



TRANSWESTERN

HOUSTON LIFE SCIENCE MARKET

WINTER-SPRING 2023

TRENDLINES	2022 CALENDAR YEAR	2021 CALENDAR YEAR Y-O-Y
HOUSTON CPRIT FUNDING	\$135.5 M	↑
HOUSTON VENTURE CAPITAL FUNDING	\$455.9 M	↓
HOUSTON NIH FUNDING	\$613.1 M	↑
LIFE SCIENCE UNDER CONSTRUCTION	1,170,499	↑

Source: Cancer Prevention & Research Institute of Texas (CPRIT), Pitchbook, Bureau of Labor Statistics, CoStar, Real Capital Analytics, National Institutes of Health (NIH), Transwestern. Annual total(s) for calendar year(s) include 2022 and year-over-year comparison for 2021.

VENTURE CAPITAL, RESEARCH FUNDING CAP STRONG 2022 COUPLED WITH HQ RELOCATIONS AND LEASING

Houston’s life sciences sector is on sound fiscal footing for the year ahead coming off a strong 2022 of research funding and venture capital flows. During 2022, research funding from the Cancer Prevention & Research Institute of Texas (CPRIT) topped more than \$392 million, jumping past 2021’s total by 27.4 percent and eclipsed all other major Texas markets. Meanwhile, venture capital inflows for the year neared pre-pandemic levels of 2019, exceeding \$506.6 million and have already pushed close to \$145 million year-to-date through early-March. Last, National Institutes of Health Funding (NIH) climbed to approximately \$791 million, an increase of 3.4 percent over last year.

Leasing activity also made strides for the emerging commercial sector. Cellipont Bioservices announced the relocation of its headquarters from the San Diego area to both floors of the 75,255 square foot 9501 Lakeside Blvd. – Building 1 in The Woodlands. PackGene broke ground on its 25,000 square foot expansion at 9310 Kirby Drive, in Texas Technology Park, a 130,000 square foot R&D/flex property located just outside the southwest section of the IH-610 Loop. Also on the development side, Levit Green’s Phase 1 delivered containing 294,000 square feet with 10,000 square feet leased to China-based biotechnology firm, Sino Biological Inc., for its first U.S. manufacturing location.

Last year’s combination of robust funding volumes paired with solid leasing and construction activity, point towards a vigorous outlook this year for Houston’s growing life sciences and commercial real estate sectors.

FUNDING LANDSCAPE

Greater Houston’s Funding Pipeline

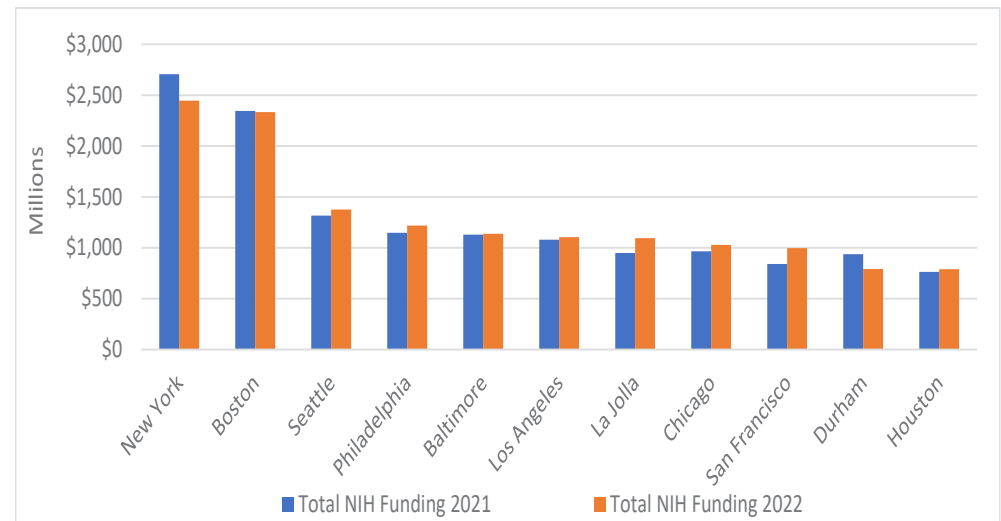
- As Houston's life science ecosystem continues to establish itself, venture capital inflows remained steady in 2022. Alto Pharmaceuticals just received its seventh round of funding in January of \$200 million. The company combines expert pharmacist care with purpose-built technology to deliver a more convenient experience for medication, enabling patients easy and hassle-free access to pharmaceuticals. The investors include 10X Capital, Expanding Capital, Madryn Asset Management, Sand Hill Angels, SoftBank Investment Advisers, Warren Point Capital, and What If Ventures.
- OncoResponse, a developer of therapeutic antibodies designed for the treatment of cancer received \$50 million in VC funding. The company leverages a proprietary B-cell technology platform to develop cancer immunotherapies (therapeutic antibodies) against immuno-oncology targets by interrogating the human immune system, enabling doctors and patients to optimally combat cancer. Some of the leading investors backing OncoResponse were 3B Future Health Ventures, Alexandria Real Estate Equities, Alexandria Venture Investments, ARCH Venture Partners, Baxalta Ventures, Rice University, and The University of Texas MD Anderson Cancer Center.
- Combined to provide another \$142 million in funding in which \$50 million was allocated specifically to Nuprobe Global, \$50 million for Indapta Therapeutics, and \$42 million for Nuprobe. Other notable investors in the Houston market include BioTrack Capital, CR Life Sciences, Panlin Capital, Pappas Capital, Sequoia Capital China, Tuobang Capital, Wuxi AstraZeneca CICC Venture Capital Partnership, Yonghua Capital, Leaps by Bayer, RA Capital Management, Vertex Ventures HC, and Deguan Capital.
- Houston’s top three recipients receiving grant funding from the National Institute of Health (NIH) include: Baylor College of Medicine, The University of Texas MD Anderson Cancer Center and The University of Texas Health Science Center of Houston all three totaling more than \$520 million.

VENTURE CAPITAL FUNDING FOR HOUSTON LIFE SCIENCE

Rank	Companies	2022 CY - 2023 YTD Funding (\$ Millions)	Cumulative Funding - All Years (\$ Millions)
1	CAPSULE CORPORATION	\$100.0	\$690.0
2	INDAPTA THERAPEUTICS INC.	\$50.0	\$59.0
3	CARRIERGENE BIOTECH CO. LTD.	\$50.0	\$92.0
4	NUPROBE, INC.	\$50.0	\$111.3
5	RADIOMEDIX, INC.	\$40.0	\$41.4
6	TESIS LABS, LLC	\$36.0	\$51.0
7	STREAM BIOMEDICAL, INC.	\$21.5	\$26.5
8	COYA THERAPEUTICS, INC.	\$15.3	\$35.7
9	TACHYON THERAPEUTICS, INC.	\$11.6	\$11.4
10	GENIALIS, INC.	\$11.4	\$11.6

Source: Pitchbook, Transwestern

NATIONAL INSTITUTES OF HEALTH, TOTAL FUNDING 2021 VS 2022



Source: NIH, Transwestern. Annual calendar year funding, sorted by 2022 in descending order.

FUNDING CONTINUED

Houston 2022 CPRIT Awards Rise 27.4 Percent in Past Year

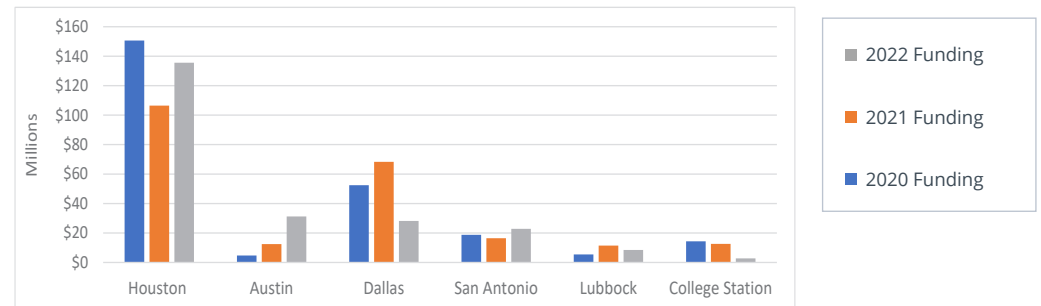
- Houston is the leading metro to receive funding over the past three consecutive years from the Cancer Prevention & Research Institute of Texas (CPRIT), exceeding a total of \$392 million since 2020. Houston’s annual funding during 2022 was \$135.5 million, surging 27.4 percent past 2021’s level of \$106.4 million.
- CPRIT’s primary objective is to create and expand life science infrastructure across Texas including the expedition of innovation in research and enhancing the potential of breakthroughs in prevention and cures. Houston’s top recipients during 2022 include Baylor College of Medicine, The University of Texas M.D. Anderson Cancer Center and Rice University totaling more than \$100 million combined for the life science academic research and development vertical. Projects for top awards given for include cancer research on the brain, nervous system, lungs and bronchus, and colorectal.
- Private Houston companies awarded the recent funding include: Asyilia Therapeutics, Inc., biotechnology company advancing immune therapies for breast, lymphoma and myeloma; Stellanova Therapeutics, Inc. which develops cancer therapies targeting cancer-associated fibroblasts; and Prana Thoracic, Inc. a manufacturer of medical devices intended to detect and intervene in early-stage lung cancer. All three are in TMC and received a combined \$9.0 million for early-stage research during 2022 from CPRIT.
- Other pharmaceutical and biotechnology companies on the rise in the Houston market include Coya Therapeutics, a northwest Houston operator of a clinical-stage biotechnology company intended to develop approaches utilizing adaptive regulatory type of white blood cells, T-cells, to target disease and Iterion Therapeutics Inc. a clinical stage biotechnology company developing novel cancer therapeutics in the TMC.

CANCER PREVENTION & RESEARCH INSTITUTE OF TEXAS, TOP 10

Rank	2022 Top CPRIT Recipients	Date Funded	Amount
1	PLUS THERAPEUTICS, INC.	8/17/2022	\$17,613,605
2	PANTHER THERAPEUTICS, INC	8/17/2022	\$14,268,315
3	THE UNIVERSITY OF TEXAS M.D. ANDERSON CANCER CENTER	11/16/2022	\$6,000,000
4	BAYLOR COLLEGE OF MEDICINE	5/18/2022	\$6,000,000
5	THE UNIVERSITY OF TEXAS M.D. ANDERSON CANCER CENTER	2/16/2022	\$6,000,000
6	THE UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT SAN ANTONIO	2/16/2022	\$6,000,000
7	THE METHODIST HOSPITAL RESEARCH INSTITUTE	11/16/2022	\$5,999,198
8	THE UNIVERSITY OF TEXAS SOUTHWESTERN MEDICAL CENTER	9/14/2022	\$4,000,000
9	RICE UNIVERSITY	5/18/2022	\$4,000,000
10	BAYLOR COLLEGE OF MEDICINE	9/14/2022	\$3,999,996

Source: CPRIT, Transwestern. Annual calendar year funding, sorted by 2022 in descending order.

CPRIT FUNDING BY TEXAS METRO 2020 - 2022



Location	2020 Funding	2021 Funding	2022 Funding
HOUSTON	\$150,659,803	\$106,435,373	\$135,550,932
AUSTIN	\$4,749,616	\$12,482,808	\$31,247,839
DALLAS	\$52,448,736	\$68,316,485	\$28,196,499
SAN ANTONIO	\$18,772,436	\$16,444,802	\$22,797,823
LUBBOCK	\$5,427,427	\$11,457,349	\$8,456,656
COLLEGE STATION	\$14,320,044	\$12,609,211	\$2,737,468
REMAINING TX METROS	\$4,731,250	\$13,905,671	\$9,209,044
Totals	\$246,378,062	\$227,746,028	\$228,987,217

Source: CPRIT, Transwestern. Annual calendar year funding, sorted by 2022 in descending order.

NEW CONSTRUCTION UNDERWAY/DELIVERED

Highlights

LEVIT GREEN

Levit Green is a 52-acre site adjacent to the TMC featuring a mix of office space, research facilities, retail, residential and green space. Phase 1 delivered in Q1 2023 containing 294,000 square feet with 10,000 square feet leased to China-based biotechnology firm, Sino Biological Inc., for its first U.S. manufacturing location.



TMC3 COLLABORATIVE BUILDING

The four-story, 250,000 square foot, state-of-the-art building is expected to deliver in Q3 2023. Building features include a 43,000 square foot joint research lab, office/co-working space and a shared IT infrastructure to facilitate synergistic research initiatives for four founding institutions: MD Anderson, Texas A&M University Health Science Center, the University of Texas Health Science Center at Houston, and TMC.



DYNAMIC ONE

Began in July 2021, phase one of TMC Helix Park’s Dynamic One building is scheduled for completion in Q4 2023, will span 368,000 square feet and feature a market-leading tenant amenity package anchored by public retail and restaurant space opening onto the vibrant Helix Park.



8800 TECHNOLOGY FOREST PL.

A purpose-built Class A life science three-building campus located in The Woodlands designed to ignite innovation with flexible laboratory, office, and biomanufacturing space, and amenitized collaboration space. The three-story Building 100, containing 130,765 square feet, is expected to be completed in Q1 2023. Building 300, containing 70,734 square feet, is also underway and due to be completed in Q2 2023.

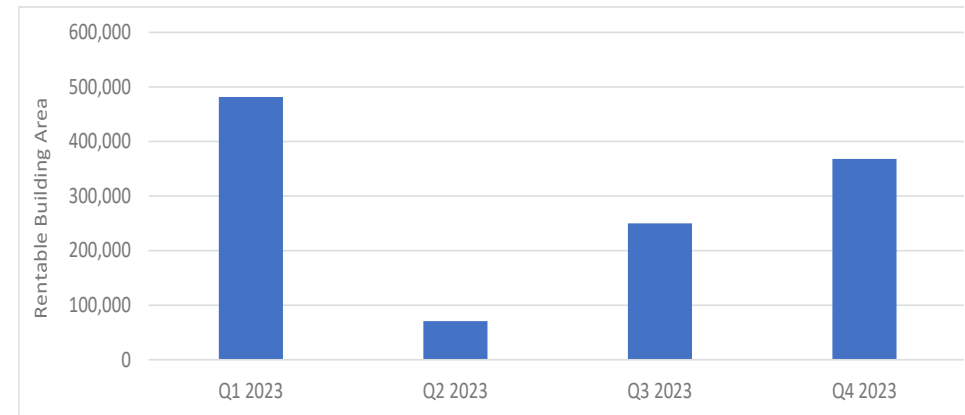


PURPOSE BUILT LIFE SCIENCE BUILDINGS UNDER CONSTRUCTION

	Building Name	RBA (SF)	Expected Delivery	Owner
1	LEVIT GREEN PHASE 1	294,000	Q1 2023	Harrison Street Capital
2	TMC INNOVATION FACTORY	57,000	Q1 2023	Texas Medical Center
3	8800 TECHNOLOGY FOREST PL BLDG 100	130,765	Q1 2023	Alexandria Real Estate
4	8800 TECHNOLOGY FOREST PL BLDG 300	70,734	Q2 2023	Alexandria Real Estate
5	TMC3 COLLABORATIVE BUILDING	250,000	Q3 2023	MD Anderson, Texas A&M, TMC, and others
6	DYNAMIC ONE	368,000	Q4 2023	Beacon Capital
TOTAL SF UNDER CONSTRUCTION		1,170,499		

Source: Transwestern. RBA: Rentable Building Area.

EXPECTED LIFE SCIENCE DELIVERY SCHEDULE



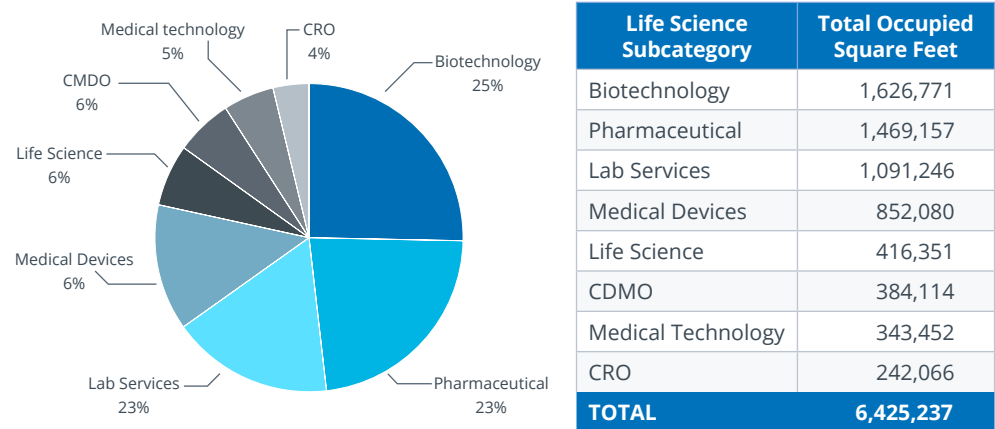
Source: Transwestern. RBA: Rentable Building Area.

RECENT MARKET TRENDS

HQ Relocations, Expansions and Spec Suites Driving Activity

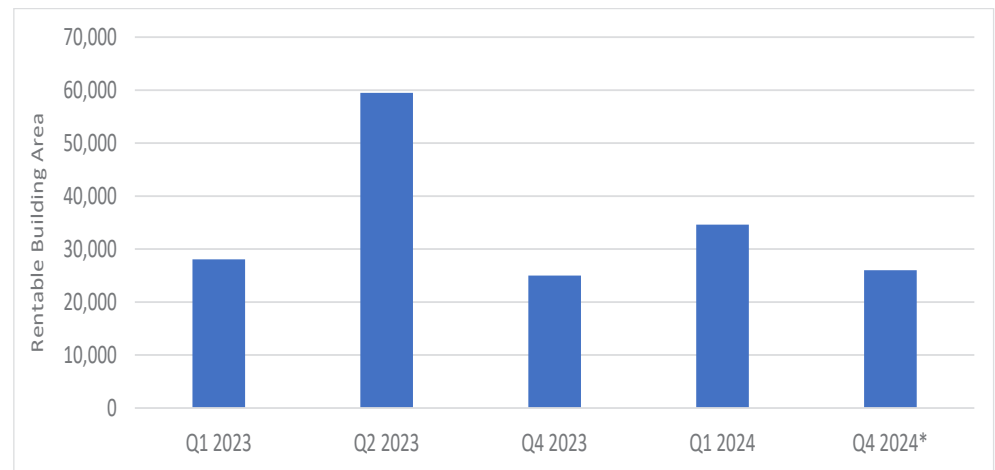
- Life sciences company, Cellipont Bioservices announced the relocation of its headquarters from the San Diego area to both floors of the 75,255 square foot 9501 Lakeside Blvd. – Building 1 in The Woodlands. The building is owned by Vitrian, a New York City- and Bethesda, Maryland-based company that services biomanufacturing firms. Cellipont specializes in cell therapy contract development and manufacturing. The facility will be used for manufacturing, process development, assay development and testing with the build-out for the space underway to be completed in phases during the first half of 2023 and expects to employ up to 200 workers at full build-out.
- In February, PackGene broke ground on its 25,000 square foot expansion at 9310 Kirby Drive, in Texas Technology Park, a 130,000 square foot R&D/flex property located just outside the southwest section of the IH-610 Loop. The biotech operator is involved in contract research and contract development in addition to manufacturing of adeno-associated virus vectors, which are used for early-stage drug discovery, preclinical development and clinical trials for cell and gene therapy. With the expansion, the company plans to triple its workforce.
- Life science speculative suites are becoming an important part of Houston’s industry expansion. More than 190,000 square feet is under development, planned or in permitting throughout five projects located in The Woodlands, the Texas Medical Center (TMC) and along the South Loop IH-610 near the TMC. Averaging in between 6,000 and up to nearly 30,000 square feet, these suites feature office, lab and flex space with the first completions in three suites totaling 57,000 square feet being scheduled for the first half of 2023. These are located in the 650,000 square foot Class A TMC Innovation facility, one featuring 15,890 square feet is fully leased with additional suites containing 12,612 and 28,070 square feet available in the building.

HOUSTON LIFE SCIENCE COMPOSITION



Source: Pitchbook, Bureau of Labor Statistics, CoStar, Real Capital Analytics, Revista, Transwestern, Costar. Does not equal 100% due to rounding.

EXPECTED LIFE SCIENCE SPECULATIVE SUITE DELIVERY SCHEDULE - CLASS A



Source: Transwestern

*Space is currently in a planning stage and has not yet started construction

LIFE SCIENCE OCCUPIERS BY SUBMARKET & SQUARE FEET

Life Science Subcategory	Total	Industrial	Flex*	Office
NEAR SOUTHWEST	1,354,417	874,099	377,753	102,565
TMC	1,000,110	53,083	133,360	813,667
SOUTH	653,790	336,556	22,480	294,754
SUGAR LAND	623,748	430,192	121,436	72,120
NEAR WEST	338,798	1,000	68,192	269,606
CLEAR LAKE	335,831	39,460	10,000	286,371
INNER LOOP	317,831	44,966	119,948	152,917
CONROE	261,257	192,780	64,259	4,218
PASADENA	257,475	203,220	49,740	4,515
NEAR NORTH	216,554	133,190	17,909	65,455
THE WOODLANDS	209,506	27,853	19,304	162,349
ALL OTHER	855,920	643,764	76,165	135,991
GRAND TOTAL	6,425,237	2,980,163	1,080,546	2,364,528

Source: Transwestern, Costar

*Flex A type of building(s) designed to be versatile, which may be used in combination with office, research and development, quasi-retail sales, and includes distribution uses. Transwestern identified 60,000 SF of occupiers located in strip centers with 26,000 SF coming from Near Southwest.

FOR MORE INFORMATION

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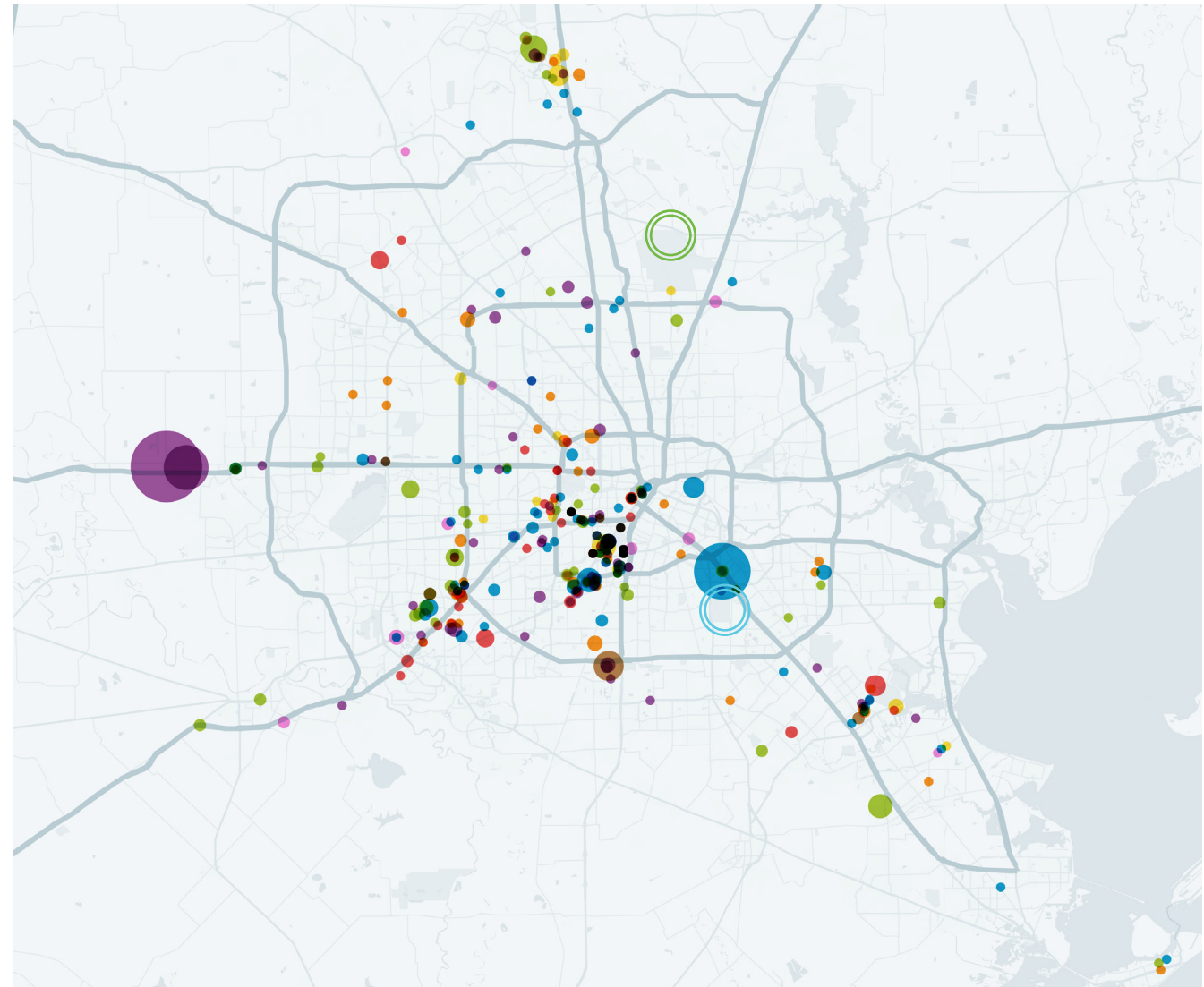
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HOUSTON LIFE SCIENCE LOCATION, TYPE OF FACILITY & LANDMARK(S)



- | | | |
|---|---|--|
| ● Medical Technology | ● Medical Devices | ● CRO |
| ● Biotechnology | ● Lab Services | ● CDMO |
| ● Pharmaceutical | ● Life Sciences | George Bush Airport |
| | | Hobby Airport |