

**University of Maryland, Baltimore**

# **Research**

**Annual Report 2004**

**and Development**



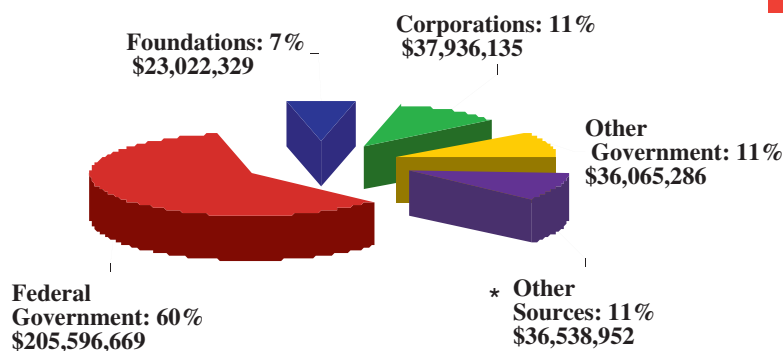
# RESEARCH AND DEVELOPMENT AT THE UNIVERSITY OF MARYLAND, BALTIMORE

## REPORT ON FY04 ACTIVITIES

### EXTRAMURAL FUNDING AT UMB: OVERVIEW

The University of Maryland, Baltimore continues to build entrepreneurial excellence in extramural support for its vast health sciences and human services mission. In FY04, **\$339.1** million in extramural funding was realized, a **4.6** percent increase over FY03's outcomes, tripling the funding levels of FY95. The growth in funding is attributed to a 19.4 percent increase in research awards sponsored by the federal government; National Institutes of Health awards alone increased in dollar amount by 23.2 percent over FY03. Funding from non-federal sources contributed nearly \$134 million to UMB's record breaking year in FY04.

#### Total Extramural Funding by Source



■ The Office of Research and Development processed \$289.7 million in awards while nearly \$50 million in additional support was processed through the University of Maryland, Baltimore Foundation and through the School of Medicine from the Veterans Affairs Medical Center (VA).

\* Other sources: universities and hospitals

#### Summary of Extramural Funding by School

School/Unit	Awarded through ORD	UMBF/VA	Total FY04	% change over FY03
Dental	\$14,214,313	\$1,487,774	\$15,702,087	5.1
Law	889,110	4,765,557	5,654,667	-29.1
Medicine	243,332,945	37,745,037	281,077,982	4.01
Nursing	6,562,712	2,034,848	8,597,560	-11.2
Pharmacy	12,403,149	2,045,278	14,448,427	56.7
Social Work	7,834,695	416,776	8,251,471	-10.5
Campus Administration	4,444,133	913,044	5,357,177	68.1
Graduate	70,000	0	70,000	0
<b>Total</b>	<b>\$289,751,057</b>	<b>\$49,408,314</b>	<b>\$339,159,371</b>	<b>4.6%</b>

Following is a detailed report on the grants and contracts activity for fiscal year 2004.

# OFFICE OF RESEARCH AND DEVELOPMENT: RESULTS

## Summary

Grants and contracts processed through the Office of Research and Development reached \$289.7 million in fiscal year 2004 - a **9 percent increase** in the dollar amount of awards over last year. Indirect cost recovery, at 23.22 percent, increased by 8.7 percent; the Schools of Medicine, Pharmacy and Nursing all realized increases in this calculation and the Dental School continued to lead the way with indirect cost recovery of 30.83 percent. In FY04, 1628 complex and collaborative projects were funded by nearly 650 government, foundation, university and corporate sources. Half of the award dollars are sourced from the NIH and 82 percent of the award values support research.

### Award Values

The average award value has increased by **41.9%** in 5 years

## Award Activity

The School of Medicine continues to grow its extramural support, capturing 84 percent of the year total in award values and increasing 9 percent over FY03. The School of Pharmacy realized outstanding growth in awards, from \$8.9 million in '03 to \$12.4 million in '04, an increase of 39 percent. The Dental School and School of Social Work also demonstrated gains during the year (see Appendix A for school data by department). On competing projects, UMB's overall rate of success is 45.85 percent (see Appendix B).

Collaboration among faculty in different schools and departments continues to grow. In summarizing success by school, the following figures allocate the entire award to the school of the primary investigator:

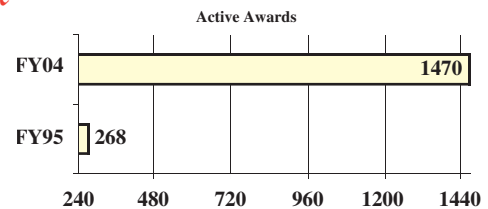
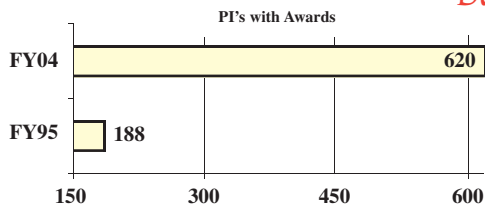
## Success by School

School	# of Awards	Total Awarded	Direct Cost	Indirect Cost	Average % Indirect/Direct	% change over FY03
Dental	88	\$14,214,313	\$10,864,449	3,349,864	30.83%	3.3%
Law	16	889,110	847,688	41,422	4.89%	-21.9%
Medicine	1286	243,332,945	196,928,715	46,404,230	23.56%	9.06%
Nursing	68	6,562,712	5,241,544	1,321,168	25.21%	-13.06%
Pharmacy	125	12,403,149	9,815,816	2,587,333	26.36%	39.3%
Social Work	35	7,834,695	7,224,837	609,858	8.44%	-11.8%
Campus Admin	9	4,444,133	4,166,026	278,107	6.68%	93.8%
Graduate	1	70,000	59,240	10,760	18.16%	0%
<b>Total</b>	<b>1628</b>	<b>\$289,751,057</b>	<b>235,148,315</b>	<b>\$54,602,742</b>	<b>23.22%</b>	<b>9.01%</b>

## Grant Applications and Award Activity FY00-FY04

Year	Applications	Awards	\$ Amount	Direct	Indirect	% IDC
FY 00	2017	1451	\$182,038,206	\$148,745,134	\$33,293,072	22.38%
FY 01	2115	1597	\$212,931,189	\$174,869,951	\$38,061,238	21.77%
FY 02	2274	1673	\$250,056,582	\$203,618,096	\$46,438,486	22.80%
FY 03	2345	1669	\$265,790,762	\$219,021,179	\$46,769,583	21.36%
FY 04	2456	1628	\$289,751,057	\$235,148,315	\$54,602,742	23.22%

### Defining a Decade

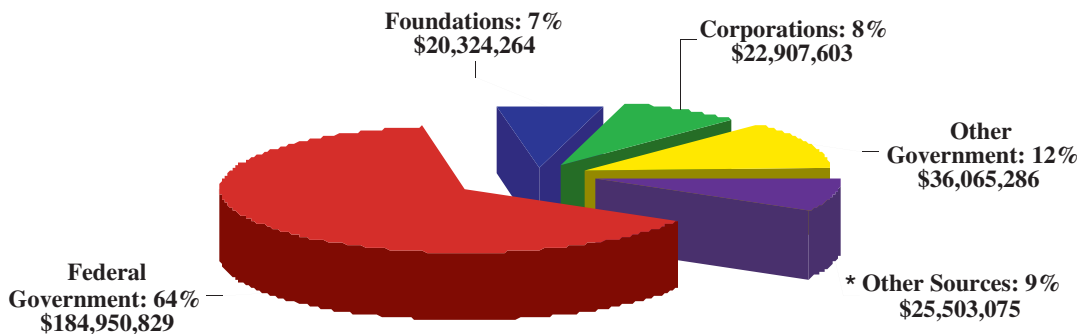


*In ten years, the number of principal investigators with awards has tripled and the number of active funded projects has increased five-fold.*

## Funding by Source

Federal government sources drive UMB's success. NIH alone supports \$153.8 million in FY04, more than half of the year end total. Corporations from big pharma to small Maryland start-ups are conducting hundreds of sponsored projects at UMB. A slight drop in corporate awards in FY04 can be attributed to a new approach undertaken by the Center for Clinical Trials where more conservative revenue estimates are recorded for the year rather than projected income/revenues. Major philanthropic foundations supporting health science and human development research are working closely with UMB's faculty investigators; the Bill and Malinda Gates Foundation and Associated Black Charities rank among the top sponsors. Resources provided to UMB from state and local government sources remain an important part of the extramural funding profile. Budget cuts at the state and local level caused these totals to decrease by 4.3% in FY04. Other universities and hospitals are supporting projects at UMB totaling \$25.5 million in '04.

## ORD FY04 Dollar Amounts by Source



\* Others: universities and hospitals

## A Perspective on Awards by Source FY00-FY04

Source	FY00	FY01	FY02	FY03	FY04	% change FY03-FY04
Federal Agencies	\$107,856,415	122,478,250	142,834,428	154,852,470	184,950,829	19.4%
Other Governments	27,998,396	25,141,690	37,572,617	37,683,217	36,065,286	-4.3%
Foundations	13,212,198	21,375,069	21,149,651	23,236,708	20,324,264	-12.5%
Corporations	22,002,854	26,239,603	25,849,858	25,788,326	22,907,603	-11.2%
Other (Universities & Hospitals)	10,968,343	17,696,577	22,650,028	24,230,041	25,503,075	5.3%
<b>Total</b>	<b>182,038,206</b>	<b>212,931,189</b>	<b>250,056,582</b>	<b>265,790,762</b>	<b>289,751,057</b>	<b>9%</b>

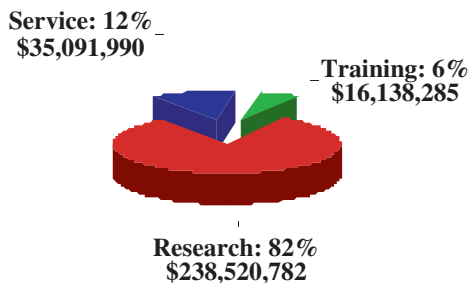
■ More than 100 companies have engaged UMB researchers in basic and clinical projects, an impressive list of both local Maryland leaders in the bio industry and major bio/pharma firms.

Corporations with more than \$1 million in '04 Projects		Maryland Corporations including
Aventis Pasteur	Bristol-Myers Squibb	Gene Logic
Dow USA	Eli Lilly Research Labs	Guilford Pharmaceuticals
GlaxoSmithKline	Johnson and Johnson	Human Genome Sciences
Merck & Company	Novartis/Ciba Geigy Corporation	MedImmune
Pfizer	Roche Pharmaceuticals	Shire
		Westat

*See Appendix C for a listing of all sponsor types.*

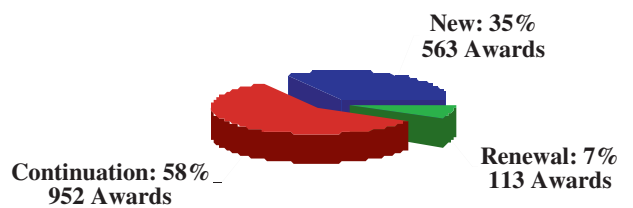
## Funding by Type

■ Research awards contribute \$238.5 million or 82% toward the FY04 total. Service agreements yield \$35 million in dollar value and training is supported with \$16.1 million in projects.



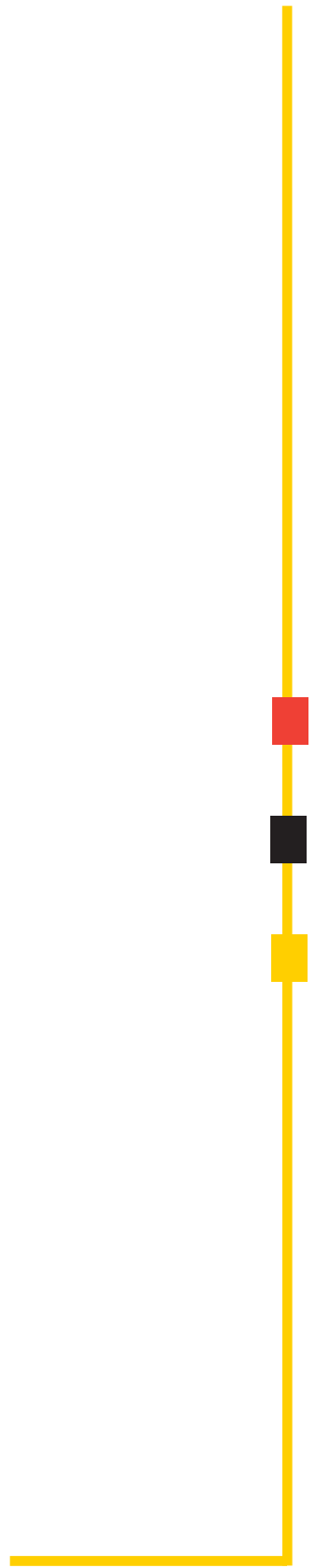
*See Appendix D for "type" funding by school*

■ Of all the awards received by UMB, 35% are brand new, never before submitted competitive applications, 7% represent renewal of pre-existing, ongoing projects and 58% reflect the long-term, non-competing awards.



*See Appendix E for "type" funding by school*

# APPENDIX



Appendix A - Awards FY04 - By Department

SCHOOL/DEPT/DIVISION	FY 03 AMOUNT	#	FY 04 AMOUNT	FY 04 DIRECT	FY 04 INDIRECT
<b>DENTAL SCHOOL</b>					
ENDODONTICS	0	1	2,000	2,000	0
DENTAL HYGIENE	50,390	2	57,746	53,100	4,646
RESTORATIVE DENTISTRY	410,271	9	614,239	467,683	146,556
BIOMEDICAL SCIENCES	10,331,050	39	9,613,046	6,887,461	2,725,585
DIAGNOSTIC SCIENCES & PATH.	1,227,324	10	1,299,856	1,078,044	221,812
ORAL HEALTH CARE DELIVERY	734,384	10	678,563	633,608	44,955
DEAN'S OFFICE	-	1	1,000,000	1,000,000	-
ORTHODONTICS	-	-	-	-	-
ORAL-MAXILLOFACIAL SURGERY	29,013	2	30,017	30,017	-
PEDIATRIC DENTISTRY	112,007	8	178,837	167,894	10,943
PERIODONTICS	868,890	6	740,009	544,642	195,367
<b>TOTAL</b>	<b>13,763,329</b>	<b>88</b>	<b>14,214,313</b>	<b>10,864,449</b>	<b>3,349,864</b>
<b>SCHOOL OF LAW</b>					
CLINICAL LAW	474,028	11	460,251	449,751	10,500
COASTAL AND ENVIRONMENTAL POL.	-	-	-	-	-
DEAN'S OFFICE	551,856	5	428,859	397,937	30,922
LAW LIBRARY	-	-	-	-	-
NO DEPARTMENT LEVEL	112,069	-	-	-	-
<b>TOTAL</b>	<b>1,137,953</b>	<b>16</b>	<b>889,110</b>	<b>847,688</b>	<b>41,422</b>
<b>SCHOOL OF MEDICINE</b>					
ANATOMY	7,821,211	26	6,185,092	4,307,216	1,877,876
ANESTHESIOLOGY	1,759,059	10	1,089,369	789,057	300,312
BIOCHEMISTRY	8,278,464	31	8,665,104	6,273,764	2,391,340
COMPARATIVE MEDICINE	1,948,811	1	175,552	118,217	57,335
COMPLEMENTARY MEDICINE	2,390,787	6	2,383,917	1,973,008	410,909
DEAN'S OFFICE	16,414,581	17	13,035,722	12,236,907	778,815
DERMATOLOGY	627,523	6	356,434	343,808	12,626
EPIDEMIOLOGY & PREV MED	15,357,200	88	15,251,221	12,654,708	2,596,513
FAMILY MEDICINE	1,898,110	9	1,735,492	1,508,201	227,291
PROG/HUMAN HEALTH & ENVIRONMENT MEDICINE	232,550	2	271,745	194,122	77,623
MEDICINE	57,640,640	358	75,184,387	60,253,630	14,930,757
MEDICAL TECHNOLOGY	386,369	2	370,309	266,097	104,212
MICROBIOLOGY	5,655,910	34	6,425,245	4,539,508	1,885,737
NATIONAL STUDY CENTER	3,420,693	27	3,093,105	2,603,209	489,896
NEUROLOGY	7,027,058	69	5,858,274	4,829,907	1,028,367
OBSTETRICS & GYNECOLOGY	1,450,503	11	3,584,326	2,888,486	695,840
OPHTHALMOLOGY	856,519	11	1,538,240	1,194,444	343,796
PATHOLOGY	3,400,755	35	4,408,413	3,390,436	1,017,977
PEDIATRICS	17,715,760	125	21,257,140	17,013,346	4,243,794
PHARMACOLOGY	4,212,474	27	4,694,609	3,367,184	1,327,425
PHYSICAL THERAPY	380,316	7	455,621	374,052	81,569
PHYSIOLOGY	7,809,461	46	9,004,686	6,517,271	2,487,415
PROGRAM OF ONCOLOGY	13,970,593	57	15,048,131	13,422,821	1,625,310
PROGRAM OF TRAUMA	909,375	5	393,590	290,503	103,087
PSYCHIATRY	28,822,695	155	25,810,090	22,317,448	3,492,642
DIAGNOSTIC RADIOLOGY	860,681	13	1,143,344	867,028	276,316
RADIATION ONCOLOGY	2,104,974	28	3,401,245	2,457,399	943,846
STUDENT AFFAIRS	-	-	-	-	-
NEUROLOGICAL SURGERY	352,875	8	1,318,623	960,131	358,492
ORTHOPEDIC SURGERY	639,231	8	644,437	462,239	182,198
SURGERY	8,761,835	62	10,402,815	8,347,901	2,054,914
VIDEO PRESS	40,333	2	146,667	146,667	-
<b>TOTAL</b>	<b>223,144,746</b>	<b>1,286</b>	<b>243,332,945</b>	<b>196,928,715</b>	<b>46,404,230</b>
<b>SCHOOL OF NURSING</b>					
	7,593,342	68	6,562,712	5,241,544	1,321,168
<b>SCHOOL OF PHARMACY</b>					
CTR ON DRUGS & PUBLIC POLICY	-	-	-	-	-
DEAN'S OFFICE	5,699	2	369,247	362,904	6,343
PHARMACEUTICAL SCIENCES	3,885,138	51	5,978,270	4,214,521	1,763,749
PHARMACY PRACTICE & SCIENCE	3,697,089	40	4,335,245	3,928,739	406,506
PHARM. HLTH. SERV. & RES.	1,317,168	32	1,720,387	1,309,652	410,735
<b>TOTAL</b>	<b>8,905,094</b>	<b>125</b>	<b>12,403,149</b>	<b>9,815,816</b>	<b>2,587,333</b>
<b>SCHOOL OF SOCIAL WORK &amp; COMMUNITY PLANNING</b>					
	8,883,326	35	7,834,695	7,224,837	609,858
<b>CAMPUS ADMINISTRATION</b>					
	2,292,972	9	4,444,133	4,166,026	278,107
<b>GRADUATE SCHOOL</b>					
	70,000	1	70,000	59,240	10,760
<b>TOTAL ALL SCHOOLS</b>	<b>265,790,762</b>	<b>1,628</b>	<b>289,751,057</b>	<b>235,148,315</b>	<b>54,602,742</b>

Appendix B - Success Rate

Department	Competing Proposals	Projects Awarded	Success Rate	For Projects Awarded			For Projects Not Awarded			
				Requested	Awarded	Percent	Still Pending	Not Funded	Disapp.*	Withdrawn
<b>SCHOOL OF MEDICINE</b>										
Anatomy & Neurobiology	15	4	26.67%	380,968	387,442	101.70%	10	0	1	0
Anesthesiology	8	3	37.5%	498,083	423,111	84.95%	3	0	2	0
Biochemistry/Molecular Biology	43	11	25.58%	1,753,178	1,531,015	87.33%	27	0	5	0
Complementary Medicine	5	1	20.0%	147,100	147,100	100.0%	4	0	0	0
Dean's Office	8	4	50.0%	5,251,729	2,971,242	56.58%	4	0	0	0
Dermatology	5	3	60.0%	149,223	149,223	100.0%	2	0	0	0
Diagnostic Radiology	13	7	53.85%	722,484	670,711	92.83%	6	0	0	0
Epidemiology & Preventive Medicine	83	31	37.5%	4,542,855	5,379,736	118.42%	48	0	4	0
Family Medicine	12	2	16.67%	29,516	55,538	188.16%	9	0	1	0
Medical & Research Technology	4	1	25.0%	13,188	13,188	100.0%	3	0	0	0
Medicine	212	111	52.36%	27,482,227	18,866,908	68.65%	94	0	7	0
Microbiology and Immunology	37	9	24.32%	588,719	639,606	108.64%	27	0	1	0
National Study Center	13	7	53.85%	599,237	395,081	65.93%	4	0	2	0
Neurological Surgery	4	3	75.0%	383,536	351,415	91.63%	1	0	0	0
Neurology	44	29	65.91%	3,079,700	2,942,470	95.54%	14	0	1	0
Obstetrics/Gynecology	5	3	60.0%	450,000	450,000	100.0%	2	0	0	0
Ophthalmology	10	5	50.0%	894,870	907,2403	101.38%	4	0	1	0
Orthopedic Surgery	8	4	50.0%	67,925	81,786	120.41%	4	0	0	0
Pathology	28	19	67.86%	1,494,419	1,399,545	93.65%	7	0	2	0
Pediatrics	65	28	43.08%	3,148,485	3,103,862	98.58%	34	0	1	2
Pharmacology/Exp. Therapeutics	18	4	22.22%	449,000	449,000	100.0%	13	0	1	0
Physical Therapy	9	1	11.11%	79,084	79,084	100.0%	8	0	0	0
Physiology	30	17	56.67%	3,660,558	3,589,972	98.07%	13	0	0	0
Program of Oncology	44	24	54.55%	1,944,147	1,805,470	92.87%	18	0	2	0
Program of Trauma	4	2	50.0%	476,163	421,275	88.4%	2	0	0	0
Psychiatry	107	55	51.4%	4,281,727	4,203,5374	98.17%	50	0	1	1
Radiation Oncology	25	11	44.0%	1,074,277	1,044,318	97.21%	13	0	1	0
Surgery	50	24	48.0%	2,665,619	2,551,335	95.71%	25	0	1	0
Vet Resources/Comparative Medicine	1	0	0.0%	0	0	0.0%	1	0	0	0
Video Press	2	2	100.0%	166,833	166,833	100.0%	0	0	0	0
School Totals:	912	425	46.6%	66,474,852	55,177,044	83.0%	450	0	34	3
<b>GRADUATE SCHOOL</b>										
No Department Level	1	1	100.0%	70,000	70,000	100.0%	0	0	0	0
School Totals:	1	1	100.0%	70,000	70,000	100.0%	0	0	0	0

\*Disapproved



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<b>SCHOOL OF LAW</b>										
Clinical Law	9	8	88.89%	237,530	237,530	100.0%	1	0	0	0
Dean's Office	3	1	33.33%	121,211	121,211	100.0%	2	0	0	0
No Department Level	0	0	0.0%	0	0	0.0%	0	0	0	0
School Totals:	12	9	75.0%	358,741	358,741	100.0%	3	0	0	0
<b>DENTAL SCHOOL</b>										
Biomedical Sciences	20	3	15.0%	466,252	466,252	100.0%	15	0	2	0
Dental Hygiene	1	0	0.0%	0	0	0.0%	1	0	0	0
Diagnostic Sciences & Path.	5	2	40.0%	223,635	223,635	100.0%	2	0	1	0
Endodontics	1	0	0.0%	0	0	0.0%	1	0	0	0
Oral Health Care Delivery	3	3	100.0%	332,509	301,884	90.79%	0	0	0	0
Oral-Maxillofacial Surgery	3	0	0.0%	0	0	0.0%	3	0	0	0
Pediatric Dentistry	7	5	71.43%	91,535	91,535	100.0%	2	0	0	0
Periodontics	4	0	0.0%	0	0	0.0%	2	0	2	0
Restorative Dentistry	10	7	70.0%	476,638	408,262	85.65%	3	0	0	0
School Totals:	54	20	37.04%	1,590,569	1,491,568	93.78%	29	0	5	0
<b>SCHOOL OF NURSING</b>										
Academic Affairs	3	2	66.67%	53,600	55,000	102.61%	1	0	1	0
Acute and Long Term Care	0	0	0.0%	0	0	0.0%	0	0	0	0
Adult/Health Nursing	26	9	34.62%	303,130	302,912	99.93%	17	0	0	0
Behavioral & Community Health Center for Research	14	7	50.0%	200,172	182,330	91.09%	6	0	1	0
Child, Women & Family Health	7	3	42.86%	161,774	161,774	100.0%	2	0	2	0
Clinical Practice and Services	5	2	40.0%	131,168	131,168	96.38%	3	0	0	0
Community Health/Primary Care	0	0	0.0%	0	0	0.0%	0	0	0	0
Dean's Office	0	0	0.0%	0	0	0.0%	0	0	0	0
Educ, Admin, & Health Policy	11	4	36.36%	673,212	684,416	101.66%	7	0	0	0
Maternal and Child Health	0	0	0.0%	0	0	0.0%	0	0	0	0
No Department Level	0	0	0.0%	0	0	0.0%	0	0	0	0
Office of Research	2	2	100.0%	126,000	126,000	100.0%	0	0	0	0
School Totals:	68	29	42.65%	1,649,056	1,638,853	99.38%	35	0	4	0

\*Disapproved

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				Requested	Awarded	Percent	Still Pending	Not Funded	Disapp.*	Withdrawn
<b>SCHOOL OF PHARMACY</b>										
Ctr. on Drugs & Public Policy	0	0	0.0%	0	0	0.0%	0	0	0	0
Dean's Office	2	2	100.0%	369,247	369,247	100.0%	0	0	0	0
Pharmaceut. Hlth. Serv. & Res.	32	20	62.50%	1,091,210	1,213,552	111.21%	12	0	0	0
Pharmaceutical Sciences	72	22	30.56%	2,540,179	2,345,598	92.34%	45	0	4	1
Pharmacy Practice & Science	32	13	40.63%	807,563	780,071	96.6%	18	0	1	0
School Totals:	138	57	41.30%	4,808,199	4,708,468	97.93%	75	0	5	1
<b>SCHOOL OF SOCIAL WORK</b>										
Community Planning Program	1	0	0.0%	0	0	0.0%	1	0	0	0
Dean's Office	1	1	100.0%	50,000	50,000	100.0%	0	0	0	0
No Department Level Training	22	13	59.09%	765,913	745,913	97.39%	8	0	1	0
	1	1	100.0%	83,793	83,793	100.0%	0	0	0	0
School Totals:	25	156	60.0%	899,706	899,706	97.78%	9	0	1	0
<b>UMB CAMPUS ADMINISTRATION</b>										
Academic Affairs	2	2	100.0%	110,000	110,000	100.0%	0	0	0	0
Campus Police	1	0	0.0%	0	0	0.0%	1	0	0	0
Health Sciences Library	1	0	0.0%	0	0	0.0%	1	0	0	0
Information Services	1	0	0.0%	0	0	0.0%	1	0	0	0
Office of Research & Development	1	0	0.0%	0	0	0.0%	1	0	0	0
Vice President, Academic Aff.	2	1	50.0%	300,000	300,000	100.0%	1	0	0	0
School Totals:	8	3	37.50%	410,000	410,000	100.0%	5	0	0	0
<b>TOTAL, ALL SCHOOLS:</b>	<b>1,217</b>	<b>558</b>	<b>45.85%</b>	<b>76,191,123</b>	<b>64,664,380</b>	<b>84.87%</b>	<b>606</b>	<b>0</b>	<b>49</b>	<b>4</b>

\*Disapproved

Appendix C – Sponsors

Group	SponsorCode	FullName	FY_2000	FY_2001	FY_2002	FY_2003	FY_2004
		National Cancer Institute	9,983,325	10,909,008	9,564,367	7,062,199	8,149,482
		National Center for Complementary & Alternative Medicine	2,891,206	3,306,179	3,569,408	2,789,263	2,642,070
		National Center for Research Resources	2,230,965	3,500,184	5,196,283	6,864,706	6,927,908
		National Center on Minority Health & Health Disparities	0	0	0	0	1,103,143
		National Eye Institute	662,588	1,101,908	519,750	519,750	779,625
		National Heart, Lung and Blood Institute	8,410,118	9,130,651	9,277,539	12,683,417	14,860,984
		National Human Genome Research Institute	0	0	0	252,269	207,900
		National Institute of Alcohol Abuse and Alcoholism	980,063	660,342	616,234	297,000	750,040
		National Institute of Allergy and Infectious Disease	15,779,660	16,166,796	23,602,770	18,552,380	38,880,106
		National Institute of Arthritis & Musculoskeletal/Skin Disease	1,350,026	2,648,344	3,634,369	7,978,672	7,441,959
		National Institute of Child Health and Human Development	5,694,192	6,027,446	8,575,108	5,284,303	8,128,198
		National Institute of Dental & Craniofacial Research	2,199,157	2,051,412	2,406,720	3,113,595	3,743,253
		National Institute of Dental Research	0	227,338	189,338	189,338	0
		National Institute of Diabetes & Digestive & Kidney Diseases	5,248,243	8,800,257	7,856,319	7,612,660	14,351,536
		Fogarty International Center	1,213,557	1,702,135	1,722,400	2,912,275	1,080,817
		National Institute of General Medical Sciences	1,536,182	2,082,003	1,665,367	2,556,505	3,054,696
		National Institute of Mental Health	5,279,620	5,094,084	5,922,389	6,946,700	8,429,144
		National Institute of Neurologic Disorders & Stroke	5,838,534	7,825,530	9,293,675	12,121,872	11,494,404
		National Institute of Nursing Research	102,299	774,933	784,777	442,433	1,309,724
		National Institute on Aging	5,795,842	7,433,888	8,798,502	10,572,838	7,548,861
		National Institute on Deafness & Other Communicative Disorders	4,154,579	4,327,318	6,626,884	6,628,061	5,104,827
		National Institute on Drug Abuse	2,279,714	2,015,806	3,485,496	3,110,144	3,639,353
		National Institutes of Health	0	0	0	389,049	639,792
		National Library of Medicine	736,184	1,868,396	1,862,907	2,263,956	1,929,039
		Nat'l Institute of Biomedical Imaging & Bioengineering	291,814	271,448	279,587	1,813,552	804,475
		TOTAL NIH	82,657,868	97,925,406	115,450,189	122,956,937	153,001,336
		OTHER DHHS	8,783,885	7,600,975	9,974,734	10,770,316	11,877,757
		TOTAL DHHS	91,441,753	105,526,381	125,424,923	133,727,253	164,879,093
		Air Force	0	9,706	7,428	0	8,366
		Army	3,387,283	2,430,831	3,822,733	3,255,008	5,196,743
		Navy	281,959	665,770	2,069,035	2,238,302	2,792,523
		Veterans' Administration	6,772,528	6,975,021	5,850,971	8,958,291	8,471,843

Appendix C – Sponsors

Group	SponsorCode	Full Name	FY_2000	FY_2001	FY_2002	FY_2003	FY_2004
TOTAL DOD			10,441,770	10,081,328	11,750,167	14,451,601	16,469,475
OTHER FEDERAL DEPARTMENTS							
		Department of Commerce	55,300	16,813	50,000	0	0
		Department of Education	0	0	148,579	148,742	150,000
		Department of Labor	0	24,995	0	0	40,420
		Department of the Interior	0	0	0	0	172,843
		Department of Transportation	546,229	612,511	578,921	491,000	426,591
		US Department of Agriculture	887,627	662,377	349,794	1,266,256	507,573
		US Department of Energy	434,874	337,000	546,659	1,018,776	429,801
		US Department of Justice	332,581	225,336	195,157	579,927	222,888
		US Department of State	33,610	14,820	281,537	566,164	68,716
		US Dept. Housing/Urban Develop	133,300	133,300	435,510	0	0
TOTAL OTHER FEDERAL DEPARTMENTS			2,423,521	2,027,152	2,586,157	4,070,865	2,018,832
TOTAL FEDERAL DEPARTMENTS			104,307,044	117,634,861	139,761,247	152,249,719	183,367,400
		Federal Agencies	1,549,567	3,234,927	1,066,743	721,689	725,723
TOTAL FEDERAL			105,856,611	120,869,788	140,827,990	152,971,408	184,093,123
STATE GOVERNMENTS							
		STATE OF MARYLAND	24,600,723	21,672,909	33,610,415	33,969,600	33,186,616
		State of NC	0	199,999	0	0	0
		State of Pennsylvania	843,654	966,958	1,194,076	1,033,918	258,481
TOTAL STATE GOVERNMENTS			25,444,377	22,839,866	34,804,491	35,003,518	33,445,097
		City Governments	2,191,353	1,841,771	1,900,851	1,901,169	1,849,650
		County Governments	362,666	395,721	726,546	712,782	687,437
TOTAL DOMESTIC GOVERNMENT			133,855,007	145,947,146	178,259,878	190,588,877	220,075,307

Appendix C - Sponsors

Group	SponsorCode	FullName	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004
		Foreign Governments	0	64,332	140,729	65,748	83,102
		TOTAL ALL GOVERNMENTS	135,394,153	147,709,225	180,228,195	192,535,687	221,016,11
		OTHER					
		Foundations & Associations	13,212,198	21,375,069	21,149,651	23,236,708	20,324,26
		Hospitals	3,295,220	9,449,194	13,203,071	13,737,086	14,641,01
		Universities	7,608,044	8,247,383	9,446,957	10,492,955	10,862,06
		Corporations	22,000,854	26,232,403	25,849,858	25,788,326	22,907,60
		TOTAL OTHER	46,116,316	65,304,049	69,649,537	73,255,075	68,734,94
		TOTAL	181,510,469	213,013,274	249,877,732	265,790,762	289,751,05

Appendix D - Awards FY04 By School/By Type

SCHOOLS:	FY 00	FY 01	FY 02	FY 03	FY 04 #	FY04 \$
DENTAL						
RESEARCH	\$5,430,715	\$5,995,212	\$8,356,424	\$12,057,456	71	\$12,846,907
SERVICE	884,721	1,067,822	930,265	993,886	10	794,333
TRAINING	504,928	473,264	750,112	711,987	7	573,073
TOTAL	6,820,364	7,536,298	10,036,801	13,763,329	88	14,214,313
GRADUATE						
RESEARCH	-	-	-	70,000	1	\$70,000
TOTAL	-	-	-	70,000	1	70,000
LAW						
RESEARCH	\$28,240	\$74,450	\$455,669	\$544,587	2	\$389,952
SERVICE	240,522	534,403	455,009	314,950	7	372,147
TRAINING	-	42,050	108,700	278,416	7	127,011
TOTAL	268,762	650,903	1,019,378	1,137,953	16	889,110
MEDICINE						
RESEARCH	\$126,869,018	\$149,817,036	\$177,835,563	\$179,821,890	1040	\$209,309,714
SERVICE	21,281,109	25,168,636	23,581,484	31,150,058	189	24,681,292
TRAINING	8,248,852	9,273,821	10,124,002	12,172,798	57	9,341,939
TOTAL	156,398,979	184,559,483	211,541,049	223,144,746	1286	243,332,945
NURSING						
RESEARCH	\$1,794,542	\$2,477,298	\$3,279,370	\$4,277,746	21	\$4,119,692
SERVICE	1,053,558	1,104,533	1,746,806	1,861,422	31	963,794
TRAINING	1,503,555	911,576	1,757,132	1,454,174	16	1,479,226
TOTAL	4,331,655	4,493,407	6,883,308	7,593,342	68	6,562,712
PHARMACY						
OTHER	-	-	-	24,712	1	\$26,524
RESEARCH	\$3,687,288	\$6,065,855	\$6,495,328	\$5,960,723	89	\$8,340,672
SERVICE	2,860,391	2,256,401	2,890,897	2,594,234	27	3,681,560
TRAINING	301,055	355,354	372,962	325,425	8	354,393
TOTAL	6,848,734	8,677,610	9,759,187	8,905,094	125	12,403,149
SOCIAL WORK						
RESEARCH	\$2,993,951	\$1,087,357	\$4,199,523	\$3,646,752	12	\$3,471,594
SERVICE	684,423	428,226	629,155	793,478	17	568,207
TRAINING	2,884,681	3,473,351	3,922,134	4,443,096	6	3,794,894
TOTAL	6,563,055	4,988,934	8,750,812	8,883,326	35	7,834,695
CAMPUS ADMINISTRATION						
OTHER	-	-	-	-	2	\$2,172,843
RESEARCH	794,657	2,024,554	2,038,047	2,292,972	2	85,000
SERVICE	12,000	-	3,000	-	2	1,831,290
TRAINING	806,657	2,024,554	2,066,047	2,292,972	3	355,000
TOTAL	1,903,314	4,073,106	4,107,100	4,585,944	9	4,444,133
TOTAL ALL SCHOOLS						
OTHER	-	-	-	-	3	\$2,199,367
RESEARCH	\$140,803,754	\$165,517,208	\$200,746,877	\$206,579,154	1238	\$238,520,782
SERVICE	27,779,381	32,384,565	32,271,663	40,001,000	283	32,892,623
TRAINING	13,455,071	14,829,416	17,038,042	19,385,896	104	16,138,285
TOTAL	\$182,038,206	\$212,931,189	\$250,056,582	\$265,970,792	1628	\$289,751,057

Appendix E - Awards FY04 By School/By Type

	#	FY 00 AMOUNT	#	FY 01 AMOUNT	#	FY 02 AMOUNT	#	FY 03 AMOUNT	#	FY 04 AMOUNT
DENTAL SCHOOL										
NEW	25	\$1,654,165	45	\$2,407,159	39	\$3,502,117	33	\$5,516,776	28	\$4,060,021
RENEWAL	12	1,465,417	13	746,264	6	1,115,250	11	1,022,976	9	744,278
CONTINUATION	40	3,700,782	31	4,382,875	41	5,419,434	42	7,223,577	51	9,410,014
TOTAL	77	6,820,364	89	7,536,298	86	10,036,801	86	13,763,329	88	14,214,313
GRADUATE SCHOOL										
CONTINUATION	-	-	-	-	-	-	1	70,000	1	70,000
TOTAL	-	-	-	-	-	-	1	70,000	1	70,000
SCHOOL OF LAW										
NEW	3	166,087	12	610,903	19	844,694	16	490,585	3	226,280
RENEWAL	1	83,250	1	40,000	2	124,684	5	189,600	4	159,843
CONTINUATION	1	19,425	-	0	1	50,000	4	457,768	9	502,987
TOTAL	5	268,762	13	650,903	22	1,019,378	25	1,137,953	16	889,110
SCHOOL OF MEDICINE										
NEW	499	47,885,447	686	87,194,935	654	90,416,087	452	58,792,860	424	61,750,624
RENEWAL	72	12,725,729	106	16,561,320	74	14,984,351	97	18,616,089	80	17,127,055
CONTINUATION	633	95,787,803	522	80,803,228	617	106,140,611	794	145,735,797	782	164,455,266
TOTAL	1,204	156,398,979	1,314	184,559,483	1,345	211,541,049	1,343	223,144,746	1,286	243,332,945
SCHOOL OF NURSING										
NEW	29	2,059,439	28	2,001,010	50	4,157,109	36	2,603,117	23	1,881,277
RENEWAL	6	313,112	4	123,487	3	420,703	7	724,197	7	237,294
CONTINUATION	26	1,959,104	24	2,368,910	13	2,305,496	35	4,266,028	38	4,444,141
TOTAL	61	4,331,655	56	4,493,407	66	6,883,308	78	7,593,342	68	6,562,712
SCHOOL OF PHARMACY										
NEW	28	1,505,243	54	2,891,894	65	3,436,865	39	2,373,783	59	4,946,634
RENEWAL	6	1,137,366	6	904,986	11	1,276,444	5	204,213	8	749,693
CONTINUATION	33	4,206,125	33	4,880,730	36	5,045,878	45	6,327,128	58	6,706,822
TOTAL	67	6,848,734	93	8,677,610	112	9,759,187	89	8,905,094	125	12,403,149
SCHOOL OF SOCIAL WORK										
NEW	12	2,390,847	14	447,049	17	3,352,216	19	2,373,753	19	1,421,973
RENEWAL	6	1,745,863	5	3,447,259	5	3,035,432	5	470,886	5	3,248,805
CONTINUATION	14	2,426,345	9	1,094,626	12	2,363,164	17	7,115,191	11	3,163,917
TOTAL	32	6,563,055	28	4,988,934	34	8,750,812	41	8,883,326	35	7,834,695
CAMPUS ADMINISTRATION										
NEW	1	28,500	-	-	7	1,922,684	-	-	7	2,612,843
RENEWAL	1	12,000	4	2,024,554	-	-	-	-	-	-
CONTINUATION	3	766,157	-	-	1	143,363	6	2,292,972	2	1,831,290
TOTAL	5	806,657	4	2,024,554	8	2,066,047	6	2,292,972	9	4,444,133
TOTAL ALL SCHOOLS										
NEW	597	55,689,728	838	95,582,950	851	107,631,772	596	71,144,340	563	76,899,652
RENEWAL	104	17,482,737	139	23,847,870	101	20,956,864	130	21,227,961	113	22,266,968
CONTINUATION	750	108,865,741	620	93,530,369	721	121,467,946	943	173,418,461	952	190,584,437
TOTAL	1,451	\$182,038,206	1,597	\$212,931,189	1,673	\$250,056,582	1,669	\$265,790,762	1,628	\$289,751,057