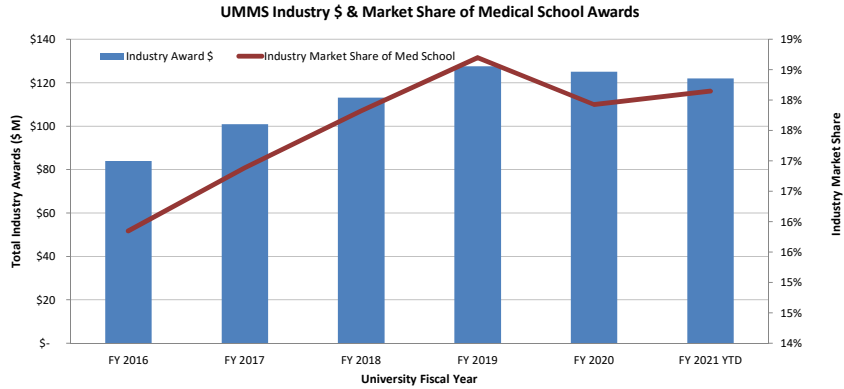


Fast Forward Medical Innovation Metrics

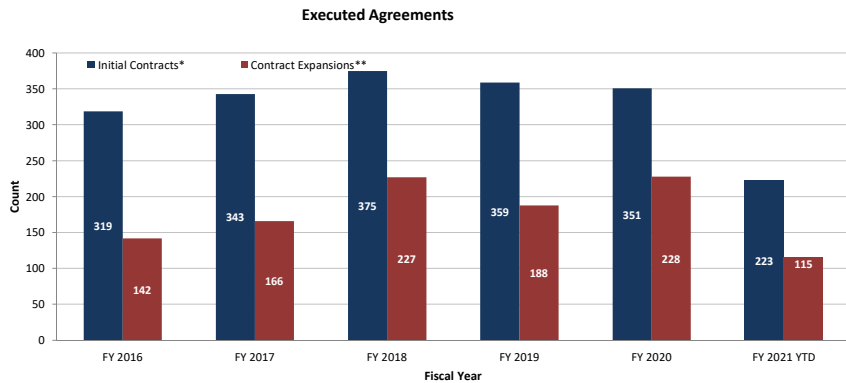
Industry Sponsor Awards & Market Share of UMMS Awards



	University Fiscal Year					
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021 YTD
Med School Total Award \$	\$ 529,853,773	\$ 597,983,037	\$ 634,792,781	\$ 682,384,133	\$ 697,955,412	\$ 672,560,090
Industry Award \$	\$ 83,971,677	\$ 100,971,280	\$ 113,147,861	\$ 127,595,347	\$ 125,120,083	\$ 122,042,723
Industry Award Count	1030	1199	1331	1399	1445	1232
Industry Market Share of Med School	15.85%	16.89%	17.82%	18.70%	17.93%	18.15%

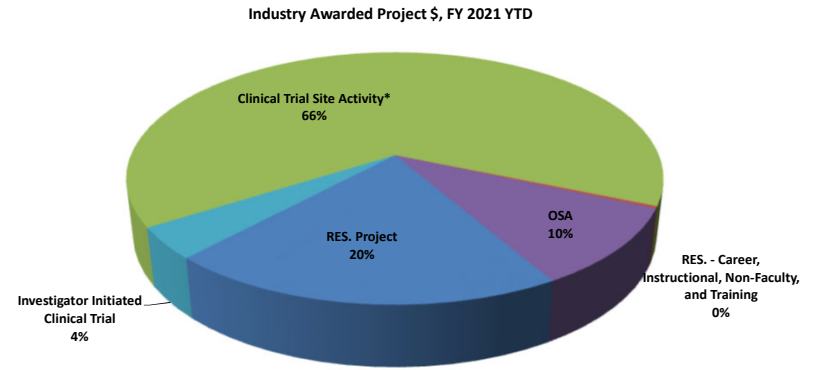
	University Fiscal Year					
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021 YTD
# of Unique Sponsors*	318	351	372	414	430	400
# of Unique PIs Awarded	305	320	336	342	342	309

Executed Agreements with Industry Sponsors



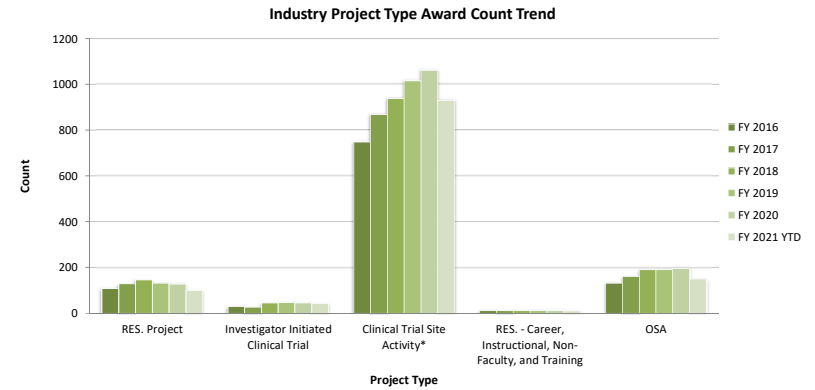
*Initial Contracts are newly negotiated agreements that are for a new project or a distinct new phase of a project that require a set of new terms.
 **Contract Expansions are incremental agreements which provide additional funds for ongoing project activities.

Industry Projects Award \$ by Project Type



	University Fiscal Year					
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021 YTD
RES. Project	\$ 16,717,823	\$ 21,986,762	\$ 23,068,964	\$ 35,683,036	\$ 23,796,563	\$ 24,764,079
Investigator Initiated Clinical Trial	\$ 4,923,887	\$ 4,333,686	\$ 7,364,082	\$ 4,781,257	\$ 5,332,243	\$ 4,915,962
Clinical Trial Site Activity*	\$ 53,883,975	\$ 63,685,233	\$ 71,208,766	\$ 75,091,305	\$ 84,282,474	\$ 79,734,255
RES. - Career, Instructional, Non-Faculty, and Training	\$ 791,695	\$ 519,926	\$ 529,321	\$ 607,098	\$ 602,946	\$ 330,230
OSA	\$ 7,550,401	\$ 10,241,633	\$ 10,972,835	\$ 11,294,166	\$ 10,861,812	\$ 12,257,766

Industry Projects Award Count by Project Type



	University Fiscal Year					
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021 YTD
RES. Project	108	129	145	131	127	99
Investigator Initiated Clinical Trial	29	27	45	47	45	42
Clinical Trial Site Activity*	748	868	939	1016	1061	930
RES. - Career, Instructional, Non-Faculty, and Training	11	12	11	11	12	10
OSA	131	161	190	190	196	150

Industry Awards by Department

	Award Count			Awards (\$ Millions)				
	2019	2020	2021 YTD	2016-2020	2019	2020	2021 YTD	2016-2020
Basic Science Departments								
Biological Chemistry	1	0	3		0.02	0.00	0.22	
Biomedical Engineering-MS	2	2	1		0.12	0.19	0.07	
Cell and Developmental Biology	0	0	0		0.00	0.00	0.00	
DCMB	1	2	0		0.52	0.33	0.00	
Department of Learning Health	0	2	0		0.00	0.02	0.00	
Human Genetics	2	2	1		0.18	0.48	0.45	
Microbiology and Immunology	1	0	1		0.06	0.00	0.07	
Molec & Integrative Physiology	10	8	3		0.69	0.49	0.37	
Pharmacology	1	3	4		0.31	0.59	0.41	
Clinical Departments								
Anesthesiology	4	6	7		15.01	4.84	6.18	
Cardiac Surgery	52	42	44		2.59	1.95	1.68	
Dermatology	24	26	22		1.99	1.56	2.71	
Emergency Medicine	1	9	2		0.00	0.26	0.17	
Family Medicine	1	3	0		0.08	0.99	0.00	
Internal Medicine	857	891	794		74.34	81.55	84.18	
Neurology	52	51	46		5.43	4.64	4.32	
Neurosurgery	6	10	6		0.06	0.21	0.12	
Obstetrics/Gynecology	7	6	5		1.21	0.75	0.71	
Ophthalmology	56	59	48		3.92	3.90	3.84	
Orthopaedics	20	23	12		0.99	1.11	0.71	
Otolaryngology	10	6	4		0.39	0.63	0.58	
Pathology	9	7	8		1.10	1.42	1.43	
Pediatrics	147	176	132		7.32	6.80	4.26	
Physical Medicine and Rehab	1	1	0		0.01	0.08	0.00	
Psychiatry	7	4	3		0.36	0.19	0.04	
Radiation Oncology	16	21	19		1.13	2.02	1.15	
Radiology	30	21	16		2.28	3.09	1.90	
Surgery	42	34	24		4.32	4.10	4.17	
Urology	16	10	9		1.27	0.92	0.89	
Other Med School Departments								
Cancer Center	3	1	1		0.29	0.03	0.03	
Division of Anatomical Science	0	0	0		0.00	0.00	0.00	
MNI	3	1	3		0.32	0.01	0.13	
Research Oversight Units								
BRCF Roll-Up	11	12	11		0.99	1.56	1.12	
Ctr for History of Medicine	0	0	0		0.00	0.00	0.00	
MI Nanotechnology Institute	0	0	0		-	-	0.00	
MICHR Roll-up	2	3	1		0.14	0.15	0.02	
ULAM	4	2	0		0.16	0.18	0.00	
Med. Sch. Total (Incl. MSA, Other)	1,399	1,445	1,232		127.60	125.12	122.04	

Top 15 Industry Sponsors by Award \$

Top 15 Industry Sponsors (Directly from the Sponsor) - FY 2021 YTD

Sponsor Name	Awarded Project \$	# of Awards	Average Bud \$ / Award
Apple, Inc.	\$ 7,126,027	4	\$ 1,781,507
Genentech, Inc.	\$ 7,025,574	39	\$ 180,143
Bristol-Myers Squibb Company	\$ 4,896,569	37	\$ 132,340
AbbVie, Inc.	\$ 4,463,760	38	\$ 117,467
Oncoplia Therapeutics, Inc.	\$ 4,413,962	1	\$ 4,413,962
Merck Sharp and Dohme Research Laboratories	\$ 3,369,783	17	\$ 198,223
AstraZeneca PLC	\$ 2,175,649	20	\$ 108,782
MeiraGTx UK II Limited	\$ 2,166,510	17	\$ 127,442
Regeneron Pharmaceuticals, Inc.	\$ 2,104,109	19	\$ 110,743
General Motors Company (dba General Motors Holdings, LLC)	\$ 1,997,769	4	\$ 499,442
Janssen Vaccines and Prevention B.V.	\$ 1,774,375	2	\$ 887,188
Janssen Research and Development, LLC	\$ 1,702,276	23	\$ 74,012
Chan Zuckerberg Initiative (CZI), LLC	\$ 1,593,511	4	\$ 398,378
Rappta Therapeutics Oy	\$ 1,500,000	1	\$ 1,500,000
Amgen, Inc.	\$ 1,420,883	16	\$ 88,805

Top 15 Industry Sponsors (Intermediate Company) - FY 2021 YTD

Sponsor Name	Awarded Project \$	# of Awards	Average Bud \$ / Award
Covance Inc.	\$ 4,967,230	26	\$ 191,047
Syneos Health, LLC	\$ 2,530,057	27	\$ 93,706
PPD Investigator Services, LLC	\$ 2,071,044	19	\$ 109,002
Medpace, Inc	\$ 1,910,574	15	\$ 127,372
IQVIA RDS, Inc.	\$ 1,813,352	5	\$ 362,670
Pharmaceutical Research Associates, Inc.	\$ 1,323,798	10	\$ 132,380
INC Research	\$ 1,095,324	10	\$ 109,532
PRA Health Sciences	\$ 881,232	17	\$ 51,837
Chan Zuckerberg Foundation	\$ 852,342	1	\$ 852,342
Parexel International, LLC	\$ 617,774	12	\$ 51,481
IQVIA, Inc.	\$ 608,313	6	\$ 101,386
The Icahn School of Medicine at Mount Sinai (ISMMS)	\$ 555,798	4	\$ 138,950
Astellas Pharma US, Inc.	\$ 509,896	1	\$ 509,896
ICON Clinical Research, LLC	\$ 500,282	2	\$ 250,141
IQVIA Holdings Inc.	\$ 459,114	6	\$ 76,519

Technology Transfer Metrics

Technology Transfer Metrics (Medical School Only; Effective FY 2021 Q3)

	University Fiscal Year					
	2016*	2017	2018**	2019	2020	2021 YTD
Royalties/Equity Sales (\$M)	19.4	9.2	7	11.1	10.8	TBD
Invention Reports	169	175	235	226	241	152
U.S. Patent Appl. (all-new)	47	51	67	79	95	TBD
U.S. Patents Issued	43	44	57	59	49	TBD
License/Option Agreements	82	84	112	114	166	138
Invention Reports in Agreements	84	92	142	137	177	TBD
New Business Startups	5	5	7	11	16	TBD

*The increased FY2016 Royalties/Equity Sales is largely due to the receipt of a one-time St Jude settlement (about \$10M).

**Beginning in FY2018, data is no longer counted only based on affiliation of "lead" inventor, but is counted more than once if U-M inventors are affiliated with different colleges.