COMMITTEE MEETING MINUTES

OF THE BOARD OF REGENTS

OF

THE UNIVERSITY OF TEXAS SYSTEM

August 19-20, 2015

Austin, Texas

Minutes of Committee meetings are taken as a convenience for research purposes and may be verified by recordings kept in the Office of the Board of Regents or webcasts available online on the Board website.

> /s/ Carol A. Felkel Secretary to the Board of Regents March 28, 2016



SCHEDULE OF EVENTS FOR BOARD OF REGENTS' MEETING

August 19-20, 2015 Austin, Texas

U. T. System Administration, Ashbel Smith Hall, 9th Floor, 201 West Seventh Street Office of the Board of Regents: 512.499.4402

Wednesday, August 19, 2015

Audit, Compliance, and Management Review Committee	9:00 a.m.
Academic Affairs Committee	9:30 a.m.
Health Affairs Committee	10:30 a.m.
Technology Transfer and Research Committee	11:30 a.m.
Lunch	12:30 p.m.
Finance and Planning Committee	1:00 p.m.
Facilities Planning and Construction Committee	2:00 p.m.
Meeting of the Board - Open Session	3:30 p.m.
Recess	4:30 p.m. approximately
Reception/Dinner Honoring Regents' Outstanding Teaching Award Recipients The Lone Star Ballroom, JW Marriott, 110 E. 2nd Street	6:30 p.m.
Thursday, August 20, 2015	
Meeting of the Board - Open Session	8:30 a.m.
Recess to Executive Session and Working Lunch	10:00 a.m. approximately
Meeting of the Board - Open Session	2:30 p.m. approximately
Adjourn	3:00 p.m. approximately

MINUTES

U. T. System Board of Regents Audit, Compliance, and Management Review Committee August 19, 2015

The members of the Audit, Compliance, and Management Review Committee of the Board of Regents of The University of Texas System convened at 9:02 a.m. on Wednesday, August 19, 2015, in the Board Room on the 9th Floor of Ashbel Smith Hall, The University of Texas System, 201 West Seventh Street, Austin, Texas, with the following participation:

Attendance

Vice Chairman Hildebrand, presiding Vice Chairman Hicks Regent Aliseda Regent Beck Regent Pejovich

Also present were Chairman Foster, Regent Cranberg, Regent Drake, Regent Hall (arrived during consideration of Item 2 at 9:15 a.m.), Regent Tucker, and General Counsel Frederick.

In accordance with a notice being duly posted with the Secretary of State and there being a quorum present, Committee Chairman Hildebrand called the meeting to order in Open Session.

Committee Chairman Hildebrand welcomed Mr. Edward Mattison as U. T. System's Chief Information Security Officer. He joined the U. T. System on August 3, 2015, after 24 years of distinguished service in the U.S. Army, where he served as the Cybersecurity Inspector General.

1. <u>U. T. System Board of Regents: Discussion and appropriate action regarding Consent Agenda items, if any, referred for Committee consideration</u>

Committee Meeting Information

Presenter(s): Committee Chairman Hildebrand

Status: Reported

There were no items referred from the Consent Agenda.

2. <u>U. T. System: Approval of the U. T. Systemwide Annual Internal Audit Plan for</u> Fiscal Year 2016

Committee Meeting Information

Presenter(s): Mr. J. Michael Peppers, Chief Audit Executive

Status: Approved

Motion: Made by Regent Beck, seconded by Regent Pejovich, and carried unanimously

Discussion at meeting:

In reply to a question from Regent Tucker about business continuity plans, Mr. Peppers said that falls under the area of governance.

Committee Chairman Hildebrand commented on IT risks, and again recognized Mr. Mattison as U. T. System's Chief Information Security Officer.

3. <u>U. T. System: Report on the Systemwide internal audit activities, including Priority Findings and Annual Audit Plan status</u>

Committee Meeting Information

Presenter(s): Mr. J. Michael Peppers, Chief Audit Executive

Status: Reported/Discussed

4. <u>U. T. System: Report on Audits of the Systemwide Cancer Prevention</u> Research Institute of Texas Grants

Committee Meeting Information

Presenter(s): Mr. J. Michael Peppers, Chief Audit Executive

Status: Reported/Discussed

Discussion at meeting:

Committee Chairman Hildebrand asked Mr. Peppers to comment on the institutional audit committees. Mr. Peppers commented on the restructuring last year of the institutional audit committee governance to request that three external members serve on the committee, one of whom would chair the committee. He reported that last fall, those audit committee chairs met, and the second annual meeting of that group is scheduled for October 2015. Committee Chairman Hildebrand will participate in the meeting, and discussions regarding best practices and sharing of information for better collaboration and communication are planned.

ADJOURNMENT

Committee Chairman Hildebrand adjourned the meeting at 9:30 a.m.

MINUTES U. T. System Board of Regents Finance and Planning Committee August 19, 2015

The members of the Finance and Planning Committee of the Board of Regents of The University of Texas System convened at 1:28 p.m. on Wednesday, August 19, 2015, in the Board Meeting Room on the 9th Floor of Ashbel Smith Hall, The University of Texas System, 201 West Seventh Street, Austin, Texas, with the following participation:

Attendance

Vice Chairman Hicks, presiding Vice Chairman Hildebrand Regent Beck Regent Hall Regent Tucker

Also present were Chairman Foster, Regent Aliseda, Regent Cranberg, Regent Drake, Regent Pejovich, and General Counsel Frederick.

In accordance with a notice being duly posted with the Secretary of State and there being a quorum present, Committee Chairman Hicks called the meeting to order in Open Session.

1. <u>U. T. System Board of Regents: Discussion and appropriate action regarding Consent Agenda items, if any, referred for Committee consideration</u>

Committee Meeting Information

Presenter(s): Committee Chairman Hicks

Status: Reported/Discussed

There were no items referred from the Consent Agenda.

2. <u>U. T. System: Key Financial Indicators Report and Monthly Financial Report</u>

Committee Meeting Information

Presenter(s): Dr. Scott C. Kelley, Executive Vice Chancellor for Business Affairs

Status: Reported/Discussed

3. <u>U. T. System Board of Regents: The University of Texas Investment Management Company (UTIMCO) Performance Summary Report and Investment Reports for the quarter ended May 31, 2015</u>

Committee Meeting Information

Presenter(s): Mr. Bruce Zimmerman, Chief Executive Officer and Chief Investment Officer

Status: Reported/Discussed

Note: The PowerPoint included in the Agenda materials was not displayed at the meeting.

4. <u>U. T. System Board of Regents: Report on activities of the University Lands</u> Advisory Board

Committee Meeting Information

Presenter(s): Regent Cranberg; Mr. Mark Houser, Chief Executive Officer - University Lands

Status: Reported/Discussed

Discussion at meeting:

Mr. Houser presented a revised PowerPoint as set forth on Pages 5 - 22. Slide 9 was added, and Slide 17 was revised to reflect \$850 million (instead of \$811 million) as a more accurate reflection of the Total 2015 Revenue. Mr. Houser also indicated that the % of revenue figure on Slide 17 was 1.5% (instead of 0.15%).

Regent Cranberg said even at the lower oil revenues, the cash on hand is comparable to a 4.5% return on the Permanent University Fund (PUF). Both Regent Cranberg and Vice Chairman Hildebrand commented on the University Lands as a valuable asset.

5. <u>U. T. System Board of Regents: Adoption of a Resolution authorizing the issuance, sale, and delivery of Permanent University Fund Bonds and authorization to complete all related transactions</u>

Committee Meeting Information

Presenter(s): Mr. Terry Hull, Associate Vice Chancellor for Finance

Status: Approved

Motion: Made by Regent Tucker, seconded by Vice Chairman Hildebrand, and carried unanimously

Note: For Items 5 - 9, Mr. Hull displayed the summary slide set forth on Page 23.

6. <u>U. T. System Board of Regents: Adoption of a Supplemental Resolution authorizing the issuance, sale, and delivery of Revenue Financing System Bonds and authorization to complete all related transactions</u>

Committee Meeting Information

Presenter(s): Mr. Terry Hull, Associate Vice Chancellor for Finance

Status: Approved

Motion: Made by Regent Tucker, seconded by Vice Chairman Hildebrand, and carried unanimously

Note: For Items 5 - 9, Mr. Hull displayed the summary slide set forth on Page 23.

7. <u>U. T. System Board of Regents: Adoption of resolutions authorizing certain bond enhancement agreements for Revenue Financing System debt and Permanent University Fund debt, including ratification of U. T. System Interest Rate Swap Policy</u>

Committee Meeting Information

Presenter(s): Mr. Terry Hull, Associate Vice Chancellor for Finance

Status: Approved

Motion: Made by Regent Tucker, seconded by Vice Chairman Hildebrand, and carried unanimously

Note: For Items 5 - 9, Mr. Hull displayed the summary slide set forth on Page 23.

8. <u>U. T. System Board of Regents: Adoption of Amended and Restated First Supplemental Resolution to the Master Resolution establishing the Revenue Financing System Commercial Paper Note Program; authorization for officers of U. T. System to complete all transactions related thereto; and resolution regarding parity debt</u>

Committee Meeting Information

Presenter(s): Mr. Terry Hull, Associate Vice Chancellor for Finance

Status: Approved

Motion: Made by Vice Chairman Hildebrand, seconded by Regent Hall, and carried unanimously

Note: For Items 5 - 9, Mr. Hull displayed the summary slide set forth on Page 23.

9. <u>U. T. System Board of Regents: Approval of aggregate amount of \$213,200,000 of equipment financing for Fiscal Year 2016 and resolution regarding parity debt</u>

Committee Meeting Information

Presenter(s): Mr. Terry Hull, Associate Vice Chancellor for Finance

Status: Approved

Motion: Made by Regent Beck, seconded by Vice Chairman Hildebrand, and carried unanimously

Note: For Items 5 - 9, Mr. Hull displayed the summary slide set forth on Page 23.

ADJOURNMENT

Committee Chairman Hicks adjourned the meeting at 2:06 p.m.



Mr. Mark Houser, Chief Executive Officer – University Lands

U. T. System Board of Regents' Meeting Finance and Planning Committee August 2015



2015 Meeting of the U. T. System Board of Regents – Finance and Planning Comn

Agenda

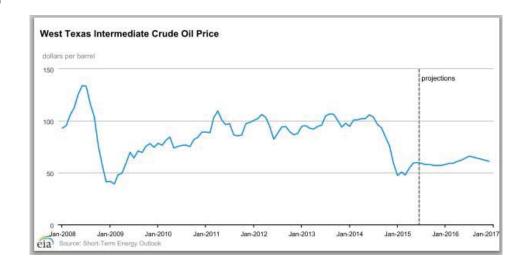
- Market Update
- II. University Lands Update
- III. Looking Forward



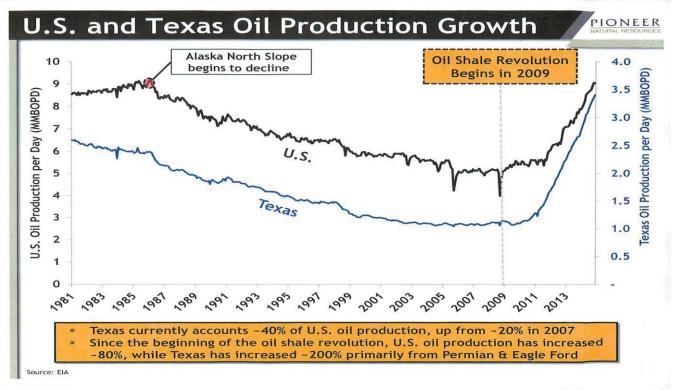
Market Overview

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- Oil markets have generally been expecting a "V" type recovery
- A decline in U.S. production due to the low price environment was supposed to balance the worldwide supply surplus
- Despite the rig count reduction and marginal returns, supply remains robust and will likely continue:
 - OPEC is increasing production (driven primarily by Saudi Arabia and Iraq)
 - Iran production is coming onto the market
- Global demand is up by 1.6% year-over-year (y/y), similar to global supply
- With recent "fear" related to China's economic challenges and Iran's potential 2016 entry, midterm outlook for oil prices remains low



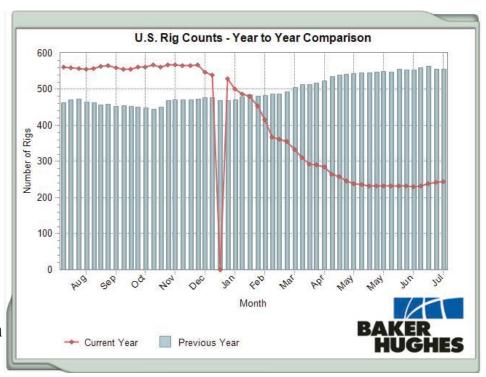
U.S. and Texas Oil Production Growth





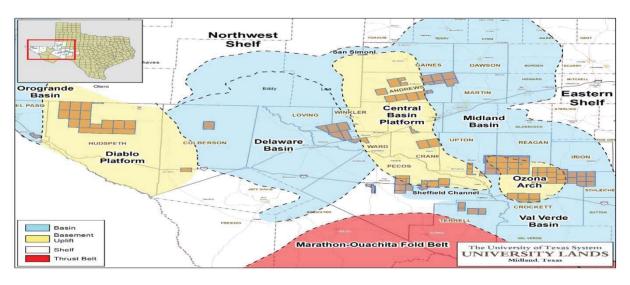
Rig Count (as of 7/24/2015)

- U.S. rig count down -649 or -54% y/y
 - Private Companies
 - A large portion of rig count is dominated by small private companies
 - · liquidity will become more of an issue
 - Public Exploration and Production (E&P)
 Companies
 - Last year, 250+ of the rigs in the domestic U.S. were operated by major E&Ps, now distressed or neardistress. Their activity is down approximately 75%
 - Returns on drilling, even across best assets, are becoming marginal
 - U.S. production <u>should</u> start to decline but hasn't
- Total Permian Basin Rig Count: 245
 - Down -310 or -55.9% y/y
 - One of the most economic basins in North America
 - Production in the Permian Basin has continued to grow



August 19, 2015 Meeting of the U. T. System Board of Regents – Finance and Planning Committee

University Lands Assets



2.1 million acres: ~1.5 million leased for oil and gas activity

- Total Reserves (8/2014)
 - 1,214 million Barrels of Oil Equivalent (BOE)
 - 13% Proved
- 2014 Gross Daily Production
 - 211,000 BOE per day
 - 64% oil
- 2014 Net Daily Production
 - 41,600 BOE per day
- >9000 Producing Wells
- 21,000 Identified "3P" Drilling Locations
- Incredible potential database for oil and gas AND water resources

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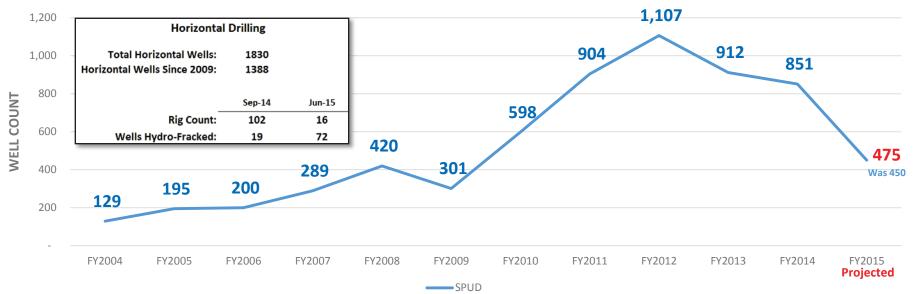
University Lands Statement of Deposits

Permanent University Fund	September 2014	October 2014	November 2014	December 2014	January 2015	February 2015	March 2015	April 2015	May 2015	June 2015	Cumulative FY 2015
Royalty -											
Oil	\$81,950	\$67,207	\$64,105	\$62,950	\$55,285	\$43,633	\$33,489	\$32,428	\$39,337	\$42,637	\$523,02
Gas	16,195	15,781	15,215	15,220	12,268	10,804	11,275	8,078	8,824	9,122	122,78
Other Mineral Royalties	1,929	3,580	3,521	1,583	1,965	1,857	2,079	775	1,259	1,397	19,94
Damage Income	1,130	842	1,654	1,005	421	454	450	614	598	574	7,74
	\$101,204	\$87,410	\$84,495	\$80,758	\$69,939	\$56,748	\$47,293	\$41,895	\$50,018	\$53,730	\$673,49
Bonuses -											
Oil & Gas Lease Sales	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$919	\$91
O&G Units/Extensions	3,243	246	17	275	4,261	751	2,953	393	157	532	12,82
Total Permanent University Fund	\$104,447	\$87,656	\$84,512	\$81,033	\$74,200	\$57,499	\$50,246	\$42,288	\$50,175	\$55,181	\$687,23
Available University Fund											
Grazing Leases	\$0	\$0	\$0	\$1,624	\$789		\$0	\$0	\$0	\$3,562	\$5,97
Land Easements	1,179	3,086	2,628	2,547	2,867		2,990	2,539	1,475	6,451	30,26
Other Surface Income	548	74	80	299	561	719	725	197	313	39	3,55
Total Available University Fund	\$1,727	\$3,160	\$2,708	\$4,470	\$4,217	\$5,218	\$3,715	\$2,736	\$1,788	\$10,052	\$39,79 ⁻
TOTAL PERMANENT & AVAILABLE FUND	\$106,174	\$90,816	\$87,220	\$85,503	\$78,417	\$62,717	\$53,961	\$45,024	\$51,963	\$65,233	\$727,02
Oil and Gas Lease Status		October 2014	November 2014	December 2014	Jan 2015	Feb 2015	March 2015	April 2015	May 2015	Jane 2015	
Leased Acreage	1,591,056	1,557,729	1,558,197	1,558,197	1,557,874		1,532,386	1,513,384	1,511,032	1,510,727	
Number of Active Leases	A 300	4,270	4,371	4,272	4,270	4,258	4,217	4,180	4,176	1,173	
WTI AVERAGE OIL PRICE	\$98.95	\$92.68	\$89.58	\$80.94	\$72.14	\$55.49	\$44.46	\$47.34	\$44.23	\$50.58	
WAHA GAS PRICE (FERC)	\$4.40	\$3.69	\$3.84	\$3.77	\$3.39	\$4.19	\$3.00	\$2.62	\$2.71	\$2.49	
WTI OIL PRODUCTION*	828,196	725,151	715,617	777,737	766,357	786,322	753,239	685,002	889,374	842,962	
WAHA GAS PRODUCTION*	3,680,682	4,276,694	3,962,240	4,037,135	3,618,879	2,578,520	3,758,333	3,083,206	3,256,089	3,663,454	
*Production estimates based on	monthly revenues of	livided by aver	age monthly co	ommodity price	•						



University Lands Wells Drilled by Fiscal Year

UNIVERSITY LANDS Wells Spud by Fiscal Year

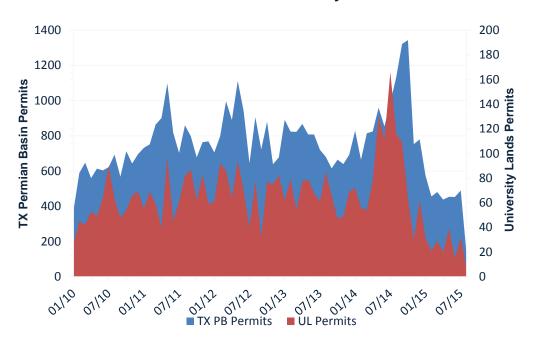




August 19, 2015 Meeting of the U.T. System Board of Regents – Finance and Planning Committee

University Lands Permits

Texas Permian Basin vs University Lands Permits



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University Lands Strategy

- Create a more "business oriented" forward looking culture
 - Study the best performing mineral/oil and gas companies to determine best practices
- Increase internal knowledge of resource potential
 - Enhance capabilities for managing extensive data
 - Expand internal technical resources (create Houston office)
 - Work more proactively with industry partners
 - Utilize assistance from Texas Energy Research, Engineering, and Education Institute (EREEI)
- Evaluate most effective strategy for fully and prudently developing these "stacked pay" resources
- Work with industry partners to manage through price, cost, and technology swings
 - Upstream and midstream opportunities

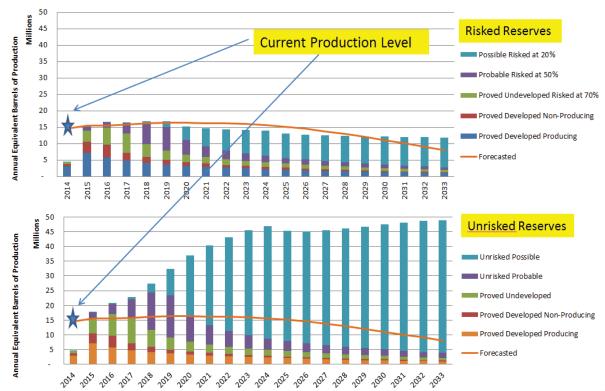


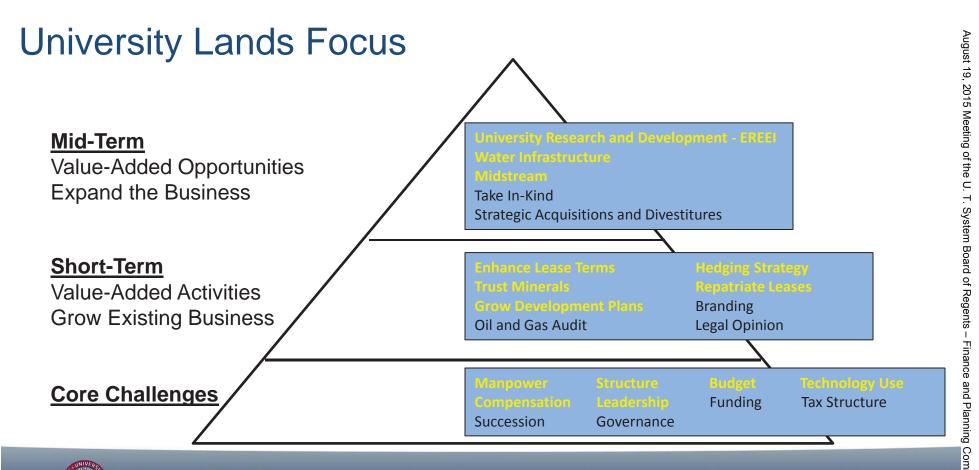
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LONG

Committee Minutes -

Long-Term Production Ranges





Last 90 Days

Accomplishments

- Houston office location determined
- Organizational plan developed
 - Began formulating compensation strategy
- Discussions with several stakeholders
 - Chancellor William H. McRaven
 - Texas General Land Commissioner George P. Bush
 - UTIMCO staff
 - U. T. System: Dr. Randa Safady, Mr. Dan Sharphorn, et al.
 - Producers, ranchers, border patrol, and service providers
 - Field visits

Committee Minutes

- · Worked through legislative session
- Revised 14 development agreements
 - Increased drilling commitments on lands by over 500 wells by 2020
 - Generated ~\$5 million in bonus payments
- Identified potential Midstream opportunity

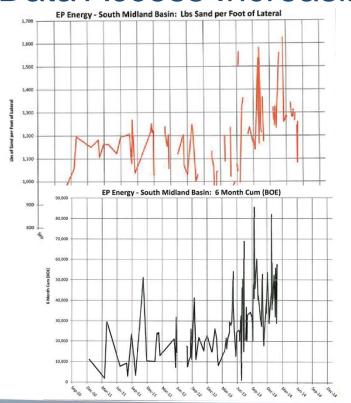
Challenges and Shortfalls

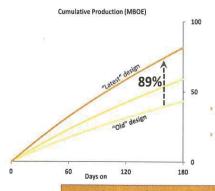
- Understanding the purchasing and hiring processes
- Small delay in technical staff hiring
- Data management and collection process not moving as fast as hoped

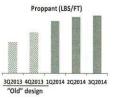


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Data Access Increasing Resource Potential



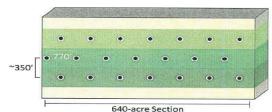




- Higher sand loading is driving higher returns
- Completion innovations have increased per well NPV by \$550,000+

Increased NPV and ROR through higher early cumulative production.

- Expanding development across acreage position
- 2014 primarily combined B/C development
 - >> Adding A wells
- 770' between wells in each zone
- Completing all wells on a pad prior to producing

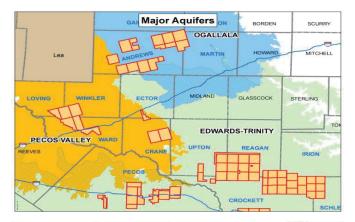


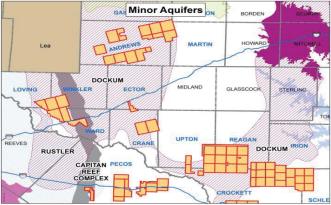
Wolfcamp A
Wolfcamp B
Wolfcamp C



Ground Water Management

- University Lands aims to lead the water conversation in West Texas
- Geographic positioning over major and minor aquifers positions University Lands as a key player
- University Lands currently sells water to the City of Midland, City of Andrews, Colorado Municipal Water District and also to oil and gas companies to support their operations
- Goal: Conduct in depth study alongside hydrogeologists, using data from a variety of sources, including >3000 water wells on University Lands, oil and gas wells, and the Texas Water Development Board to develop comprehensive water management plan







New Positions

General Counsel: Carrie Clark

CFO University Lands: TBD

Geoscience Director: Dave DeFelice

Engineering Director

Geologist

Engineer

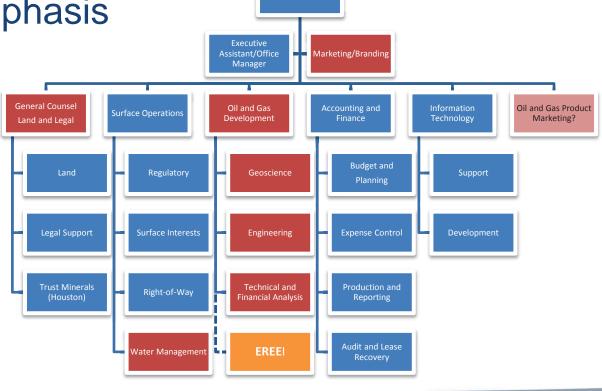
Executive Assistant: Barbara Dean

Geological Technician

Engineering Technician

Marketing Analyst: Alyssa Ray

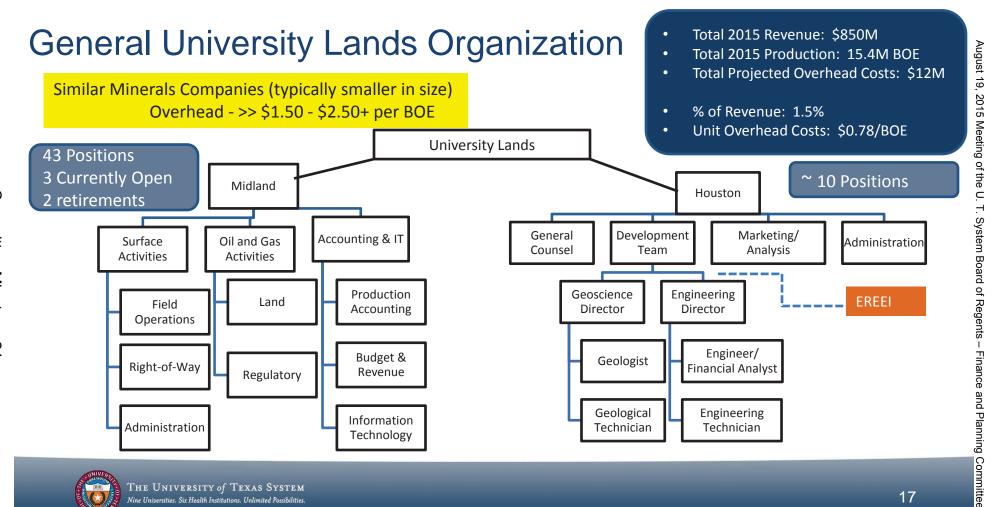
Paralegal/Trust Minerals: TBD



CEO University Land

August 19, 2015 Meeting of the U. T. System Board of Regents – Finance and Planning Committee

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2016 Objectives

- Assess and determine optimal structure for University Lands to move forward as a "Minerals Company"
- Generate revenue of \$700 \$800 million for fiscal year assuming \$50/bbl oil price
- · Increase "price neutral" proved reserve value
- Develop integration program with the new energy institute EREEI
- Complete detailed reservoir study of 20% of University Lands
 - Complete technical review with all top 20 producers
- Complete staffing plan (as now defined) for Houston Office
- · Complete one lease sale

Committee Minutes

- Develop and implement "downhole data management process"
 - Pursue land/regulatory reporting management system
 - Pursue reservoir/geologic management system
 - Develop a more real time "visual" activity mapping system
- Develop and implement an effective branding strategy
- Develop a comprehensive water management plan
- Develop an internship program



Debt-Related Agenda Items Proposed for FY 2016

Agenda Items 5-9	FY 2015	Proposed FY 2016
PUF Bond Resolution	\$600 million	\$600 million
RFS Bond Resolution	\$600 million- (28th Supplemental)	\$600 million- (29th Supplemental)
Bond Enhancement Agreement Resolutions	Approved	Proposed
RFS Commercial Paper Resolution	\$1.25 billion RFS Commercial Paper Note Program	\$1.75 billion RFS Commercial Paper Note Program
RFS Equipment Financing	\$171.6 million	\$213.2 million



MINUTES U. T. System Board of Regents Academic Affairs Committee August 19, 2015

The members of the Academic Affairs Committee of the Board of Regents of The University of Texas System convened at 9:39 a.m. on Wednesday, August 19, 2015, in the Board Meeting Room on the 9th Floor of Ashbel Smith Hall, The University of Texas System, 201 West Seventh Street, Austin, Texas, with the following participation:

Attendance

Chairman Aliseda, presiding Vice Chairman Hicks Regent Cranberg Regent Pejovich Regent Tucker

Also present were Chairman Foster (for Items 4 - 5), Vice Chairman Hildebrand, Regent Beck, Regent Drake, Regent Hall, and General Counsel Frederick.

In accordance with a notice being duly posted with the Secretary of State and there being a quorum present, Committee Chairman Aliseda called the meeting to order in Open Session.

Committee Chairman Aliseda welcomed U. T. Dallas Interim President Wildenthal and representatives of the U. T. System Student Advisory Council, Faculty Advisory Council, and Employee Advisory Council.

1. <u>U. T. System Board of Regents: Discussion and appropriate action regarding</u> Consent Agenda items, if any, referred for Committee consideration

Committee Meeting Information

Presenter(s): Committee Chairman Aliseda

Status: Reported

There were no items referred from the Consent Agenda.

2. U. T. Austin: Request to a) approve the honorific naming of B. M. Whitaker
Field in honor of the late Professor Charles Alan Wright as the Charles Alan
Wright Fields, and b) officially recognize the Whitaker Fields and Tennis
Complex as the Berry M. Whitaker Sports Complex

Committee Meeting Information

Presenter(s): President Gregory L. Fenves, U. T. Austin

Status: Approved

Motion: Made by Regent Cranberg, seconded by Vice Chairman Hicks, and carried unanimously

Discussion at meeting:

Regent Beck spoke in support of the proposed naming.

3. U. T. Brownsville: Discussion and appropriate action regarding (a) proposed extension of Educational Partnership Agreement with Texas Southmost College (TSC) through August 31, 2016, and (b) delegation of authority to the TSC Board of Trustees related to governance and operations of TSC as a unit of U. T. Brownsville for purposes of compliance with accreditation standards of the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) for Academic Year 2015-2016

Committee Meeting Information

Presenter(s): Dr. Steven W. Leslie, Executive Vice Chancellor for Academic Affairs

Status: Approved

Motion: Made by Vice Chairman Hicks, seconded by Regent Pejovich, and carried unanimously

4. <u>U. T. Arlington: Approval to establish a Doctor of Philosophy degree program in Kinesiology</u>

Committee Meeting Information

Presenter(s): President Vistasp M. Karbhari, U. T. Arlington

Status: Approved

Motion: Made by Regent Cranberg, seconded by Regent Tucker, and carried unanimously

Discussion at meeting:

Committee Chairman Aliseda asked about the expected enrollment in this program, and Dr. Karbhari said the expected enrollment is about 100 students.

5. <u>U. T. System: Quarterly report on academic matters of interest to the U. T. System, including a discussion on 3D printing</u>

Committee Meeting Information

Presenter(s): Dr. Steven W. Leslie, Executive Vice Chancellor for Academic Affairs; President Diana S. Natalicio and Dr. Ryan Wicker, Professor, Director, and Founder of the W.M. Keck Center

for 3D Innovation, U. T. El Paso **Status:** Reported/Discussed

Discussion at meeting:

Dr. Natalicio introduced Dr. Wicker and remarked that just about a week ago, the ribbon was cut on the official designation of the W.M. Keck Center for 3D Innovation as the first satellite of the America Makes Initiative effort to renew the manufacturing energy in the U.S.

Dr. Wicker brought samples of pieces that were 3D printed on a polymer-based machine. The rook (chess piece) had an internal staircase that resembled a double helix and another piece had embedded electronics. His presentation was revised to include copyright information and is attached on Pages 5 - 15.

In reply to a question from Regent Cranberg about collaboration opportunities, Dr. Wicker said the Keck Center collaborates with other U. T. System institutions as well as with institutions around the world.

Chairman Foster asked about any size constraints of 3D printing, and Dr. Wicker said there are smaller machines and bigger machines throughout the Center. Since the focus of the industry is on aerospace and medicine, printers of various sizes are needed; medicine does not require big printers, but aerospace does. Typically, the commercial system can build about 3x3x3 feet. This is a 30-year old industry, but it is still young and there are significant opportunities for strategic investment in these areas. Dr. Wicker added that universities have smaller systems because of the cost.

Chairman Foster also asked about U. T. patents ownership, and Dr. Wicker said U. T. Austin was one of the birthplaces of one of the fundamental core technologies of 3D printing. A company was formed in the early 1990s that was later acquired by a large company, 3D Systems, that still exists. He spoke of U. T.-owned technology that has provided a substantial return on investment in the form of spin-out companies that have capitalized on the technology. He described the work at U. T. El Paso on embedded electronics and said the institution is at the beginning stages of capitalizing on the U. T. El Paso patents in that area.

Regent Beck asked about ownership and protection of patents and about opportunities for collaboration between U. T. El Paso and the private industry. Dr. Wicker spoke of the staff at the Center that is dedicated to work exclusively with industry from simple all

the way to the most complex arrangements. He said the Board of Regents owns the patents from each of the U. T. System institutions. He said the institutions are patenting regularly, and each institution has a process of disclosing their patentable ideas; ideas go through an evaluation process and are submitted for processing. He noted that attorneys may be hired by the institutions for enforcement.

Student Regent Drake asked how long it takes to print a metal part, and Dr. Wicker said about an inch of material is printed per hour.

ADJOURNMENT

Committee Chairman Aliseda adjourned the meeting at 10:22 a.m.

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Additive Manufacturing / 3D Printing A Nexus of Opportunity

Ryan Wicker, Ph.D., P.E. MacIntosh Murchison Professor, Mechanical Engineering, and Director, W.M. Keck Center for 3D Innovation

U. T. System Board of Regents' Meeting Academic Affairs Committee August 2015









Committee Minutes

The Current Excitement in AM



 Media hype – increased public awareness



Print Me a Stradivarius, The Economist, Feb. 2011

Retrieved from http://www.economist.com/node/18114327

Expiring technology patents –DIY/technology democratization



Retrieved from http://www.makerbot.com/2014consumer-electronics-show-ces/

Increasing national and global interest



President Obama's Initiative: National Additive Manufacturing Innovation Institute (now America Makes) began in August 2012

Retrieved from https://americamakes.us/



W.M. Keck Center for 3D Innovation





- Founded in 2000 with one AM / 3D Printing machine
- Now a 13,000 square foot facility with over 50 AM machines (polymers, metals, ceramics, composites, electronics, biomedical)
- Research and Development projects with over 100 industrial and 10 federal agency clients
- Currently supporting more than 60 student researchers
- Significant and expanding patent portfolio: 9 U.S. patents, 2 foreign patents (Europe and Asia),
 11 pending applications...and growing
- Named the first America Makes Satellite Office in April 2015
- Everything we do uses additive manufacturing technologies

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Keck Center Overview Video





Additive Manufacturing's Unique Advantage





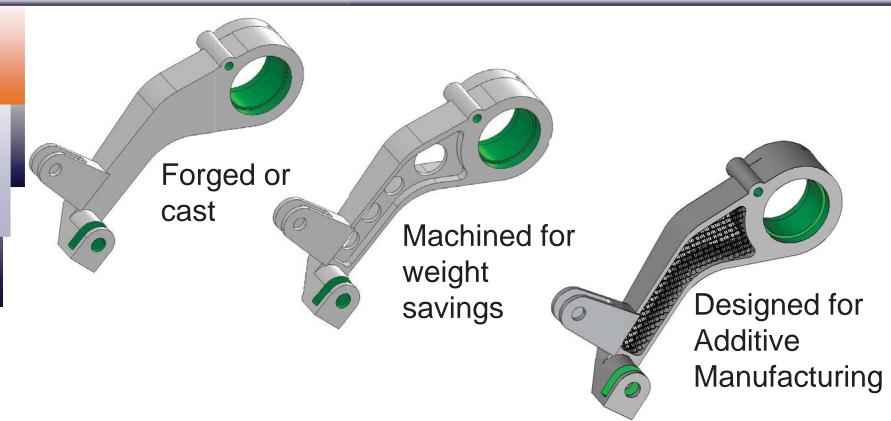
Retrieved from http://www.americas.gecapital.com/GECA_Document/Additive_Manufacturing_Fall_2013.pdf



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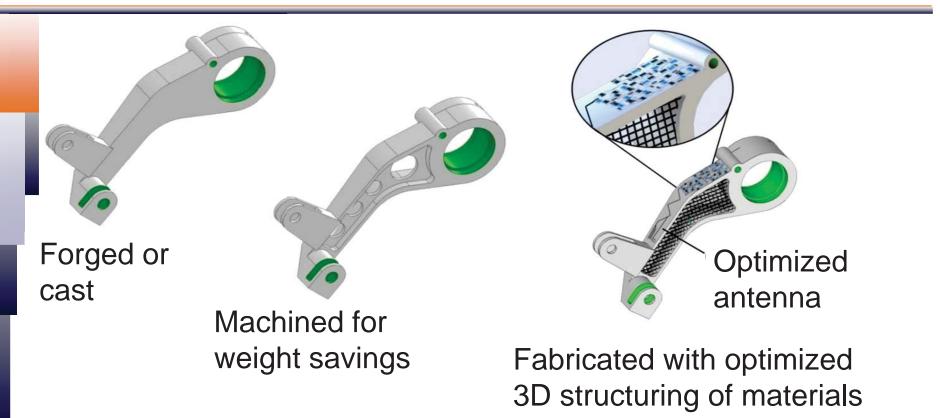
Design for Additive Manufacturing





AM's Future Advantage: Printing Multifunctionality

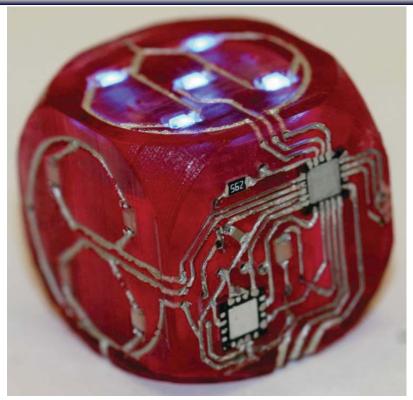




Committee Minutes -

Printing Multifunctionality: How Close Are We?



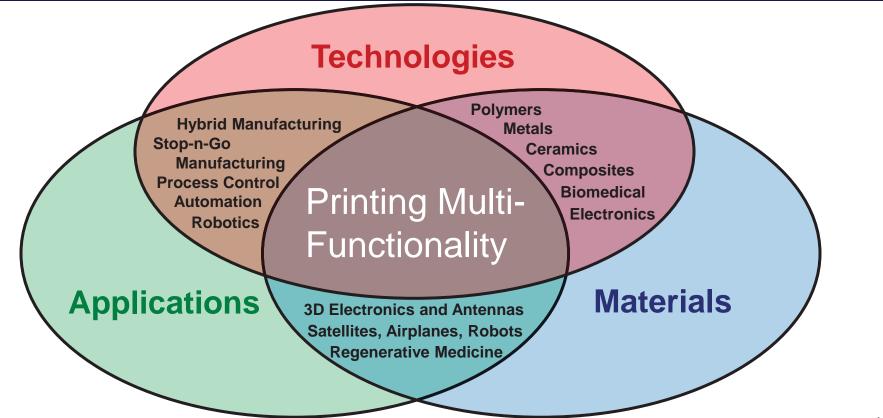


Retrieved from E. MacDonald, R. Salas, D. Espalin, M. Perez, E. Aguilera, D. Muse, R.B. Wicker, "3D Printing for the Rapid Prototyping of Structural Electronics," IEEE Access, Volume 2, Issue 1, 2014, pages 234-242.



Opportunities – Intersection of Interdisciplinary Advancements





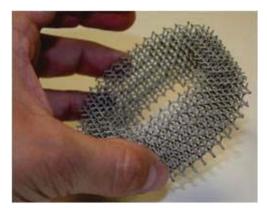


Committee Minutes -

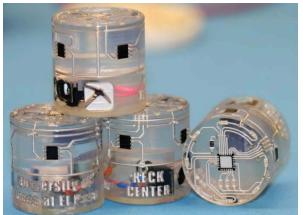
Printing Multifunctionality - Demonstrations



- Biomedical and Health care
- 3D Electronics
- Mechanical Structures
- Functional Applications







Retrieved from R. Wicker, F. Medina, C. Elkins, "Multiple Material Micro-Fabrication: Extending Stereolithography to Tissue Engineering and Other Novel Applications," Proceedings of the 15th Annual Solid Freeform Fabrication Symposium, Austin, TX, 2004, pages 754-764.

Retrieved from A.J. Lopes, E. MacDonald, R.B. Wicker, "Integrating Stereolithography and Direct Print Technologies for 3D Structural Electronics Fabrication" Rapid Prototyping Journal, Volume 18, Issue 2, 2012, pages 129-143.



W.M. Keck Center for 3D Innovation Research Group



Driving the Additive Manufacturing Revolution



Visit www.keck.utep.edu for more information

MINUTES U. T. System Board of Regents Health Affairs Committee August 19, 2015

The members of the Health Affairs Committee of the Board of Regents of The University of Texas System convened at 10:34 a.m. on Wednesday, August 19, 2015, in the Board Meeting Room on the 9th Floor of Ashbel Smith Hall, The University of Texas System, 201 West Seventh Street, Austin, Texas, with the following participation:

<u>Attendance</u>

Regent Cranberg, presiding Vice Chairman Hildebrand Regent Aliseda Regent Beck Regent Tucker

Also present were Chairman Foster, Vice Chairman Hicks, Regent Drake, Regent Hall, Regent Pejovich, and General Counsel to the Board Frederick.

In accordance with a notice being duly posted with the Secretary of State and there being a quorum present, Committee Chairman Cranberg called the meeting to order in Open Session.

Committee Chairman Cranberg welcomed representatives of the U. T. System Student Advisory Council, Faculty Advisory Council, and Employee Advisory Council.

1. <u>U. T. System Board of Regents: Discussion and appropriate action regarding Consent Agenda items, if any, referred for Committee consideration</u>

Committee Meeting Information

Presenter(s): Committee Chairman Cranberg

Status: Reported

There were no items referred from the Consent Agenda.

2. <u>U. T. Health Science Center - Tyler: Request to approve the honorific naming of the circle drive surrounding the Herbert C. and Melvina Buie Fountain of Hope at the entrance of the campus as Buie Circle</u>

Committee Meeting Information

Presenter(s): Kirk A. Calhoun, M.D., President, U. T. Health Science Center - Tyler

Status: Approved

Motion: Made by Regent Beck, seconded by Regent Aliseda, and carried unanimously

3. <u>U. T. Medical Branch - Galveston: Approval to establish a Doctorate in Occupational Therapy degree program in the School of Health Professions</u>

Committee Meeting Information

Presenter(s): David L. Callender, M.D., President, U. T. Medical Branch - Galveston

Status: Approved

Motion: Made by Regent Beck, seconded by Regent Aliseda, and carried unanimously

Discussion at meeting:

See discussion under the first paragraph of the next item (Item 4) related to this item.

4. <u>U. T. Medical Branch - Galveston: Approval to establish a Doctor of Clinical Laboratory Sciences degree program in the School of Health Professions</u>

Committee Meeting Information

Presenter(s): David L. Callender, M.D., President, U. T. Medical Branch - Galveston

Status: Approved

Motion: Made by Regent Aliseda, seconded by Vice Chairman Hildebrand, and carried unanimously

Discussion at meeting:

Committee Chairman Cranberg asked if there was any difficulty obtaining approval from the Coordinating Board for this program and the program in Item 3 above, and President Callender answered not at this point, noting there are precedents for these types of programs elsewhere.

Vice Chairman Hildebrand asked about the proposed line item on "reallocation of existing resources" on Page 249 of the Agenda Book, and President Callender called on Dr. Vicki Freeman, Chair and Director of the Clinical Laboratory Sciences Program at U. T. Medical Branch - Galveston (UTMB) to discuss the matter. Dr. Freeman said existing faculty and staff from both the Department of Pathology and the Department of Clinical Laboratory Sciences will reallocate some teaching or work time to the new program. In reply to a further question from Vice Chairman Hildebrand, Dr. Freeman said about 20 professors would be involved between the two departments, and some additional faculty would help in the clinical area.

In response to a question from Committee Chairman Cranberg about the online program, Dr. Freeman said the didactic portion is all online and clinicals will need to be done in the hospitals. The program will therefore start at UTMB, but will be rolled out to some of the affiliated laboratories as the new team concept is developed. Regent Cranberg asked if the online curriculum was already developed, and Dr. Freeman said that some of the courses are already in place and others will be developed. She added that the program will attract students from other states, but the effort is focused primarily on Texas for now.

5. <u>U. T. System: Approval to distribute a portion of The University of Texas System Professional Medical Liability Benefit Plan premium returns and approve rates for the Plan</u>

Committee Meeting Information

Presenter(s): Raymond S. Greenberg, M.D., Ph.D., Executive Vice Chancellor for Health Affairs

Status: Approved

Motion: Made by Vice Chairman Hildebrand, seconded by Regent Aliseda, and carried unanimously

Discussion at meeting:

Committee Chairman Cranberg asked for clarification of the proposed distributions, and Dr. Greenberg explained that \$6 million will go back to the U. T. System institutions and \$4.5 million will be held in reserves. In further reply to a question from Regent Cranberg about the \$8.5 million in total medical liability claims across the entire U. T. System for the three-year period 2013-2015, Dr. Greenberg said that amount was the total of claims paid, but the actual claims filed are larger. He credited the quality of care delivered at the U. T. System institutions and how cases have been managed, noting there have been a few large settlements. Committee Chairman Cranberg commented that less than \$3 million a year across an \$11 billion a year health system is a remarkable achievement.

Regent Beck asked if the U. T. System reinsures above a certain level, and Dr. Greenberg answered that medical malpractice liability at the U. T. System is totally self-insured. Executive Vice Chancellor Kelley confirmed that.

Dr. Greenberg explained the source of the \$4.5 million in reply to a question from Vice Chairman Hildebrand, saying the funds are from the same source -- premiums paid by the institutions -- and are used for programs that support the institutions, such as conferences and grants.

Regent Cranberg noted the \$19 million surplus in the program, and Dr. Greenberg said the total reserve is around \$50 million. Dr. Greenberg and Dr. Kelley further discussed the annual evaluation process to decide if rates should be lowered and/or to rebate dollars back to the institutions. They commented that the rates are significantly lower than elsewhere, and Vice Chairman Hildebrand commended the competitive advantage to recruit and retain physicians.

Regent Cranberg asked who -- physicians or patients -- would benefit from decreased lower rates, and Dr. Greenberg explained that premiums are paid at the institutional level and that by decreasing the institutional cost, more money could be returned to physicians.

6. <u>U. T. System: Approval of \$15 million from Available University Funds to support Phase 2 of the U. T. Systemwide Diabetes Obesity Control initiative and delegation of authority to contract with selected entities to conduct essential feasibility studies</u>

Committee Meeting Information

Presenter(s): Raymond S. Greenberg, M.D., Ph.D., Executive Vice Chancellor for Health Affairs; Dr. Lynda Chin, Associate Vice Chancellor for Health Affairs and Chief Innovation Officer

Status: Approved

Motion: Made by Regent Aliseda, seconded by Regent Beck, and carried unanimously

Follow-up action: Ensure philanthropy and sponsorship funds are raised as planned to match the

U. T. System allocation. The Board wants to see measurable results for the investment.

Discussion at meeting:

Dr. Chin revised Slide 5 (Page 10) and her revised presentation is set forth on Pages 6 - 15.

In reply to questions from Vice Chairman Hicks, Dr. Chin reported interest from Walmart in collaborating with Project DOC (Diabetes Obesity Control) to provide more of a client basis and with AT&T to provide Internet connectivity, as well as building of a secure network for health care communication.

In reply to a question from Regent Hall about philanthropic support and sponsorships, Dr. Chin spoke about possible opportunities to partner with risk-bearing entities, including Medicaid. She reiterated that having \$15 million from the Board as seed money will help generate momentum and raise the remaining funds.

Dr. Chin described cardiovascular efforts that could be undertaken as well in response to a question from Regent Hall.

Chairman Foster asked how long the \$15 million requested would last, and Dr. Chin said she expects activities could be achieved in 12 months versus the 18 months previously planned due to the evolution of technology. She said the funds would frontload the cost of activities. Chairman Foster asked when the project would be self-sustaining, and Dr. Chin said it is planned for Phase 3, which is Year Three of the project, but she thinks that could be accomplished sooner. Chairman Foster asked if this would be the last request for money if everything comes together, and Dr. Chin answered that building momentum and value and assets will bring in support.

Regent Tucker asked about partnerships to curb demand for the need for treatment, and Dr. Chin discussed opportunities to form partnerships to assist in early intervention and prevention of disease, including some nontraditional ways to engage the population. Regent Tucker also asked about retention efforts to keep talent in South Texas, and Dr. Chin spoke about the need to change the environment in the region through a best-in-class health care system to attract and retain highly trained individuals.

Vice Chairman Hildebrand asked how much of the \$10 million authorized for Project DOC to date has been spent, and Dr. Chin stated that less than \$4 million was spent in Phase 1 and close to \$5 million has been spent so far in Phase 2, through mid-September (2015). He asked if the proposal was to frontload \$15 million to generate philanthropy, and Dr. Chin discussed fundraising efforts that had already started. Vice Chairman Hildebrand further asked if a \$15 million matching grant would be an incentive or disincentive to raise other funds, and Dr. Chin responded that she thought that would not incentivize fundraising because the work and the momentum would have to stop until there was funding available. Vice Chairman Hildebrand stated that he wants to see solid results from the investment to which Dr. Chin said she was confident that would happen.

Student Regent Drake asked if technology, like wearables, is a major challenge to the program, and Dr. Chin spoke about the training of users that may be required and about ways to engage with the population in the region to obtain helpful information.

Committee Chairman Cranberg recognized there are U. T. System employees and family members who have diabetes, and he suggested that aspects of this project could be adopted to assist them as well to improve productivity and quality of life. He recognized Vice Chairman Hildebrand's concern regarding fundraising for the project, and he suggested to Dr. Greenberg that the U. T. System follow with special interest the matching fundraising and progress towards achieving the goals of the project.

ADJOURNMENT

Committee Chairman Cranberg adjourned the meeting at 11:40 a.m.

Project Diabetes Obesity Control

Lynda Chin, M.D.
Associate Vice Chancellor and Chief Innovation Officer
Director, Institute for Health Transformation
Office of Health Affairs, The University of Texas System

U. T. System Board of Regents' Meeting Health Affairs Committee August 2015



Diabetes Epidemic in the Rio Grande Valley

The Rio Grande Valley (RGV) region with significant unmet medical needs and economic challenges

- Cameron County is the second poorest and one of the least educated counties in the nation
- 70% of Cameron County Hispanic Cohort have no health insurance
- 30% of RGV population diagnosed with diabetes, up to 60% of population, if including undiagnosed
- Severe shortage of physicians: 40% fewer per 100,000 in RGV compared to rest of Texas
- Diabetes is projected to cost \$1.2 billion in South Texas by 2020
- Diabetes costs the State of Texas \$19 billion per year

Sources: 1. United States Census Bureau. County Totals Dataset: Population, Population Change and Estimated Components of Population Change: April 1, 2010 to July 1, 2013; and 2. Texas Health and Human Services. List of HHS Regions with County Cross-reference, May 10, 2005.

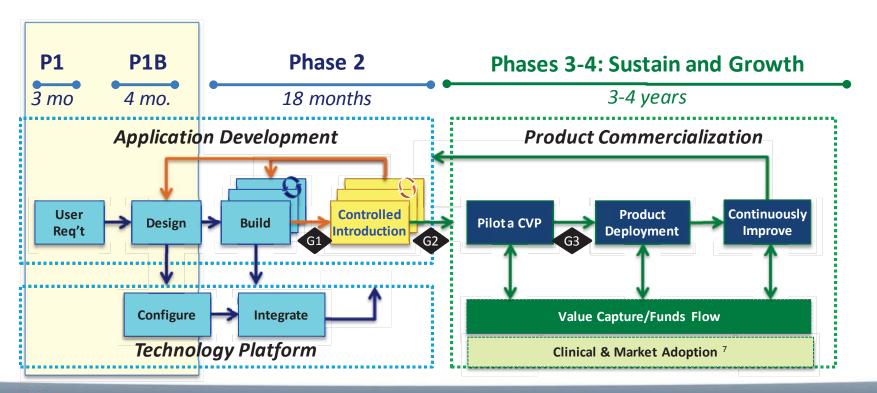
U. T. System Commitment in RGV

- <u>EDUCATION</u>: U. T. Rio Grande Valley and School of Medicine
 - Revitalize and build the next generation of health care professionals in South Texas
- 2. RESEARCH: Institute for Diabetes and Obesity Research
 - Advance knowledge to improve care
- 3. **CARE**: Institute for Health Transformation
 - Technology-enabled innovative solutions to improve outcome and reduce cost
 - Design for sustainability
 - Build for scalability



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Project DOC Timeline

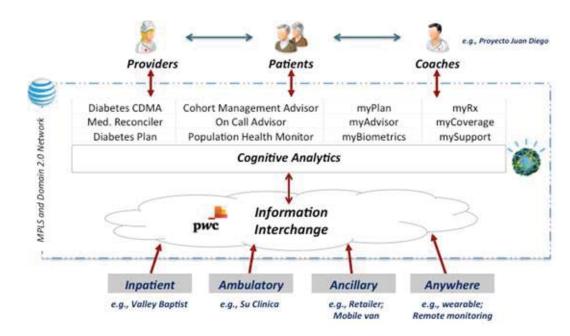




August 19, 2015 Meeting of the U.T. System Board of Regents - Health Affairs Committee

Phase 1 Design: Project DOC Plan

- Goal: A scalable personcentric care delivery system optimized for chronic disease management
- Design: An integrated care pathway supported by an expanded care team
- Plan: Build a prototype in Brownsville then scale



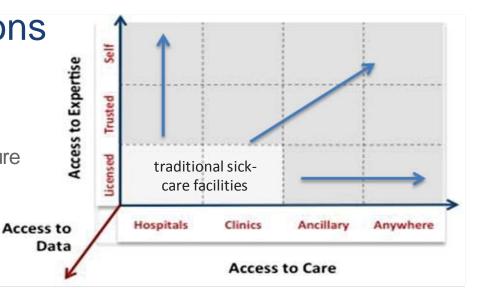
August 19, 2015 Meeting of the U. T. System Board of Regents – Health Affairs Committee

Phase 1 Design: Solutions

- Cognitive expert system
- Expanded care team
 - Practice at the top of licensure
 - Trusted providers
 - Do-it-yourself



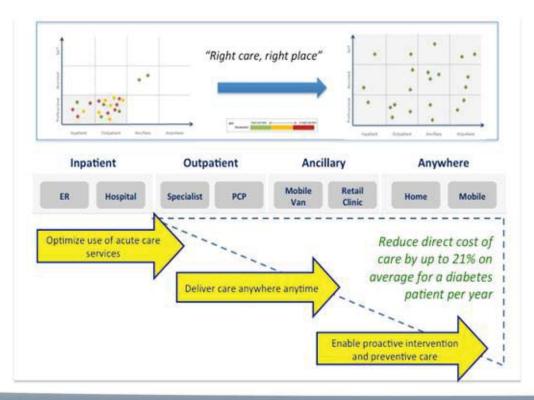
- Governance framework
- Purposeful allocation



- Internet-of-Things and dedicated network
- Extended care delivery system
 - Retail primary care clinics
 - Remote monitoring & wearable
 - Virtual care

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Phase 1 Design: Sustainability of Project DOC



\$19 billion/year spent in Texas

\$6,900/patient direct cost of diabetes care

\$1,400 cost reduction per patient per year

DOC™ System operational in year 2

Self Sustainability in year 3

\$600M cost savings annually by year 6

Technology

Ecosystem

Phase 1B: Feasibility of Project DOC Design

Areas of Feasibility Assessments

Tech Core: Can we demonstrate functional cooperation among members of the Technology Core and interoperability of their respective technologies? Can we provide end-to-end security?

Data integration: Can we integrate with and facilitate data sharing/access?

Cognitive analytics: Can we demonstrate analytics that consume data on the interchange?

Contracting: Can we secure contracts with key stakeholders in South Texas?

Partners: Will new entrants (i.e., retailers) participate? Do risk bearing entities agree with the value proposition and the proposed cost saving metrics of Project DOC diabetes care pathway?

Expertise Access: Can we demonstrate access to relevant expertise?

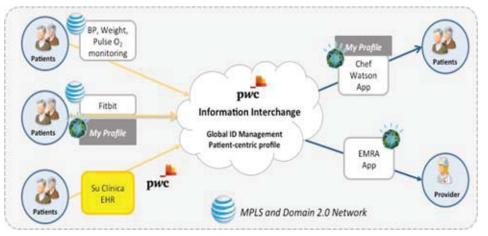


August 19, 2015 Meeting of the U.T. System Board of Regents - Health Affairs Committee

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Phase 1B Results: Technology Feasibility

- **♦ Tech core operation**
- ◆ Data integration
- Cognitive analytics



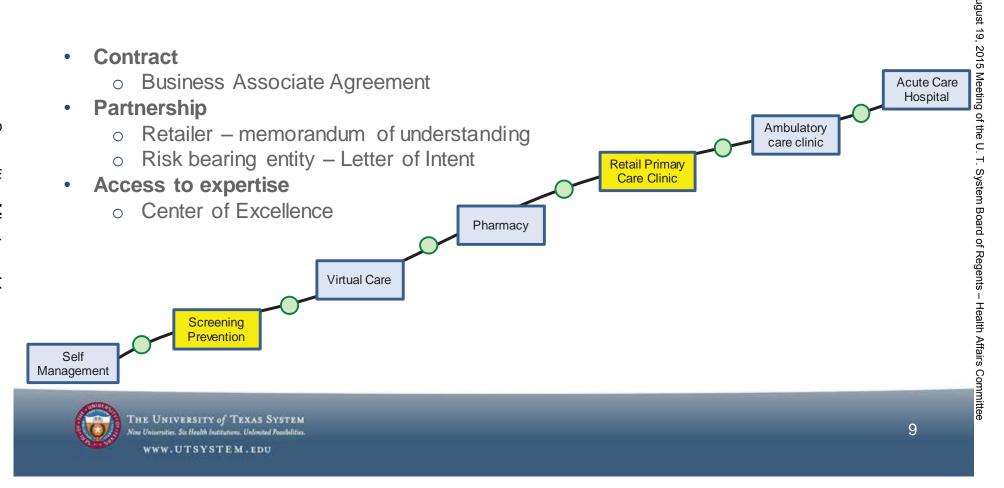
Capture data from disparate sources

- Medical records (de-identified)
- Remote monitoring: blood pressure, weight, O₂ saturation
- Mobile: wearable sensor (Fitbit)
- Self-reported: (myProfile)
- Aggregate data appropriately
 - iProfile: person-centric integrated health profile
- Consume data with analytics
 - Electronic medical record assistant → Medical problem list
 - Chef Watson → Healthier diet
- Provide security and access control

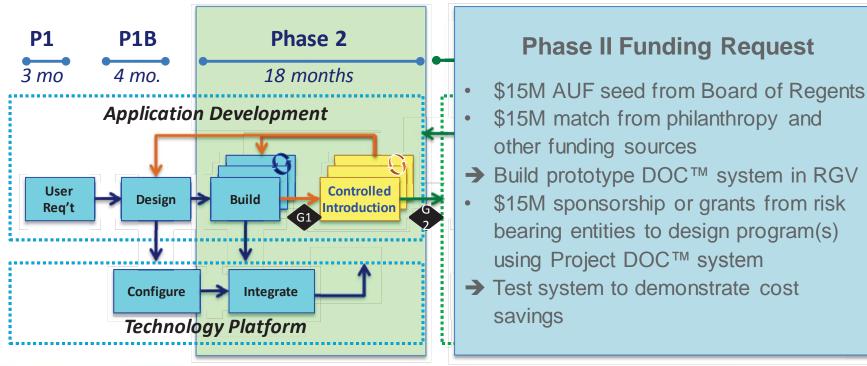




Phase 1B Results: Ecosystem Creation



Project DOC Phase II



HE UNIVERSITY OF TEXAS SYSTEM

August 19, 2015 Meeting of the U. T. System Board of Regents – Health Affairs Committee

MINUTES

U. T. System Board of Regents Facilities Planning and Construction Committee August 19, 2015

The members of the Facilities Planning and Construction Committee of the Board of Regents of The University of Texas System convened at 2:12 p.m. on Wednesday, August 19, 2015, in the Board Meeting Room on the 9th Floor of Ashbel Smith Hall, The University of Texas System, 201 West Seventh Street, Austin, Texas, with the following participation:

<u>Attendance</u>

Chairman Pejovich, presiding Vice Chairman Hicks Regent Beck Regent Cranberg Regent Hall

Also present were Chairman Foster (for the last few items), Vice Chairman Hildebrand, Regent Aliseda, Regent Drake, Regent Tucker, and General Counsel Frederick.

In accordance with a notice being duly posted with the Secretary of State and there being a quorum present, Committee Chairman Pejovich called the meeting to order in Open Session. The PowerPoint presentation concerning all items is set forth on Pages 8 - 63.

Following discussion of Item 2, Mr. O'Donnell noted that the report on the deferred maintenance and recapitalization structured program was deferred until funding was determined to be available for the initiative in FY 2016. He said that in the interim, the selection of candidate projects will continue.

1. <u>U. T. System Board of Regents: Discussion and appropriate action regarding Consent Agenda items, if any, referred for Committee consideration</u>

Committee Meeting Information

Presenter(s): Committee Chairman Pejovich

Status: Reported

There were no items referred from the Consent Agenda.

2. U. T. System: Report on Hybrid Delivery Methods - A Demonstration Project

Committee Meeting Information

Presenter(s): Mr. Michael O'Donnell, Associate Vice Chancellor for Facilities Planning and Construction;

Deputy Chancellor David E. Daniel **Status:** Reported/Discussed

Discussion at meeting:

Slides related to this item are on Pages 9 - 17.

Deputy Chancellor Daniel commented on the best practice to improve the efficiency model of construction projects and the anticipated 10% cost savings. He said the method will be applied to two or three demonstration projects to begin with, and in 12-18 months it will be evident as to what is or is not working. He said this will involve a cultural change in the way the U. T. System is constructing facilities, in part through use of a team approach (the Project Advocate), and is a new way of doing business.

Vice Chairman Hildebrand expressed appreciation for the U. T. System's willingness and adaptability to this new approach, and he said the intended 10% cost savings could probably be more. Committee Chairman Pejovich thanked Regent Cranberg, former Chairman of the Facilities Planning and Construction Committee, for his groundwork on this effort through the Task Force on Facility Planning for the 21st Century.

3. U. T. System Board of Regents: Discussion and appropriate action regarding proposed amendments to Regents' Rules and Regulations, Rule 80301 (Capital Improvement Program); Rule 80302 (Building Committees); Rule 80402 (Major Construction and Repair and Rehabilitation Projects); Rule 80403 (Minor Construction and Repair and Rehabilitation Projects); Rule 80404 (Institutional Management of Major Construction and Repair and Rehabilitation Projects); and Rule 80901 (Constitutional and Legislative Restrictions on Capital Improvements) to revise the threshold for Major and Minor Projects requiring Board approval

Committee Meeting Information

Presenter(s): Mr. Michael O'Donnell, Associate Vice Chancellor for Facilities Planning and Construction

Status: Approved

Motion: Made by Regent Beck, seconded by Regent Cranberg, and carried unanimously

4. <u>U. T. System: Allocation of \$30.2 million of Permanent University Fund Bond</u> <u>Proceeds for Fire and Life Safety projects</u>

Committee Meeting Information

Presenter(s): Mr. Michael O'Donnell, Associate Vice Chancellor for Facilities Planning and Construction

Status: Approved

Motion: Made by Vice Chairman Hicks, seconded, and carried unanimously

5. U. T. System: Amendment of the FY 2016-2021 Capital Improvement
Program to include Tuition Revenue Bond (TRB) projects; appropriation of
\$922,632,000 of TRB funds; appropriation of \$114.7 million of Permanent
University Fund Bond Proceeds; appropriation of funds for Repair and
Rehabilitation projects; approval of modifications and appropriation of
additional funds for previously approved projects; authorization of
institutional management; approval of waiver of current Architect/Engineer
fee schedule; and resolution regarding parity debt

Committee Meeting Information

Presenter(s): Mr. Michael O'Donnell, Associate Vice Chancellor for Facilities Planning and Construction

Status: Approved

Motion: Made Regent Beck, seconded, and carried unanimously

6. <u>U. T. Medical Branch - Galveston: Biocontainment Critical Care Unit - Amendment of the FY 2016-2021 Capital Improvement Program to include project; approval of total project cost; appropriation of funds; and authorization of institutional management (Final Board approval)</u>

Committee Meeting Information

Presenter(s): Mr. Michael O'Donnell, Associate Vice Chancellor for Facilities Planning and Construction

Status: Approved

Motion: Made by Regent Beck, seconded by Regent Hall, and carried unanimously

7. U. T. Medical Branch - Galveston: John Sealy Hospital Phase 2

Modernization and Facade Replacement - Amendment of the FY 2016-2021

Capital Improvement Program to include project; approval of total project
cost; appropriation of funds; approval of institutional management;
resolution regarding parity debt; and remove the John Sealy Hospital
Facade Replacement project (Final Board approval)

Committee Meeting Information

Presenter(s): Mr. Michael O'Donnell, Associate Vice Chancellor for Facilities Planning and Construction

Status: Approved

Motion: Made by Regent Beck, seconded, and carried unanimously

Discussion at meeting:

Vice Chairman Hildebrand commented on the significant gift of \$75 million from The Sealy & Smith Foundation for the project.

8. <u>U. T. M. D. Anderson Cancer Center: M. D. Anderson - League City - Amendment of the FY 2016-2021 Capital Improvement Program to include project (Preliminary Board approval)</u>

Committee Meeting Information

Presenter(s): Ronald A. DePinho, M.D., President, U. T. M. D. Anderson Cancer Center

Status: Approved

Motion: Made by Regent Hall, seconded by Regent Beck, and carried unanimously

Discussion at meeting:

Committee Chairman Pejovich asked if this project would lend itself to gift funding, and Dr. DePinho said it does in that it expands the number of patients touched by the exceptional care provided by U. T. M. D. Anderson Cancer Center and who may be inspired to help others through philanthropic support. He added that such gifts might lead to naming opportunities of infrastructure, but M. D. Anderson's preferred and more sustainable approach is to put that gift towards the mission to further improve clinical care, which is the foundational element that drives gift giving.

9. <u>U. T. M. D. Anderson Cancer Center: M. D. Anderson - West Houston - Amendment of the FY 2016-2021 Capital Improvement Program to include project (Preliminary Board approval)</u>

Committee Meeting Information

Presenter(s): Ronald A. DePinho, M.D., President, U. T. M. D. Anderson Cancer Center

Status: Approved

Motion: Made by Vice Chairman Hicks, seconded, and carried unanimously

10. <u>U. T. Dallas: Davidson-Gundy Alumni Center - Amendment of the FY 2016-2021 Capital Improvement Program to increase total project cost; approval of design development; and appropriation of funds and authorization of expenditure (Final Board approval)</u>

Committee Meeting Information

Presenter(s): Mr. Michael O'Donnell, Associate Vice Chancellor for Facilities Planning and Construction

Status: Approved

Motion: Made, seconded, and carried unanimously

11. <u>U. T. Rio Grande Valley: Academic Building - Approval of design</u>
<u>development; and appropriation of funds and authorization of expenditure</u>
(Final Board approval)

Committee Meeting Information

Presenter(s): Mr. Michael O'Donnell, Associate Vice Chancellor for Facilities Planning and Construction

Status: Approved

Motion: Made by Regent Cranberg, seconded by Vice Chairman Hicks, and carried unanimously

Discussion at meeting:

Vice Chairman Hildebrand asked if any of the projects on this agenda are candidates for the Hybrid Delivery model (defined in Item 2), and Mr. O'Donnell explained that projects at the design development stage, such as this one, are probably too far advanced to be considered for the new approach.

12. <u>U. T. Southwestern Medical Center: West Campus - Phase 1 - Amendment of the FY 2016-2021 Capital Improvement Program to increase total project cost; approval of design development; appropriation of funds and authorization of expenditure; and resolution regarding parity debt (Final Board approval)</u>

Committee Meeting Information

Presenter(s): Mr. Michael O'Donnell, Associate Vice Chancellor for Facilities Planning and Construction

Status: Approved

Motion: Made by Vice Chairman Hicks, seconded by Regent Beck, and carried unanimously **Follow-up action:** Report on which projects are suitable for a pilot study for Hybrid Delivery.

Discussion at meeting:

Regent Cranberg asked if this project could be considered as a candidate for the Hybrid Delivery pilot study to generate cost savings (as described in Item 2). Mr. O'Donnell said there are elements that could be applied to the Hybrid Delivery method, and because the project is new and not an operating health care facility and is institutionally managed, these elements could be considered by the institutional president and staff for the new

approach to constructing facilities. Mr. O'Donnell said the initial two to three projects to be considered for Hybrid Delivery will be academic projects, and Committee Chairman Pejovich asked that Mr. O'Donnell report on the progress of which projects are suitable for a pilot study for Hybrid Delivery.

13. <u>U. T. Health Science Center - San Antonio: MARC North Clinical Facility - Approval of design development; appropriation of funds and authorization of expenditure; and resolution regarding parity debt (Final Board approval)</u>

Committee Meeting Information

Presenter(s): Mr. Michael O'Donnell, Associate Vice Chancellor for Facilities Planning and Construction

Status: Approved

Motion: Made by Regent Cranberg, seconded by Vice Chairman Hicks, and carried unanimously

14. <u>U. T. Austin: Whitaker Fields and Tennis Complex Renovation - Amendment of the FY 2016-2021 Capital Improvement Program to revise funding sources; appropriation of funds; and resolution regarding parity debt (Final Board approval)</u>

Committee Meeting Information

Presenter(s): Mr. Michael O'Donnell, Associate Vice Chancellor for Facilities Planning and Construction

Status: Approved

Motion: Made by Vice Chairman Hicks, seconded, and carried unanimously

Follow-up action: Send a report on gift funding for past projects.

Discussion at meeting:

Vice Chairman Hildebrand asked about the substantial revised gift funding proposed for the project, and Mr. O'Donnell explained that the ability to raise philanthropy had likely been overestimated and the venue endured recent damage that propelled the need to finish the project despite the lack of philanthropy. In reply to a question from Vice Chairman Hicks, Mr. O'Donnell and Committee Chairman Pejovich clarified this project is the Recreational Sports facility located at 51st and Guadalupe Streets. Committee Chairman Pejovich called on President Fenves, who said the project has been on the Capital Improvement Program (CIP) for about six years and throughout the capital campaign, there was a lack of donor interest. Regent Beck asked if this venue was for the tennis team, and Mr. O'Donnell explained the tennis team will be housed elsewhere.

Regent Cranberg asked about the Revenue Financing System capacity of U. T. Austin, and Executive Vice Chancellor Kelley said that even though U. T. Austin is experiencing a growing debt burden, it does have the capacity for this project.

Board Chairman Foster said he does not want to see projects being added to the CIP by initially expecting that there will be a large source of gift funding and then coming back to the Board with insufficient money raised. Mr. O'Donnell said the hybrid project initiative is

specifically designed to address this concern. Committee Chairman Pejovich noted that the U. T. Austin Speedway project presented at the May 2015 meeting was similar in that gift funding. President Fenves said such requests are not planned in the future, and he agreed the Hybrid Delivery method will help. He explained it is difficult to determine donor interest and capacity until the project has been added to the CIP. Committee Chairman Pejovich said it is probably known which types of projects can attract gifts better than others.

Deputy Chancellor Daniel suggested the U. T. System institutions present a range of funding (campus money or gifts) to provide a fair representation to the Board of the intent, and the final amount would fall within those ranges. Vice Chairman Hildebrand noted the opportunity for more accurate financial discipline (budgeting source of funds and project expenditures).

Vice Chairman Hicks commented that it is difficult to estimate gifts or raise money before CIP approval of a project, and Mr. O'Donnell agreed that the current process for CIP approval is difficult in that project renderings cannot be released until the project has been approved by the Board and there are no engineering or architectural renderings for the project at that point. Regent Cranberg commented that prior to the Hybrid Delivery method. the U. T. System institutions would receive up to 10% of funds committed upon CIP approval and with the new process, 5% of the total project cost will be available without having to commit to a level of gift funding. Regent Cranberg suggested this might resolve the issue of predicting gift funding and then when the project goes on the CIP, the gift commitment level should be more predictable to increase spending past the 5% due to, hopefully, more accurate forecasting. He suggested that another method to create accountability on gift funding would be to review an annual look-back report to indicate forecasts in the aggregate at the time of CIP application and what was received. He said this would allow an opportunity to review gift giving. Mr. O'Donnell said that an existing report from the Development Office is submitted quarterly that can be modified for the current projects.

Committee Chairman Pejovich suggested Mr. O'Donnell prepare and distribute a report on gift funding for past projects.

Dr. Kelley explained that a project does not go forward to design development that has a source of revenue coming from gifts unless those gifts have either been received or pledged. If gifts are not available, the institution must find another source of funding. He said there is protection to ensure that a project does not go forward and a commitment made to begin construction unless gifts have been raised or an alternative source of funding has been identified.

ADJOURNMENT

Committee Chairman Pejovich adjourned the meeting at approximately 3:23 p.m.

Agenda Items

Mr. Mike O'Donnell, Associate Vice Chancellor Facilities Planning and Construction

Facilities Planning and Construction Committee (FPCC)
U. T. System Board of Regents' Meeting
August 2015



Report on

Hybrid Delivery Methods - A Demonstration Project



Hybrid Delivery Methods - A Demonstration Project

Background:

- U. T. System six-year Capital Improvement Program (CIP) \$7.05B
- Capital Program management model re-engineered in 2007
- Routine examination for best-practice improvement
- Current processes effective within sector



Hybrid Delivery Methods - A Demonstration Project (cont.)

Major Projects - Common Elements:

- "The ultimate successful delivery of major projects hinges on the unrelenting demand for a comprehensive and rigorous set of early and effective design processes - front-end loading"
- Formally empowered, institutionally based leader or team The Project Advocate
- Formal Change Management Process



Hybrid Delivery Methods - A Demonstration Project (cont.)

Initiative Overview:

- Establishing Scope: Investment level drivers / responsibility
- Establishing Cost: Estimating accuracy / contingencies
- Board of Regents' (Board) Approval points CIP Approval / Design Development
- Contracting practices



Hybrid Delivery Methods - A Demonstration Project (cont.)

Goals:

- Improve information at key approval points
- Reduce facility costs through delivery efficiencies
- Maximize value of available capital funding
- Implement near-term Action Plan to capture targeted savings
- Demonstrate efficacy of select elements
- Apply across broader capital program



Hybrid Delivery Methods - A Demonstration Project (cont.)

Action Plan Overview:

- Select two to three candidate Major Projects
- Examine Regents' Rules and Regulations and governing statutes
- Test acceptable, alternate, private sector project delivery approaches - candidate projects
- Measure outcomes
- Expand efficiencies to broader capital program
- Routine examination for best-practice improvement
- Current processes effective within sector



Hybrid Delivery Methods - A Demonstration Project (cont.)

Action Plan Elements:

- Add a Board approved release of 5% of Total Project Cost (TPC) for Conceptual Phase
- Early procurement of Architectural, Engineering, Construction Management, and other site-related consultants
- Conduct integrated, front-end loaded key studies
- Directed by Project Advocate with institution's Facilities group and Project Manager support
- Nominal 100% Schematic Design target at CIP Approval Presentation to Board of Regents with supporting Business Plan



Hybrid Delivery Methods - A Demonstration Project (cont.)

Action Plan Elements (cont.)

- Based on CIP Approval Release balance of design funds
- Align scope and total project cost
- Reduce standard contingencies as appropriate
- Assess and advise Board of risk profile
- Present to Board for Design Development Approval
- Complete design through Contract Documents
- Compete project in market with modified practices



Hybrid Delivery Methods - A Demonstration Project (cont.)

Action Plan Elements - Opportunity Case:

- Plan based on two to three candidate projects:
 - Potential facility upside savings \$30M
 - Three-year program
- Plan could be expanded to include select (10) TRB projects
 - Potential facility upside savings \$100M
 - Three-year program
- Ultimate target Broader capital program
 - Potential facility upside savings \$600M



Proposed Amendments to Regents' Rules and Regulations

- Rules 80301, 80402, and 80404:
 - Propose revision to the definition of a Major Project, increasing threshold for inclusion on the CIP and deleting the requirement for debt-funded projects under the threshold to be included on the CIP
- Rule 80403:
 - Propose revision to the definition of a Minor Project, increasing the threshold of a project requiring Board approval
- Rules 80301, 80302, 80402, 80403, 80404, and 80901:
 - Nonsubstantive revisions proposed to align language and intent with other relevant and related policies; delete repetitive definitions throughout the Rules



U. T. System -

Permanent University Fund (PUF) Fire and Life Safety Projects



U. T. System Administration PUF Fire and Life Safety Allocations

			Committed Funding Source					Γ			
Institution	Remaining I Projects As May 2014	Of	FY 15 LERR	FY 15 Institutional Funds	1	16 LERR	In	FY 16 stitutional Funds	FY15 - FY16 2 Year Total	0	utstanding FLS FY16 PUF Proposed
ACADEMIC											
UT Arlington	\$	6.3	\$ 0.4	\$ 0.4	\$	-	\$	0.7	\$ 1.5	\$	4.8
UT Austin	\$ 1	9.7	\$ 2.8	\$ 6.1	\$	2.8	\$	-	\$ 11.7	\$	8.0
UT Dallas	\$	8.0	\$ 0.2	\$ -	\$	0.2	\$	-	\$ 0.4	\$	0.4
UT El Paso	\$	3.7	\$ 0.9	\$ -	\$	1.0	\$	-	\$ 1.9	\$	1.8
UT San Antonio	\$	8.6	\$ -	\$ 4.6	\$	-	\$	-	\$ 4.6	\$	4.0
<u>HEALTH</u>											
UT Southwestern	\$	5.4	\$ -	\$ 1.4	\$	-	\$	2.2	\$ 3.6	\$	1.8
UT HSC San Antonio	\$ 1	3.4	\$ 1.0	\$ 1.0	\$	1.0	\$	1.0	\$ 4.0	\$	9.4
Total Academic & Health	\$ 5	7.9								\$	30.2

U. T. System -

Tuition Revenue Bond (TRB) Projects



U. T. System TRB Projects and Proposed PUF - Academic

ACADEMIC INSTITUTIONS	PROJECT NAME	PROJECT TYPE	PROPOSED TOTAL PROJECT COST	TRB		RFS	II	GIFTS / NSTITUTIONAL FUNDS	P	ROPOSED PUF
UT Arlington	Science and Engineering Innovation and Research Building	New	\$ 125,000,000	\$ 70,000,000	\$	20,000,000	\$	15,000,000	\$	20,000,000
UT Austin	Robert A. Welch Hall Renovation	R&R	\$ 125,000,000	\$ 75,000,000	\$	-	\$	25,000,000	\$	25,000,000
UT Dallas	Engineering Building	New	\$ 110,000,000	\$ 70,000,000	\$	11,000,000	\$	9,000,000	\$	20,000,000
UT El Paso	Interdisciplinary Research Facility	New	\$ 85,000,000	\$ 70,000,000	\$	5,000,000	\$	-	\$	10,000,000
UT Permian Basin	School of Engineering Building	New	\$ 60,000,000	\$ 48,000,000	\$	-	\$	8,000,000	\$	4,000,000
UT Rio Grande Valley	Multipurpose Academic Center	New	\$ 36,432,000	\$ 36,432,000	\$	-	\$	-	\$	-
UT Rio Grande Valley	Interdisciplinary Engineering and Academic Studies Building	New	\$ 37,600,000	\$ 30,600,000	ş	-	\$	2,000,000	\$	5,000,000
UT San Antonio	Science and Engineering Building	New	\$ 100,000,000	\$ 70,000,000	\$	-	\$	20,000,000	\$	10,000,000
UT Tyler	STEM Building	New/R&R	\$ 76,000,000	\$ 60,000,000	\$	-	\$	5,000,000	\$	11,000,000
Total - Academic Institutions			\$ 755,032,000	\$ 530,032,000	\$	36,000,000	\$	84,000,000	\$ 1	05,000,000



U. T. System TRB Projects and Proposed PUF - Health

HEALTH INSTITUTIONS	PROJECT NAME	PROJECT TYPE	PROPOSED TOTAL PROJECT COST	TRB	RFS	ı	GIFTS / NSTITUTIONAL FUNDS	P	ROPO S ED PUF
UT Southwestern Medical Center	Vivarium and Research Infrastructure Reinvestment	R&R/New	\$ 147,500,000	\$ 80,000,000	\$ 34,000,000	\$	33,500,000	\$	-
UT Medical Branch - Galveston	Health Education Center	New	\$ 90,400,000	\$ 67,800,000	\$ -	\$	22,600,000	\$	-
UT Health Science Center - Houston	Renovation and Modernization of Educational and Research Facilities	R&R	\$ 111,360,000	\$ 80,000,000	\$ 31,360,000			\$	-
UT Health Science Center - San Antonio	Facilities Renewal and Renovation	R&R	\$ 96,000,000	\$ 80,000,000	\$ -	\$	10,000,000	\$	6,000,000
UT MD Anderson Cancer Center	Sheikh Zayed Bin Sultan Nahyan Building for Personalized Cancer Care	New	\$ 361,000,000	\$ 70,000,000	\$ -	\$	291,000,000	\$	-
UT Health Science Center - Tyler	Facility Renovation for Physician Residents Training	R&R	\$ 18,500,000	\$ 14,800,000	\$ -	\$	-	\$	3,700,000
Total - Health Institutions			\$ 824,760,000	\$ 392,600,000	\$ 65,360,000	\$	357,100,000	\$	9,700,000



U. T. System TRB Project Funding Total - Academic and Health

\$ 922,632,000	TRB – HB 100
\$ 114,700,000	PUF
\$ 101,360,000	RFS
\$ 441,100,000	Gifts / Institution Funds
\$ 1,579,792,000	Total Project Cost – TRB Projects



U. T. System FY 2016-2021 Capital Improvement Program (CIP)

CIP Total as of August 1, 2015

TRB Project Additions/Increases

CIP New Construction Additions

CIP R&R Construction Additions

DD Approvals/TPC Modifications

Total Change in CIP at today's meeting

Projects removed from CIP this quarter

CIP Total after today's meeting

CIP Total - August 2014

CIP Total - August 2013

\$ 5,402,780,432

\$ 1,281,992,000

\$ 201,500,000

\$ 146,700,000

\$ 50,000,000

\$ 1,680,192,000

\$ (34,705,000)

\$ 7,048,267,432

\$ 6.4 billion

\$ 6.5 billion



Consideration of Project Additions to the FY 2016-2021 Capital Improvement Program

- Four (4) Health projects
 - U. T. Medical Branch Galveston Biocontainment Critical Care Unit

\$ 11,700,000

 U. T. Medical Branch - Galveston
 John Sealy Hospital Phase 2 Modernization and Facade Replacement

\$ 135,000,000

U. T. M. D. Anderson Cancer Center
 M. D. Anderson - League City

\$ 87,750,000

U. T. M. D. Anderson Cancer Center
 M. D. Anderson - West Houston

\$ 113,750,000



U. T. Medical Branch - Galveston Biocontainment Critical Care Unit (BCCU)

- 13,190 gross square foot (GSF) facility to be capable of admitting and treating
 patients diagnosed with a disease that poses extraordinary risk to the
 population; designed with appropriate technology and facilities systems
 capable of isolation, redundancy, and sustainable operations
- \$8,200,000 appropriated in HB 2 in 84th Legislative Session for the BCCU; will
 enable sustained patient care by staff under duress of extended operations
 while under biocontainment isolation protocols
- \$11,700,000 Total Project Cost
 - \$8,200,000 General Revenue
 - \$3,500,000 Hospital Revenues (State Health Services Contract)



U. T. Medical Branch - Galveston John Sealy Hospital Phase 2 Modernization and Facade Replacement

- Modernizing 220,000 GSF of John Sealy Hospital creating a women's and children's center with labor and delivery suites, patient rooms, neonatal ICU, well-baby nursery, operating rooms, waiting areas and other patient amenities
- Facade Replacement to consist of removal of existing problematic brick facade, repairs to the substrate, new waterproofing system, and recladding building with new brick veneer and a modified curtain wall system to accommodate revisions to the structural slab

U. T. Medical Branch - Galveston John Sealy Hospital Phase 2 Modernization and Facade Replacement (cont.)

 Modernization and facade replacement to be accomplished simultaneously to minimize construction impact to patient care.

	Combined Project	Phase 2 Modernization	Facade Replacement
Total Project Cost	\$ 135,000,000	\$ 87,100,000	\$ 47,900,000
Gifts	\$ 75,000,000	\$ 50,000,000	\$ 25,000,000
RFS	\$ 40,000,000	\$ 37,100,000	\$ 2,900,000
Hospital Revenues	\$ 20,000,000	\$ -	\$ 20,000,000

Remove original John Sealy Hospital Facade Replacement project from CIP



U. T. M. D. Anderson Cancer Center

M. D. Anderson - League City

Presented by Dr. Ronald DePinho President



U. T. M. D. Anderson Cancer Center M. D. Anderson - League City

- 135,000 GSF comprehensive outpatient regional facility co-located on the campus of The University of Texas Medical Branch at Victory Lakes
- Opportunity to capture increased market share and in line with institution's mission and strategic plan
- Current facility at maximum capacity and facing lease expiration

U. T. M. D. Anderson Cancer Center M. D. Anderson - League City (cont.)

- \$87,750,000 Total Project Cost
 - Hospital Revenues
 - Excludes equipment

	Total Project Cost	GSF	Cost/GSF
Design, site development, and construction cost	\$87,750,000	135,000	\$650
Major Capital Medical Equipment	\$24,675,000		
Total Project Cost with Equipment	\$112,425,000		

U. T. M. D. Anderson Cancer Center M. D. Anderson - League City (cont.)



U. T. M. D. Anderson Cancer Center

M. D. Anderson - West Houston

Presented by Dr. Ronald DePinho President



U. T. M. D. Anderson Cancer Center M. D. Anderson - West Houston

- 175,000 GSF comprehensive outpatient regional facility located on institutionally owned plot off of Interstate 10
- Opportunity to capture increased market share and in line with institution's mission and strategic plan
- Current facility at maximum capacity and facing lease expiration



U. T. M. D. Anderson Cancer Center M. D. Anderson - West Houston (cont.)

- \$113,750,000 Total Project Cost
 - Hospital Revenues
 - Excludes equipment

	Total Project Cost	GSF	Cost/GSF
Design, site development, and construction cost	\$113,750,000	175,000	\$650
Major Capital Medical Equipment	\$41,675,000		
Total Project Cost	\$155,425,000		



U. T. M. D. Anderson Cancer Center M. D. Anderson - West Houston (cont.)





Consideration of Design Development Approval

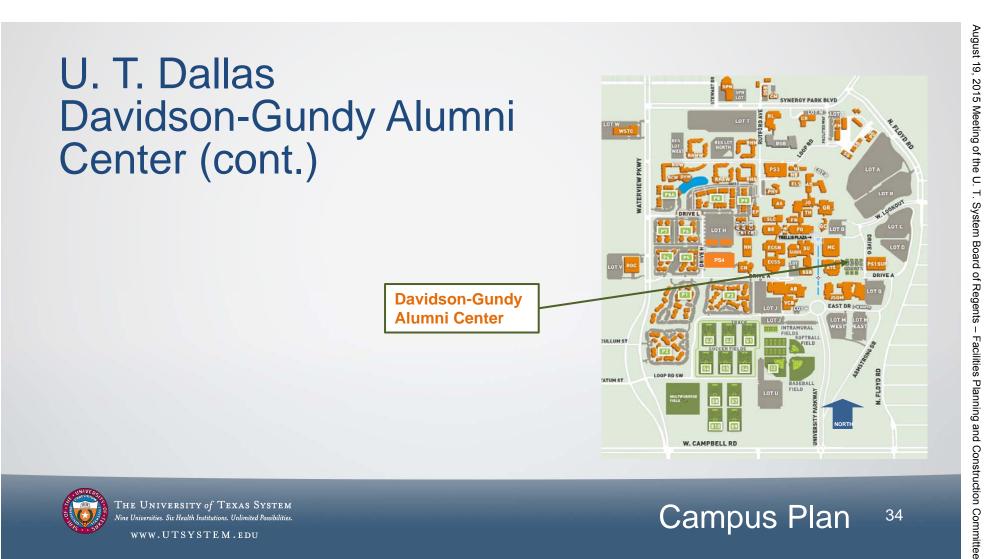
- Two (2) Academic projects
 - U. T. Dallas Davidson-Gundy Alumni Center
 - U. T. Rio Grande Valley Academic Building
- Two (2) Health projects
 - U. T. Southwestern Medical Center West Campus Phase 1
 - U. T. Health Science Center San Antonio MARC North Clinical Facility



U. T. Dallas

Davidson-Gundy Alumni Center





















- \$15,000,000 Total Project Cost
 - Gifts

	Total Building Cost	GSF	Building Cost/GSF
Davidson-Gundy Alumni Center	\$10,526,000	29,600	\$355



U. T. Rio Grande Valley

Academic Building

















- \$54,000,000 Total Project Cost
 - Permanent University Fund (PUF) Bond Proceeds

	Total Building Cost	GSF	Building Cost/GSF
Academic Building	\$31,500,000	102,551	\$307



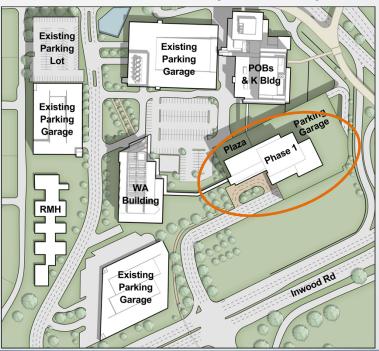
U. T. Southwestern Medical Center

West Campus - Phase I



















• \$232,000,000 Total Project Cost

- \$120,000,000 RFS

- \$ 50,000,000 PUF

- \$ 25,000,000 Gifts

\$ 37,000,000 Designated Funds

	Total Building Cost (Bldg. & Garage)	Total GSF	Combined Building Cost/GSF
West Campus – Phase I	\$190,674,521	693,787	\$604



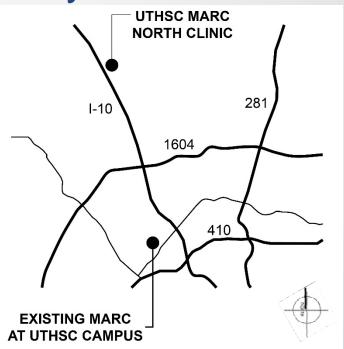
U. T. Health Science Center - San Antonio

MARC North Clinical Facility

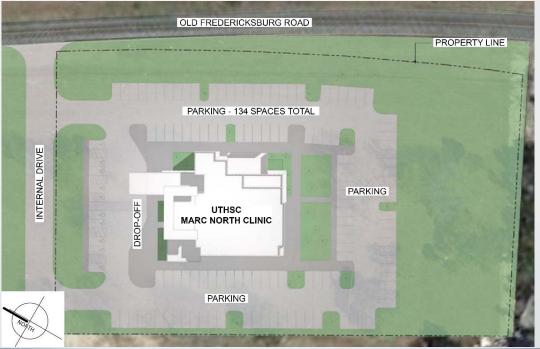


U. T. Health Science Center - San Antonio MARC North Clinical Facility





U. T. Health Science Center - San Antonio MARC North Clinical Facility (cont.)



U. T. Health Science Center - San Antonio MARC North Clinical Facility (cont.)









U. T. Health Science Center - San Antonio MARC North Clinical Facility (cont.)





U. T. Health Science Center - San Antonio MARC North Clinical Facility (cont.)

- \$ 16,750,000 Total Project Cost
 - \$8,940,000 RFS
 - + 7,810,000 Medical Services, Research and Development Plan/Professional Fees (MSRDP)

	Total Building Cost	GSF	Building Cost/GSF
MARC North Clinical Facility	\$7,448,893	19,000	\$392



U. T. Austin Whitaker Fields and Tennis Complex Renovation

- Revise funding to allow project to move forward; revision does not affect the total project cost
- \$23,000,000 Total Project Cost
 - \$ 1,200,000 Gifts
 - \$16,000,000 RFS
 - \$ 5,800,000 Auxiliary Enterprises Balances



MINUTES

U. T. System Board of Regents Technology Transfer and Research Committee August 19, 2015

The members of the Technology Transfer and Research Committee of the Board of Regents of The University of Texas System convened at 11:55 a.m. on Wednesday, August 19, 2015, in the Board Meeting Room on the 9th Floor of Ashbel Smith Hall, The University of Texas System, 201 West Seventh Street, Austin, Texas, with the following participation:

Attendance

Chairman Hall, presiding Regent Aliseda Regent Cranberg Regent Pejovich Regent Tucker

Also present were Chairman Foster, Vice Chairman Hicks, Vice Chairman Hildebrand, Regent Beck, Regent Drake, and General Counsel to the Board Frederick.

In accordance with a notice being duly posted with the Secretary of State and there being a quorum present, Committee Chairman Hall called the meeting to order in Open Session.

1. <u>U. T. System Board of Regents: Discussion and appropriate action regarding Consent Agenda items, if any, referred for Committee consideration</u>

Committee Meeting Information

Presenter(s): Committee Chairman Hall

Status: Reported/Discussed

There were no items referred from the Consent Agenda.

2. <u>U. T. M. D. Anderson Cancer Center: Report on activities related to development of industry research partnerships that advance funding and capabilities in discovery of cancer drugs and therapeutics</u>

Committee Meeting Information

Presenter(s): Ronald A. DePinho, M.D., President, U. T. M. D. Anderson Cancer Center; Dr. Patricia

Hurn, Vice Chancellor for Research and Innovation

Status: Reported/Discussed

Discussion at meeting:

Committee Chairman Hall asked Dr. DePinho if he was receiving needed support for this initiative from the U. T. System, and Dr. DePinho responded that he is receiving exceptional support from Dr. Hurn and from the legal department with regard to compliance, ethical, legal, and financial considerations.

3. <u>U. T. Austin: Report on activities related to development of industry research partnerships that advance funding and capabilities of the discovery mission</u>

Committee Meeting Information

Presenter(s): President Gregory L. Fenves, U. T. Austin; Dr. Patricia Hurn, Vice Chancellor for

Research and Innovation **Status:** Reported/Discussed

Follow-up action: Provide Board with national rankings to compare U. T. Austin's technology

commercialization metrics with other research intensive universities.

Discussion at meeting:

Regent Cranberg asked if there is an opportunity to attract more hires, such as faculty researchers, from industry since oil prices are hitting some cyclical lows. President Fenves said the University does hire, for instance, lecturers from industry. He does not think there will be a hiring boom, but as research expands, that expertise will be helpful especially for industry-sponsored projects. He spoke about an initiative of the Texas Energy Research, Engineering, and Education Institute (EREEI) in Houston to co-locate industry and university researchers that will be beneficial in the long term.

Referring to Slide 7 (Page 337 of the Agenda Book), Vice Chairman Hildebrand asked how technology commercialization at U. T. Austin compares to the University of California - Berkeley, Massachusetts Institute of Technology (MIT), and other research intensive universities. Dr. Fenves explained that U. T. is in the middle of the range of peer universities, with \$17-\$20 million in annual license revenue. He said it is important to separate out universities that have medical schools and those that have license revenue from the pharmaceutical industry, and Vice Chairman Hildebrand said that would be a worthwhile exercise to see how U. T. compares. Dr. Fenves will put together information on the national rankings.

4. <u>U. T. System: Discussion and appropriate action regarding proposed revision of Regents' Rules and Regulations, Series 90000, concerning Intellectual Property, to amend and combine Rules 90101 - 90106 into a new Rule 90101</u>

Committee Meeting Information

Presenter(s): President Vistasp M. Karbhari, U. T. Arlington; Dr. Patricia Hurn, Vice Chancellor for

Research and Innovation

Status: Approved

Motion: Made by Regent Aliseda, seconded by Regent Pejovich, and carried unanimously

Follow-up actions:

1. The Faculty Advisory Council may make specific recommendations to the Board in the future on how to optimize the intent of Rule 90101 as it is disseminated throughout the U. T. System.

2. Send a redlined version of the Rules revisions to Regent Beck.

Discussion at meeting:

Committee Chairman Hall called on Dr. Donald Molony, representing the U. T. System Faculty Advisory Council (FAC), for brief comments on the proposed Regents' Rules revisions.

Dr. Molony said the FAC endorsed the intent of the changes in the Rules and requested an opportunity to come back to the Board with specific recommendations on how to optimize the intent of the Rule as it is disseminated throughout the U. T. System. Dr. Hurn said she will work with the FAC on this matter.

Regent Beck asked for clarification of the process for development of intellectual property by faculty, and Regent Hall suggested that a redlined version of the proposed changes to the Rules be sent to Regent Beck. Dr. Hurn said she will handle that request as well.

In reply to a question from Vice Chairman Hildebrand about the biggest impact of the revised Rules, Dr. Karbhari said the clarification of the language to send the message that "U. T. is open for business" is the biggest change.

5. <u>U. T. System: Update on the U. T. Horizon Fund portfolio</u>

Committee Meeting Information

Presenter(s): Ms. Julie Goonewardene, Associate Vice Chancellor for Innovation and Strategic

Investment

Status: Reported/Discussed

Discussion at meeting:

Although not an action item, prior to calling on Associate Vice Chancellor Goonewardene, Committee Chairman Hall noted that because of a financial interest in Lung Therapeutics made before the U. T. Horizon Fund investment in Lung Therapeutics, he would not participate in any discussion on this company and would not vote on any matter related to Lung Therapeutics.

6. <u>U. T. System: Allocation of \$10 million of Available University Funds for the U. T. Horizon Fund (Deferred)</u>

Committee Meeting Information

Presenter(s): Ms. Julie Goonewardene, Associate Vice Chancellor for Innovation and Strategic

Investment

Status: Reported/Discussed/Deferred

Follow-up action: Distribute information on the original intent of the U. T. Horizon Fund program and

then consider bringing the request for an additional allocation to a future meeting.

Discussion at meeting:

Chairman Foster asked how it is determined how much the U. T. System owns in an IPO (initial public offering), and Associate Vice Chancellor Goonewardene said at the present time, U. T. System owns 3.55% of Aeglea BioTherapeutics. She said that typically at the time of license, there is an equity position set that the Horizon Fund attempts to maintain. She said U. T.'s participation in Aeglea was backed down a bit to allow room for cross-over investors that might create more value in the long term. She said the U. T. System equity positions are quite broad, such as 35% in Lung Therapeutics to 3% in Aeglea. At exit, most venture capitals are trying to hold at 6%.

Chairman Foster also asked if the investment is held after an IPO, and Associate Vice Chancellor Goonewardene said that question is being discussed at U. T. System, but the investment would be subject to a lock-up period, followed by a decision from U. T. System senior administration to liquidate or take other action.

Vice Chairman Hildebrand asked about the creation of a positive return on the \$30 million investment in the U. T. Horizon Fund, and Committee Chairman Hall called on Vice Chancellor for Research and Innovation Hurn to discuss the matter. Dr. Hurn explained that at the time of the original authorization, an analysis was done to determine an estimated return if investments were made in all the opportunities at the U. T. System institutions. An estimated return of \$85 million was calculated, and it was determined that going forward it would be beneficial to try to preserve the equity, continue to invest over time, and ultimately the fund would become evergreen. She said since so few companies have exited, the plan is still hypothetical. Vice Chairman Hildebrand spoke of the need to generate a return.

Regent Cranberg explained that the original thesis of the Horizon Fund was that the U. T. System has certain preemptive rights that are part of the value obtained when license agreements are signed. He spoke about employing capital to take advantage of those rights, rates of return, testing against the market, and continually backtesting against the original premise. He commented that of the \$50 million, about \$10 million is actually invested, and he asked if the remaining amount should be spread over time since there are only two years left in the program. Dr. Hurn clarified that the original analysis provided information from the U. T. System institutions on what was thought to be the available investment opportunities, not just where the U. T. System has preemptive rights. She added that the analysis estimated investments at the institutions that are being identified, leading to an acceleration in investments. Regarding spreading the remaining amount

over time, Dr. Hurn noted that the Horizon Fund is at a critical point because the deal flow is finally up and flowing at much more rapid pace, and there are reserves to be able to do follow-on funding. Committee Chairman Hall recommended giving more time to show performance.

Vice Chairman Hildebrand asked about the funded capital and committed capital of the \$30 million that has been granted to the Horizon Fund, and Associate Vice Chancellor Goonewardene said \$11 million has been invested and about \$10 million is being held in reserve and committed to the existing companies. She outlined the plan for the portfolio, and said the Horizon Fund would potentially be invested in 24 companies by the end of 2016, reserving slightly less than \$1 million each.

Chairman Foster asked if there was a balance sheet or financial statements for the Fund. Associate Vice Chancellor Goonewardene explained there is portfolio reporting, but it has not yet been constructed in a balance sheet income statement due to the way the investments are flowing. Dr. Hurn said that each quarter, the Horizon Fund issues a detailed accounting report, and the reports could be distributed to Regents again.

Chairman Foster reiterated Vice Chairman Hildebrand's question and asked if this is a profitable venture, and Committee Chairman Hall reiterated that it is too early to tell. Regent Cranberg asked if the additional \$10 million requested was needed if there is \$20 million authorized but not committed, and Dr. Hurn explained the original intent was to invest a large sum and it was known that time would be needed to evaluate the outcomes. She clarified that the request for additional funds to invest comes to the Board every August, and the proposed \$10 million is to continue the Horizon Fund for next year. She suggested the request could be made as funds are needed although that was not the intent of the original allocation. Committee Chairman Hall suggested deferring the request based upon the questions and concerns from Regents, and he asked Dr. Hurn to distribute information on the original intent of the program.

ADJOURNMENT

Committee Chairman Hall adjourned the meeting at 1:17 p.m.