

# **A Texas Life Science Perspective**

**David R. Margrave**  
**Chairman**  
**Texas Healthcare and Bioscience Institute**



## What is THBI?

**The Texas Healthcare and Bioscience Institute (THBI) is a non-profit, public policy research organization, comprised of biotechnology, medical device, and pharmaceutical companies, economic development entities, academic, and private research institutions, as well as companies that provide goods and services to core organizations.**

# THBI Mission Statement

**The mission of the Texas Healthcare and Bioscience Institute is to research, develop, and advocate policies and actions that promote biomedical science, biotechnology, agriculture, and medical device innovation in Texas.**

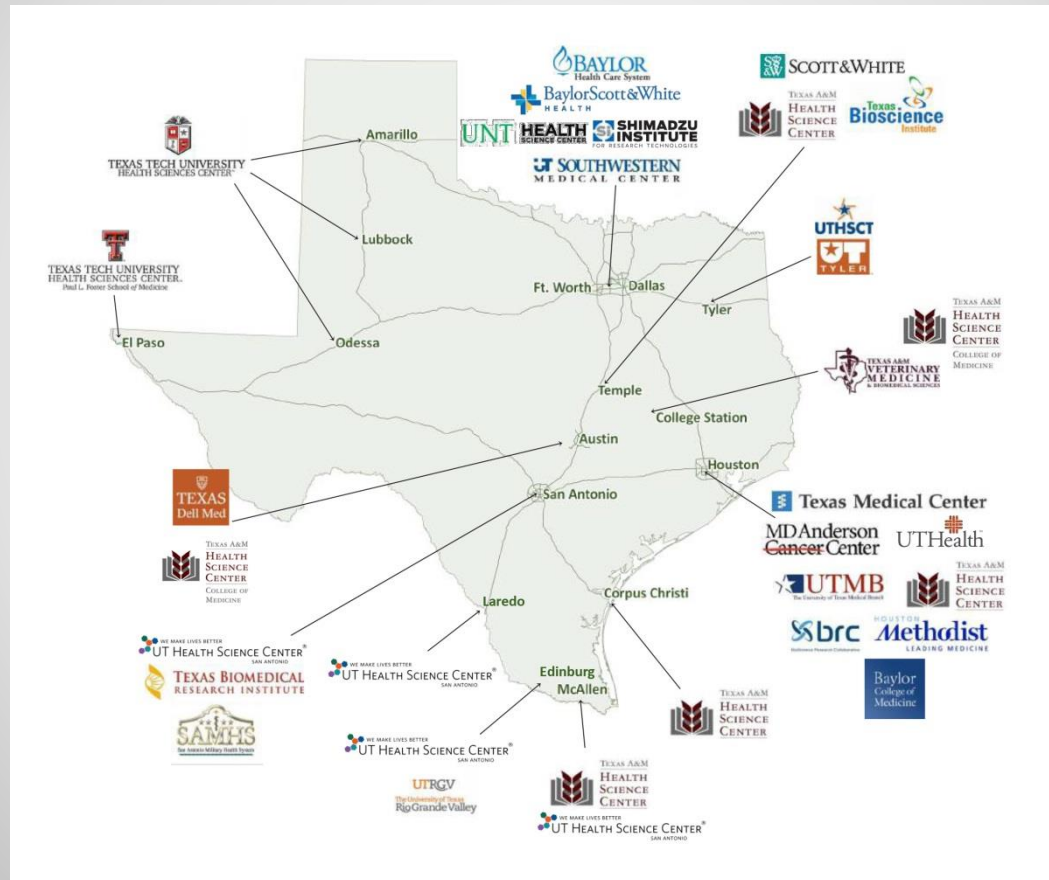
# Life science Companies in Texas



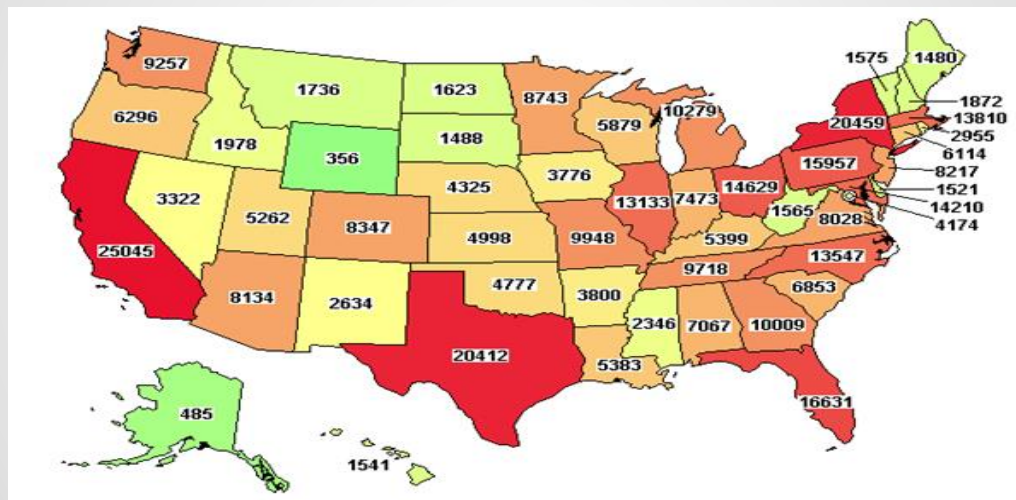
# Economic Impact of Life Sciences on Texas

The Life Sciences industry generates a significant economic impact on the state of Texas, as companies and institutions purchase equipment and inputs and well-paid employees spend money in their home communities. The industry's total economic impact on the State of Texas is estimated at \$75 billion in economic activity, 97,600 jobs with 3,900 life science companies and research firms located in Texas.

# Medical Schools and Selected Research Centers



# Clinical Trials by State, Spring 2016



Texas Ranks No. 3 in the nation for number for clinical trials, with approximately 20,400 underway.



## Current Info on Medical Devices in Texas

- Texas is one of the top 10 states for Medical device labor workforce
- More than 700 firms employ approximately 12,000 highly skilled laborers, with the highest concentration of medical device companies located in the four highly populated metropolitan areas; Austin has the highest density of companies.
- Wide range of products developed and produced: surgical sutures, bandages, molecular biology kits, medication delivery systems, and more.





# TEconomy/Bio

The Value of Bioscience innovation in Growing Jobs and Improving Quality of Life 2016

## Bioscience Performance Metrics

Summary of State Performance in Selected Bioscience-related Metrics

Metric	Texas	United States	Quintile
<b>Bioscience Industry, 2014</b>			
Bioscience Industry Employment	81,472	1,655,680	I
Bioscience Industry Location Quotient	0.60	n/a	IV
Bioscience Industry Establishments	4,865	77,283	I
<b>Academic Bioscience R&amp;D Expenditures, FY 2014</b>			
Bioscience R&D (\$ thousands)	\$3,011,942	\$38,873,926	
Bioscience Share of Total R&D	65%	61%	
Bioscience R&D Per Capita	\$112	\$122	
<b>NIH Funding, FY 2015</b>			
Funding (\$ thousands)	\$1,004,412	\$22,869,746	I
Funding Per Capita	\$37	\$71	III
<b>Bioscience Venture Capital Investments, 2012–15 (\$ millions)</b>	\$1,664.3	\$48,742.10	I
<b>Bioscience and Related Patents, 2012–15</b>	4,521	101,026	I

State ranking figures for bioscience performance metrics are calculated as quintiles, where:

top quintile — I II III IV V — bottom quintile

For source notes, see end of State Profile.

## **Key Best Practice Factors in Building a Bioscience-driven Economy**

- **Ingredients for building a critical mass in the biosciences in states and regions include:**
- **Engaged universities with active leadership**
- **Building entrepreneurial cultures with intensive**
- **networking across sectors and with industry**
- **Available capital covering all stages of business cycle**
- **Adequate R&D funding**
- **Capable workforce and talent pool**
- **Access to specialized facilities and equipment**
- **Supportive business, tax and regulatory policies**
- **Patience and a long-term perspective**

## **Winning Together for Texas: What Are the Elements of a Successful Texas Life Science Strategic Plan?**

- Funding & Incentives provided in a non-political manner.
- Top Industry Talent with a Trained and Qualified Workforce.
- Healthy & Robust Infrastructure: Academic Institutions/Facilities and Labs.
- A plan that includes consideration of what a regulatory framework will look like for evolving technologies and approaches.
- An educated citizenry that understands the costs, timelines, risks, and rewards involved in bioscience.
- Approaches that align and encourage multiple State communities and constituencies to work together for Texas life science leadership.
- Environment that fosters regular dialogue and effective communication among different communities and stakeholders.

# Texas Legislative Sessions

- **Texas Emerging Technology Fund (79<sup>th</sup>)**
  - The TETF has awarded more than \$232.46 million for biotechnology related projects.
- **Texas Enterprise Fund (78<sup>th</sup>)**
  - The TEF has awarded \$98.1million for biotechnology related projects, creating 11,451 jobs
- **Pharmaceutical Biotech Cleanroom Exemption (80<sup>th</sup>)**
- **Texas Cancer Prevention and Research Institute of Texas (80<sup>th</sup>)**
  - \$3B - \$300MM per year for 10 years/to date

# Texas Legislative Sessions

- **Texas Tier One Initiative (TRIP Funding)**
- **Product Development Fund**
- **HB 800 (83<sup>rd</sup>) R&D Tax Credit**
- **Governor's University Research Initiative (84<sup>th</sup>)**

# THBI Regional Collaborators

- BioAustin
- BioHouston
- bionorthTX
- BioMed SA
- Research Valley Partnership
- Rio Grande Valley/Mission EDC
- El Paso/MCA Foundation
- Additional cities and regions

## Policy and Legislative Innovation Blueprint

- Access to Innovative Products
- Research and Development
- Product Development
- Higher Education/Research
- CPRIT



# Key Messages Texas Life Science CEO's Would Like to Convey

- Healthcare will be the core pillar of the future Texas economy
- Bioscience leadership can provide Texas with important competitive advantages
- Providing incentives for life science companies to work and stay in Texas is a smart thing to do
- State commitment to growing healthcare and bioscience is a sound bet given the strong resources and assets that already exist in Texas
- Preparing now for future developments and successfully incorporating evolving technologies will pay substantial long-term dividends
- Texas life science CEO's are ready and willing to help with the process

## **Important Objectives:**

- Promoting education, communication and cooperation among all healthcare and life science stakeholders
- Approaches to assure regulations and guidance are understood and will be followed
- Input into the development of rational and effective laws, regulations and guidance documents
- Working to continually improve dialogue

## Potential Opportunities for Collaboration:

- Work together to identify and prioritize key healthcare and life science needs
- Finding new ways to work together and improve dialogue
- New approaches to get to know each other better
- Joint participation in discussion groups, conferences, and meetings
- Joint efforts to improve training, education and workforce skills
- What are ways to improve on what has been done to this point?
- Identify the missing pieces to assure a vibrant life science future

**Thank You!**