University of Illinois at Urbana-Champaign

Dashboard Indicators

RESEARCH PERFORMANCE UPDATES BY:
UNIVERSITY OFFICE FOR PLANNING AND BUDGETING
JUNE 15, 2016

PRESENTED BY:
INTERIM CHANCELLOR BARBARA J. WILSON
JULY 21, 2016

Peer Group

University of Illinois at Urbana-Champaign*
University of California - Berkeley*
University of California - Los Angeles
University of California - San Diego
University of Michigan - Ann Arbor
University of North Carolina - Chapel Hill**
University of Texas - Austin***
University of Washington
University of Wisconsin - Madison
University of Virginia

* No medical center.
** Medical center affiliated with the university, but owned by the state.
*** An affiliated medical center is under construction and will begin operations in 2017.
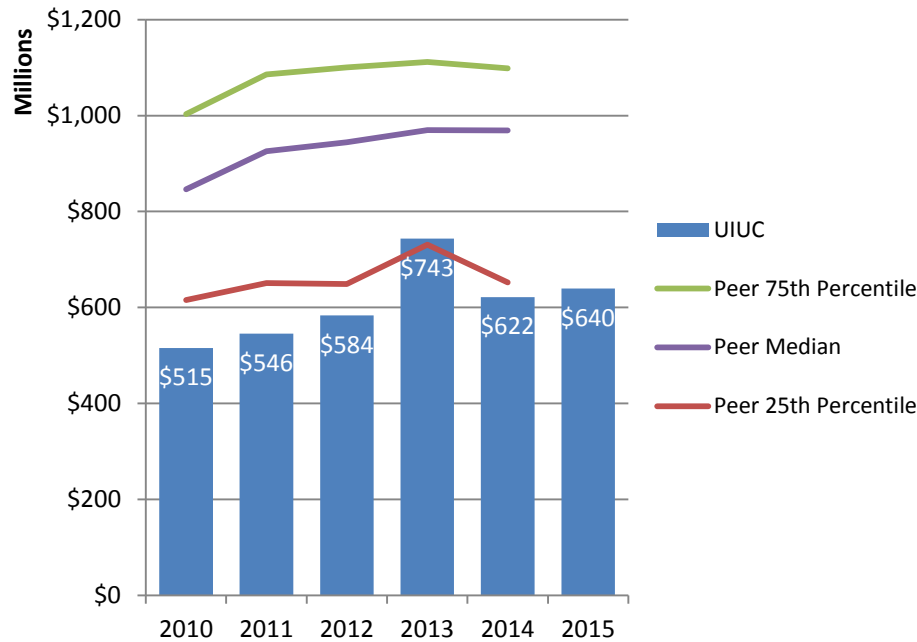
Research Performance

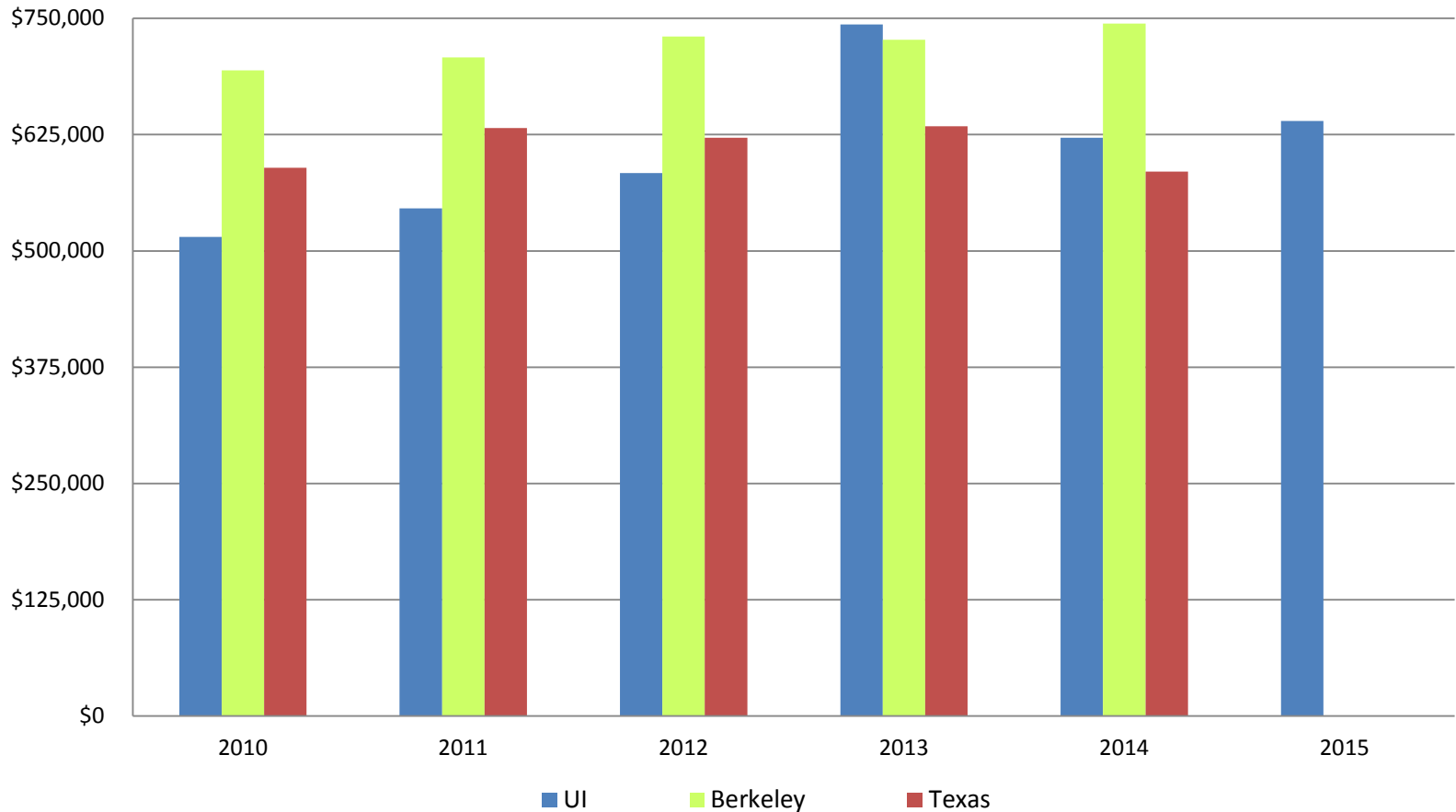# Total Research and Development Expenditures*
FY 2010 – FY 2015

Research and development expenditures at the University of Illinois at Urbana-Champaign are less than the peer median.

University of Illinois at Urbana-Champaign does not have a medical center nor a college of medicine, but seven of its nine peers have one or both.

* As reported to the NSF Survey of Research and Development Expenditures. FY 2013 increase includes $120 million related to the construction of Blue Waters. FY 2015 peer data not available.
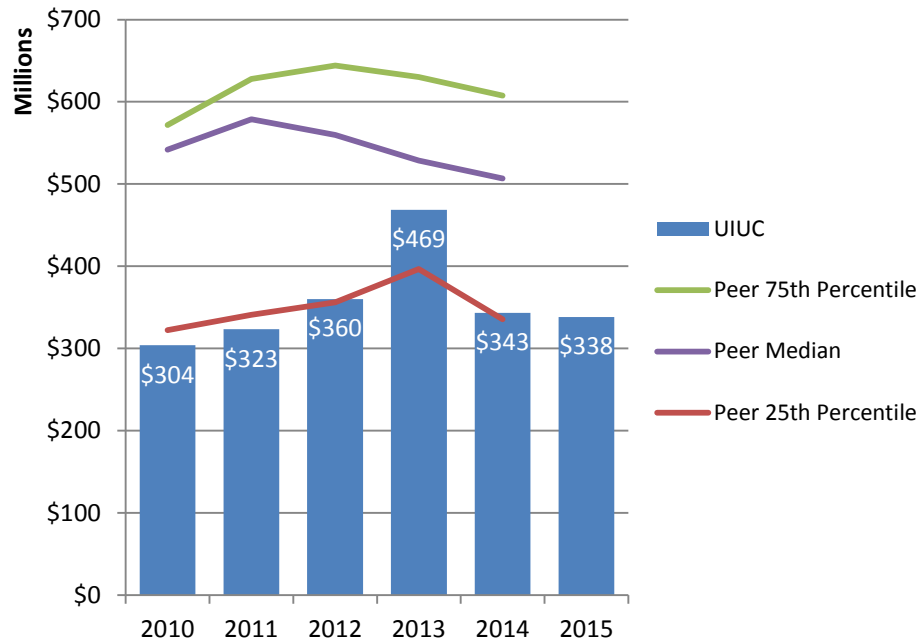
Total Research and Development Expenditures* Among Peers Without Medical Schools FY 2010 – FY 2015

* As reported to the NSF Survey of Research and Development Expenditures. FY 2013 increase includes $120 million related to the construction of Blue Waters. FY 2015 peer data not available.

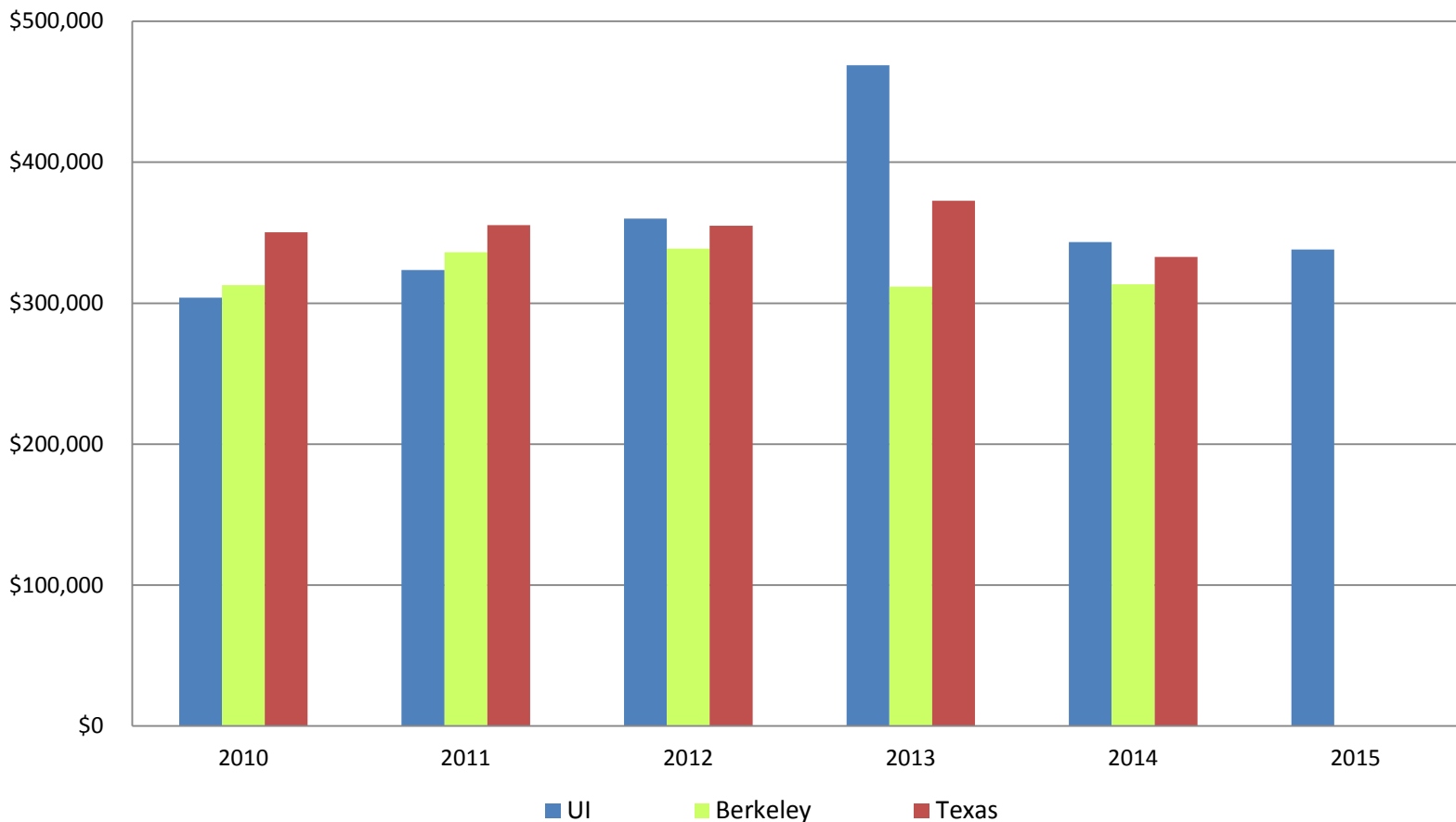# Total Federal Research and Development Funding*
FY 2010 – FY 2015

University of Illinois at Urbana-Champaign receives less total federal research funding than its peer median.

University of Illinois at Urbana-Champaign does not have a medical center nor a college of medicine, but seven of its nine peers have one or both.

* As reported to the NSF Survey of Research and Development Expenditures. FY 2013 increase includes $120 million related to the construction of Blue Waters. FY 2015 peer data not available.
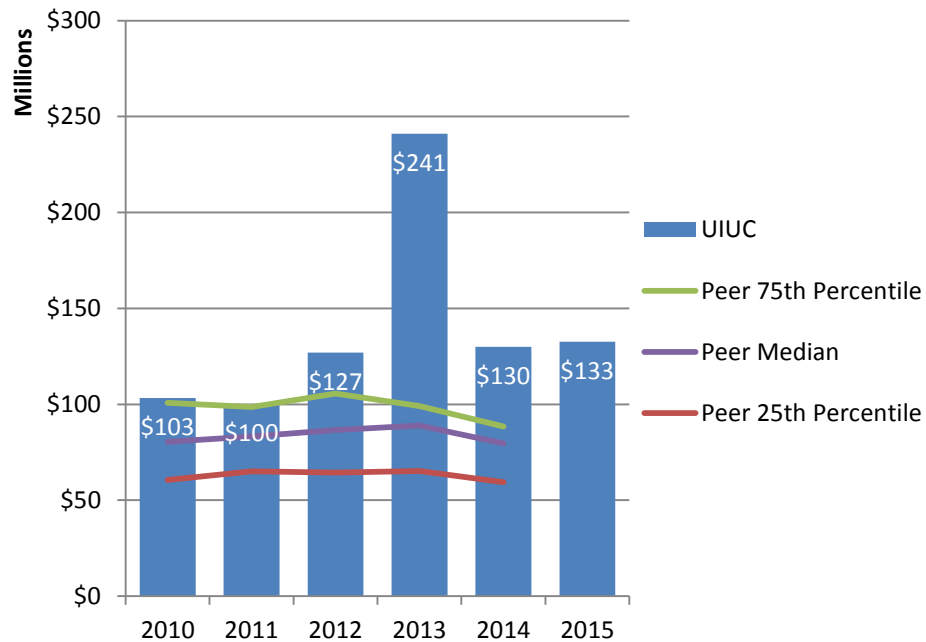
Total Federal Research and Development Funding* Among Peers Without Medical Schools FY 2010 – FY 2015

* As reported to the NSF Survey of Research and Development Expenditures. FY 2013 increase includes $120 million related to the construction of Blue Waters. FY 2015 peer data not available.

National Science Foundation Funded Research and Development
FY 2010 – FY 2015

University of Illinois at Urbana-Champaign receives more NSF funding than its peer median and is consistently ranked in the top three among its peers.

NSF is the largest source of Federal R&D funding for the University of Illinois at Urbana-Champaign.

Note: FY 2013 increase includes $120 million related to the construction of Blue Waters. FY 2015 peer data not available.

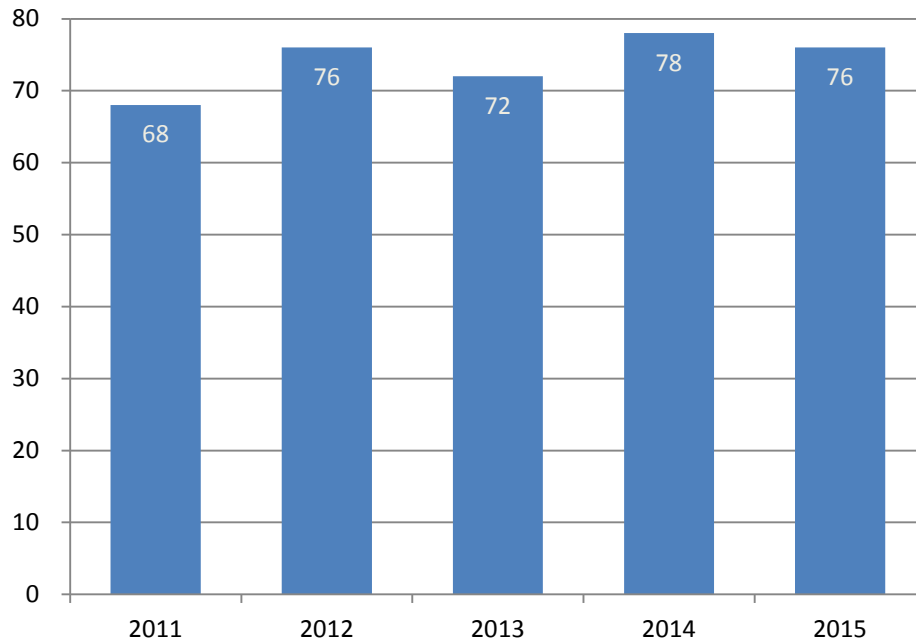# National Science Foundation Funded Awards
Top 15 Institutions FY 2015

Institution	Total	Research Support	Education & Human Resources	Major Research Equipment
Lockheed Martin Corporation	$180,822	$180,822	$0	$0
University of Illinois at Urbana-Champaign	$128,329	$125,723	$2,606	$0
University Corporation For Atmospheric Res	$117,252	$116,344	$908	$0
University of California-Berkeley	$112,530	$92,143	$20,386	$0
Association of Universities for Research in Astronomy, Inc.	$105,140	$25,500	$0	$79,640
University of Washington	$101,440	$88,031	$13,409	$0
Cornell University	$100,159	$99,893	$267	$0
Columbia University	$99,760	$94,895	$4,864	$0
University of Michigan-Ann Arbor	$98,615	$82,053	$16,562	$0
Massachusetts Institute of Technology	$93,468	$76,835	$16,633	$0
University of Wisconsin-Madison	$89,341	$77,896	$11,445	$0
University of Minnesota-Twin Cities	$87,025	$79,785	$7,240	$0
University of Texas at Austin	$83,582	$73,424	$10,158	$0
Associated Universities Inc./National Radio Astronomy Observatory	$83,310	$83,310	$0	$0
Georgia Tech Research Corp	$81,615	$72,169	$99,446	$0

* In millions of dollars

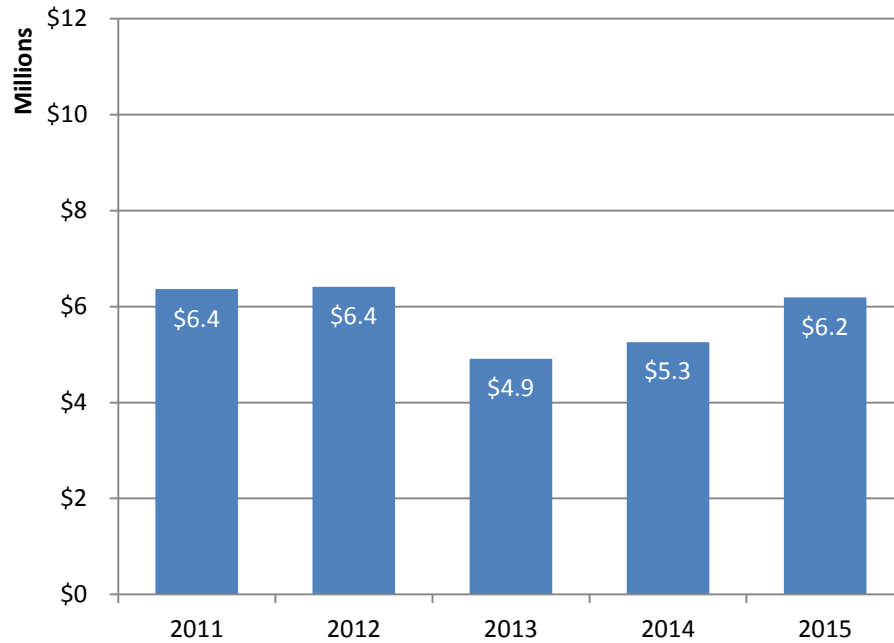Source: http://dellweb.bfa.nsf.gov/Top50Inst2/default.asp

Number of U.S. Patents Issued
FY 2011 – FY 2015

The number of U.S. patents issued to the University of Illinois at Urbana-Champaign has remained roughly constant since FY 2011.
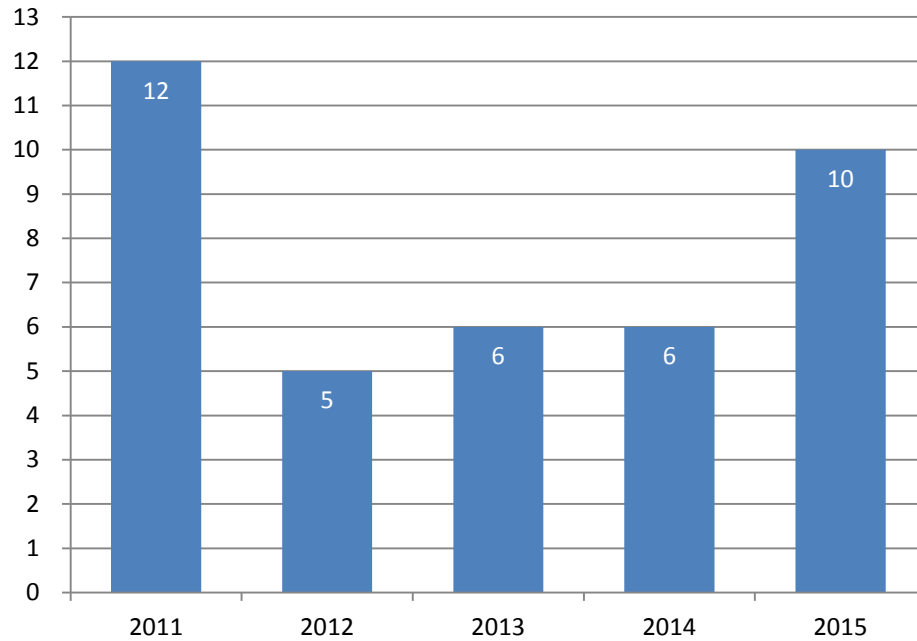
Royalties
FY 2011 – FY 2015

Royalties earned at the University of Illinois at Urbana-Champaign have decreased since FY 2012.

Number of New Start-Up Companies Formed
FY 2011 – FY 2015

In FY 2015 the number of new companies started based on technology developed at the University of Illinois at Urbana-Champaign has increased compared with previous years.

Overview

Areas of Strength/Accomplishments

Success in EVERY research-related goal in the 2013-16 Campus Strategic Plan:
- Created new systems to support grantseeking and proposal development
- Created new research institutes and initiatives:
  - Institute for Sustainability, Energy, and Environment
  - Interdisciplinary Health Sciences Initiative
  - Social and Behavioral Sciences Research Initiative
- Built infrastructure to support scholarship and innovation
- Convened faculty working groups; currently implementing recommendations

Specific infrastructure achievements:
- Launched IT solutions, including:
  - myDisclosures (conflict of interest management software)
  - Illinois Databank (research data repository)
  - Illinois Research Connections (faculty experts database)
  - Plus many other applications and systems
- Conducted 600+ Lab Safety Audits and implemented a program to check all campus showers/eyewashes for the first time
- Revised financial model for Division of Animal Resources
- Enhanced website for the Office for the Protection of Research Subjects and streamlined related business processes

Areas of Strength/Accomplishments

Noteworthy Campus Research Awards, 2015-present

- An Engineering Research Center, POETS, funded by the National Science Foundation ($18.5 M)

- A Big Data Regional Innovation Hub, supported by the National Science Foundation

- A multimillion dollar award to study emerging areas in the humanities, supported by the Mellon Foundation

- A Department of Defense Air Force Office of Scientific Research Center of Excellence in Self Healing, Regeneration, and Structural Remodeling ($4.3 M)

- A Department of Energy Advanced Research Projects Agency - Energy funded effort to develop water efficient bioenergy crops ($5 M)

- A Cyber Resilient Energy Delivery Consortium, supported by the Department of Energy

- A BRAIN Initiative ($2 M), supported by the National Institutes of Health

Areas for Improvement

1. Continuing innovation in important business and compliance functions to better support researchers

2. Retaining preeminence in both disciplinary and interdisciplinary research in light of the state budget situation and procurement considerations

3. Maintaining and enhancing competitiveness for Federal, Industry, and Foundation funding

4. Building sustainable support to enhance research capabilities in the arts, humanities, and social sciences

Strategy to Address Areas for Improvement

1. Innovation in Business Processes
- Refine Research Administration Policies and Procedures
- Continue to improve campus research communications infrastructure, both internal and external
- Develop IT solutions to create efficiencies and streamline processes

2. Retain Preeminence in Research
- Build on reputation for excellence in the academic colleges and the campuswide interdisciplinary research institutes that report to the OVCR
- Strengthen alliances with National Labs and local and regional partners such as the Mayo Clinic, Carle, OSF, CERL, etc.

3. Compete for Funding
- Ongoing Office of Proposal Development activities to support large-scale grantseeking
- Strengthen "community building" activities in areas of pressing societal need
- More closely align and enhance Corporate Relations activities with the research enterprise
- Support strategic seed funding investments (Wounded Veterans, CompGen, ILSDI)
- Continue to develop programs and infrastructure in support of the Carle Illinois College of Medicine

4. Sustainable Support for Spectrum of Research
- Continue to provide ongoing support for grantseeking activities
- Develop new initiative – the Social and Behavioral Sciences Research Initiative – to facilitate large-scale, interdisciplinary research projects and support the next generation of researchers
- Support full integration of the Illinois Program for Research in the Humanities into the OVCR portfolio

Areas to Watch

- Research grants and contracts supported by state agencies

- Aging facilities and equipment, and deferred maintenance

- State bureaucracy, particularly procurement challenges

- Raiding of research faculty and staff by other institutions

Questions?