grew by 3.1% quarter-over-quarter to \$62.16 per sq. ft. NNN. This is likely due to the influx of new, premier lab space.



Source: CBRE Research, Q4 2022.

Figure 4
Lab space under construction

- Total under-construction lab space increased by nearly 2.7 million sq. ft. quarter-over-quarter and 8 million sq. ft. year-over-year to 40.1 million sq. ft. in Q4.
- 75.4% of the 34.2 million sq. ft. of speculative construction was available in Q4. Available space exceeded demand by 7.3 million sq. ft.
- Overall demand decreased by 8.4% quarter-over-quarter to 18.5 million sq. ft. This is more in line with demand in Q4 2020, suggesting a normalization of tenant demand in the market.



Note: Includes new development, conversions, speculative and build-to-suit projects.
Source: CBRE Research, Q4 2022.

Figure 5
Q4 2022 market indicators

Market	Inventory (SF)	Vacancy	Average Asking Rents (NNN)	Absorption	Tenants Seeking Space	Total Demand (SF)	Under Construction (SF of Lab/R&D)	Preleased (% of Under Construction)	Q4 Deliveries (SF of Lab/R&D)
Boston/Cambridge	52,705,067	3.0%	\$99.02	(47,488)	96	3,019,000	15,297,894	37.1%	944,995
Chicago	1,981,818	29.6%	\$46.29	20,083	36	1,180,000	456,442	0.0%	-
Denver/Boulder	3,040,541	5.6%	\$60.00	-	21	960,000	931,046	64.8%	46,821
Houston	1,630,810	11.7%	\$51.24	31,338	1	70,000	854,867	1.2%	54,500
Los Angeles	5,624,236	11.2%	\$54.00	-	28	950,500	681,710	0.0%	-
New Jersey	15,835,871	7.4%	\$32.00	97,692	6	440,000	-	0.0%	-
New York City	2,695,667	7.7%	\$108.47	92,584	42	1,360,000	866,013	0.0%	-
Philadelphia	9,665,840	10.1%	\$46.32	73,991	43	1,878,000	2,767,460	35.2%	169,840
Raleigh-Durham	9,025,516	7.6%	\$36-\$41	103,312	19	950,000	688,628	16.4%	79,000
San Diego	23,890,097	4.4%	\$75.96	(247,055)	29	980,000	5,370,000	30.1%	-
San Francisco Bay Area	33,753,018	6.3%	\$71.64	(95,448)	102	5,555,000	9,255,050	14.0%	66,500
Seattle	9,257,340	8.9%	\$44.74	42,064	14	325,000	1,463,549	33.1%	-
Washington, D.C./Baltimore	12,620,167	1.7%	\$42.35	23,642	26	821,500	1,453,287	51.9%	27,000
TOTAL	181,725,988	5.7%	\$62.16	94,715	463	18,489,000	40,089,592	28.8%	1,388,656

Source: CBRE Research, Q4 2022.

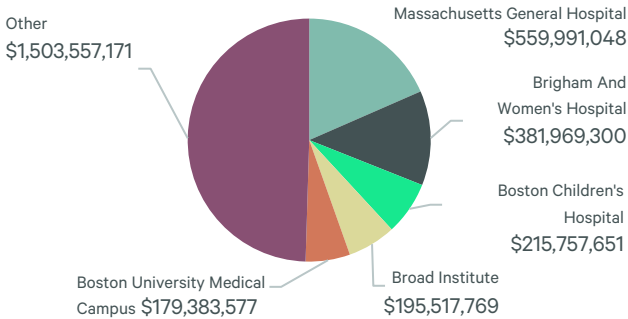
Q4 2022

Market Overviews

Market Overviews

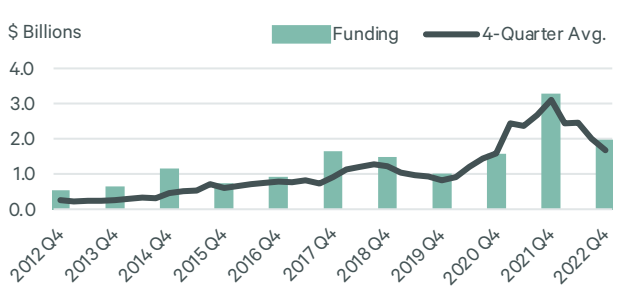
Boston/ Cambridge

2022 NIH Funding: \$3.0B



Source: National Institutes of Health (fiscal year starting October 1, 2021 and ending September 30, 2022).

VC Funding



Source: CB Insights.

Inventory Lab/R&D

	Inventory (SF)	Avg. Asking Rents (NNN)	Vacancy Rate	Absorption
Cambridge	19,102,525	\$115.96	2.1%	51,435
Boston	14,085,314	\$104.47	1.9%	38,885
Route 128: Core	16,957,822	\$90.68	5.1%	(137,808)
Route 495: Core	2,559,406	\$38.00	1.9%	-
METRO (TOTAL)	52,705,067	\$99.02	3.0%	(47,488)

Demand

	Q4 2022
# of TIMs	96
SF of Demand	3.0M

Class A+

	Urban	Suburban
Inventory	12MSF	7.5MSF
Asking Rate (NNN)	\$100-\$125	\$75-\$95

Future Supply Lab/R&D

Under Construction	Number of Projects	Total Size (SF)	Total Spec Size (SF)	Delivering in 2023 (SF)	% Pre-leased
New	35	10,036,492	9,236,492	2,504,918	38.9%
Conversion	30	5,261,402	5,261,402	4,886,402	33.6%
TOTAL	65	15,297,894	14,497,894	7,391,320	37.1%

Top Lab/R&D Lease Transactions

Tenant	Size (SF)	Submarket	Type
GSK	197,300	Cambridge	Renewal/Expansion
Seres Therapeutics	68,600	Cambridge	Renewal
Bluebird Bio	42,000	Boston	Sublease
Wave Life Sciences	30,500	Cambridge	Renewal
Biohaven Pharmaceuticals	26,900	Cambridge	New

Top Lab/R&D Sale Transactions

Buyer	Size (SF)	Submarket	Price	\$/SF
Metlife	109,468	Route 128	\$103M	\$941
Investcorp	101,311	Route 128	\$89M	\$878
Greatland/Barings	54,549	Cambridge	\$46M	\$843

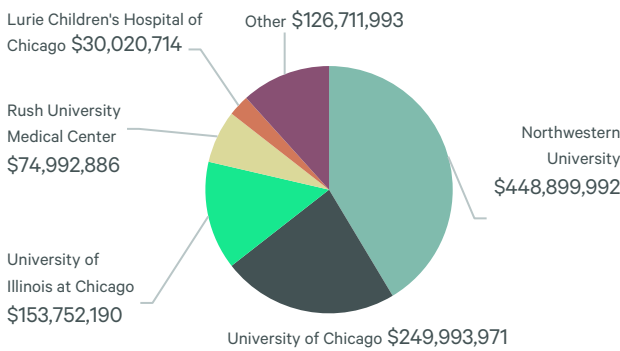
Q4 Lab/R&D Deliveries

Development	Submarket	Size (SF)	Developer	BTS or Spec
One Design Ctr	Seaport	250,000	Related Beal	Spec
100 Forge St	Route 128	165,000	Boylston Prop.	Spec
101 Cambridge Park Dr	Cambridge	160,000	Healthpeak/ King Street	Spec
580 Pleasant St	Route 128	147,000	Griffith/DRA	Spec
10 Maguire Rd Bldg 1	Route 128	93,000	Greatland Realty	Spec
36 Crosby Dr	Route 3	79,995	TPG/Anchorline	Spec
730 Main St	Cambridge	50,000	MITIMCo	Spec

Market Overviews

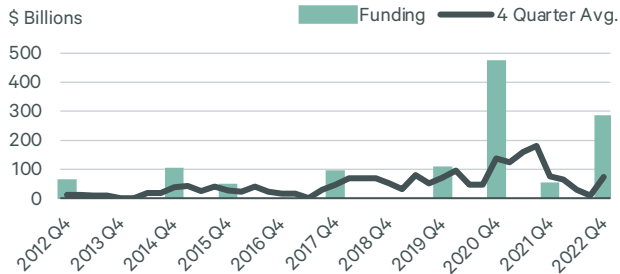
Chicago

2022 NIH Funding: \$1.1B



Source: National Institutes of Health (fiscal year starting October 1, 2021 and ending September 30, 2022).

VC Funding



Source: CB Insights.

Inventory Lab/R&D

	Inventory (SF)	Avg. Asking Rents (NNN)	Vacancy Rate	Absorption
Suburbs	988,426	\$37.00	8.1%	20,083
City	993,392	\$55.25	51.0%	-
METRO (TOTAL)	1,981,818	\$46.29	29.6%	20,083

Top Lab/R&D Lease Transactions

Tenant	Size (SF)	Submarket	Type
Lanzatech	20,100	Suburbs	New

Demand

	Q4 2022
# of TIMs	36
SF of Demand	1.2M

Class A+

	Urban
Inventory	724,714
Asking Rate (NNN)	\$60

2022 Key Trends

Although the overall amount of space being sought by Chicago office tenants remained roughly flat quarter over quarter, demand from life sciences tenants jumped 13% from Q3 to Q4 2022.

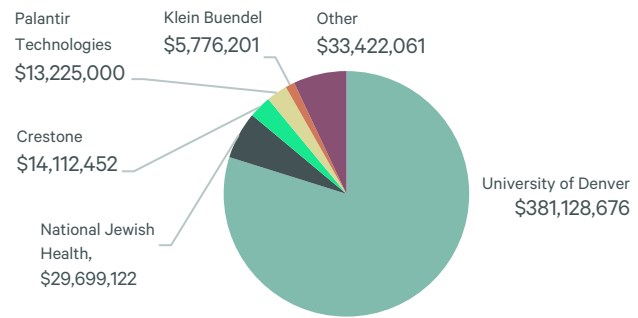
Future Supply Lab/R&D

Under Construction	Number of Projects	Total Size (SF)	Total Spec Size (SF)	Delivering in 2023 (SF)	% Pre-leased
New	2	456,442	456,442	281,000	0.0%
Conversion	-	-	-	-	-
TOTAL	2	456,442	456,442	281,000	0.0%

Market Overviews

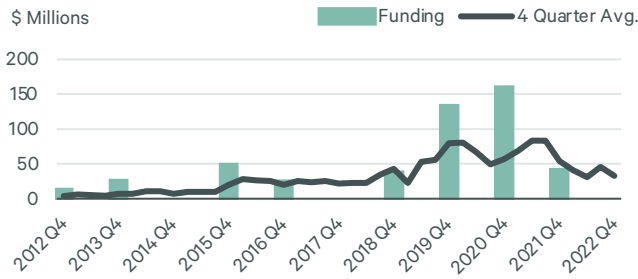
Denver/ Boulder

2022 NIH Funding: \$477M



Source: National Institutes of Health (fiscal year starting October 1, 2021 and ending September 30, 2022).

VC Funding



Source: CB Insights.

Inventory Lab/R&D

	Inventory (SF)	Avg. Asking Rents (NNN)	Vacancy Rate	Absorption
Boulder	917,584	\$60-\$70	5.8%	-
Longmont	489,000	N/A	0.0%	-
North Central	177,033	N/A	0.0%	-
Northeast	326,000	\$50.00	11.7%	-
Northwest	880,512	\$50-\$60	7.3%	-
South Central	13,674	N/A	0.0%	-
Southeast	151,771	\$50.00	10.0%	-
Southwest	42,420	N/A	0.0%	-
West	42,547	N/A	0.0%	-
METRO (TOTAL)	3,040,541	\$60.00	5.6%	-

Demand

	Q4 2022
# of TIMs	21
SF of Demand	960,000

Class A+

	Suburban
Inventory	478,890
Asking Rate (NNN)	\$60-\$70

Future Supply Lab/R&D

Under Construction	Number of Projects	Total Size (SF)	Total Spec Size (SF)	Delivering in 2023 (SF)	% Pre-leased
New	2	469,000	56,000	469,000	88.1%
Conversion	8	462,046	382,066	462,046	41.2%
TOTAL	10	931,046	438,066	931,046	64.8%

Top Lab/R&D Lease Transactions

Tenant	Size (SF)	Submarket	Type
KBI Biopharma	32,500	Northwest	Renewal/Expansion
Mosaic Biosciences	18,700	Boulder	New
Arpeggio Biosciences	11,400	Boulder	New

Q4 Lab/R&D Deliveries

Development	Submarket	Size (SF)	Developer	BTS or Spec
Boulder Labs 5300 Sterling Dr	Boulder	19,491	Tritower Financial	Spec
Boulder Labs 5305 Sterling Dr	Boulder	27,330	Tritower Financial	Spec

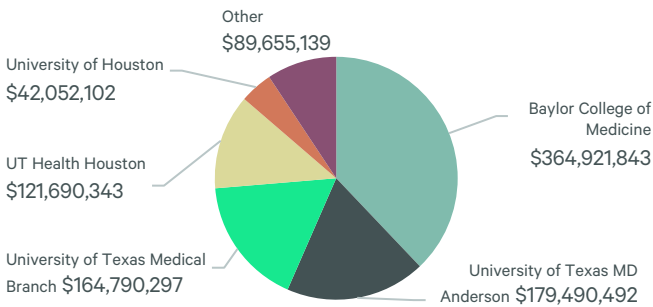
2022 Key Trends

- The Denver-Boulder market boasts lower rents compared to many of the national life sciences hubs
- There remains a significant supply/demand imbalance, but there is a growing pipeline of speculative, lab-ready projects under construction
- Steady tenant demand of around 1.0 million sq. ft. for the last two years is facilitating the growth of the Denver-Boulder market

Market Overviews

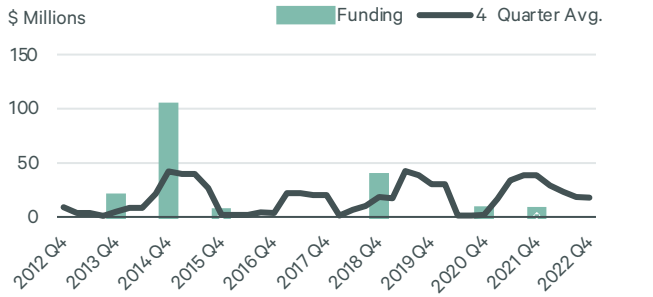
Houston

2022 NIH Funding: \$963M



Source: National Institutes of Health (fiscal year starting October 1, 2021 and ending September 30, 2022).

VC Funding



Source: CB Insights.

Inventory Lab/R&D

	Inventory (SF)	Avg. Asking Rents (NNN)	Vacancy Rate	Absorption
South Inner Loop	56,509	\$15.00	13.8%	-
South Main/Medical Center	1,233,258	\$51.84	14.9%	-
Hwy 59/Hwy 90	25,038	\$12.00	0.0%	25,038
Southwest Far	316,005	\$24.00	0.0%	6,300
LEASABLE	1,630,810	\$51.24	11.7%	31,338
OWNER-USER	170,765			
TOTAL	1,801,575			

Demand

	Q4 2022
# of TIMs	1
SF of Demand	70,000

Future Supply Lab/R&D

Under Construction	Number of Projects	Total Size (SF)	Total Spec Size (SF)	Delivering in 2023 (SF)	% Pre-leased
New	4	854,867	854,867	854,867	1.2%
Conversion	-	-	-	-	-
TOTAL	4	854,867	854,867	854,867	1.2%

Top Lab/R&D Lease Transactions

Tenant	Size (SF)	Submarket	Type
PackGene Biotech	22,045	Southwest Far	New
Nurix Therapeutics	20,100	The Woodlands	New
Sino Biological	10,000	South Main/Medical Center	New

Q4 Lab/R&D Deliveries

Development	Submarket	Size (SF)	Developer	BTS or Spec
TMC Innovation	South Main/Medical Center	54,500	Texas Medical Center	Spec

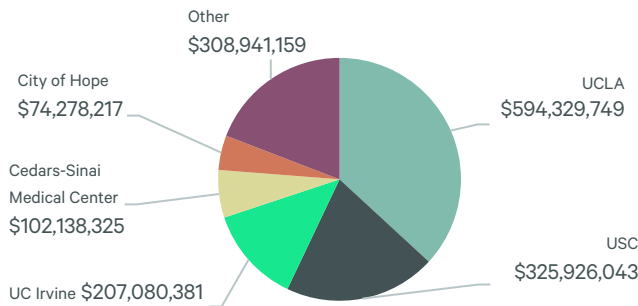
2022 Key Trends

- While development opportunities exist, construction costs and supply chain interruptions have stalled development
- Local academic institutions are eager to establish training programs in the life sciences, and the Houston market offers significant tax and economic incentives to companies looking to relocate to the area
- While capital markets has slowed and general sentiment has been negatively impacted by the pullback in VC funding, the Houston market still had six leases sign in the fourth quarter, five of which were new leases

Market Overviews

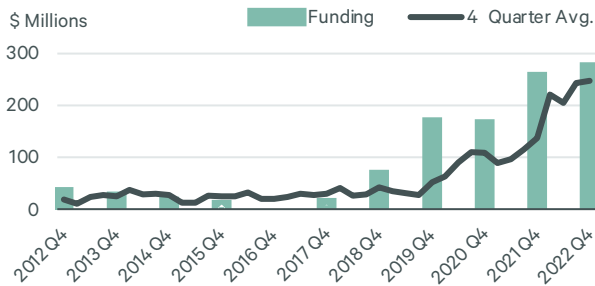
Los Angeles

2022 NIH Funding: \$1.6B



Source: National Institutes of Health (fiscal year starting October 1, 2021 and ending September 30, 2022).

VC Funding



Source: CB Insights.

Inventory Lab/R&D

	Inventory (SF)	Avg. Asking Rents (NNN)	Vacancy Rate	Absorption
San Fernando Valley	1,409,930	\$51.00	0.0%	-
San Gabriel Valley	1,208,804	\$34.20	0.0%	-
Conejo Valley	645,383	\$54.00	20.3%	-
South Bay	699,840	\$54.00	29.0%	-
West Los Angeles	611,720	\$78.00	29.8%	-
Tri-Cities/Glendale	384,827	\$55.80	11.3%	-
Mid Counties	382,530	-	2.7%	-
Central Los Angeles	74,519	-	14.9%	-
West Ventura County	206,683	\$45.00	2.7%	-
LEASABLE	5,624,236	\$54.00	11.2%	-
OWNER-USER	5,154,422			
TOTAL	10,778,658	N/A	5.9%	N/A

Demand

	Q4 2022
# of TIMs	28
SF of Demand	950,500

Class A+

	Urban	Suburban
Inventory	74,519	5,549,717
Asking Rate (NNN)	N/A	\$51

Future Supply Lab/R&D

Under Construction	Number of Projects	Total Size (SF)	Total Spec Size (SF)	Delivering in 2023 (SF)	% Pre-leased
New	4	291,000	-	-	0.0%
Conversion	3	390,710	340,511	390,710	0.0%
TOTAL	7	681,710	340,511	390,710	0.0%

Top Lab/R&D Lease Transactions

Tenant	Size (SF)	Submarket	Type
Confidential	134,300	San Fernando Valley	New

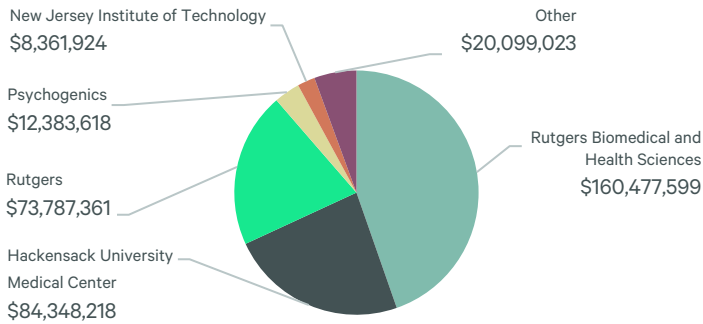
2022 Key Trends

- Real estate expansion slowed as companies navigate the uncertain economic environment. Tenants are operating more conservatively and expanding only if it is critical
- Sustained developer interest, venture capital investment, NIH funding and regional STEM talent all drive lab/R&D development throughout the region
- The Los Angeles market has a shortage of incubator space for early-stage companies not yet ready to commit to 5+ year leases and in need of flexibility and speed to occupancy. BioLabs (18,000 sq. ft.) in Torrance and the California NanoSystems Institute at UCLA in Westwood are both 100% occupied with long waitlists. There is a big opportunity in Los Angeles for incubator space
- Due to the high cost to build new lab space in Los Angeles, many owners are opting to market shell space as potential life science and biotech use but will not build out without a tenant

Market Overviews

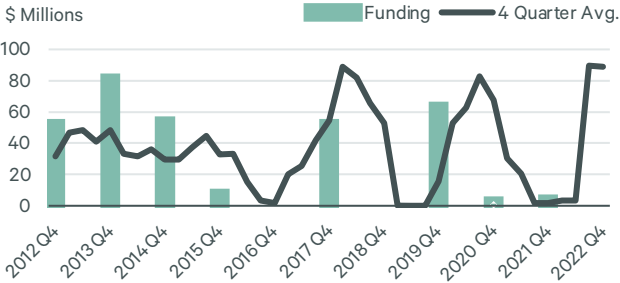
New Jersey

2022 NIH Funding: \$359M



Note: Funding is only for cities in New Jersey of the New York-Newark-Jersey City MSA.
Source: National Institutes of Health (fiscal year starting October 1, 2021 and ending September 30, 2022).

VC Funding



Source: CB Insights.

Inventory Lab/R&D

	Inventory (SF)	Avg. Asking Rents (NNN)	Vacancy Rate	Absorption
METRO (TOTAL)	15,835,871	\$32.00	7.4%	97,692

Top Lab/R&D Lease Transactions

Tenant	Size (SF)	Submarket	Type
Ascendia	60,000	North Brunswick	New
Porton USA	15,500	Cranbury	Renewal
Doehler	11,600	North Brunswick	New

Demand

	Q4 2022
# of TIMs	6
SF of Demand	440,000

Class A+

	Suburban
Inventory	400,000
Asking Rate (NNN)	\$36

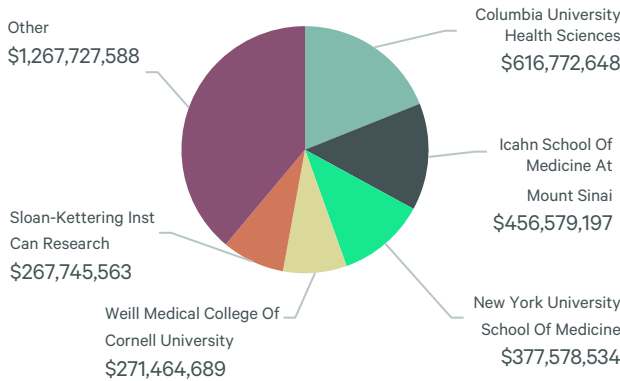
2022 Key Trends

- Thor Equities welcomed their first laboratory tenant of 11,000 sq. ft. to 95 Green Street, Jersey City after a comprehensive adaptive reuse project
- PTC Therapeutics, a global biopharmaceutical company, will relocate its headquarters to Warren Corporate Center. Following construction, the former office buildings will provide office, collaboration and conference spaces, and research laboratories

Market Overviews

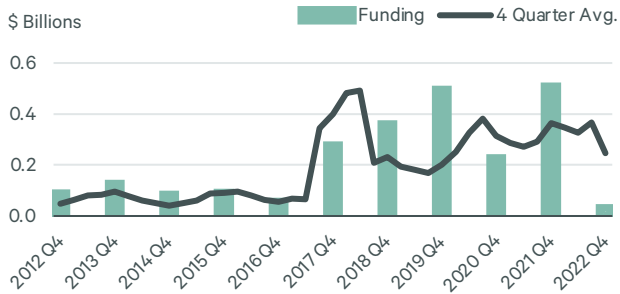
New York City

2022 NIH Funding: \$3.3B (\$2.9B to NY)



Source: National Institutes of Health (fiscal year starting October 1, 2021 and ending September 30, 2022). Funding is for entire New York-Newark-Jersey City MSA, but only NY organizations are called out.

VC Funding



Note: Funding is for entire New York-Newark-Jersey City MSA
Source: CB Insights.

Inventory Lab/R&D

	Inventory (SF)	Avg. Asking Rents (NNN)	Vacancy Rate	Pre-Built Vacancy Rate	Absorption
Manhattan	1,949,863	\$121.81	26.8%	3.8%	13,533
NYC (TOTAL)	2,695,667	\$108.47	34.2%	7.7%	92,584

*Stats are reflective of lab-exclusive space that is currently within 12 months of tenant fit out only

Demand

	Q4 2022
# of TIMs	42
SF of Demand	1.4M

Class A+

	Urban
Inventory	1,269,448
Asking Rate (NNN)	\$107.98

Top Lab/R&D Lease Transactions

Tenant	Size (SF)	Submarket	Type
New York University	92,400	Queens	New
Firstlight Bio	13,500	Manhattan	New
Harlem Biospace	10,250	Manhattan	New

2022 Key Trends

- NYC’s life sciences leasing activity reached a record high in 2022
- Plans were announced for the development of a \$1.6 billion life sciences hub in Manhattan’s Kips Bay
- Smaller lab users (<25,000 sq. ft.) continue to gravitate toward built or pre-built lab/office space
- Taconic Partners launched its life sciences subsidiary – Elevate Research Properties – in 2022 and is set to expand its portfolio of Manhattan lab developments to 1.4 million sq. ft.
- Harlem Biospace announced a second location, bringing NYC’s total number of current and future incubators to nine

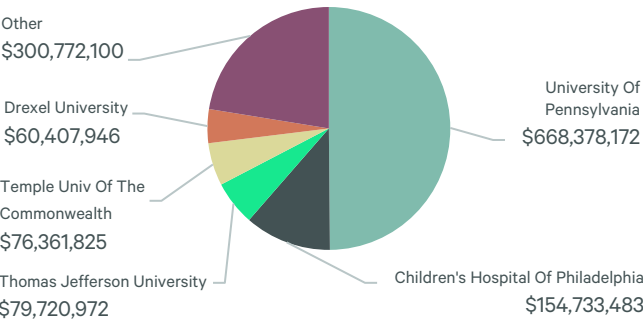
Future Supply Lab/R&D

Under Construction	Number of Projects	Total Size (SF)	Total Spec Size (SF)	Delivering in 2023 (SF)	% Pre-leased
New	1	200,000	200,000	-	0.0%
Conversion	3	666,013	666,013	666,013	0.0%
TOTAL	4	866,013	866,013	666,013	0.0%

Market Overviews

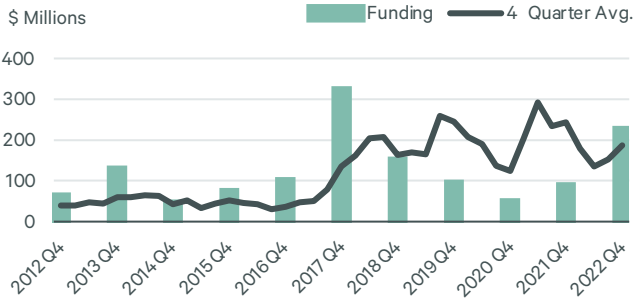
Philadelphia

2022 NIH Funding: \$1.3B



Source: National Institutes of Health (fiscal year starting October 1, 2021 and ending September 30, 2022).

VC Funding



Source: CB Insights.

Inventory Lab/R&D

	Inventory (SF)	Avg. Asking Rents (NNN)	Vacancy Rate	Absorption
Exton/ West Chester	606,918	\$31.72	30.0%	-
Center City	492,000	\$54.50	23.0%	6,986
University City	1,911,710	\$61.34	7.1%	(9,084)
Malvern	1,153,072	\$34.62	16.5%	25,792
King of Prussia/ Valley Forge	2,640,471	\$42.41	8.3%	(6,262)
Navy Yard	771,238	\$51.72	0.0%	20,680
Horsham/ Spring House	718,728	\$37.24	18.8%	35,879
New Castle County	322,743	\$40.00	0.0%	-
Greater Northeast	538,828	\$36.00	0.0%	-
Lower Bucks County	510,132	\$25.00	0.0%	-
METRO (TOTAL)	9,665,840	\$46.32	10.1%	73,991

Future Supply Lab/R&D

Under Construction	Number of Projects	Total Size (SF)	Total Spec Size (SF)	Delivering in 2023 (SF)	% Pre-leased
New	6	1,872,699	1,872,699	936,052	29.5%
Conversion	10	894,761	894,761	517,416	47.0%
TOTAL	16	2,767,460	2,767,460	1,453,468	35.2%

Top Lab/R&D Lease Transactions

Tenant	Size (SF)	Submarket	Type
Früh Verpackungstechnik AG	63,500	Exton	New
Frontage Laboratories	46,500	Exton	New
Ott Scientific	45,000	Horsham/ Spring House	New
DYAD Enterprise	15,900	King of Prussia	New

2022 Key Trends

Despite tenant demand slowing in the latter part of the year, the Philadelphia region had one of its best leasing years with 1.5 million sq. ft. of completed transactions through Q4

Demand

	Q4 2022
# of TIMs	43
SF of Demand	1.9M

Class A+

	Urban	Suburban
Inventory	2,400,000	1,300,000
Asking Rate (NNN)	\$60-65	\$40-45

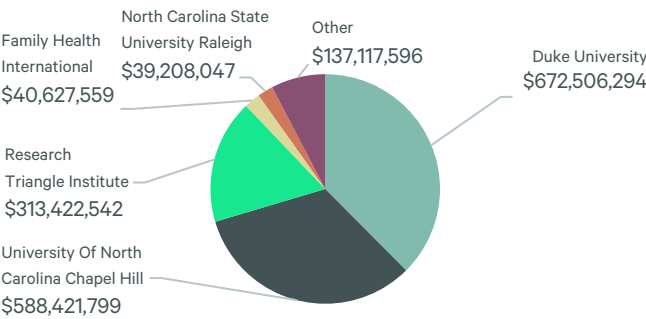
Q4 Lab/R&D Deliveries

Development	Submarket	Size (SF)	Developer	BTS or Spec
250 Radnor	King of Prussia/ Valley Forge	169,840	Brandywine	Spec

Market Overviews

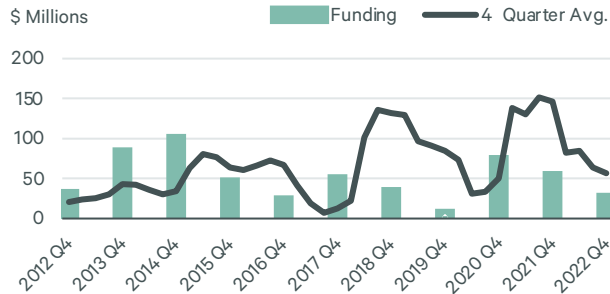
Raleigh-Durham

2022 NIH Funding: \$1.8B



Source: National Institutes of Health (fiscal year starting October 1, 2021 and ending September 30, 2022).

VC Funding



Source: CB Insights.

Inventory Lab/R&D

	Inventory (SF)	Avg. Asking Rents (NNN)	Vacancy Rate	Absorption
RTP/I-40 Corridor	7,336,481	\$35-\$39	7.0%	93,671
Central Durham	851,974	\$46.00	5.7%	9,641
Suburban Durham	369,479	\$30.00	20.3%	-
Cary	162,774	N/A	0.0%	-
West Raleigh	221,823	\$38.00	18.5%	-
U.S. 1/Capital Boulevard	82,985	N/A	0.0%	-
LEASABLE	9,025,516	\$36-41	7.6%	103,312
OWNER-USER	1,620,322			
TOTAL	10,645,838			

Demand

	Q4 2022
# of TIMs	19
SF of Demand	950,000

Class A+

	Urban	Suburban
Inventory	648,731	828,607
Asking Rate (NNN)	\$46	\$42-\$46

Future Supply Lab/R&D

Under Construction	Number of Projects	Total Size (SF)	Total Spec Size (SF)	Delivering in 2023 (SF)	% Pre-leased
New	4	474,000	461,000	474,000	2.7%
Conversion	3	214,628	214,628	214,628	46.6%
TOTAL	7	688,628	675,628	688,628	16.4%

Top Lab/R&D Lease Transactions

Tenant	Size (SF)	Submarket	Type
Catalent	81,956	RTP/I-40	New
Tavros	15,000	RTP/I-40	New

Top Lab/R&D Sale Transactions

Buyer	Size (SF)	Submarket	Price	\$/SF
Oak Street Real Estate Capital*	348,927	RTP/I-40	\$213M	\$611
Goldman Sachs/ Lincoln Harris	445,370	RTP/I-40	\$141M	\$317
Apollo Global Management	206,000	Southern Wake	\$40.5M	\$197**

*Sale-leaseback

**Includes two GMP buildings and development site for 140,000-sq.-ft. lab building

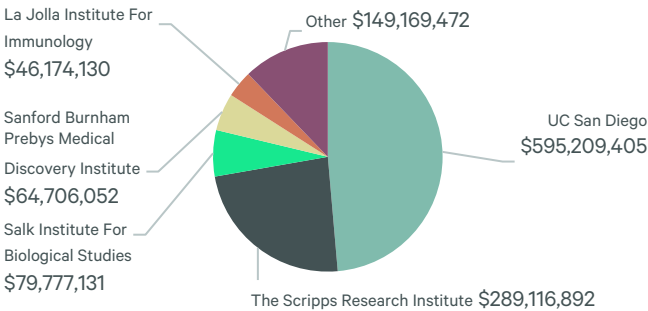
Q4 Lab/R&D Deliveries

Development	Submarket	Size (SF)	Developer	BTS or Spec
1050 Swabia Court	RTP/I-40 Corridor	79,000	W&G Associates	BTS

Market Overviews

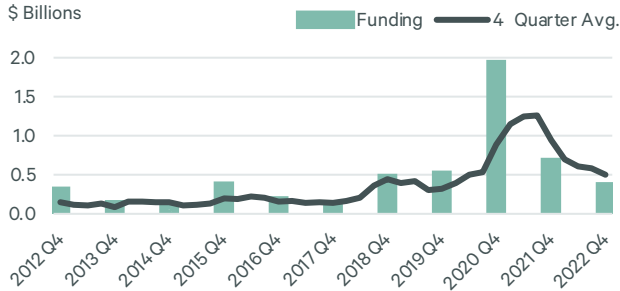
San Diego

2022 NIH Funding: \$1.2B



Source: National Institutes of Health (fiscal year starting October 1, 2021 and ending September 30, 2022).

VC Funding



Source: CB Insights.

Inventory Lab/R&D

	Inventory (SF)	Avg. Asking Rents (NNN)	Vacancy Rate	Absorption
Torrey Pines	5,869,554	\$86.97	0.7%	(1,277)
UTC	3,878,508	\$85.18	3.9%	(95,395)
Sorrento Mesa	6,656,871	\$78.48	8.2%	(145,118)
Sorrento Valley	1,437,248	\$69.85	5.6%	(32,864)
Del Mar Heights/ Torrey Hills	632,657	\$83.90	2.4%	-
56-Corridor	229,042	N/A	0.0%	-
Scripps Ranch/I-15	372,549	\$55.44	6.6%	-
La Jolla/ Pacific Beach	176,936	\$54.00	11.1%	(8,784)
Downtown	203,439	\$66.78	63.9%	36,383
North County	4,433,293	\$36.00	1.1%	-
METRO (TOTAL)	23,890,097	\$75.96	4.4%	(247,055)

Future Supply Lab/R&D

Under Construction	Number of Projects	Total Size (SF)	Total Spec Size (SF)	Delivering in 2023 (SF)	% Pre-leased
New	11	4,210,000	3,607,000	2,784,000	31.0%
Conversion	23	1,160,000	-	-	27.0%
TOTAL	34	5,370,000	3,607,000	2,784,000	30.1%

Top Lab/R&D Lease Transactions

Tenant	Size (SF)	Submarket	Type
Epic Sciences	44,000	UTC	Renewal
Excellos	36,400	Downtown	New
Eurofins	28,600	Sorrento Mesa	Renewal
Calidi Biotherapeutics	15,200	UTC	New
Pleno	14,700	Sorrento Mesa	New

Demand

	Q4 2022	Class A+	Suburban
# of TIMs	29	Asking Rate (NNN)	\$81-\$90
SF of Demand	980,000		

Top Lab/R&D Sale Transactions

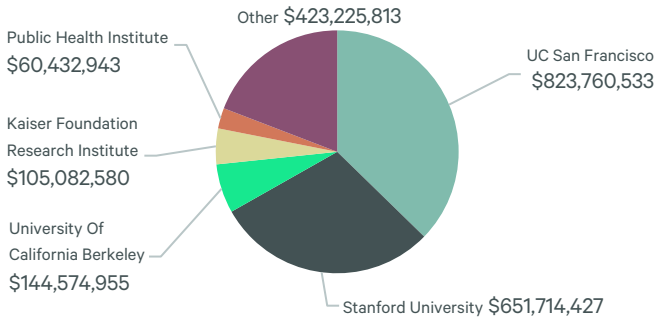
Buyer	Size (SF)	Submarket	Price	\$/SF
Oxford Properties*	246,699	North County	\$263M	\$1,068

*Sale-leaseback

Market Overviews

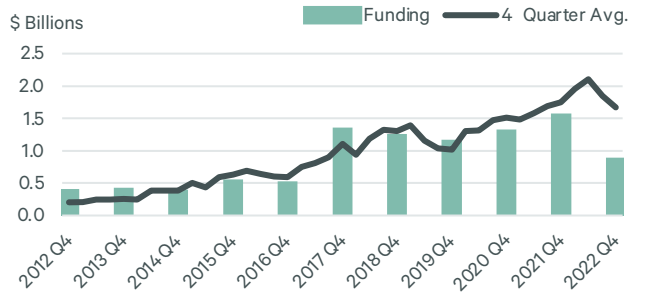
San Francisco Bay Area

2022 NIH Funding: \$2.2B



Source: National Institutes of Health (fiscal year starting October 1, 2021 and ending September 30, 2022).

VC Funding



Source: CB Insights.

Inventory Lab/R&D

	Inventory (SF)	Avg. Asking Rents (NNN)	Vacancy Rate	Absorption
Oakland	7,823,916	\$64.17	5.5%	49,347
I-680 Corridor	1,407,718	\$36.00	8.7%	9,925
Silicon Valley	6,395,251	\$51.00	8.5%	26,389
San Francisco Peninsula	17,075,947	\$84.59	5.3%	(174,010)
San Francisco	1,050,186	\$78.00	13.2%	(7,099)
METRO (TOTAL)	33,753,018	\$71.64	6.3%	(95,448)

Demand

	Q4 2022
# of TIMs	102
SF of Demand	5.6M

Class A+

	Urban	Suburban
Asking Rate (NNN)	\$78	\$67.95

Future Supply Lab/R&D

Under Construction	Number of Projects	Total Size (SF)	Total Spec Size (SF)	Delivering in 2023 (SF)	% Pre-leased
New	20	6,735,538	5,924,168	1,977,412	15.6%
Conversion	19	2,519,512	1,769,502	1,924,512	9.7%
TOTAL	39	9,255,050	7,693,670	3,901,924	14.0%

Top Lab/R&D Lease Transactions

Tenant	Size (SF)	Submarket	Type
Insitro	143,200	San Francisco Peninsula	Renewal/Expansion
Confidential	100,300	Oakland	New
Bio-Techne	97,900	Silicon Valley	Renewal
Confidential	56,700	San Francisco Peninsula	New
Bionova Scientific	55,000	Silicon Valley	New

Q4 Lab/R&D Deliveries

Development	Submarket	Size (SF)	Developer	BTS or Spec
101 Utah St	Out of Market - South	66,500	Swift Real Estate Partners	Spec

Top Lab/R&D Sale Transactions

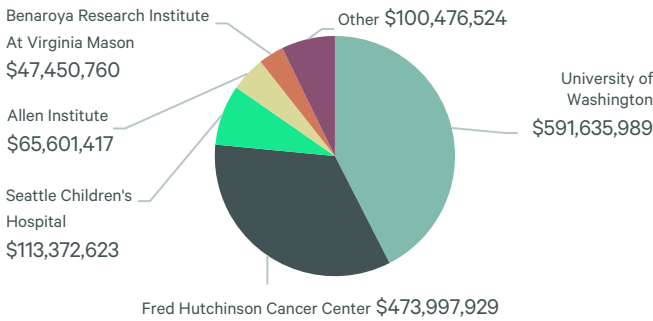
Buyer	Size (SF)	Submarket	Price	\$/SF
BioMed Realty	84,000	South San Francisco	\$80.0M	\$952*
Gemini Rosemont CRE	65,804	Burlingame	\$59.4M	\$902*
Vigilant Real Estate Holdings/Breed's Hill Capital Group	40,200	South San Francisco	\$41.4M	\$1,030*

*Conversion sale

Market Overviews

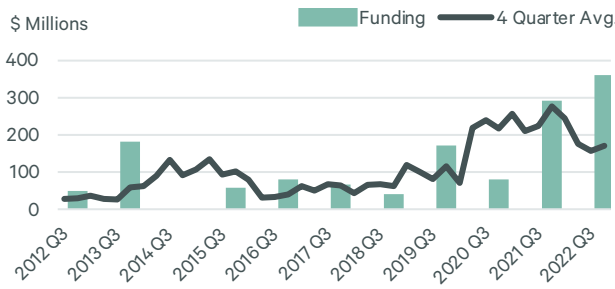
Seattle

2022 NIH Funding: \$1.4B



Source: National Institutes of Health (fiscal year starting October 1, 2021 and ending September 30, 2022).

VC Funding



Source: CB Insights.

Inventory Lab/R&D

	Inventory (SF)	Avg. Asking Rents (NNN)	Vacancy Rate	Absorption
Seattle	5,843,320	\$79.14	6.2%	42,064
Bothell	2,762,371	\$32.91	16.5%	-
Other Puget Sound	651,649	\$26.00	0.0%	-
METRO (TOTAL)	9,257,340	\$44.74	8.9%	42,064

Demand

	Q4 2022
# of TIMs	14
SF of Demand	325,000

Class A+

	Urban	Suburban
Inventory	5,426,201	296,190
Asking Rate (NNN)	\$84.66	\$38

Future Supply Lab/R&D

Under Construction	Number of Projects	Total Size (SF)	Total Spec Size (SF)	Delivering in 2023 (SF)	% Pre-leased
New	5	1,055,451	814,500	387,500	37.9%
Conversion	2	408,098	408,098	408,098	20.5%
TOTAL	7	1,463,549	1,222,598	795,598	33.1%

Top Lab/R&D Lease Transactions

Tenant	Size (SF)	Submarket	Type
Lumen Bioscience	49,400	Downtown Seattle	Expansion (Sublease)
Bonum Therapeutics	26,400	Downtown Seattle	New (Sublease)
Tune Therapeutics	15,100	Downtown Seattle	New

Top Lab/R&D Sale Transactions

Buyer	Size (SF)	Submarket	Price	\$/SF
Icogenex Bioincubator	16,020	Downtown Seattle	\$5.4M	\$337

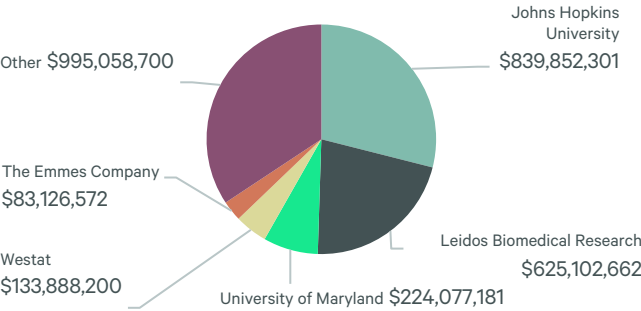
2022 Key Trends

- The Seattle life sciences sector maintained its strength through 2022 driven by consistent employment growth and steady venture capital funding
- Seattle saw significant levels of activity year to date, with \$341 million allocated to the life sciences sector in Q4, the highest Q4 on record
- No new construction leases signed in Q4, documenting the hesitation by tenants to make large capital commitments to move or expand.

Market Overviews

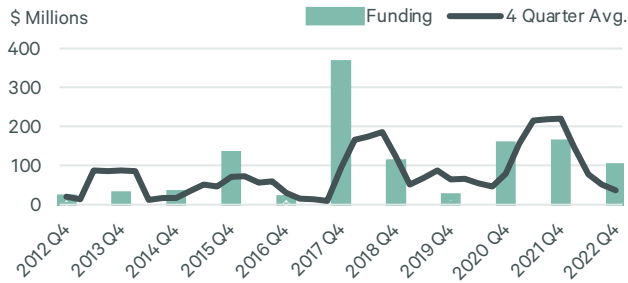
Washington, D.C./ Baltimore

2022 NIH Funding: \$2.9B



Source: National Institutes of Health (fiscal year starting October 1, 2021 and ending September 30, 2022).

VC Funding



Source: CB Insights.

Inventory Lab/R&D

	Inventory (SF)	Avg. Asking Rents (NNN)	Vacancy Rate	Absorption
Shady Grove	3,827,848	\$47.00	0.4%	3,642
Gaithersburg	2,907,977	\$45.00	0.1%	-
Twinbrook	1,124,553	\$42.00	5.2%	-
Germantown	732,040	\$41.00	0.3%	-
Frederick	1,270,712	\$35.00	8.8%	-
Baltimore	2,542,922	\$40.00	1.0%	20,000
Other Maryland	214,115	N/A	N/A	-
METRO (TOTAL)	12,620,167	\$42.35	1.7%	23,642

Demand

	Q4 2022
# of TIMs	26
SF of Demand	821,500

Class A+

	Suburban
Inventory	551,312
Asking Rate (NNN)	\$45-\$48

Future Supply Lab/R&D

Under Construction	Number of Projects	Total Size (SF)	Total Spec Size (SF)	Delivering in 2023 (SF)	% Pre-leased
New	6	747,166	305,166	497,166	63.2%
Conversion	9	706,121	706,121	653,662	40.0%
TOTAL	15	1,453,287	1,011,287	1,150,828	51.9%

Top Lab/R&D Lease Transactions

Tenant	Size (SF)	Submarket	Type
Haystack Oncology	20,000	Baltimore	New

There are an additional 130,000 sq. ft. of leases in negation pending final execution

Q4 Lab/R&D Deliveries

Development	Submarket	Size (SF)	Developer	BTS or Spec
Westview South Building 4	Frederick	27,000	Abrams Development	BTS

2022 Key Trends

- The dearth of new supply caused small and midsize users to dominate deal volume in converted space as it came online, however larger (50,000 sq. ft. and up) users accounted for 65% of net, new absorption
- With a measured supply pipeline and pre-commitments on over half of the product currently under construction, vacancy will remain very tight

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