



The University of Kansas Medical Center



The University of Kansas Medical Center Research Institute, Inc.

**EXTRAMURAL FUNDING FOR FISCAL YEAR 2006
(7/1/05 – 6/30/06)**



University of Kansas Medical Center Research Institute, Inc.

March 2006

To the Greater Kansas City Community:

We are pleased to provide the annual report of all extramural sponsored program activities for Fiscal Year 2006 (7/1/05 – 6/30/06) at the University of Kansas Medical Center (KUMC), which includes the School of Allied Health, the School of Medicine – Kansas City, the School of Medicine – Wichita, and the School of Nursing, as well as the KUMC Research Institute, Inc.

The Fiscal Year 2006 Annual Report continues to include information on grants, contracts, cooperative agreements, and other submissions and awards to enhance understanding of the scope of research and other sponsored activities supported or seeking support from the extramural funding community.

We would like to extend our thanks to all of those who have worked to provide the information contained in this report. A special thank you goes to the Office of Planning and Analysis for providing the statistics and report design.

If you have questions regarding any information provided in the report, please contact the Research Institute at (913) 588-5436.

Sincerely,

A handwritten signature in blue ink that reads 'Ted R. Knous'.

Ted Knous, Ph.D.

Associate Vice Chancellor for Research Administration-KUMC, and
Executive Director, KUMC Research Institute

3901 Rainbow Blvd., Kansas City, Kansas 66160-7702 • (913) 588-1261 • Fax (913) 588-3225
<http://www2.kumc.edu/researchinstitute>

Research at the University of Kansas

Biomedical research, a topic of intense interest at the University of Kansas and throughout the nation, is the focus of a comprehensive plan proposed by Chancellor Robert Hemenway to build on KU's many assets to place the University among the nation's top institutions of higher education. The KU Medical Center and its Schools of Medicine, Allied Health, Nursing and Graduate Studies, and the Research Institute are an integral part of the University of Kansas, the only Carnegie Level One Research institution in the region.

About the KUMC Research Institute

The University of Kansas Medical Center Research Institute, Inc. is a private, not-for-profit 501(c)(3) corporation established to promote and support medical research. Established by the University of Kansas Medical Center in 1992, the Research Institute administers privately-funded and federally-funded research projects within the University of Kansas Medical Center with a major objective of enhancing the research capability of the University of Kansas Medical Center faculty for the benefit of the public.

University Administration

Dr. Robert E. Hemenway
Chancellor

Dr. Richard Lariviere
Provost and Executive Vice Chancellor, Lawrence Campus

Dr. Barbara F. Atkinson
Executive Vice Chancellor, KU Medical Center

Research Administration

Medical Center

Dr. Paul F. Terranova
Vice Chancellor for Research, KU Medical Center
President, KUMC - RI

Dr. Ted R. Knous
Associate Vice Chancellor for Research Administration – KU Medical Center
Executive Director, KUMC – RI

Steven Geiger
Chief Financial Officer, KUMC - RI

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O v e r v i e w

Fiscal Year 2006 in Review

Overview

Major areas of funding emphasis at KUMC include cancer, neuroscience, kidney research, reproductive sciences, and aging.

Cancer

Cancer research at the University of Kansas Medical Center includes developing new therapeutics and diagnostics, determining the causes of cancer and providing clues on potential new forms of therapy, as well as developing safer drugs with fewer side effects. The development of new chemopreventive agents; the use of basic and applied sciences research to reduce cancer risk, incidence, morbidity, and mortality; and pursuing the discovery of novel anticancer agents, preventive drugs, and tumor imaging agents are all part of the extensive research effort in this area at KUMC.

Neuroscience

Neuroscience research includes study of development, transplantation, demyelinating diseases, recovery of function following peripheral and central nervous system injury and stroke, motor and cognitive defects associated with HIV, neurophysiological, behavioral and molecular measures of early development, central mechanisms of hearing, neurotransmitters, and plasticity.

Kidney Research

The Kidney Institute at the University of Kansas Medical Center has several directions of study. The Polycystic Kidney Disease (PKD) research project studies cell proliferation in PKD, with a long-term goal of finding a treatment for PKD that will alleviate the suffering of patients impacted by the disease. Researchers are studying how polycystine genes affect the normal development of parts of the kidney, heart, and pancreas. A second group of researchers study the metabolism of certain minerals in the bones and kidney. A third research group has conducted early experiments with embryonic stem cells from mice to investigate the possibility these cells can be persuaded to be part of a kidney. Perhaps in the future, stem cell therapy will be used to restore lost function in kidneys that have become damaged.

Reproductive Sciences

Research at the University of Kansas Center for Reproductive Sciences includes the investigation of fertility, infertility, and diseases of the reproductive system. Knowledge of the reproductive process is gained through basic and clinical research encompassing a wide range of scientific pursuits. Focus areas include male fertility; female reproductive cycles; cancer of the reproductive system; fertilization, implantation, and pregnancy; and the analysis of complex neural networks controlling reproduction and behavior.

Aging

The University of Kansas Medical Center faculty is engaged in research addressing a variety of problems related to aging, ranging from social concerns to cellular biology. Areas of research at the Landon Center on Aging includes diseases of old age such as stroke, cancer, etc.; health care technology as it pertains to the elderly including mechanical, biomechanical, and biomedical engineering; social issues of aging such as the needs of caregivers and end of life issues; health policy and health services for the elderly; and cognition and aging, brain plasticity and repair, and, and communication. These are conducted in an interdisciplinary setting. For example, the Brain Aging Project is investigating a series of lifestyle issues that may impact brain aging in addition to looking at the structure of the brain itself and how it changes with age.

Awards

- In FY 2006, extramural awards (all sources) totaled \$88,865,498, an increase of \$13,364,669 (17.7%) from FY 2005's total of \$75,500,829.
- Total awards for the KUMC schools for FY 2006 were: School of Medicine - \$71,376,885 (School of Medicine – Kansas City has awards totaling \$71,376,885 and School of Medicine – Wichita's awards totaled \$1,507,131), School of Allied Health - \$2,826,662, and School of Nursing - \$4,490,110.
- Four departments each received awards totaling over \$5 million for FY 2006.
- Eighteen principal investigators each received awards totaling over \$1 million for FY 2006.
- In FY 2006, the Research Institute managed a total of 1,182 grants and clinical trials, an increase of 6.1% from 1,114 managed in FY 2005.

Proposals

- In FY 2006, 623 proposals (both clinical trials and standard grants) were submitted, a 0.9% decrease from the 629 proposals submitted in FY 2005. Grant dollars requested in FY 2006 totaled \$354,940,018, a slight increase (0.4%) from the \$353,371,734 requested in FY 2005.
- As of 3/15/2007, 55% of the 623 proposals submitted during FY 2006 had already been funded. Twenty-seven percent were pending, under review, or under development. The remaining proposals were not funded (25%) or withdrawn (3%).

Clinical Research Dollars Contracted and Received

- Contracted dollars for FY 2006 for Clinical Research totaled \$13,888,092, an increase of \$2,366,845 (20.5%) from FY 2005. Revenue increased from \$4,888,402 in FY 2005 to \$5,064,496 in FY 2006, an increase of \$176,094 (3.6%). The ratio of contracted dollars to revenue in the same fiscal year decreased from 0.42 in FY 2005 to 0.36 in FY 2006.

Expenditures

- Total extramural expenditures for FY 2006 were \$74,561,756, an increase of 3.4% from the \$72,089,388 expended in FY 2005.

Biotechnology Development Center of Greater Kansas City (KCBDC)

- The Biotechnology Development Center of Greater Kansas City (KCBDC) is a community-based wet lab incubator that provides high-growth potential complete with the resources they need for the development and commercialization of biotechnology products and services. The Biotechnology Development Center, located on the KUMC Campus, features 6,000 square feet of combined office and wet lab space, as well as telecommunications support, office services, and shared lab services.

2006 Faculty Research Day

- The annual Faculty Research Day and Poster Session at KUMC took place on Thursday, November 9, 2006. David A. Snowdon, PhD, Professor of Neurology and Director of the Sanders-Brown Center on Aging at University of Kentucky, provided the keynote address, "Aging with Grace: Findings from the Nun Study."
- Honored for special contributions to the advancement of research at the KUMC were Kansas IDeA Network of Biomedical Research Excellence Scholars Jeanne Drisko, MD (Alternative Medicine) and Beth Levant, PhD, MPA (Pharmacology, Toxicology, and Therapeutics), the Thomas Noffsinger Investigator Award Winner Bryan L. Copple, PhD (Pharmacology, Toxicology, and Therapeutics), Faculty Investigator Research Award Winners Yu-Jui Yvonne Wan, PhD (School of Medicine), Linda M. Frazier, MD, MPH (School of Medicine-Wichita), Debra K. Sullivan, PhD, Rd, LD (School of Allied Health) and Barbara E. Langner, PhD, RN(School of Nursing), and the Chancellors Club Research Award Winner Peter G. Smith, PhD (Molecular and Integrative Physiology). The recipients of the Research Administrator Award were Jennifer N. French, MHSA (Hoglund Brain Imaging Center), Elizabeth Jenkins (Microbiology, Molecular Genetics and Immunology) and Loretta Jenkins (Parkinson's Disease and Movement Disorder Center).
- Faculty and their students submitted a record 106 posters that were on display during Research day and the reception.

Extramural Awards

FY 2006 Extramural Awards Summary

In FY 2006, extramural awards (all sources) totaled \$88,865,498, an increase of \$13,364,669 (17.7%) from \$75,500,829 in FY 2005. Total grant awards increased \$11,999,063 (19.0%) during this period from \$64,479,005 to \$76,478,068. Amounts for Clinical Trials, Technology Development, and Clinical Foundations/KU Endowment Association also increased from FY 2005 to FY 2006: \$5,345,114 to \$5,888,363 (10.2%) for Clinical Trials, \$207,297 to \$242,484 (17.0%) for Technology Development, and \$5,469,413 to \$6,256,583 (14.4%) for Clinical Foundations/KU Endowment Association. (See Table 1, next page, and Figure 1, below.)

Awarded dollars for KUMC totaled \$2,167,378 in FY 2006 and awarded dollars for the KUMC Research Institute totaled \$74,310,690 in FY 2006. Awarded dollars for the Research Institute were higher this year as a result of a planned funding shift. In the future, all KUMC grants will be managed by the Research Institute.

Figure 1
FY 2005 and FY 2006 Extramural Award Summary
(Million \$)

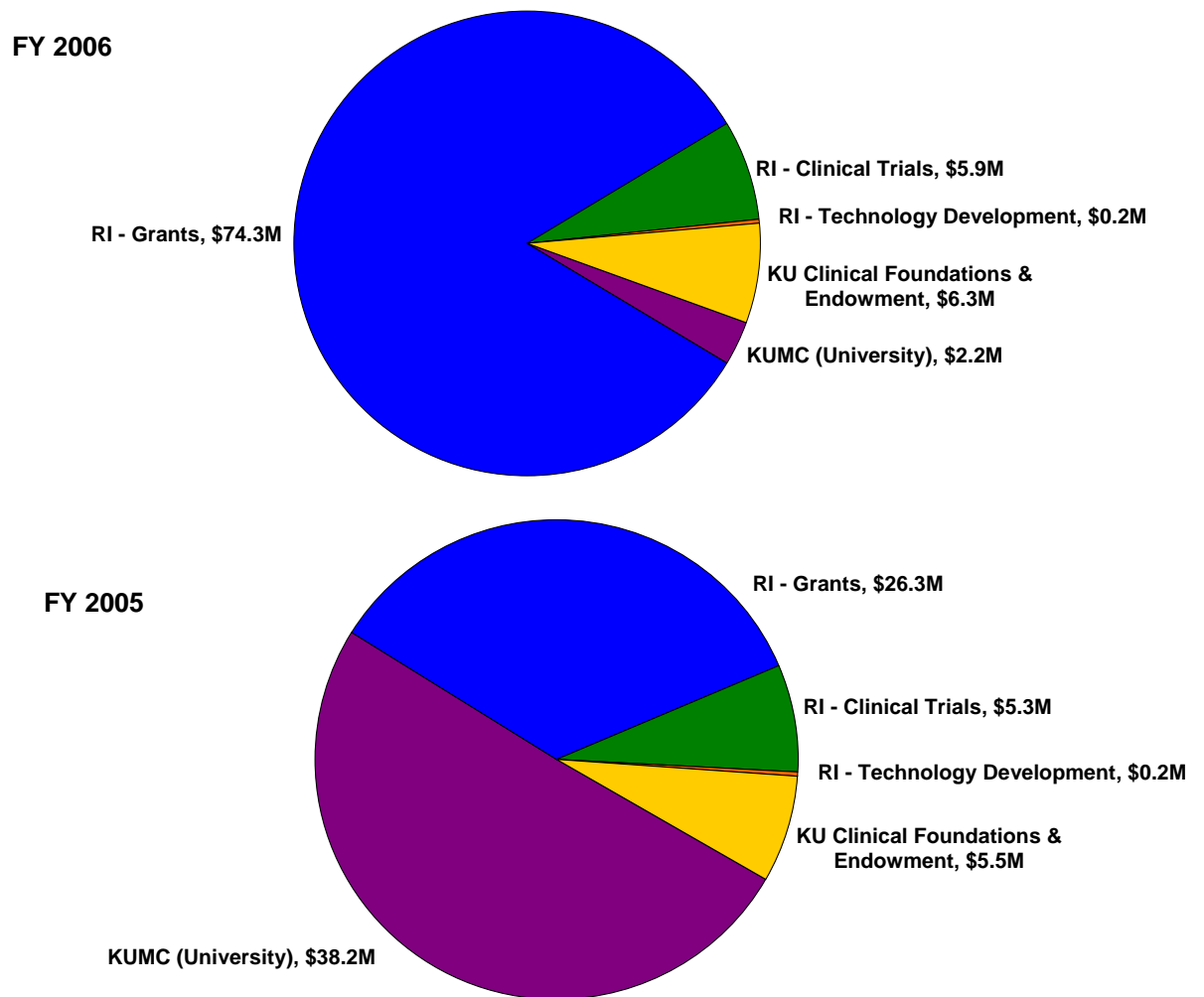


Table 1
The University of Kansas Medical Center
Summary of Awards from All Sources for FY 2005 – FY 2006

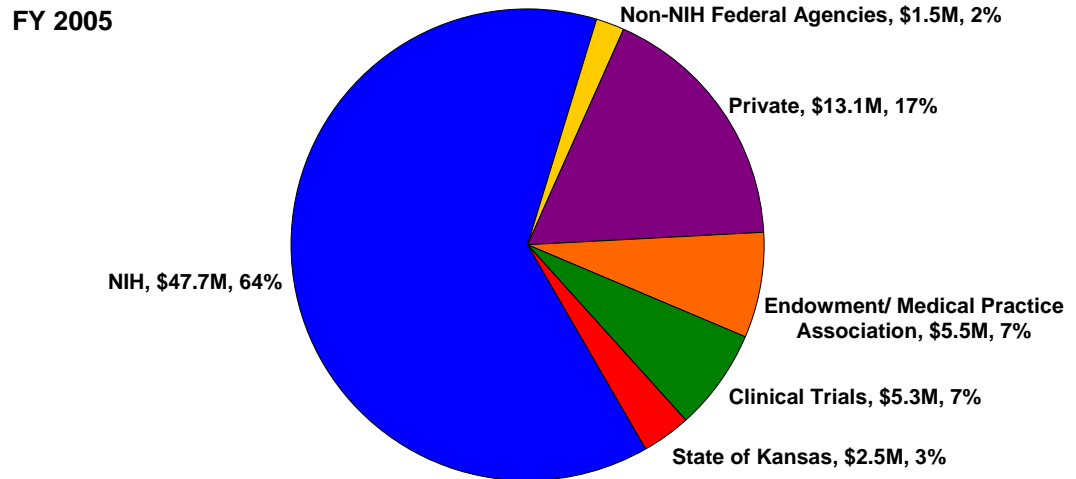
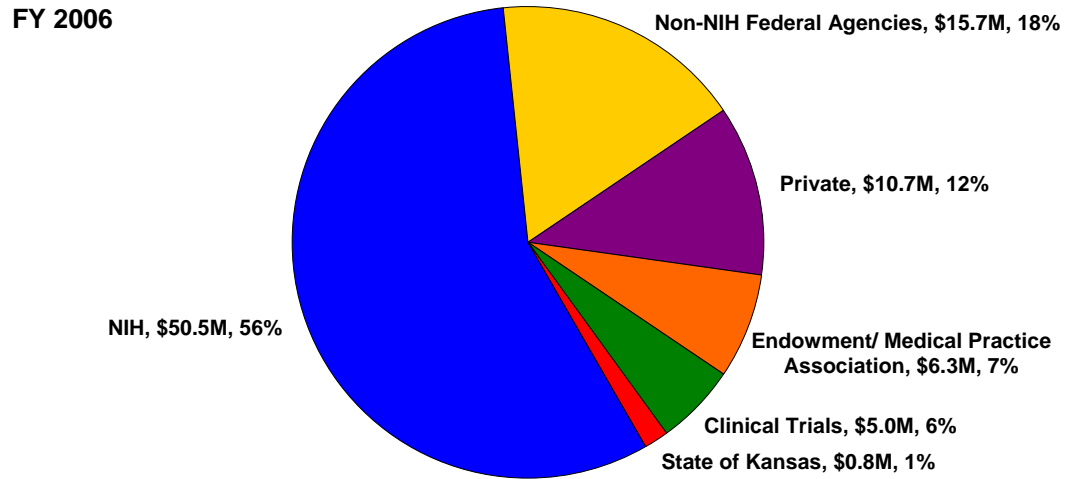
	<u>FY 2005</u>	<u>FY 2006</u>
<u>KUMC (University)</u>	38,185,199	2,167,378
Grants	38,185,199	2,167,378
<u>KUMC Research Institute</u>	31,846,217	80,441,537
Grants	26,293,806	74,310,690
Clinical Trials	5,345,114	5,888,363
Technology Development	207,297	242,484
Total KUMC (University) and KUMC Research Institute	70,031,416	82,608,915
Additional Sources of Extramural Awards Not Administered Through KUMC (University) or Research Institute*		
<u>KU Endowment Association</u>	3,818,690	4,825,341
Allied Health	17,514	59,998
Medicine	3,798,406	4,763,434
Nursing	2,770	1,909
<u>Medical Practice Association – Wichita</u>	1,650,723	1,431,242
Grants	1,593,362	1,370,725
Clinical Trials	57,361	60,517
Total Other Sources of Extramural Funding	5,469,413	6,256,583
Total of All Awards	75,500,829	88,865,498

* Dollars are self-reported by each unit and may be underreported.

FY 2006 Awards by Funding Agency Type

FY 2006 awards are broken out by funding agency type in Figure 2, below. Fifty-six percent of \$88.9 million in total awards were funded by NIH. Other federal funding accounted for eighteen percent. Private funding contributed twelve percent, foundation/endowment for seven percent, clinical trials six percent, and the state of Kansas funded one percent. Detail of awards by funding agency is in Table 2 with Federal agencies specified in Table 3.

Figure 2
FY 2006 Awards by Funding Agency Type
 (Million \$)



**Table 2
FY 2006 Awards by Funding Agency Type**

	National Institutes of Health (Direct & Subcontract Awards)	Other Federal Agencies	State of Kansas	Private Grant Awards	/Other Clinical Trials	TOTAL	Number of Awards
KUMC Administration							
Center for Telemedicine & TeleHealth		1,620,064	25,000	99,485		1,744,549	4
Dykes Library	221,235		60,000			281,235	3
Hospital				5,113		5,113	1
Research Administration				300,163	1,534	301,697	2
Student Services		75,533				75,533	2
KUMC Administration Total	221,235	1,695,597	85,000	404,761	1,534	2,408,127	12
School of Allied Health							
Administration		21,308				21,308	1
Clinical Laboratory Sciences	70,316					70,316	1
Dietetics & Nutrition	405,458			293,388	483,980	1,182,826	9
Health Information Management				24,204		24,204	1
Hearing & Speech	216,162	69,305				285,467	2
Nurse Anesthesia Education		14,306				14,306	1
Occupational Therapy Education	248,410			61,500		309,910	4
Physical Therapy & Rehabilitation Sciences	215,429	109,193		593,703		918,325	16
Allied Health Total	1,155,775	214,112		972,795	483,980	2,826,662	35
School of Medicine – Kansas City Campus							
Administration	1,875,000	2,094,282	22,000			3,991,282	4
Basic Science Departments							
Anatomy & Cell Biology	11,212,095			698,982	15,050	11,926,127	26
Biochemistry & Molecular Biology	2,879,045	144,114		171,500		3,194,659	14
Healthy Policy & Management		71,514	5,363	106,250		183,127	5
Microbiology, Molecular Genetics & Immunology	4,828,607	7,776		434,034		5,270,417	16
Molecular & Integrative Physiology	3,980,290	194,907		409,464		4,584,661	27
Pharmacology, Toxicology, & Therapeutics	4,968,264			672,386		5,640,650	25
Preventive Medicine	1,385,392	1,164,496	128,190	1,101,835		3,779,913	26
Basic Science Total	29,253,693	1,582,807	133,553	3,594,451	15,050	34,630,179	139
Clinical Departments							
Anesthesiology					147,478	147,478	7
Family Medicine		920,528		98,452		1,018,980	10
Gynecology & Obstetrics		50,000			40,580	90,580	4
Internal Medicine	7,761,307	682,029		1,267,859	2,144,935	11,856,130	134
Neurology	454,248			427,163	1,481,364	2,362,775	76
Ophthalmology					37,948	37,948	2
Otorhinolaryngology	92,068					92,068	2
Pathology & Laboratory Sciences	2,942,017			54,371		2,996,388	10
Pediatrics	409,555	3,918,290	123,184	345,766	43,600	4,840,395	30
Psychiatry & Behavioral Sciences	3,000			15,000	45,026	63,026	7
Radiation Oncology					3,650	3,650	1
Rehabilitation Medicine				25,000		25,000	1
Surgery General					115,439	115,439	3
Surgery Neurosurgery					27,438	27,438	3
Surgery Orthopedics	73,500			1,650	7,188	82,338	5
Surgery Urology	204,424	458,132			83,414	745,970	11
Total Clinical Departments	11,940,119	6,028,979	123,184	2,235,261	4,178,060	24,505,603	306
Centers							
Center on Aging	2,991,803	861,204		105,000		3,958,007	10
Developmental Disabilities Center		969,950	426,752	60,000	650	1,457,352	9
Hoglund Brain Imaging Center		30,000		590,673		620,673	8
Kansas Masonic Cancer Research Institute	465,201	76,977			66,205	608,383	8
Mental Retardation Research Center	1,398,961					1,398,961	2
Mid-America Cardiology	16,976				240,094	257,070	20
Centers Total	4,872,941	1,938,131	426,752	755,673	306,949	8,300,446	57
School of Medicine – KC Campus Total	47,941,753	11,644,199	705,489	6,585,385	4,500,059	71,376,885	506
School of Medicine – Wichita Campus							
Family & Community Medicine – Wichita	99,888	555,631				655,519	4
Internal Medicine – Wichita		148,034				148,034	1
Preventive Medicine – Wichita	81,198	296,169	20,000	235,385	14,250	647,002	17
Psychiatry – Wichita	56,576					56,576	1
School of Medicine – Wichita Campus Total	237,662	999,834	20,000	235,385	14,250	1,507,131	23
School of Medicine (KC & Wichita) Total	48,179,415	12,644,033	725,489	6,820,770	4,514,309	72,884,016	529
School of Nursing	902,856	1,121,186		2,466,068		4,490,110	14
Other Sources of Extramural Funding							
KU Endowment Association				4,825,341		4,825,341	
Medical Practice Association – Wichita				1,370,725	60,517	1,431,242	
Other Sources of Extramural Funding Total				6,196,066	60,517	6,256,583	
TOTAL	50,459,281	15,674,928	810,489	16,860,460	5,060,340	88,865,498	590

**Table 3
FY 2006 Federally Funded Awards by Funding Agency**

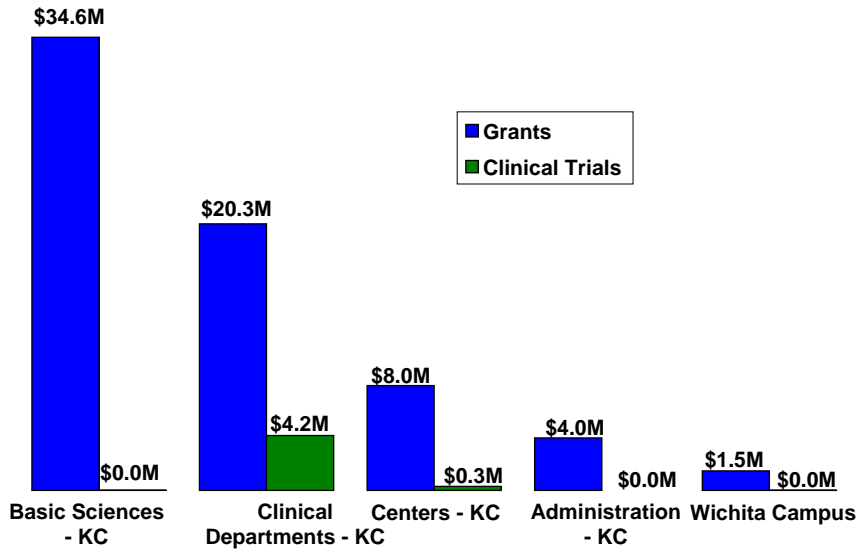
	NIH Direct Awards	NIH Clinical Trials	NIH Subcon-tracts	DHHS Direct Awards	DHHS Subcon-tracts	DOEd Direct Awards	DOEd Subcon-tracts	DOD Direct Awards	CDC Subcon-tracts	NSF Direct Awards	NASA Direct Awards	Other Fed. Subcon-tracts
KUMC Administration												
Center for Telemedicine				1,620,064								
Dykes Library			221,235									
Student Services				75,533								
KUMC Administration Total			221,235	1,695,597								
School of Allied Health												
Administration							21,308					
Clinical Laboratory Sciences			70,316									
Dietetics & Nutrition	352,891		52,567									
Hearing & Speech	216,162						69,305					
Nurse Anesthesia Education				14,306								
Occupational Therapy Education	144,719		103,691									
Physical Therapy	104,519		110,910							109,193		
Allied Health Total	818,291		337,484	14,306			90,613			109,193		
School of Medicine – KC												
Administration	1,875,000			2,094,282								
Basic Science Departments												
Anatomy	11,137,027		75,068									
Biochemistry	2,714,551		164,494							144,114		
Healthy Policy & Management				28,986			18,015					24,513
Microbiology	4,828,607									7,776		
Physiology	3,177,900		802,390								194,907	
Pharmacology	4,846,258		122,006									
Preventive Medicine	1,341,883		43,509		178,166				986,330			
Basic Science Total	28,046,226		1,207,467	28,986	178,166		18,015		986,330	151,890	194,907	24,513
Clinical Departments												
Family Medicine				920,528								
Gynecology & Obstetrics					50,000							
Internal Medicine	6,382,693	372,139	1,006,475	252,315	8,000		262,880	30,834				128,000
Neurology	59,978	394,270										
Otorhinolaryngology			92,068									
Pathology	2,763,762		178,255									
Pediatrics	291,082	1,600	116,873	1,949,894	234,190	994,982	70,289					668,935
Psychiatry		3,000										
Surgery General												
Surgery Orthopedics	73,500											
Surgery Urology		955	203,469					458,132				
Total Clinical Departments	9,571,015	771,964	1,597,140	3,122,737	292,190	994,982	333,169	488,966				796,935
Centers												
Center on Aging	2,991,803			861,204								
Dev. Disabilities Center				540,350	429,600							
Hoglund Brain Imaging Center					30,000							
KS Masonic Cancer Res Institute	292,950	60,000	112,251						76,977			
Mental Retardation Res Center	770,971		627,990									
Mid-America Cardiology			16,976									
Centers Total	4,055,724	60,000	757,217	1,401,554	459,600				76,977			
School of Medicine – KC Total	43,547,965	831,964	3,561,824	6,647,559	929,956	994,982	351,184	488,966	1,063,307	151,890	194,907	821,448
School of Medicine – Wichita												
Family Medicine – Wichita			99,888	555,631								
Internal Medicine – Wichita					148,034							
Psychiatry – Wichita		56,576										
Preventive Medicine – Wichita	71,773		9,425		180,610				111,239			4,320
SOM – Wichita Total	71,773	56,576	109,313	555,631	328,644				111,239			4,320
School of Medicine Total	43,619,738	888,540	3,671,137	7,203,190	1,258,600	994,982	351,184	488,966	1,174,546	151,890	194,907	825,768
School of Nursing	902,856			283,251	595,984			241,951				
TOTAL	45,340,895	88,540	4,229,856	9,196,344	1,854,584	994,982	441,797	730,917	1,174,546	261,083	194,907	825,768

FY 2006 Awards by School

School of Medicine

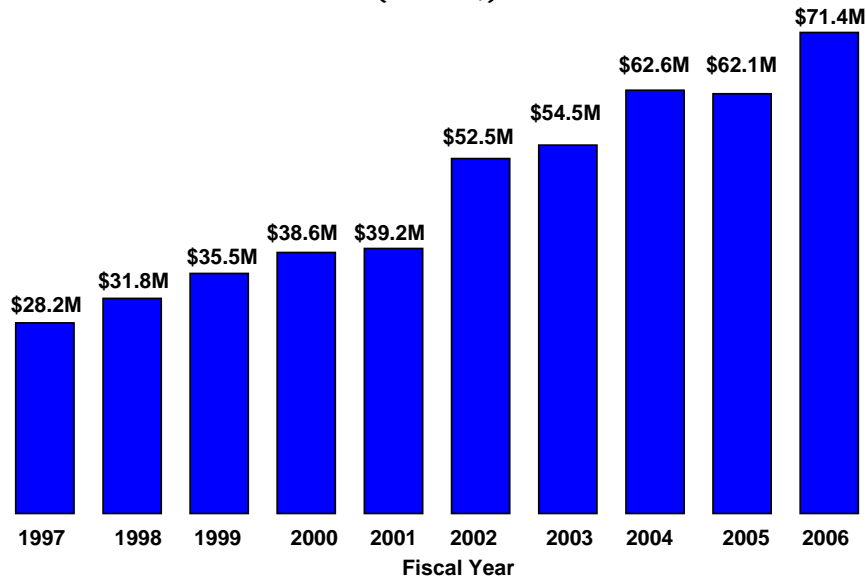
Awards for the School of Medicine for FY 2006 totaled \$72,884,016, a 15.1% increase from the \$63,308,873 awarded for FY 2005 (see Figure 3).

Figure 3
School of Medicine Awards for FY 2006 by Grants and Clinical Trials
(Million \$)



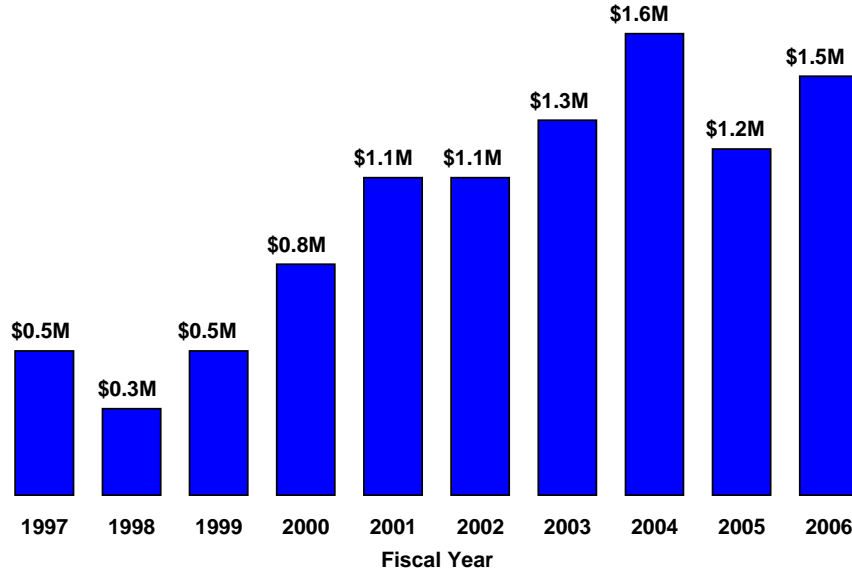
Research grant awards for FY 2006 for the **School of Medicine's Kansas City Campus** had a total dollar value of \$71,376,885, a 14.9% increase from the \$62,113,993 awarded for FY 2005 (see Figure 4).

Figure 4
School of Medicine – KC Awards for FY 1997 - FY 2006
(Million \$)



Awards for the **School of Medicine's Wichita Campus** totaled \$1,507,131 for FY 2006, a 26.1% increase from the \$1,194,880 in awards for FY 2005 (see Figure 5).

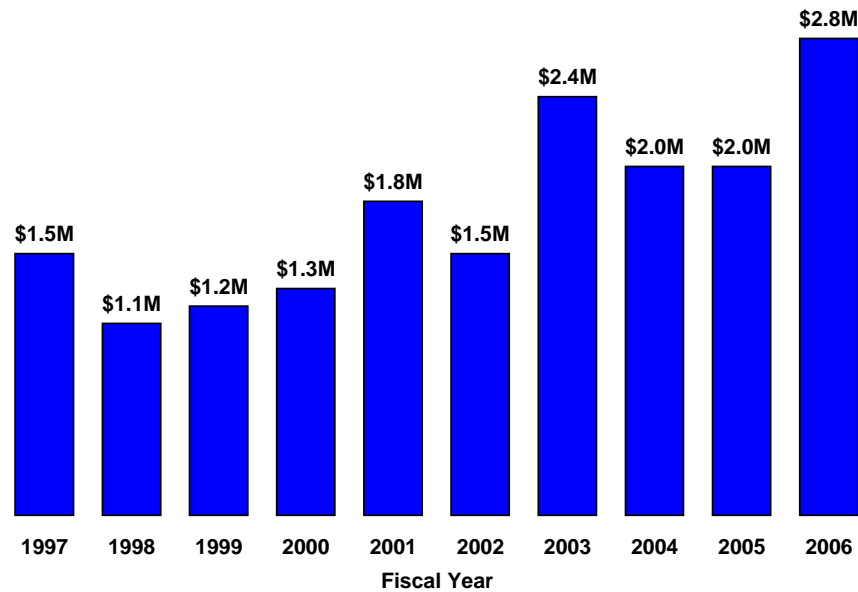
Figure 5
School of Medicine – Wichita Awards for FY 1997 - FY 2006
(Million \$)



School of Allied Health

Total awards for the School of Allied Health in FY 2006 were \$2,826,662, a 43.8% increase from the \$1,965,547 awarded in FY 2005 (see Figure 6).

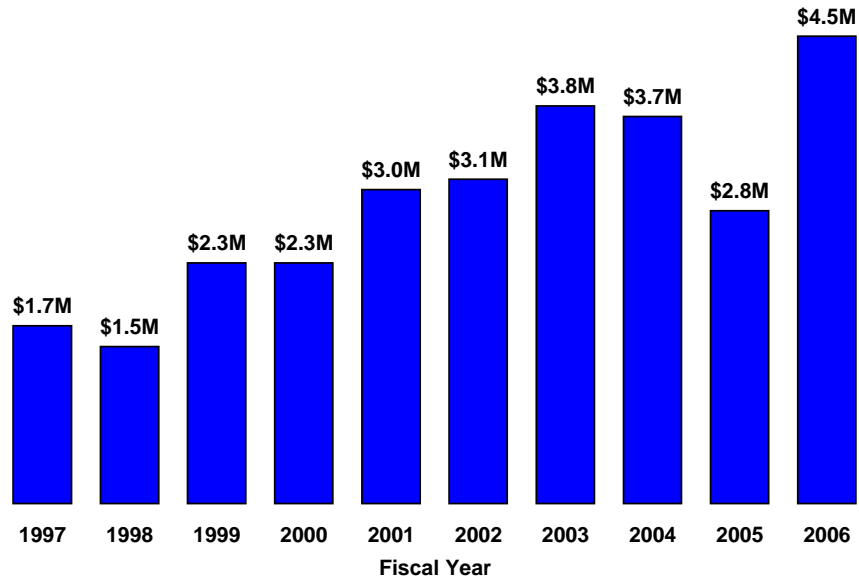
Figure 6
School of Allied Health Awards for FY 1997 - FY 2006
(Million \$)



School of Nursing

Total awards for the School of Nursing in FY 2006 were \$4,490,110, a 59.0% increase from the \$2,823,282 in awards for FY 2005 (see Figure 7).

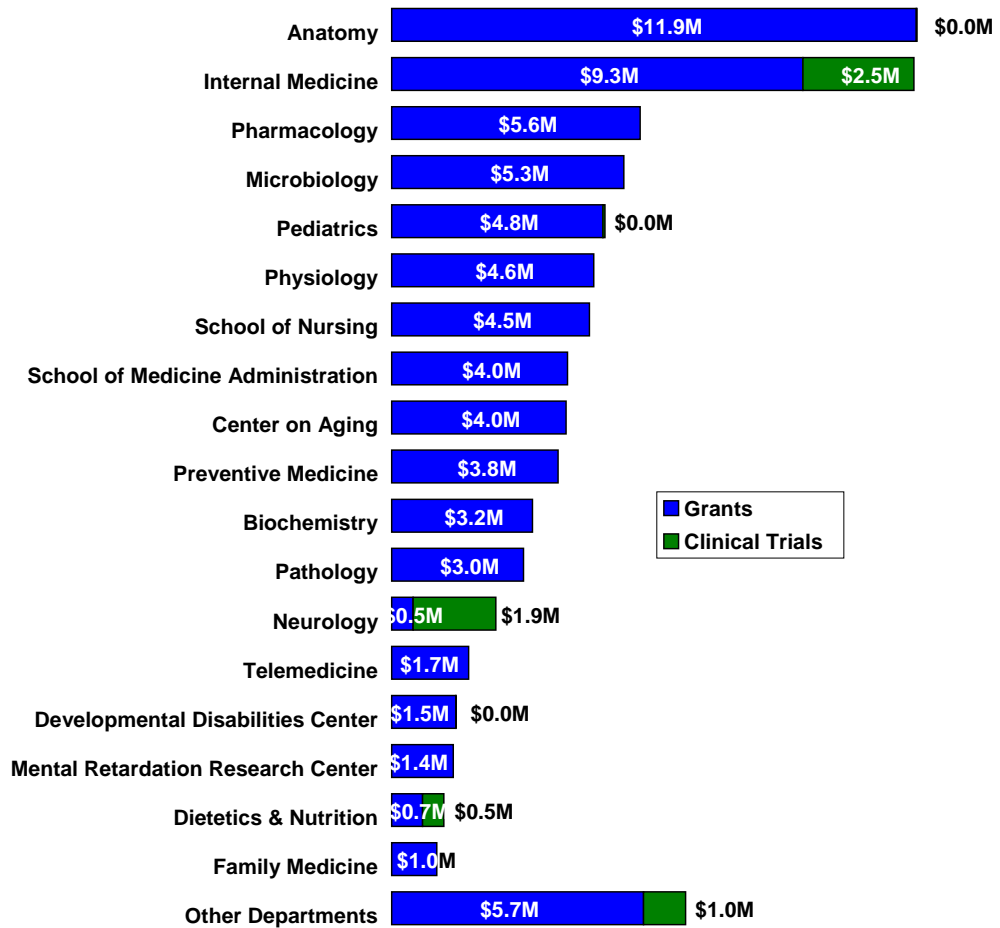
Figure 7
School of Nursing Awards for FY 1997 – FY 2006
(Million \$)



Departments with Highest Total Award Dollars

Eighteen departments (including the School of Nursing, which is not broken down into departments) had at least \$1 million in FY 2006 awarded dollars. The top four departments account for \$34.7 million in awards: Anatomy & Cell Biology (\$11.9M); Internal Medicine (\$11.9M); Pharmacology, Toxicology, and Therapeutics (\$5.6M); and Microbiology, Molecular Genetics & Immunology (\$5.3M) (see Figure 8).

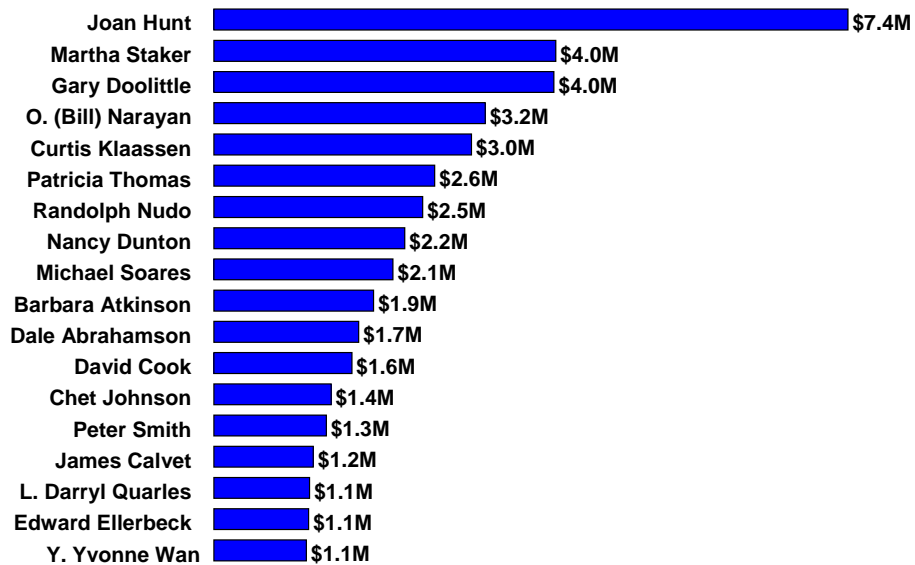
Figure 8
Departments with Highest Total Award Dollars (Grants & Clinical Trials) in FY 2006
(Million \$)



Principal Investigators with Highest Total Award Dollars

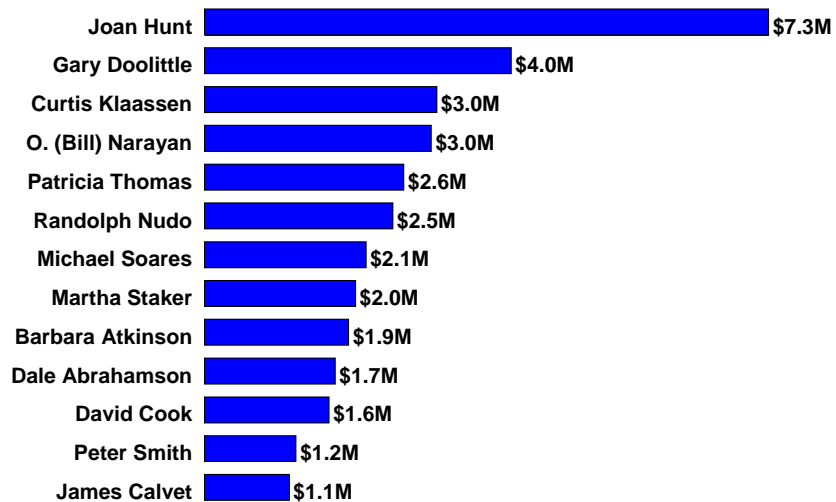
Eighteen principal investigators had total award dollars over \$1 million for FY 2006, including five principal investigators with total extramural funds in excess of \$3 million: Joan Hunt, Martha Staker, Gary Doolittle, O. (Bill) Narayan, and Curtis Klaassen. These principal investigators and their total award amounts are listed in Figure 9, below.

Figure 9
Principal Investigators with FY 2006 Extramural Awards Totaling Over \$1 Million
(Million \$)



The thirteen principal investigators with Department of Health and Human Services (DHHS) award dollars totaling at least \$1 million are listed in Figure 10, below.

Figure 10
Principal Investigators with FY 2006 Department of Health and Human Services Awards
Totaling At Least \$1 Million
(Million \$)



NIH Rankings

The latest NIH rankings are for FY 2005. NIH rankings for the three KUMC schools for FY 2001 - FY 2004 compared with all institutions in those categories are depicted in Table 4, below. (Note: All figures listed below reflect the Federal Fiscal Year, which runs from October 1 through September 30. KUMC's Fiscal Year is from July 1 through June 30.)

NIH rankings for FY 2005 for KUMC are as follows:

- The KUMC School of Allied Health ranked 14th among all institutions with \$1.1 M from six NIH awards.
- The KUMC School of Medicine ranked 81st among all institutions with \$33.4M from eighty-five NIH awards.
- The KUMC School of Nursing ranked 40th among all institutions with \$0.9M from three NIH awards.

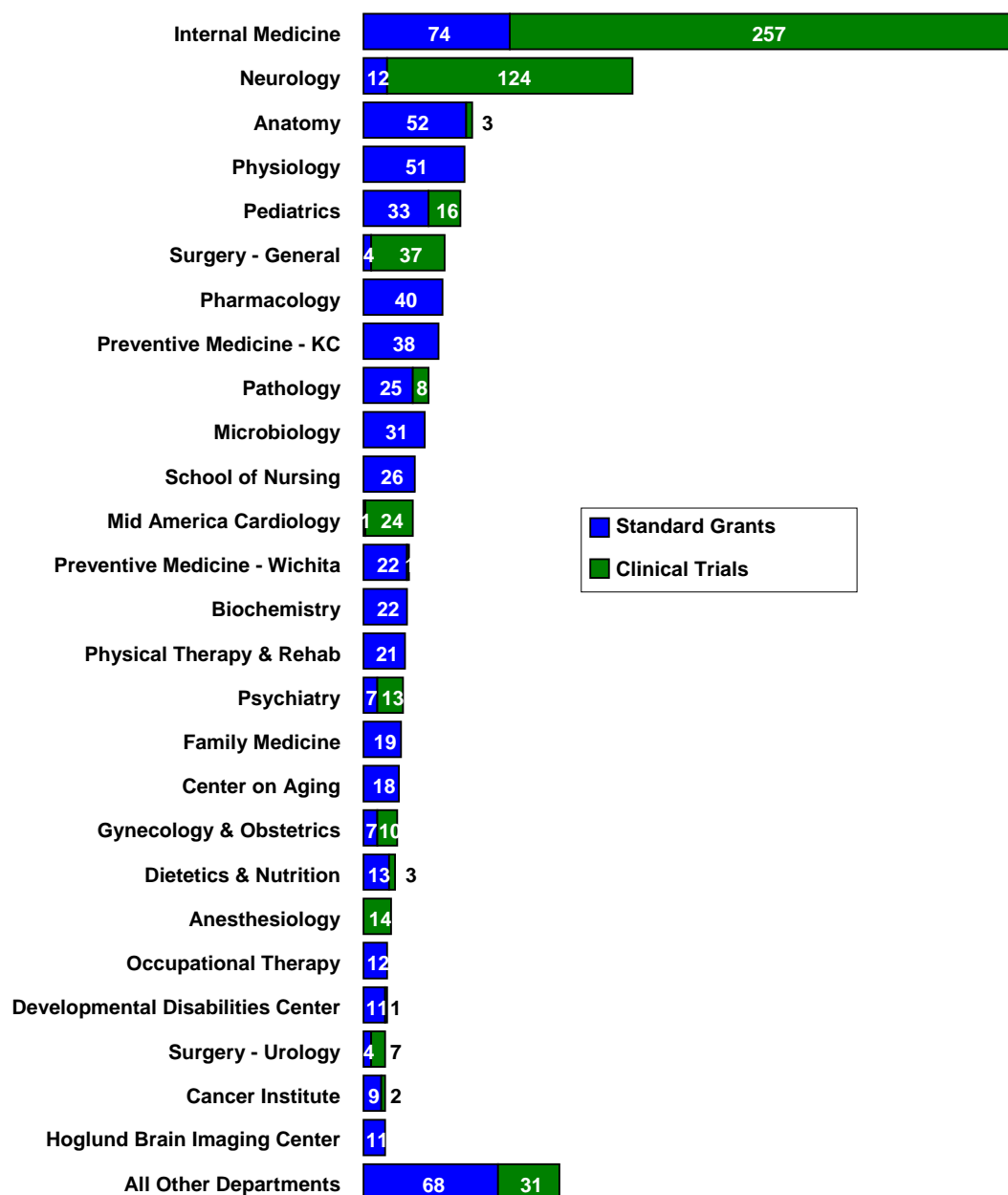
Table 4
NIH Ranking by School, Federal FY 2001 – FY 2005

School of	Total # of NIH Awards	Total NIH \$ Awarded	School Rank (all institutions)
School of Allied Health			
2001	1	\$0.247M	21
2002	1	\$0.247M	26
2003	4	\$0.569M	15
2004	5	\$0.599M	17
2005	6	\$1.050M	14
School of Medicine			
2001	104	\$32.300M	71
2002	99	\$34.759M	73
2003	95	\$36.537M	74
2004	84	\$34.292M	77
2005	85	\$33.412M	81
School of Nursing			
2001	2	\$0.651M	40
2002	3	\$1.282M	33
2003	4	\$1.666M	24
2004	4	\$1.489M	29
2005	3	\$0.924M	40

Awards (Grants and Clinical Trials) Managed in FY 2006

The Research Institute managed 633 grants and 565 clinical trials (total of 1,198) during FY 2006. Figure 11, below, shows the number of grants and clinical trials managed by department (for departments with 10 or more managed grants). Two departments lead in terms of managed awards, Internal Medicine with 331 and Neurology with 136, due to open clinical trials. The 26 departments with the highest number together account for 92% (1083) of all managed awards. The remaining 27 departments together account for a total of 68 active grants and 31 clinical trials.

Figure 11
Grants and Clinical Trials Managed by the Research Institute During FY 2006 by Department



P r o p o s a l s

Proposals Submitted During FY 2006

In FY 2006, 623 proposals were submitted, a decrease of 1% from the 629 proposals submitted in FY 2005. Dollars requested by non-clinical trial proposals in FY 2006 totaled \$354,940,018, an increase of 0.4% from the \$353,371,734 requested in FY 2005. Direct costs requested (excluding clinical trials) increased 0.8% from \$264,184,006 in FY 2005 to \$264,995,683 in FY 2006, while indirect costs requested increased 0.3% from \$89,187,728 in FY 2005 to \$89,944,335 in FY 2006. Requested direct and indirect costs for non-clinical trial proposals submitted in FY 2006 are listed in Table 5 by department.

Status of Proposals Submitted During FY 2006

Figure 12, below, shows the status of the 623 proposals submitted during FY 2006 as of 3/15/2007. As of that date, 45% had already been funded (31% awarded grants and 14% active clinical trials). Three out of ten (27%) were pending, under review, or under development. One quarter of the proposals were not funded (25%). The remaining three percent of proposals were withdrawn or otherwise removed from consideration.

Figure 12
Status as of 3/15/2007 of Proposals Submitted During FY 2006

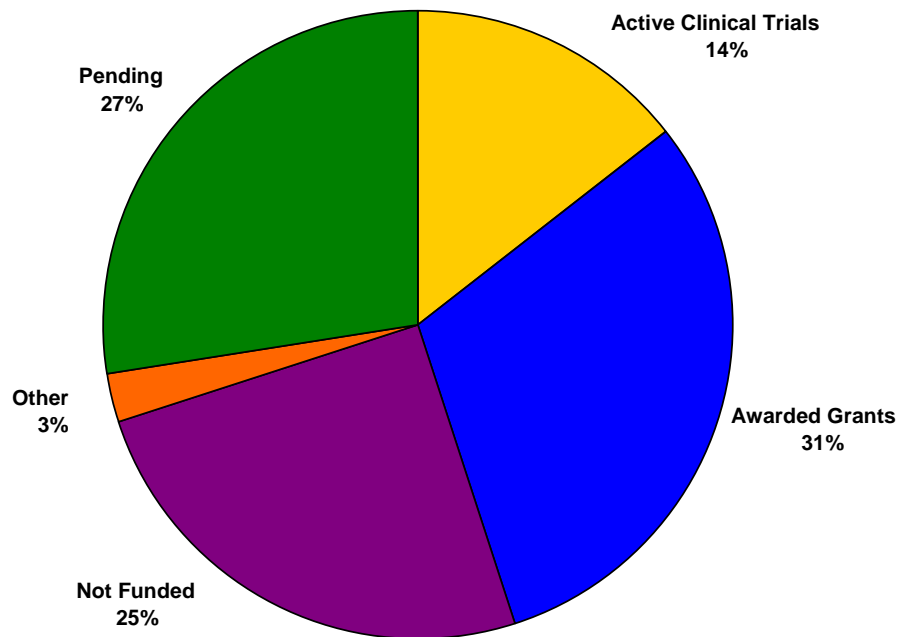


Table 5
Direct and Indirect Requested Costs for Grant Proposals
Submitted in FY 2006 by Department

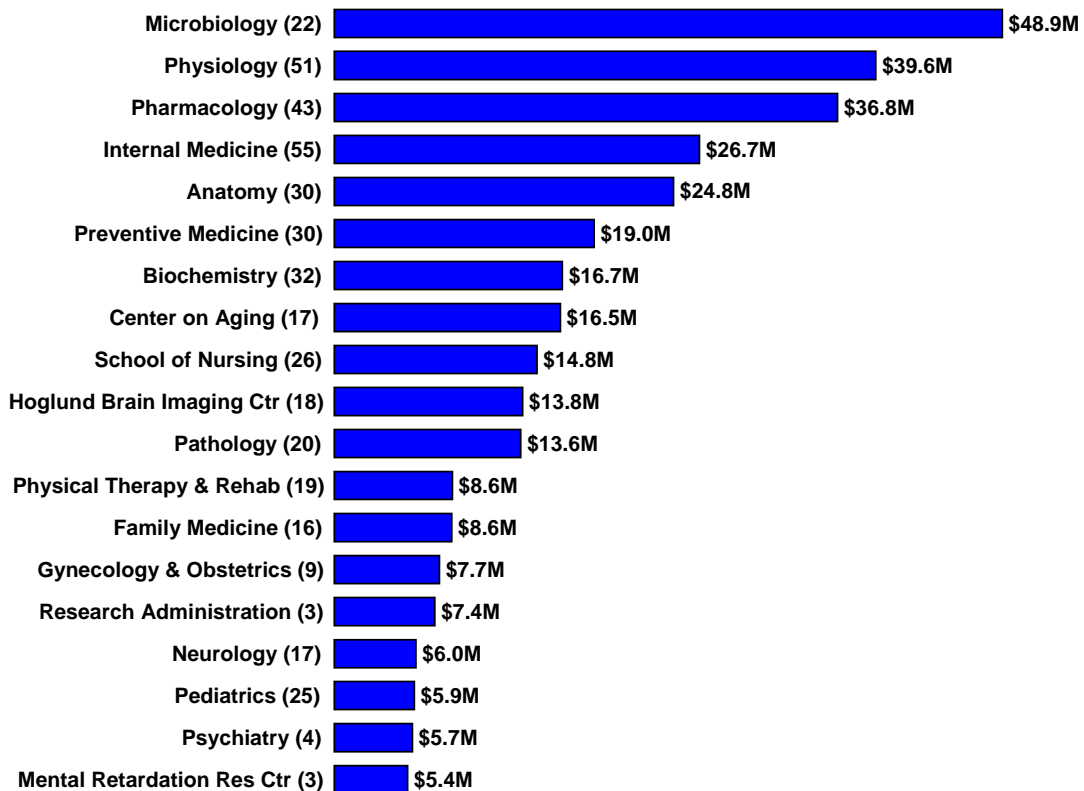
	Requested Direct Costs	Requested Indirect Costs	Requested Total Costs	Number of Proposals
KUMC Administration				
Center for Telemedicine & TeleHealth	1,304,433	213,080	1,517,513	5
Dykes Library	503,488	198,238	701,726	2
Research Administration	5,760,990	1,598,410	7,359,400	3
Student Services	64,737		64,737	1
University Police	4,057		4,057	1
KUMC Administration Total	7,637,705	2,009,728	9,647,433	12
School of Allied Health				
Clinical Laboratory Sciences	368,938	173,402	542,340	1
Dietetics & Nutrition	1,764,030	705,718	2,469,748	4
Health Information Management	32,802		32,802	1
Hearing & Speech	2,903,814	698,426	3,602,240	7
Nurse Anesthesia Education	242,000		242,000	1
Occupational Therapy Education	2,081,086	503,899	2,584,985	9
Physical Therapy & Rehabilitation Sciences	6,227,916	2,414,238	8,642,154	19
Allied Health Total	13,620,586	4,495,683	18,116,269	42
School of Medicine – Kansas City Campus				
Basic Science Departments				
Anatomy & Cell Biology	18,036,366	6,790,586	24,826,952	30
Biochemistry & Molecular Biology	11,808,079	4,882,648	16,690,727	32
Healthy Policy & Management	4,256	1,277	5,533	1
History of Medicine	574,633	262,399	837,032	2
Microbiology, Molecular Genetics & Immunology	37,760,605	11,122,909	48,883,514	22
Molecular & Integrative Physiology	28,328,743	11,288,879	39,617,622	51
Pharmacology, Toxicology, & Therapeutics	25,585,571	11,243,229	36,828,800	43
Preventive Medicine	14,648,461	4,374,985	19,023,446	30
Basic Science Total	136,746,714	49,966,912	186,713,626	211
Clinical Departments				
Family Medicine	6,171,793	2,429,301	8,601,094	16
Gynecology & Obstetrics	5,804,592	1,882,854	7,687,446	9
Internal Medicine	19,785,249	6,939,556	26,724,805	55
Neurology	4,619,907	1,368,103	5,988,010	17
Otorhinolaryngology	3,894,579	615,795	4,510,374	3
Pathology & Laboratory Sciences	9,853,869	3,792,434	13,646,303	20
Pediatrics	5,007,495	852,659	5,860,154	25
Psychiatry & Behavioral Sciences	4,118,780	1,596,694	5,715,474	4
Rehabilitation Medicine	92,500	5,400	97,900	2
Surgery General	2,005,141	853,743	2,858,884	5
Surgery Urology	53,174	23,397	76,571	1
Total Clinical Departments	61,407,079	20,359,936	81,767,015	157
Centers				
Center on Aging	13,611,726	2,934,785	16,546,511	17
Developmental Disabilities Center	3,537,693	240,385	3,778,078	6
Hoglund Brain Imaging Center	9,721,421	4,065,631	13,787,052	18
Kansas Masonic Cancer Research Institute	213,605	91,560	305,165	4
Mental Retardation Research Center	3,824,303	1,540,287	5,364,590	3
Centers Total	30,908,748	8,872,648	39,781,396	48
School of Medicine – KC Campus Total	229,062,541	79,199,496	308,262,037	416
School of Medicine – Wichita Campus				
Family & Community Medicine – Wichita	666,809	179,658	846,467	3
Obstetrics & Gynecology - Wichita	200,000	94,000	294,000	1
Office of Research – Wichita	57,455	23,745	81,200	2
Preventive Medicine – Wichita	2,285,997	595,405	2,881,402	17
School of Medicine – Wichita Campus Total	3,210,261	892,808	4,103,069	23
School of Medicine (KC & Wichita) Total	232,272,802	80,092,304	312,365,106	439
School of Nursing	11,464,590	3,367,620	14,832,210	26
TOTAL	264,995,683	89,965,335	354,961,018	519

Departments with Highest Total Requested Dollar Submissions

The requested dollar amounts included in research grant proposals submitted during FY 2006 for nineteen departments (counting the School of Nursing as a single department), which requested five million or more dollars, totaled \$324.8 million, or 91.8% of the total dollars requested in FY 2006. These departments, together with the total amounts of their grant submissions and the number of proposals submitted by department, are presented in Figure 13, below.

Figure 13
Research Grant Proposals and Requested Dollars Submitted in FY 2006
Totaling More Than \$5,000,000 by Department
(Million \$)

(Note: The number of proposals submitted by each department is in parentheses)

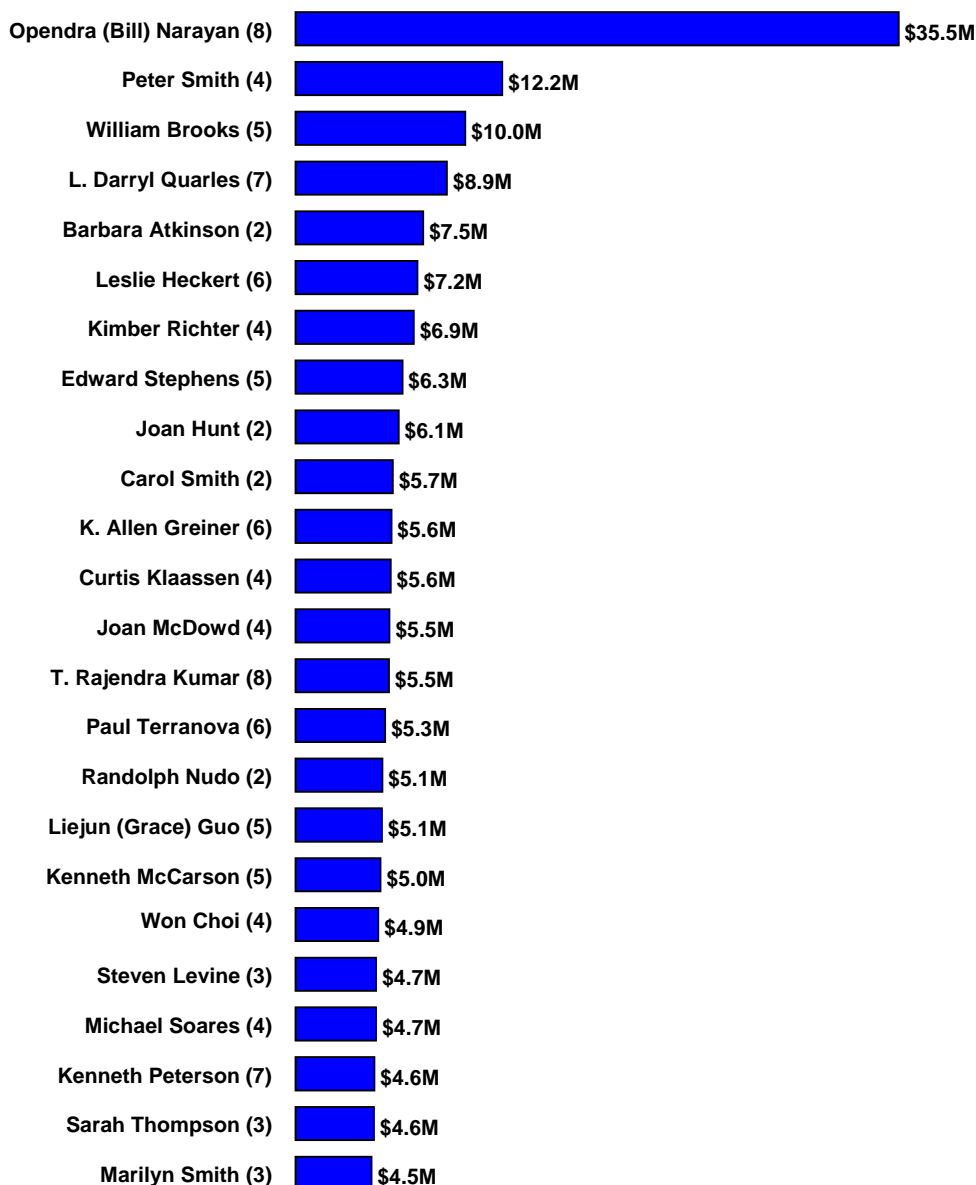


Principal Investigators with Highest Total Requested Dollar Submitted

The twenty-four principal investigators that each submitted four million or more in total requested dollars together requested \$176.9 million in FY 2006. This represents half (50.0%) of all dollars requested in proposals during FY 2006. These principal investigators are listed in Figure 14, below, together with the total amount of funding they requested. Two researchers submitted proposals in excess of \$10 million: Bill Narayan (\$35.5 million) and Peter Smith (\$12.2 million). In all, 241 principal investigators submitted proposals for funding in FY 2006.

Figure 14
Requested Dollar Amounts for Research Grant Proposals Submitted in FY 2006
Totaling More Than \$4,000,000 by Principal Investigator
(Million \$)

(Note: Number of proposals is in parentheses)



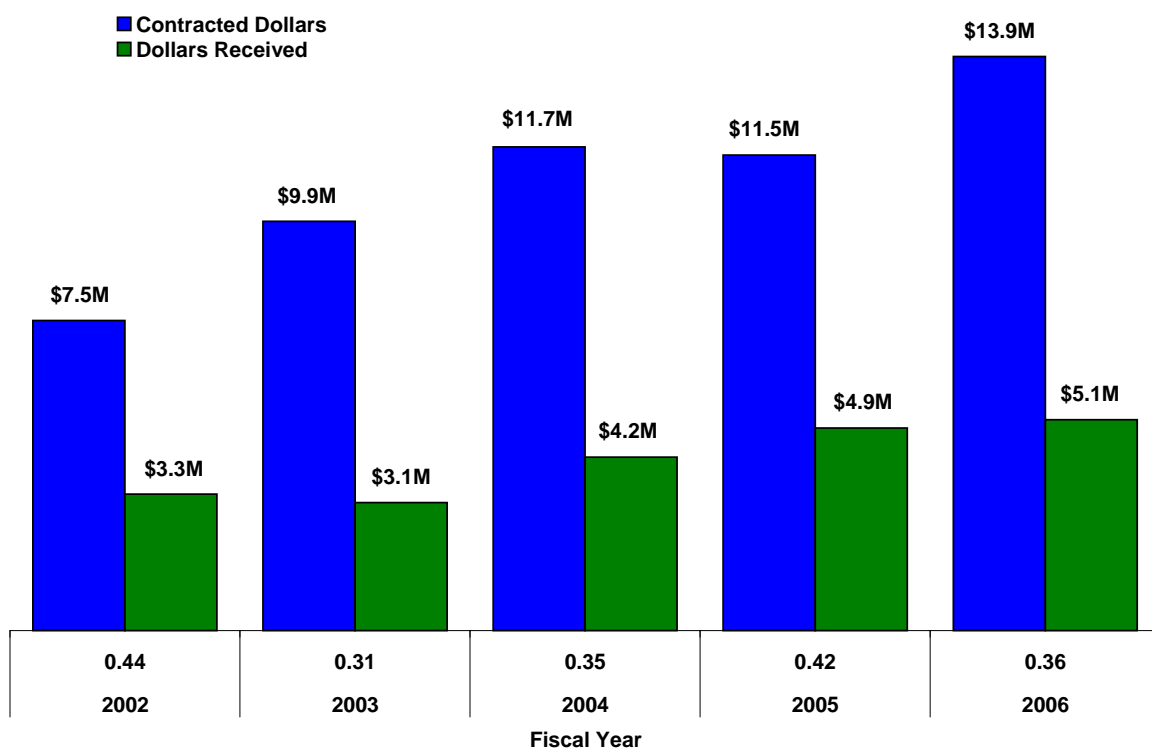
Clinical Research Contracts

Clinical Research Dollars Contracted and Received

Contracted dollars for FY 2006 for the Clinical Research Administration totaled \$13,888,092, an increase of \$2,366,845 (20.5%) from FY 2005. Dollars received increased from \$4,888,402 in FY 2005 to \$5,064,496 in FY 2006, an increase of \$176,094 (3.6%). The percent of contracted dollars received decreased from 42.4% in FY 2005 to 36.5% in FY 2006.

Figure 15 and Table 6 show the relationship between dollars contracted and received by the Clinical Research Administration. Over the last five years, the amount of contracted dollars increased from \$7.5 million to \$13.9 million while the dollars received increased during the same time period from \$3.3 million to \$5.1 million.

Figure 15
Clinical Research Administration Dollars Contracted and Received, FY 1997 - FY 2006
(Million \$)



The top two departments, in terms of dollars contracted, were Internal Medicine with \$8.3 million and Neurology with \$2.7 million in contracted dollars for new clinical trials. (See Figure 16 and Table 7.)

Table 6
Clinical Research Administration (CRA) Division Year-End Summary
FY 2002-FY 2006

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
Contracted Dollars					
Protocols/synopses reviewed	318	275	269	290	284
Total CRA managed studies	233	236	260	393	437
Trials managed (includes studies in set-up phase)	233	236	260	274	301
Oncology Group studies	*	*	*	119	136
New contracts signed	94	98	104	111	112
Amended contracts signed	7	15	12	23	34
Contracted dollars	\$7,527,584	\$9,942,161	\$11,740,623	\$11,521,247	\$13,888,092
Dollars received	\$3,340,041	\$3,064,797	\$4,247,797	\$4,888,402	\$5,064,496
HSC Submissions					
Total new submissions	95	104	109	105	118
Average new submissions per month	8	9	9	9	10
Total post-award submissions (renewals, adverse events, advertisements, and amendments)	1906	2621	2794	2984	2684
Average post-award submissions per month	157	219	233	249	224
Clinical Trials Education					
CTELS presented (lecture series)	8	8	10	9	9
Average CTELS attendance	31	39	30	50	44
Study coordinators (approximate)	88	90	100	105	109
PIs working with division (approximate)	73	85	85	97	107
Marketing					
Potential studies sent by RI	123	91	79	79	68
Physicians listed on Centerwatch	59	52	52	54	68
Quality Improvement (monitoring for education purposes)					
Monitoring visits (for CT staff training only)	*	1	0	2	3

Figure 16
Clinical Trials Contracted Dollars by Department for FY 2006

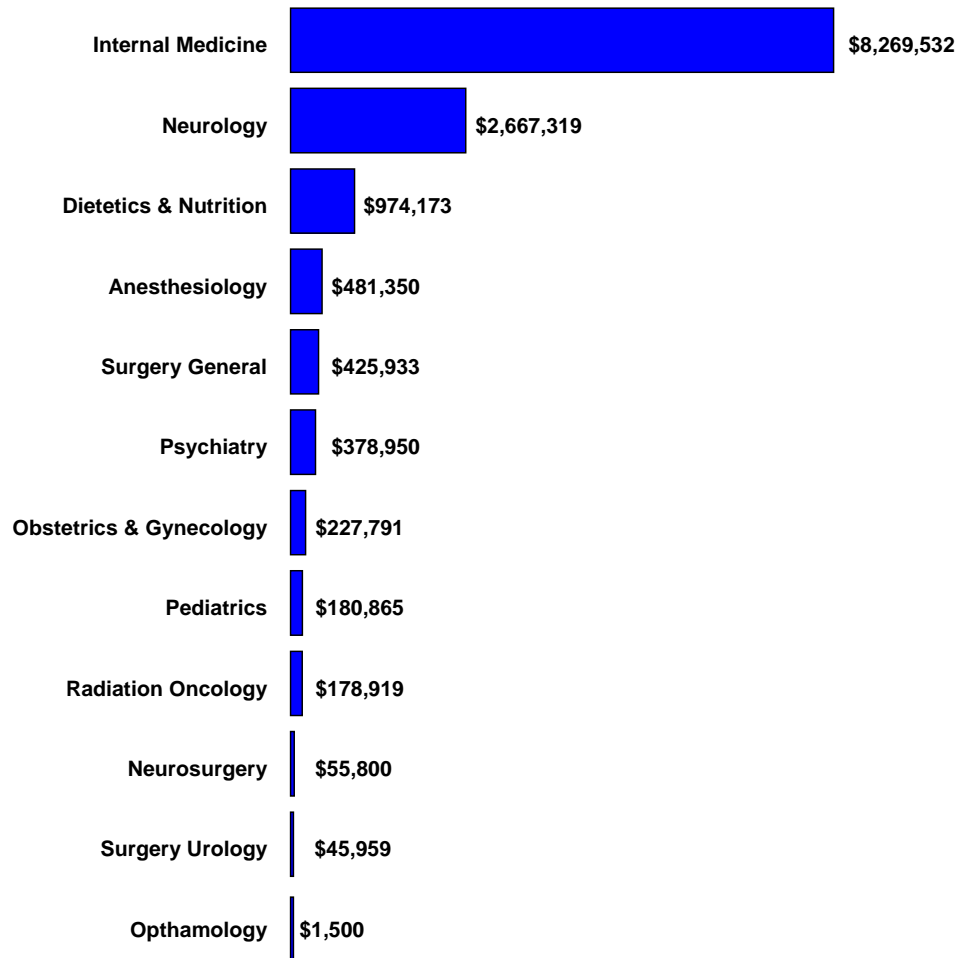


Table 7
Clinical Trials Contracted Dollars Detail by Department for FY 2006

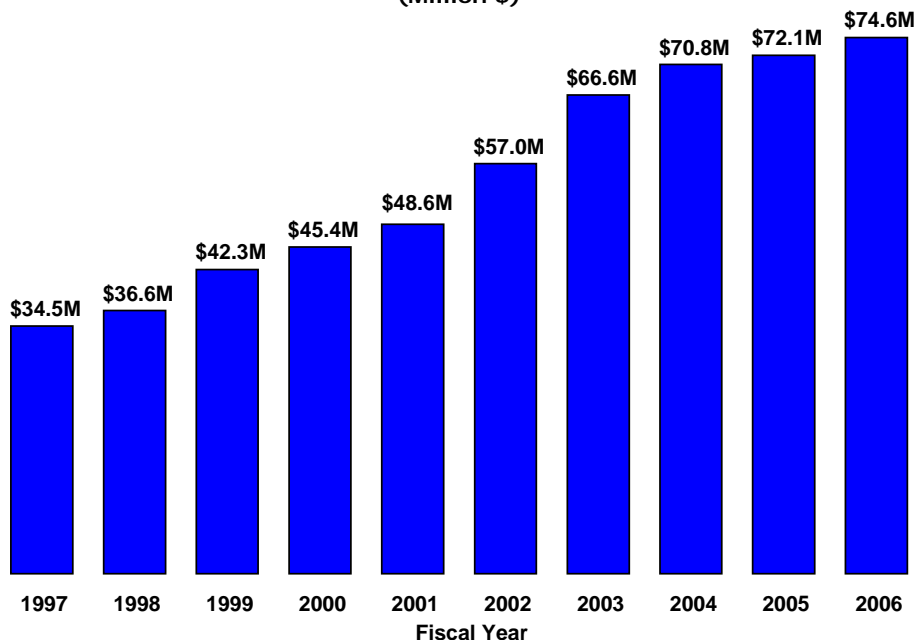
Department	Total Subject Dollars	IRB Fee	Other Fees	Total Contracted Dollars
Anesthesiology	451,714	10,900	18,736	481,350
Dietetics & Nutrition	962,621	5,500	6,052	974,173
Internal Medicine	7,260,432	121,200	887,900	8,269,532
Neurology	2,540,776	29,100	97,443	2,667,319
Obstetrics & Gynecology	166,569	4,300	56,923	227,792
Ophthalmology	1,500	0	0	1,500
Pediatrics	169,528	4,300	7,038	180,866
Psychiatry	352,670	9,800	16,481	378,951
Radiation Oncology	169,769	2,000	7,150	178,919
Surgery – General	407,763	4,000	14,170	425,933
Surgery – Neurosurgery	45,000	6,300	4,500	55,800
Surgery - Urology	39,584	4,500	1,875	45,959
TOTAL	12,567,926	201,900	1,118,268	13,888,094

Extramural Expenditures

Extramural Expenditures

Total extramural expenditures for FY 2006 were \$74,561,756, an increase of 3.4% from the \$72,089,388 expended in FY 2005. (See Figure 17.) Expenditures have more than doubled in the eight years since FY 1998. (Note: These amounts include funds on deposit with the Research Institute and KUMC, but do not include other Institution expenditures.)

Figure 17
Total Extramural Expenditures, FY 1997 – FY 2006
(Million \$)



Expenditures by Funding Source

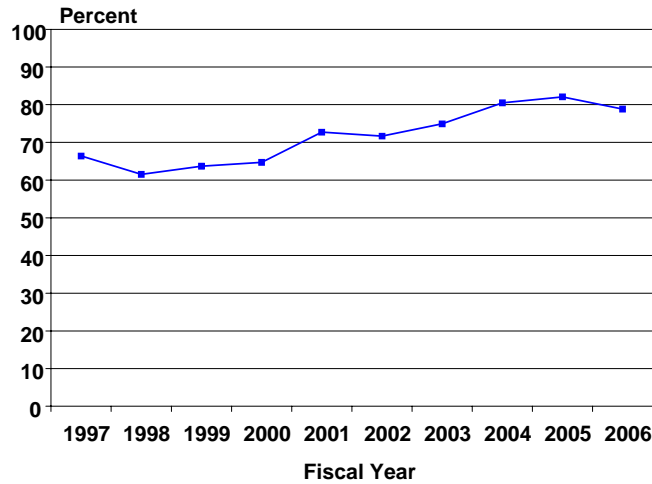
Table 8 shows total extramural expenditures by funding source for the ten years ending with FY 2006.

Table 7
Total Extramural Expenditures by Funding Source, FY 1997-FY 2006
(Thousand \$)

Fiscal Year	Federal Government	State & Local Governments	Industry	Not-for-Profit & Other	Total
FY 2006	58,785	125	5,452	10,201	74,563
FY 2005	59,176	34	5,273	7,606	72,089
FY 2004	56,997	201	3,761	9,862	70,821
FY 2003	49,863	2,639	5,461	8,599	66,562
FY 2002	40,865	3,391	3,573	9,190	57,019
FY 2001	35,338	2,890	1,589	8,782	48,599
FY 2000	29,389	3,564	7,861	4,615	45,429
FY 1999	26,944	2,713	7,710	4,930	42,297
FY 1998	22,522	2,290	4,777	7,015	36,604
FY 1997	22,873	2,194	7,223	2,168	34,458

Federal funds comprised 78.8% of the total extramural expenditures for FY 2006. This percentage has generally been increasing since FY 1998, though it is slightly lower this year compared to last (82.1%). See Figure 18, below.

Figure 18
Federal Funds as a Percent of Total Extramural Expenditures, FY 1997-FY 2006

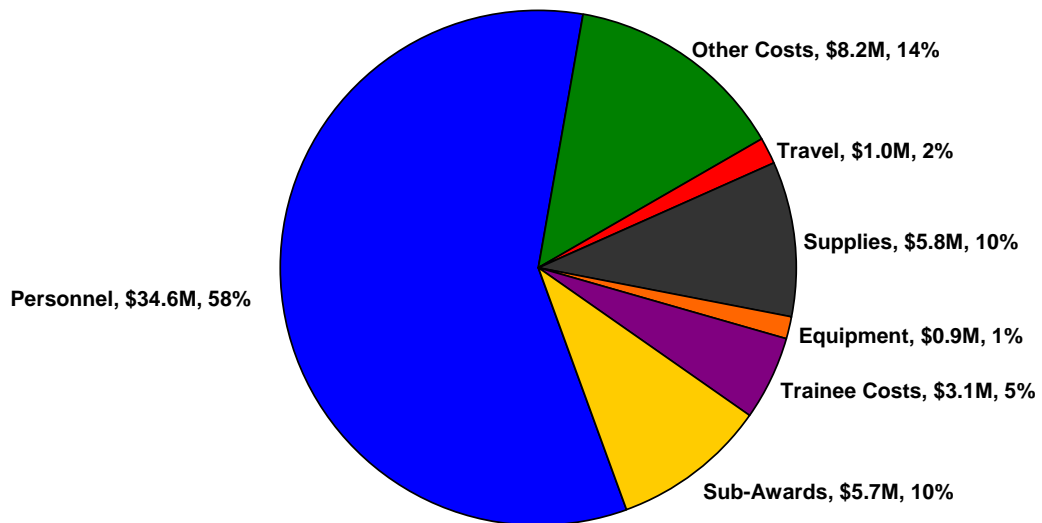


Direct and Indirect Costs

For FY 2006, direct costs totaled \$59,463,555 (79.7%) and indirect costs totaled \$15,099,201 (20.3%).

The categories of direct costs are detailed in Figure 19. Personnel costs accounted for over half (58%) of direct expenditures in FY 2006. Supplies, sub-awards, trainee costs, equipment, and travel accounted for 28% (10%, 10%, 5%, 1%, and 2%, respectively). A variety of other costs comprised the remaining 14%.

Figure 19
FY 2006 Direct Costs by Category



S t a f f



**University of Kansas Medical Center
Research Institute, Inc.,
Directory of Personnel**

Note: Telephone Area Code is 913.

	<u>e-mail</u>	<u>phone</u>
<u>Office of the Vice Chancellor for Research Administration</u>		
Ted Knous , Ph.D., Associate Vice Chancellor for Research Administration – KUMC & Executive Director, KUMC Research Institute	TKNOUS@kumc.edu	588-1261
Tim Siskey , Financial Systems Analyst	Tsiskey@kumc.edu	588-5313
Deborah Maloney , Policy Coordinator	dmaloney@kumc.edu	588-6570
Kelly Robertson , Administrative Officer	krobertson@kumc.edu	588-5436
Timothy (Tim) Kestermont , Systems Administrator	tkestermont@kumc.edu	588-1281
<u>Clinical Research Administration</u>		
Kelly Daniels , LPN, Interim Division Director	kdaniels@kumc.edu	588-1484
Elizabeth Charlton , Clinical Trials Administrator	echarlton@kumc.edu	588-5705
Molly Gunter , Clinical Trials Administrator	mgunter@kumc.edu	588-5969
Alec Johnson , Clinical Trials Administrator	Ajohnson3@kumc.edu	588-1262
Barbara Liles , Clinical Trials Administrator	bliles@kumc.edu	588-5589
Carmen Kepka , Administrative Trials Coordinator	ckepka@kumc.edu	588-1267
Nadia Saina , Administrative Trials Coordinator	nsaina@kumc.edu	588-1322
Mary Buller , Office Assistant	mbuller@kumc.edu	588-0082
Amanda Krieg , Documents Specialist	akrieg@kumc.edu	588-1249
Nicole Love , Documents Specialists	nlove@kumc.edu	588-5709
Kevin Smilor , Documents Specialists	ksmilor@kumc.edu	588-5724
<u>Finance and Administrative Services</u>		
Steven Geiger , MBA, CPA, Chief Financial Officer	sgeiger@kumc.edu	588-5469
Jim Keeney , Controller	jkeeney@kumc.edu	588-5749
Annie Landreville , Senior Accountant	alandreville@kumc.edu	588-1264
Jackie McGrew , Accounts Payable Accountant	jmcgrew@kumc.edu	588-1241
Elizabeth Jamison , Accounts Payable Accountant	ejamison@kumc.edu	588-1213
Gretchen Montez , Accounts Payable Accountant	gmontez@kumc.edu	588-5763
Kimberly J. Barksdale , MA, Human Resources Officer	kbarksdale@kumc.edu	588-1261
Aquilla Goode , Office Assistant	Agoode2@kumc.edu	588-1261
<u>Contracts Office</u>		
Cydney Rabourn , Contracts Officer & Legal Counsel	crabourn@kumc.edu	588-2617
Peter Griffith , Contracts Associate	pgriffith@kumc.edu	588-5448
Traci Thiel , Administrative Assistant	tthiel@kumc.edu	588-3082
<u>Sponsored Programs Administration</u>		
Mei-Shya Chen , Director of Sponsored Programs Division	mchen@kumc.edu	588-1259
Jenne Accurso , Pre-Award Manager	jaccurso@kumc.edu	588-5439
Vickie Eaton , Pre-Award Senior Grant Specialist, Funding Information Coordinator	veaton@kumc.edu	588-1239
Pam Hansen , Pre-Award Grant Specialist	phansen3@kumc.edu	588-1251
Elena Reyes , Pre-Award Grant Specialist	ereyes@kumc.edu	588-5361
Doug Harris , Post-Award Manager	dharris2@kumc.edu	588-1260
Patricia Roberts , Post-Award Assistant Manager	Proberts@kumc.edu	588-5370
Lori Brinkmeyer , Post-Award Administrator	lbrinkmeyer@kumc.edu	588-1448
Lena Chen , Post-Award Administrator	LChen@kumc.edu	588-1261
Carol Fields , Post-Award Administrator	CFields@kumc.edu	588-1261
Fang Liu , Post-Award Administrator	fliu@kumc.edu	588-5238
Patricia McFarland , Post-Award Administrator	PMCFARLA@kumc.edu	588-5748
Janice Thul , Post-Award Administrator	Jthul@kumc.edu	588-1261
Liz Nguyen , Post-Award Administrator	enguyen@kumc.edu	588-0304
<u>Technology Transfer and Intellectual Property Division</u>		
Richard (Dick) Huston , Ph.D., Director	rhuston@kumc.edu	588-1495
Joseph Jilka , Ph.D., Licensing Associate	jjilka@kumc.edu	588-5713
Elaine Spielbusch , Administrative Assistant	espielbu@kumc.edu	588-5721
Elena Khadavi-McFarland , Legal Intern	ekhadavi-mcfarland@kumc.edu	588-0422

A p p e n d i x



**3901 Rainbow Boulevard
Kansas City, Kansas 66160-7702
(913) 588-1261 • Fax (913) 588-5729
http://www.kumc.edu/research/kumc_ri/kumcri-htm**