Texas State University: A Leader In Research & Innovation Focused On Solving Real-World Problems





The rising STAR of Texas

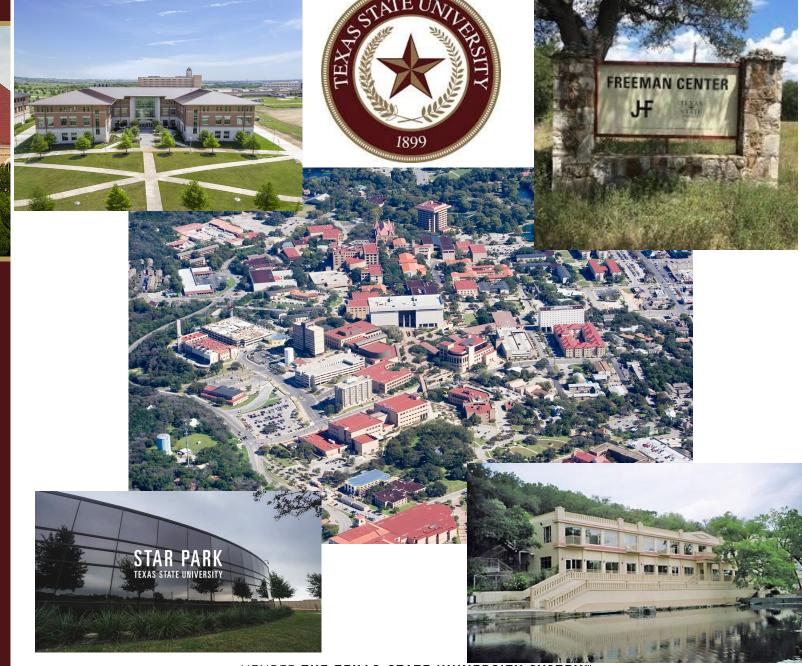
MEMBER THE TEXAS STATE UNIVERSITY SYSTEM™



If you could design the perfect comprehensive research university to educate the next generation workforce and solve real-world problems through cutting-edge science, what would it look like?







TEXAS STATE UNIVERSITY

MEMBER THE TEXAS STATE UNIVERSITY SYSTEM™



TEXAS STATE UNIVERSITY The rising STAR of Texas

Texas State University

- Approximately 38,000 students; 34 largest university in the U.S.
- Approximately 54.9% of our students identify as ethnic minorities
- Ranks 14th in the nation for bachelor's degrees awarded to Hispanic students
- A Federally Designated Hispanic Serving Institution
- Degree Programs
 - > 99 bachelor's
 - > 93 master's
 - ➤ 14 doctoral (newest: PhD in Applied Computer Science)
- 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

- Material Sciences
- Engineering
- Criminal Justice/Public Safety
- Water and the Environment
- Wildlife Management
- Education Research
- Computer Sciences
- Archeology & Anthropology
- Translational Health Sciences

Creative Expression





NATIONAL ENDOWMENT FOR THE HUMANITIES









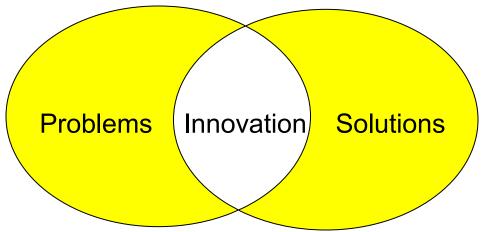
SPACEX

National Institutes of Health

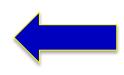




Research & Development-a continuum that includes adding new features to existing products "the iron lung paradox"



Basic research produces "solutions" in search of problems



Applied research is directional in search of a solution to a specific problem

Translational Research-transferring knowledge into practice





"The future is very difficult to predict...

Applied Research

Application of artificial intelligence and machine learning



Research with relevance not only solves real-world problems but also provides our students with the skills needed for the modern workforce

The research and innovation mission at Texas State spans across the humanities, social sciences, performing arts, liberal arts, and STEM disciplines

it easier to create it yourself"

"Blue-collar scientists"

Research with Relevance

Partnership with Jacobs Engineering and NASA







Oleg Komogortsev, Ph.D. Professor Computer Science Texas State University

Research interests: cybersecurity (biometrics), human computer interaction, eye tracking, bioengineering.

Google Faculty Research Award 2018 (Augmented and Virtual Reality)

Sponsored Research Agreement with Facebook

Presidential Award for Scholarly and Creative Activities 2019







Dr. Kathy Martinez-PratherDirector Texas School Safety Center

Mission

The Texas School Safety Center serves schools and communities to create safe, secure, and healthy environments.

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





Dr. Shetay Ashford

College of Applied Arts Department of Occupational, Workforce, and Leadership Studies Diversifying the STEM Workforce



Awarded an NSF CAREER Award

Research agenda focuses on broadening the participation of historically underrepresented minorities and women of color in the STEM workforce

Approaches:

Community economic development Program design and evaluation Intrapreneurship and entrepreneurship, Cyberlearning.





CENTER FOR INNOVATION + ENTREPRENEURSHIP









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





Who is transferring it (knowledge, technical or scientific findings, intellectual property) and who is receiving it?

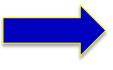






Who is transferring it (knowledge, technical or scientific findings, intellectual property) and who is receiving it?

Universities
Hospitals/Medical Centers
Government Agencies



Companies

Not-for-profit

For-profit





Technology Transfer What? Who? How? Why?

Protection of Intellectual Property



Licensing (handing off the baton)

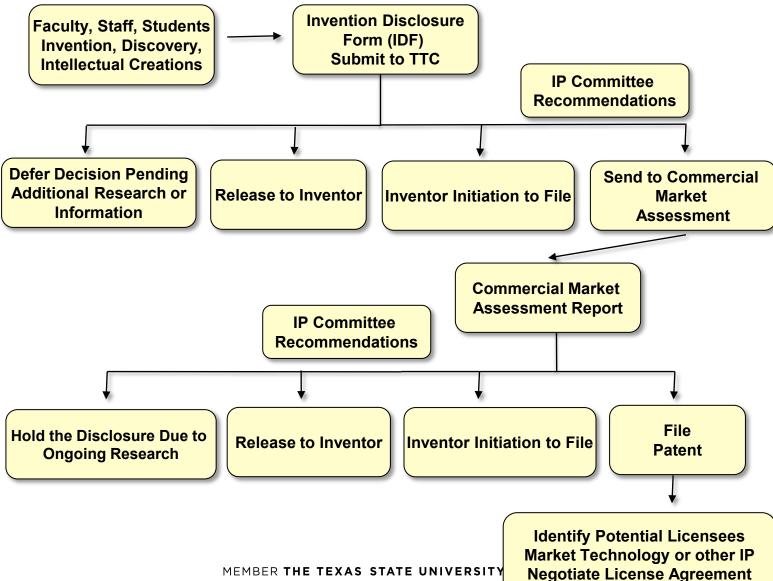
universities are not in the best position to monetize research findings...that is where the private sector comes in

Collaboration
Partnerships
Win-Win
Public good





IP & Technology Transfer Process







Recent Technology Transfer Portfolio

- 102 Invention Disclosures were received
- Patent Applications filed:
 - 45 Provisional
 - ❖ 33 PCTs
 - ❖ 18 US
- 6 US patents issued
- 9 companies were formed
- 13 Licensing Agreements were signed

In FY20 in the midst of a global pandemic, with the laboratories and field sites closed for 2 months, Texas State University set a record for total R&D expenditures at \$70.6M and a record of 670 grant submissions requesting over \$211M





Office of Research & Sponsored Programs

Strategic Research Initiatives

Evy Gonzales eg13@txstate.edu



Research Integrity & Compliance Sean Rubino

srubino@txstate.edu



Pre-Award Support Kay Beauchamp sb45@txstate.edu



Research Records & Systems Services Dr. Yongxia Xia ys11@txstate.edu



Post-Award Support Marivel Alvarez ma17@txstate.edu



Technology Transfer & Contracts Dr. Reddy Venumbaka sv04@txstate.edu



Methodology, Measurement & Statistical Analysis Dr. Larry Price

mmsaorsp@txstate.edu

Assistant VP Research Dr. Mike Blanda mb29@txstate.edu







Thank you!

We are here to support you!

