

A HUB FOR LIFE SCIENCES AND BIOTECHNOLOGY



# A Hub for Life Sciences and Biotechnology

Leveraging our legacy as the home of the world's largest medical complex — the Texas Medical Center — Houston is an emerging life sciences destination. From curing cancer to developing life-saving therapies, Houston's world-class health care institutions, research labs, and innovative companies are taking on the greatest medical challenges of our generation.

As a leader in diverse industries and with a collaborative spirit, Houston is at the forefront of innovation between industries, breaking down traditional barriers to bring together the greatest minds from aerospace, energy, health care, life sciences, manufacturing, petrochemical, and other industries.







Houston is one of the youngest, fastest growing, and most diverse regions.

**/**th

**7.3**M

Largest U.S. city

Residents

1 in 4

3.3M

Houstonians is foreign born

Jobs

 $\label{lem:continuous} Houston is unabashedly pro-growth and opportunity-rich.$ 

Fortune 500 HQs, 3rd highest concentration in the U.S.

U.S. metro for business expansion and relocation (Site Selection, '21/'22)

Global Cities of the Future (fDi Intelligence, Financial Times, '21/'22)

Houston is a great global city.

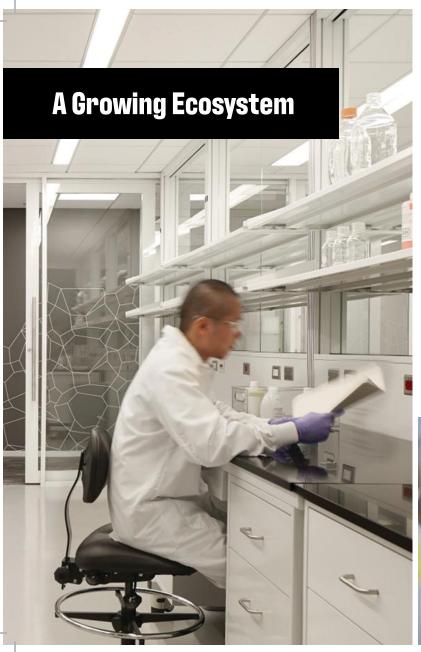
90+

Foreign consulates, 3rd highest concentration in the U.S.

#1

Metro exporter in the U.S.

International airports with 180+ non-stop destinations



Houston's high concentrations of life sciences employment, healthy funding landscape, and commitment to translational research is making it one of the country's fastest growing life sciences ecosystems.

Top Emerging Life Sciences Cluster (CBRE, '21)

\$961M

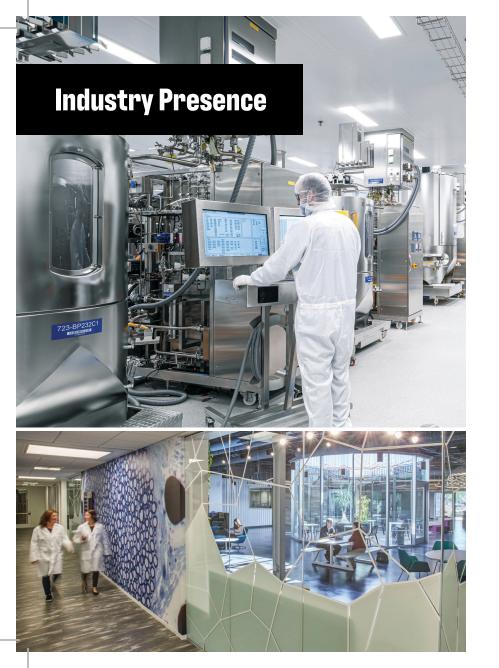
NIH Medical Research Grants ('22)

in Top 25 Life Sciences Research Talent Clusters (CBRE, '22) in Top 20 US Metros for Life Sciences Companies (Commercial Café, '22)

4,900+
Active clinical trials
(over 20% of all trials in the U.S.

15,400+ Life sciences and biotech researchers





Houston is home to 1,100+ established life sciences and biotechnology companies.

#### **Select Companies**

**Alaunos Therapeutics** 

**Cellipont Bioservices** 

**Immatics** 

InGeneron

**KBI Biopharma** 

Kiromic

**Lexicon Pharmaceuticals** 

Lonza

**Marker Therapeutics** 

**Mercury Data Science** 

Moleculin

**Nurix Therapeutics** 

**Precision Medicine Group** 

**Tvardi Therapeutics** 

**US Oncology Research** 

VGXI

Number of companies based on payroll data (Partnership Analysis using data from JobsEQ/US Bureau of Labor Statistics)

Houston is home to a strong university system and a large supply of young talent. Its robust higher education pipeline offers a range of life sciences education options, including tech certificates, 2-4 year degrees, Master's, and PhDs.

**26,000+** Employees comprise the core life sciences industry

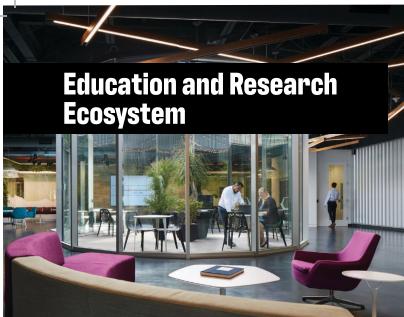
**394,000+** Young professionals with a bachelor's degree or higher

Nationally ranked universities and graduate schools



### **Strong Talent Pipeline**







### $\label{thm:condition} \mbox{Houston} \mbox{ has a strong life sciences education and } \mbox{research ecosystem.}$

**Rice University** 

Offers numerous undergraduate and graduate life sciences degrees and is home to the Institute of Biosciences and Bioengineering. Researchers actively collaborate with TMC institutions and other industry partners to accelerate interdisciplinary research and create translational research partnerships.

University of Houston

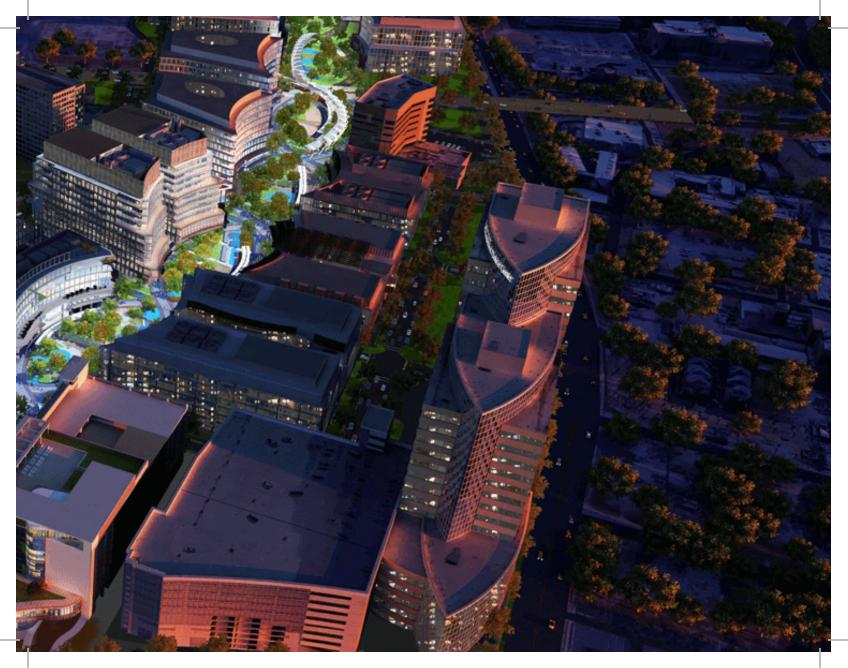
Is dedicated to educating students in health and life sciences through the Department of Biology and Biochemistry, the Department of Biomedical Science which is home to the Tilman J. Fertitta Family College of Medicine, the Cullen College of Engineering, and the Department of Physics-Biological and Medical Physics.

The University of Texas Medical Branch Opened in 1891 as the nation's first public medical school and hospital under unified leadership. What began as one hospital and medical school building in Galveston is now a major academic health sciences center of global influence and a world-renowned research enterprise. Home to Galveston National Lab, the Sealy Institute for Drug Discovery, a Graduate and Medical School, as well as the Institute for Translational Sciences, UTMB addresses the full spectrum of basic, translational, computational, and clinical research

San Jacinto College

Is partnering with NIBRT and McCord Development for the creation of the San Jacinto College Biotechnology Center in Generation Park which will offer certificate coursework in bioprocessing to students as well as special curriculum focusing on cell and gene therapy and other developing industry sectors.









### **Life Sciences Developments**

#### 8800 TECHNOLOGY FOREST PLACE

Is a 12-acre life sciences campus designed to ignite innovation and promote collaboration. It is home to 325,000 square feet of purpose-built Class A space - including flexible laboratory, office, and biomanufacturing spaces.

#### **GENERATION PARK**

Is a 4,200-acre master-planned development that creates a thriving ecosystem for companies to grow. Already home to two college campuses - San Jacinto College and Lone Star College - Generation Park is integrating education and industry with its development of a biomanufacturing workforce institute that features advanced industrial bioprocessing equipment, including a bioprocessing pilot plant.

#### **LEVIT GREEN**

Is a new 53-acre master-planned district built next to TMC that is designed to offer a curated mix of uses, including research facilities; office, residential, shopping, and dining spaces; outdoor amenities and green space.

#### **TMC HELIX PARK**

Is the stimulative core of TMC that will be comprised of 6M square feet of research labs, retail, hotel, and large scale commercialization space with 18.7 acres of public green space and a TMC<sup>3</sup> collaborative research building with four founding institutions.





Houston is one of the top destinations in the world for health, life sciences, and translational research. As America's most diverse city and the site of over 20% of all clinical trials in the U.S., Houston is uniquely positioned to attract diverse clinical trial participants with recent trends toward clinical trial decentralization, clinicians well-acquainted with complex trials, and new tools that enable robust research in community settings.

\$1.9B

In life sciences research annually

**50+**Academic and industry R&D centers

\$961M

NIH grants totaling 1,752 in '22

4,900+

Active clinical trials (over 20% of all trials in the U.S.)

## CANCER PREVENTION & RESEARCH INSTITUTE OF TEXAS

The Cancer Prevention & Research Institute of Texas (CPRIT) is a \$6 billion, 20-year initiative — the largest state cancer research investment in the history of the United States and the second largest cancer research and prevention program in the world.

1,819

Awards in cancer research, product development, and prevention since 2010

\$3.17B

Total amount awarded (over \$150M to Greater Houston organizations in '22)

#### **CPRIT Purpose**

Create and expedite innovation in the area of cancer research and in enhancing the potential for a medical or scientific breakthrough in the prevention of cancer and cures for cancer

Attract, create, or expand research capabilities of public or private institutions of higher education and other public or private entities that will promote a substantial increase in cancer research and in the creation of high-quality new jobs in this state





Houston is home to numerous health, life sciences, and interdisciplinary innovation hubs.

Through **JLABS** (a) **TMC**, Johnson & Johnson enables talented scientists in the region to take their innovations to the next level and advance science with the potential to become transformational solutions for patients.

Home to 40 companies and

60 alumni companies within its network

**34,000**SF of common, wet lab and office space

Extensive core shared resources, BS1 and BSL2 facilities

**TMC's Innovation Factory** drives TMC's diverse alliance of early-stage innovators. The TMC Innovation Factory empowers entrepreneurs from across the world to push the limits of discovery and bring their solutions to life faster.

300+ Startups

\$50M TMC Venture Fund

\$5.8B Raised to date Health Tech Accelerator and Cancer Therapeutic Accelerator

Biodesign program for entrepreneurs to create solutions for health care's greatest unmet needs

BioBridges provide customized support to innovative international life sciences startups seeking to grow in the U.S. The Center for Device Innovation (CDI @ TMC) focuses on supporting early-stage medical device concepts with high technical risk, rapidly developing and testing new devices to prove feasibility with faster timelines and capital efficiency.

**1,000** SF of full-scale prototyping space

Rapid fabrication and 3D printing capabilities

Electronics testing and assembly equipment





#### The Cell Therapy Manufacturing Center (CTMC)

operates at the intersection of cutting edge biotech and world-class cancer innovation in a first-of-itskind cell therapy engine that is advancing novel scientific breakthroughs to end cancer.

Joint venture between National Resilience Inc. and MD Anderson Cancer Center

Industry veterans and scientists specialized in cell therapy

### 60,000

SF of purpose-built cell therapy development and industrial-grade cGMP cleanroom space

**CUBIO** is a collaborative life science incubator located in Houston's Medical Center with a mission to give medtech and biotech startups the resources they need to thrive.

Support for early-to-mid-stage life sciences startups

Wet-lab space and shared equipment available

Funding platform and consulting resources



The Texas Medical Center (TMC) in Houston — the largest medical center in the world — is on a mission to further accelerate the pace of healing by harnessing collective expertise in innovation, research, development, production, and patient care within a single, centralized medical ecosystem. TMC offers companies a unique opportunity to collaborate and implement technology in one of the largest health care ecosystems.

### **10M**

Patient encounters per year

60+

Leading academic, research, and health system member institutions

### **50M** s

of research labs, retail, hotel and large-scale commercialization spaces

with more underway



Houston offers a low cost of living with the cultural and entertainment amenities of a global city.

**#2** Lowest cost of living among the 20 most populous U.S. metros

Housing costs 34.1% below the nation's 20 most populous metros, and 7.9% below the nation's average

Houston is home to an acclaimed and extensive cultural scene.

Renowned museums and cultural centers

Highest theater seats second to NYC

Resident performing arts organizations

Major league sporting teams

Houston is one of the greenest cities in the U.S.

Nationally recognized green space renaissance
Walkable neighborhoods

**345**Miles of int

382

Miles of interconnected bikeways

Developed city parks

Home to two of the nation's 10 largest urban public parks





For more information about Houston's life sciences ecosystem, please contact

Verena Kallhoff, PhD, MBA

Senior Director, Global Life Sciences vkallhoff@houston.org | (713) 844-3633

Houston.org/Life-Sciences

GREATER HOUSTON PARTNERSHIP.