## OFFICE OF RESEARCH AND PROJECT ADMINISTRATION

# ANNUAL REPORT OF SPONSORED PROGRAM ACTIVITIES

#### FISCAL YEAR 2020



#### Introduction

We are pleased to present the Office of Research and Project Administration (ORPA) Annual Report for Fiscal Year 2020 ending June 30<sup>th</sup>, 2020, which showcases the University of Rochester's ability to attract external support for research and other sponsored programs activities year after year in an increasingly difficult environment. Revenue from sponsored program activities, vital to sustaining research and graduate programs, remains an essential component of the University's current fund expenditures and general budget.

This report is divided between proposals submitted and awards made, and expenditure statistics. The proposal and award statistics will, when looked at over a particular period of time, provide an indication of funding trends. Since expenditures typically follow funding received, those statistics not only provide an indication of the level of expenditure for research, training, and other associated sponsored program activities at the University, but also a basis for comparison with other colleges and universities nationwide and within New York State. The expenditures reported may differ slightly from the University's end-of-year financial statements. These differences are reconciled by various ledger adjustments and other transfers not shown in this report.

The validity of this report depends on how useful end users find it. To this end, comments about the report and suggestions for future improvements are welcomed at <a href="mailto:resadmin@orpa.rochester.edu">resadmin@orpa.rochester.edu</a>

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#### **Proposal and Award Activity**

The School of Medicine and Dentistry submits the majority of proposals and, as is also indicated in the award statistics, receives the majority of sponsored program funding. On an overall University basis 1,677 new, continuation, supplemental, and renewal proposals were submitted in FY 2020 and 1,890 awards were received for sponsored program funding.

#### NOTE: All dollars throughout this report are in thousands

Chart A

Dollar Value of Proposals Submitted - FY 2020

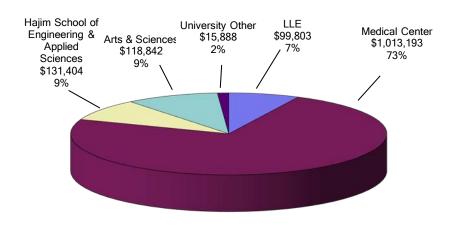
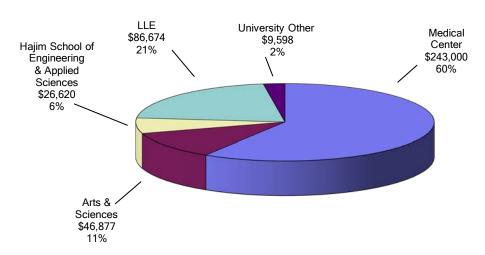
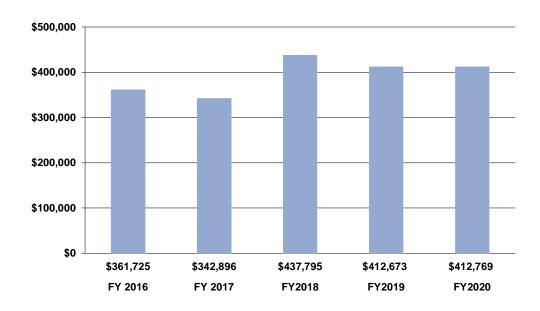


Chart B
Awards Dollars Received - FY 2020



Please note: The 2020 proposal and award figures shown on pages 3 - 11 of this report were current as of December 28, 2020 and may be subject to change as necessary.

Chart C
Award Dollars Received During Last Five Fiscal Years



The first two tables that follow provide information on a college, school or division basis for proposals submitted and awards received in the five most recent fiscal years. It should be noted that the proposal amounts include funds requested for the entire project period of the proposed activity, which could be two years or more, as well as one year amounts for continuation proposals and singular projects. Awarded amounts, however, indicate only amounts actually received during FY 2020, regardless of whether additional funds are anticipated over the life of the project. Additionally, neither of the tables includes funds requested or received for direct student financial aid. On an annual basis, both the dollar values of proposals submitted and awards received should be viewed with some caution, as those actions are dependent upon program announcements, funding trends, availability of funds, and timing of award actions.

Table 1

Proposals - Total Amount Requested By College/School/Company

College/School/Company	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Medical Center					
Medicine and Dentistry	\$898,720	\$920,906	\$990,421	\$1,063,918	\$975,735
Nursing	18,713	13,572	30,581	31,530	22,279
Hospitals and Clinics	235	250	363	279	197
Medical Center Administration	6,122	506	1,650	75	0
Subtotal URMC	923,790	935,234	1,023,015	1,095,802	998,212
Arts, Sciences and Engineering					
Arts and Sciences	126,415	102,569	141,222	94,923	118,842
Hajim School of Engineering	89,638	135,924	109,021	126,988	131,404
& Applied Sciences					
Subtotal for AS&E	216,053	238,493	250,243	221,911	250,246
Laboratory for Laser Energetics	75,040	375,764	126,801	47,688	99,803
Other Schools and Companies					
Eastman Institute for Oral Health	4,783	3,110	15,387	10,984	13,007
Warner School of Education	5,682	2,180	6,983	6,056	6,019
Memorial Art Gallery	119	787	364	1,705	1,030
Simon School of Business	50	300	0	123	100
Eastman School of Music	68	0	678	875	4
University Other	5,673	3,094	7,025	8,650	8,735
Subtotal Other	16,374	9,471	30,437	28,393	28,895
Total University	\$1,231,257	\$1,558,962	\$1,430,496	\$1,393,794	\$1,379,130
Number of Proposals Submitted	1,937	1,686 <sup>1</sup>	1,686	1,673	1,677

Source: UR-Coeus Sponsored Programs Management Database

<sup>1</sup>NIH continuation proposals are no longer processed through ORPA, but instead are incorporated in the Research Project Proposal Report that is submitted electronically by the Principal Investigator via the NIH Commons

Table 2

Awards - Annual Funding Received By College/School/Company

College/School/Company	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Medical Center					·
Medicine and Dentistry	\$224,822	\$227,728	\$236,254	\$243,762	\$237,342
Nursing	3,854	3,245	5,083	4,589	3,798
Hospitals and Clinics	264	115	299	355	465
Medical Center Administration	3,425	1,661	-41	1,769	0
Subtotal URMC	232,365	232,749	241,595	250,475	241,605
Arts, Sciences and Engineering					
Arts and Sciences	31,006	36,616	38,308	45,166	46,877
Hajim School of Engineering & Applied Sciences	22,327	22,290	29,162	28,612	26,619
Subtotal AS & E	53,333	58,906	67,470	73,778	73,496
Laboratory for Laser Energetics	68,000	43,231	111,573	81,184	86,674
Other Schools and Companies					
Eastman Institute for Oral Health	2,061	2,240	3,243	3,092	1,395
Warner School of Education	3,770	2,740	4,922	1,589	2,755
Memorial Art Gallery	119	287	70	363	313
Simon School of Business	50	0	100	0	8
Eastman School of Music	39	0	23	10	17
University Other	1,987	2,744	8,799	2,182	6,506
Subtotal Other	8,027	8,010	17,157	7,236	10,994
Total University	\$361,725	\$342,896	\$437,795	\$412,673	\$412,769
Number of Awards Received	1,898	1,859	1,891	1,892	1,890

#### Notes for Tables 1 and 2:

- In Table 1, amounts requested include the entire project period of the proposal for new or competing renewal proposals and may fluctuate due to large program requests
- Funding received in Table 2 indicates actual amount awarded which is usually for periods of one year or less. Future year commitments are not included
- The Warner School of Education had a significant increase in funding in FY20 after a sizeable decrease last fiscal year
- University Other includes Rush Rhees Library, Susan B. Anthony Center, and University Central Administration
- Number of Awards Received includes continuation awards

Chart D

Awards - Sponsored Program Funding by Agency Type - FY 2020

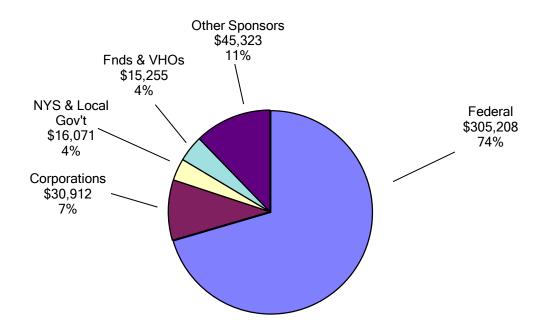


Table 3
Sponsored Program Funding by Agency Type

Agency Type	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Federal	\$262,043	\$241,709	\$330,396	\$290,805	\$305,208
Corporations	26,520	26,812	26,910	39,634	30,912
NY State & Local Government	22,676	17,417	16,717	14,465	16,071
Foundations & Voluntary Health Organizations	14,454	14,987	16,250	17,262	15,255
Other Sponsors <sup>1</sup>	36,032	41,971	47,522	50,507	45,323
TOTAL	\$361,725	\$342,896	\$437,795	\$412,673	\$412,769

<sup>1</sup>Other sponsors include national laboratories and other non-profit institutions (including subcontracts from other colleges and universities). The majority of these funds result from federal funding to a primary sponsor for whom the University is a sub-recipient

Table 3.1

Sponsored Program Funding by Federal Agency

Federal Agency	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Health and Human Services (excluding NIH)	\$10,008	\$11,110	\$9,323	\$10,758	\$17,516
NIH	156,263	151,243	169,793	165,380	154,232
Total Health and Human Services	166,271	162,353	179,116	176,139	171,748
Department of Energy	69,443	47,074	113,306	79,452	93,194
Department of Defense	4,581	8,380	7,995	10,808	10,312
National Science Foundation	17,354	17,970	24,389	18,805	20,374
Department of Education <sup>2</sup>	2,429	3,775	3,472	3,109	7,171
National Aeronautics and Space Administration	1,222	1,778	1,203	1,839	1,490
NEA/NEH <sup>1</sup>	289	89	174	130	120
Other Federal Sponsors	454	290	741	523	799
TOTAL	\$262,043	\$241,709	\$330,396	\$290,805	\$305,208

<sup>&</sup>lt;sup>1</sup>National Endowment for the Arts/National Endowment for the Humanities

<sup>&</sup>lt;sup>2</sup>Included in this number are two Department of Education awards totaling \$6M

As indicated in Chart D on page 7, the federal government is the primary source of sponsored program funding. However, the University receives significant funding from other sources also

Table 4
Sponsors Awarding \$1,000,000 or More Annually - FY 2020

Sponsor	Number of Awards	Total \$\$ Awarded
National Institutes of Health	405	\$154,232,123
Department of Energy	31	\$93,193,801
National Science Foundation	105	\$20,374,385
New York State	42	\$13,754,108
Health Research Services Administration	10	\$11,643,513
Department of Defense	41	\$10,312,044
U.S Department of Education	8	\$7,170,721
Health Research Inc.	11	\$6,087,795
Centers for Disease Control and Prevention	5	\$3,107,324
Oscine Therapeutics	1	\$2,779,089
Monroe County	5	\$2,191,837
Michael J. Fox Foundation	8	\$2,166,509
Massachusetts General Hospital	19	\$1,724,004
NASA	12	\$1,490,486
Cystic Fibrosis Foundation	7	\$1,417,500
SUNY Research Foundation	3	\$1,369,781
University of California, San Diego	5	\$1,356,631
NYS Energy Research & Development Authority	4	\$1,315,228
Brown University	3	\$1,299,031
University of Washington, St. Louis	7	\$1,272,428
Merck	6	\$1,147,779
Kite Pharma	6	\$1,049,475
Mother Cabrini Health Foundation	5	\$1,018,030
Genentech, Inc.	13	\$1,010,694
Mellon Foundation	1	\$1,000,000

Source: UR-Coeus Sponsored Programs Management Database

Table 5 provides information on the number of active projects in University colleges, schools or other units. This number encompasses all types of sponsored activities and may include awards received prior to FY 2020 that were active at any point during FY 2020. This table does not include funding for undergraduate financial aid

Table 5
Summary of Projects Active at any Point in FY 2020
by College/School/Company

College/School/Company	Number of Active Projects
Medical Center	
Medicine & Dentistry	1,880
Nursing	29
Strong Memorial Hospital	8
Medical Center Administration	1
Arts, Sciences, and Engineering	
Arts & Sciences	348
Hajim School of Engineering and Applied Sciences	247
Other Schools and Companies	
Laboratory for Laser Energetics	29
Eastman Institute for Oral Health	18
Warner School of Education	15
Memorial Art Gallery	15
Simon School of Business	2
Eastman School of Music	4
River Campus General	15
University General	3
Total Active Projects	2,614

Source: UR-COEUS Sponsored Programs Management Database

The table below illustrates the breakdown of awards by purpose. Research remains the primary component of sponsored program awards. In contrast to the expenditure figures reported later in this report, sponsored program award statistics do not include financial aid

Table 6
Total Sponsored Program Awards by Purpose

Purpose	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Research <sup>1</sup>	\$294,521	\$284,921	\$363,951	\$343,949	\$334,299
Fellowships & Training	30,458	25,067	29,808	28,595	23,171
Clinical Drug Trials	13,433	12,801	13,171	16,632	18,026
Libraries & Museums	387	356	509	761	335
Conference & Travel	458	328	414	283	266
Equipment	1,644	754	10,885	2,534	2,408
Miscellaneous Activities	20,824	18,669	19,057	19,919	34,264
Total	\$361,725	\$342,896	\$437,795	\$412,473	\$412,769

Source: UR-Coeus Sponsored Programs Management Database

<sup>1</sup>The Medical Center accounts for 60% of all externally sponsored research funding. Of that amount, roughly half is related to clinical research, according to the Clinical Research Resource Inventory, a survey of principal investigators at the Medical Center. Clinical research is defined by NIH as research conducted with human subjects or on material of human origin for which an investigator directly interacts with human subjects. It also includes epidemiological and behavioral studies and outcomes research and health services research.

Note: Due to the manner in which some FAO's have been set up in URF, some expenditures for the SMD cost Centers that appear above are being reported in HSEAS due to the SMD investigator's collaboration on projects awarded to HSEAS investigators

#### **Overview of Sponsored Programs Expenditures**

In Fiscal Year 2020, the University of Rochester expended in excess of \$400 million for sponsored activities, a decrease of less than 2 percent from Fiscal Year 2019

Sponsored Program Expenditures - Total University
(Dollars in thousands)

Chart E

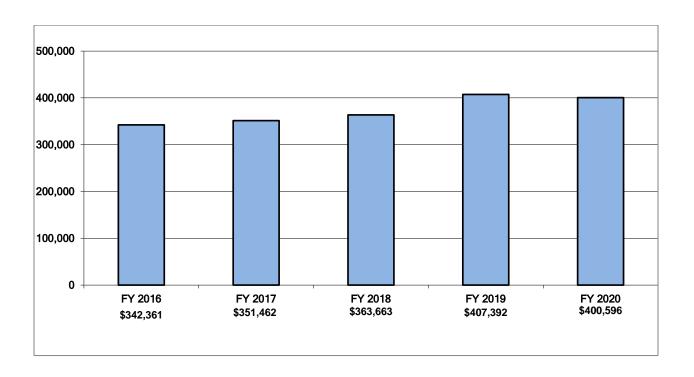


Table 7.1 and supporting tables provide a breakdown of expenditures by college, school or division

Table 7.1

Total Sponsored Program Expenditures by College/School/Company

School/Company	FY 2016	FY 2017	FY 2018	FY 2019	FY2020
Medical Center					
School of Medicine and Dentistry	\$214,612	\$217,228	\$221,516	\$228,874	\$228,952
School of Nursing	2,707	3,585	3,997	4,386	3,828
Hospitals and Clinics	273	418	312	302	299
Medical Center Administration <sup>1</sup>	2,978	593	2,013	314	3,301
Total URMC	220,570	221,824	227,838	233,876	236,380
Arts & Sciences & Engineering					
Arts and Sciences	34,226	35,561	36,404	37,845	39,945
Hajim School of Engineering and Applied Sciences	17,690	18,696	26,956	30,624	26,304
Total AS&E	51,916	54,257	63,360	68,469	66,249
Laboratory for Laser Energetics	67,157	72,942	75,817	88,903	80,193
Other Schools and Companies					
Warner School of Education	2,631	2,979	2,575	2,741	2,951
Eastman Institute for Oral Health <sup>2</sup>	1,325	2,620	2,809	2,885	2,417
Memorial Art Gallery	117	217	255	253	379
Simon School of Business	28	0	48	0	7
Eastman School of Music	542	552	537	556	527
University Other <sup>3</sup>	7,176	8,272	9,327	9,709	14,667
Total Other	11,819	14,640	15,551	16,144	20,948
Total University	\$351,462	\$363,663	\$382,566	\$407,392	\$400,596

<sup>&</sup>lt;sup>1</sup>Includes Directors Office, UR Medical Faculty Group, Miner Library, Medical Center Finance, and some of Health Sciences (formerly Center for Community Health and Prevention) grants

<sup>&</sup>lt;sup>2</sup>Previously reported under Medical Center Administration

<sup>&</sup>lt;sup>3</sup>Includes funding for undergraduate student financial aid and Central Administration offices

Table 7.2.1

Total Sponsored Program Expenditures - Arts & Sciences

By Cost Center

Arts and Sciences	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Dean's Office	\$614	\$531	\$550	\$683	\$1,179
Anthropology	0	39	28	79	187
Art and Art History	0	0	0	8	1
Biology	5,706	6,540	7,650	6,709	7,601
Brain & Cognitive Sciences	3,995	4,100	3,192	1,826	1,169
Center for Visual Sciences	4,449	3,345	3,336	3,748	4,241
Chemistry	4,180	4,224	4,158	4,500	4,418
Clinical and Social Sciences in Psychology	5,877	4,789	5,803	6,103	6,560
Dance Program	0	4	0	0	0
Dean of Students	0	225	30	0	0
Earth and Environmental Sciences	2,053	2,383	2,347	2,342	2,762
English	84	46	45	73	34
Ain Center for Entrepreneurship	71	0	0	0	0
History	4	17	49	60	191
Institute for Data Science	0	1,928	1,439	2,199	1,451
Kearns Center	559	581	43	12	4
Linguistics	25	92	24	9	60
Mathematics	490	310	362	232	210
McNair Program	203	191	223	-45	0
Modern Languages and Culture	0	0	2	0	15
Music	0	0	0	41	9
Physics and Astronomy	5,833	6,078	6,773	9,011	7,190
Religion	1	24	162	35	63
Rochester Data Science Consortium	0	0	0	0	2,304
Skalny Center for Polish/European Studies	60	63	61	62	60
Susan B Anthony Institute for Gender	1	0	0	0	0
Undergraduate Studies	0	0	0	0	44
Wallis Institute of Political Economy	21	51	127	158	192
Subtotal A & S	34,226	35,561	36,404	37,845	39,945

Table 7.2.2

Total Sponsored Program Expenditures - Engineering & Applied Sciences

By Department/Cost Center

Engineering & Applied Sciences	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Dean's Office Arts and Science	0	473	471	12	12
Dean's Office HSEAS		0	4,262	5,069	647
Biomedical Engineering	2,571	2,818	3,693	4,216	4,045
Center for Emerging & Innovative Sciences	1,442	1,664	1,463	847	748
Center for Medical Technology Innovation	0	5	0	0	0
Chemical Engineering	788	494	519	982	764
Computer Science	2,874	2,553	3,015	3,606	3,908
Electrical & Computer Engineering	2,736	2,725	3,708	4,110	3,948
Institute for Data Science	791	51	84	81	50
Mechanical Engineering	1,075	732	1,125	1,782	3,213
Del Monte Neuromedicine Institute	0	0	0	2	0
Institute of Optics	5,413	6,947	8,400	9,444	8,747
Pathology and Lab Medicine	0	9	13	0	0
Imaging Sciences	0	8	10	1	0
Surgery	0	-9	0	0	0
Opthalmology	0	-4	0	0	0
Orthopaedic Surgery	0	230	193	124	222
Subtotal HSEAS	\$17,690	\$18,69	\$26,956	\$30,625	\$26,304
Total AS & E	\$51,916	\$54,257	\$63,360	\$68,470	\$66,249

Note: Due to the manner in which some FAO's have been set up in URF, some expenditures for the SMD cost centers that appear above are being reported in HSEAS due to the SMD investigator's collaboration on projects awarded to HSEAS investigators

Table 7.2.3

Total Sponsored Program Expenditures - School of Medicine and Dentistry

By Department/Cost Center

Medicine and Dentistry	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Dean for Research	\$309	\$0	\$0	\$7	\$3
Anesthesiology	2,640	2,552	2,765	2,442	2,282
Biochemistry and Biophysics	6,710	5,815	5,299	5,865	7,069
Biomedical Engineering	1,251	927	1,180	1,649	1,564
Biomedical Genetics	3,737	2,457	3,057	5,537	4,324
Biostatistics and Computational Biology	3,344	1,550	1,115	2,034	2,057
Brain and Cognitive Sciences	0	0	11	15	0
Cancer Center	5,985	8,206	7,261	11,416	13,576
Center for Human Experimental Therapeutics	10,438	11,646	10,361	10,008	12,398
Center for Experiential Learning	113	20	3	0	0
Center for Neural Development and Disease	3,686	3,851	3,447	3,105	2,639
Center for Oral Biology	2,384	2,139	1,800	1,995	2.130
Center for Pediatric Biomedical Research	2,309	2,287	1,893	1,327	714
Center for Translational Neuromedicine	6,846	6,746	7,162	6,320	7,195
Center for Vaccine Biology	10,926	10,917	11,463	12,170	12,119
Center for Visual Science	0	0	54	197	45
Clinical Dentistry	223	66	-22	113	-235
Clinical and Translational Science Institute	5,636	7,400	9,471	10,768	10,997
Development Center for AIDS Research	1,767	1,545	1,694	908	353
Dermatology	1,864	1,225	1,999	3,194	2,583
Emergency Medicine	1,122	1,168	1,165	1,917	1,799
Environmental Medicine	8,860	9,399	10,037	8,642	9,540
Family Medicine	2,398	2,323	1,163	1,221	1,227
Imaging Sciences	352	308	194	180	211
Medicine	34,763	34,647	33,348	30,401	29,849

(Continued on next page)

Note: Due to the manner in which expenditures are reported in UR Financials, some cost centers may appear in more than one division

Medicine and Dentistry cont'd	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Microbiology and Immunology	6,865	8,563	8,109	7,354	6,512
Neurobiology and Anatomy	4,344	4,581	6,549	7,854	7,065
Neurology	14,844	12,919	13,375	14,501	14,172
Delmonte Neuromedicine Institute	0	0	26	149	255
Neurosurgery	255	275	317	255	552
Obstetrics and Gynecology	2,467	2,969	2,928	2,870	3,159
Ophthalmology	4,208	3,985	5,299	6,022	6,093
Orthopaedics	5,747	5,782	6,512	6,675	6,231
Otolaryngology	462	664	757	951	1,148
Pathology and Lab Medicine	3,283	3,465	2,836	1,602	980
Pediatrics	22,296	21,342	21,173	19,788	18,630
Pharmacology and Physiology	7,291	6,210	6,141	7,832	7,608
Physical Medicine and Rehab	21	41	11	16	4
Psychiatry	10,961	12,840	15,530	14,827	13,886
Public Health Sciences (formerly Department of Community and Preventive Medicine) <sup>1</sup>	3,915	4,333	3,880	6,775	7,828
Radiation Oncology	872	394	551	608	602
Surgery	7,955	8,591	8,093	8,359	9,008
Urology	390	397	494	506	365
SMD Other <sup>2</sup>	773	410	409	499	415
Total SMD	\$214,61	\$217,228	\$221,516	\$228,874	\$228,952

<sup>&</sup>lt;sup>1</sup>Prior to FY 2017, expenditures for the Center for Community Health and Prevention were reported under Medical Center Administration

<sup>&</sup>lt;sup>2</sup>Includes Medical Student Financial Affairs Office, Offices for Medical Education and Medical Center Finance Office

Table 7.2.4

Total Sponsored Program Expenditures - School of Medicine and Dentistry

Department of Medicine by Unit/Cost Center

Cost Center	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Aab Cardiovascular Research Institute	5,008	5,360	5,752	7,275	6,593
Cardiology (Heart and Vascular)	8,854	7,657	3,010	1,161	1,224
Endocrinology	449	828	566	601	826
Gastroenterology	390	256	317	337	259
General Medicine	286	52	0	0	0
Heart Research Follow Up Program	43	1,333	2,989	3,043	3,396
Hematology/Oncology	86	177	160	62	0
Highland Hospital	231	235	123	0	57
Hospital	832	5	0	10	0
Immunology	1,482	1,550	1,811	2,406	2,548
Infectious Diseases	11,338	11,773	13,153	10,052	9,436
Monroe Community Hospital	855	825	820	997	883
Nephrology	1,276	1,454	1,607	1,848	2,761
Palliative Care	124	173	255	173	94
Pulmonary	3,509	2,970	2,785	2,436	1,772
Total Department of Medicine	\$34,763	\$34,647	\$33,348	\$30,401	\$29,849

#### **Direct Costs and F&A Costs Expenditures**

The University recovers the costs of its sponsored program expenditures in two ways; direct costs and facilities & administrative (F&A) costs, sometimes referred to as indirect costs. F&A costs cover expenses associated with conducting sponsored program activities such as utilities, building maintenance, etc.Table 8 and Table 8.1 indicate the breakdown by college, school or division for these two cost categories.

Expenditures vary from year to year because of changes in the government's interests and needs, and types of programs F&A recovery is subject to variation by sponsor as well as to changes in the university's federally negotiated rate, types of direct costs supported by sponsors, (e.g., salaries vs. equipment), amounts subcontracted to other institutions, and cost allowability as determined by federal regulations and audit practices.

Table 8
Direct Cost Expenditures

College/Company	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Medical Center					
Medicine & Dentistry	\$164,535	\$164,531	\$166,567	\$172,760	\$172,155
Nursing	2,256	2,975	3,192	3,445	2,944
Hospitals and Clinics	860	409	296	286	285
Medical Center Administration	1,890	503	2,003	0	0
Arts, Sciences and Engineering					
Arts and Science	27,022	27,707	28,591	29,884	31,360
Hajim School of Engineering & Applied Sciences	12,909	14,483	21,676	24,320	19,754
Other Schools and Companies					
Laboratory for Laser Energetics	51,752	55,473	58,197	71,090	61,293
Eastman Institute for Oral Health <sup>1</sup>	990	1,915	2,068	2,266	1,911
Warner School of Education	2,404	2,724	2,266	2,404	2,556
Simon School of Business	28	0	48	0	5
Eastman School of Music	540	549	536	556	519
Memorial Art Gallery	117	217	255	251	361
University Other	7,299	8,157	9,112	9,783	14,765
Total University Direct Costs	\$272,602	\$279,644	\$294,807	\$317,045	\$307,908

<sup>&</sup>lt;sup>1</sup>Previously reported under Medical Center Administration

Table 8.1 Facilities & Administrative Costs Recovery

College/Company	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Medical Center					
Medicine & Dentistry	\$50,284	\$52,698	\$54,949	\$56,114	\$56,798
Nursing	451	609	805	941	884
Hospitals and Clinics	10	9	16	16	13
Medical Center Administration	284	90	11	0	0
Arts, Sciences and Engineering					
Arts and Sciences	7,835	7,854	7,813	7,961	8,585
Hajim School of Engineering & Applied Sciences	3,990	4,212	5,280	6,304	6,550
Other Schools and Companies					
Laboratory for Laser Energetics	15,405	17,469	17,619	17,813	18,900
Eastman Institute for Oral Health <sup>1</sup>	335	705	740	618	506
Warner School of Education	227	256	310	337	394
Simon School of Business	0	0	0	0	2
Eastman School of Music	2	3	0	1	8
Memorial Art Gallery	0	0	0	2	18
University Other	37	44	216	240	29
Total University F&A Costs	\$78,860	\$84,019	\$87,759	\$90,347	\$92,687

<sup>1</sup>Previously reported under Medical Center Administration

While the federal government is the primary source of sponsored program funding, the University receives project support from many other sponsors. The chart below and accompanying Table 9 and 9.1 indicate the total University expenditures by type of funding agency.

Chart F
Sponsored Program Expenditures by Agency Type - FY 2020

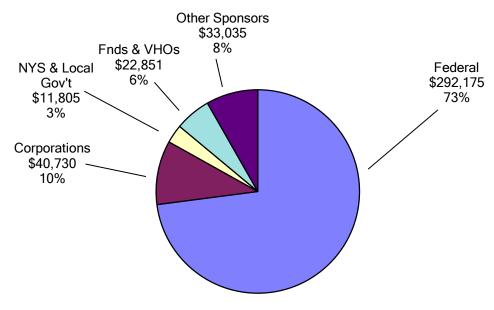


Table 9
Sponsored Program Expenditures by Agency Type

Agency Type	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Federal	\$265,989	\$266,049	\$281,455	\$299,171	\$292,175
Corporations	29,499	33,268	27,901	34,563	40,730
NY State & Local Government	15,026	16,511	14,166	13,072	11,805
Foundations & Voluntary Health Organizations	23,025	21,776	23,682	22,621	22,851
Other Sponsors <sup>1</sup>	17,923	26,059	35,362	37,965	33,035
TOTAL	\$351,462	\$363,663	\$382,566	\$407,392	\$400,596

Source: UR Financials

<sup>1</sup>Other sponsors include national laboratories and other non-profit institutions (including subcontracts from other colleges and universities). The majority of these funds result from federal funding to a primary sponsor for whom the University is a subrecipient

Table 9.1
Sponsored Program Expenditures by Federal Agency

Federal Agency	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Health and Human Services (includes NIH)	\$164,634	\$160,155	\$166,982	\$165,927	\$163,157
Department of Energy	67,307	72,924	78,373	92,186	82,021
Department of Defense	4,614	5,116	6,068	9,022	11,469
National Science Foundation	15,194	14,624	16,890	19,110	17,840
Department of Education	9,737	10,902	11,563	10,679	15,550
National Aeronautics and Space Administration	1,719	1,752	1,099	1,656	1,323
Other Federal Sponsors	2,784	576	480	591	815
TOTAL	\$265,989	\$266,049	\$281,455	\$299,171	\$292,175

The chart below and its supporting Table 10 indicate the expenditure of funds by major cost element.

Chart G
Sponsored Program Expenditures by Cost Element

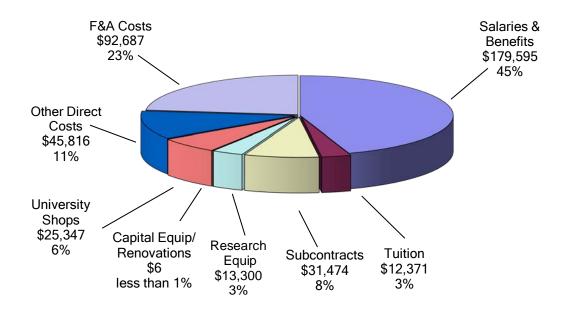


Table 10
Sponsored Program Expenditures by Cost Element

Cost Element	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Salaries & Benefits	\$156,985	\$161,433	\$165,924	\$171,763	\$179,595
Tuition	9,878	10,156	9,639	9,586	12,371
Subcontracts	32,784	30,488	30,881	28,645	31,474
Research Equipment	11,306	14,671	21,365	33,975	13,300
Capital Equipment/Renovations	256	228	324	10	6
University Shops	19,797	20,659	22,434	26,559	25,347
Other Direct Costs <sup>1</sup>	41,596	42,010	44,240	46,507	45,816
Total Direct Costs	272,602	279,645	294,807	317,045	307,909
Facilities & Administrative Costs	78,860	84,018	87,759	90,347	92,687
TOTAL	\$351,462	\$363,663	\$382,566	\$407,392	\$400,596

<sup>&</sup>lt;sup>1</sup>"Other Direct Costs" includes adjustment made for "Other Expense Credits" category, which represents transfers and other adjustments in Financial Accounting Objects (FAOs)

#### The University's Ranking Among Its Peers

Note: FY 2018 is the latest data available online at the time of this printing.

	By Federally Financed Research and Development Expenditure	res
1	Johns Hopkins University	\$2,251,097
2	University of Washington	989,221
3	University of Michigan	849,123
4	Stanford University	711,443
5	University of North Carolina at Chapel Hill	701,169
6	University of Pennsylvania	688,313
7	Columbia University	686,338
8	University of California, San Francisco	669,470
9	Georgia Institute of Technology	654,877
10	University of Pittsburgh	649,166
11	Duke University	645,259
12	University of California, San Diego	635,888
13	Harvard University	587,584
14	University of California, Los Angeles	576,076
15	University of Wisconsin at Madison	574,048
16	Pennsylvania State University	565,348
17	Yale University	552,242
18	Washington University at St. Louis	506,006
19	University of Southern California	501,893
20	Massachusetts Institute of Technology	479,654
21	Ohio State University	474,994
22	Vanderbilt University	471,625
23	Cornell University	470,020
24	Northwestern University	469,525
25	University of Minnesota	464,300
26	New York University	416,143
27	University of Texas, Austin	405,131
28	Icahn School of Medicine at Mt. Sinai	398,656
29	Emory University	393,647
30	University of Colorado, Boulder	391,817
31	University of Alabama, Birmingham	373,360

	By Federally Financed Research and Development Expenditures	
32	University of California, Davis	360,018
33	University of Maryland, College Park	356,489
34	University of Florida	355,517
35	University of Illinois, Urbana-Champaign	353,710
36	Rutgers University	350,912
37	Case Western Reserve University	349,177
38	Texas A&M University	333,768
39	University of Colorado, Denver	331,945
40	University of California, Berkeley	329,464
41	Michigan State University	328,618
42	University of Utah	307,844
43	University of Chicago	303,175
44	Baylor College of Medicine	300,098
45	University of Arizona	291,767
46	University of Rochester	285,330

<sup>&</sup>lt;sup>1</sup>Expenditure statistics are reported to the National Science Foundation by the University and are based on year-end accounting reports for a given fiscal year

Source: Table 23, Federally financed higher education R&D expenditures

National Science Foundation/National Center for Science and Engineering Statistics, Higher Education Research and Development Survey

### The University's Ranking In New York State among Public and Private Institutions Note: FY 2018 is the latest data available online at the time of this printing.

By Fe	derally Financed Research and Development Expenditures	
1	Columbia University	\$686,338
2	Cornell University	470,020
3	New York University	416,143
4	Icahn School of Medicine at Mt. Sinai	398,656
5	University of Rochester	285,330

The University also has three departments ranked in the top 10 in FY 2019 NIH funding<sup>1</sup>

#### Top 10 Departments in NIH Funding FY 2018 - 2019<sup>1</sup>

	FY 2018	FY 2019
Department of Biomedical Engineering	Not Included	6
Department of Orthopaedics	4	4
Public Health Sciences	8	9

<sup>&</sup>lt;sup>1</sup>This is the latest data available from this source

Note: The fiscal year represented is the federal government's, which consists of the period October 1 - September 30.

Source: Blue Ridge Institute for Medical Research

#### **Overview of Material Transfer Activity**

As a general definition, a Material Transfer Agreement (hereinafter MTA) is a contract executed between two entities which outlines the rights and responsibilities of each party that arise due to the transfer of materials for research purposes from one party to the other. The MTA will dictate how the materials and the results from using the materials can be used, along with other significant terms, conditions and obligations. Typically, there is a minimal to no fee associated with such a transfer.

The Material Transfer function within ORPA also includes responsibility for the review and negotiation of any Confidential Disclosure Agreement (CDA) that binds the University, as well as Data Use Agreements (DUAs) and Visiting Scientist Agreements (VSAs).

Table 11

	FY18	FY19	FY20
Total # of CDA	355	323	454
Total # of DUA	70	119	215
Total # of MTA	244	235	314
Total # of Agreements	688	677	983
Average Agreements per Month	56	56	82
Total MTAs with Domestic	193	186	264
Total MTAs with International	61	49	50
Total MTAs with Domestic Non-profit	169	151	189
Total MTAs with Domestic For-profit	24	35	76
Total MTAs with International Non-profit	56	42	42
Total MTAs with International For-profit	5	7	8
Total CDA's Domestic			419
Total CDA's International			35
33Total CDAs with Domestic Non-profit	31	36	33
Total CDAs with Domestic For-profit	31 287	36 240	33 386
-			
Total CDAs with Domestic For-profit	287	240	386
Total CDAs with Domestic For-profit Total CDAs with International Non-profit Total CDAs with International For-profit	287	240	386 2 33
Total CDAs with Domestic For-profit Total CDAs with International Non-profit Total CDAs with International For-profit  Total DUA's Domestic	287	240	386
Total CDAs with Domestic For-profit Total CDAs with International Non-profit Total CDAs with International For-profit  Total DUA's Domestic Total DUA's International	287 1 36	240	386 2 33 264 50
Total CDAs with Domestic For-profit Total CDAs with International Non-profit Total CDAs with International For-profit  Total DUA's Domestic	287	240	386 2 33 264
Total CDAs with Domestic For-profit Total CDAs with International Non-profit Total CDAs with International For-profit  Total DUA's Domestic Total DUA's International Total DUAs with Domestic Non-profit Total DUAs with Domestic For-profit	287 1 36 54 11	240 1 46	386 2 33 264 50 144 56
Total CDAs with Domestic For-profit Total CDAs with International Non-profit Total CDAs with International For-profit  Total DUA's Domestic Total DUA's International Total DUAs with Domestic Non-profit Total DUAs with Domestic For-profit Total DUAs with International Non-profit	287 1 36	240 1 46	386 2 33 264 50 144
Total CDAs with Domestic For-profit Total CDAs with International Non-profit Total CDAs with International For-profit  Total DUA's Domestic Total DUA's International Total DUAs with Domestic Non-profit Total DUAs with Domestic For-profit	287 1 36 54 11	240 1 46 96 19	386 2 33 264 50 144 56

#### Outlook for FY 2021

After a series of short-term Continuing Resolutions, Congress passed the FY2021 federal budget bill, and the COVID-19 Relief bill. President Trump signed both into law on December 27<sup>th</sup>.

The COVID-19 pandemic has had a significant impact on both higher education and the research enterprise. Because of this, Universities wanted \$122 billion in recovery aid, and they calculated that federal agencies needed at least \$26 billion more to finance research lost or delayed when campuses were shut down in the spring of 2020. However, the relief bill only contains \$23 billion for higher education, and nothing explicitly for bolstering research.

For the fourth consecutive year, Congress reversed the deep cuts that President Trump had proposed for most science agencies, although the increases were smaller than last year's.

The Department of Defense (DOD) remains by far the largest contributor to federal R&D. The Pentagon is a major funder of mathematics, engineering, and computer science studies. DOD received \$107.1 billion in military R&D, an increase of 2.5 percent from FY 2020. This includes \$2.7 billion in defense medical research, a 6% increase compared to FY 2020.

The second largest supporter of R&D and the world's largest funder of basic biomedical research is the National Institutes of Health (NIH) within the Department of Health and Human Services (DHHS). NIH accounts for more than 95 percent of total HHS R&D funding. Under the new law, NIH will receive \$42.9 billion, an increase of \$1.25 billion. The Centers for Disease Control and Prevention (CDC) was granted a \$125 million increase to \$7.9 billion.

The Office of Science within the Department of Energy (DOE), which provides most of the funding for basic research, would see an increase of \$26 million to \$7.026 billion. The Defense Advanced Research Project Agency (DARPA) was funded at \$3.5 billion. Congress again rejected the President's proposal to eliminate the Advanced Research Projects Agency-Energy (ARPA-E) within DOE, and instead gave it a \$2 million increase to \$427 million.

Within the Environmental Protection Agency (EPA), the core science and environmental program work received an increase of \$111 million above the FY 2020 enacted level to \$3.49 billion.

The National Science Foundation (NSF) FY 2021 funding remained essentially flat, with a \$208.4 million increase to \$8.5 billion. Its research budget, by far the biggest piece, would grow by 3% to 6.9 billion.

At the National Oceanic and Atmospheric Administration, climate research programs get a \$12.5 million boost to \$182 million, \$98 million above the President's request.

As with ARPA-E, Congress rejected President Trump's proposal to eliminate the National Endowment for the Arts (NEA) and the National Endowment for the Humanities (NEH), instead giving each \$167.50 million, a \$5.25 million increase.

The National Aeronautics and Space Administration (NASA) will get \$23.7 billion in overall funding, an increase of \$642.3 million above the FY 2020 level. Included in that amount is \$2 billion for Earth Science, \$828.7 million for Aeronautics research, and \$127 million for STEM Engagement educational efforts. The president had proposed eliminating all funding for STEM Engagement.

The Department of Education (ED) will receive an increase of \$785 million above the FY 2020 enacted level to \$73.5 billion in discretionary appropriations.

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