The Future of Research & Development
(or where do all the answers live?)
Private Sector

Federal Research Programs

Research Universities
Private Sector R&D

Federal Research

University Based R&D
Research Universities

Private Sector

Federal Research Programs

State Programs
Municipalities
NGOs
Foundations
Etc.....

Education
Workforce
Diversity
Social good
STEM
Humanities
Creative Expression

Research Universities

MEMBER THE TEXAS STATE UNIVERSITY SYSTEM™
Texas State University

- Over 38,808 students; 34 largest university in the U.S.

- Degree Programs
  - 97 bachelor’s
  - 93 master’s
  - 14 doctoral (newest: PhD in Applied Computer Science)

- 50% of our students are ethnic minorities

- Ranks 14th in the nation for bachelor’s degrees awarded to Hispanic students

- A Federally Designated Hispanic Serving Institution

- Ranked in the top 50 schools in the nation (top 5 in Texas) in R&D expenditures in the Humanities

- Ranked in the top quartile nationally in total R&D expenditures

- A Carnegie designated Research University (R2)

- >80% of R&D funding from federal sponsors

- World-class faculty
Research & Innovation with Relevance

Areas of Excellence

- Material Sciences
- Engineering
- Criminal Justice/Public Safety
- Water and the Environment
- Wildlife sciences
- Data Sciences
- Archeology & Anthropology
- Translational Health Sciences
- Social/Behavioral Sciences
- Creative Expression/Performing Arts
The **How** of Applied Research at Texas State University

- **University Research Centers**
  - Texas School Safety Center
  - Materials Application Research Center
  - Freeman Center
  - Xiphophorus Genetic Stock Center
  - Meadows Center for Water and the Environment
  - Center for Innovation and Entrepreneurship
  - Translational Health Research Center

- **Intentional strategy to seek large federal grants for applied research**
  - Advanced Law Enforcement Rapid Response Training Center (DOJ)

- **Science Technology & Advanced Research (STAR) Park**
  - 11 For-profit companies with defined partnerships with Texas State

- **Traditional University driven Technology Transfer**
  - Patents, licensing agreements, company startups

- **Connected Infrastructure for Education, Demonstration and Applied Research (CIEDAR)**
  - A focused strategy to bridge the silos between the academic research world and for-profit companies

- **Texas State I-Corps Site for Entrepreneurship**
The **Who** of Applied Research at Texas State University

- World-class faculty across multiple colleges, departments, disciplines
- Graduate and undergraduate students in various degree programs
- Alumni of Texas State
- All of the support offices
- Community
- Partners outside of Texas State

Research produces the raw material for technology transfer ➔ knowledge
Technology Transfer

- A process that moves knowledge from the lab to the market

- A process that converts scientific and technological findings into marketable goods or services

- Assignment of intellectual property generated in one place to another place through defined processes
Technology Transfer

- Protection of Intellectual Property
- Licensing (handing off the baton)

Universities are not in the best position to monetize research findings...that is where the private sector comes in.

Collaboration
Partnerships
Win-Win
Public good
IP & Technology Transfer Process

1. **Faculty, Staff, Students**: Invention, Discovery, Intellectual Creations
2. **Invention Disclosure Form (IDF)**
3. **Submit to TTC**
4. **IP Committee Recommendations**
5. **Defer Decision Pending Additional Research or Information**
6. **Release to Inventor**
7. **Inventor Initiation to File**
8. **Send to Commercial Market Assessment**
9. **Commercial Market Assessment Report**
10. **IP Committee Recommendations**
11. **Hold the Disclosure Due to Ongoing Research**
12. **Release to Inventor**
13. **Inventor Initiation to File**
14. **File Patent**
15. **Identify Potential Licensees**
16. **Market Technology or other IP**
17. **Negotiate License Agreement**

Note: The process begins with the identification of potential licensees for inventions, discoveries, or intellectual creations originating from faculty, staff, or students. The subsequent steps involve submission to the Technology Transfer Center (TTC), reviews by the IP Committee, and decisions on further actions such as additional research, filing patents, or initiating license agreements.
Where the answers live….

Creating the future……

The modern comprehensive research university

Ecosystem that values solutions in search of problems….

…and problems in search of solutions…
Thank you!