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UT SOUTHWESTERN

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Medical Center



Daniel K. Podolsky, M.D.
President

Legislative Appropriations Request
September 27, 2010

UT Southwestern

**Continuing to
Deliver Return on Investment to Texas
and
Progress as One of the Top Medical Schools
in the Nation**

UT Southwestern Ranks Among the Best Nationally

Internationally-recognized *Science Watch* ranks the Top U.S. research universities based on the impact of their faculty's published research – as cited by other scientists (September 2010)

Biology & Biochemistry

1. **UT Southwestern**
2. MIT
3. Harvard
4. Stanford
5. UC San Francisco
6. UT HSC Houston
7. UC Berkeley
8. U Mass Worcester
9. Johns Hopkins
10. UC Los Angeles

Clinical Medicine

1. **UT Southwestern**
2. UT HSC San Antonio
3. UT HSC Houston
4. Harvard
5. Duke University
6. UC San Francisco
7. UC San Diego
8. Johns Hopkins
9. Dartmouth College
10. Tufts University

Neuroscience & Behavior

1. UC San Francisco
2. **UT Southwestern**
3. Caltech
4. MIT
5. Stanford
6. Rockefeller University
7. Harvard
8. UC Irvine
9. New York University
10. Yeshiva University

Molecular Biology & Genetics

1. MIT
2. Rockefeller University
3. **UT Southwestern**
4. Harvard
5. U Mass Worcester
6. UC San Francisco
7. Yale University
8. U of Michigan
9. Johns Hopkins
10. Baylor Coll of Medicine

Honors for UT Southwestern's Nationally Recognized Faculty

National Academy of Sciences

Brown, M.S.
Cobb, M.H.
Deisenhofer, J.
Estabrook, R.W.
Gilman, A.G.
Goldstein, J.L.
Hobbs, H.H.
McKnight, S.L.
Mangelsdorf, D.J.
Olson, E.N.
Russell, D.W.
Takahashi, J.S.
Uhr, J.W.
Unger, R.H.
Vitetta, E.S.
Wang, X.
Wilson, J.D.
Yanagisawa, M.

**90% of all those
at Texas' State HRIs**

Institute of Medicine

Anderson, R.J.
Brown, M.S.
Estabrook, R.W.
Foster, D.W.
Gant, N.F.
Gilman, A.G.
Goldstein, J.L.
Grundy, S.M.
Hobbs, H.H.
Lister, G.
McKnight, S.L.
Olson, E.N.
Parada, L.F.
Podolsky, D.K.
Seldin, D.W.
Tamminga, C.A.
Vitetta, E.S.
Wildenthal, C.K.
Wilson, J.D.

**56% of all those
at Texas' State HRIs**

Howard Hughes Medical Institute

Chen, Z.
Deisenhofer, J.
Grishin, N.V.
Hobbs, H.H.
Hooper, L.V.
Jiang, Y.
Levine, B.
Mangelsdorf, D.J.
Rosen, M.K.
Takahashi, J.S.
Wang, X.
Yanagisawa, M.
Yu, H.

**100% of all those
at Texas' State HRIs**

OUTLINE

UTSW Statewide Legislative Priorities

UTSW LAR Exceptional Item Requests

BACK UP INFORMATION

UTSW Significant Advances

UTSW 5% + 10% Budget Reduction

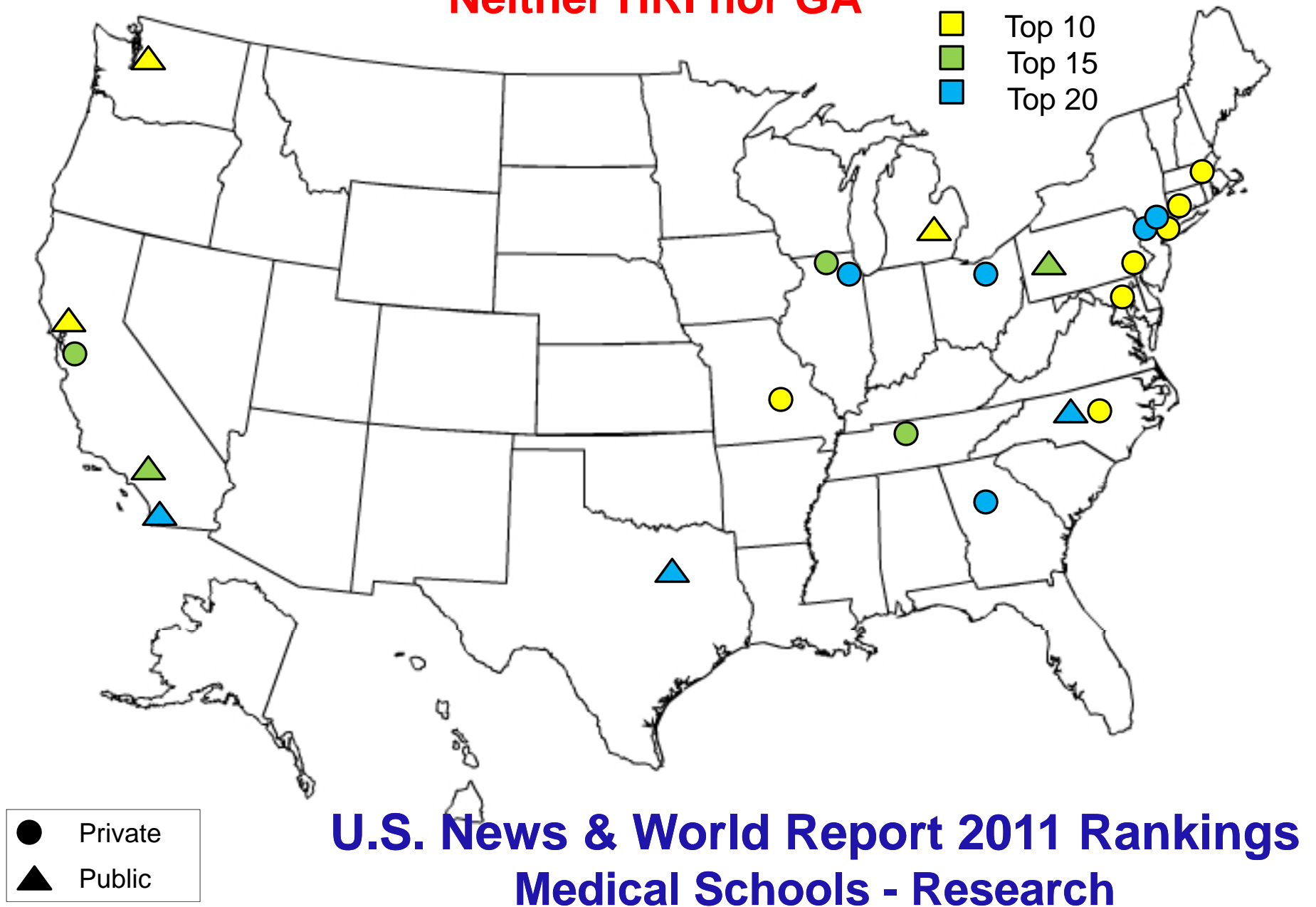
UTSW Overview

UT Southwestern Statewide Legislative Priorities

Statewide Priority:

**Texas' top research institutions
are critical for the state's
current and future economy –
but are at great risk of being
disproportionately cut**

No National Top 10 School Yet in Texas Neither HRI nor GA



Texas' top research institutions are critical for the state's current and future economy – but are at great risk of being disproportionately cut

Impact on economic development and workforce

- **Lose hundreds of millions in grants – and jobs**
- **Lose medical discoveries – chance to reduce healthcare costs, royalty income, relocations of hi-tech companies**
- **Lose top faculty and graduate students (future workforce)**

Research-Intense HRIs Received Smallest % Increases in 81st Session – Can't Readily Absorb Further Cuts

UTSW is only HRI whose increase was more than eliminated by 5% cut

HRIs in order of research expenditures (excluding UTMB)	GR FY10-11* (less TRB Debt Service) \$ millions	Increase in GR in 81 st Session* \$ millions and %		Net Funding Reduction Compared to FY08-09	
				Baseline** \$ millions	Assuming an additional 10% cut \$ millions
	\$317	\$ 25	8%	\$ 9	- \$ 21
UT Southwestern	\$279	\$ 8	3%	- \$ 6	- \$ 33
	\$283	\$ 22	8%	\$ 7	- \$ 20
	\$288	\$ 28	11%	\$ 14	- \$ 14
	\$205	\$ 30	17%	\$ 20	\$ 0
	\$299	\$ 39	15%	\$ 24	- \$ 5
	\$109	\$ 12	13%	\$ 7	- \$ 3
	\$ 69	\$ 5	8%	\$ 1	- \$ 5

*From UT System summary of FY10-11 General Revenue appropriations, based on LBB data

**Baseline assumes straight 5% cut in formula & non-formula GR less the GR increase in 81st Session

Top Research HRIs Subject to Further Highly Disproportionate Cuts

- 1. 81st Legislature used ARRA funds in HRI formulas**
- 2. HRI funding is primarily based on students, and mature research-intensive institutions cannot grow**
- 3. Loss of ARRA-funded Special Items must be absorbed on top of the 5% + 10% cut**

How Would This Affect UT Southwestern?

***Bottom Line: Additional Cuts of ~\$26 million
And Total Cuts of ~\$66 million***

- 1. If ARRA funds in formulas not replaced, UTSW loses additional ~\$9 million**
- 2. Assuming same enrollment growth as last biennium, UTSW loses another ~\$9 million**
- 3. Elimination of ARRA-funded Special Items means UTSW loses an additional \$8 million**

Statewide Priority:

**Mechanisms to invest in
research-intensive schools and
in programs critical to Texas'
economy and future**

Why are Research Special Items an Essential Appropriations Mechanism?

- To get \$1.5 million/year more through research formula, an HRI must increase research by *more than \$100 million per year* – equivalent to creating entire new Tier One university
 - In contrast, adding 7 medical students per class would garner same \$1.5 million/year
 - Also in contrast, GAs receive ~\$5 to ~\$15 million/year + Tier One funding for same \$100 million/year increase
- Special Items are efficient way – and only existing viable way – to support HRI research growth

UTSW's Research Special Items Extraordinarily Successful

- **From thorough reviews by external scientists on behalf of THECB:**
 - “Every measurable record of academic productivity, performance, and quality has been achieved.”
 - “...highly successful and indicative of the wisdom of targeting funding based on programmatic quality.”
 - “...absolutely a good investment for the state.”

UTSW's Research Special Items Significant ROI

- Discoveries internationally recognized
- Discoveries have great potential to reduce State health costs and change lives
- UTSW historically leverages State research funding 7 to 1 with external grant funding
- With a 5%+10% cut to UTSW research Special Items, Texas can anticipate *losing ~\$70 million in grants brought into Texas' economy*

UT Southwestern LAR: Exceptional Item Requests

- 1. To partially offset very large % cuts**
- 2. To invest in programs highly promising for reducing the State's healthcare costs**
- 3. To strategically invest in some of the State's most successful programs**

UTSW Exceptional Item Request #1:

Increase for the Center for Obesity, Diabetes and Metabolism Research (\$8 million/year more)

- Obesity/diabetes largest drivers of costs
- Discoveries show real promise in stemming medical crisis that costs Texas \$10 billion/year
- If Center discoveries lead to 10% reduction in either # of diabetes cases or cost per patient
 - **State would save ~\$20 million/year in Medicaid**
 - **Sales tax from \$ spent on goods rather than diabetes care would generate ~\$60 million/year**

UTSW Exceptional Item Request #1:

Increase for the Center for Obesity, Diabetes and Metabolism Research (\$8 million/year more)

Tremendous Success Since Inception in 2007

- Over 40 seminal discoveries have changed the way the world thinks about obesity and treatments
- State investment leveraged to obtain >\$137 million in grant funding
- 30 additional sought-after, rising-star faculty in obesity research recruited to Texas

UTSW Exceptional Item Request #1:

Increase for the Center for Obesity, Diabetes and Metabolism Research (\$8 million/year more)

Examples of recent discoveries

- How fat tissue “talks” to brain and liver to promote diabetes, heart disease and obesity (secured \$8 million NIH award September 2010)
- Revolutionary approach to control Type 1 Diabetes without insulin for weeks at a time, already in human trials and receiving national acclaim
- Discovery of hormone that tells brain to be hungry and is drug target being pursued by major drug companies

UTSW Exceptional Item Request #2:

Increase for the Institute for Nobel/National Academy Biomedical Research (\$7 million/year more)

- **90% of all NA members at State HRIs are at UTSW**
- **Highly effective investment brought more top researchers, grant funding, and discoveries to Texas**
 - Since inception 7 years ago, NAS members have risen from 13 to an unprecedented 18, a 39% increase
 - From review by external scientists on behalf of THECB: “...highly successful and indicative of the wisdom of targeting funding based on programmatic quality. This type of support becomes increasingly critical for the state as its economy becomes evermore science based.”

UTSW Exceptional Item Request #3:

New Tuition Revenue Bond

(\$4.5 million/year debt service for \$52 million TRB)

- In 2003 – with a significant shortfall – 78th Legislature funded select TRBs off cycle as cost-effective way to invest in research-intense institutions and the economy
- In 2010, new TRBs for vital research infrastructure would cost-effectively enable research-intense institutions to continue to add to Texas' economy
 - Would bring many millions more external dollars and high-skill jobs throughout Texas

UTSW Exceptional Item Request #3:

New Tuition Revenue Bond

(\$4.5 million/year debt service for \$52 million TRB)

- **UTSW South Campus Research Lab Repair and Renovation**
 - UTSW South Campus research buildings are up to 52 years old, outdated, and becoming unable to support cutting-edge science of world-class researchers
 - Project would result in savings of over \$450,000 per year in utilities and repairs
 - 26% of total project will come from institutional funds

UTSW Exceptional Item Request #4:

Continuation of ARRA-funded Special Item – Institute for the Genetic and Molecular Basis for Disease (\$4 million/year)

- ***Without this, UTSW's non-formula cut in this LAR is 22% – far above the 5%+10% asked of other agencies***
- **Continued funding will enable landmark discoveries in the fundamental causes of disease**
 - What UTSW is internationally renowned for
 - Result in highly effective treatments for devastating diseases
 - Bring many millions more external dollars and high-skill jobs into Texas

Summary

Texas' top research institutions are critical for the state's current and future economy – but are at great risk of being disproportionately cut through current funding system

Unless cuts are distributed evenly by investing in Exceptional Items or research formulas, in addition to investing in student growth:

- Top research institutions would be cut far more than smaller up-and-coming institutions and other agencies
- Texas' hope of soon having a Top 5 or 10 nationally-ranked medical school will be significantly diminished

Back Up Information

UT Southwestern Significant Advances Over the Past Two Years

Significant Advances Over the Past 2 Years

Groundbreaking Research Discoveries

- A chemical produced naturally that shows great promise to slow the progression of Lou Gehrig's disease by regenerating muscle nerves, which is already being targeted for drug development
- Drug candidates to actually promote brain nerve regeneration, promising unprecedented treatment for the cognitive decline associated with aging
- Key molecular step to fighting off viruses that promises new approaches for antiviral drugs
- Biochemical pathway and molecule that is an exciting new target for Alzheimer's drug development

Significant Advances Over the Past 2 Years

Groundbreaking Research Discoveries

- A way to direct the heart's own cells to regenerate to heal injury caused by heart attack and other disease, with drugs already in development by a newly formed biotech company
- A new protein – a promising diagnostic for predicting liver disease – that determines the amount of liver fat and whether it will lead to cirrhosis and liver failure

Significant Advances Over the Past 2 Years

Outstanding Faculty Recruitment

- Imaging innovator to head Radiology, from Harvard
- Internationally-acclaimed oncologist to head Internal Medicine, from Vanderbilt
- Award-winning head of Neurology, from Washington University
- Creation of Office for Faculty Diversity and Development

Technology Transfer

- BioCenter opened with 100K sf for industrial partnerships and collaborations, and biotech company incubation

Significant Advances Over the Past 2 Years

Excellence in Patient Care

- Nationally ranked by *US News & World Report's* America's Best Hospitals in 6 specialty-care areas, more than any other hospital in North Texas
- Harold C. Simmons Comprehensive Cancer Center earned coveted "gold standard" National Cancer Institute Designation
- Approval received for construction of new University Hospital to replace aging facilities (no State funds)
- High-risk preterm birth rate reduced by an astounding 50% in 15 years, providing a model for national care

Significant Advances Over the Past 2 Years

Excellence in Patient Care

- Implanted one of first permanent heart devices – replacing donor heart transplants – in a North Texas patient
- Created the new Office for Global Health
- Created an innovative program in Quality and Safety Improvement

UT Southwestern LAR:

5% + 10%

Budget Reduction

5% + 10% Reduction Applied Across the Board to Special Items

An additional 10% cut to Special Items can only be absorbed through significant personnel reductions in programs that have proven to be highly successful and good investments for Texas

Cuts in Research Special Items (~90% of UTSW Special Items)

- **Loss of over ~\$70 million in external grants brought into Texas' economy**
- **Loss of hundreds of high-skill jobs otherwise funded with grants**
- **Loss of life-changing and cost-saving discoveries for Texans**
- **Loss of opportunity for Texas to progress toward having a national Top 10 school**

Cuts in Other Special Items

- **Loss of activities and services critical to North Texas**
 - Resources and training for hundreds of science teachers in North Texas – and therefore quality science education for thousands of middle and high-school students
 - Education for residents in single most pressing area of physician shortage in Texas, Primary Care
 - Reductions cannot be absorbed, since UTSW already absorbs a disproportionate share of GME faculty costs – training twice the average of all other State HRIs, while GME formula funds only ~1/3 of GME faculty costs
 - Resources for key clinical services – such as Regional Burn Center, only such center in all of North Texas – which are particularly important for indigent patients

UT Southwestern Overview

2010



UT Southwestern Education

- **Medical School**
 - One of the most respected and *largest* in the nation and in Texas, but at full capacity
 - Nationally ranked by *US News & World Report* #20 in Research and #20 in Primary Care
 - Ranked the #1 medical school in the nation for Hispanics by *Hispanic Business Magazine* in both 2007 and 2008
- **Graduate Medical Education**
 - Largest training program for interns/residents/fellows in Texas
 - Programs in Austin, Waco, Wichita Falls, etc.
- **Graduate School of Biomedical Sciences**
 - The most biomedical science students in Texas
 - Research is absolutely essential
- **School of Health Professions**
 - 8 degree programs
 - Addresses critical shortages in many healthcare professions
 - Physician Assistant Program ranked #4 in nation

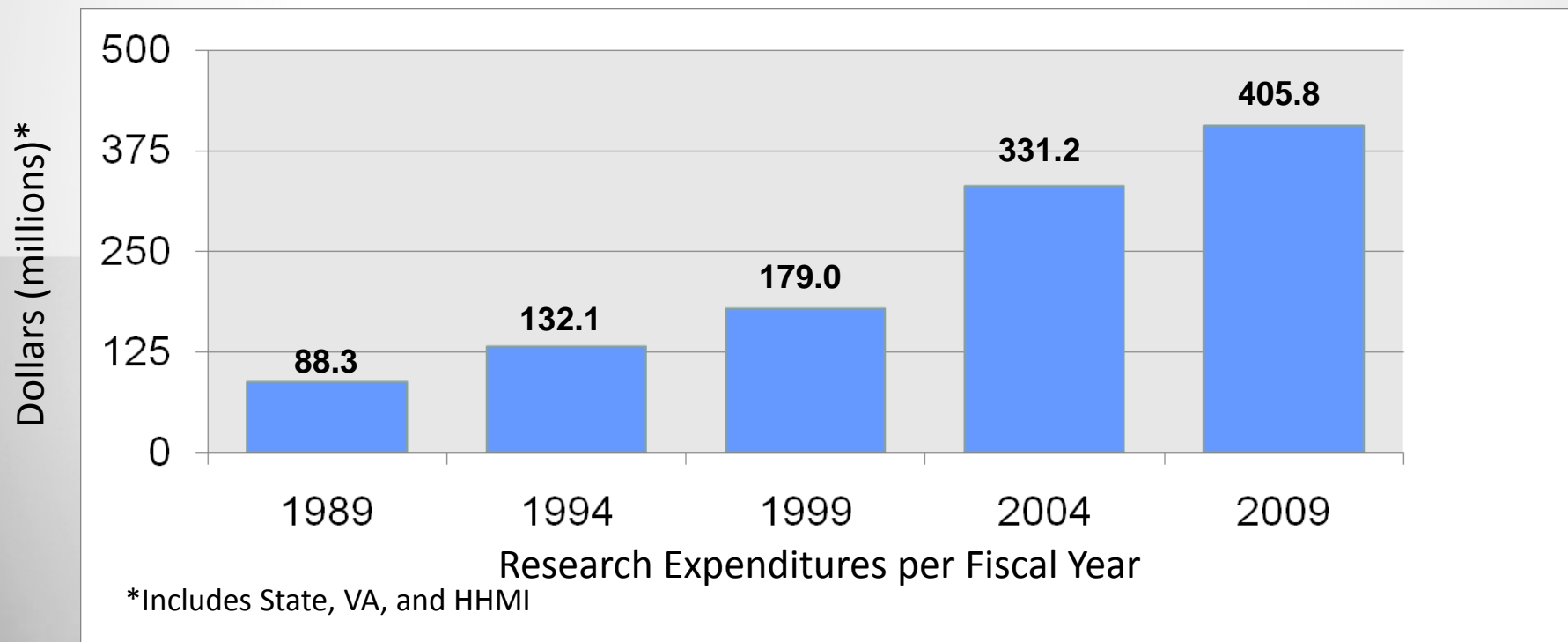
UT Southwestern Clinical Care

Faculty provide a vast amount of clinical care

- **Provide care at UT Southwestern-owned University Hospitals and clinics**
 - Receive no General Revenue; 100% UT Southwestern faculty
- **Provide care at Parkland – one of the largest teaching hospitals in U.S.**
 - ~15,000 babies per year (over 40 per day!)
 - >70,000 inpatients and 1.7 million outpatients per year
 - 100% UT Southwestern faculty
- **Provide care at Children's Medical Center**
- **Provide care at VA, and other hospitals throughout North Texas**
- **Provide more indigent care than any other institution in Texas**
 - \$427 million in FY 2009 physician charges for indigent care
- **Other important partnerships**
 - Austin – Seton Family of Hospitals

UT Southwestern Research

- 8% per year compounded growth in last two decades
- Made possible only through new space and recruitment of preeminent scientists
- 4 Nobel Laureates – 3 of whom are active faculty members
- 18 Members of the National Academy of Sciences – the “Hall of Fame” for U.S. scientists – which is 90% of all those at Texas’ State HRIs
- 19 Members of the Institute of Medicine



UT Southwestern – an Engine for Economic Development

\$311 million in annual external research revenue brought to Texas

4,000 high-skill scientific jobs

Biotech Companies Founded by UT Southwestern Faculty

- 12 start-up companies formed, raising over \$380 million in financing

Licensing Deals through FY2009

- 533 discoveries licensed to biotech and drug companies for development
- \$125 million in revenues generated
- Resulted in the launch of such widely-used drugs as Citrical, Urocit-K, and the newest generation of plasma activator

Other Tech Transfer Efforts

- BioCenter opened April 2010 with 100,000 square feet for industrial partners and collaborations and biotech company incubation
 - Financed by UTSW Office for Technology Development revenues