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FOR
TECHNOLOGY TRANSFER AND RESEARCH COMMITTEE

Committee Meeting: 2/8/2012
San Antonio, Texas

James D. Dannenbaum, Chairman
R. Steven Hicks, Vice Chairman
Alex M. Cranberg
Printice L. Gary
Brenda Pejovich

1. U. T. System: Report on Chancellor's Technology Commercialization Advisory Council

REPORT

Mr. Bryan Allinson, Executive Director for Technology Commercialization, will report on the creation and plans for the Chancellor's Technology Commercialization Advisory Council to serve as a group of high-impact industry advisors to U. T. System. Fourteen high-impact individuals from strategic industry sectors, including healthcare, engineering, energy, and IT/Software, have accepted the invitation to serve in this role.

The Council will hold its initial meeting in Spring 2012. There will be a regular meeting each fall. The Council will interact with representatives from U. T. System institutions and U. T. System staff to serve as advisors to technology commercialization at U. T. System.

Mr. Allinson's presentation is set forth on the following pages.

U. T. System Chancellor's Technology Commercialization Advisory Council

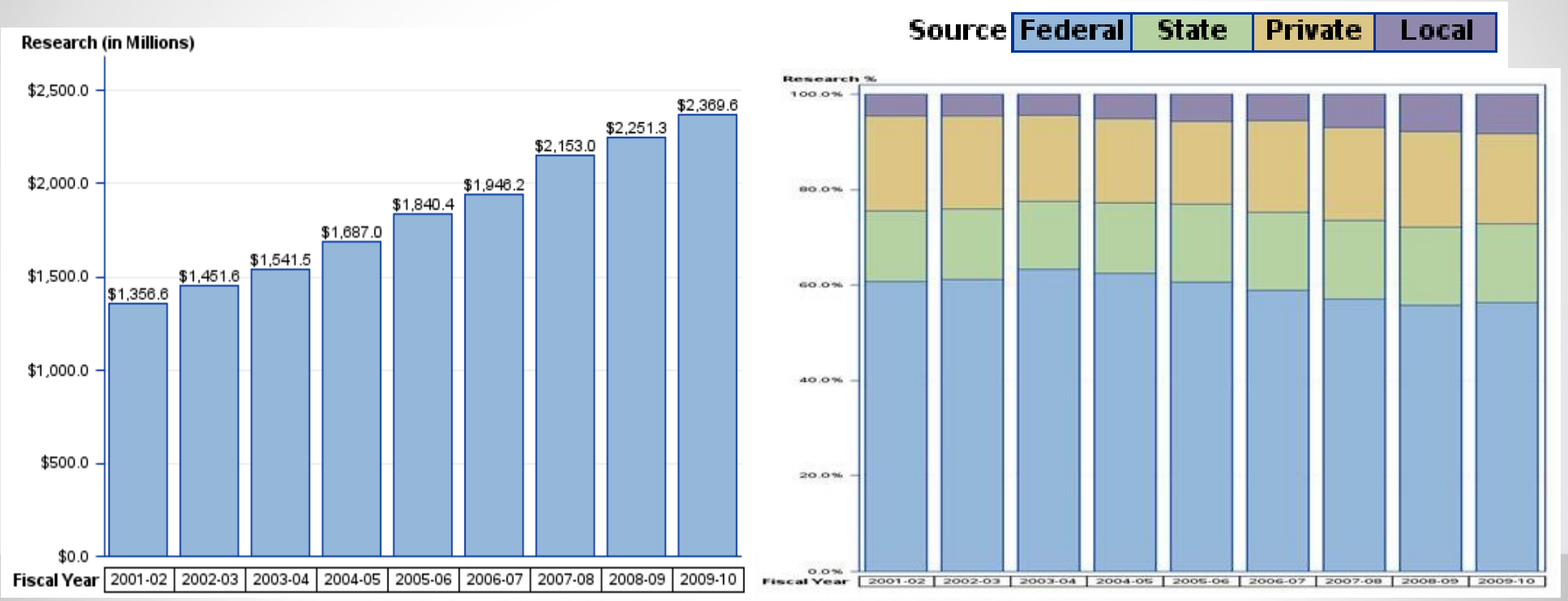
Mr. Bryan Allinson, Executive Director for Technology Commercialization

U. T. System Board of Regents' Meeting
Technology Transfer and Research Committee
February 2012

Purpose and Activities

- The Chancellor's Technology Commercialization Advisory Council will serve as a group of advisors.
- The Chancellor has nominated fourteen (14) individuals, each having a term of two (2) or three (3) years.
- Industry sector expertise matches core technology & research areas of U. T. having commercial potential.
- U. T. System is in process of developing a briefing booklet to the Council, a portion is highlighted on the following slides:

Research Trends: Steady Growth; Federal % Peaked '03



- Research expenditures have been steadily increasing
- Federal research portion peaked in 2003
- Increasing portion of recent growth from local and private sources

Performance Metrics: Overall Steady, Up in 2 Areas

2nd in Total Research Funding

2nd in Startups created

4th in Licenses executed

4th in U.S. Patents Issued

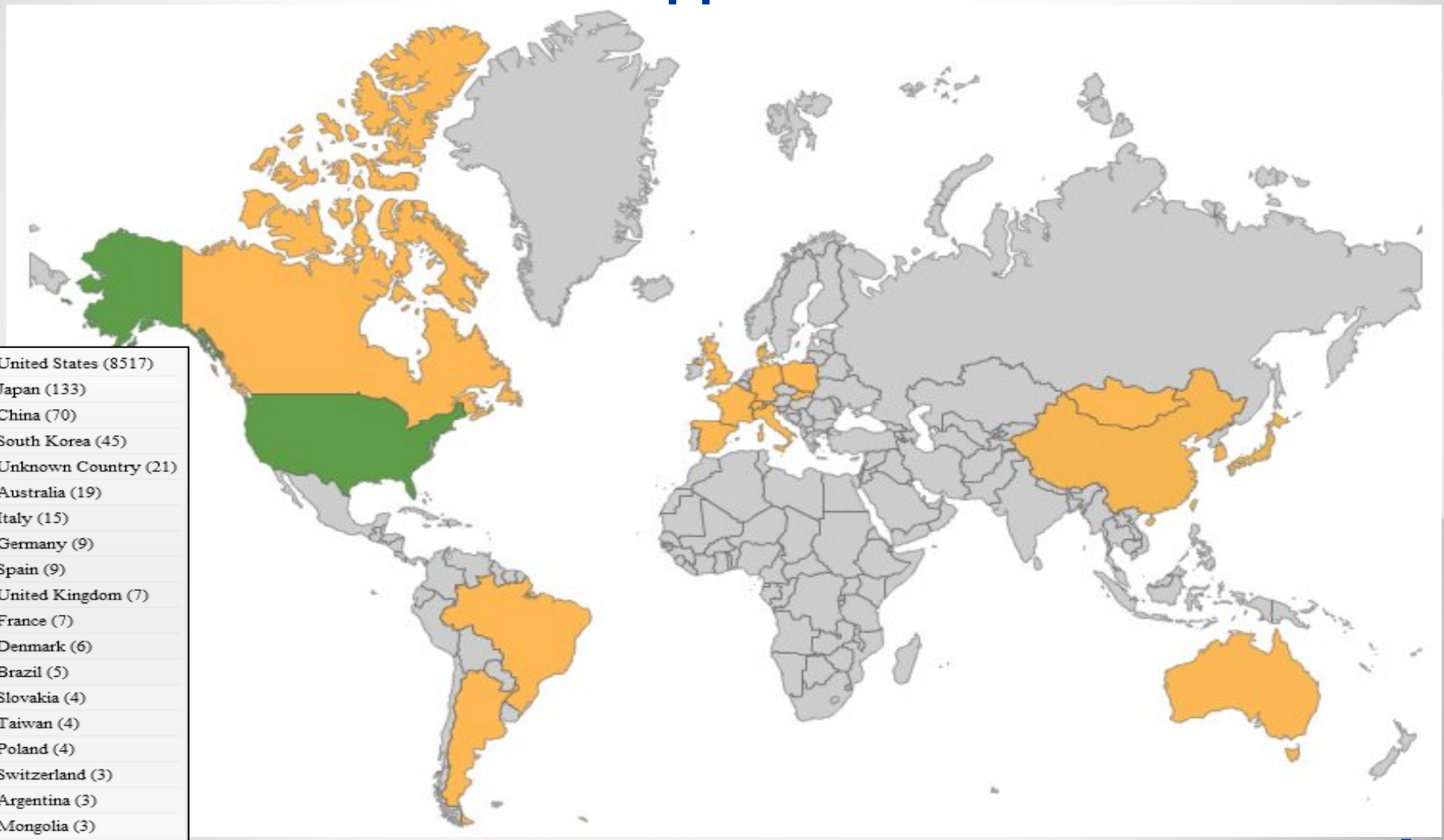
8th in U.S. Patent Applications

18th in License Income

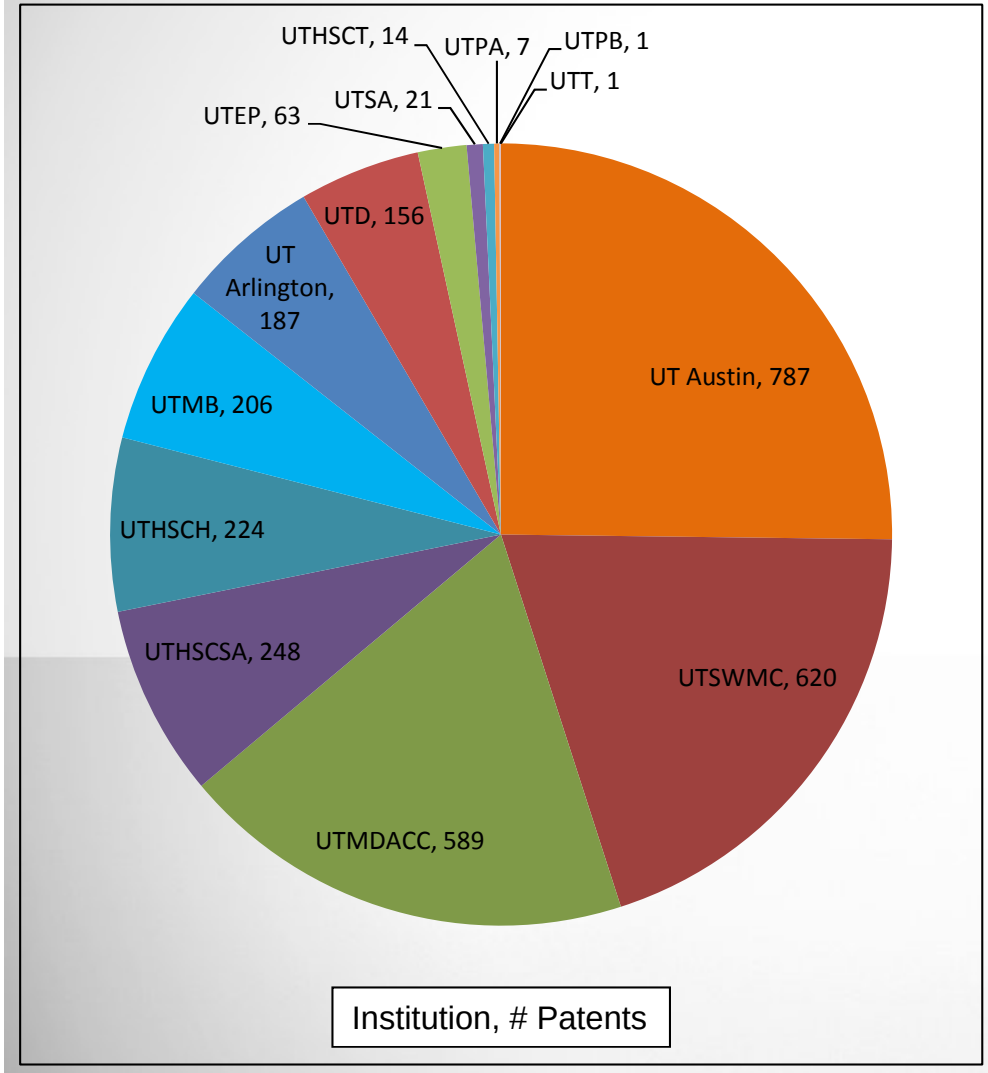
Total Research Expenditures	Total Patent Applications (New, U.S.)	Issued Patents	Licenses	License income	Startups
U.C. System	U.C. System	U.C. System	⇧ U.C. System	City of Hope	U.C. System
U. T. System	**U. T. System**	⇧ Stanford	⇧ Stanford	North-western	**U. T. System**
⇧ Johns Hopkins	⇧ MIT	⇩ MIT	⇩ Washington	⇧ NYU	Utah
⇩ MIT	⇩ Johns Hopkins	⇧ **U. T. System**	⇩ **U. T. System**	⇩ Columbia	⇧ Toronto
⇧ Michigan	⇧ California Institute of Technology	⇧ California Institute of Technology	⇧ MIT	⇧ Sloan Kettering	⇩ MIT
⇩ Wisconsin	⇧ Stanford	⇩ Wisconsin	⇧ Georgia	⇧ **U. T. System (18th)**	⇧ Brigham Young

* Source: Association of University Technology Managers STATT (Statistical Access for Technology Transfer)

Market Dynamics: Patent Filings based on Evaluation of Market Opportunities

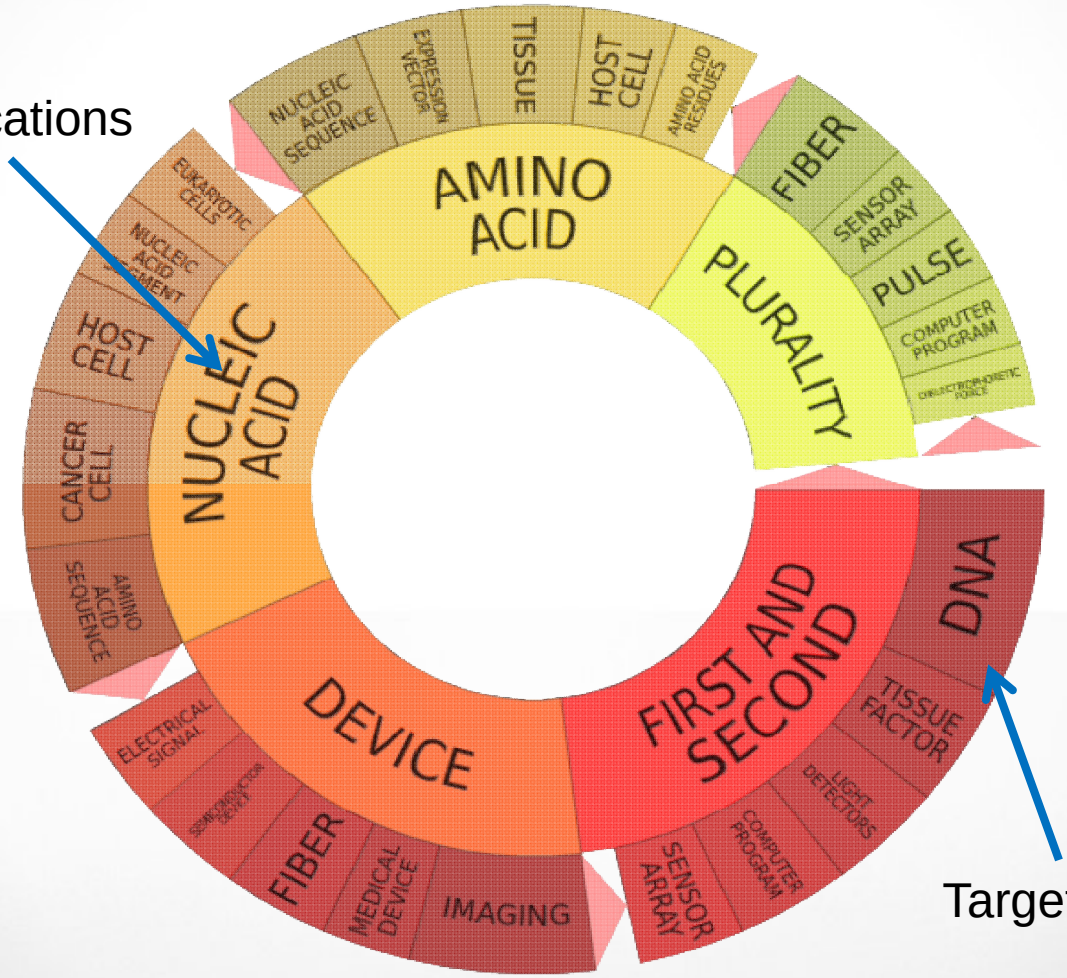


Institution & Faculty Activities: Patent Asset Positions



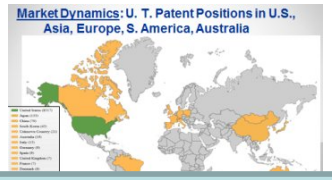
Inventor (% of patents)	Institution and Field
Philip Thorpe (8.1%)	UTSWMC, Cancer Immunopharmacology
Gabriel Lopez-Berestein (7.8%)	UTMDACC, Medicine and Experimental Therapeutics
Jonathan Sessler (6.6%)	UT Austin, Chemistry
Jack Roth (6.3%)	UTMDACC, Thoracic and Cardiovascular Surgery
Gregory Hemmi (5.4%)	UT Austin *(formerly)*, Chemistry
Frederick Becker (5.2%)	UTMDACC, Molecular Pathology
Wadih Arap (5.1%)	UTMDACC, Experimental Diagnostic Imaging
Jason Shear (4.8%)	UT Austin, Chemistry
Andras Konya (4.7%)	UTMDACC, Interventional Radiology
Sophia Ran (4.7%)	UTSWMC (*formerly*), Medical Microbiology and Immunology

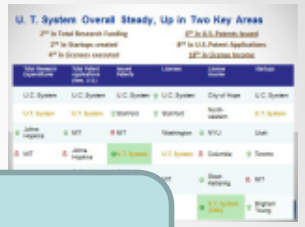
Multi-Institutional Thematic Mapping: Patent Text Clustering around Technology Fields



Industry Innovators: Forward & Backward Patent Citation Mapping as a Proxy

Goal: Utilize the Council to Evaluate Strategy and Opportunities





Research Trends

Market Dynamics

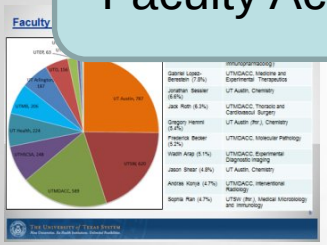
Performance Metrics

Strategy & Opportunities

Institution & Faculty Activities

Industry Innovators

Multi-Institutional Thematic Mapping



2. U. T. System: Report on U. T. Horizon Fund

REPORT

Mr. Bryan Allinson, Executive Director for Technology Commercialization, will provide an update on the status of the U. T. Horizon Fund, which was detailed at the August 2011 Technology Transfer and Research Committee meeting and approved by the Board of Regents as part of the operating budgets for Fiscal Year 2012.

Mr. Allinson's presentation is set forth on the following pages.

Report on U. T. Horizon Fund

Mr. Bryan Allinson, Executive Director for Technology Commercialization

U. T. System Board of Regents' Meeting
Technology Transfer and Research Committee
February 2012

Activities To Date

- Approved by U. T. System Board of Regents August 2011
- December 2011
  - The Steering Committee concludes review
  - Horizon Fund Advisory Committee formed
- January 2011
  - The U. T. Horizon Fund announcement released
  - An analytical model initiated to analyze each of U. T. System's equity 80+ startups; 300+ hrs. expected required
  - A graduate student Fellowship (internship) is announced to help prepare analytic model, review specific companies, and provide experiential learning to U. T. students

Analytical Model

- U. T. System Office of Technology Commercialization will review a "look-back" of prior opportunities:
  - Assess feasibility and potential for return from prior opportunities
  - Compare to results from other universities (where available)
  - Calculate what the returns might have been if U. T. System had invested historically
- Approach:
  - Include all known information on Venture Capital or strategic partner backed companies, regardless of outcome (successful, failed, still private)
  - Use the data as a directional indicator of the quality of the pool of companies (not necessarily a forecast)
  - Monitor assumptions

3. U. T. System: Report on Request for Proposals for novel programs in innovation and entrepreneurship

REPORT

Dr. Patricia Hurn, Associate Vice Chancellor for Health Research, will report on the intent to put forth to all U. T. System campuses a Request for Proposals (RFP) to develop novel faculty or graduate student programs that center on education in innovation and entrepreneurship.

The program proposal is set forth on the following pages.

Request for Novel programs in education for Innovation and Entrepreneurship

Rationale

There is an emerging call for research universities to serve as entrepreneurial centers that drive research breakthroughs and discover solutions to large-scale scientific and social problems. Examples of such global challenges include climate change, extreme poverty, the shortage of clean water, and the human epidemic of obesity.

American research universities have been at the heart of innovation throughout the history of our country. One only has to review the research portfolios of Stanford University, MIT, University of Michigan, UC Berkeley, UT Austin, UT Southwestern Medical Center, and UT MD Anderson Cancer Center to identify major discoveries that have been realized and that are generating significant dollars to the institution and high-impact societal benefit. Examples include discovery and manufacturing of drugs that reduce mortality for many cancer patients that previously had no hope for the future. Consider also the development of polymer chemistry or biopolymers that has allowed the field to discover significant functions of enzymes.

However, many argue that innovation and entrepreneurial activity must grow exponentially if we are to continue to advance American science and technology. One view is that now, in our time of great financial crisis, universities must use their intellectual capital and financial resources to tackle global challenges and transform our future. The nation's research universities were originally created by entrepreneurial acts in and of themselves, and those who support these institutions fully expect them to lead the way in innovation.

The institutions of UT System are an ideal ground from which to advance a highly-visible, cross-institutional culture that fosters entrepreneurship rather than entrenched "silo" thinking. To accomplish such goals, fresh, new methodologies must be developed that will advance the education of established and budding scientists and train research leaders who are facile in forming academic-industry partnerships and creating companies and enterprises.

Program Strategy and general objectives

The purpose of this proposal is to fund educational projects and programs that accelerate entrepreneurship and innovation not only in the sciences, engineering, and medical sciences, but in all fields at The University of Texas System institutions. It is clear that entrepreneurship and innovation are at the heart of universities and that we must foster these two essential characteristics that make our institutions the best in this country and beyond.

We propose to invest in novel programs in education for entrepreneurship and innovation that will 1) develop and implement plans to deliver training for current faculty members and doctoral students throughout the UT System in entrepreneurship, innovation, and

Prepared by: Dr. Patricia Hurn
Date: January 2012

commercialization; 2) develop a strategy to provide seed funding for multidisciplinary and innovative research groups that can develop new platforms whose application could impact large, intractable problems, and the commercialization applications that may spawn from such platforms; and 3) create an entrepreneurship curriculum, for both faculty and doctoral students, that integrates academic rigor and real-world experience by bringing established professionals into the classroom as guest lecturers to teach all students about enterprise creation.

Program Criteria

- The proposed educational effort will be innovative and potentially transformative, NOT a replication or refinement of an existing program.
- Duplication of existing programs from UT institutions or outside institutions will not be considered.
- Long-term formal coursework is acceptable, but not necessarily required. Formats such as short-term, high intensity workshops or summer session programs will be considered and may advance the goals of this funding opportunity.
- The proposed educational offering must have the potential for wide adaptability throughout the UT System.
- Sound educational and evaluation principles must be applied.
- The principal investigator (P.I.) must be a full-time or part-time faculty member at a UT System academic institution.

Specifics

1. Two grants of $750,000 each will be awarded.
2. A portion of the funds may be used to support innovative projects created pursuant to development of the educational program by student participants.
3. Deliverables include a yearly work in progress statement, including measurable outcomes and metrics, and a detailed evaluation at end of project.
4. Indicate institutional support for the time paid for by the grant.
5. Salary and proportional fringe benefits included, *but no indirect costs are allowed.*
6. P.I.s must be full-time or part-time faculty at UT System academic institutions.
7. Submit appropriate letters supporting implementation of the innovation as described in the proposal.
8. P.I.'s time must be included in budget.
9. Indicate the institutional match if available.
10. Multidisciplinary collaborative approaches are preferred.

Process

Pre-proposal letter of intent should be submitted electronically in PDF format and must include:

A. Background with statement of need and significance
B. Project description
C. Methodology = objectives

Prepared by: Dr. Patricia Hurn
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D. Outcome measures
E. Estimated total budget – no detail
F. Up to 5 pages

Time Line

Request for Letters of Intent Feb 15, 2012

Letter of intent due March 1, 2012
Invitations for full proposals March 15, 2012
Full proposals due April 15, 2012
Awards announced May 15, 2012

Prepared by: Dr. Patricia Hurn
Date: January 2012

4. U. T. M. D. Anderson Cancer Center: Report on key findings from the Institute for Cancer Care Excellence, including use of electronic medical records

REPORT

Thomas W. Feeley, M.D., Vice President of Medical Operations at U. T. M. D. Anderson Cancer Center, will report on key findings from U. T. M. D. Anderson Cancer Center's Institute for Cancer Care Excellence. The Institute, which is led by Dr. Feeley, performs research in cancer care delivery with a focus on patient care outcomes, costs, and the development of quality measurement methodologies. Dr. Feeley will present a unique use of electronic medical records that has broad application throughout health care delivery.

As part of the Institute, Clinic Station Outbound, a web portal for patients and outside physicians (also known as Personal Health Record), centers on how to engage patients and referring physicians in improving the safety and efficiency of the care experience. Dr. Feeley has spearheaded an internally developed electronic medical record system that is viewed by patients and referring physicians across the country and around the world via the patient portal, *my*MDAnderson.

Dr. Feeley is the Helen Shafer Fly Distinguished Professor of Anesthesiology.
Dr. Feeley received both his undergraduate degree and his M.D. from Boston University and he trained in anesthesiology and critical care medicine at Harvard University's Beth Israel Hospital in Boston, Massachusetts. Following a 20-year career as a faculty member in anesthesiology and critical care medicine at Stanford University, he came to U. T. M. D. Anderson Cancer Center in 1997 to lead the Division of Anesthesiology and Critical Care, which is responsible for all anesthetic, critical care, and pain management in the institution. In addition to his administrative responsibilities, Dr. Feeley provides patient care services in the delivery of anesthesia.