



2015-2016 Research Report to UKRF Board of Directors

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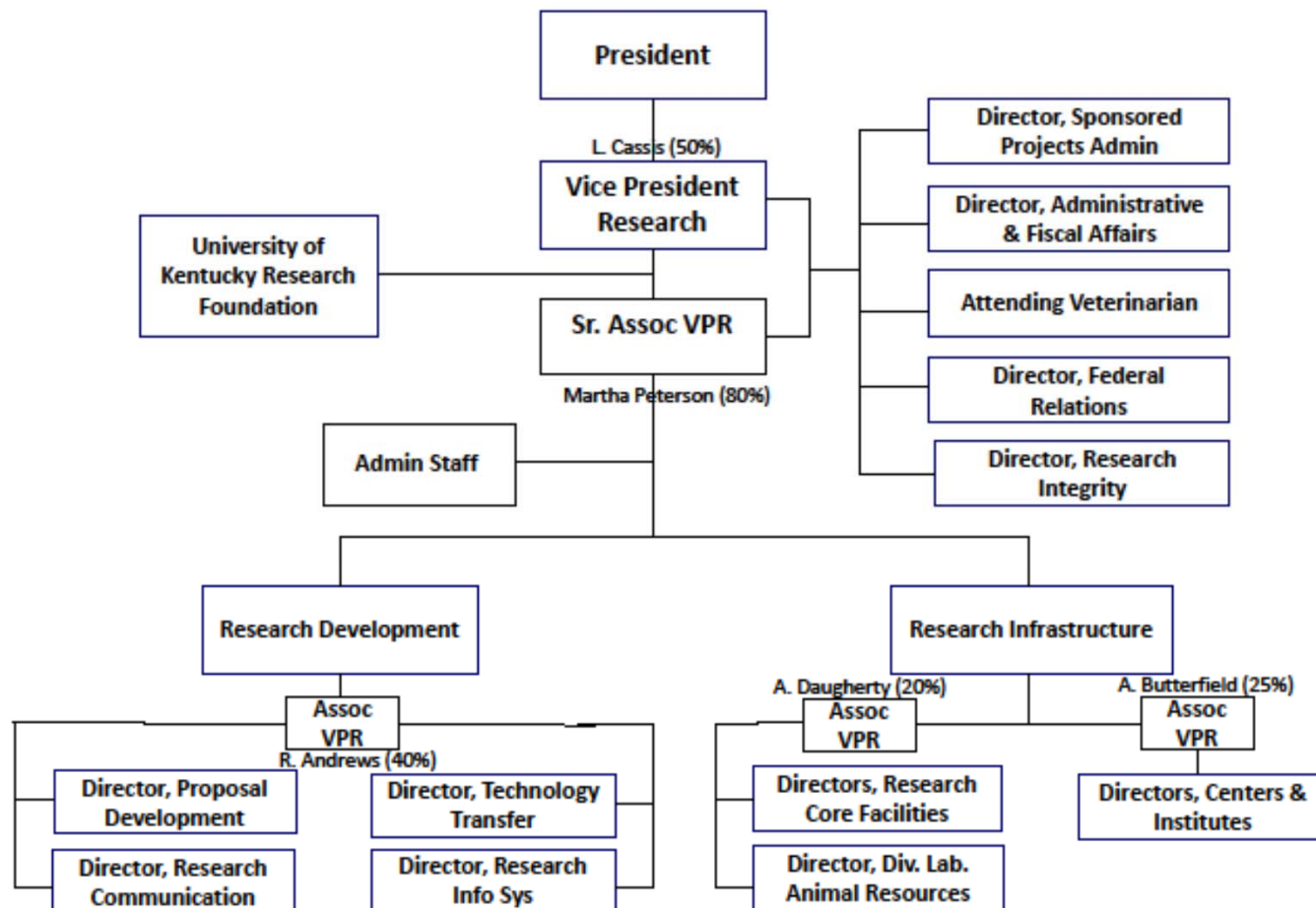
Format

- UK Strategic Plan for Research:
 - What are our goals for research funding as relates to the Strategic Plan?
 - How can we meet these goals?
 - Update on RB2
 - Update on other activities within the Office of Research
 - UKRF Budget
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Office of Research Team

University of Kentucky Vice President for Research





**From last years presentation:
Areas of emphasis in FY15/16 for the research
enterprise**

- Leadership (VPR position)
- Design and use of new research facility to improve the research enterprise and address health gaps in the Commonwealth
- Continue to improve efficiency and effectiveness of the research infrastructure (focus on IP/TTO, core facilities, proposal development)
- Negotiation of new F&A rate
- Changes to funds flow (values based, incentive) for F&A to empower units
- Implementation strategies for research strategic plan

What did we accomplish?



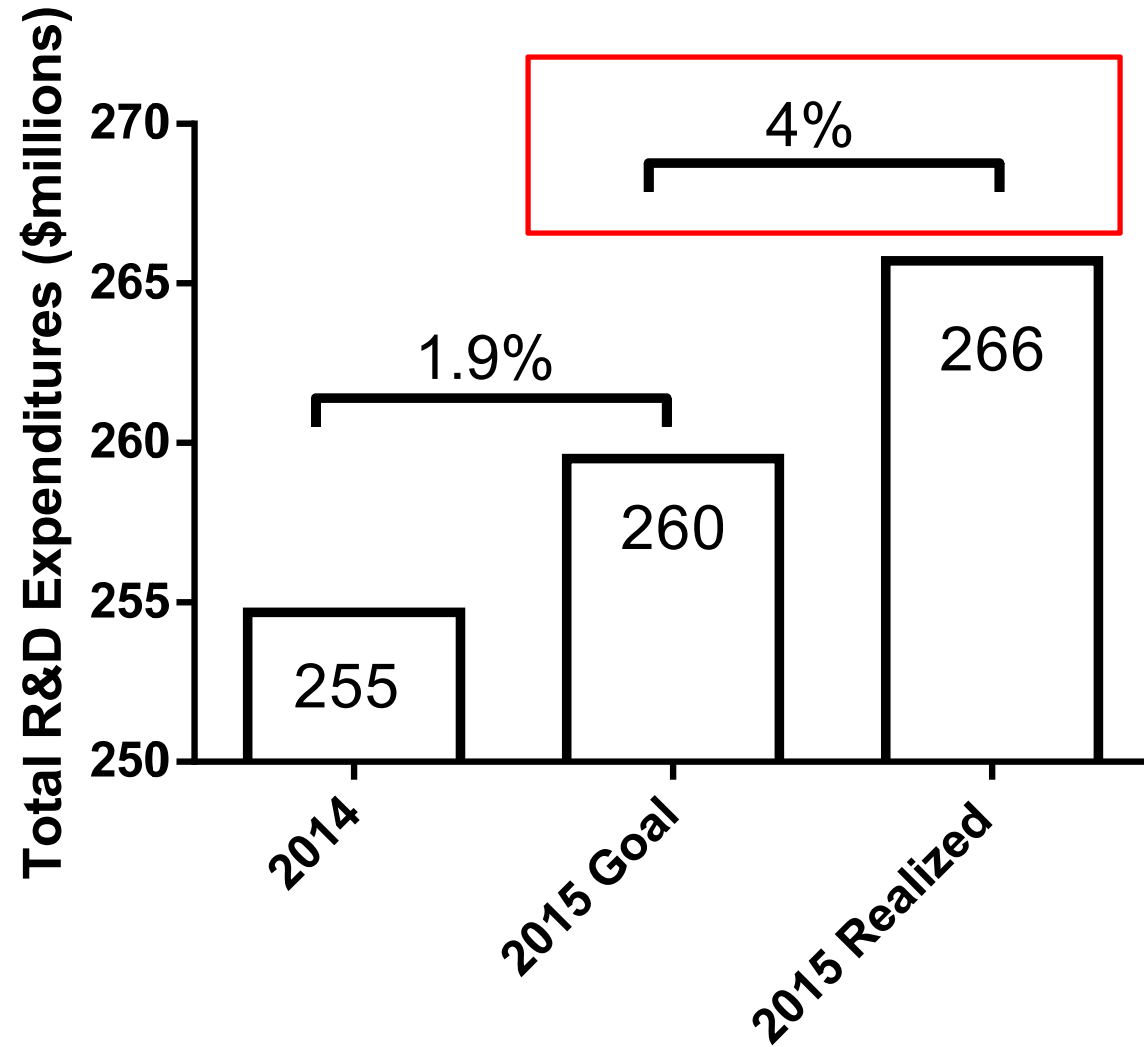
Research Strategic Plan

Expand our scholarship, creative endeavors, and research across the full range of disciplines to focus on the most important challenges of the Commonwealth, our nation, and the world.

- I. Invest in UK's existing strengths and areas of growth in selected focus areas that benefit and enrich the lives of the citizens of the Commonwealth and beyond.
 - II. Recruit and retain outstanding faculty, staff and students that support our research and scholarship across the range of disciplines at the University.
 - III. Improve the quality of the research infrastructure across campus.
 - IV. Strengthen engagement efforts and translation of research and creative work for the benefit of the Commonwealth of Kentucky, the nation and the world.
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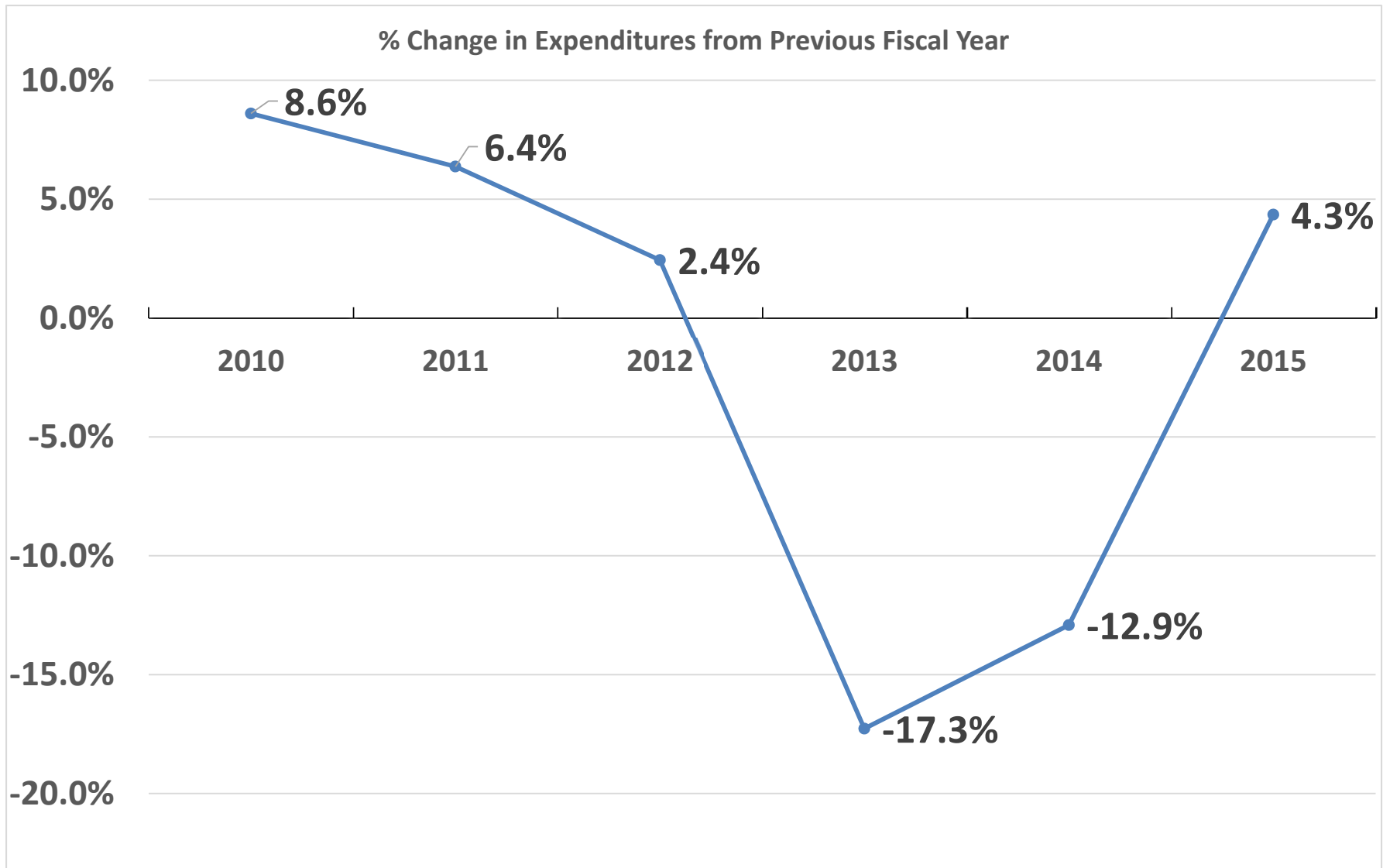


Metric #1: Research and Development Expenditures;
Goal = 1.9% increase/year
How did we do?



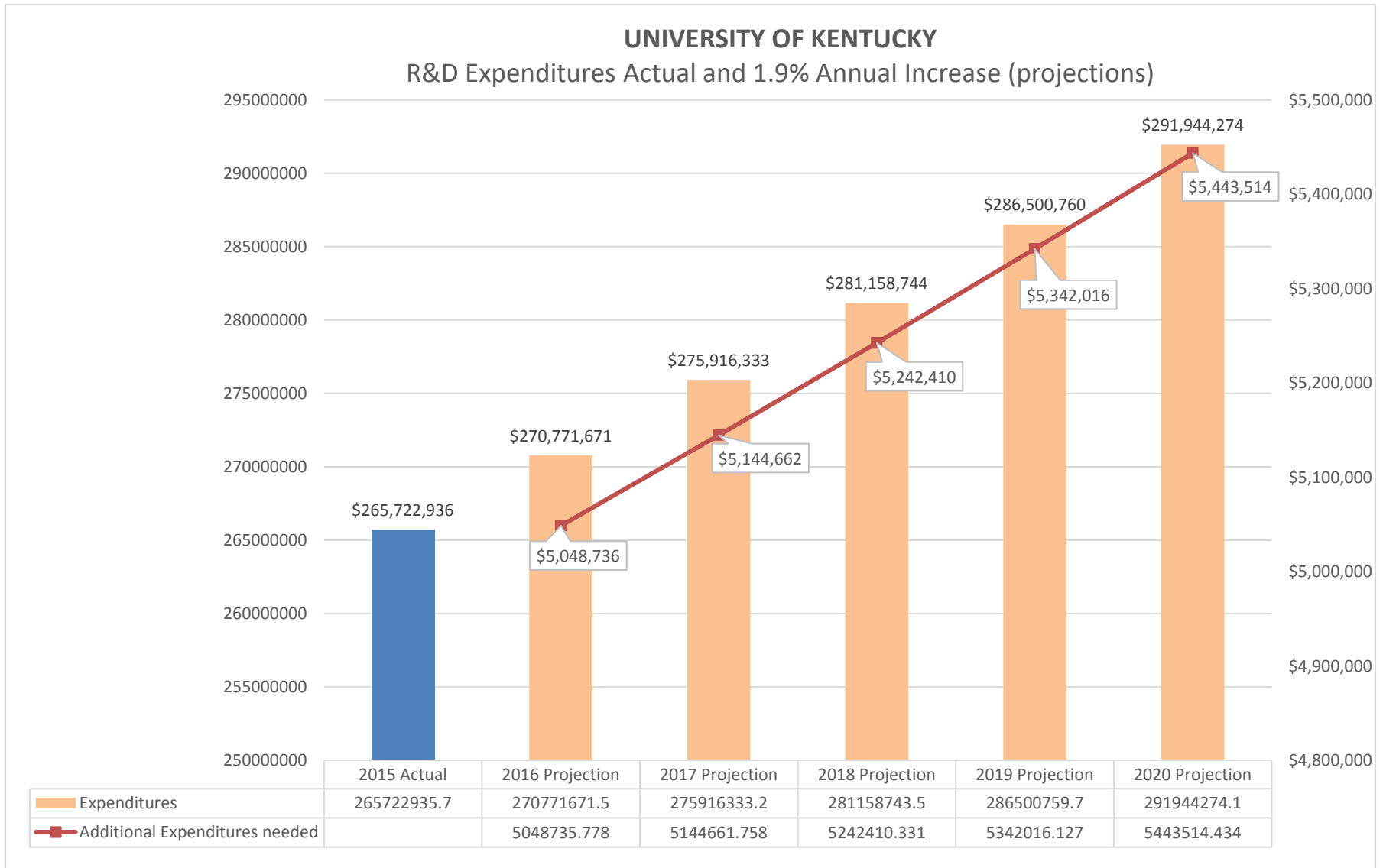


To put this into perspective, this is our % change in R&D expenditures prior to this fiscal year...



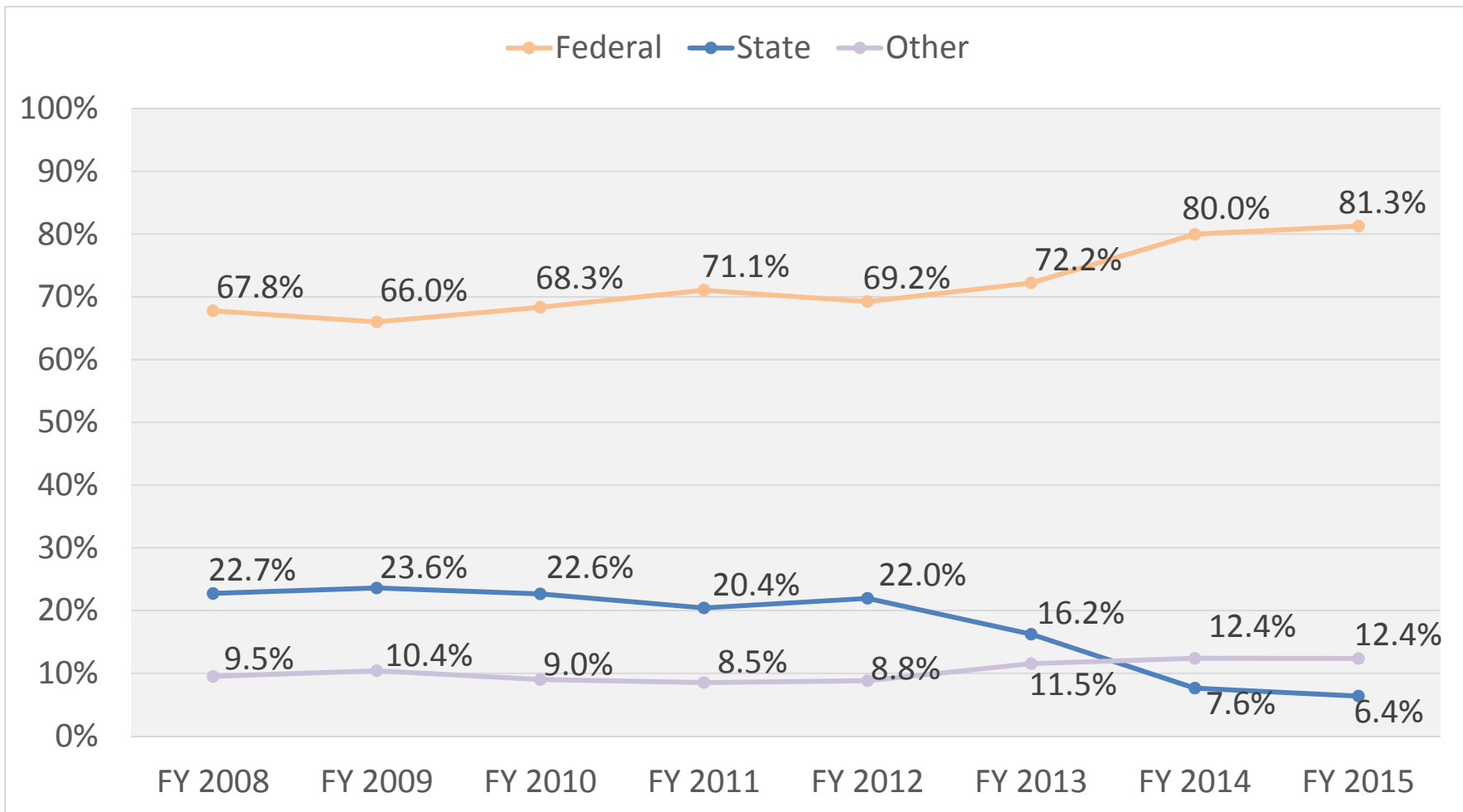


Moving forward: Board of Trustees Metric for Research and Development Expenditures



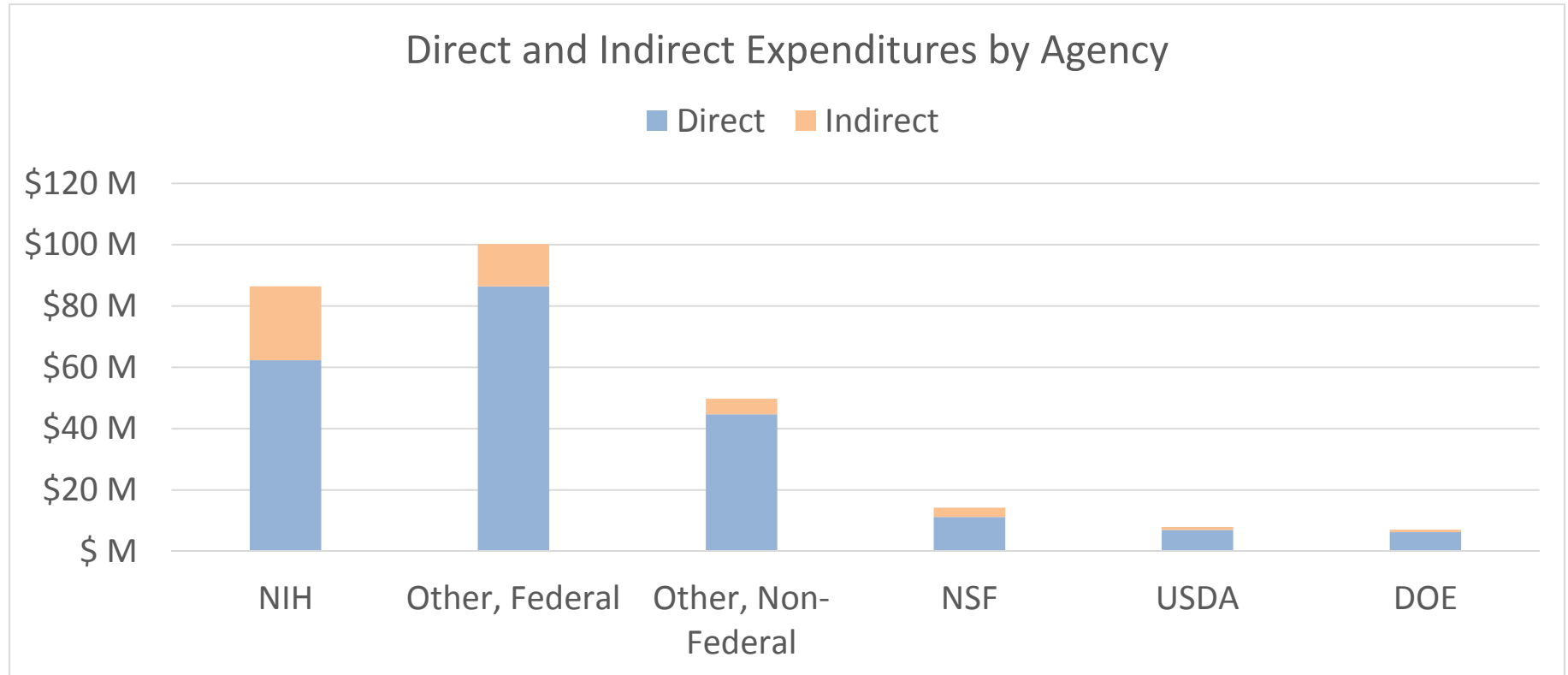


A Closer Look at R&D Expenditures: We continue to be a federally funded research enterprise



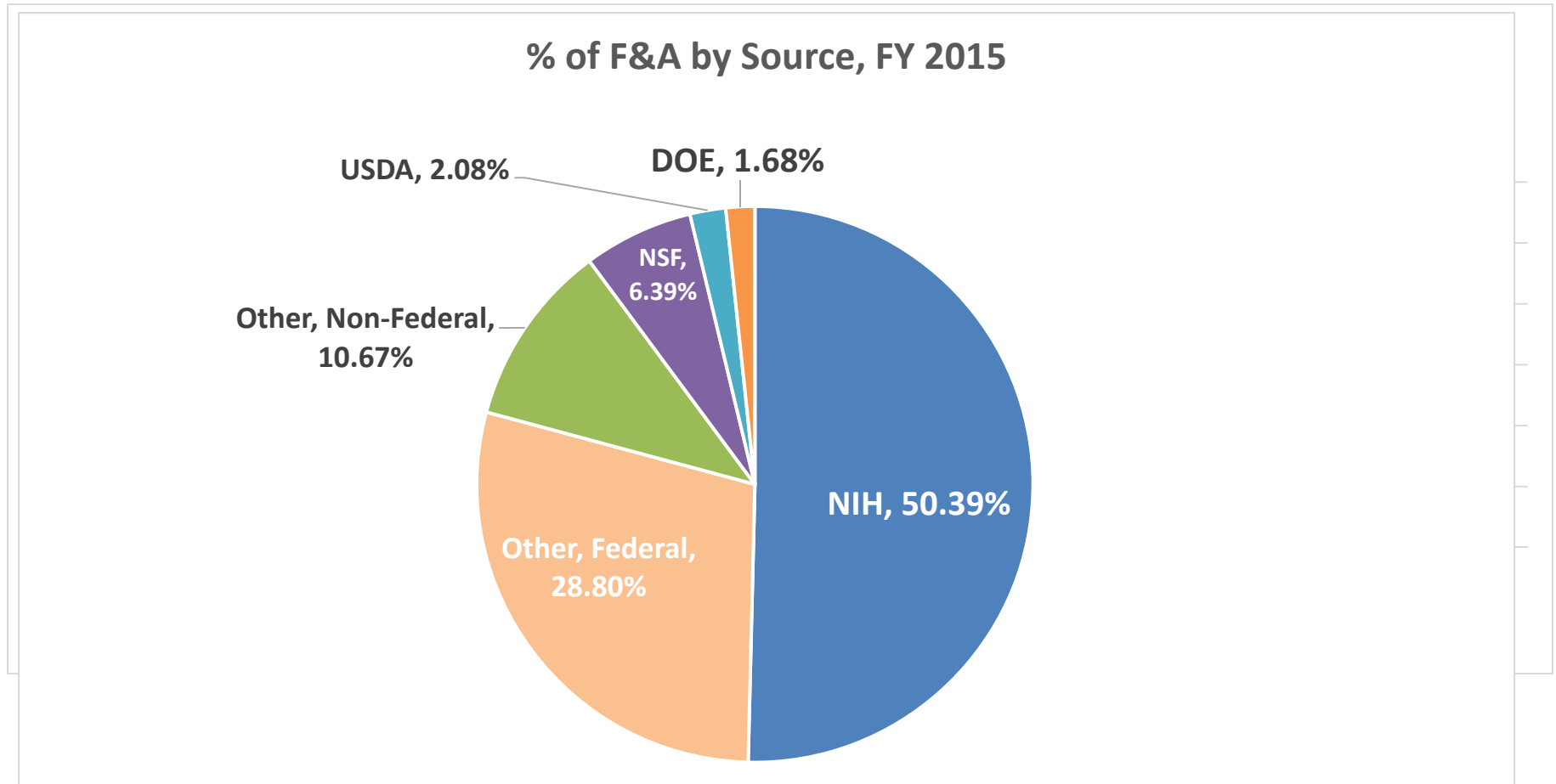


NIH is the largest source of F&A to the UKRF budget (2015)



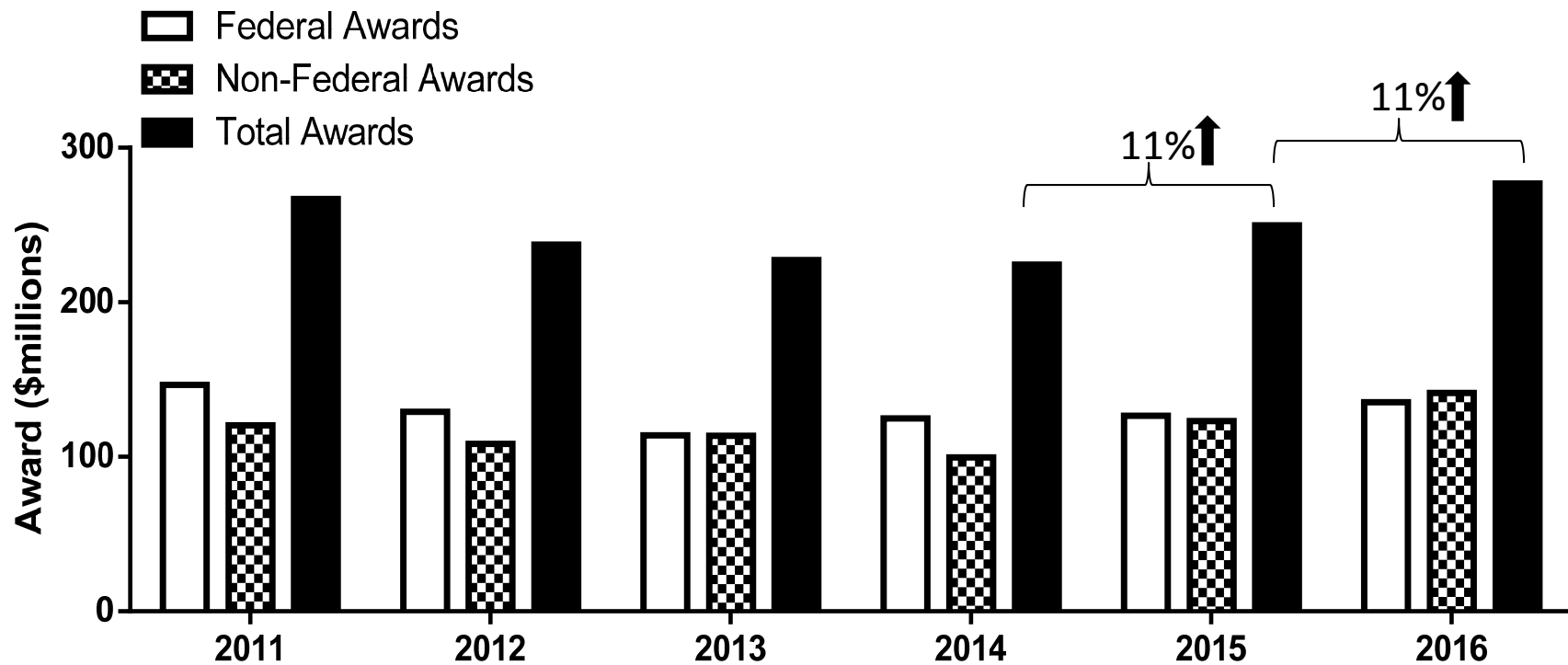


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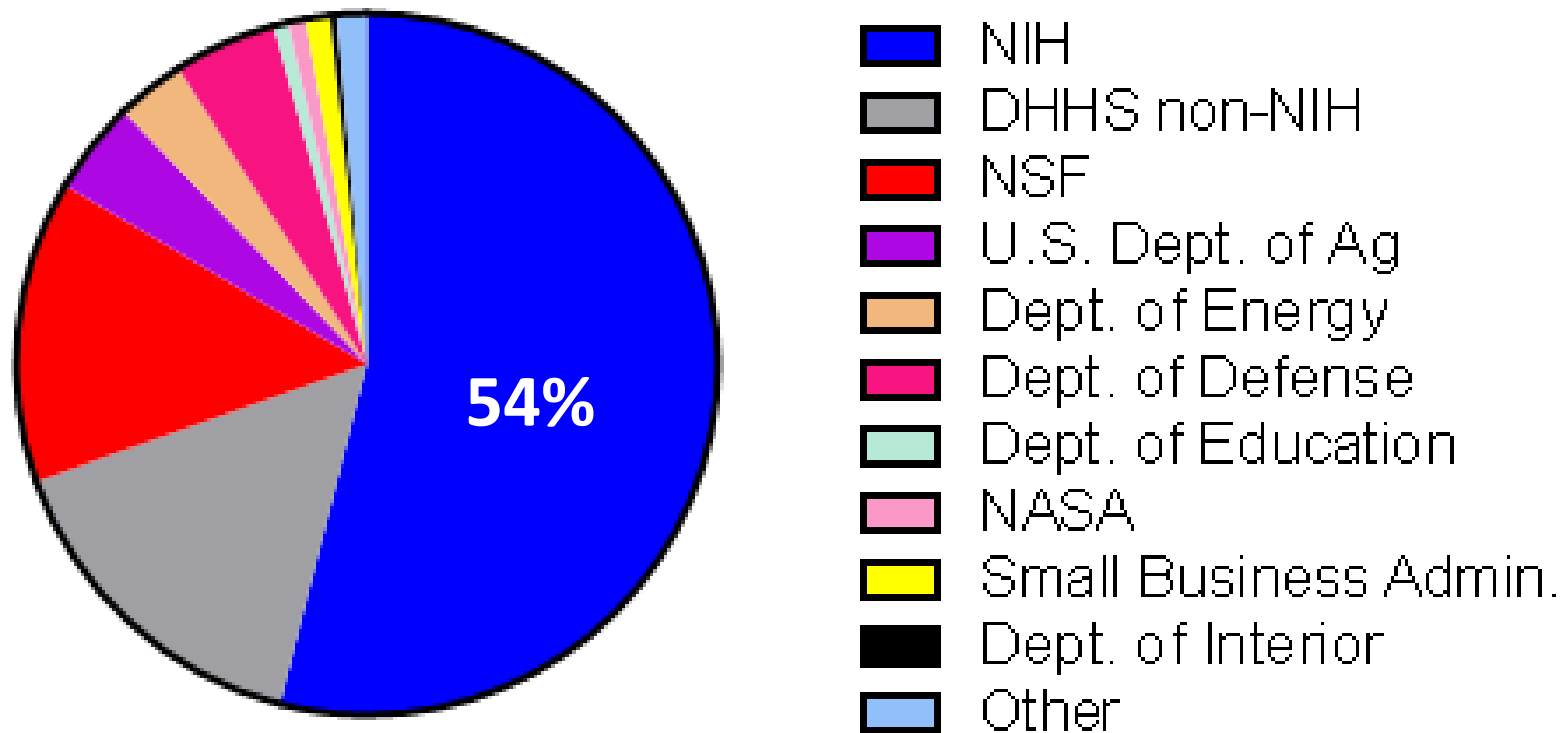
Our Progress thus far in 2015/16: Grant award data



7% increase in federal compared to last year
15% increase in non-federal

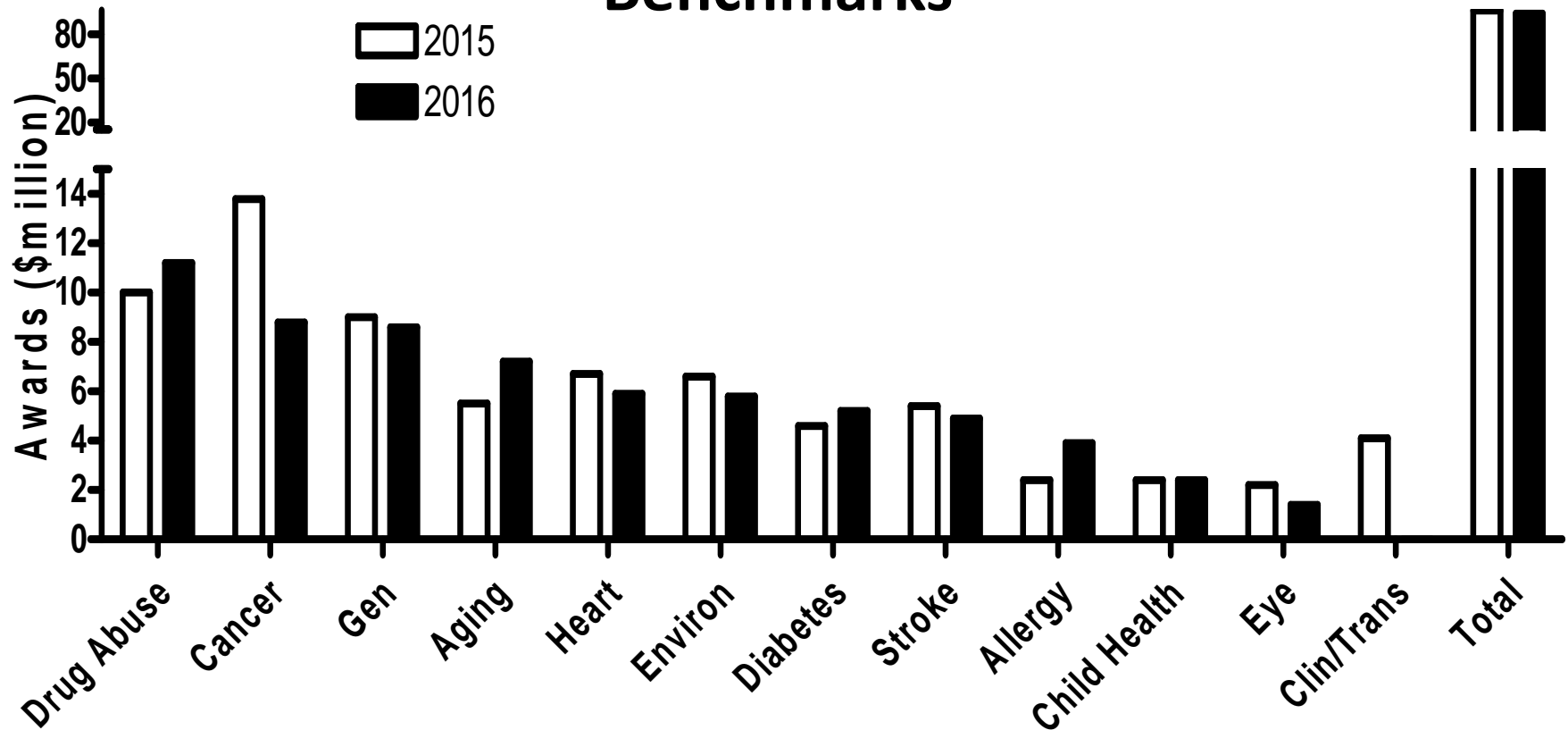


Source of Federal Awards





NIH Awards in FY15/16 are Holding Relatively Steady, with Competitive Growth Compared to Benchmarks

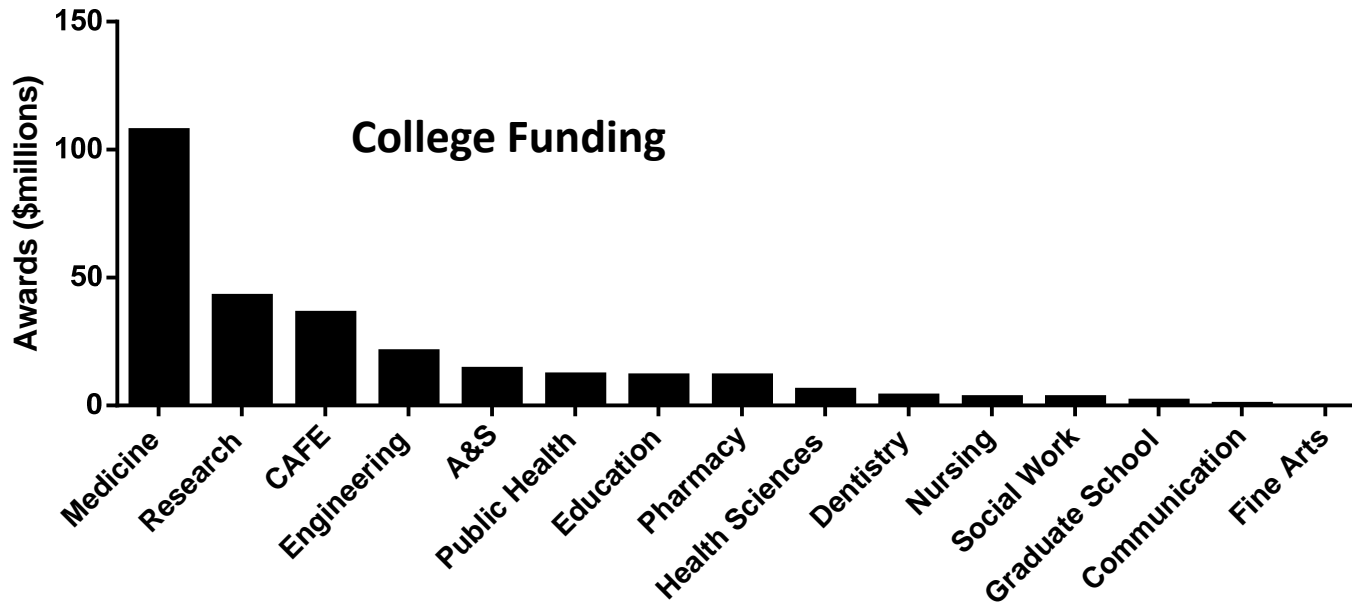


UK NIH funding increased by 25% from FY13 to FY14, by another 13% from FY14 to FY15

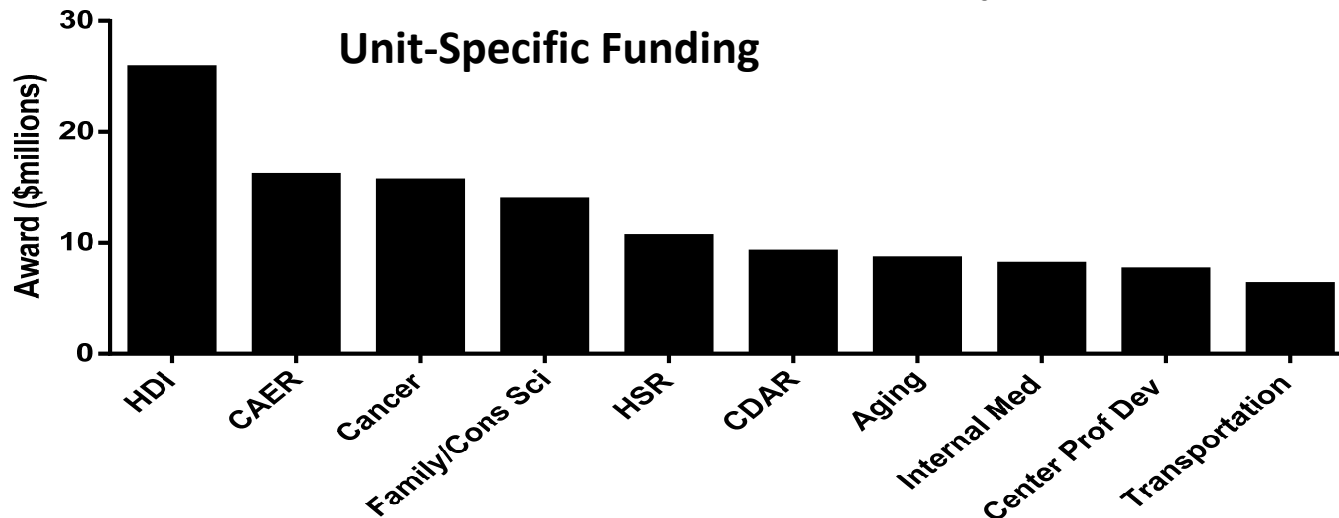
Benchmark comparison: Of 15 benchmarks, 9 experienced an increase in NIH funding from 2014-15, while 6 experienced declines. Of those experiencing increased NIH funding, UK had the 3rd largest increase



College and Unit-Specific Funding



- Medicine is the largest funded unit at UK (39% of total awards)
- Research includes our Centers and Institutes



- 8 out of 10 of these units are multidisciplinary Centers



New 2015/16 Awards of Note

- NIH
 - Chang-Guo Zhang: \$2 million, cocaine treatment
 - Linda Van Eldik: \$2.8 million Preclinical Alzheimers drugs; \$1.3 million Alzheimer Center Core
- USDA
 - Ann Vail: \$2.5 million Child Poverty Nutrition Cntr
- NSF
 - Rodney Andrews: \$8 million EPSCoR program
- DOD
 - Charlotte Peterson: \$4.2 million Office of Naval Research
- Non-federal:
 - Carl Leukefeld: \$5.4 million KY Cabinet, Targeted Assessment Drug Abuse
 - Linda Pittenger: \$4.5 million Bill and Melinda Gates Foundation, Center for Innovation in Education



Grant funding summary

- Funding to the institution has increased and exceeded the Strategic Plan goal.
 - What activities have contributed to this increase?
 - Hard work/talent of our faculty, students and staff
 - Strategic investment
 - More transparent flow of F&A back to individual units
 - Improvements within the research infrastructure
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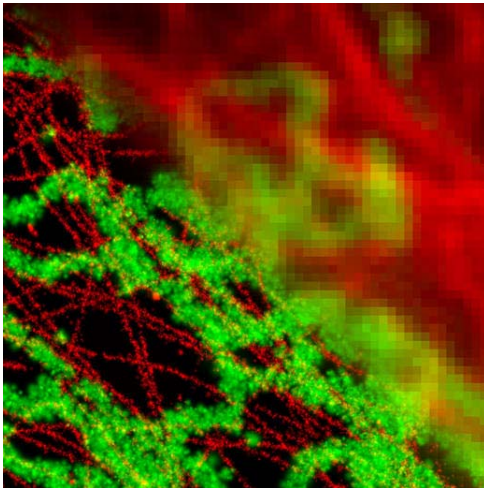
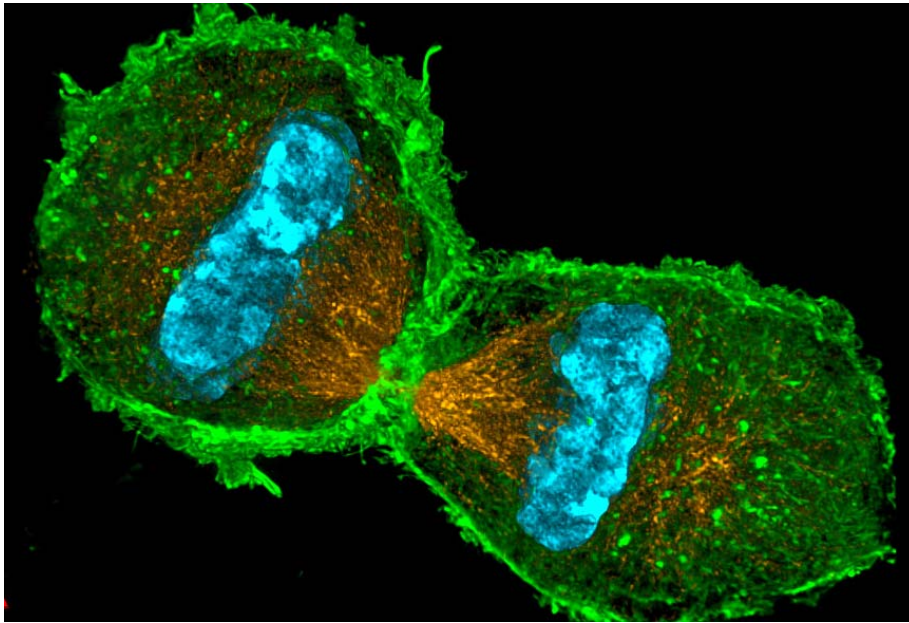


Strategic Investment

- Last year, you approved in the UKRF budget a \$2 million Strategic Investment Fund (SIF)
- Held an institution-wide competition with peer review of all applications (received 8 requests):
 - Junior faculty recruit: A&S, CAER, Pharmacy in metabolic engineering of microalgae in fuel production.
 - Junior faculty recruit: Engineering, CAFÉ, A&S, Transportation Cntr to develop fluid-structure interactions for aerospace research.
 - Junior faculty recruit: Nursing, Medicine, Pharmacy to strengthen programs in tobacco and other health-related policies for disparate groups.
 - Total support through this program = \$769,176.
 - What did we do with the rest?



Strategic Investment: Cutting edge microscopes

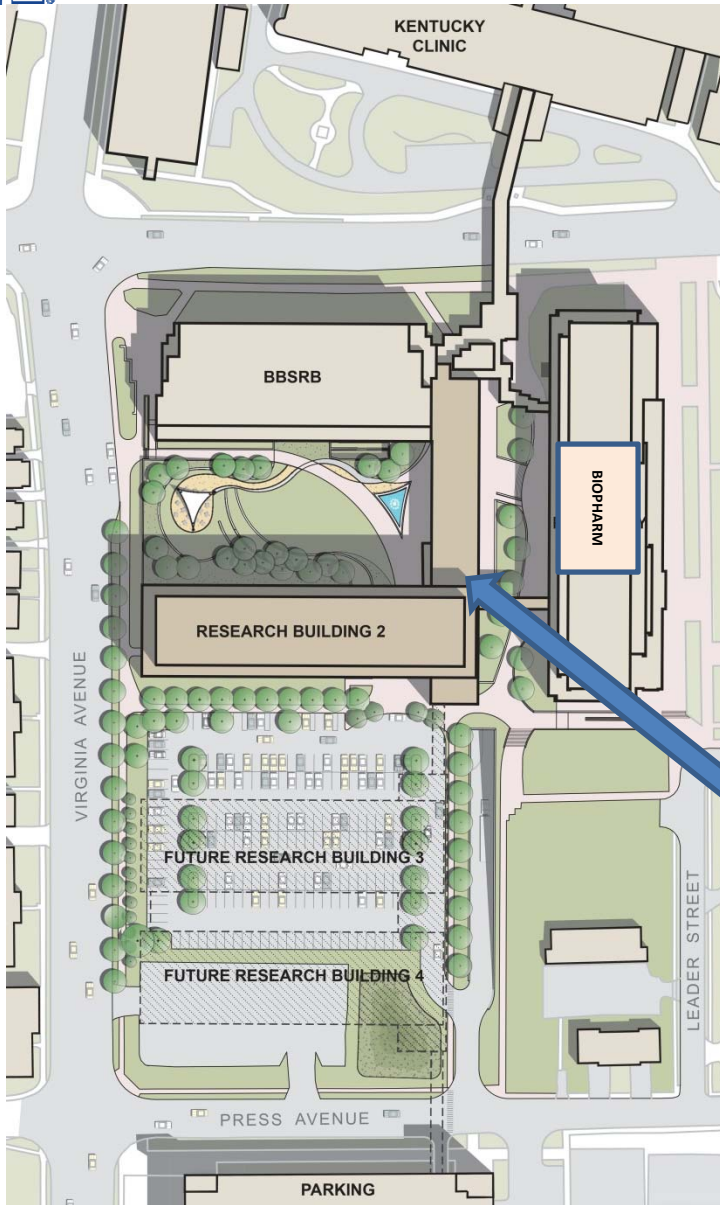


- Nikon A1R confocal resonant scanning microscope: ultrahigh resonance frequency, world's fastest image acquisition.
- Nikon N-STORM Super Resolution Microscope: live cell resolution



RB2: Update



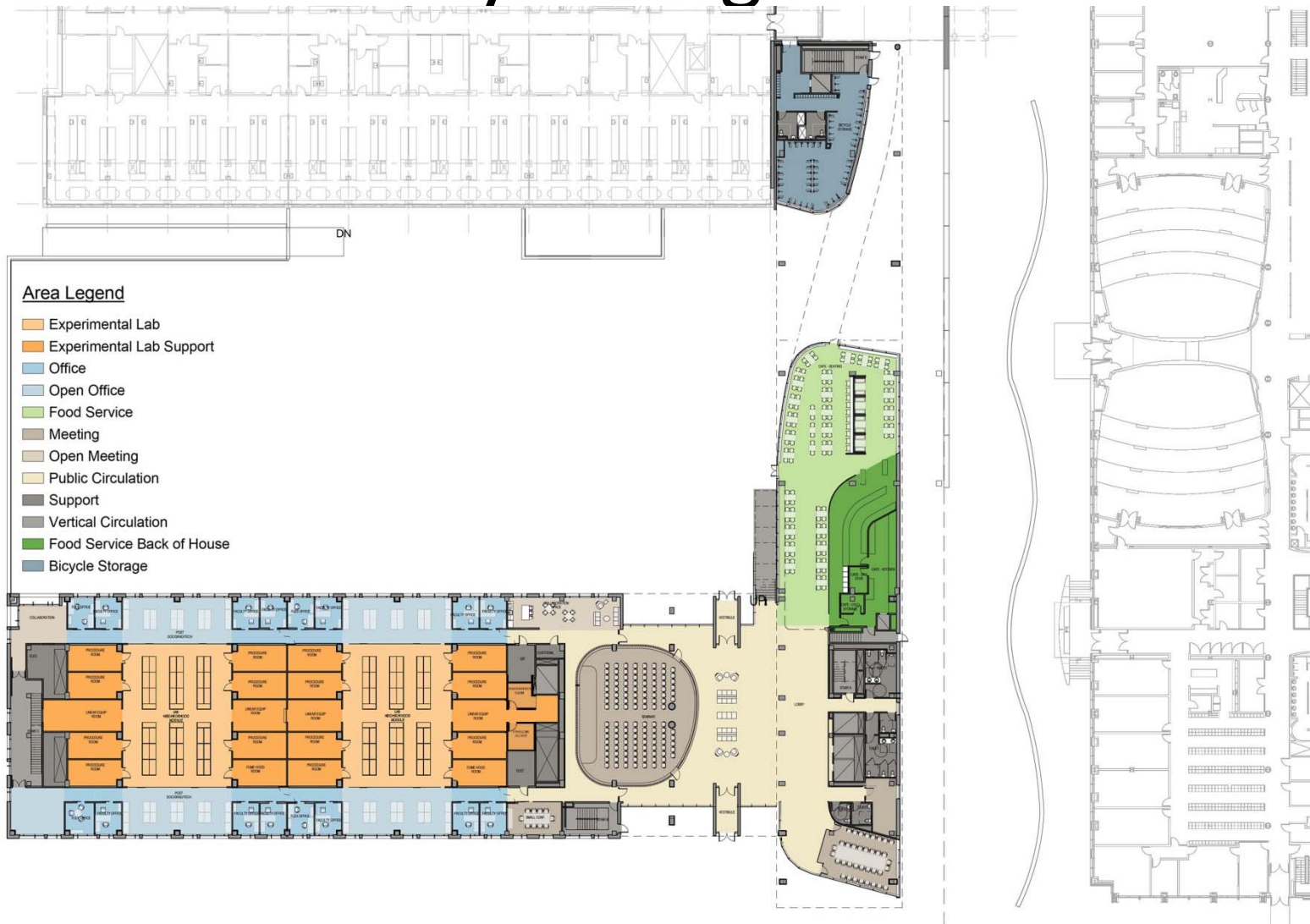


RB2

- Details:
 - 6 floors, 300,000 square feet of wet lab space
 - Vivarium and cores in basement that are connected to BBSRB, Biopharm
 - Appalachian Translational Trail dry lab 4 story connector



RB2: Open lab design, seminar room, healthy eating restaurant





Stay tuned.....





F&A flow within the institution

Goals = transparency, empowering units

- Return of funds to colleges/units:
 - Enrichment program: 14%
 - Research academic award: 5%
 - Start-up (formulaic): 20%
 - SIF: 5%
 - Total direct return to units: 44%**
- Other programs supported through F&A (UKRF budget) that facilitate research (10% of UKRF budget):
 - Institutional support, research support grants, conference support, summer salary support, equipment maintenance, research cores, leases, graduate school support.
- Debt Service: (\$3.1 million, or 7% of last year's budget):
 - BBSRB, BioPharm, RB2?



Formulaic start-up (20% of UKRF budget): Update

- Used to support start-up for 52 faculty across our Colleges

NEW FACULTY BY COLLEGE	Number
Arts & Sciences	4
Agriculture, Food and Environment	1
Communication and Information	6
Education	6
Engineering	3
Martin School	1
Medicine	20
Public Health	11



Revised Summer Salary Support Program: Formulaic

College Academic Appointment	Allocation
Arts and Sciences	\$28,872
Business and Economics	\$3,609
Communication and Informati..	\$7,820
Design	\$6,617
Education	\$19,850
Fine Arts	\$7,218
Law	\$1,805
Social Work	\$4,211
Grand Total	\$80,000

- Eligibility requirements:
 - < \$10 million in R&D expenditures
 - Full time faculty in the Regular Title Series
 - Research effort > 20%, but < 33%
 - Distributing \$80K to the following units:

Purpose: To provide summer salaries for research/creative work of faculty in areas where extramural funding is not traditional



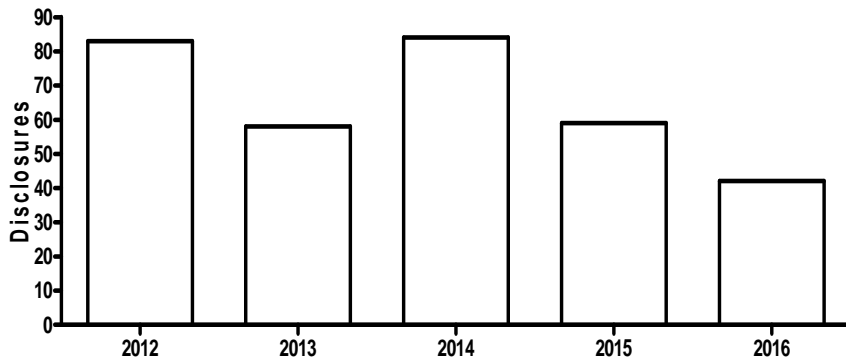
Revised Research Professorship Program

- Previous program: support of 4 professors (\$40K/each)
 - To be consistent with Strategic Plan (recognize research excellence across the spectrum of disciplines):
 - All 17 colleges established criteria of excellence in research/creative work
 - College leadership nominated candidates to Office of Research
 - Awardees received \$10K in support, recognized by BOT and through a reception highlighting their accomplishments
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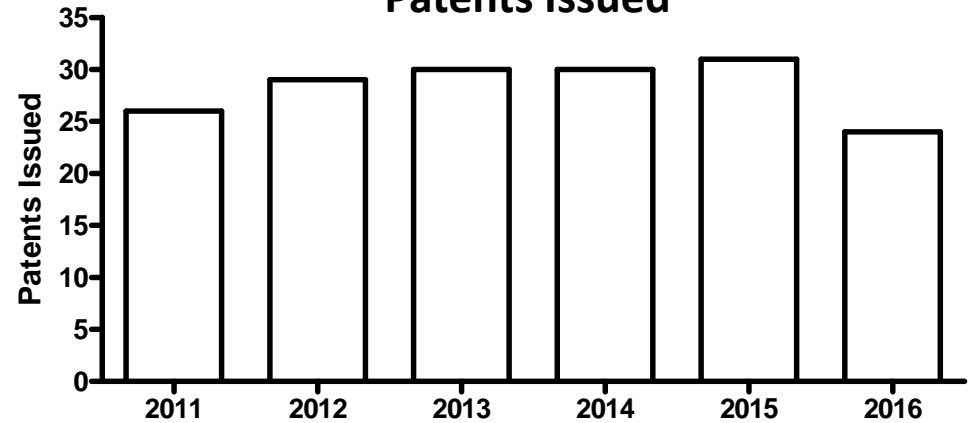


BOT metric #4: License growth and income generation

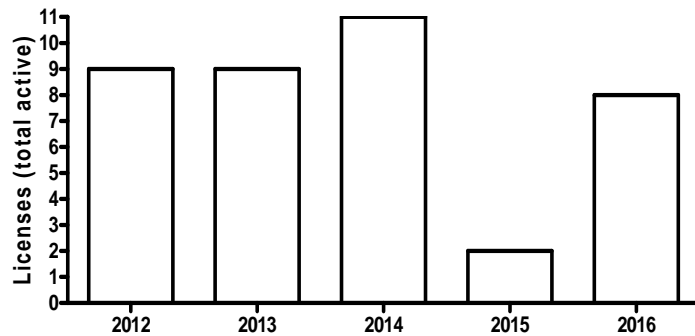
Disclosures



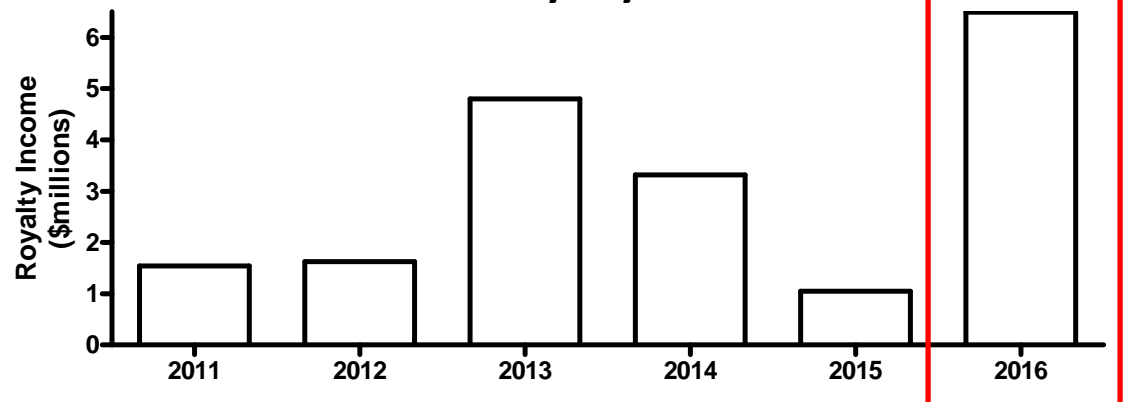
Patents Issued



License



Royalty Income



Quasi-endowment fund: \$5 million from royalty income of UKRF, \$3.8 million of royalty income of Pharmacy



Top 5 License Revenue

- **Niadyne: \$4.4 million settlement, Pharmacy** (skin care cosmeceuticals)
 - **Pall Technology: \$615K, A&S (Physics)** (magnetic levitating stirrer)
 - **Matt Holding Guo's Technologies: \$487K, Pharmacy** (RNA nanotechnologies)
 - **New Ace Research: \$323K, Medicine** (technology for equine protozoal myelitis)
 - **Antiop-T1885: \$268K, Pharmacy** (intranasal Naloxone)
-



F&A rate negotiation

- Performed space assessment of organized research.
 - Organized research current rate: 50.5%
 - FY15 Calculated rate: 54.68%
 - Agriculture Research: 40%
 - FY 15 Calculated rate: 50.80%
-



New Recruits in the Research Enterprise

- New Center Directors:
 - Jim Griffioen, Computational Sciences
 - Kathy Sheppard-Jones, Human Development Inst
 - DB Bhattacharyya, Membrane Sciences
- Ongoing Center Director Recruits:
 - Tracy Farmer Sustainability of Eenvt
 - Kentucky Geological Survey





Changes in Research Support Directors

- Phased retirement of Jack Supplee (Fiscal Affairs), Ada Sue Selwitz (Research Integrity)
 - Hiring of Billy Clark, Director, Research Information Services
 - Ongoing searches:
 - Director of IP/TTO
 - Upcoming search for Director of Research Integrity
 - Attending Veterinarian
-



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Areas of emphasis in FY15/16 for the research
enterprise**

- ✓ • Design and use of new research facility to improve the research enterprise and address health gaps in the Commonwealth
- ✓ • Continue to improve efficiency and effectiveness of the research infrastructure (focus on IP/TTO, core facilities, proposal development)
- ✓ • Negotiation of new F&A rate
- ✓ • Changes to funds flow (values based, incentive) for F&A to empower units
- ✓ • Implementation strategies for research strategic plan

What did we accomplish?



Next year: Areas of emphasis in FY16/17 for the research enterprise

- Budget reductions: improve efficiency of operations, work with Centers in resourcing their units
 - Implement policies/procedures and plan for occupation of RB2
 - Implement UK-wide Multidisciplinary Value Program (MVP) for Strategic Investment
 - Revise structure/offerings of Proposal Development, IP/TTO to enhance infrastructure
-



UKRF FY16/17 Budget

- To date, we have realized \$40,632,583 through April 2016.
 - Annualized, this comes to \$48,759,100. As our budget in FY15/16 was \$44 million, we will realize (and exceed) this fiscal years budget.
 - 2016-17 Proposed Budget: \$45 million.
-



Page 1: Revenues (major changes)

- II.C.Private gifts: Increase of \$39.5K.
 - III. Private gifts and endowment fund balance: \$84K.
 - IV. Appropriated fund balance, unrestricted
 - A. Royalty Income: \$7 million
 - B. Faculty Research Program: \$4 million in fund balances
 - D. Contingency Reserve: Increase of \$100K (10% of UKRF \$45 million budget).
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Page 2: Transfers to General Fund (major changes)

- 1.B.1 Research Admin/Personnel Support (\$1.19 million): \$750K transfer of Attending Vet position and staff from ORI to Research Admin, other positions and promotions (compliance/regulatory)
 - 1.B.2. College Grant Officers (\$13.1K): promotion
 - 1.E.2. BBSRB debt service (-\$7.7K)
-



Page 3: Expenditures (major changes)

- IIA.3 Project Admin (\$400K): Purchase of new software for grant submissions
- IIA.4 Fed Relations (\$22.9K): Purchase of CQ Quarterly Software
- IIA.6 Res Commun (\$15K): Website upgrade
- IIA.7 Discretionary (\$3.3K): Increases for AV and VPR
- IIA.9 Animal Care Office (\$67.5K): New unit set-up funds taken from ORI budget
- IIA.10 OVPR Office Operations (\$5K): Increased VPR Admin staff needs
- IIA.13 PDO (\$17.2K): Purchase of limited submissions software
- IIA.14 ORI (-\$53.2K): removal of funds from this budget to support AV needs
- IIA.15 Spons Proj Acct (-\$45.4K): reduced needs to support F&A negotiation



Page 3: Expenditures (major changes)

- IIB.1 Contingency (\$100K): 10% of new budget
 - IIB.2 Private Gifts (-\$44.5K)
 - IIB.3 Patent Costs (-\$142K)
 - IIB.4 Royalty Income (\$7.142 million):
Niadyne settlement, \$8.8 million in Quasi-endowment (\$5 million for Research, \$3.8 million for Pharmacy)
-



Page 3: Expenditures (major changes)

- IIC.1a Residual start-up (-\$1.768 million): Remaining commitments almost met
- IIC.1b Faculty start-up (\$200K): 20% of this year's budget
- IIC.2 Enrichment (\$130.8K): Increase based on increased funding
- IIC.3 Faculty Research Support (\$20K): Research Professorships
- IIC.4 Grant related support (-\$123.9K): Matching institutional support
- IIC.5 Shared use facilities (-\$750K): Moved to support AV and needs
- IIC.6 Initiatives (-\$360.2K): Reduced funding of leases
- IIC.8 Fund balance (\$4.0 million): Residual funds in enrichment, faculty start-up