2014-2015 Research Report to UKRF Board of Directors

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Interim Vice President for Research

A year of transitions in research.....

- BOT Research Retreat: October, 2014: CR1
- President Capilouto's pursuit of a new research building.
- Revising the research infrastructure.
- Developing the research strategic plan.
- Moving forward with a values based financial allocation model to support the research enterprise.
- Strengthening the research portfolio.

BOT retreat: October, 2014

- Principles for the Research Enterprise
- <u>Recommendation</u>: Recognizing the essential nature and value of all scholarly and creative activity undertaken at a comprehensive, landgrant institution, the University's mission and the current financial environment compel a focus on research areas where:
- 1. The needs of Kentuckians and the Commonwealth are most pressing; and
- 2. The University can continue to compete successfully for external research support.

BOT retreat: October, 2014

- The President is directed to take steps necessary to achieve these goals and grow the University's research enterprise by:
 - 1. Aligning resource commitments to optimize efficiency and facilitate faculty, student and staff success;
 - 2. Recruiting and retaining world-class scholars and research teams;
 - 3. Strengthening the commitment to interdisciplinary exploration; and
 - 4. Confirming and detailing the critical need for additional research infrastructure.

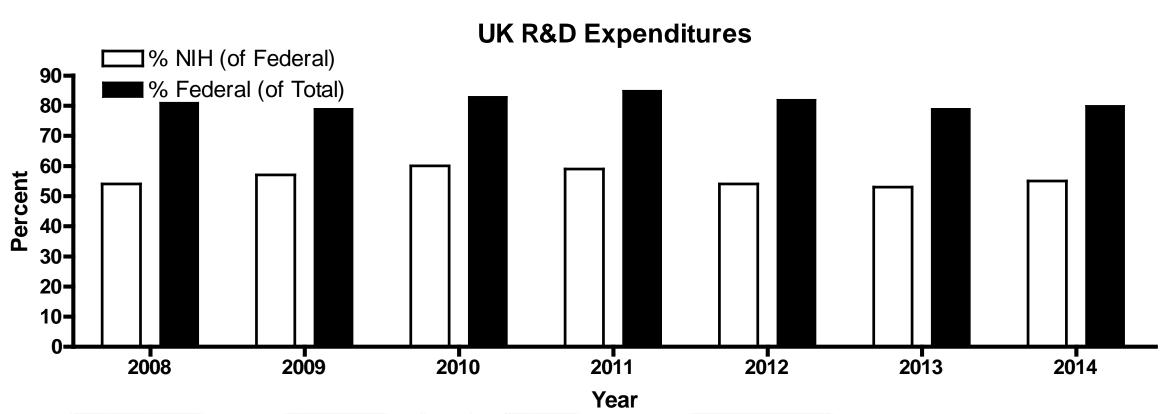
- 1. Aligning resource commitments to optimize efficiency and facilitate faculty, student and staff success;
 - Revision of IP/TTO process.
 - Review and re-structuring of research support core facilities.
 - Review of operating procedures, budgets, customer satisfaction of all research support units.
 - Change in process for providing funds to units for new faculty recruits (consistent with values-based financial allocation).

- 2. Recruiting and retaining world-class scholars and research teams;
 - Participated in recruit of new Dean of College of Health Science (with significant DOD research funding).
 - Participated in recruit of Director of Bioinformatics (critical component of the CTSA award/renewal).
 - Participated in recruitment efforts of several Chairs, faculty across campus.

- 3. Strengthening the commitment to interdisciplinary exploration; and
 - Instituted quarterly meeting of all Directors of Centers/Institutes to improve communication.
 - Change in policy to provide funds for recruitment of new research talent to Center/Institute Directors.
 - Formulated a process to review all Centers/Institutes for strengths/weaknesses, funding, alignment with UK research priorities.

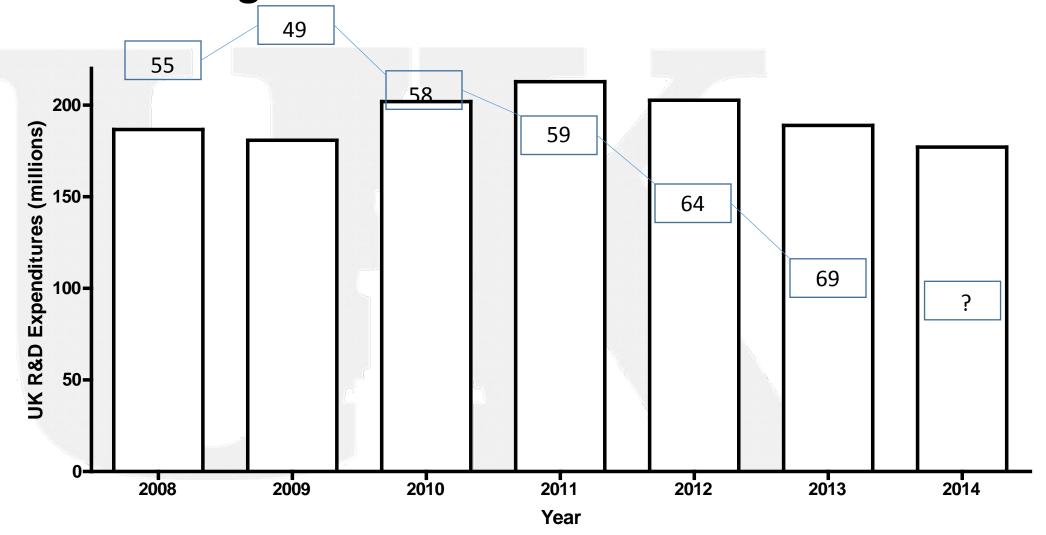
- 4. Confirming and detailing the critical need for additional research infrastructure.
 - Supported President Capilouto's efforts to successfully petition the state for new research facility.
 - Participated in selection of firm for building design/construction.
 - Will work with the President and Provost in structuring the process for design, occupation and assessment of new research facility.

The UK Research Portfolio

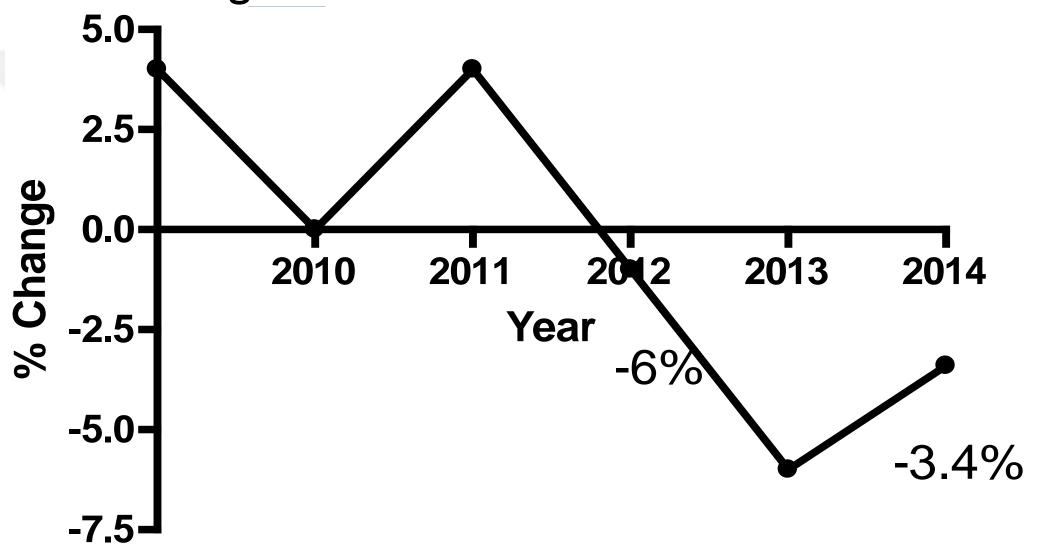


- UK's R&D expenditures are largely Federal
- Of Federal agencies, NIH makes up the majority of UK's R&D expenditures (78% in 2014)

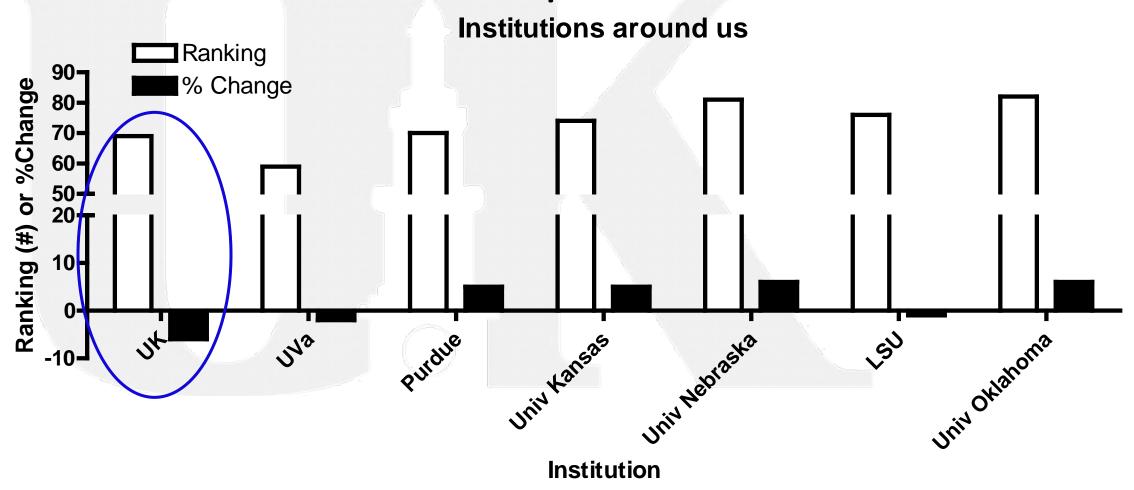
Despite an increase in R&D expenditures, our NSF HERD R&D ranking has declined...



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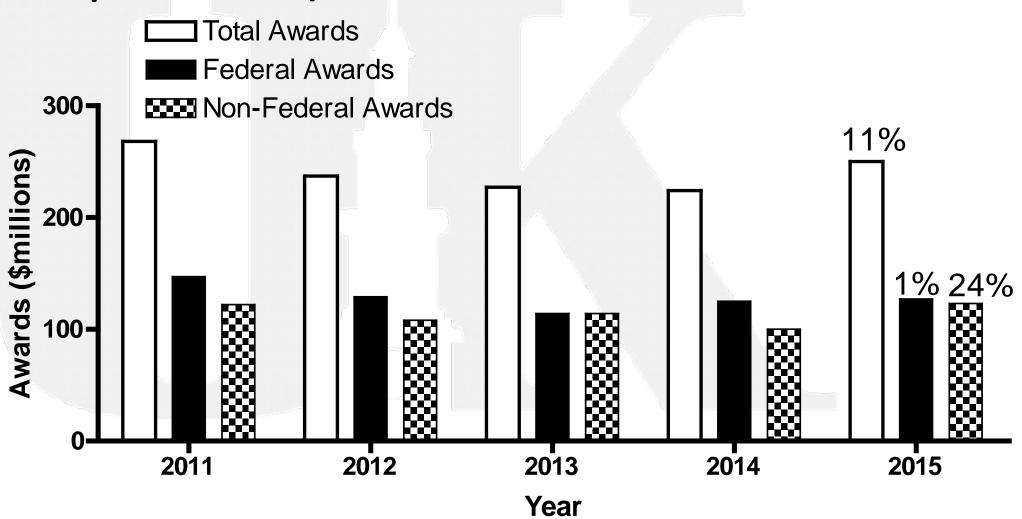


We must strategically invest in areas of research strength as other institutions are increasing their market share of R&D expenditures....



Our progress in 2015: Total Awards at UK (July

- April, 2015)

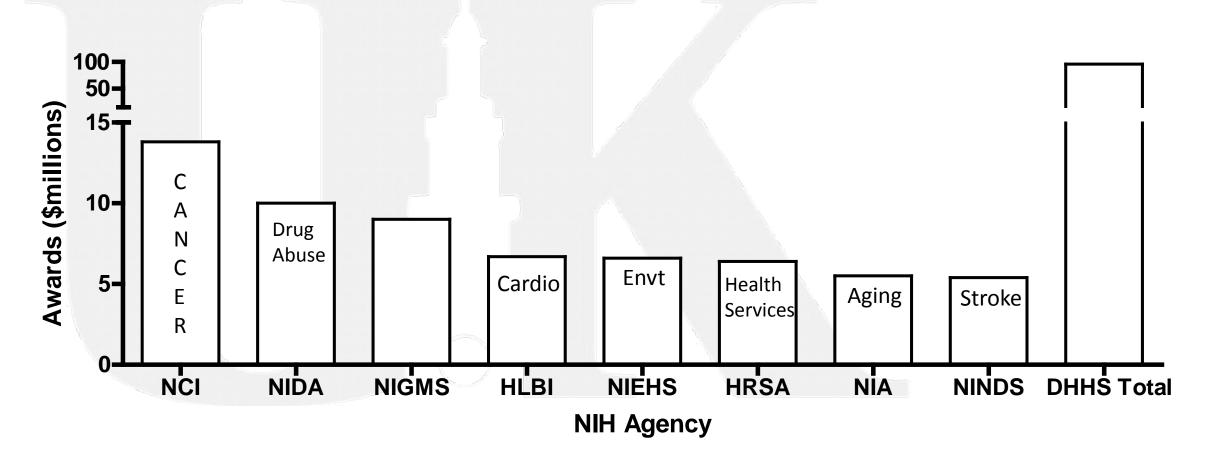


We have continued the trend of increasing NIH funding, of major importance to the UK research enterprise

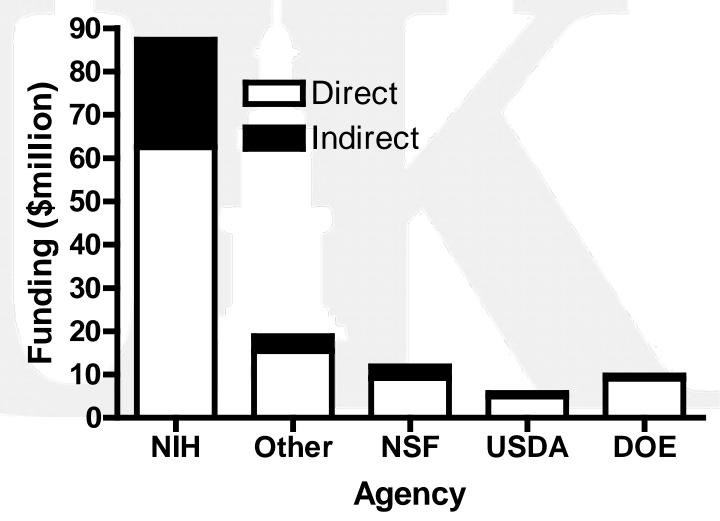
Awards (\$millions)

- From FY13 to 14, NIH funding increased by 25%
- In FY15, we have experienced another 13% increase thus far

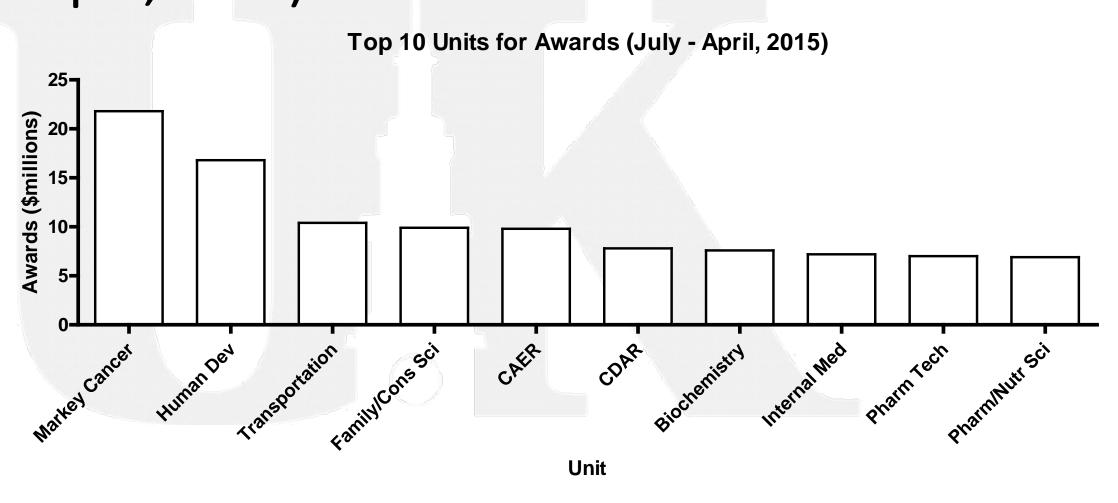
Our NIH funding addresses health gaps impacting citizens of the Commonwealth



And NIH provides the largest % of F&A to support the research enterprise



The top 10 units for extramural awards (July – April, 2015)

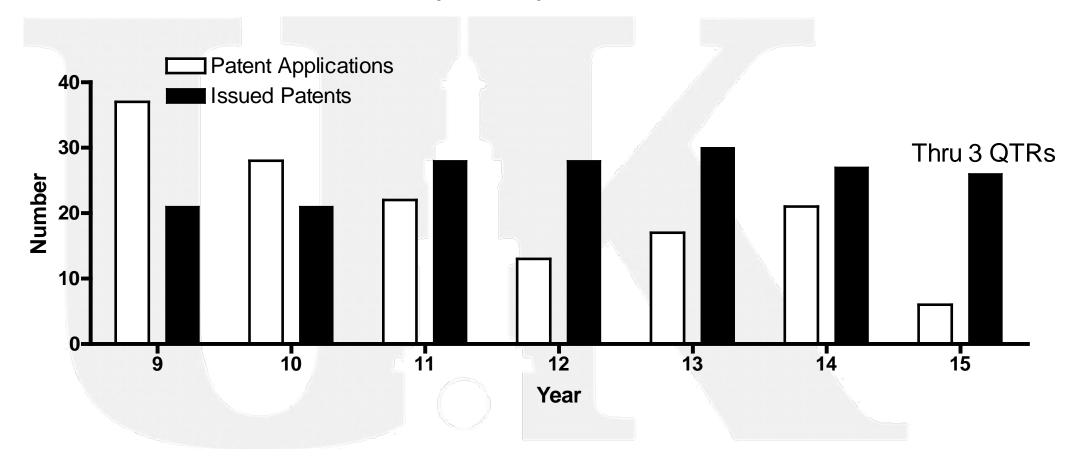


5 out of 10 are interdisciplinary Centers

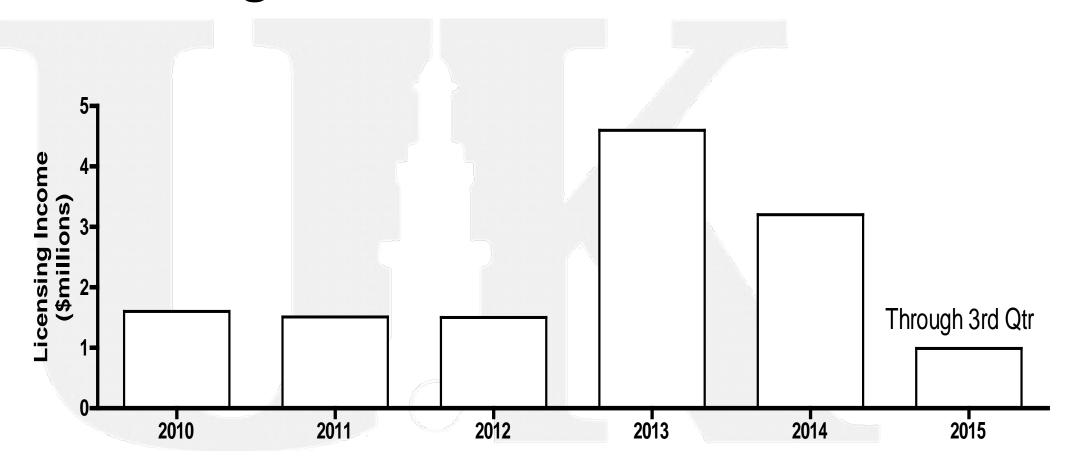
New grants in 2015

- PECORI Health Services Research Administration grant: Mark Williams (\$15 million)
- NSF EPSCoR grant (Building Kentucky's BioEconomy), \$20 million from NSF,
 \$4 million from the state
- Phase III NIH COBREs for Dentistry, Biochemistry (\$750K each annually)
- CDC Award for nutrition/obesity, Agriculture Extension (\$630K annually)
- New NIH Program Project Grant in OB/GYN (\$1.1 million annually)
- Several large NIH grants to individual investigators (e.g., \$639K annually)

Intellectual Property



Licensing Income



FY14/15 Top License Agreements and Revenue

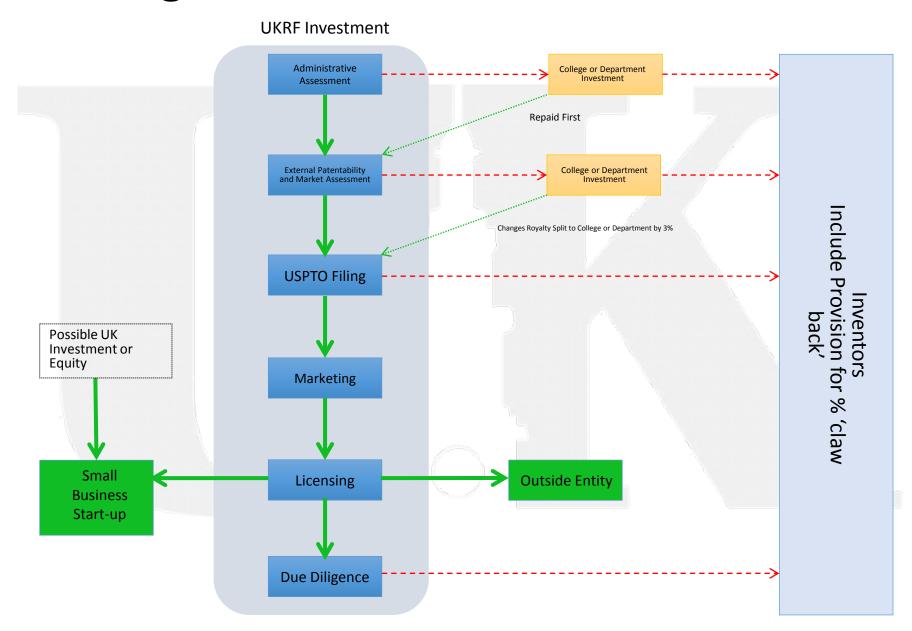
Revenue

- New Ace Research Co (\$269K)
- ATMI (\$129K)
- Ceptaris Therapeutics (\$116K)
- Monsanto Co (\$90K)
- Boehringer Ingelheim Vetmedica (\$71K)

Agreements

- Lian Hen Hui Investment (photobioreactor for micro-algae, CAER).
- CytoInformatics (image analysis of skeletal muscle, Computer Sci/Physiology).
- PowerTech Water (zero charge carbon based electrode)

Changes to IP Decision Matrix



Areas of emphasis in FY15/16 for the research enterprise: the transition year

- 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

UKRF FY15/16 budget

- To date, we have generated \$37,671,776 of F&A through April, 2015
- Annualized, this comes to \$45,206,131. As our budget in FY14/15 was \$43.5 million, we will realize (and exceed) this fiscal years budget.
- 2015-16 Proposed budget: \$44 million

Page 1: Budget Summary, Revenues (major changes)

- IIB. Patent Income: Projected revenues of an additional \$400K.
- IVA. Royalty Income Unexpended balance: \$300K
- IVC. Miscellaneous: The \$4.120 million increase reflects funds from UKRF reserves to support tail end start-up commitments (\$2.3 million, page 3, C1a) plus a \$2 million SIF for use by the VPR to support leveraged start-up across the institution (see expenditures, page 3, C7).
- IVD: Contingency reserve: Increased by \$50K (10% of UKRF \$44 million budget)

Page 1, Budget summary, **Transfers and Expenditures**

- IB: Research Admin/Personnel Support: Merit increases (\$283K)
- IIA, Operating Expenses: Increased by \$914K (see page 3A).
- IIB, Other activity: increased by \$995K (see page 3B)
- IIC, Research Programs: increased by \$3.5 million (see page 3C)

Page 2, Transfers to General Fund

- IA7: Controller's Office: new position (\$73K)
- IB1: Research Admin: merit raises (\$283K)

Page 3, Expenditures

- IIA: Operating Expenses, Research Admin: We have moved these expenses to this category from their previous location within IIC of the UKRF budget to be more transparent in illustrating operating costs for research administration. I will point out where there are expenditure increases compared to FY14/15.
- IIA4: Federal Relations: Cornerstone Consulting Contract (\$200K).
- IIA11: Oversight of 2 multidisciplinary research buildings (\$171.5K)
- IIA14: Research Integrity: moved operating expenses related to this unit from IIC to IIA14.
- IIA15: Sponsored Programs Accounting: Increased expenditures of \$244K due to consulting contract (Huron) for new F&A rate negotiation.
- IIA16: Proposal Development: Two software programs for proposal dissemination distribution across campus and receipt of information regarding grant opportunities.

Page 3, IIB: Other activity

- B1, Contingency reserve: Increased by \$50K as 10% of UKRF budget (\$44 million)
- Increases in expenditures for Private Gifts (by 28%), Patent Costs (by 18%) and Royalty Income Sharing Program (by 6%).

Page 3C, Research Programs

- C1a: Residual start-up commitments: \$2.328 million. We propose to honor this commitment using UKRF reserves.
- C1b: Faculty start-up: Allocated at 20% of \$44 million UKRF budget (\$8.8 million). To be distributed formulaically.
- C2: Enrichment: This is the distribution of F&A to units based on the split of research direct costs (10% if one unit, 16% if 2 units involved). This also includes a Research Academic Award of 5% of F&A (formulaically distributed to Deans based on their % of F&A pool). Together, this represents 19% of the total F&A budget for FY15/16.
- All together, 39% of the F&A budget is distributed across the institution for unit-based decisions.

Page 3C, Research Programs

- C3: Faculty Research Support: \$486K, pilot grants, memberships and dues, Centers/Institute support, etc.
- C4: Grant related support: \$1.373 million, leveraging of grant applications to illustrate institutional support
- C5: Shared use facilities: Increase of \$412.5K to subsidize animal care cost rate structure.
- C6: University wide initiatives: \$1.32 million, supports leases, research professorships, accreditation due/fees, undergraduate research program, etc.

Page 3C, Research Programs

- C7: Research Strategic Investment Fund (SIF), \$2 million from UKRF reserves. To be used to support interdisciplinary leveraged recruits across units.
- C8: Research Programs fund balance: \$9 million, for unexpended commitments.

5/21/2015 - REVISED	2014-15 APPROVED BUDGET	2015-16 PROPOSED BUDGET	DIFFERENCE +/-
REVENUE I. SPONSORED PROJECTS A. Total Contracts & Grants B. LESS: Direct Costs	293,500,000	297,000,000	3,500,000
	250,000,000	253,000,000	3,000,000
C. Net Indirect Cost Recovery	43,500,000	44,000,000	500,000
II. GENERAL INCOME A. Fixed Price Agreements B. Patent Income C. Private Gifts D. Misc. Income SUBTOTAL - GENERAL INCOME	2,008,900	1,935,000	(73,900)
	3,800,000	4,200,000	400,000
	211,200	275,100	63,900
	20,000	20,000	-
	6,040,100	6,430,100	390,000
III.Private Gifts & Endowment Fund Balance SUBTOTAL - FUND BALANCE, RESTRICTED	658,800	840,200	181,400
	658,800	840,200	181,400
IV. APPROPRIATED FUND BALANCE, UNRESTRICTED A. Royalty Income Sharing Program Unexpended Balance B. Faculty Research Program C. Miscellaneous (other budget categories) D. Contingency Reserve SUBTOTAL - FUND BALANCE, NONRECURRING	5,000,000	5,300,000	300,000
	9,000,000	9,000,000	-
	800,000	4,919,866	4,119,866
	4,350,000	4,400,000	50,000
	19,150,000	23,619,866	4,469,866
TOTAL REVENUE	69,348,900	74,890,166	5,541,266

5/21/2015 - REVISED	2014-15	2015-16	
	APPROVED BUDGET	PROPOSED BUDGET	DIFFERENCE +/-
TRANSFERS AND EXPENDITURES			
I. TRANSFER TO GENERAL FUND			
A. General & Administrative Support to UK	3,816,000	3,889,400	73,400
B. Research Admin Personnel/Support	9,195,500	9,478,900	283,400
C. Sponsored Projects Transfers	2,008,900	1,935,000	(73,900)
D. Student / Training Support	4,688,000	4,688,000	-
E. Debt Service	3,106,900	2,936,366	(170,534)
F. Research Challenge Trust Fund Match	85,000	85,000	- '
SUBTOTAL - TRANSFER TO GENERAL FUND	22,900,300	23,012,666	112,366
II. EXPENDITURES			
A. Operating Expenses, Research Administration	816,300	1,730,700	914,400
B. Other Activity	14,020,000	15,015,300	995,300
C. Research Programs	31,612,300	35,131,500	3,519,200
CURTOTAL EXPENDITURES	46 440 600	E4 077 E00	F 420 000
SUBTOTAL - EXPENDITURES	46,448,600	51,877,500	5,428,900
TOTAL EXPENDITURES AND TRANSFERS	69,348,900	74,890,166	5,541,266

5/21/2015 - REVISED	2014-15 APPROVED	2015-16 PROPOSED	DIFFERENCE
	BUDGET	BUDGET	+/-
I. TRANSFERS TO GENERAL FUND			
A. APPROVED			
1. General Grant to UK	500,000	500,000	-
Service Assessment by University of Kentucky	2,003,600	2,003,600	-
Supercomputer Support	430,400	430,400	-
Environmental Health & Safety	66,000	66,000	-
5. Legal Counsel Support	81,000	81,000	-
6. Risk & Insurance Premiums	100,000	100,000	-
7. Controller's Office Support	635,000	708,400	73,400
Total General and Administrative Support to the University of Kentucky	3,816,000	3,889,400	73,400
B. Research Administration Personnel & Support			
Research Administration Personnel & Support	6,567,300	6,850,700	283,400
College Grant Officers	789,800	789,800	-
Intellectual Property & Technology Transfer	632,400	632,400	-
Research Equipment Maintenance Program	1,206,000	1,206,000	
Total Research Administration Personnel & Support	9,195,500	9,478,900	283,400
C. Sponsored Projects Transfers			
1 Fixed Price Agreement Residuals	2,008,900	1,935,000	(73,900)
Total Sponsored Projects Transfers	2,008,900	1,935,000	(73,900)

5/21/2015 - REVISED

3/21/2013 - ICEVISED	2014-15 APPROVED	2015-16 PROPOSED	DIFFERENCE
I. TRANSFERS TO GENERAL FUND, continued	BUDGET	BUDGET	+/-
D. Student / Training Support			
Teaching Assistants	451,000	451,000	-
LTJ Postdoctoral Fellowships	120,000	120,000	_
Women Postdoctoral in Underreprented Areas	120,000	120,000	-
Graduate School Program Support*	3,997,000	3,997,000	1_
Total Student / Training Support	4,688,000	4,688,000	1-
E. Debt Service			
1 Fit-Up of the 4th and 5th Floors of the Pharmacy Building	1,294,200	1,125,466	(168,734)
2 Biomedical/Biological Research Bldg. Debt Service	1,812,700	1,810,900	(1,800)
Total Debt Service	3,106,900	2,936,366	(170,534)
F. Research Challenge Trust Fund Match			
Graduate Center for Toxicology	85,000	85,000	
Total Research Challenge Trust Fund Match	85,000	85,000	-
TOTAL I. TRANSFERS TO GENERAL FUND	22,900,300	23,012,666	112,366

^{*} includes \$529,000 RCTF commitment for RA in-state tuition tier I (TORA) - original \$350,000 in 98/99

5/21/2015 - REVISED

3/21/2013 - REVISED	2014-15 APPROVED	2015-16 PROPOSED	DIFFERENCE
	BUDGET	BUDGET	+/-
II. EXPENDITURES			
A. Operating Expenses, Research Administration			
Contractual Services	20,000	20,000	-
Research Information Services	247,200	247,200	-
Project Administration/College Grants Officers	124,000	124,000	-
Federal Relations	26,000	226,000	200,000
Intellectual Properties Office	36,000	36,000	-
Research Communications	55,000	55,000	-
7. Discretionary Accounts	26,700	27,700	1,000
Overruns/Disallowed and Uncollected Project Costs	2,000	2,000	-
9. Federal Relations - Travel	45,000	45,000	-
10. OVPR Office Operating	60,000	60,000	-
11. M&O BBSRB and HSRB	-	171,500	171,500
12. Renovation, Equipment, & Other	10,000	10,000	-
13. Faculty Travel	20,000	20,000	-
14. Office of Research Integrity	60,000	332,000	272,000
15. Sponsored Project Accounting/Office of Controller	69,400	313,400	244,000
16. Proposal Development Office	15,000	40,900	25,900
Total Operating Expenses	816,300	1,730,700	914,400

5/21/2015 - REVISED

II. EXPENDITURES, continued	2014-15 APPROVED BUDGET	2015-16 PROPOSED BUDGET	DIFFERENCE +/-
	BODGET	BUDGET	T/-
B. Other Activity			
Contingency Reserve	4,350,000	4,400,000	50,000
Private Gifts/Endowments	870,000	1,115,300	245,300
3. Patent Costs	1,600,000	1,880,000	280,000
Royalty Income Sharing Program	7,200,000	7,620,000	420,000
Total Other Activity	14,020,000	15,015,300	995,300
C. Research Programs			
1.a Residual Start-up commitments	-	2,328,000	2,328,000
1.b Faculty Start-up	9,130,000	8,800,000	(330,000)
2. Enrichment	8,551,300	8,320,200	(231,100)
Faculty Research Support	486,000	486,000	n = 1
Grant Related Support	1,728,800	1,373,400	(355,400)
5. Shared Use Facilities	1,087,500	1,500,000	412,500
6. University Wide Initiatives	1,628,700	1,323,900	(304,800)
7. Research Strategic Investment Fund (SIF)	-	2,000,000	2,000,000
Research Programs fund balance	9,000,000	9,000,000	
Total Research Programs	31,612,300	35,131,500	3,519,200
TOTAL II. EXPENDITURES	46,448,600	51,877,500	5,428,900
TOTAL EXPENDITURES AND TRANSFERS	69,348,900	74,890,166	5,541,266