National Institutes of Health 101

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Research and Partnerships

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Questions and topics to be addressed in this series:

How do I break into the NIH funding pool?

What is the NIH looking to fund?

Why do I keep getting rejected?

How do I choose the appropriate IC and study section for my submission?

How do I strategize for my resubmission?

What are "innovation" and "significance"?

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What other types of grants are available other than the R01?

Can I submit the same proposal to more than one agency at the same time?

Differential Missions and Processes

NIH NSF

USDA AHRQ

NIST DoD

DoE DHS



NIH

More than 80 percent of NIH's \$41.7B funding is awarded for extramural research, largely through almost 50,000 competitive grants to more than 300,000 researchers at more than 2,500 universities, medical schools, and other research institutions in every state



- President's Requested budget of \$51.96B for FY2022
- Includes \$6.5B for an administrative initiative to create the Advanced Research Project Agency for Health (ARPA-H)
- Advances in data sciences: AI, big data, Machine learning (Bridge2AI)
- Cancer moonshot/childhood cancer data initiative



ARPA-H

- This initiative will, at least initially, focus on cures for cancer, Alzheimer's Disease, diabetes and other diseases. ARPA-H will operate within the NIH but unique from the other ICs.
- Will run similarly to the Human Genome Project (1990) or Accelerating COVID-19 Therapeutics Interventions and Vaccines (ACTIV) and Rapic Acceleration of Diagnostics (RADx)
- Vaccines to prevent most cancers
- Creation of patient-specific T cells for search and destroy missions
- "zip code" targeted drugs or vectors
- 24/7 monitors
- Brain imaging and biomarkers
- Rapid design, testing, and approval of infectious disease vaccines (100 days)
- Platforms to reduce health disparities in maternal morbidity and mortality

Common Fund Initiatives

FY21

- Harnessing data science for health discovery and innovation in Africa
- Faculty institutional recruitment for sustained transformation
- Precision nutrition
- Artificial intelligence for biomedical excellence

FY2022

- Somatic mosaicism and retrotransposition (SMaRt)
- Cellular senescence



27 NIH Institutes and Centers (ICs)

Director

budgeting, strategic planning, congressional mandates

Program

portfolio management, concept/RFA writing

Review

proposal review

Advisory Council

strategic planning, concept clearance, final proposal review



Funding Mechanisms

Research Projects (R01, R03, R21)

Solicited vs. Unsolicited

Generally due three times per year:

Feb 5, June 5 and Oct. 5 for R01

Feb 15, June 15 and Oct 15 for R03 and R21 proposals

Program Projects (P01)

Cooperative Agreements (U01, U19)



NCI	NEI	NHLBI
NHGRI	NIA	NIAAA
NIAID	NIAMS	NIBIB
NICHD	NIDCD	NIDCR
NIDDK	NIDA	NIEHS
NIGMS	NIMH	NIMHD
NINDS	NINR	NLM
ССС	CIT	CSR
FIC	NCATS	NCCIH
OD		

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IC	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
FIC	145	150	178	203	266	283	303	283	269	248	226	209	207	185	191	173	127
NCATS															210	197	174
NCCAM		31	115	178	220	230	276	309	318	306	275	277	262	249	250	226	228
NCI	4,774	5,290	5,536	5,846	6,153	6,376	6,717	6,711	6,697	6,736	6,631	6,336	6,194	6,162	6,115	5,898	5,854
NCRR	700	755	838	870	1,126	1,147	1,052	1,069	1,105	1,060	900	902	883	863			
NEI	1,240	1,283	1,340	1,379	1,417	1,472	1,522	1,475	1,431	1,387	1,306	1,278	1,317	1,297	1,263	1,244	1,283
NHGRI	196	201	210	208	232	270	305	322	329	341	351	354	362	340	363	356	370
NHLBI	3,851	4,189	4,477	4,763	5,011	5,163	5,223	4,966	4,794	4,723	4,738	4,856	4,820	4,768	4,673	4,325	3,990
NIA	1,341	1,380	1,428	1,590	1,645	1,725	1,776	1,847	1,848	1,965	1,935	1,897	1,791	1,851	1,843	1,785	1,788
NIAAA	669	708	767	819	848	876	901	895	904	915	915	902	875	862	825	829	850
NIAID	3,361	3,547	3,781	3,850	4,094	4,613	4,848	4,850	4,804	4,928	4,881	4,615	4,616	4,601	4,730	4,503	4,419
NIAMS	957	991	1,050	1,145	1,181	1,224	1,272	1,259	1,250	1,273	1,291	1,287	1,273	1,267	1,256	1,272	1,255
NIBIB					287	732	743	764	766	792	741	676	661	632	688	703	721
NICHD	1,733	1,813	1,933	2,081	2,264	2,343	2,338	2,382	2,333	2,370	2,341	2,253	2,233	2,226	2,242	2,182	2,091
NIDA	1,318	1,412	1,506	1,655	1,745	1,845	1,863	1,860	1,840	1,932	1,969	1,925	1,904	1,905	1,941	1,822	1,771
NIDCD	688	772	824	906	986	1,018	1,026	999	966	982	939	926	947	946	924	899	874
NIDCR	603	601	671	739	747	799	839	847	791	778	788	753	748	755	702	647	630
NIDDK	2,799	3,009	3,240	3,393	3,560	3,905	4,116	4,144	4,043	3,942	3,793	3,638	3,722	3,689	3,579	3,406	3,324
NIEHS	622	632	707	754	797	792	786	750	767	791	788	759	849	839	859	848	888
NIGMS	3,932	4,069	4,195	4,369	4,534	4,536	4,588	4,627	4,572	4,657	4,626	4,538	4,539	4,414	4,716	4,531	4,588
NIMH	2,042	2,200	2,435	2,653	2,838	2,980	3,093	3,084	2,974	2,990	2,976	2,873	2,842	2,747	2,791	2,697	2,591
NIMHD					48	85	102	133	125	114	135	164	191	236	252	282	307
NINDS	2,425	2,518	2,726	2,885	3,122	3,230	3,319	3,291	3,395	3,425	3,338	3,220	3,215	3,284	3,282	3,273	3,253
NINR	228	255	277	312	332	359	359	357	340	331	342	315	283	291	300	281	264
NLM	76	68	67	66	67	78	88	99	101	118	119	104	99	98	105	95	101

22

47,345

9

47,464

35

46,797

77

47,181

93

46,437

113

45,170

131

44,964

135

44,642

400

44,500

393

42,867

426

42,167

OD

NIH

Total

33,700

35,874

38,301

43,520

46,081

40,664

2015

122

189

215

5,772

1,284

378

4,066

1,821

832

4,536

1,212

743

2,047

1,685

856

655

3,328

877

4,663

2,467

284

3,317

253

111

453

42,166

2016

132

215

218

5,714

1,339

384

4,341

2,042

835

4,883

1,191

2,100

1,707

890

674

3,343

870

4,763

2,532

3,364

252

104

496

43,431

246

796

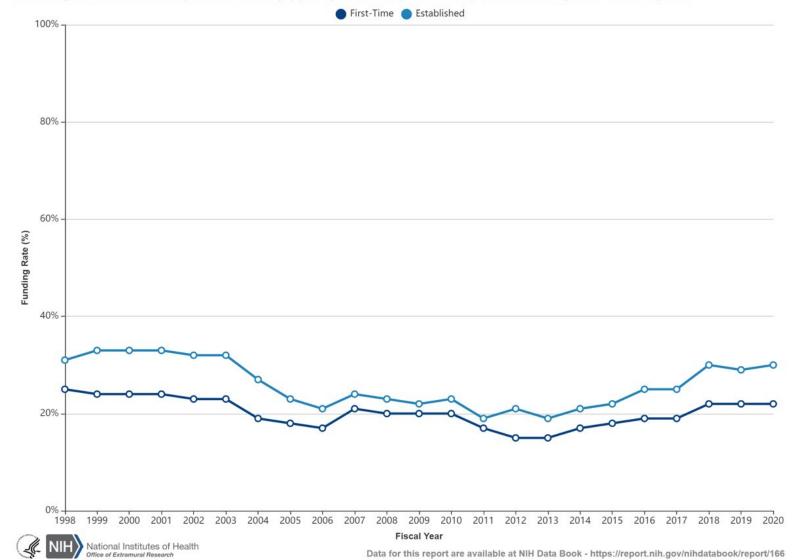
NIH Institutes / Centers	Activity Code	Number of Applications Reviewed	Number of Applications Awarded	Success Rate ³	Total Funding⁴
NCI	R03	727	104	14.3%	\$9,120,722
NHLBI	R03	30	16	53.3%	\$1,343,723
NIDCR	R03	137	24	17.5%	\$3,492,387
NIDDK	R03	75	35	46.7%	\$2,733,896
NINDS	R03	158	35	22.2%	\$2,720,297
NIAID	R03	265	37	14.0%	\$2,912,279
NICHD	R03	367	84	22.9%	\$6,797,678
NIEHS	R03	78	7	9.0%	\$532,921
NIA	R03	205	43	21.0%	\$4,236,302
NIAMS	R03	6	3	50.0%	\$247,589
NIDCD	R03	3	0	0.0%	\$0
NIMH	R03	125	15	12.0%	\$1,185,329
NIDA	R03	142	32	22.5%	\$4,091,055
NIAAA	R03	49	7	14.3%	\$564,364
NHGRI	R03	8	2	25.0%	\$157,000
NIBIB	R03	129	23	17.8%	\$2,056,985
NIMHD	R03	35	9	25.7%	\$747,577
FIC	R03	2	0	0.0%	\$0
FY2017					

NIH Institutes / Centers	Activity Code	Number of Applications Reviewed	Number of Applications Awarded	Success Rate ³	Total Funding ⁴
NCI	R21	1,901	153	8.0%	\$30,515,060
NHLBI	R21	333	35	10.5%	\$5,483,504
NIDCR	R21	220	22	10.0%	\$4,973,237
NIDDK	R21	407	30	7.4%	\$6,810,635
NINDS	R21	1,344	188	14.0%	\$44,525,922
NIAID	R21	2,550	408	16.0%	\$92,462,775
NIGMS	R21	3	3	100.0%	\$549,332
NICHD	R21	1,194	152	12.7%	\$34,694,103
NEI	R21	323	49	15.2%	\$11,260,172
NIEHS	R21	336	37	11.0%	\$8,696,641
NIA	R21	865	186	21.5%	\$43,408,922
NIAMS	R21	570	79	13.9%	\$15,852,639
NIDCD	R21	266	56	21.1%	\$11,150,098
NIMH	R21	678	120	17.7%	\$27,124,729
NIDA	R21	539	109	20.2%	\$24,411,427
NIAAA	R21	275	46	16.7%	\$9,847,715
NINR	R21	253	10	4.0%	\$2,359,940
NHGRI	R21	83	14	16.9%	\$3,617,712
NIBIB	R21	860	73	8.5%	\$15,822,295
NCCIH	R21	64	4	6.3%	\$647,308
NIMHD	R21	139	18	12.9%	\$4,232,327
FIC	R21	158	13	8.2%	\$2,570,409
NLM	R21	46	6	13.0%	\$1,172,743
NCATS	R21	11	4	36.4%	\$927,852
FY2017					

NIH Institutes / Centers	Activity Code	Number of Applications Reviewed	Number of Applications Awarded	Success Rate ³	Total Funding ⁴
NCI	R01	5,572	694	12.5%	\$318,146,726
NHLBI	R01	3,229	738	22.9%	\$405,816,910
NIDCR	R01	412	77	18.7%	\$34,326,692
NIDDK	R01	2,570	432	16.8%	\$197,648,443
NINDS	R01	2,305	374	16.2%	\$161,675,480
NIAID	R01	2,897	555	19.2%	\$308,499,044
NIGMS	R01	2,948	833	28.3%	\$305,420,554
NICHD	R01	1,533	257	16.8%	\$132,329,594
NEI	R01	868	251	28.9%	\$105,304,878
NIEHS	R01	601	86	14.3%	\$37,914,602
NIA	R01	1,646	343	20.8%	\$228,255,505
NIAMS	R01	931	165	17.7%	\$68,996,909
NIDCD	R01	471	115	24.4%	\$51,171,456
NIMH	R01	1,477	305	20.6%	\$176,235,079
NIDA	R01	1,104	191	17.3%	\$105,807,496
NIAAA	R01	443	81	18.3%	\$33,127,171
NINR	R01	280	34	12.1%	\$17,092,569
NHGRI	R01	180	41	22.8%	\$25,306,424
NIBIB	R01	458	88	19.2%	\$40,991,237
NCCIH	R01	85	15	17.6%	\$7,117,518
NIMHD	R01	227	59	26.0%	\$38,621,990
FIC	R01	35	8	22.9%	\$1,668,105
NLM	R01	79	17	21.5%	\$7,034,546
OD Common Fund	R01	143	11	7.7%	\$7,614,035
FY2017					

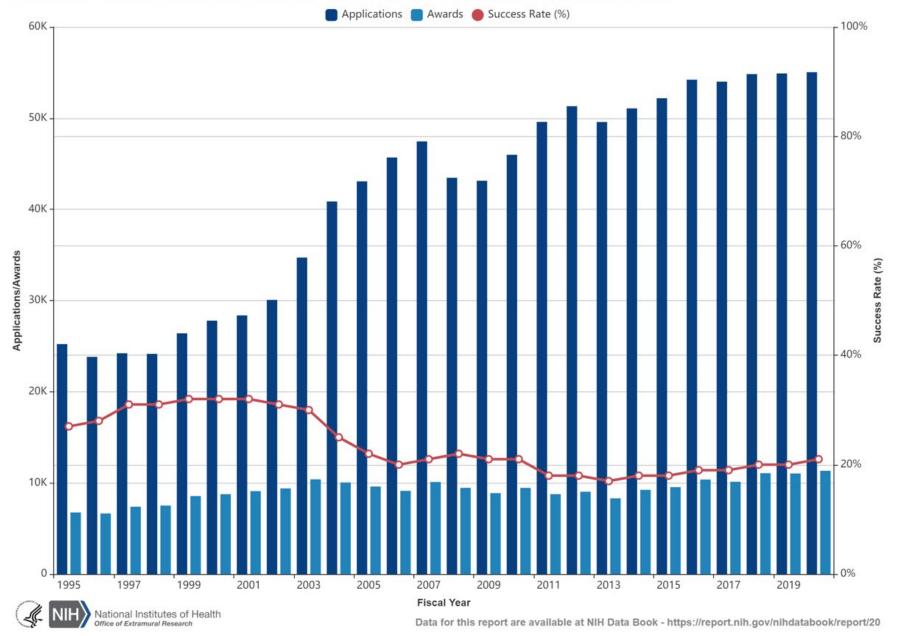
R01-Equivalent grants, New (Type 1) Success rates, by career stage of investigator





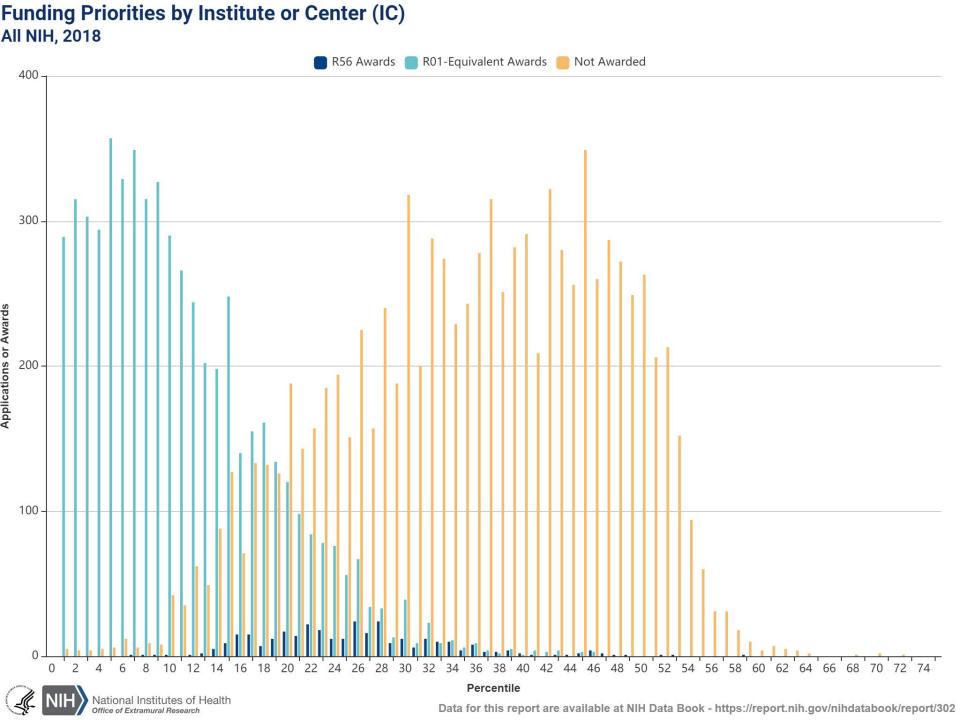


Research Project Grants: Competing Applications, Awards, and Success Rates



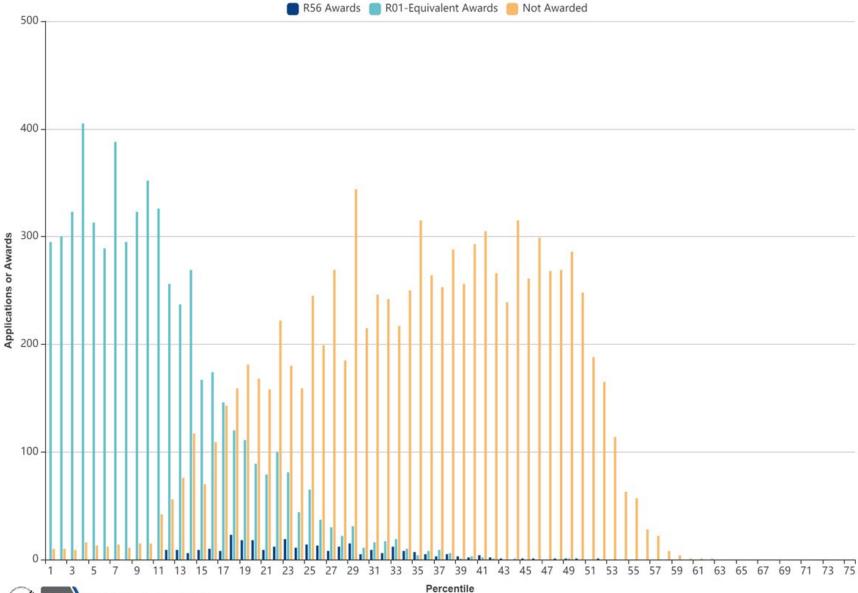
Research/Disease Areas	FY 15	FY 16	FY 17	FY 18	FY19 (est)
Genetics	\$7,480	\$8,070	\$8,501	\$9,105	\$9,551
Prevention	\$7,027	\$7,566	\$8,052	\$8,757	\$9,322
Neurosciences	\$5,742	\$6,460	\$7,317	\$8,224	\$8,945
Biotechnology	\$6,018	\$6,433	\$6,556	\$6,923	\$7,380
Cancer	\$5,389	\$5,589	\$5,980	\$6,335	\$6,610
Brain Disorders	\$3,916	\$4,577	\$5,156	\$5,882	\$6,448
Infectious Diseases	\$5,032	\$5,518	\$5,684	\$6,024	\$6,317
Rare Diseases	\$3,679	\$4,342	\$4,613	\$5,227	\$5,459
Behavioral and Social Science	\$3,762	\$4,137	\$4,547	\$5,096	\$5,430
Women's Health	\$3,989	\$4,540	\$4,769	\$5,048	\$5,426
Bioengineering	\$3,540	\$3,841	\$4,106	\$4,592	\$4,826
Aging	\$2,698	\$3,150	\$3,572	\$4,084	\$4,637
Neurodegenerative	\$1,662	\$2,058	\$2,554	\$3,085	\$3,369
Mental Health	\$2,263	\$2,454	\$2,717	\$3,010	\$3,232
HIV/AIDS	\$3,000	\$3,000	\$3,000	\$2,995	\$3,045
Emerging Infectious Diseases	\$2,053	\$2,336	\$2,591	\$2,767	\$2,915
Alzheimer's Disease including Alzheimer's Disease Related Dementias (AD/ADRD) 2/	\$631	\$986	\$1,423	\$1,911	\$2,468
Basic Behavioral and Social Science	\$1,610	\$1,804	\$1,993	\$2,252	\$2,374
Biodefense	\$1,736	\$1,951	\$1,964	\$2,170	\$2,352

NIH RePO		I OFFICIALS OR SIMILA	R PROJECTS	About RePORTER DATA	FAQ ExPORTE	R RSS of Newly Added Projects
QUERY BROWSE I	NIH MATCHMAKER	SEARCH PUB	LICATIONS BETA			
SUBMIT QUERY CLE	EAR QUERY		Fis Cu	scal Year (FY): Activ	re Projects	SELECT
RESEARCHER AND ORGA	ANIZATION					
Principal Investigator (PI) / Project Leader: (Last Name, First Name)	Use '%' for wildcard in PI name Enter several PI/Project Leader		<u>Ds</u>	City: ? Use '9	%' for wildcard	
Organization:	Please enter at least 3 charact Contains Begins with	LOOKUP ters to use Lookup.	Congres	Country: ?		SELECT
Department Type: Organization Type:		SELECT	_	OUNS Number: (?)		SELECT
TEXT SEARCH						
Text Search (<i>Logic</i>): And Or Advanced 		Characters left: 25	Search in Projects Publications News	Limit Project search to Project Title Project Terms Project Abstracts		rch to
PROJECT DETAILS						
Project Number/ Application ID: Format: 5R01CA012345-04/	Use '%' for wildcard in project	number e.a. %R21%		nstitute/Center: ?		SELECT
8515397	Enter multiple project numbers OR		NIH Spend	ding Category: 🕜		SELECT
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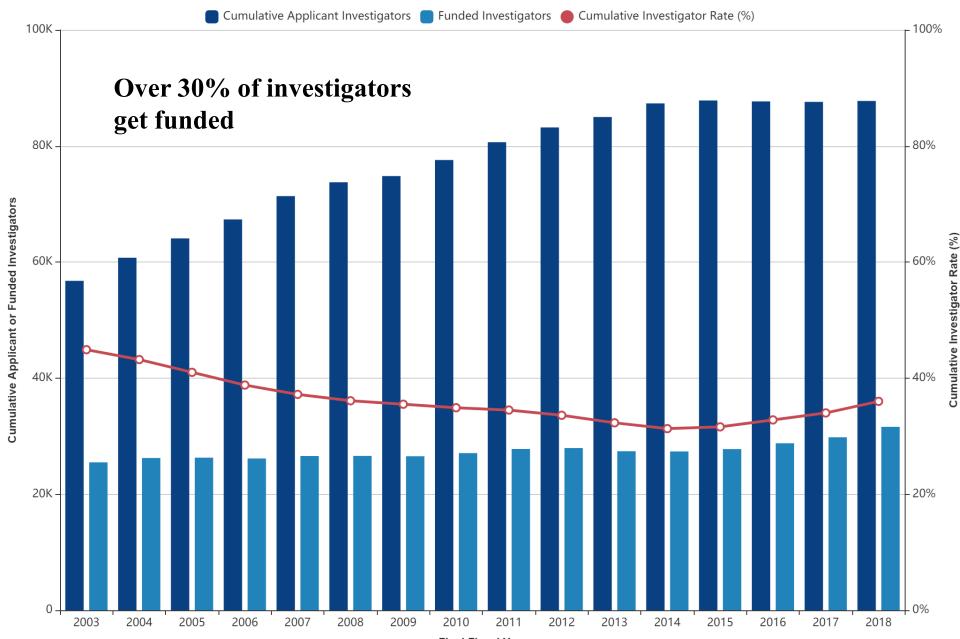


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Funding Priorities by Institute or Center (IC) ALL NIH, 2020

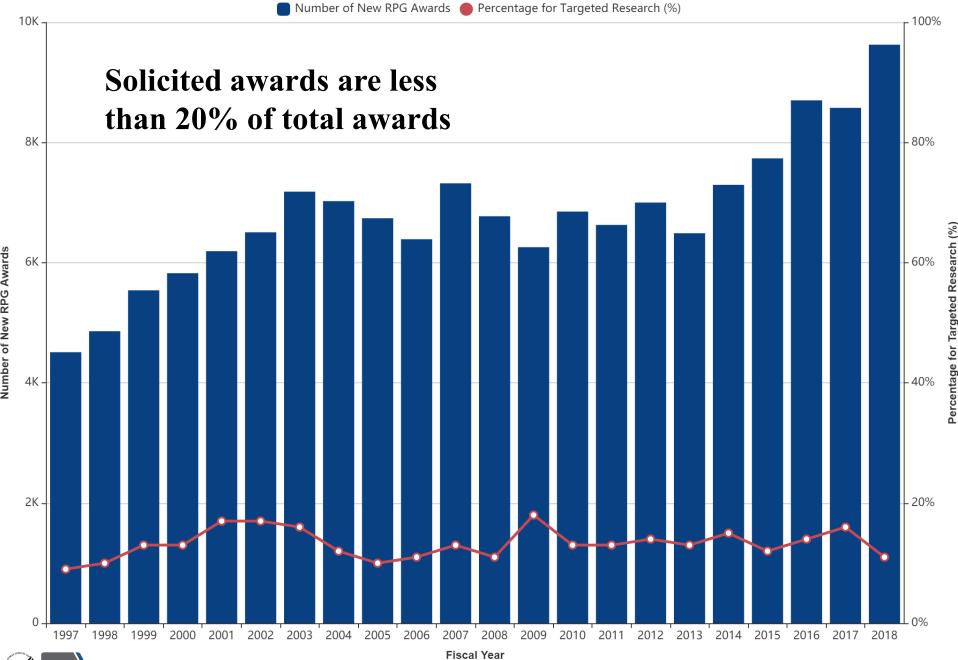


Cumulative Investigator Rate: Research Project Grants, R21, P01, or R01-Equivalents Research Project Grants





Research Project Grants: New (Type 1) Competing Awards and Percentage for Targeted Research



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NIH URLs of interest:

Funded awards and investigators: Projectreporter.nih.gov/reporter.cfm

Spending, success and funding data: Report.nih.gov

Graphic representation of data by IC: report.nih.gov/ReTools/competing_research_ project.aspx

IC strategic plans: Report.nih.gov/strategicplans/index.aspx





Executive Vice President for Research and Partnerships

ABOUT CORES **PARTNERSHIPS** RECENT INITIATIVES REGULATORY AFFAIRS **FUNDING** PUBLICATIONS **AWARDS**

Home / Funding And Grant Writing / Grantsmanship Events

Overview

Funding

Limited Submissions

Grant Writing Support

Site Visits

Events

Cost Sharing

Research Bridge Program

FAQs

Grantsmanship Events

A series of grantsmanship workshops are hosted throughout the year by the Office of the Executive Vice President for Research and Partnerships. Many of these workshops are particularly useful for new faculty or those new to the research process at Purdue.

For further information and to register for an upcoming workshop, click on the link below. Please note that registration becomes available approximately one month prior to the event, at which point the workshop title becomes a hyperlink.

When possible, an archive of each presentation is available from the Past Events list below.

Upcoming Event List

Title	Date, Time & Location	Description and Registration
	September 1; 11:30AM-	
Finding Funding, Limited Submissions, and Proposal Submission	1:00PM; Broadcasted via	Registration closed
,, ,, ,	Zoom	
	September 3; 11:30AM-	
NIH 101	1:00PM; Broadcasted via	Registration closed
	Zoom	
	September 15; 11:30AM-	
Successful Grant Writing Strategies	1:00PM; Broadcasted via	Click Here
	Zoom	
Understanding Prenocal Dudgets	October 15; 11:30AM-1:00PM;	
Understanding Proposal Budgets	Broadcasted via Zoom	
NIII 102	October 27; 11:30AM-1:00PM;	
NIH 102	Broadcasted via Zoom	
Write Winning Grants	November 2 and 3; 8:00AM -	























