



Knowing is not enough; we must apply.

Willing is not enough; we must do." Goethe

# Building Innovation & Commercialization Ecosystems at Minority Serving Institutions

Jackie Michel Director of Technology Transfer







## Two MSI's At a Glance

## it a Glance



30,474 Students (Fall '12)

66 bachelors

52 masters

24 doctoral degree programs

8 colleges, Undergraduate Studies & Graduate School

UTSA had 588 Tenured/Tenure Track, in Fall 2012

In 2009, UTSA designated an emerging Tier One research university by Texas Legislature.

\$80 M in Sponsored Programs

#### **UTPA**

19,302 Students (Fall '12)

56 bachelors

53 masters

3 (+2 Coop) doctoral degree programs

8 colleges, & Graduate School

UTPA had 484 Tenured/Tenure Track faculty members in Fall 2012

UTPA is a regional comprehensive university.

\$30 M in Sponsored Programs





## Snapshot in 2007 - Strengths, Weaknesses & Plans

- Location
- Infrastructure
- Research Growing
- Workforce
- Venture Capital
- Entrepreneurship





by growing the pie?

Collaborations and Partnerships



## Additional Roles for Academia

- Teaching
  - □ of undergraduate and graduate students to provide the next generation of creators
- Research
  - ☐ for the creation of new knowledge
  - ☐ to help solve the problems facing our economy and our society
- Commercialization/Publication
  - of the new knowledge for public good in order to be an engine of economic development" for the region, state and the nation



## The Charge to Institutions

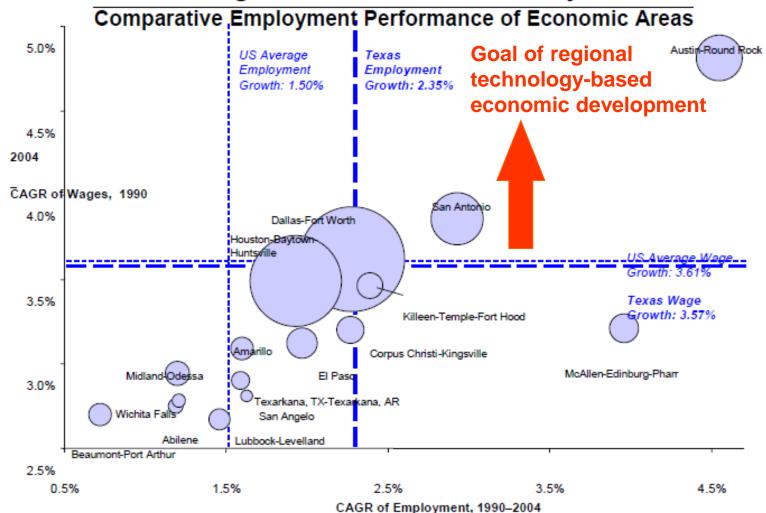
How do we effectively transfer and leverage the knowledge and expertise from regional institutions of higher education to enhance economic development?

- Increase business productivity?
- Support technology commercialization?
- Create opportunities to fully employ our human capital and stop the brain drain?
- Be transformational to a region?
- Be collaborative and synergistic?





#### Regions in the Texas Economy



Data: private, non-agricultural employment. Source: Cluster Mapping Project, Institute for Strategy and Competitiveness, Harvard Business School
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Copyright © 2006 Professor Michael E. Pr

Source: Trybula, Walter 31 March 20092008 Status Report of Texas Technology Economic Development

### **AUSTINBUSINESSJOURNAL**

Friday, February 8, 2008

#### Perry pushes universities for more startups

Austin Business Journal - by Laura Hipp ABJ Staff

Gov. Rick Perry has outlined a plan for Texas universities to churn out startup companies faster and with less red tape.

While campuses statewide feel pressure, leaders at the University of Texas say they already have met his mandates.

In the fall, Perry and state officials met with university leaders to outline several goals he wanted to reach within a year, including:

- Standard intellectual property contracts across university systems.
- More collaboration between campuses.
- Having one person at each university as a contact for businesspeople and investors.



Sarah Kerver Mark Melliar-Smith's company, Molecular Imprints, was spawned by UT.

View Larger

"Our technology transfer as a state is not nearly as successful as we'd like it to be," says Secretary of State Phil Wilson. "I think we're just fair, and we should be great."

The proposal serves as a blueprint for university systems to adopt, but administrators are not required to act.

Universities feel pressure to start companies but the process is difficult to rush, says Gary Pankonien, executive vice president of **Emergent Technologies Inc.**, which invests in university technologies statewide and consults with schools to commercialize promising research.

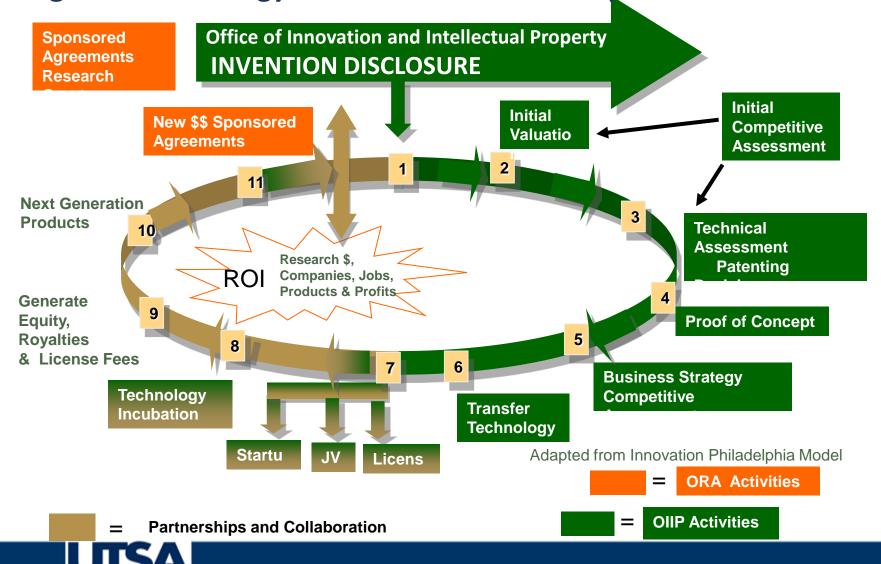
"This stuff just doesn't pop out," says Pankonien, who supports Perry's efforts.

## Working to move technology into the marketplace

- OIIP has a responsibility to the University and the community to maximize the benefit of each technology and therefore engages the most promising proposed commercialization path.
- The University partners with entities in industry to pursue this commercialization effort.
- The University partners with regional, state and national entities.
- Partners vary from investors and entrepreneurs to large enterprises.
- Results
  - UTPA commercializes IP
  - UTPA gains research support sponsored research
  - UTPA knowledge and expertise disseminated as per our mission
  - UTPA faculty become connected and connectors

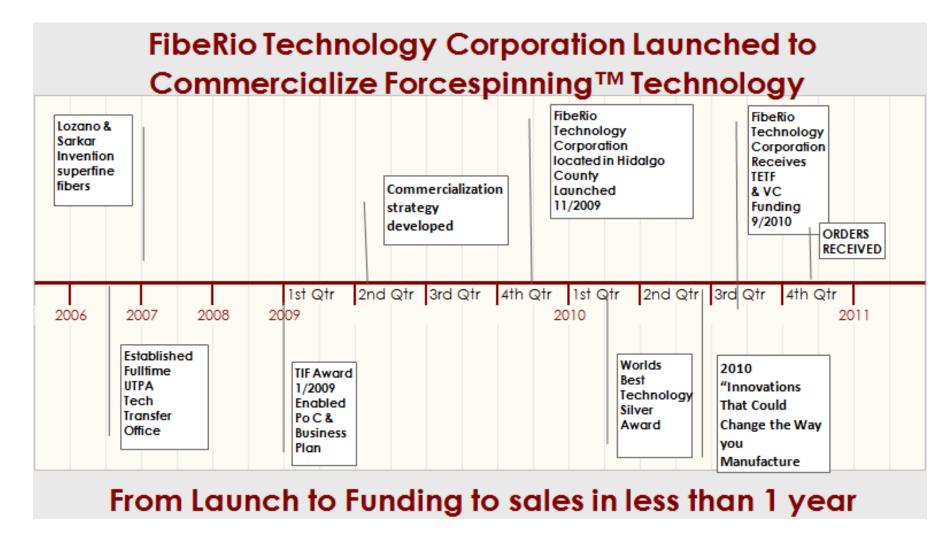


UTPA's Invention & Commercialization Ecosystem Regional Technology Based Economic Development





## A UTPA Start-up Story





## Creating the jobs

Partner with economic development corporations, chambers, cities, regions and states to create engines of economic development

- a) foster the creation of jobs and wealth
- b) expand economic development in a region
- c) provide opportunities for graduates to stay in region
- d) encourage entrepreneurship and
- e) transfer knowledge and expertise and to promote innovation.



#### Research Office of Commercialization and Innovation

Research Home | Sponsored Project Administration | Research Integrity | Technology Commercialization | Training & Development | Research Directory | Contact Us

#### http://research.utsa.edu/commercialization/



Tech Transfer Home

Tech Transfer Process

Revenue Distributions

Maintaining Laboratory Books

New Venture Incubator

Resources

Contact Us

#### Technology Disclosure Form

#### **Find Technology**



Need help? Contact the Electronic Research Administration (eRA) Help Desk.

MISSION	University	Industry	Ecosystem
The University of Texas at San Antonio is committed to investigating, creating, protecting, and	<ul><li>IP Basics</li><li>The Process</li><li>Royalty Sharing</li></ul>	Industry Partnerships UTSA is developing new ways to work together	Çit∈
commercializing research and intellectual property as a means to benefit the university, the research	Research Notebooks     Invention Disclosure Form  Funding POC/Start Upg	Technology Incubation We offer the opportunity for partner companies to set up on campus in	Startech
environment, the academic environment, and for the general benefit of the state of Texas and its residents. The	Funding POC/Start Ups  Venture Incubation	collaboration with research labs	<u>SwRI</u> <sup>®</sup>
Office of Commercialization and Innovation achieves this positive impact by serving our	• Basic IP Overview • UTSA Inventor's	Council Regional working group of industry partners focused	TBRI
faculty, staff, and students to enable industrial research partnerships, intellectual property management, proof-	<u>Handbook</u> • <u>Tech Entrepreneur</u> Boot Camp	on accelerating research commercialization	Institute for Economic Development the University of Seess of Son Antonio
of-concept development, new venture incubation, entrepreneurial training, and	Copyrights     Trademarks		UTSA OSPA
policies and procedures that accelerate the ease of transition of intellectual	Policies • Regents 90000 Rules		UTSA COIC
property from the university to industry. -Dr. Cory Hallam			BioMed SA

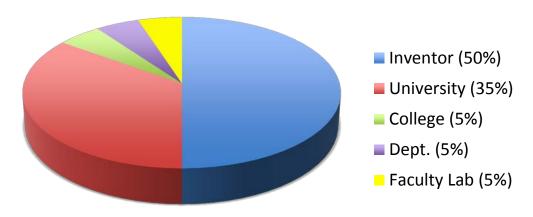
Contact Us: (210) 458-6963 (9

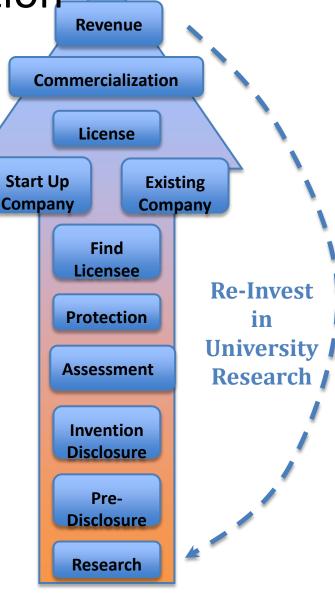


### UTSA Research Commercialization

#### **Faculty Involvement**

- •New Faculty IP & Commercialization Training
- •Clear processes for managing potential commercialization conflicts
- Departments have ability to consider commercialization in promotion plans
- Expanded Industry collaboration effort including new models of technology licensing







## Customer Focus for Processes

- Convened committee of key faculty involved in IP creation to
  - Understand needs
  - Define process
  - Establish performance expectations
- Defined the process to support the needs
- Structured and staffed the office to enable the process "Tech Transfer is a contact sport, a marathon, not a sprint".

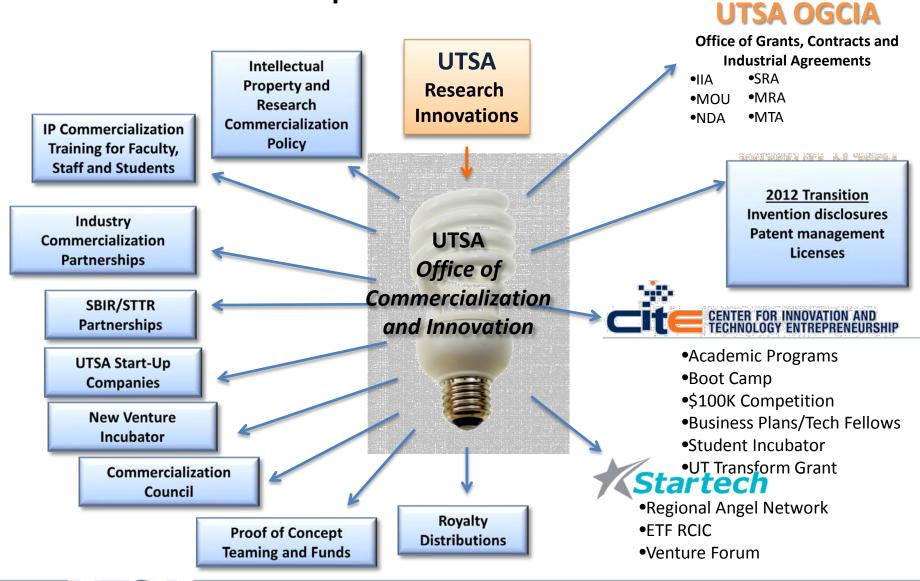


## Faculty Needs

- A clear and concise set of policies and procedures needs to be reviewed, modified and communicated with and to the faculty
- Ease of understanding, open decision making processes, and significant support are needed to help faculty and students be productive in technology commercialization



## UTSA *OCAI*Responsibilities and Partners

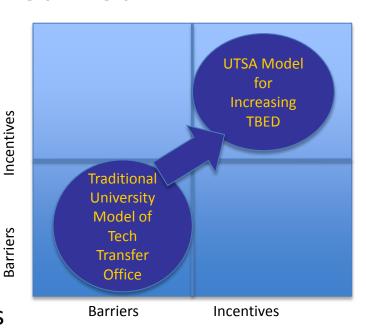




## Commercialization at UTSA Vision Elements Realized

ase of Licensing

- Service Centric
- Public Relations Position for University
- Ease of IP Licensing
- Master Agreements for Long Term Collaboration
- Task Orders for Sponsored Projects
- Incubation on UTSA Campus
- Hiring GRA's/Interns/New Grads
- UTSA equity position in companies
- UT Horizon Fund investment opportunities
- Commercialization network with Startech, Institute for Economic Development/SBDC, Texas Research & Technology Foundation and Texas Technology Development Center and InCube Ventures



Cory Hallam, PhD
Chief Commercialization Officer



### To Summarize UTSA

- UTSA encourages commercialization
- It starts with the researcher
- We have training and staff to assist (Boot Camp, On Line)
- Faculty/Students can patent and license technology
- Faculty/Students/Local Entrepreneurs can start companies and run them on campus
- We have a network to help get technology to market
- Industry partnerships must be structured for ease of research collaboration and technology licensing
- Building the physical infrastructure for the incubation ecosystem with the Texas Research & Technology Foundation and The Texas Technology Development Center is the next step



## The Path Forward

- Proof of Concept Funding
- Ease the translation from lab to company
- Partner with industry, co-located on campus
- Recruit the best students for the best programs
- Example Experiment: Latakoo
  - Older unlicensed tech, new application
  - MRA, Task Orders
  - 2 Technologies licensed
  - Patent cost recovery and equity
  - Incubation on campus
  - Hiring grads
- Latakoo received follow-on UT Horizon Investment in last Series of funding through UTSA license rights for equity





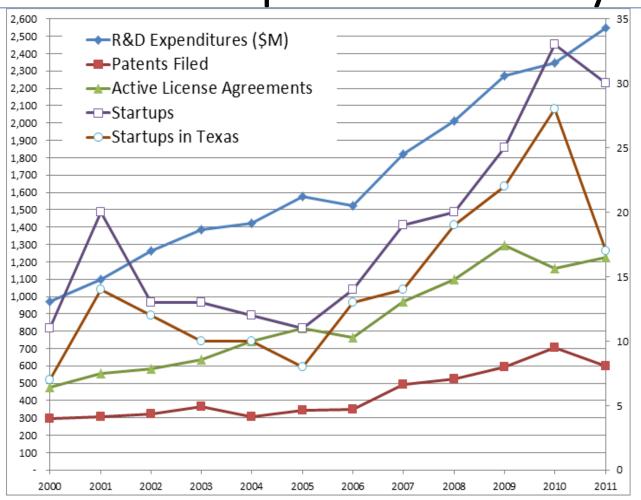
## Our Expectation is Success

- UTSA has excelled at implementing a research innovation and commercialization strategy by
  - Adopting best practices from other universities
  - Establishing novel and more effective commercialization procedures where appropriate, and
  - Coupling university research and entrepreneurial academics into the regional technology-based business ecosystem





## UT System, 15 Institutions Report Collectively



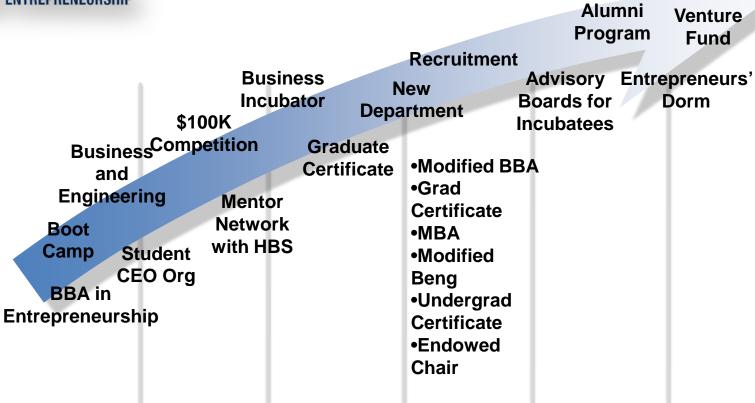
- ResearchExpenditures
- InventionDisclosures
- Patent Filings

Have all doubled since 2000.





#### **Education**



Link for CITE from

http://research.utsa.edu/commercialization/



## UTSA RESEARCH COMMERCIALIZATION & INNOVATION The Office

The University of Texas at San Antonio is committed to investigating, creating, protecting, and commercializing research and intellectual property as a means to benefit the university, the research environment, the academic environment, and for the general benefit of the state of Texas and its residents. The Office of Research Commercialization and Innovation is committed to achieving this positive impact by enabling industrial research partnerships, intellectual property management, proof-of-concept development, new venture incubation, entrepreneurial training, and policies and procedures that accelerate the ease of transition of intellectual property from the university to industry.



"Jackie"
Jacquelyn Michel
Director of Technology Transfer
Office of Commercialization and Innovation



### **THANK YOU**

