

## **STRONGER** by DEGREES



## **MEETING AGENDA**

### **Lung Cancer Research Governance Board**

Wednesday, August 30, 2017

Conference Room A and ZOOM Video Conferencing

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## **AGENDA**

Kentucky Lung Cancer Research Program Governance Board

Council on Postsecondary Education

Wednesday, August 30, 2017

2:00 PM

Conference Room A and ZOOM Video Conferencing

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1. Welcome and Roll Call
2. ACTION - Approval of Minutes, July 12, 2017 3
3. Cash Activity Report and FY 17 End of Year Report 5
4. ACTION - FY17 Annual Report to the Governor 7
  - a. UK - Markey Cancer Center Annual Report 8
  - b. UofL - James Graham Brown Cancer Center Annual Report 17
5. Adjourn

**Next Meeting Date - November 8, 2017**

To comply with state open meeting rules, members attending must participate in person or by video conference.

To participate via video conferencing, visit the following link:

<https://zoom.us/j/519500593>

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Meeting ID: 519 500 593

# Kentucky Lung Cancer Research Program Governance Board

July 12, 2017  
Meeting Minutes

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The Kentucky Lung Cancer Research Program Governance Board met via Zoom video conferencing on Wednesday, July 12, 2017, at 3:00 p.m., ET, at the Council on Postsecondary Education, Conference Room C, Frankfort, Kentucky. Travis Powell presided over the meeting.

## **WELCOME AND ROLL CALL**

The meeting of the KLCRP Governance Board was called to order by Travis Powell. Roll Call was taken and the following members were present: Amtullah Khan (Zoom), Don Miller (Zoom), Tim Mullett (Zoom), Dan Flanagan, and Jason Chesney (conference line only). Mark Evers and Rajan Joshi were absent.

Others present were: Kris Damron, Dianne Konzen, Nathan Vanderford, Travis Powell, Rebecca Bowman and Debbie Weakly.

## **APPROVAL OF MINUTES**

Travis Powell called for a motion to approve the minutes of March 15, 2017. A motion was made by Don Miller and seconded by Dan Flanagan. The motion was approved.

Travis called for a motion to approve the minutes of June 14, 2017. A motion was made by Don Miller and seconded by Dan Flanagan. The motion was approved.

## **CASH ACTIVITY REPORT**

Rebecca referred to the Cash Activity Report and stated that all FY16-17 funds were received in April and all invoices received been paid before the June 1 deadline in accordance with the timeline. UK's cash balance forward is related to their grant allocations and are paid as they are approved and invoiced by UK. The recent agency budget cut imposed by the Governor did not impact the Lung Cancer funds.

## **2017-18 BUDGET PROPOSALS**

Nathan Vanderford presented the budget for UK and stated it provided more detail than previously which would assist with the year end audit.

Travis called for a motion to approve the UK 2017-18 Budget Proposal. A motion was made by Don Miller and seconded by Dan Flanagan. The motion was approved.

Don Miller presented the budget for UofL and stated that it was the same as previously submitted with no changes. Travis questioned the 25% allocated for Milton Pierson's salary and Dr. Miller responded that Dr. Pierson's replacement would utilize these funds. Dr. Chesney stated that they currently have a temporary replacement who will become permanent in the fall.

Travis called for a motion to approve the UofL 2017-18 Budget Proposal. A motion was made by Dan Flanagan and seconded by Don Miller. The motion was approved.

#### **OTHER BUSINESS**

Rebecca referred to the letter from the Auditor and stated that expenditures of the Lung Cancer Research Fund are in compliance and accurately reported.

Rebecca announced that the next meeting of the Lung Cancer Board will be held on August 30th. Annual reports from each institution will need to be submitted to CPE by August 22<sup>nd</sup> for circulation to the Board members and will be presented for approval at the August 30<sup>th</sup> meeting for submission to the Governor and the Legislative Research Commission.

Dr. Mullett shared some highlights of the KCTN program. KCTN period accrual was 399 and FY2017 accrual to date is 499. This is the highest annual accrual since the inception of the program. Even more important, all accruals support the priority portfolio outlined in the strategic plan. Refining the portfolio to target the priorities of the strategic plan has helped to reinforce the strong preference of sites to conduct investigator-initiate clinical trials (IITs). In FY17, KCTN enrolled 471 to IITs and 28 to cooperative group or industry trials. Now there is an increase to 107/120 counties served by enrolled participants. KCTN sites have now enrolled subjects from 89% of the state.

With no further business, the meeting adjourned at 3:40 p.m.

Council on Postsecondary Education  
Lung Cancer Research, Tobacco Settlement Fund (6349 fund)  
FY18 Cash Activity Report as of August 15, 2017

Date	Description	Interest	Ovarian	Combined LC Pool	UK Lung Cancer		UofL Cancer		Total Allocation (Calculated)	comment	CASH
					Grants	Programs	Grants	Programs			
	<b>FY16 Carry-Forward Balance as of 6/30/2017</b>	23,169.53	-	-	1,432,096.44	-	-	0.93			1,455,266.90
7/13/2017	AUDIT: LUNG CANCER RESEARCH FUND FY ENDING 6/30/15	1,140.53									1,456,407.43
8/4/2017	UK grant payment	(1,944.00)			(150,000.00)						1,454,463.43
	<b>FY18 appropriation - not yet received - expected b/twn April-June 2018</b>										1,304,463.43
	Governance Board approved appropriations		800,000.00		750,000.00	1,668,100.00	750,000.00	1,208,000.00	5,176,100.00		1,304,463.43
	<b>Cash Balance</b>	<b>22,366.06</b>	-	-	<b>1,282,096.44</b>	-	-	<b>0.93</b>	-		<b>1,304,463.43</b>

Council on Postsecondary Education  
Lung Cancer Research, Tobacco Settlement Fund (6349 fund)  
FY17 Cash Activity Report as of June 30, 2017  
Final Year End Report

Date	Description	Interest	Ovarian	Combined LC Pool	UK Lung Cancer		UofL Cancer		Total Allocation (Calculated)	comment	CASH
					Grants	Programs	Grants	Programs			
<b>FY16 Carry-Forward Balance as of 6/30/2016</b>											
		32,938.52				832,096.44			0.93		865,035.89
	YTD Interest Earnings as of 6.30.17										
8/5/2016	AUDIT: LUNG CANCER RESEARCH FUND FY ENDING 6/30/15	7,717.71									872,753.60
1/23/2017	UK payment - Lung Cancer Symposium	(7,488.00)									865,265.60
2/2/2017	UK payment - Lung Cancer Symposium	(7,449.78)									857,815.82
5/1/2017	UK payment - Lung Cancer Symposium	(512.71)									857,303.11
4/11/2017	UK payment - Lung Cancer Symposium	(2,036.21)									855,266.90
	<b>FY17 appropriation - JV2T - 415- 1700001378 5/1/17</b>				4,706,100.00						855,266.90
	Governance Board approved appropriations (June 2016)										5,561,366.90
4/11/2017	UK grant payment		800,000.00			750,000.00		1,395,500.00	1,010,600.00		5,411,366.90
5/11/2017	UK program payment			(150,000.00)				(1,395,500.00)			4,015,866.90
5/11/2017	UK ovarian program payment		(800,000.00)								3,215,866.90
5/15/2017	UL program and grant payments							(750,000.00)	(1,010,600.00)		1,455,266.90
<b>Cash Balance</b>											<b>1,455,266.90</b>
											<b>23,169.53</b>
											<b>1,432,096.44</b>
											<b>0.93</b>

**Kentucky Lung Cancer Research Program  
Governance Board  
August 30, 2017**

**Annual Report to the Governor**

**ACTION:** Recommend that the Board approve the Annual Report to the Governor for the University of Kentucky and the University of Louisville.

Annual reports have been submitted by the University of Kentucky and the University of Louisville for approval and are attached.

**Kentucky Lung Cancer Research Program  
Annual Report 2017**

<b>INSTITUTION:</b>	<b>University of Kentucky/Markey Cancer Center</b>
<b>Prepared By:</b>	<b>Elisha Maxson, and Nathan L. Vanderford</b>
<b>SUBMITTED BY:</b>	<b>Nathan L. Vanderford</b>
<b>DATE:</b>	<b>8/3/2017</b>



	OBJECTIVES FROM 2016 STRATEGIC PLAN	GOALS (Including Metrics)	Describe how endpoints have been met?	Challenges to attaining goals/revision of endpoints/timeframe?
<b>GOAL 1: Investigator Initiated Research (KRS 167.476(5)(a))</b>				
	1a. Recruit existing faculty of cancer research to focus on problems in lung cancer.	Up to 5 projects per year.	Call for proposals for Cycle 16 was released on June 30, 2016, 15 letters of intent were received, and 4 applications were funded; this resulted in 3 principle investigator-level faculty engaging in the KLCRP that had previously not done so at Markey. Cycle 17 call for proposals was released on July 7, 2017, letters of intent are due on August 14, 2017, and applicants are currently writing full proposals which are due October 31, 2017.	Limited model systems; limited scientific appeal because of lack of national funding opportunities; difficult research area.
	1b. Recruit new faculty with interests and expertise in cancer applied to lung cancer problems	Open-ended.	>80 new faculty since 2009. Several recruits have primary and/or secondary interests in lung cancer. We are continuously looking to recruit faculty with lung cancer research and clinical interests.	Limited expertise available nationally; limited model systems; limited funding available; difficult research area.
	1c. Develop, mentor and focus junior investigators/graduate students on lung cancer	Open-ended.	Junior investigators at the MCC have formal and informal mentorship; many junior faculty have a mentorship committee comprised of senior faculty; new training grant mechanisms are being sought and developed as an effort to boost training for predoctoral students, postdoctoral fellows and junior faculty.	Limited senior investigators available for specific mentoring in lung cancer.
	1d. Support a robust research portfolio for lung cancer.	Up to 5 projects per year; diversity of disciplines.	14 active projects within 2017. Call for proposals for Cycle 17 was issued in July 2017 with projects being funded by July 2018; 4-6 projects are expected to be funded.	Limited number of new investigators focusing on lung cancer research.
	1e. Develop intra-programmatic linkages within/between UK/UofL Cancer Centers	Encourage collaborative projects in each Cycle.	Currently seeking proposals for Cycle 17. The 14 active KLCRP grants are intra- and inter-programmatic in nature and key personnel come from multiple colleges and departments.	Limited number of productively engaged lung cancer investigators especially related to clinician-scientists.
	1f. Conduct annual scientists' seminars to share research results among funded KLCRP scientists.	Seminar exchange program between UK and U of L investigators funded by KLCRP.	Seminars occur on an ongoing schedule. Interested KLCRP-funded investigators are being sought for open seminar dates.	Funds to support travel expenses, etc..
<b>Goal 2: Research in Early Detection &amp; Prevention (KRS 167.476 (5)(a))</b>				
	2a. Conduct screening and early detection research using available and applicable tools in key geographic areas of Ky; Conduct dissemination/implementation lung cancer screening research.	Develop population-based studies especially in eastern Kentucky where cancer incidence and mortality is highest.	A new lung cancer screening research study has been implemented and efforts are already underway to expand the scope of this project statewide. This study will focus on decreasing lung cancer mortality by detecting the disease at an early, treatable stage and by reducing smoking rates. Additionally, a KLCRP Cycle 13 grant being conducted by Dr. Jamie Studts is investigating the impact and need of lung cancer screening shared decision making through a web-based intervention for primary care providers, a vital group of health care providers that are essential for optimal dissemination and implementation of evidence-based lung cancer screening efforts. The Markey Cancer Center has also established a clinical lung cancer screening program that can be leveraged for research purposes going forward.	Cost of off site, population-based studies is exorbitant.
	2b. Expand and refine methodologies for risk-factor delineation	Develop risk-factor models through population-based studies.	Projects testing heavy metals/environmental containments (radon, etc.), tobacco use, and other high-risk behavioral factors in correlation to GI and lung cancer are ongoing. MCC biostatisticians are looking at appropriate risk-factor modeling in these projects.	Overwhelming risk factor of smoking and other lifestyle factors.
	2c. Validate the use of methodologies for lung cancer screening	An ongoing goal seeking improved methods.	The new lung cancer screening research study will revisit cost effective and sustainable screening methods. The new study specifically seeks to develop a network of lung screening sites that includes a research platform to contribute to collection of biospecimens from lung cancer screening participants that can be used to improve lung cancer screening models and modalities. The clinical lung cancer screening program at Markey will also seek to address these issues.	CT is still too costly for routine clinical application & risk assessment remains a challenge.
	2d. Identify and develop methodologies for lung cancer prevention	An ongoing goal.	Prevention projects that are ongoing include tobacco cessation programs, detection and elimination strategies for environmental contaminants and other behavior modification. Dr. Ellen Hahn is conducting significant and innovative work in primary care settings evaluating the effects of a combined radon and environmental tobacco exposure reduction intervention to prevent lung cancer. Lung cancer screening in parallel with tobacco cessation programs are also ongoing at Markey.	Overwhelming risk factor of smoking and other lifestyle factors.
	2e. Maintain and expand the biospecimen repository for use by researchers	An ongoing goal.	More than 20,000 biospecimens (many of which come from Appalachian Kentucky patients) are now available.	Limited access to lung tissue; no surgery for advanced stage disease.
	2f. Capitalize on partnerships with regional and local hospitals and clinics to build an early detection network where research is integral to the relationship	Establish collaborations with our affiliate network and expand the network.	There are currently 18 Markey affiliate hospitals ; other affiliate sites are in negotiation. A Markey research network via partner regional hospitals has been launched and now includes 6 sites. MCC faculty and staff have traveled to Affiliate and Research partner facilities to present CMEs on the standards and coverage decisions for lung cancer screening.	Exorbitant expense; regional and local hospitals are cautious about how expenses will be shared.
	2g. Link prevention and early detection studies.	Continually develop initiatives that serve our catchment area.	Education & smoking cessation programs are widely ongoing as mentioned above. A cycle 12 investigator-initiated grant focuses on identifying the "best" smoking cessation strategy for our catchment area. The new lung cancer screening research study will look to incorporate evidence-based tobacco treatment strategies into high quality lung cancer screening programs in order to combine primary and secondary prevention efforts. Further, efforts are under consideration to incorporate radon education efforts as a component of high quality implementation of lung cancer screening programs. Lastly, the clinical lung cancer screening program at Markey will link patients with prevention strategies including smoking cessation and environmental contaminant mitigation.	Most effective prevention means is smoking cessation; early detection is more problematic in expense, specificity & sensitivity.

	OBJECTIVES FROM 2016 STRATEGIC PLAN	GOALS (Including Metrics)	Describe how endpoints have been met?	Challenges to attaining goals/revision of endpoints/timeframe?
<b>Goal 3: Kentucky Clinical Trials Network (KRS 167.476 (5)(b))</b>				
3a.	Increase # of Kentuckians with access to and participating in lung cancer CTs	<ul style="list-style-type: none"> <li>Identify studies based on feasibility evaluations of patient populations seen, site capacity to ensure successful accrual.</li> <li>Study portfolio to include study opportunities for all sites.</li> <li>Increase overall program accrual.</li> <li>Increase % patients enrolled at site level.</li> <li>Engage community based cancer clinicians to increase patients served. Assure coverage in every federal congressional district in Kentucky.</li> </ul>	<ul style="list-style-type: none"> <li><b>Sites have Enrolled 2,773 participants residing in 101/120 counties to KCTN trials, a saturation of 89% of the Commonwealth. FY2017 accrual was 499 the highest annual accrual since inception of the program. All accruals support the priority portfolio outlined in the KLCR Strategic Plan.</b></li> <li>Sites located in every federal congressional district in Kentucky.</li> <li>Collaborating with Markey Cancer Center to lever synergies and expand access to trials to selected affiliate centers. Trials focus on high priority trials in early detection and treatment of tobacco addiction at centers in MCC catchment areas.</li> <li>Continue work with research sites, including Academic Centers, Community-based hospitals; experience ranging from vast research enterprises to no existing research program.</li> <li>Sites have established enrollment to trials or increased their previous overall enrollment performance. Data for selected sites that hold accreditation with the American College of Surgeons, Commission on Cancer indicate verifiable numbers of increased participation and access to trials in FY2017.</li> <li>IIT collaboratively developed, by MCC clinician, behavioral scientist, KCTN Medical Director and Director. Utilizes innovative statistical design, MOST to identify optimal smoking cessation intervention strategy for newly diagnosed patients; pharmaceuticals and high intensity counseling. Funded with KLCRP cycle 12 award, with additional grant awarded by Pfizer. Trial conducted at 10 KCTN sites. Participating sites have increased capacity in smoking cessation counseling as a result of the study provided training on using motivational interviewing as a technique to counsel patients on smoking. This trial aligns with objectives and priorities outlined in the KLCR Strategic Plan; high-priority investigator-initiated trial, treatment of tobacco addiction, education. The MOST trial has led to the development of a parallel investigator initiated trial to examine factors that influence successful implementation of tobacco treatment. Data will guide us to continuing to advance efforts for comprehensive and integrated tobacco treatment services in our cancer programs.</li> </ul>	<ul style="list-style-type: none"> <li>Challenge is reflective of national and international accrual to trials. National average indicates that less than 3% of adult cancer patients are enrolled to studies. However, most KCTN sites average higher than national average as documented by Commission on Cancer evaluation and commendation level achievements for number of patients enrolled.</li> <li>Despite availability of trials, not every patient is offered opportunity to participate by treating clinicians. Obstacles reflective of time burden in busy clinics, resources and staff for both AMCs and community based sites.</li> <li>Progress: Kentucky Cancer Registry (KCR) implemented clinical trial variables in 2013 software release. Data is now available on the total number of Kentuckians participating in clinical trials. In previous years, this Outcome Measurement Difficult: KCR did not collect a data field of clinical trial. For previous and current year, endpoint to measurable metric - against verifiable numbers collected at sites: # lung cancer patients vs/ # lung cancer patients participate in trial.</li> <li>Challenge: Treatment of tobacco addiction in cancer patients has met with some provider and patient resistance to engage in informed discussions to consider participation in the MOST trial. The MOST trial has led to the development of a parallel investigator initiated trial to examine factors that influence successful implementation of tobacco treatment. Data will guide us to continuing to advance efforts for comprehensive and integrated tobacco treatment services in our cancer programs.</li> </ul>
3b.	Develop and maintain a critical mass of trained professional staff to support multi-site clinical trials	<ul style="list-style-type: none"> <li>Onboard new site team members.</li> <li>Expand site research teams based on Site Development Plans.</li> <li>Data Management &amp; Project Management Support for CC.</li> <li>Continue on-site training.</li> <li>Offer Continuing Education opportunities for Research Nurses, Study Coordinators and Study Teams, with varying expertise level.</li> </ul>	<p><b>KCTN Director and Medical Director initiated concept development of an intensive training program for treatment of tobacco addiction to elevate training available in the state for professionals. UK College of Nursing, KCTN leadership, Morehead State University, St. Claire Regional Medical Center developed a Tobacco Treatment Specialist (TTS) Training Program. This in depth training is based on evidence based standards and core competencies for developed by the Association for Treatment of Tobacco Use &amp; Dependence (ATTUD). 26 people from 10 sites completed the pilot course. The program team submitted to ATTUD for accreditation in June 2017. The training program is novel in accessibility via webbased and video. This is the only advanced level training program in the Commonwealth to offer intensive training to health professionals involved in delivering tobacco treatment care.</b></p> <ul style="list-style-type: none"> <li>Onboarded new site team members: Training - PI responsibilities, GCP, CFR, SOPs, systems.</li> </ul> <p><u>Training:</u></p> <ol style="list-style-type: none"> <li>1 Research nurse, 1 Study Coordinator achieved certified research professional credentials.</li> <li>1 new coordinators completed Research 101 - intensive 10 wk course.</li> <li>PIs, SCs trained in GCP, CFR, SOPs, protocol prior to and ongoing during trials.</li> </ol> <ul style="list-style-type: none"> <li>Continued development of Coordinating Center to support trials management and central services.</li> </ul> <p><u>Site Continuing Education (CE) selected spotlight:</u></p> <ul style="list-style-type: none"> <li>Representatives from 10 sites attended the Markey Cancer Center Affiliate Network annual meeting offering CEs. KCTN co-hosted a research information table. KCTN Medical Director, KCTN Director presented session on Access to Clinical Trials.</li> <li>KCTN Director presented session at the Lung Cancer Alliance's 2nd Annual Lung Cancer Screening and Care Conference, "Choosing and Managing Technology for a Lung Cancer Screening Research Project".</li> <li>Presented CME sessions at area centers, "Development of Quality Lung Cancer Screening" and "Practical Lung Cancer Screening CT", "Shared Decision Making", "Treatment of Tobacco Addiction"</li> <li>KCTN sponsored KCTN Member attendance to regional and national continuing education conferences.</li> </ul>	<ul style="list-style-type: none"> <li>Challenges to incorporate research into busy clinic practices is a static problem, physician and nurse time. Challenges with consistency of seamless incorporation of trial consideration for majority of patients seen.</li> <li>Compliance requirements are intensive and require substantial commitments from physicians, nurses, and institutions.</li> <li>Site resources limit FTE dedicated to research.</li> <li>CC team, challenging transition from experience in study conduct role to CRO type services/sponsor role. Application of expertise is substantial and requires advanced trainings in CFR and GCP, CRO services and study oversight, as well as communications.</li> <li>Unique qualifications to support deliverables of program requires continuing professional development and advancing expertise.</li> <li>Due to complexity of systems and operations needed to develop IITs for multi-site conduct and meet regulatory responsibilities, there are limited internal resources to leverage.</li> <li>Compliance, quality and audit requirements are intensive.</li> </ul>
3c.	Offer and manage industry-sponsored lung cancer clinical trials through the Network.	<ul style="list-style-type: none"> <li>Identify studies based on feasibility evaluations of patient populations seen, site capacity to ensure successful accrual.</li> <li>Engage physicians at Markey Cancer Center and Brown Cancer Center to seek referrals for all industry-sponsored trials considered.</li> <li>Target studies to include; early and late stage NSCLC, late stage small cell, epidemiologic factors of Kentucky patients.</li> </ul>	<ul style="list-style-type: none"> <li>Participated in global drug trials sponsored by industry.</li> <li>All Markey Cancer Center trials were considered for appropriateness to expand to external KCTN sites.</li> <li>Implemented new process to improve and facilitate cross-referrals and ensure patients are considered for trials.</li> </ul> <p>Site Performance Spotlight:</p> <ul style="list-style-type: none"> <li>Private Practice Site is one of lead enrolling sites internationally to therapeutic trial of investigational drug for treatment of advanced stage NSCLC following progression after or intolerance to at least one prior chemotherapy. Site has enrolled five patients, represents ~5% of total number enrolled in US. Senior sponsor representatives visited site and compliment quality of site and KCTN services. KCTN Regional site, Owensboro Health, only non-AMC site in Kentucky selected to conduct G1T28 trial.</li> <li>KCTN community site hospital only non-AMC site in KY selected to participate in Phase IIa safety and pharmacokinetic study of G1T28 in patients with extensive stage small cell lung cancer with progression during or after first or second-line chemotherapy. Owensboro Health, Mitchell Memorial Cancer Center and UK Markey Cancer Center are only sites in Kentucky participating.</li> <li>KCTN Director presented a CE session at the Lung Cancer Alliance's 2nd Annual Lung Cancer Screening and Care Conference, "Choosing and Managing Technology for a Lung Cancer Screening Research Project".</li> <li>KCTN Project Coordinator presented a CE session at the King's Daughters Medical Center regional conference, "Oncology Clinical Research: An Overview",</li> </ul>	<ul style="list-style-type: none"> <li>Capacities at several sites limit # of studies feasible for site study portfolio. Many sites participate in limited number of trials at one time due to limited staffing resources. One site does not participate in more than one trial per patient population, despite large volume of patients that could support at least 2 competing trials. Several sites now decline to participate in industry trials as they prefer to conduct trials initiated and led by MCC and BCC investigators.</li> <li>Limited industry trials available that are consistent with the KLCRP Strategic Plan and KCTN priority portfolio.</li> </ul>

	OBJECTIVES FROM 2016 STRATEGIC PLAN	GOALS (Including Metrics)	Describe how endpoints have been met?	Challenges to attaining goals/revision of endpoints/timeframe?
3d.	Identify and develop investigator-initiated clinical trials at both UK and UofL that can be offered to patients in diverse settings.	<ul style="list-style-type: none"> <li>Utilize resources and expertise to assist with quality study development; consider factors influence trial success.</li> <li>Identify studies based on feasibility evaluation to ensure trial accrual; patient populations, site capacity.</li> <li>Consider complexity of trial design to identify studies feasible to launch as multi-site.</li> <li>Facilitate development of trials consistent with KLCRP Strategic Plan goals.</li> </ul>	<ul style="list-style-type: none"> <li>Provide trial development support to physicians and scientists. Generated development of six IIT concepts, four advancing to funding awards and development. Trial pipeline focused to highest priority IITs, including therapeutic, early detection and treatment of tobacco addiction. Trial pipeline achieved goals established in the KLCRP Strategic Plan for goals 2a, 2c, and 3 and in accordance recommendations of the KLCRP Review.</li> <li>Central support of Sponsor-Investigators to meet responsibilities as required under Code of Federal Regulations and ethical research principles. KCTN ensures CFR &amp; GCP are considered in all phases of project; development, conduct, archive. Quality Systems to support Sponsor-Investigators substantial responsibilities.</li> <li>Expanded Investigator-Initiated trials previously conducted at a single facility to multi-site participation thus expanding access to trials to patients across Kentucky, without burdensome travel to patient.</li> </ul> <p><u>Investigator-Initiated Trial Spotlight:</u>  1. MOST - Therapeutic Intervention IIT: "Optimization of Smoking Cessation Strategies in Community Cancer Programs for Newly Diagnosed or Recurrent Lung and Head and Neck Cancer Patients": Examines pharmaceuticals for cessation in combination with a high-intensity counseling or SOC to identify an optimal strategy to treating tobacco addiction in cancer patients. Trial funded by KLCRP, with additional grant support awarded from Pfizer.</p> <p><u>Investigators-Initiated Trial Development Spotlight:</u>  <b>KY LEADS Collaborative:</b> Portfolio studies to reduce the burden of lung cancer in Kentucky through development, evaluation, and dissemination of novel community based interventions to promote provider education, survivorship case and prevention and early detection of lung cancer. BMSF 7 million dollar grant awarded to Dr. Jamie Studts, Markey Cancer Center. Studies will be conducted at 10 KCTN sites.</p> <p><b>Study 2, Survivorship:</b> Aim is to develop and evaluate lung cancer specific survivorship care programs for patients and caregivers. This study includes a training program for nurse navigators and mental health providers.</p> <p><b>Study 3, Early Detection &amp; Prevention:</b> Study will examine the implementation of quality lung cancer screening at Kentucky centers. This study includes training, resources to support centers capacity development to perform lung cancer screening in accordance with USPTSF, CMS requirements. The study engages the MCC CRI, to facilitate the transmission of case data to the CMS registry required for reimbursement.</p> <p>Study 4. Quality Review of Screening Scans: A subspecialty-trained thoracic radiologist will centrally overread screening scans performed under the KY LEADS C3 to validate the scan interpretation. Clinically significant discrepancies will generate notice and training to local radiologist. This study will increase capacity of local radiologists to assure appropriate interpretation of CT scans prompting clinical evaluations.</p>	<ul style="list-style-type: none"> <li>Limited number of Investigator-Initiated Trials (IITs). IITs come to us unfunded or modest funding insufficient to sponsor multi-site trial. From KCTN's inception, all IITs conducted via KCTN have required use of KCTN funds to support trial; including regulatory, study drug, monitoring, site payments or full study funding.</li> <li>Grant submissions to NIH and other external agencies are challenging, reflective of increased competitiveness in national funding sources. Increased funding for multi-site investigator-initiated trials is needed.</li> <li>Challenges and time effort of Study Chairs to meet CFR responsibilities of Sponsor-Investigator of multi-site trials. Substantial increase in responsibilities over internal only IITs. Sponsor-Investigators must comply with Code of Federal Regulations as both sponsor and investigator.</li> </ul>
3e.	Continually improve the Network's services with input from practicing KY physicians.	<ul style="list-style-type: none"> <li>Expand study portfolio with priorities as defined in the KLCRP Strategic Plan and KCTN physician research interests.</li> <li>Use of Master Services style contract to sustain study initiation timelines.</li> <li>Perform centralized services.</li> <li>Perform site visits to ensure deliverables are consistent with site and study needs.</li> </ul>	<ul style="list-style-type: none"> <li><b>KCTN Coordinating Center team conducted 103 site visits in FY2017</b> (Study Interim, Education, Study Support, Monitoring, Quality Review, Development, &amp; Onboarding).</li> <li>KCTN Medical Director &amp; Director conduct site visits to encourage sustained commitments to research and seek feedback regarding support services.</li> <li>Utilize Project Planning Teams to develop trials with unique insight to community based practitioners, while maintaining integrity and scientific value of trials.</li> <li>Utilize study concept feasibility assessments to solicit feedback from community physicians on trials in development.</li> <li>Per site requests, portfolio includes Interventional and Non-interventional trials.</li> <li>Offer menu of centralized support services while site retains autonomy; including budgets, contracts, regulatory, training, patient screening, conduct support. Allows sites to focus efforts on patients.</li> <li>Performed site evaluation to identify process improvements to study conduct performance; improvements observed in quality measures with implementation of operational suggestions. Implemented use of Screening Analysis reports to provide sites with information to guide improved study operations.</li> <li>KCTN Medical Director, &amp; Director participated in media &amp; community events to engage &amp; educate community on participation in trials.</li> </ul>	<p>Due to site diversity, difficult to meet all needs. However, sites experience many of the same challenges in conducting trials;</p> <ul style="list-style-type: none"> <li>Not every patient is offered the opportunity to participate in a trial, despite availability of trials, due to busy clinics and lack of support staff.</li> <li>Several sites experience recurring struggles with sufficient staffing levels and high turnover.</li> <li>Non-Academic Center sites struggle with sustaining sufficient funding to support dedicated research personnel. Study Coordinators are frequently pulled to cover clinic nurse shortages. Burden of incorporating and sustaining clinical trials in non-AMC practices is challenging despite strong commitments.</li> </ul>
<b>Goal 4: NCI-Designation as Cancer Centers (KRS 164.476 (5)(c))</b>				
4a.	Expand the base of cancer research expertise, particularly in translational research.	Recruit both promising young and proven mature scientists.	Recruited >80 new faculty since 2009; diversity of disciplines represented. A heavy emphasis is being placed on translational research especially related to moving Markey basic science into the clinic via novel/unique clinical trials.	Funding for salary support and access to laboratory space.
4b.	Develop diverse cancer research programs with a high degree of inter- and intra- team	At least 3 designated Program Areas.	We have 4 mature program areas: Cancer Cell Biology and Signaling; Cancer Prevention and Control; Drug Discovery, Delivery and Translational Therapeutics; and Genetic Instability, Epigenetics and Metabolism.	Critical mass of faculty with critical mass of NCI funding; collaborations require protected time.
4c.	Provide and promote interactive research opportunities.	30% of grants and publications collaborative.	About 30% of publications are intra- or inter-programmatic. Nearly 30% of our grants are collaborative between 2 or more Markey investigators.	Protected faculty research time for development of collaborations.
4d.	Offer expanded innovative clinical trials, building on combined research underpinnings of the two centers.	Accrual of at least 10% of patients to innovative clinical studies.	Approx. 6% accrual in calendar year 2016 (data collection is not complete to report on FY 2017); over 50% of patients accrued to clinical studies are residents of Appalachian eastern Kentucky; We are expanding our Affiliate Network to offer clinical trials throughout the state.	Clinical faculty pressed into clinical service; building renewed leadership emphasis on clinical research.

UNIVERSITY OF KENTUCKY 2017 FISCAL YEAR-ANNUAL REPORT										
	Budget 2000-2017	Budget FY2017 Allocations	Budget FY 2018 Allocations	PERSONNEL	FRINGE BENEFITS	TRAVEL	OPERATING EXPENSES	CAPITAL OUTLAY	INDIRECT COSTS	Total
<b>ADMINISTRATION</b>	\$ 24,642,505.77									
<b>I-I GRANTS FUNDING</b>	\$ 16,296,871.93									
Program Grants Carry Forward (FY16)	\$ (3,473,702.93)			\$ 2,752,348.72	\$ -	\$ (16,942.72)	\$ 530,788.22	\$ 207,507.71	\$ -	\$ 3,473,702.93
I-I Grants Carry Forward (FY16)	\$ (2,038,641.52)			\$ 1,070,765.46	\$ -	\$ 17,284.00	\$ 789,509.63	\$ -	\$ 161,134.43	\$ 2,038,641.52
Carryforward funds at CPE	\$ (82,096.44)									
I-I Grants Cycle 17 funding not yet claimed	\$ (750,000.00)	\$ 750,000.00	\$ 750,000.00							
Administration not yet received (FY17 funding to be used in FY18)	\$ (1,395,500.00)	\$ 1,395,500.00	\$ 1,668,100.00	\$ 1,395,500.00						\$ 1,395,500.00
Other Grants/Contracts	\$ -	\$ -	\$ -							
<b>TOTAL INCOME</b>	\$ 33,199,436.81	\$ 2,145,500.00	\$ 2,418,100.00	\$ 5,218,613.18	\$ -	\$ 291.28	\$ 1,320,297.85	\$ 207,507.71	\$ 161,134.43	\$ 6,907,844.45
GOAL 1: Investigator Initiated Research	\$ 13,426,133.97	\$ 750,000.00	\$ 750,000.00	\$ 248,723.54	\$ 71,566.47	\$ 4,791.73	\$ 53,220.57	\$ -	\$ 36,831.93	\$ 415,134.24
GOAL 2: Research in Early Detection/Prevention	\$ 2,413,001.01	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
GOAL 3: Kentucky Clinical Trial Network	\$ 6,191,844.18	\$ 384,900.00	\$ 460,100.00	\$ 245,354.94	\$ 72,423.61	\$ 8,731.64	\$ 124,361.87	\$ -	\$ -	\$ 450,872.06
GOAL 4: NCI Designation (Comp Cancer Center)	\$ 7,432,743.55	\$ 1,010,600.00	\$ 1,158,000.00	\$ 776,755.01	\$ 217,251.02	\$ 570.00	\$ 46,503.64	\$ 66,466.13	\$ -	\$ 1,107,545.80
Administration	\$ 1,944,011.61	\$ -	\$ 50,000.00	\$ 16,929.46	\$ 5,130.79	\$ 19.60	\$ -	\$ -	\$ -	\$ 22,079.85
Research Support	\$ 584,742.77									
Internet Portal	\$ 292,055.72									
Epidemiology	\$ 422,410.00									
Endowed Chair	\$ 492,494.00									
<b>TOTAL EXPENSE</b>	\$ 33,199,436.81	\$ 2,145,500.00	\$ 2,418,100.00	\$ 1,287,762.95	\$ 366,371.89	\$ 14,112.97	\$ 224,086.08	\$ 66,466.13	\$ 36,831.93	\$ 1,995,631.95
<b>Balance</b>	\$ -	\$ -	\$ -	\$ 3,930,850.23	\$ (366,371.89)	\$ (13,821.69)	\$ 1,096,211.77	\$ 141,041.58	\$ 124,302.50	\$ 4,912,212.50

1,086,299.94 FY16 carry forward \$ 2,038,641.52 \$ 952,341.58  
 -415134.24 FY17 expenses \$ (415,134.24)  
 267,341.58 FY16 residual fund balance \$  
 685000 New funds \$  
 1,623,507.28 sum \$ 1,623,507.28  
 (1,623,507.28) Balance of I-I grants carrying forward \$ -1,623,507.28  
 - variance \$

Program funds  
 3,473,702.93 FY16 Carry-forward \$ 3,473,702.93  
 1395500 FY17 funding \$ 1,395,500.00  
 -1580497.71 FY17 expenses \$ (1,580,497.71)  
 3,288,705.22 sum \$ 3,288,705.22  
 3288705.22 FY17 carry-forward \$ 3,288,705.22  
 - variance \$

... 20% of Kentucky's Tobacco Settlement funds shall be spent on a collaborative partnership between UK and UofT dedicated to lung cancer research. KRS 164.476

NOTES:

1. Total KLCR funding per reconciliations received.

2. Cycle 12 grants - \$450,000 was awarded for Cycle 12

3. Cycle 13 grants - \$600,000 awarded for Cycle 13 (grants begin 7/1/14)

4. Cycle 14 grants - \$600,000 awarded for Cycle 14 (grants to begin 7/1/15)

5. Administration Carry-forward funding into FY18:

Kentucky Clinical Trials Network  
 NCI Designation \$989,568  
 Administration \$2,048,941  
 Early Detection \$91,792  
 \$158,404  
 \$3,288,705  
 Balance 6/30/17

6. Investigator-Initiated Grants Carry-forward funding into FY18

Residual Fund \$267,341.58  
 Cycle 11 - began 7/1/12 \$12,910.91  
 Cycle 12 - began 4/1/13 \$163,804.28  
 Cycle 13 - begins 7/1/14 \$370,588.07  
 Cycle 14 - begins 7/1/15 \$205,960.43  
 Cycle 15 - begins 7/1/16 \$524,400.71  
 KCTN Data Coordinator - taken from I-I funding \$78,500.00  
 Symposium \$1.30  
 \$1,623,507.28

**Kentucky Lung Cancer Research Program  
University of Kentucky FY17 Payroll Expenditures**

Acct No	Initiatives by Goal	Role	Individual	FTE %	New/Existing	Salary	Fringe
3048111498	Investigator Initiated Research (G1)	Faculty - Basic Scientist	Amrita Machwe	46.67%	Existing	\$22,609.30	\$7,633.72
	Investigator Initiated Research (G1)	Fellowship	Christina Wicker	0.00%	Existing	\$180.77	\$10.58
	Investigator Initiated Research (G1)	Faculty - Biostatistics	Li Chen	1.00%	Existing	\$1,186.44	\$312.33
					FYE Payroll Accruals	\$ (180.77)	\$ (16.00)
3048111500	Investigator Initiated Research (G1)	Faculty - Basic Scientist	Amrita Machwe	5.33%	Existing	\$2,582.10	\$871.73
	Investigator Initiated Research (G1)	Faculty - Basic Scientist	David Orren	0.50%	Existing	\$506.42	\$139.22
	Investigator Initiated Research (G1)	Faculty - Biostatistics	Emily Dressler	3.00%	Existing	\$3,316.76	\$989.22
	Investigator Initiated Research (G1)	Faculty - Clinician Scientist	Mahesh Kudrimoti	0.50%	Existing	\$2,188.30	\$416.10
	Investigator Initiated Research (G1)	Faculty - Basic Scientist	Tadahide Izumi	0.50%	Existing	\$524.60	\$158.80
	Investigator Initiated Research (G1)	Staff-Clinical Research Associate	Cynthia Leedham	15.00%	Existing	\$9,316.79	\$2,875.49
					FYE Payroll Accruals	\$357.95	\$77.63
3048112384	Investigator Initiated Research (G1)	Faculty - Biostatistics	Chi Wang	4.00%	Existing	\$4,811.86	\$1,308.85
	Investigator Initiated Research (G1)	Faculty - Basic Scientist	Chunming Liu	1.00%	Existing	\$1,573.00	\$393.69
	Investigator Initiated Research (G1)	Faculty - Biostatistics	Heidi Weiss	1.00%	Existing	\$2,329.32	\$510.79
	Investigator Initiated Research (G1)	Graduate Research Assistant	Hong Wang	5.44%	Existing	\$498.50	\$5.50
	Investigator Initiated Research (G1)	Faculty - Biostatistics	Jinze Liu	1.00%	Existing	\$2,205.48	\$508.73
	Investigator Initiated Research (G1)	Faculty - Clinician Scientist	Sivakumaran Theru	0.81%	Existing	\$1,269.00	\$320.14
	Investigator Initiated Research (G1)	Faculty - Clinician Scientist	Susanne Arnold	1.00%	Existing	\$3,081.64	\$664.10
	Investigator Initiated Research (G1)	Graduate Research Assistant	Yuchen Yang	0.00%	Existing	\$ (18,975.00)	\$ (2,583.04)
					FYE Payroll Accruals	\$ (657.42)	\$ (58.18)
3048112439	Investigator Initiated Research (G1)	Faculty - Biostatistics	Chi Wang	3.00%	Existing	\$3,608.88	\$981.61
	Investigator Initiated Research (G1)	Faculty - Clinician Scientist	Susanne Arnold	0.62%	Existing	\$1,910.66	\$411.65
	Investigator Initiated Research (G1)	Faculty - Basic Scientist	Chunming Liu	3.00%	Existing	\$4,719.00	\$1,181.18
	Investigator Initiated Research (G1)	Staff - Research Associate	Tianxin Yu	50.00%	Existing	\$20,680.14	\$8,132.02
					FYE Payroll Accruals	\$361.08	\$126.47
3049025842	Investigator Initiated Research (G1)	Faculty - Basic Scientist	David Watt	79.00%	Existing	\$1,828.56	\$414.13
3048112440	Investigator Initiated Research (G1)	Faculty - Clinician Scientist	Susanne Arnold	0.25%	Existing	\$770.40	\$166.09
	Investigator Initiated Research (G1)	Graduate Research Assistant	Ye Yang	29.17%	Existing	\$15,842.18	\$2,340.31
	Investigator Initiated Research (G1)	Graduate Research Assistant	Amanda Spear	28.50%	Existing	\$5,480.71	\$846.77
					FYE Payroll Accruals	\$ (361.54)	\$ (4.34)
3048112542	Investigator Initiated Research (G1)	Clinical Research Assistant II	Emily Shardelow	0.00%	Existing	\$ (139.92)	\$ (52.31)
					FYE Payroll Accruals	\$ (31.09)	\$ (10.93)
3048113028	Investigator Initiated Research (G1)	Faculty - Informatics	Venkata Kavuluru	20.00%	Existing	\$26,420.04	\$7,138.81
	Investigator Initiated Research (G1)	Database Analyst	David Rust	4.58%	Existing	\$3,520.05	\$1,033.89
	Investigator Initiated Research (G1)	Faculty - Clinician Scientist	Michael Brooks	2.00%	Existing	\$7,056.28	\$1,471.86
	Investigator Initiated Research (G1)	Faculty - Informatics	Eric Durbin	1.00%	Existing	\$1,290.76	\$332.41
	Investigator Initiated Research (G1)	Faculty - Biostatistics	Bin Huang	4.00%	Existing	\$5,033.58	\$1,263.91
	Investigator Initiated Research (G1)	Graduate Research Assistant	Anthony Rios	20.00%	Existing	\$3,660.00	\$746.65
3048113044	Investigator Initiated Research (G1)	Faculty - Biostatistics	Brent Shelton	0.75%	Existing	\$1,507.34	\$348.15
	Investigator Initiated Research (G1)	Faculty - Basic Scientist	Jamie Studts	3.00%	Existing	\$3,155.37	\$738.15
	Investigator Initiated Research (G1)	Staff - Research Associate	Kory Brinker	2.47%	Existing	\$1,042.09	\$318.76
3048113001	Investigator Initiated Research (G1)	Faculty - Basic Scientist	Douglas Andres	2.00%	Existing	\$4,930.70	\$1,125.18
	Investigator Initiated Research (G1)	Faculty - Clinician Scientist	John Villano	1.00%	Existing	\$1,540.00	\$371.30
	Investigator Initiated Research (G1)	Faculty - Biostatistics	Chi Wang	1.00%	Existing	\$1,203.00	\$327.23
3048113068	Investigator Initiated Research (G1)	Faculty - Basic Scientist	Katherine Eddens	20.00%	Existing	\$17,623.32	\$5,859.93
	Investigator Initiated Research (G1)	Faculty - Basic Scientist	Nancy Schoenberg	2.00%	Existing	\$3,312.52	\$773.65
	Investigator Initiated Research (G1)	Faculty - Basic Scientist	Jamie Studts	1.00%	Existing	\$1,403.24	\$340.20
	Investigator Initiated Research (G1)	Faculty - Clinician Scientist	Timothy Mullett	1.00%	Existing	\$4,000.02	\$885.94
	Investigator Initiated Research (G1)	Staff - Informatics	Darren Davis	10.00%	Existing	\$8,216.10	\$2,846.46
	Investigator Initiated Research (G1)	Faculty - Biostatistics	Li Chen	1.00%	Existing	\$1,186.44	\$312.33
3048113081	Investigator Initiated Research (G1)	Faculty - Basic Scientist	Min Chen	20.00%	Existing	\$13,818.66	\$4,161.05
	Investigator Initiated Research (G1)	Faculty - Clinician Scientist	Susanne Arnold	50.00%	Existing	\$1,540.86	\$332.03
	Investigator Initiated Research (G1)	Faculty - Biostatistics	Heidi Weiss	50.00%	Existing	\$1,164.70	\$255.56
	Investigator Initiated Research (G1)	Staff - Visiting Scholar	Lili Liu	31.14%	Existing	\$720.00	\$7.92
3048113082	Investigator Initiated Research (G1)	Faculty - Clinician Scientist	Sivakumaran Theru Arumugam	2.87%	Existing	\$4,496.30	\$1,134.30
	Investigator Initiated Research (G1)	Faculty - Clinician Scientist	Susanne Arnold	1.00%	Existing	\$3,081.64	\$664.10
	Investigator Initiated Research (G1)	Faculty - Biostatistics	Chi Wang	1.00%	Existing	\$1,203.00	\$327.23
	Investigator Initiated Research (G1)	Faculty - Biostatistics	Heidi Weiss	1.00%	Existing	\$2,329.32	\$510.79
3048113167	Investigator Initiated Research (G1)	Faculty - Clinician Scientist	Angela Mahan	50.00%	Existing	\$1,402.62	\$306.01
	Investigator Initiated Research (G1)	Faculty - Biostatistics	Heidi Weiss	1.00%	Existing	\$2,327.39	\$501.13
	Investigator Initiated Research (G1)	Staff - Clinical Research Associate	Emily Shardelow	0.00%	Existing	\$172.22	\$56.01
3048113207	Symposium	Faculty - Basic Scientist	Nathan Vanderford	1.00%	Existing	\$1,238.20	\$339.90
	Symposium	Staff - Cancer Education Liason	Terry Keys	3.05%	Existing	\$1,577.00	\$521.20

\$ -

3048113228	Investigator Initiated Research (G1)	Faculty - Basic Scientist	Amrita Machwe	28.93%	Existing	\$14,015.16	\$4,732.08
	Investigator Initiated Research (G1)	Faculty - Biostatistics	Chi Wang	1.00%	Existing	\$1,203.00	\$327.23
	Investigator Initiated Research (G1)	Staff - Program Manager	Heather Robertson	3.85%	Existing	\$4,357.62	\$1,211.60
	Investigator Initiated Research (G1)	Graduate Research Assistant	Olivia Lochner	4.17%	Existing	\$941.80	\$82.40
	Investigator Initiated Research (G1)	Graduate Research Assistant/Temporary Technical/Paraprofessional	Alexis Clark	23.01%	Existing	\$3,189.20	\$749.70
					FYE Payroll Accruals	\$449.90	\$39.37
			<b>Total FTE</b>	<b>3.42</b>		<b>\$248,723.54</b>	<b>\$71,566.47</b>
3049024113	Clinical Trials (G3)	Clinical Research Assistant II	Emily Shardelow	0.00%	Existing	\$214.16	\$24.50
		Administrative Research Assistant/Non-Therapeutic Research Manager	Joseph Alexander	70.00%	Existing	\$39,365.95	\$14,632.28
		Clinical Trial Management Director	Kristine Damron	55.00%	Existing	\$46,896.43	\$13,423.29
		Clinical Research Assistant III	Melinda Dowden-Kruger	100.00%	Existing	\$55,958.19	\$17,664.13
		Clinical Research Assistant III	Michele Hughes	100.00%	Existing	\$61,227.92	\$18,903.47
		Student Employee	Ryan Haas	100.00%	Existing	\$2,112.00	\$185.05
		Clinical Director	Timothy Mullett	10.00%	Existing	\$39,999.96	\$7,989.97
					FYE Payroll Accruals	\$ (419.67)	\$ (399.08)
			<b>Total FTE</b>	<b>4.35</b>		<b>\$245,354.94</b>	<b>\$72,423.61</b>
3049024114	NCI-Designation (G4)	Faculty - Research	Cai Huang	75.00%	Existing	\$69,020.86	\$21,707.41
		Senior Executive Officer	Carla Repass	73.00%	Existing	\$63,966.08	\$13,883.92
		Assistant Director of Finance	Elisha Maxson	35.00%	Existing	\$24,908.44	\$8,532.29
		Faculty - Informatics	Eric Durbin	7.72%	Existing	\$9,954.43	\$2,581.89
		Staff - Research Associate Senior	Garretson Epperly	8.75%	Existing	\$4,954.48	\$1,589.30
		Faculty - Behavioral & Community Research	Jamie Studts	10.00%	Existing	\$14,031.56	\$3,402.15
		Staff - Administrative Research Assistant	Jennifer Dolly	100.00%	Existing	\$43,770.39	\$14,093.71
		Faculty - Research	Jing Li	79.17%	Existing	\$77,881.66	\$21,496.20
		Faculty - Biostatistics Core	Jinze Liu	1.00%	Existing	\$27,846.00	\$2,532.62
		Faculty - Research	Meenakshi Upreti	25.00%	Existing	\$17,762.48	\$5,275.00
		Faculty - Assistant Director of Research	Nathan Vanderford	10.00%	Existing	\$12,394.32	\$3,401.50
		Faculty - Research	Piotr Rychahou	24.17%	Existing	\$20,541.66	\$6,630.92
		Faculty - Research	Qingding Wang	49.70%	Existing	\$58,010.65	\$16,620.38
		Staff - Statistician	Quan Chen	36.92%	Existing	\$18,446.95	\$6,423.18
		Staff - Statistician Assitant	Rani Jayswal	29.00%	Existing	\$15,279.82	\$5,023.82
		Faculty - Informatics	Sally Ellingson	25.00%	Existing	\$21,955.10	\$6,638.40
		Faculty - Early Phase Clinical Trials Director	Jill Kolesar	70.00%	New	\$84,527.81	\$21,437.85
		Staff - Facilities Specialist	Leif Magnuson	13.33%	Existing	\$5,620.25	\$1,702.32
		Faculty - Research	Yadi Wu	33.33%	Existing	\$29,755.08	\$8,972.56
		Staff - Facilities Specialist	Warren Rummage	41.67%	New	\$15,395.10	\$5,190.02
		Faculty - Research	Zhen Qi	42.50%	New	\$38,250.00	\$10,563.65
		Faculty - Research	Ren Xu	61.85%	Existing	\$61,611.81	\$17,986.31
		Staff - Oncogenomics Core	Vijaya Sivaraj	50.00%	Existing	\$33,955.84	\$10,189.17
		Staff - Scientist I	Abigail Anderson	16.67%	New	\$5,671.71	\$1,145.89
					FYE Payroll Accruals	\$1,242.53	\$230.56
			<b>Total FTE</b>	<b>9.19</b>		<b>\$776,755.01</b>	<b>\$217,251.02</b>
3049024115	Administration (Gx)	Assistant Director of Finance	Elisha Maxson	10.00%	Existing	\$7,120.16	\$2,438.63
		Faculty - Assistant Director of Research	Nathan Vanderford	7.92%	Existing	\$9,809.30	\$2,692.16
			<b>Total FTE</b>	<b>0.18</b>		<b>\$16,929.46</b>	<b>\$5,130.79</b>
		<b>FISCAL YEAR 2016</b>	<b>Total</b>			<b>\$ 1,287,762.95</b>	<b>\$ 366,371.89</b>

Kentucky Lung Cancer Research Program  
University of Kentucky FY16 Capital Expenditures

Accounts	Initiatives by Goal	Equipment	Purchase Amount	
3048109368	Investigator Initiated Research (G1)		\$0.00	
3048109411			\$0.00	
3048111390			\$0.00	
3048110255			\$0.00	
3048110274			\$0.00	
3048110846			\$0.00	
3048111498			\$0.00	
3048111500			\$0.00	
3048111854			\$0.00	
3048112542			\$0.00	
3048112384			\$0.00	
3048112439			\$0.00	
3048112440			\$0.00	
3048112580			\$0.00	
3048113028			\$0.00	
3048113044			\$0.00	
3048112949			\$0.00	
3049025842			\$0.00	
			<b>Total</b>	<b>\$0.00</b>
3049024116		Early Detection ()		\$0.00
3049024117			\$0.00	
		<b>Total</b>	<b>\$0.00</b>	
3049024113	Clinical Trials (G3)		\$0.00	
			\$0.00	
		<b>Total</b>	<b>\$0.00</b>	
3049024114	NCI Designation (G4)	Lab Equipment	\$5,872.75	
			\$0.00	
		<b>Total</b>	<b>\$0.00</b>	
xxxxx	Epidemiology (Gx)		\$0.00	
			\$0.00	
		<b>Total</b>	<b>\$0.00</b>	
3049024115	Administration G1 G2 G3 G4		\$0.00	
			\$0.00	
			\$0.00	
			\$0.00	
		<b>Total</b>	<b>\$0.00</b>	
xxxxx	Endowed Chair		\$0.00	
			\$0.00	
		<b>Total</b>	<b>\$0.00</b>	
<b>TOTAL</b>			<b>\$0.00</b>	

Cycle	Grant	UK Account #	Close Date	Investigator	Budget	Spent in Prior Fiscal Years	Personnel + Fringe	Travel	Operating Expenses	F&A costs	Total Costs	Balance
N/A	Evaluating Quality of Lung Cancer Screening Implementation	3048112949	6/30/2017	Brooks, Michael	\$ 28,248	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 28,248
N/A	KCTN Data Coordinator	3048111854	6/30/2017	Mullett, Tim	\$ 78,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 78,500
N/A	Symposium	3048113207	6/30/2018	Vanderford, Nathan	\$ 10,000	\$ -	\$ 3,676	\$ -	\$ 6,322	\$ -	\$ 9,999	\$ 1
15	Connecting Appalachians to Lung Cancer Screening: Leveraging Social Networks to Reduce Lung Cancer	3048113068	6/30/2018	Eddens, Katherine	\$ 150,000	\$ -	\$ 46,760	\$ -	\$ -	\$ 4,676	\$ 51,436	\$ 98,564
15	Novel Function of Metastatin-1 in Non-small cell Lung Cancer	3048113081	6/30/2018	Chen, Min	\$ 75,000	\$ -	\$ 22,001	\$ 2,158	\$ 3,969	\$ 2,813	\$ 30,941	\$ 44,059
15	Radon and Tobacco Smoke Exposure Biomarkers of Lung Cancer Risk	3048113228	6/30/2018	Hahn, Ellen	\$ 150,000	\$ -	\$ 31,299	\$ -	\$ 1,773	\$ 3,307	\$ 36,379	\$ 113,621
15	Personalized Therapy for Non-Small Cell Lung Cancer	3048113082	6/30/2018	Arumagam, Siva	\$ 150,000	\$ -	\$ 13,747	\$ -	\$ -	\$ 1,375	\$ 15,121	\$ 134,879
15	RIT1 as Novel Driver	3048113001	6/30/2018	Andres, Douglas	\$ 150,000	\$ -	\$ 9,497	\$ -	\$ 5,704	\$ 1,520	\$ 16,721	\$ 133,279
14	Information Extraction from Diagnostic Narratives to Improve Patient Recruitment Efforts for Lung Cancer Clinical Trials	3048113028 (replaces 3048112580)	6/30/2017	Kavuluru, Venkata	\$ 95,155	\$ 26,558	\$ 58,968	\$ 2,634	\$ 1,153	\$ 6,276	\$ 69,030	\$ (434)
14	Automated Eligibility Screening Approaches for Lung Cancer	3048112580	6/30/2016	Kavuluru, Venkata	\$ 54,845	\$ 54,845	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
14	Biomarker Discovery by Interrogating Lung Cancer lipid Metabolome	3048112440	6/30/2017	Fan, Whei-Mei	\$ 150,000	\$ 28,821	\$ 25,081	\$ -	\$ 6,060	\$ 3,114	\$ 34,255	\$ 86,924
14	Scope of 3048112439	3049025842	6/30/2017	Watt, David	\$ 16,000	\$ 7,324	\$ 2,243	\$ -	\$ 2,614	\$ 486	\$ 5,343	\$ 3,334
14	KLF4 as a novel biomarker and tumor suppressor in lung cancer	3048112439	6/30/2017	Liu, Chunming	\$ 134,000	\$ 48,214	\$ 42,113	\$ -	\$ 6,993	\$ 4,911	\$ 54,016	\$ 31,770
14	Harnessing Advanced Genomic and Bioinformatics Technologies for in-depth Molecular Characterization of Lung Adenocarcinoma	3048112384	6/30/2017	Wang, Chi	\$ 150,000	\$ 68,706	\$ (2,793)	\$ -	\$ -	\$ (279)	\$ (3,072)	\$ 84,366
13	A Single-Arm Phase II study of thoroscopic lung cancer staging with the use of intraoperative ultrasound at the time of definitive resection	3048113167	5/31/2017	Mahan, Angela (replaces Jeremiah Martin 3048102542)	\$ 140,472	\$ -	\$ 4,765	\$ -	\$ -	\$ 476	\$ 5,242	\$ 135,230
13	A Single-Arm Phase II study of thoroscopic lung cancer staging with the use of intraoperative ultrasound at the time of definitive resection	3048102542	5/31/2017	Martin, Jeremiah	\$ 9,528	\$ 9,786	\$ (234)	\$ -	\$ -	\$ (23)	\$ (258)	\$ -
13	Disseminating LCS through shared decision making: A web-based CE intervention for primary care providers	3048113044	3/31/2018	Studts, Jamie	\$ 150,000	\$ 8,349	\$ 7,110	\$ -	\$ -	\$ 711	\$ 7,821	\$ 133,830
13	II Trial of Induction Chemotherapy and Low-Dose	3048111500	7/31/2017	Arnold, Susanne	\$ 150,000	\$ 26,565	\$ 24,321	\$ -	\$ 593	\$ 2,492	\$ 27,406	\$ 96,029
13	Biomarkers for Carcinogenesis related to Tobacco	3048111498	6/30/2017	Izumi, Tadahide	\$ 150,000	\$ 109,061	\$ 31,736	\$ -	\$ 482	\$ 3,222	\$ 35,440	\$ 5,499
12	Optimization of Smoking Cessation Strategies in Community Cancer Programs for Newly	3048110274	3/31/2017	Valentino, Joe	\$ 240,000	\$ 62,102	\$ -	\$ -	\$ 12,813	\$ 1,281	\$ 14,094	\$ 163,804
11	Mechanism of Redox Injury	3048109368	6/30/2017	St Clair, Daret	\$ 73,344	\$ 55,214	\$ -	\$ -	\$ 4,745	\$ 474	\$ 5,219	\$ 12,911
<b>TOTALS</b>					<b>\$ 2,305,092</b>	<b>\$ 505,544</b>	<b>\$ 320,290</b>	<b>\$ 4,792</b>	<b>\$ 53,220.57</b>	<b>\$ 36,832</b>	<b>\$ 415,134</b>	<b>\$ 1,384,414</b>



**Kentucky Lung Cancer Research Program  
Annual Report FY2017**

**INSTITUTION:** James Graham Brown Cancer Center, University of Louisville  
**Prepared By:** Diane K. Konzen  
**SUBMITTED BY:** Diane K. Konzen  
**DATE:** August 10, 2017

**Kentucky Lung Cancer Research Program  
FY2017**

	FROM STRATEGIC PLAN 2010	GOALS (Including Metrics)	Describe how endpoints have been met?	Challenges to attaining goals/revision of endpoints/timeframe?
	<b>GOAL 1: Investigator Initiated Research (KRS 167.476(5)(a))</b>			
	1a. Recruit existing faculty in cancer research to focus on problems in the areas of tobacco control, lung cancer epidemiology, early detection/screening of lung cancer, and translational lung cancer research	Up to 5 projects per year	<ul style="list-style-type: none"> <li>• Seminars are given in the KLCRP focus areas to engage existing faculty to conduct research on the problems associated with and including lung cancer</li> <li>• 23 research faculty have been recruited since 2015, all working (at least secondarily) in lung cancer</li> <li>• Additional recruitment to lung cancer research is underway (2 junior faculty and 2 senior faculty at UofL are beginning work on lung cancer research; continuing lung cancer projects are creating new interest, especially among post-doctoral fellows and junior faculty - in both basic and clinical research)</li> </ul>	Limited scientific interest in this area (although it is growing); limited research appeal due to limited national funding opportunities; open ended
	1b. Recruit new faculty with interests and expertise in cancer that may be applied specifically to the lung cancer focus areas described above.	Open-ended	<ul style="list-style-type: none"> <li>• One new faculty member was hired in the first quarter.</li> <li>• Due to the change in leadership, no new faculty were recruited in quarters 2-4.</li> <li>• Recruitment will be restarted in the next quarter: including that for two faculty to be recruited through a grant from the Leona M. and Harry B. Helmsley Charitable Trust; as well as the recruitment of three epidemiologists (who will</li> </ul>	Limited expertise available nationally; open ended
18	1c. Develop, mentor and focus early stage investigators/graduate students on lung cancer.	Open-ended	<ul style="list-style-type: none"> <li>• Young investigators receive both formal and informal mentorship, which is available to more senior investigators if they request it.</li> <li>• 4 junior investigators, 2 postdoctoral fellows and 2 UofL graduate students are receiving formal mentorship in lung cancer</li> <li>• In addition, funding opportunities in lung cancer are being sought to support doctoral and post-doctoral fellows to encourage additional interest in the area</li> </ul>	Limited senior investigators available to mentor in lung cancer; open-ended
	1d. Support a robust research portfolio in lung cancer at/between each University.	Up to 5 projects/year; spread across disciplines	<ul style="list-style-type: none"> <li>• The Cycle 16 Call for Proposals was announced in August 2016 and fourteen letters of intent/proposals were received. 5 new grants awarded for Cycle 16 (including two to junior and one to a senior faculty members who were recruited from within to work on lung cancer)</li> <li>• The Call for Proposals for Cycle 17 funding will be announced in late August 2017 • 11 (KLCRP) projects are active (5 each from Cycles 15 and 16, and one in the final writing stage from Cycle 14)</li> <li>• Cycle 17 funding to be announced in August 2017; JGBCC will award 5-6 grants</li> <li>• Twenty-eight cancer grants were received in FY2017: 7 National Cancer Institute (NCI) grants [Drs. Gomez-Gutierrez, Hein, Jala, McNally, Pfeifer, Rothstein and Yan]; 14 National Institutes of Health (NIH) grants [Drs. Bodduluri, Ceresa, Garbett, Hammond, Hein, Hood, Kaplan, Klein, Q. Li, Maurer, McNally, Palmer, Shirwan, and Yan]; plus 7 additional grants were awarded (1 Jewish Heritage Fund; 1 Department of Defense/DOD; 1 Bay Area Lyme Disease Foundation; 1 Regulation Directive Medical Physics, LLC; 1 FasCure Therapeutics, Inc., 1 Sigma-Tau Pharmaceuticals, Inc.; and 1 KY Science &amp; Engineering Forum) - eight of these grants were pursuant to Investigator-Initiated grants, and four were independent of the program</li> <li>• 385 scientific papers were published by JGBCC investigators - 22 resulted from Investigator-Initiated grants and 3 from Early Detection pilot projects</li> </ul>	Limited scientific appeal; limited number of new investigators focused on lung cancer; open ended; low funding rate from the NCI

**Kentucky Lung Cancer Research Program  
FY2017**

	FROM STRATEGIC PLAN 2010	GOALS (Including Metrics)	Describe how endpoints have been met?	Challenges to attaining goals/revision of endpoints/timeframe?
	1e. Develop intra-programmatic linkages within/between UofL/UK Cancer Centers	Encourage collaborative projects in each Cycle and/or in national funding each year	<ul style="list-style-type: none"> <li>• One National Cancer Institute (NCI) grant was funded that includes an investigator from the UK/Markey; as well as one to an investigator at the UK/Markey which includes a UofL investigator</li> <li>• New joint research projects continue to be discussed and preliminary research undertaken both internally and with UK/Markey researchers</li> <li>• One joint project is being discussed for potential submission to the coming Cycle [Cycle 17] of KLCRP funding</li> </ul>	Distance between institutions; limited number of clinician-scientists interested in lung cancer
	1f. Conduct annual scientists' seminars and separate poster sessions to share research results among funded KLCRP scientists	seminar exchange program between UK and UofL investigators	<ul style="list-style-type: none"> <li>• Seminar organizers continually look for interested/interesting speakers to talk about lung cancer at both Universities; these seminars are open to all investigators.</li> <li>• The Markey Cancer Center held the 8th joint Scientist Symposium there on October 15, 2016, to encourage scientific linkage between the two schools. The next symposium (# 9) will be held at the UofL in 2018. These symposia will be</li> </ul>	Distance between institutions
<b>Goal 2: Research in Early Detection &amp; Prevention (KRS 167.476 (5)(a))</b>				
19	2a. Conduct screening and early detection research using available and applicable tools in key geographic areas of Ky	Ongoing	<ul style="list-style-type: none"> <li>• The old mobile mammography van, which went all over the state of KY, has been replaced with a new van that allows screening for 7 forms of cancer: breast, cervical, colon, lung, prostate, skin and head/neck. The van goes out daily. <ul style="list-style-type: none"> <li>• Project testing radiation exposure and ways to combat that exposure and its consequences continues [funded by the National Aeronautics &amp; Space Administration (NASA)]. This multi-year project has spawned a number of new research projects in and associated with the Brown Cancer Center</li> <li>• One active project funded by the KLCRP in this funding year is assessing exposure to particulate matter and the effect on the development of lung cancer</li> <li>• An additional project using Differential Scanning Calorimetry for early detection is active and funded</li> <li>• And the project funded earlier by the KLCRP continues to analyze cancer metabolites in exhaled breath (using a microreactor developed by the investigators) for the diagnosis of lung cancer</li> <li>• Development of a radio-labeled aptamer for use as a diagnostic imaging agent is underway</li> <li>• 1 project (currently unfunded) by Carbett [Use of plasma thermograms for the</li> </ul> </li> </ul>	Limited expertise available; developing these tests for use outside the University is very expensive; open ended
	2b. Develop/conduct studies in dissemination and implementation research of lung cancer screening	Open ended; any is good, more is better	<ul style="list-style-type: none"> <li>• 1 project is being planned and a funding application will be submitted to the National Institutes of Health in the next year</li> </ul>	
	2c. Expand and refine methods for risk-factor delineation	Ongoing	<ul style="list-style-type: none"> <li>• One project is under discussion</li> </ul>	Overwhelming risk factors associated with smoking
	2d. Validate the use of methods for lung cancer screening	Ongoing	<ul style="list-style-type: none"> <li>• While two projects are under discussion, no research is being conducted at this time</li> </ul>	CT too costly for routine application and results disputed; need improved method(s)

**Kentucky Lung Cancer Research Program  
FY2017**

	FROM STRATEGIC PLAN 2010	GOALS (Including Metrics)	Describe how endpoints have been met?	Challenges to attaining goals/revision of endpoints/timeframe?
	2e. Identify and develop methodologies for lung cancer prevention	Ongoing	Multiple projects are underway, including: <ul style="list-style-type: none"> <li>• Development of a novel 'vaccine' against lung cancer (along with a KLCRP grant, this project received an active R21 grant from the NCI; the investigators are working with/organizing a consortium with researchers at Harvard University and University of Washington to continue, expand - and hopefully increase the pace of - this work)</li> <li>• Development of a lung cancer 'breath test' continues using identified biomarkers with a made-by-the investigators microreactor for very early detection of the disease (along with a KLCRP grant, a V Foundation grant was awarded for this work)</li> <li>• Identification of a potential new lung cancer biomarker (work continues slowly)</li> </ul>	Overwhelming number of smoking risk factors and associated life style factors
20	2f. Maintain and expand the biospecimen repository for use by lung cancer researchers	Ongoing; more is better	A total of 5,835 specimens from 342 lung cancer patients are available, including: 13 malignant tumors; 17 normal adjacent tissues; 3,036 plasma samples; 1,266 serum samples; 1,479 buffy coats; 23 urine specimens  In FY2017 the following specimens were added to the repository: • 1,032 specimens from 79 lung cancer participants (where lung cancer is the primary site), including: 52 malignant tumors; 29 normal adjacent tissues; 69 whole blood samples; 692 plasma samples; 155 serum samples; 32 buffy coats; 8 bronchial lavages  • 242 lung cancer samples were distributed, including: 52 malignant tumors; 28 normal adjacent tissues; 69 whole blood samples; 92 plasma samples  <small>The above numbers include only those patients consented to KLCRP lung cancer protocol UPR#08-0388</small>	Limited access to lung tissue; no surgery for advanced stage disease.
	2g. Capitalize on partnerships with regional and local hospitals and clinics to build an early detection network where research is integral to the relationship	Target at least 5 participating institutions; expand the network	<ul style="list-style-type: none"> <li>• 5 active sites (UofL)</li> <li>• KCTN (see UK report)</li> <li>• JGBCC partnered with Kentucky One Health, expanding by 27 the number of potential sites available throughout the state; in addition, a second site for the JGBCC opened late last fiscal year at Jewish Northeast</li> </ul>	Limited tools available; developing partnerships; worry over how expenses will be shared
	2h. Link prevention and early detection studies	Any is good; continue to develop effective, simple and efficient means to do this	<ul style="list-style-type: none"> <li>• Majority of education and smoking cessation courses and studies are provided through the KY Cancer Program, and more than 15 in a University setting are held each year</li> <li>• An on-going study is looking at the number of people who are unable to quit smoking via the standard courses and treatments available</li> <li>• A major study that would link early detection and prevention studies is under discussion</li> </ul>	Most effective prevention is to stop people from smoking; effective early detection is problematic and expensive
<b>Goal 3: Kentucky Clinical Trials Network (KRS 167.476 (5)(b))</b>				

**Kentucky Lung Cancer Research Program  
FY2017**

	<b>FROM STRATEGIC PLAN 2010</b>	<b>GOALS (Including Metrics)</b>	<b>Describe how endpoints have been met?</b>	<b>Challenges to attaining goals/revision of endpoints/timeframe?</b>
	3a. Increase number of Kentuckians with access to and participating in lung cancer clinical trials	<ul style="list-style-type: none"> <li>Identify studies based on feasibility of patient populations seen</li> <li>Increase program accrual</li> <li>Expand number of Kentucky counties with patients seen</li> </ul>	<ul style="list-style-type: none"> <li>33 active clinical trials in lung cancer are available [~43% of all trials available]</li> <li>ca. 45% of JGBCCC patients were accrued to available lung cancer trials</li> <li>a new location was added late in the last fiscal year (Medical Center Jewish Northeast), broadening the area in which JGBCC trials are available</li> <li>Working to make all JGBCC trials available through the KCTN</li> <li>A study on the avoidance of clinical trials participation by some sectors of the population (especially in Kentucky) is being discussed</li> </ul>	While many trials are available, identifying those appropriate to the KY population is more difficult. Despite trial availability, not all appropriate patients are offered an opportunity to participate in a trial by treating clinicians. Obstacles reflect national problem of time availability in clinics and lack of support staff.
	3b. Develop and maintain a critical mass of trained professional staff to support multi-site clinical trials	<ul style="list-style-type: none"> <li>Increase data &amp; project management support</li> <li>Increase number of clinical faculty in the area</li> </ul>	<ul style="list-style-type: none"> <li>Biostatistics Core has 3.5 FTE biostatisticians</li> <li>JGBCC lost a couple of trained professional staff and is looking to replace them <ul style="list-style-type: none"> <li>as the number of patients continues to grow, recruitment for additional positions is underway (with additional clinical sites this is an on-going</li> </ul> </li> </ul>	Availability of trained professionals in this area is limited nationally
	3c. Offer and manage industry-sponsored lung cancer clinical trials through the Network.	See UK report	JGBCC continues to develop, coordinate and participate in clinical trials that will be made available to all patients who qualify for them	
21	3d. Identify and develop investigator-initiated clinical trials at both UK and UofL that can be offered to patients in diverse settings.	See UK report	JGBCC continues to develop investigator-initiated clinical trials to be made available to all patients who qualify for them. A couple of examples are: <ul style="list-style-type: none"> <li>Beta-glucan's Immuno-modulatory Effect on Non-Small Cell Lung Cancer</li> <li>Protocol for the Cancer Database and Specimen Repository at the JGBCC</li> <li>Micro-Nano Device for Exhaled Breath Analysis</li> <li>Optimization of Smoking Cessation Strategies in Community Cancer Programs for Newly Diagnosed or Recurrent Lung and Head and Neck Cancer Patients (UK) and at least one other trial is planned in lung cancer for 3rd quarter FY17</li> </ul>	Limited number of Investigator-Initiated Trials
	3e. Continually improve the Network's services with input from practicing KY physicians.	See UK report	Input received continuously, especially from our partner institutions, and is discussed and/or implemented as appropriate and funds are available	
<b>Goal 4: NCI-Designation as Cancer Centers (KRS 164.476 (5)(c))</b>				
	4a. Expand the base of cancer research expertise, particularly in translational research, with the recruitment of both promising young scientists and established investigators working at the front lines of cancer research	Recruit both promising young and proven mature scientists	<ul style="list-style-type: none"> <li>One new young faculty member was recruited in FY2017</li> <li>1 post-doctoral fellow was retained and promoted to assistant professor</li> <li>While no program was offered to high school students in 2017, JGBCC will again offer high school (17 in FY16) and early college undergraduate students (18 in FY17) an opportunity to work on and develop an interest in lung cancer</li> </ul>	Funding for salary support and recruitment packages, and - especially in the last two years - availability of laboratory space

**Kentucky Lung Cancer Research Program  
FY2017**

	FROM STRATEGIC PLAN 2010	GOALS (Including Metrics)	Describe how endpoints have been met?	Challenges to attaining goals/revision of endpoints/timeframe?
4b.	Develop and maintain diverse cancer research programs with a high degree of inter- and intra-team collaboration	Develop/maintain at least 3 NCI-designable program areas	<ul style="list-style-type: none"> <li>• After review and discussion, 'developmental biology' was folded into the tumor immunology program; making 4 mature program areas with continued focused recruitment into each. Members in the programs are responsible for the following:</li> <li>• A multi-project program P01, an application specific to lung cancer, is being developed for submission to the National Cancer Institute</li> <li>• A SPORE multi-project clinical &amp; basic research funding application - also specific to lung cancer - is under discussion for submission to the NCI</li> <li>• With a new director, the programs will be re-evaluated against current needs</li> </ul>	Critical mass of faculty with NCI funding

**Financial Report**  
**Annual FY 2017**  
**07/01/2016 - 06/30/17**  
**University of Louisville**

	<b>Total Revenue. FY2000-2015</b>	<b>Expenditures FY2000-2015</b>	<b>Encumbrances</b>	<b>Balance</b>
Investigator-Initiated Grants	16,553,481.16	14,214,572.88	\$ 1,440,437.90	\$ <b>898,470.38</b>
NCI Designation	8,964,148.02	7,411,586.93	\$ 1,255,465.00	\$ 297,096.09
Early Detection	2,301,739.00	1,132,895.89	\$ -	\$ 1,168,843.11
Fellows	1,662,772.45	1,098,504.95	\$ 225,000.00	\$ 339,267.50
Clinical Trials	1,935,203.56	\$ 1,768,007.62	\$ 167,195.94	\$ -
Administration	1,490,377.62	\$ 950,223.62	\$ 168,545.00	\$ 371,609.00
<b>TOTALS</b>	<b>\$ 32,907,721.81</b>	<b>\$ 26,575,791.89</b>	<b>\$ 3,256,643.84</b>	<b>\$ 3,075,286.08</b>

Kentucky Lung Cancer Research Program  
FY 2016-2017

			Qtr 1 FY2017 Report (7/1/16- 9/30/16)							
			PERSONNEL	FRINGE BENEFITS	TRAVEL	OPERATING	CAPITAL OUTLAY	F&A	Total Expense	Balance
KLCR Program Title	Total Revenue FY2000-2017	Expenditures FY2000-2016								
Investigator Initiated Grants	16,553,481.16	13,481,534.04	\$ 92,257.22	\$ 25,722.41	\$ -	\$ 15,264.49	\$ -	\$ 13,324.45	\$ 146,568.57	2,925,378.55
NCI Designation	8,964,148.02	6,388,453.47	\$ 152,522.82	\$ 39,644.82	\$ 6,120.84	\$ 89,188.22	\$ -	\$ -	\$ 287,476.70	2,288,217.85
Early Detection	2,301,739.00	1,132,895.89			\$ -		\$ -	\$ -	\$ -	1,168,843.11
Fellows	1,662,772.45	1,069,078.49	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	593,693.96
Clinical Trials	1,935,203.56	1,581,788.83	\$ 30,481.06	\$ 9,048.95	\$ -	\$ -	\$ -	\$ -	\$ 39,530.01	313,884.72
Administration	1,490,377.62	847,259.07	\$ 27,193.11	\$ 6,899.62	\$ -		\$ -	\$ -	\$ 34,092.73	609,025.82
<b>TOTALS</b>	<b>32,907,721.81</b>	<b>24,501,009.79</b>	<b>302,454.21</b>	<b>81,315.80</b>	<b>6,120.84</b>	<b>104,452.71</b>	<b>-</b>	<b>13,324.45</b>	<b>507,668.01</b>	<b>7,899,044.01</b>

			Qtr 2 FY2017 Report (10/1/16 - 12/31/16)							
			PERSONNEL	FRINGE BENEFITS	TRAVEL	OPERATING	CAPITAL OUTLAY	F&A	Total Expense	Balance
KLCR Program Title	Total Revenue FY2000-2017	Expenditures FY2000-Qtr 1 2017								
Investigator Initiated Grants	16,553,481.16	13,628,102.61	\$ 83,363.50	\$ 23,620.67	\$ -	\$ 60,998.69		\$ 16,798.19	\$ 184,781.05	2,740,597.50
NCI Designation	8,964,148.02	6,675,930.17	\$ 160,307.08	\$ 41,657.97	\$ 9,637.34	\$ 50,105.56	\$ -		\$ 261,707.95	2,026,509.90
Early Detection	2,301,739.00	1,132,895.89							\$ -	1,168,843.11
Fellows	1,662,772.45	1,069,078.49	\$ 5,160.46	\$ 1,461.71					\$ 6,622.17	587,071.79
Clinical Trials	1,935,203.56	1,621,318.84	\$ 31,825.74	\$ 9,636.27					\$ 41,462.01	272,422.71
Administration	1,490,377.62	881,351.80	\$ 16,421.91	\$ 4,768.98		\$ 1,000.00			\$ 22,190.89	586,834.93
<b>TOTALS</b>	<b>32,907,721.81</b>	<b>25,008,677.80</b>	<b>297,078.69</b>	<b>81,145.60</b>	<b>9,637.34</b>	<b>112,104.25</b>	<b>-</b>	<b>16,798.19</b>	<b>516,764.07</b>	<b>7,382,279.94</b>

			Qtr 3 FY2017 Report (1/1/17 - 3/31/17)							
			PERSONNEL	FRINGE BENEFITS	TRAVEL	OPERATING	CAPITAL OUTLAY	F&A	Total Expense	Balance
KLCR Program Title	Total Revenue FY2000-2017	Expenditures FY2000-Qtr 2 2017								
Investigator Initiated Grants	16,553,481.16	13,812,883.66	\$ 106,899.95	\$ 24,066.96		\$ 33,205.34		\$ 16,417.25	\$ 180,589.50	2,560,008.00
NCI Designation	8,964,148.02	6,937,638.12	\$ 153,970.74	\$ 42,613.05	\$ 2,520.40	\$ 33,463.26			\$ 232,567.45	1,793,942.45
Early Detection	2,301,739.00	1,132,895.89							\$ -	1,168,843.11
Fellows	1,662,772.45	1,075,700.66	\$ 8,308.29	\$ 3,093.85					\$ 11,402.14	575,669.65
Clinical Trials	1,935,203.56	1,662,780.85	\$ 41,014.62	\$ 12,677.15					\$ 53,691.77	218,730.94
Administration	1,490,377.62	903,542.69	\$ 12,214.31	\$ 4,029.69		\$ 11,284.25			\$ 27,528.25	559,306.68
<b>TOTALS</b>	<b>32,907,721.81</b>	<b>25,525,441.87</b>	<b>322,407.91</b>	<b>86,480.70</b>	<b>2,520.40</b>	<b>77,952.85</b>	<b>-</b>	<b>16,417.25</b>	<b>505,779.11</b>	<b>6,876,500.83</b>

			QTR 4 FY2017 Report (04/01/17 - 6/30/17)							
			PERSONNEL	FRINGE BENEFITS	TRAVEL	OPERATING	CAPITAL OUTLAY	F&A	Total Expense	Balance
KLCR Program Title	Total Revenue FY2000-2017	Expenditures FY2000-Qtr 3 2017								
Investigator Initiated Grants	16,553,481.16	13,993,473.16	\$ 108,519.23	\$ 26,573.16	\$ 1,807.62	\$ 64,099.70		\$ 20,100.01	\$ 221,099.72	2,338,908.28



Kentucky Lung Cancer Research Program  
FY 2016-2017

NCI Designation	8,964,148.02	7,170,205.57	\$ 152,729.01	\$ 42,004.49	\$ 6,055.67	\$ 40,592.19			\$ 241,381.36	\$ 1,552,561.09
Early Detection	2,301,739.00	1,132,895.89							\$ -	\$ 1,168,843.11
Fellows	1,662,772.45	1,087,102.80	\$ 8,308.29	\$ 3,093.86					\$ 11,402.15	\$ 564,267.50
Clinical Trials	1,935,203.56	1,716,472.62	\$ 39,608.52	\$ 11,926.48					\$ 51,535.00	\$ 167,195.94
Administration	1,490,377.62	931,070.94	\$ 13,007.36	\$ 4,145.32		\$ 2,000.00			\$ 19,152.68	\$ 540,154.00
<b>TOTALS</b>	<b>32,907,721.81</b>	<b>26,031,220.98</b>	<b>322,172.41</b>	<b>87,743.31</b>	<b>7,863.29</b>	<b>106,691.89</b>	<b>-</b>	<b>20,100.01</b>	<b>544,570.91</b>	<b>\$ 6,331,929.92</b>

Annual FY2017 Report (7/1/16 - 6/30/17)											
			PERSONNEL	FRINGE BENEFITS	TRAVEL	OPERATING	CAPITAL OUTLAY	F&A	Total Expense	Project Encumbrances	Balance
KLCR Program Title	Total Revenue FY2000-2017	Expenditures FY2000-2017									
Investigator Initiated Grants	16,553,481.16	14,214,572.88	\$ 391,039.90	\$ 99,983.20	\$ 1,807.62	\$ 173,568.22	\$ -	\$ 66,639.90	\$ 733,038.84	\$ 1,440,437.90	\$ 898,470.38
NCI Designation	8,964,148.02	7,411,586.93	\$ 619,529.65	\$ 165,920.33	\$ 24,334.25	\$ 213,349.23	\$ -	\$ -	\$ 1,023,133.46	\$ 1,255,465.00	\$ 297,096.09
Early Detection	2,301,739.00	1,132,895.89	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,168,843.11
Fellows	1,662,772.45	1,098,504.95	\$ 21,777.04	\$ 7,649.42	\$ -	\$ -	\$ -	\$ -	\$ 29,426.46	\$ 225,000.00	\$ 339,267.50
Clinical Trials	1,935,203.56	1,768,007.62	\$ 142,929.94	\$ 43,288.85	\$ -	\$ -	\$ -	\$ -	\$ 186,218.79	\$ 167,195.94	\$ -
Administration	1,490,377.62	950,223.62	\$ 68,836.69	\$ 19,843.61	\$ -	\$ 14,284.25	\$ -	\$ -	\$ 102,964.55	\$ 168,545.00	\$ 371,609.00
<b>TOTALS</b>	<b>32,907,721.81</b>	<b>26,575,791.89</b>	<b>1,244,113.22</b>	<b>336,685.41</b>	<b>26,141.87</b>	<b>401,201.70</b>	<b>-</b>	<b>66,639.90</b>	<b>2,074,782.10</b>	<b>\$ 3,256,643.84</b>	<b>\$ 3,075,286.08</b>

**Kentucky Lung Cancer Research Program  
Personnel Report  
FY2017 Report (7/1/16- 6/30/17)**

Acct No	Initiatives by Goal	Role	Individual	FTE %	New/Existing	Salary	Fringe
GB170024A1	NCI -Designation						
		Postdoctoral Associate	Traci Kruer	100%	Existing	\$ 4,965.15	\$ 1,405.76
		Biostatistician	Jianmin Pan	80%	Existing	\$ 64,839.73	\$ 19,276.52
		Director Biostatistics	Shesh Rai	18%	Existing	\$ 49,368.69	\$ 9,350.11
		Research Scientist	David Ban	100%	Existing	\$ 66,110.04	\$ 17,415.77
		Tissue Biorepository Manager	Andrei Smolenkov	100%	Existing	\$ 62,940.00	\$ 20,626.29
		Biomedical Engineer	Christopher Worth	100%	Existing	\$ 64,215.00	\$ 20,580.56
		Research Scientist	Mark Doll	36%	Existing	\$ 30,869.13	\$ 9,370.66
		Graduate Research Assistant	Bindu Hegde	100%	Existing	\$ 21,724.80	\$ 2,351.77
		Associate Professor	Donghan Lee	25%	Existing	\$ 40,999.95	\$ 9,117.98
		Research Technologist I	Mark Dela Cerna	100%	New	\$ 28,812.00	\$ 9,671.76
		Systems Programmer IV	Jonathan Maguire	25%	New	\$ 12,877.00	\$ 4,059.45
		Postdoctoral Associate	Nazimuddin Nazimuddin	100%	New	\$ 43,798.06	\$ 9,198.33
		Professor	John Trent	1%	New	\$ 767.05	\$ 179.45
Professor	Jun Yan	2%	New	\$ 1,949.65	\$ 431.28		
			<b>Total</b>			<b>\$ 494,236.25</b>	<b>\$ 133,035.69</b>
GB170024	Administration				Existing		
26		KLCRP Coordinator	Diane Konzen	35%	Existing	\$ 24,133.55	\$ 7,008.02
		Sr. Assoc. Director, Administration	Milton Pierson	25%	Existing	\$ 13,657.82	\$ 3,023.93
		KLCRP Financial Coordinator	Courtney Jenkins	50%	Existing	\$ 28,978.02	\$ 9,811.66
			<b>Total</b>			<b>\$ 66,769.39</b>	<b>\$ 19,843.61</b>
GB170024B1	Early Detection Program		None				
			<b>Total</b>			<b>\$ -</b>	<b>\$ -</b>
GB170024E1	Lung Fellowship Program						
		Fellow	Sobha Bodduluri	100%	Existing	\$ 21,777.04	\$ 7,649.42
			<b>Total</b>			<b>\$ 21,777.04</b>	<b>\$ 7,649.42</b>
GB170024C1	Clinical Trial Program						
		Mgr., Research Nursing	Karen Carter	50%	Existing	\$ 55,518.38	\$ 14,576.00
		Lab Research Coordinator	Melissa Hall	35%	Existing	\$ 20,264.31	\$ 6,778.34
		Clinical Research Coordinator	Belma Kantardzic	55%	Existing	\$ 45,977.78	\$ 15,206.71
		Clinical Research Nurse	Jennifer Schoenbachler	30%	Existing	\$ 19,810.48	\$ 6,262.66
			<b>Total</b>			<b>\$ 141,570.95</b>	<b>\$ 42,823.71</b>
				Annual		<b>\$ 724,353.63</b>	<b>\$ 203,352.43</b>
				FY 2017		<b>\$ 927,706.06</b>	

## Investigator Initiated Grants

June 30, 2017

FY17 Expenses

Cycle	Grant	UofL Account #	Close Date	Investigator	Budget	Previous Expense	Personnel + Fringe	Travel	Operating Expenses	F&A costs	Commitments	Total Costs	Balance
7	Effect of Estrogen on Polycyclic Aromatic Hydrocarbon-Mediated	OGMB071063	11/30/2013	Gupta, Ramesh	\$ 144,876	\$ 144,876	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9	Visualization of Hypoxias and Angiogenesis	OGMB091526	10/31/2011	Li, Xiao-feng	\$ 145,773	\$ 145,773	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9	Novel Small Molecule Inhibitors of Choline Kinase	OGMB091527	10/31/2011	Clem, Brian	\$ 149,425	\$ 149,425	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9	Role of GPR30m: A Novel Estrogen Receptor G-Protein	OGMB091529	10/31/2011	Jala, Venkatakrishna	\$ 150,000	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9	The Role of Novel Ras Effectors, RASSF2	OGMB091531	10/31/2011	Donninger, Howard	\$ 74,641	\$ 74,641	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9	Identification and Testing of Small Molecule Inhibitor to Sphingosine Kinase I	OGMB091534	10/31/2011	Wattenberg, Brian	\$ 72,052	\$ 72,052	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9	Exosomal microRNA Profiles for Diagnosis	OGMB091547	10/31/2011	Gercel-Taylor, Cicek	\$ 103,720	\$ 103,720	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10	Combined Orally Administered Beta-Glucan	OGMB101369	11/30/2012	Yan, Jun and Kloecker, Goetz	\$ 149,040	\$ 149,040	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10	The Role of Rev-1 in Carcinogen induced Lung Cancer	OGMB101372	11/30/2012	McGregor, W. Glenn and States, J. Christopher	\$ 150,000	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10	Stable isotope-resolved Metabolomics	OGMB101380	11/30/2012	Fan, Teresa	\$ 150,000	\$ 117,053	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 32,947.46
10	Controlled Inhibition of the Glycolytic Pathway	OGMB101383	11/30/2012	Chesney, Jason	\$ 144,693	\$ 144,693	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10	Activation of the Par-4 Extrinsic Pathway	OGMB101407	11/30/2012	Gupta, Ramesh	\$ 146,413	\$ 146,413	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11	The Role of MiR-301a in NF-κB Activation and Lung Cancer	OGMB120493	4/30/2014	Li, Yong	\$ 150,000	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11	New Approaches for Eliminating Lung Cancer	OGMB120510	4/30/2014	Yaddanapudi, Kavitha	\$ 149,775	\$ 149,775	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11	Activating Bax as a Therapeutic Strategy	OGMB120516	5/1/2012	Li, Chi	\$ 92,890	\$ 92,890	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11	Beta-glucan Modulates Differentiation and Function	OGMB120517	7/1/2012	Ding, Chauhin	\$ 150,000	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11	Targeting Sphingolipid Metabolism in Lung Cancer	OGMB120518	4/30/2014	Wattenberg, Brian	\$ 149,228	\$ 149,228	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
12	Small Molecule Inhibitors of Pro-Inflammatory Cytokines	OGMB130366	3/1/2013	Donninger, Howard	\$ 150,000	\$ 148,251	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,748.61
12	Metabolic Stress Adaptation by MIF Family Members	OGMB130397	3/1/2013	Mitchell, Robert	\$ 149,917	\$ 149,917	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

12	Tight Junction Protein, Claudin 9 as Novel Mediator	OGMB130407	3/1/2013	Sharma, Rajesh	\$	149,689	\$	115,118	\$	7,518				\$	23,911	\$	3,143				\$	34,571.06	\$	-
12	Exploiting the Stressed Out Nature of Cancer Cells	OGMB130409	3/1/2013	Bates, Paula	\$	149,863	\$	149,863			\$												\$	-
12	Regulation of MicroRNA's in Lung Adenocarcinomas	OICB130438	3/1/2013	Klinge, Carolyn	\$	150,000	\$	143,695							\$	615	\$	62					\$	5,629.25
12	Role of PFKFB3 in EMT and Metastasis	OGMB130420	3/1/2013	Yalcin, Abdullah	\$	52,830	\$	52,830															\$	-
13	The N-end Rule Ubiquitination Pathway as Novel Driver	OGMB140472	3/1/2014	Beverly, Levi	\$	149,818	\$	150,119							\$	(273)	\$	(27)					\$	0.00
13	Analysis of Cancer Metabolites in Exhaled Breath for Diagnosis	OGMB140460	3/1/2014	Fu, Xiao-An and Bousamra, Michael	\$	150,000	\$	120,069	\$	23,778					\$	3,451	\$	2,723					\$	(20.17)
13	Understanding the Prognostic significance of Circadian Disruption	OGMB140436	3/1/2014	Septon, Sandie	\$	150,000	\$	118,568	\$	2,658					\$	17,459	\$	2,170					\$	7,565.66
13	Joint Probabilistic Models for Early Diagnosis of Malignant	OGMB140428	3/1/2014	El-Baz, Ayman	\$	150,000	\$	10,531	\$	129,290					\$	7,457	\$	13,697					\$	(11,202.41)
13	Co-targeting 6-Phosphofructo-2-Kinase Fructose 2,6 Bis	OGMB140456	3/1/2014	Telang, Sucheta	\$	150,000	\$	73,247							\$	15,777	\$	1,578					\$	59,399.04
14	MAF in Lung Cancer-associated Macrophages	OGMB150435	6/1/2015	Yan, Jun	\$	150,000	\$	21,527	\$	2,007					\$	9,151	\$	1,116					\$	116,199.48
14	Targeting the Anaphase Promoting Complex as Lung Cancer Chemotherapy	OGMB150446	6/1/2015	States, J Christopher	\$	150,000	\$	26,485	\$	38,282					\$	5,277	\$	4,356					\$	75,600.62
14	Dietary Supplement Indole-3-Carbinol in Lung Cancer Therapy and Prevention	OGMB150463	6/1/2015	Zhou, Heshan Sam	\$	150,000	\$	55,143	\$	35,940					\$	849	\$	3,679					\$	54,389.50
14	Naturally Occurring Methyltransferase Mutations and Their Role in Promoting Lung Cancer	OGMB150447	6/1/2015	Schaner-Tooley, Christine	\$	150,000	\$	84,324	\$	23,926					\$	28,123	\$	5,205					\$	8,422.50
14	Role of Neutrophils in Crystalline Silica-Mediated Lung Cancer Promotion	OGMB150494	6/1/2015	Bodduluri, Haribabu	\$	150,000	\$	85,805	\$	281					\$	5,523	\$	580					\$	57,810.94
15	Novel small molecule inhibitors of the Ras Oncoprotein for Lung cancer	OGMB160425	6/1/2016	Clark, Geoffrey	\$	150,000	\$	3,487	\$	33,971					\$	1,732	\$	3,570					\$	107,239.62
15	Regulation of Glucose Utilization by Estradiol in Lung Cancer	OGMB160444	6/1/2016	Imbert-Fernandez, Yoannis	\$	150,000	\$	1,119	\$	13,468					\$	1,674	\$	1,514					\$	132,224.65
15	Characterization of AF1q in Carbon Nanotubes (CNT) Induced Lung Cancer	OGMB160465	6/1/2016	Tse, William	\$	150,000	\$	-	\$	81,026					\$	28,483	\$	10,951					\$	29,539.61
15	In vivo investigation of particulate $\beta$ -glucan in lung cancer mouse model	OGMB160514	6/1/2016	Guo, Haixun	\$	150,000	\$	1,491	\$	16,382					\$	451	\$	1,683					\$	129,991.89
15	Inhaled IL-10 for prevention and therapy of lung cancer	OGMB160490	6/1/2016	Li, Qingsheng	\$	150,000	\$	-	\$	79,487					\$	19,110	\$	9,860					\$	41,542.90

16	Delineating the Metabolic and Non-metabolic Requirements for Phosphoserine Aminotransferase (PSAT1) in Lung Cancer Progression and Invasion	OGMB170503	6/1/2017	Clem, Brian	\$	150,000	\$	-	\$	134				\$	13			147.50	\$	149,852.50
16	Targeting the Human Telomere Complex in Lung Cancer	OGMB170509	6/1/2017	Trent, John	\$	150,000	\$	-	\$	2,329		\$	4,800	\$	713			7,841.76	\$	142,158.24
16	A Novel Immunotherapeutic Approach for the Treatment of Lung Cancer	OGMB170520	6/1/2017	Yaddanapudi, Kavitha	\$	150,000	\$											-	\$	150,000.00
16	Statistical Methods for Modeling and Prediction of Lung Cancer Clinical Data	OGMB170558	6/1/2017	Rai, Shesh	\$	150,000	\$	-	\$	547				\$	55			601.99	\$	149,398.01
<b>TOTALS</b>						<b>5,924,646.10</b>		<b>3,751,169.36</b>		<b>491,023.10</b>		<b>1,807.62</b>		<b>173,568.22</b>		<b>66,639.90</b>		<b>733,038.84</b>	<b># \$</b>	<b>1,440,437.90</b>