2024 | LIFE SCIENCES

State of the U.S. Life Sciences Market

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Factors influencing life sciences in 2024 and beyond



Supply and demand of life sciences inventory

A decline in funding resulted in a pullback in demand for real estate from the sector as tenants became highly cost-conscious. This shift, combined with significant amounts of new inventory, has changed the supply and demand dynamics in favor of tenants.



Investment in the sector is down and powder is wet

With rising interest rates, a high cost of capital, turmoil in the banking industry and new caution among investors, venture capital levels came down substantially in 2023. Investors have capital available but are selective in how they choose to deploy it.



Regulations on drug pricing and transparency

The Centers for Medicare & Medicaid Services (CMS) identified the first high-cost drugs that will be subject to price negotiation under the Inflation Reduction Act (IRA) and more than 20 states have passed drug-pricing transparency laws.



Blockbuster drug patents are expiring

A significant number of drug patents are expiring in the next decade and will face biosimilar competition. Consequently, pharmaceutical companies are likely to boost R&D funding and M&A activity. Over time, it may also increase demand for lab space, as the industry seeks to discover the next 'blockbuster' drug.



Leveraging AI for therapeutics and precision medicine

Generative artificial intelligence (AI) is being used by life sciences companies for research and discovery, to automate repetitive back-office functions, reimagine supply chains, support compliance and regulatory affairs, and more. Companies are trying to get ahead of their competitors by adopting new AI technology.



Federal, state, and local government incentives

Federal, state and local governments are working to help grow their life sciences ecosystems, with officials increasing investments and offering more incentives for companies across the nation. In San Francisco, the local government is working to accelerate the approval process to convert office buildings into life sciences.

Life sciences

Funding for life sciences catalyzes the growth of companies, drives scientific breakthroughs, and spurs innovation by providing the necessary resources for research, development, and commercialization of cutting-edge technologies and treatments.

Life sciences research and development is typically funded through a combination of venture capital funding, government grants and private investments.

The amount of funding changes annually are due to economic fluctuations, shifts in investment trends, policy changes, research outcomes, regulatory environments, and varying levels of risk tolerance.

U.S. life sciences venture capital funding

Life sciences related VC funding - capital raised and deal count

In 2023, U.S. life sciences venture capital (VC) funding has begun to normalize as investors that entered the playing field at the height of the pandemic step back, and other investors are more selective in how they spend their capital.



Fewer but More Significant Deals Although the number of deals in 2023 has decreased by 24% from 2022, there are more significant deals being closed. As an example, Kriya Therapeutics, raised \$430.0 million dollars that will support the clinical transition of the company's gene therapies.

Artificial Intelligence and Life Sciences

The life sciences sector is poised for heightened collaboration between biopharmaceutical and technology companies, driven by the integration of artificial intelligence in advancing precision medicine innovations. This trend is attracting venture capital firms, traditionally focused on a singular industry, to explore opportunities in life sciences.

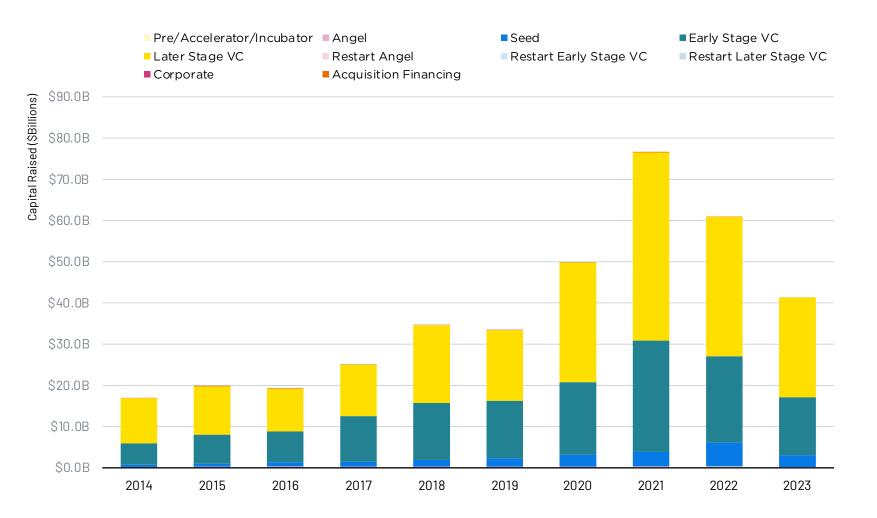
Funding Stifled, but Sector Is Adapting

Biotechnology, pharmaceutical, and medical device companies are responding to pandemic and geopolitical uncertainties by focusing on adaptability, real-time research data tracking, efficient manufacturing, and diversified supply chains that can quickly adjust to changes.

KEY SHIFTS

U.S. VC funding by deal type

Life sciences related VC funding



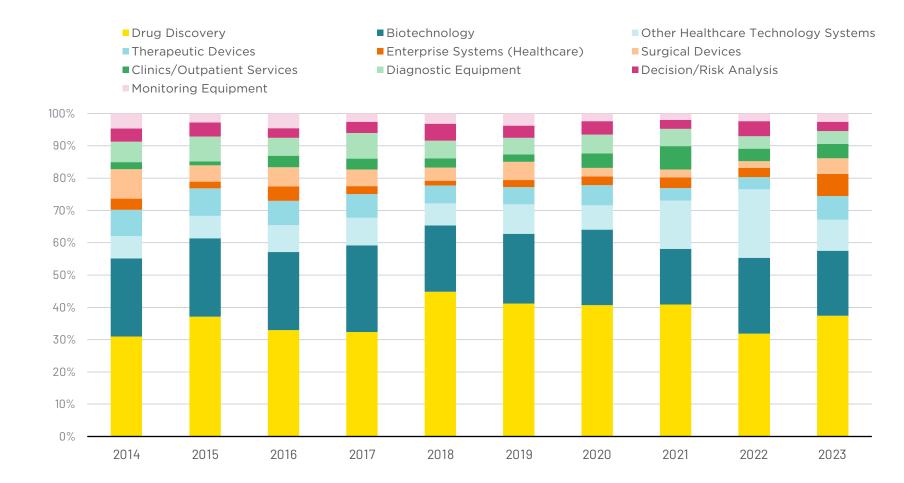
LATER STAGE VC LEADS, EARLY STAGE FUNDING BOOSTED BY AI

- Investment in promising scientific initiatives and addressing unmet needs remain strong. Over 50% of life sciences funding was raised by established later-stage companies, a trend seen since 2018.
- Investors are witnessing a steady amount of investment into early stage companies, driven by the integration of machine learning and artificial intelligence. This convergence is fostering a promising landscape for pioneering developments.

Source: PitchBook Data, Inc. and Savills Research

U.S. funding by top 10 industries (%)

Life sciences related VC funding



DRUG DISCOVERY & BIOTECH LEAD

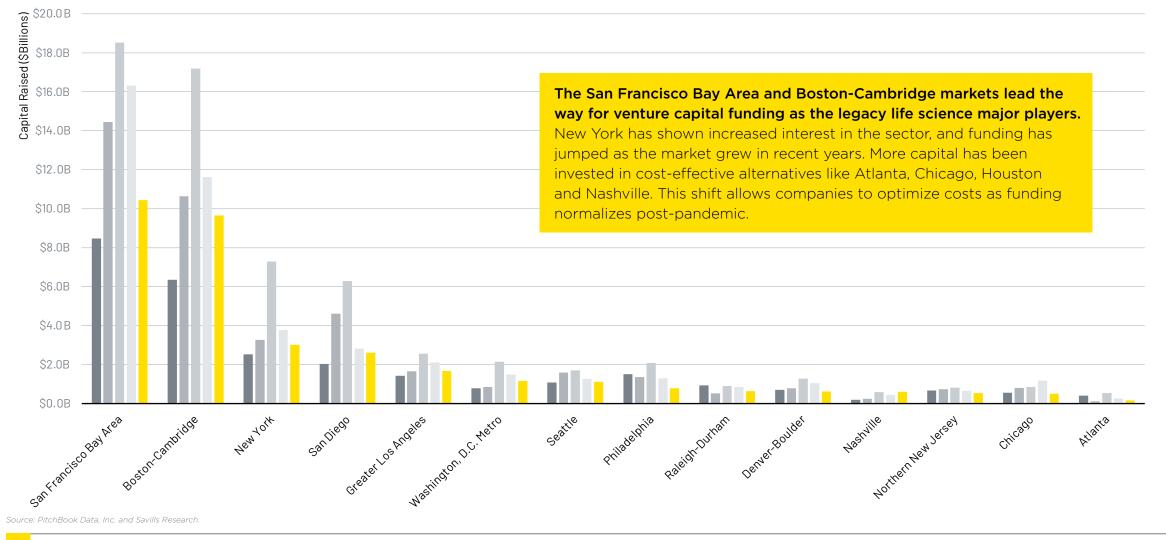
- Drug discovery leads in funding allocations, driven by the impending expiration of numerous blockbuster drug patents over the next decade, which necessitates the development of new breakthrough drugs and medications.
- Advancements in cell and gene therapy (CGT) combined with artificial intelligence (AI) and machine learning (ML) are drawing increased interest but are still in the early stages due to limited data availability to train these systems and the complexity of the data.
- Investors acknowledge the immediate challenges AI and ML face within the sector but remain optimistic about their transformative long-term impact.

Source: PitchBook Data, Inc. and Savills Research.

VC funding in top U.S. life sciences hubs

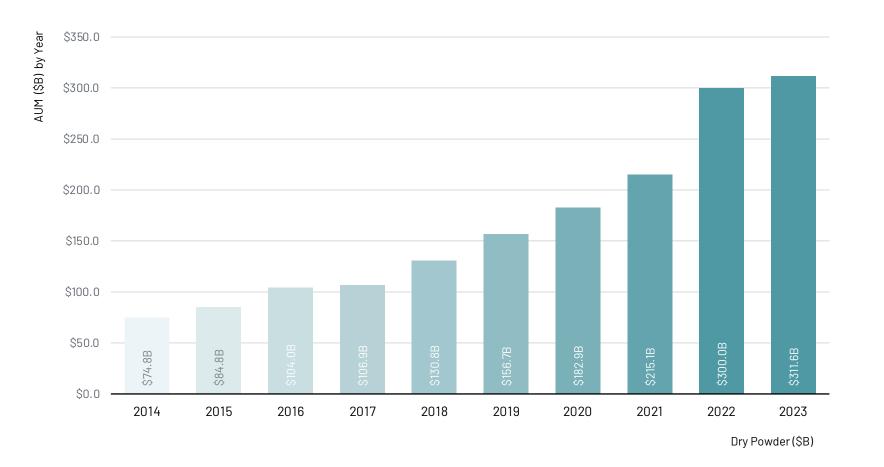
Life sciences related VC funding

■ 2019 ■ 2020 ■ 2021 ■ 2022 **■** 2023



National VC funding dry powder

Capital available to invest - total capital raised and fund count

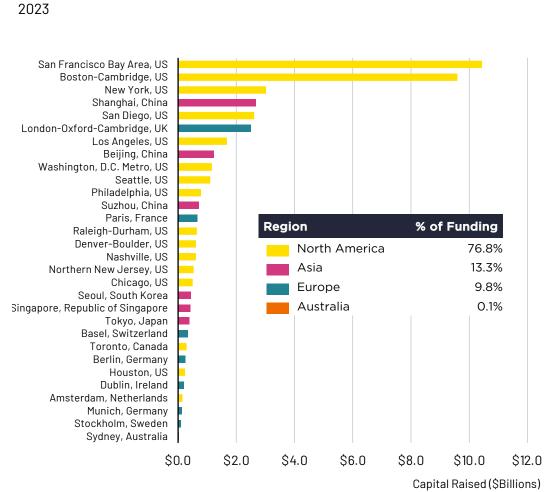


\$311.6B IN DRY POWDER

- Venture capital firms have an ample amount of cash reserves sitting on the sidelines going into 2024.
- Venture capital funding in 2024 is expected to maintain the "new normal" level established in 2023, surpassing pre-pandemic figures. Record-high cash reserves available for investor deployment bolster this outlook.
- The surge in demand for innovative drug treatments, such as weight loss drugs like Wegovy and Ozempic, underscores the potential for science that aligns with public needs to attract significant investor interest.

Data since May 2024 – PitchBook latest data available as of publishing. Dry powder refers to the number of cash reserves or liquid assets available to deploy by a company or investment firm. Source: PitchBook Data, Inc. and Savills Research. Includes All VC Funding.

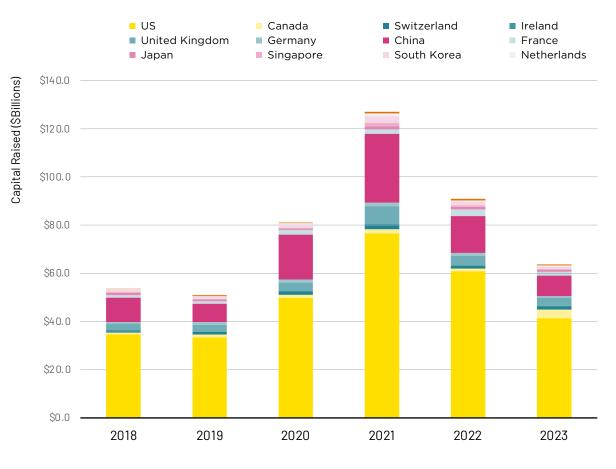
U.S. continues to dominate life sciences VC funding globally



Life Sciences VC Funding in 30 Key Global Locations

Source: PitchBook, Inc., Savills Research.

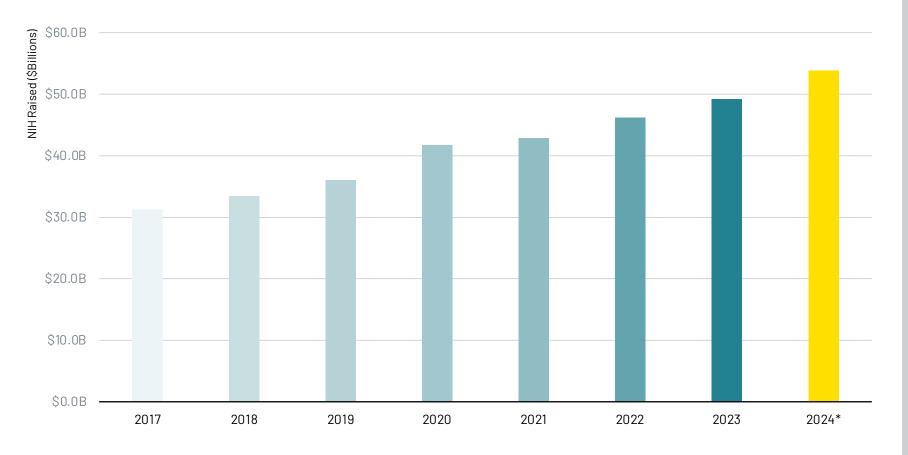
Life Sciences VC Funding by Country 2018-2023



VENTURE CAPITAL FUNDING

Government funding for life sciences

US National Institutes of Health (NIH) Funding 2017-2024*

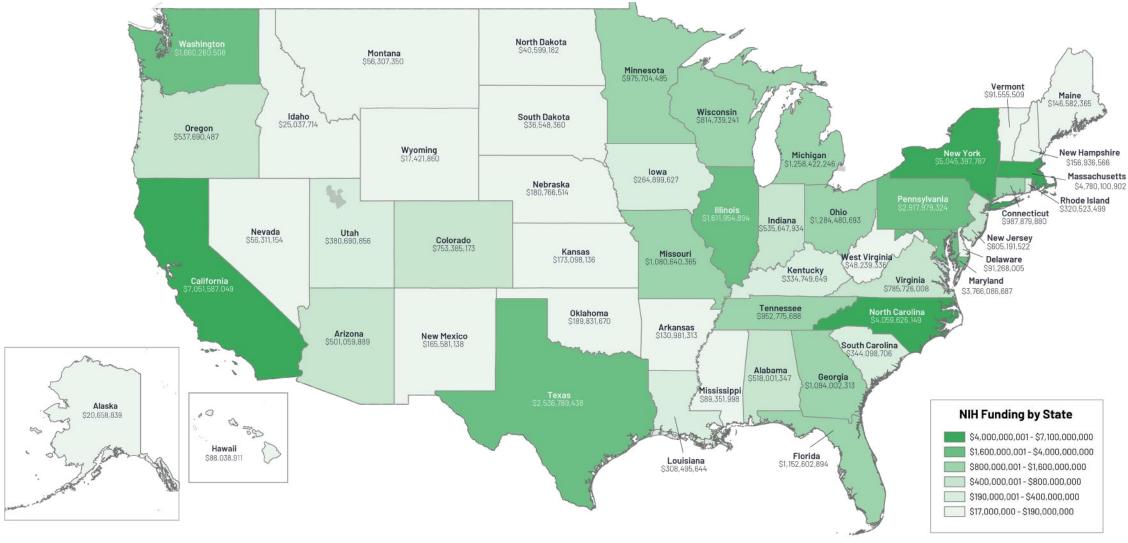


NIH FUNDING

- President Joe Biden's FY2022 budget request proposed the creation of ARPA-H to build a platform and capabilities to deliver cures for cancer, Alzheimer's disease, diabetes, and other diseases.
- The Biden Administration has released its proposed 2024 budget request for lab and research spending, which includes \$210 billion in funding distributed to a range of key research areas.
- A portion of this funding is allocated for the Cancer Moonshot program, which aims to cut the cancer mortality rate in the United States by at least 50% and prevent over 4 million cancerrelated deaths by the year 2047.

Note: * Proposed Source: National Institutes of Health.

NIH funding breakdown



Source: https://report.nih.gov/

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Government incentives

How incentives are shaping the future of life sciences

Global companies are increasingly looking to the United States for expansion, driven by a surge in R&D investment, and supply chain optimization. Incentives from federal, state, and local governments, including grants, workforce development programs, and investment tax exemptions, play a significant role in this trend.

Various state and local governments are actively competing to attract and retain life science organizations. They offer diverse incentive programs to spur economic development, job creation, and innovation. For example, New York State's Employee Training Incentive Program provides refundable tax credits for skills training and approved internship programs in advanced technology, life sciences, software development, or clean energy.

North Carolina and Massachusetts are examples of states implementing incentive programs to attract biosciences companies, enhancing their positions as key hubs for innovation and growth in the life sciences sector. North Carolina's Biotechnology Center's Landing Pad program offers comprehensive support, including flexible office space and a personal liaison, to ease companies' transitions into the state. Massachusetts offers financial incentives, such as the Life Sciences Refundable FDA User Fees Tax Credit, reducing the financial burden on companies involved in drug development. These strategic initiatives reflect a broader commitment to fostering economic development and positioning the states as attractive destinations for life sciences research and development.

VARIOUS INCENTIVE TYPES

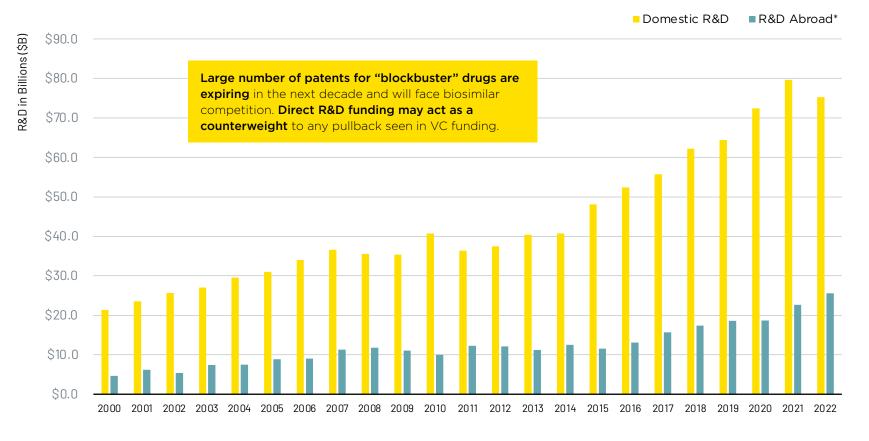
- **Grants:** Direct funding for research, development, and facility construction.
- **Financing:** Access to low-interest financing or forgivable debt.
- **Workforce Development Programs:** Assistance with training and recruiting specialized talent.
- **Utilities:** Favorable utility rates based on demand and usage.
- Investment Tax Exemptions: Reduced taxes on capital equipment used in R&D or manufacturing.
- Tax Relief: Reduced property taxes for new facilities or expansions.
- **Fast-Track Permitting:** Expedited regulatory approvals for new developments.

ELIGIBILITY CRITERIA

- Industry Focus: Certain programs target specific areas like biotech, pharmaceuticals, or medical devices.
- **Location:** Incentive programs vary significantly across states and localities.
- **Capital Investment:** Consideration of investments into the location, such as machinery and equipment.
- **Job Creation:** Emphasis on the creation of new, high-paying jobs in the community.

U.S. biopharmaceutical company-financed R&D

Pharmaceutical Research and Manufacturers of America (PhRMA) Members Direct R&D Funding Domestic vs. Abroad 2000-2022



*R&D Abroad includes expenditures outside the United States by U.S.-owned PhRMA member companies and R&D conducted abroad by the U.S. divisions of foreign-owned PhRMA member companies. R&D performed abroad by the foreign divisions of foreign-owned PhRMA member companies is excluded. Notes: All figures include company-financed R&D only. Total values may be affected by rounding. Source: Pharmaceutical Research and Manufacturers of America, PhRMA Annual Membership Survey, 2023 (Surveys are published in July).

Domestic research and development (R&D) dipped 5.5% from pandemicfueled high in 2021 but remains well above years prior.

Alternatively, funding abroad continued to grow 12.9%.

Domestic R&D

- 2019-2022 % Increase: 16.9%
- 2021-2022 % Decrease: 5.5%

R&D Abroad:

- 2019-2022 % Increase: 37.6%
- 2021-2022 % Increase: 12.9%

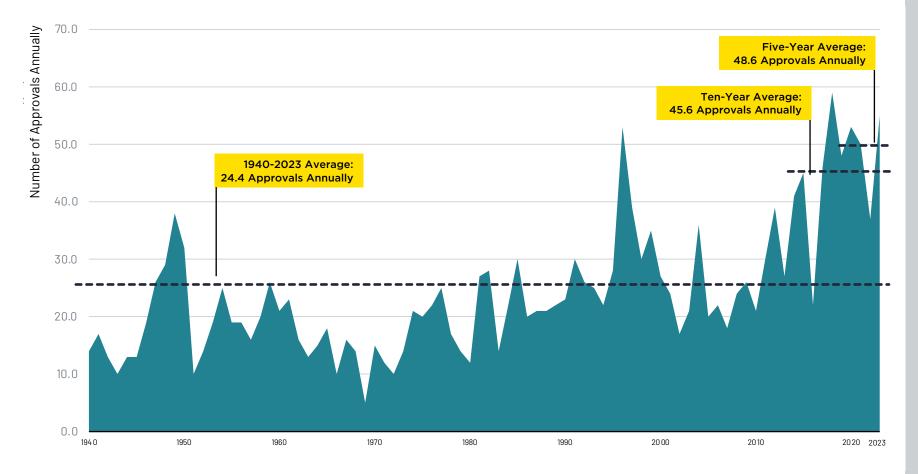
In 2023, Novo Nordisk and Eli Lilly experienced revenue growth, driven by a rising demand for diabetes and metabolism-regulating drugs. On the flip side, companies like Merck, Roche, AstraZeneca, and Gilead Sciences faced declines in revenue, attributed to a decrease in sales of COVID-related products.

Drug makers may raise future launch prices due to inflation rebates, impacting Medicaid services' spending more than Medicare Part D and private insurers, according to the Congressional Budget Office (CBO). While Medicaid's basic drug rebate increases, it may not fully offset higher launch prices.

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FDA novel drug approvals

Includes new molecular entities and new therapeutic biological product approvals by year



Note: Data through 1976 are reported for the fiscal year, 1 July through 30 June; data thereafter are reported for the calendar year. Approvals for 2004 and after include Biologic License Applications for therapeutic biologic products transferred from the Center for Biological Evaluation and Research to the Center for Drug Evaluation and Research. Source: Food and Drug Administration (FDA) & Center for Drug Evaluation and Research (CDER). Biopharmaceutical R&D is at recordhigh levels compared to historical spending levels, and novel drug approvals have similarly risen to new highs in recent years. The billions of dollars invested in research and development (R&D) likely has helped bring this to fruition.

- In 2023, there was the secondhighest number of drug approvals in the past 30 years.
- CDER identified 20 of the 55 novel drugs approved (36%) in 2023 as first-in-class. These drugs have mechanisms of action different from those of existing therapies.
- In 2023, 28 of CDER's 55 novel drug approvals (51%) received orphan drug designation because they target rare diseases.
- CDER designated nine of the 55 novel drugs (16%) in 2023 as Breakthrough Therapies.

Policy changes & effects

Driven by a surge in R&D investment and supply chain optimizations, global companies are increasingly expanding into the United States, influenced by substantial incentives from federal, state, and local governments.

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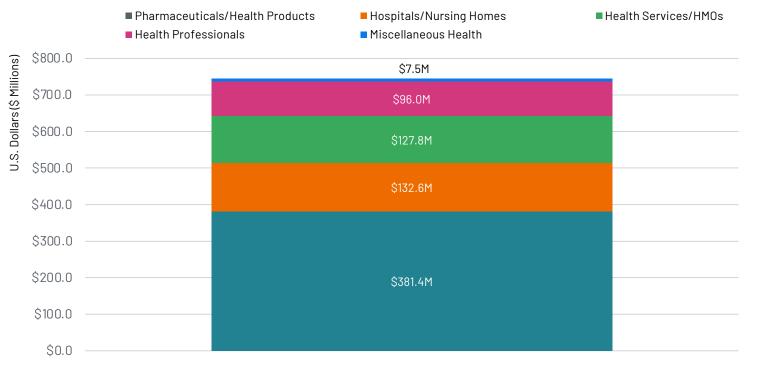
These incentives include grants, workforce development programs, and tax exemptions aimed at spurring economic growth, job creation, and innovation within the life sciences sector.

Healthcare lobbying total spend rises to record-high of \$745.4M in 2023

Groups like PhRMA raise concerns over inflation reduction act and impact on innovation, launching concerns, and shifting net prices at the end of patent life

Lobbying Spending Broken Down

2023



Source: The Senate Office of Public Records Lobbying Disclosure Act Reports, Open Secrets, National Conference of State Legislatures.

Top Healthcare Interest Groups in 2023:

PhRMA (\$27.1 million, ranked third among all industries spending), American Hospital Association (\$25.2 million, ranked fourth), American Medical Association (\$20.6 million, ranked fifth).

 Mergers and Acquisitions (M&A): Physician groups and associations have focused on influencing federal policy covering mergers and acquisitions.

The Inflation Reduction Act of 2022:

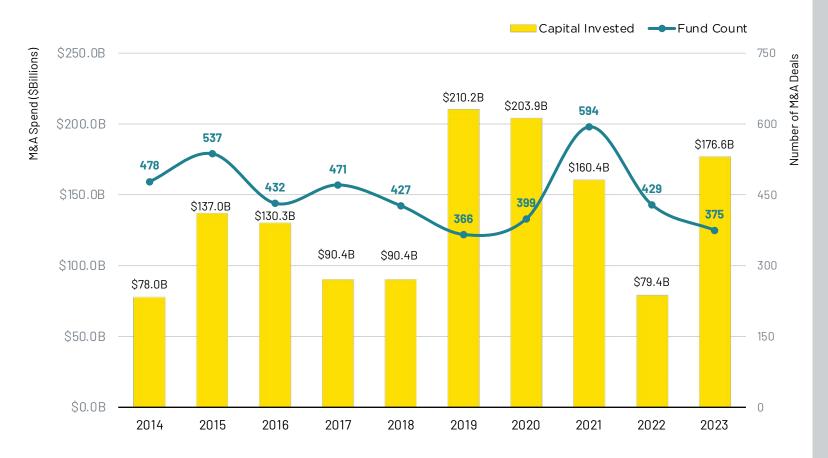
Most of the pharmaceutical and health product industry's lobbying efforts have taken aim at this federal act, which was introduced as an amendment to the Build Back Better Act and signed into law in August 2022. The bill, among other environmental and economic objectives, allows for Medicare to negotiate the prices of certain prescription drugs, caps out-of-pocket spending for Medicare beneficiaries and takes aim at insulin costs.

State Lobbying:

- At least 10 states enacted legislation modifying surprise billing laws, largely in response to the federal No Surprises Act which began in 2022.
- Some states have focused on hospital financial assistance policies and medical debt protections.
- States also considered legislation to evaluate health spending trends and improve price transparency.
- A few states focused on hospital consolidation with the aim of mitigating the adverse effects of mergers on health care costs and quality.
- At least four states created programs for improving health insurance outreach and to simplify enrollment processes.
- Over 20 states have enacted legislation bolstering health insurance mandates, with many bills focused on behavioral and mental health services in recent years.

Life sciences mergers & acquisitions (M&A)

Historical M&A funding in life sciences



M&A Deal Criteria: Includes Life Sciences Vertical. Deal Types: M&A (control and non-control transactions). Ownership Status: Privately Held (backing & no backing), Acquired/Merged (operating subsidiaries included). Industries: Healthcare.

Source: PitchBook.

Company	Deal Size	
Commure	\$1.3B	
Kriya Therapeutics	\$430.0M	
Elevate Bio	\$401.0M	
Monogram Health	\$375.0M	
Neuralink	\$323.2M	

M&A benefits companies by securing capital, optimizing efficiencies, expanding operations, accessing new markets, and enhancing talent supply. It also helps elevate their market position amidst increasing product competition.

Life Sciences M&A bounced back from peak 2021 totals in 2023:

- Pharmaceutical companies, having a substantial amount of reserve funds at their disposal, are expected to pursue the acquisition of cutting-edge assets in established fields like cancer treatment and diseases, as well as in burgeoning sectors including weight management, cellular and genetic therapies, and tailored medicine.
- In a market characterized by high-interest rates and valuations, companies must enhance their due diligence and deal-making skills to ensure acquisitions are costeffective. They must equip their teams with the right expertise and methodologies to effectively identify and realize synergies and key transaction objectives.
- Pharmaceutical firms can shorten development timelines for biotech assets through acquisitions and R&D integration that combines their robust systems with the acquired company's specialized abilities.

POLICY

sciences talent

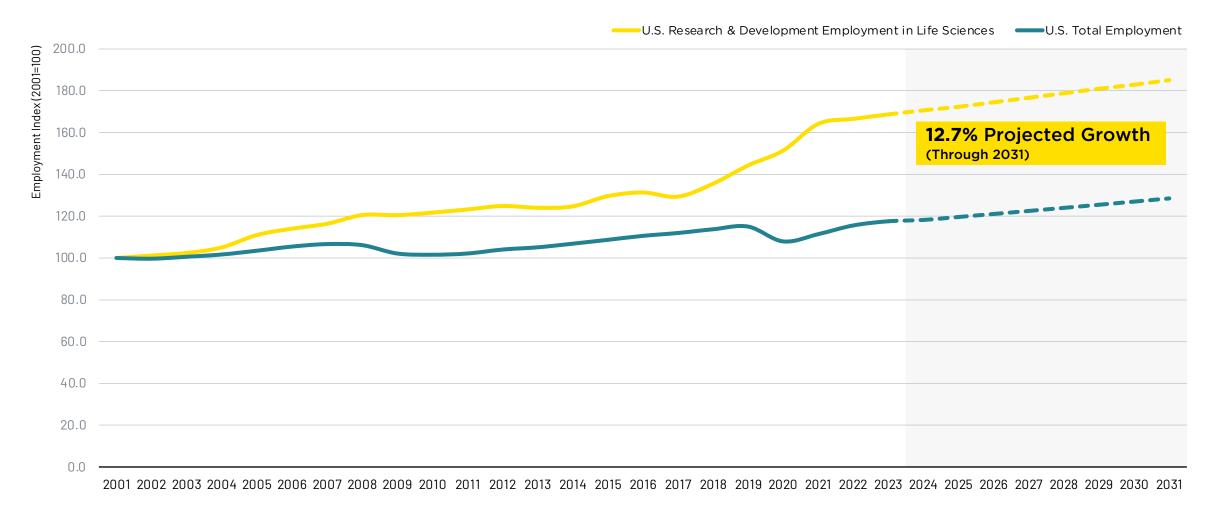
Despite the challenges posed by the COVID-19 pandemic, the talent pool in life sciences has remained robust.

With much of the work necessitating in-person presence in labs and offices, the industry has demonstrated resilience.

Anticipated growth of nearly 13% until 2031 reflects the sustained demand for skilled professionals, driven by companies' nationwide expansions.

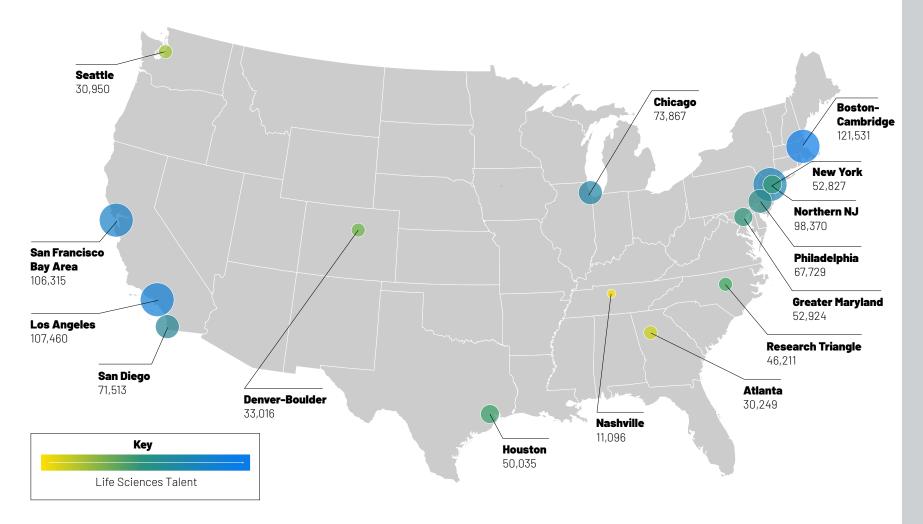
Life sciences talent growth outperforming total employment

Employment growth trends for the research & development sector of life sciences compared to total employment



Source: U.S. Bureau of Labor Statistics.

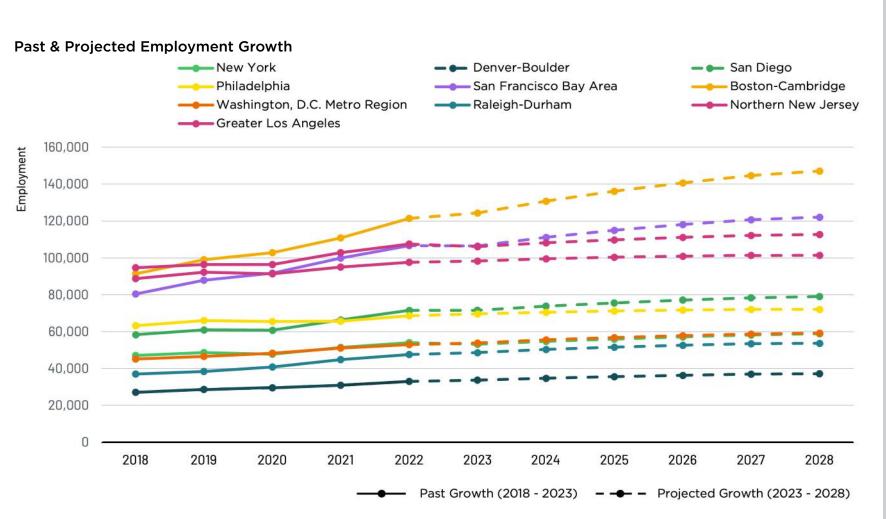
Life sciences talent in major U.S. hubs



Source: Emsi Lightcast Labor Market Analytics and Savills Research. Includes research and development in the physical, engineering, and life sciences. Includes testing, medical and diagnostic laboratories. Includes manufacturing of pharmaceutical, medicine, medical equipment and supplies, other basic organic chemical manufacturing, and all other chemical product and preparation manufacturing. Includes medical, dental, and hospital equipment wholesalers.

STRONG LIFE SCIENCE ECOSYSTEMS

Rely not only on funding but also on a skilled workforce. While markets like Chicago boast a steady supply of STEM graduates, they historically lacked job opportunities compared to established hubs like the San Francisco Bay Area and Boston-Cambridge. However, increased investment in Chicago's life sciences sector could drive substantial growth. Greater Maryland, near D.C. and Baltimore, thrives due to the proximity to key institutions like NIH and FDA. The Research Triangle in North Carolina, with RTP as a hub, leads emerging life sciences clusters. Seattle, Denver-Boulder, and Nashville are also growing markets, benefiting from existing tech ecosystems and favorable business environments.



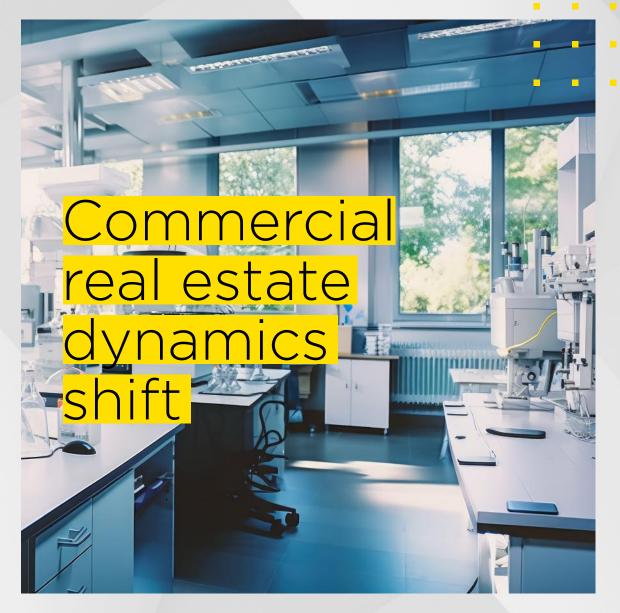
Life sciences job supply – in demand & on the rise

Comparison of the top 10 U.S. life sciences market (by number of jobs)

PROJECTED GROWTH BY MARKET (THROUGH 2028)

- **New York:** 11% Growth
- Raleigh-Durham: 10% Growth
- Northern New Jersey: 3% Growth
- Greater Los Angeles: 6% Growth
- San Francisco Bay Area: 15% Growth
- Boston-Cambridge: 18% Growth
- Washington, D.C. Metro Region: 10% Growth
- San Diego: 11% Growth
- Denver-Boulder: 11% Growth
- Philadelphia: 3% Growth

Source: Lightcast Labor & Analytics.



In 2023, the life sciences industry witnessed a rise in smaller-sized leases while still securing numerous substantial deals nationwide involving key industry players. Over the last year, leasing activity from the sector slowed as tenants became highly cost-conscious.

This drop in demand, combined with significant amounts of new inventory from new developments and space returned to the market, has changed the supply and demand dynamics in favor of tenants.

Current market conditions are providing tenants of all sizes with favorable opportunities when seeking new spaces. This trend has resulted in companies opting for newer, higher quality spaces with increased concessions and advantageous lease terms.

Life sciences headlines of 2023

The life sciences industry, in its emerging stages, is experiencing substantial financial backing from governments, coupled with the establishment of government initiatives aimed at fostering the industry's growth and cultivating a robust workforce.

Despite a decline in venture capital funding and activity, there remains a persistent demand for new life sciences spaces. This demand is evident in the popularity of conversions, with construction projects ongoing to meet the industry's needs.



Dallas Lands \$2.5 Billion Federal Biotech and Life Science Hub

Market: Dallas

Dallas will be home to one of three regional hubs for the Advanced Research Projects Agency for Health, a new federal agency established by the Biden administration to accelerate health outcomes by developing highimpact solutions to challenging health issues.



New Lab Space for Discovery to Impact Will Support Life Science Startups

Market: Austin

The University of Texas at Austin and Karlin Real Estate are teaming up to launch UT Impact Labs at Parmer Austin. The 10,000-square-foot wet lab space is the first off-campus site for the University's Discovery to Impact, which will manage the space for lease to life science startups.



Alloy Properties Completes Life Science Conversion in Sorrento Mesa

Market: San Diego

Alloy Properties has completed the office-to-life science construction of Elements, a three-building, 290,000-square-foot life science campus located on 7.9 acres at 10201-10241 Wateridge Cir. in San Diego's Sorrento Mesa submarket. The redeveloped campus can accommodate a wide range of uses from 20,000 to 189,000 square feet.

Buyers Flock as Alexandria Sheds More Assets

Market: Boston-Cambridge

Alloy Properties' acquisition from Alexandria includes properties in Cambridge and Waltham. This deal is part of Alexandria's strategy to focus on core assets, showcasing their dominant position in the life sciences real estate market.

Life sciences headlines of 2023





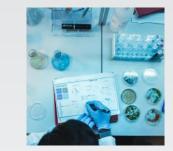
Market: San Francisco Bay Area

A Mission Street building that most recently housed San Francisco's planning and building inspection departments could be converted for life sciences companies. The six-story, 86,117-square-foot building at 1660 Mission St. is more than two miles from the city's Mission Bay biotech enclave. But real estate brokerage Colliers is marketing the space as available for research-anddevelopment offices and labs.

New Grant Gives South Carolina Life Sciences Companies a Chance to Accelerate

Market: South Carolina

The Medical University of South Carolina is one of nine leading research universities partnering with Innosphere on its Regional Life Sciences Incubator. Funding from a \$2 million, three-year Build to Scale Venture Challenge grant from the U.S. Department of Commerce will create a regional incubator that will offer its partnering institutions and selected startups access to its networks of mentors and investors while working with them to build the life sciences market in their states.



Maryland Tech Council Accelerates Effort to Expand State's Life Sciences Workforce

Market: Washington, D.C. Metro Region

Maryland Tech Council has teamed with a Dublin-based workforce training organization to develop a life sciences curriculum dubbed BioHub Maryland for people looking to enter the field and those already in the industry who want to improve their skills.

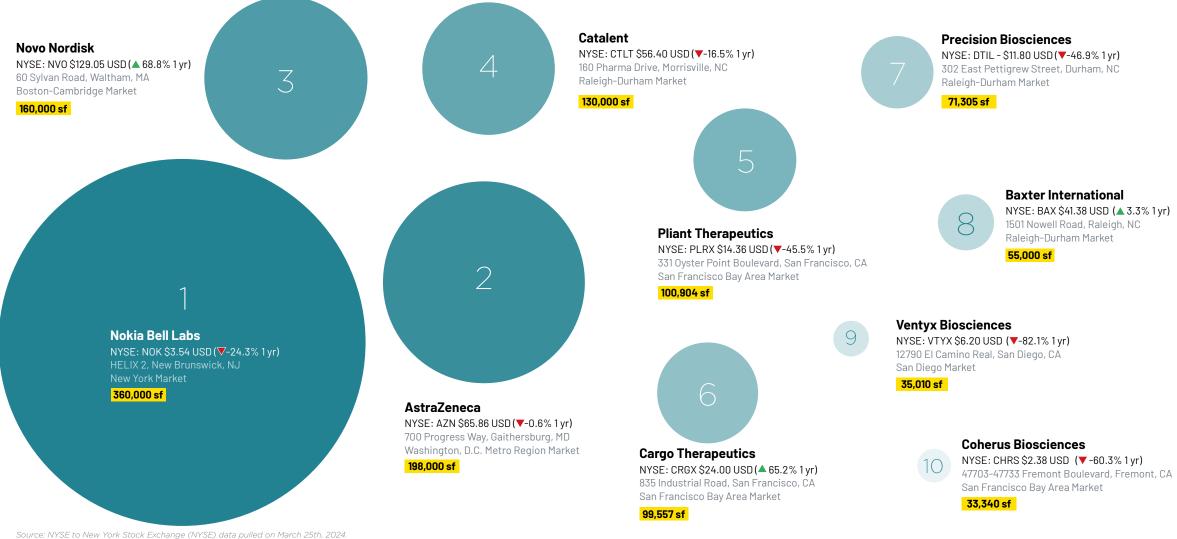
Mayor Adams Signs Bill to Bolster New York City's Life Sciences Sector

Market: New York

Mayor Eric Adams signed legislation that will further bolster New York City's life sciences and biotech sectors by offering a tax incentive for growing biotech companies to create jobs in New York City.

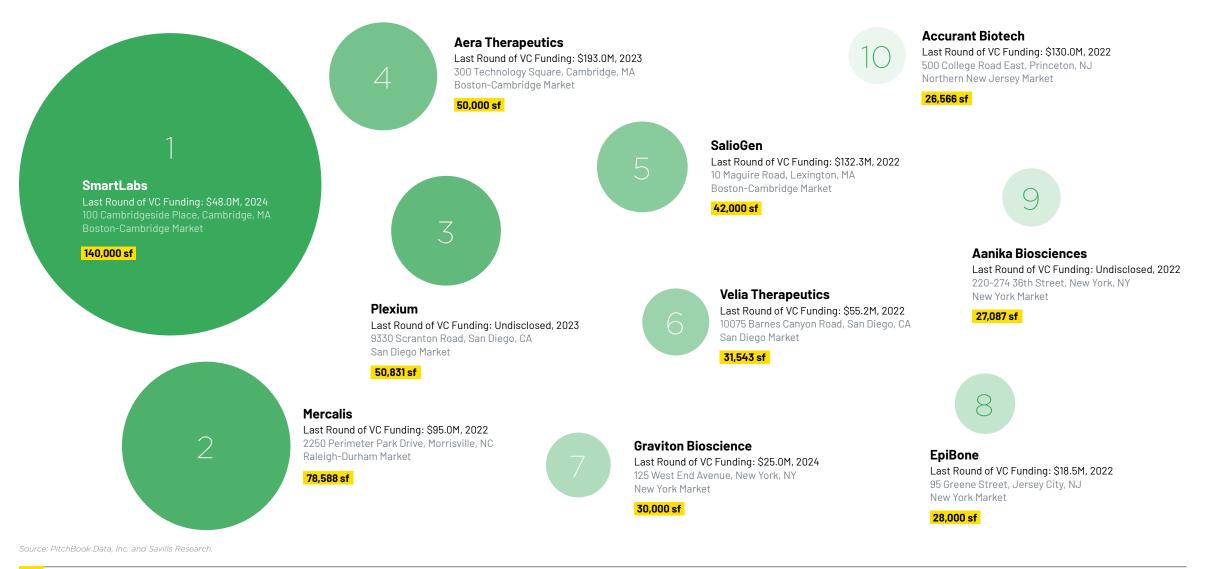


Notable 2023 lease transactions signed by public companies



Source: NYSE to New York Stock Exchange (NYSE) data pulled on March Transaction data per Savills Research.

Notable 2023 lease transactions signed by private companies



Looking ahead

As we step into 2024, most life sciences firms have adapted to post-pandemic norms, recalibrating their expectations for valuations and fundraising timelines to align with the shifting landscape.

This adjustment underscores the industry's resilience and adaptability in navigating evolving market conditions. Investment coming from venture capital funding, federal and local governments, and private R&D funding will help sustain elevated innovation within the sector. Economic shifts aside, the industry remains on a growth trajectory that is supported by government incentives for economic development and job creation.

The life sciences sector holds significant long-term growth potential driven by drug discoveries such as weight loss drugs, artificial intelligence, and a focus on wellness.

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