

Appendices

Appendix I: NIH institutes and centers

NIH centers and institutes are: National Cancer Institute (NCI), National Eye Institute (NEI), National Heart, Lung, and Blood Institute (NHLBI), National Human Genome Research Institute (NHGRI), National Institute on Aging (NIA), National Institute on Alcohol Abuse and Alcoholism (NIAAA), National Institute of Allergy and Infectious Diseases (NIAID), National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS), National Institute of Biomedical Imaging and Bioengineering (NIBIB), National Institute of Child Health and Human Development (NICHD), National Institute on Deafness and Other Communication Disorders (NIDCD), National Institute of Dental and Craniofacial Research (NIDCR), National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), National Institute on Drug Abuse (NIDA), National Institute of Environmental Health Sciences (NIEHS), National Institute of General Medical Sciences (NIGMS), National Institute of Mental Health (NIMH), National Institute on Minority Health and Health Disparities (NIMHHD), National Institute of Neurological Disorders and Stroke (NINDS), National Institute of Nursing Research (NINR), National Library of Medicine (NLM), Center for Information Technology (CIT), Center for Scientific Review (CSR), Fogarty International Center (FIC), National Center for Advancing Translational Sciences (NCATS), National Center for Complementary and Integrative Health (NCCIH) and the NIH Clinical Center (NIH CC).

Appendix II: NIH Grants included in the analysis

Grants included in the analysis are: C06, D43, D71, DP1, DP2, DP3, DP5, DP7, F05, F30, F31, F32, F33, F99, G08, G11, G12, G13, G20, H25, H79, K00, K01, K02, K05, K06, K07, K08, K12, K18, K22, K23, K24, K25, K26, K30, K38, K76, K99, KL1, KL2, M01, N01, OT2, OT3, P01, P20, P2C, P30, P40, P41, P42, P50, P51, P60, PL1, PN2, R00, R01, R03, R13, R15, R18, R21, R24, R25, R33, R34, R35, R36, R37, R38, R49, R50, R55, R56, R61, R90, RC2, RC4, RF1, RL1, RL5, RL9, RM1, S10, S21, SC1, SC2, SC3, T01, T03, T15, T32, T34, T35, T36, T37, T42, T90, TL1, U01, U10, U13, U18, U19, U24, U2C, U2G, U2R, U34, U38, U41, U42, U45, U47, U48, U49, U50, U51, U52, U54, U56, U58, U59, U60, U62, U65, U79, U90, UC2, UC4, UC7, UD1, UE5, UF1, UG1, UG3, UH2, UH3, UH4, UL1, UM1, UM2, UR3, and UR6.

Appendix III: Number of active physicians from 2010-2020 by specialty

Specialty	Year	Number of physicians
Anesthesiology	2010	40123
Anesthesiology	2011	40335
Anesthesiology	2012	40546
Anesthesiology	2013	40758
Anesthesiology	2014	41055
Anesthesiology	2015	41351
Anesthesiology	2016	41557
Anesthesiology	2017	41762
Anesthesiology	2018	42015
Anesthesiology	2019	42267
Anesthesiology	2020	42267
Dermatology	2010	10820
Dermatology	2011	11001
Dermatology	2012	11182
Dermatology	2013	11363
Dermatology	2014	11535
Dermatology	2015	11706
Dermatology	2016	11879
Dermatology	2017	12051
Dermatology	2018	12284
Dermatology	2019	12516
Dermatology	2020	12516

Emergency Medicine	2010	33984
Emergency Medicine	2011	35070
Emergency Medicine	2012	36155
Emergency Medicine	2013	37241
Emergency Medicine	2014	38410
Emergency Medicine	2015	39579
Emergency Medicine	2016	40964
Emergency Medicine	2017	42348
Emergency Medicine	2018	43775
Emergency Medicine	2019	45202
Emergency Medicine	2020	45202
Family Medicine	2010	106549
Family Medicine	2011	107338
Family Medicine	2012	108128
Family Medicine	2013	108917
Family Medicine	2014	110106
Family Medicine	2015	111295
Family Medicine	2016	112405
Family Medicine	2017	113514
Family Medicine	2018	115856
Family Medicine	2019	118198
Family Medicine	2020	118198
Internal Medicine/Medicine	2010	109048
Internal Medicine/Medicine	2011	109714
Internal Medicine/Medicine	2012	110381
Internal Medicine/Medicine	2013	111047
Internal Medicine/Medicine	2014	112568
Internal Medicine/Medicine	2015	114089
Internal Medicine/Medicine	2016	114823
Internal Medicine/Medicine	2017	115557

Internal Medicine/Medicine	2018	117864
Internal Medicine/Medicine	2019	120171
Internal Medicine/Medicine	2020	120171
Neurology	2010	12916
Neurology	2011	12996
Neurology	2012	13076
Neurology	2013	13156
Neurology	2014	13274
Neurology	2015	13392
Neurology	2016	13555
Neurology	2017	13717
Neurology	2018	13932
Neurology	2019	14146
Neurology	2020	14146
Neurosurgery	2010	5047
Neurosurgery	2011	5088
Neurosurgery	2012	5130
Neurosurgery	2013	5171
Neurosurgery	2014	5259
Neurosurgery	2015	5346
Neurosurgery	2016	5439
Neurosurgery	2017	5531
Neurosurgery	2018	5640
Neurosurgery	2019	5748
Neurosurgery	2020	5748
Obstetrics & Gynecology	2010	40377
Obstetrics & Gynecology	2011	40527
Obstetrics & Gynecology	2012	40676
Obstetrics & Gynecology	2013	40826
Obstetrics & Gynecology	2014	41154
Obstetrics & Gynecology	2015	41481

Obstetrics & Gynecology	2016	41569
Obstetrics & Gynecology	2017	41656
Obstetrics & Gynecology	2018	42188
Obstetrics & Gynecology	2019	42720
Obstetrics & Gynecology	2020	42720
Ophthalmology	2010	17943
Ophthalmology	2011	18068
Ophthalmology	2012	18192
Ophthalmology	2013	18317
Ophthalmology	2014	18455
Ophthalmology	2015	18593
Ophthalmology	2016	18705
Ophthalmology	2017	18817
Ophthalmology	2018	19065
Ophthalmology	2019	19312
Ophthalmology	2020	19312
Orthopedics	2010	19822
Orthopedics	2011	19673
Orthopedics	2012	19523
Orthopedics	2013	19374
Orthopedics	2014	19260
Orthopedics	2015	19145
Orthopedics	2016	19073
Orthopedics	2017	19001
Orthopedics	2018	19035
Orthopedics	2019	19069
Orthopedics	2020	19069
Otolaryngology	2010	9232
Otolaryngology	2011	9261
Otolaryngology	2012	9291
Otolaryngology	2013	9320
Otolaryngology	2014	9366
Otolaryngology	2015	9411
Otolaryngology	2016	9469
Otolaryngology	2017	9526

Otolaryngology	2018	9652
Otolaryngology	2019	9777
Otolaryngology	2020	9777
Pathology	2010	14975
Pathology	2011	14553
Pathology	2012	14132
Pathology	2013	13710
Pathology	2014	13498
Pathology	2015	13286
Pathology	2016	13063
Pathology	2017	12839
Pathology	2018	12741
Pathology	2019	12643
Pathology	2020	12643
Pediatrics	2010	55509
Pediatrics	2011	55760
Pediatrics	2012	56011
Pediatrics	2013	56262
Pediatrics	2014	56903
Pediatrics	2015	57543
Pediatrics	2016	57989
Pediatrics	2017	58435
Pediatrics	2018	59527
Pediatrics	2019	60618
Pediatrics	2020	60618
Physical Medicine & Rehab	2010	8503
Physical Medicine & Rehab	2011	8637
Physical Medicine & Rehab	2012	8772
Physical Medicine & Rehab	2013	8906
Physical Medicine & Rehab	2014	9035
Physical Medicine & Rehab	2015	9164
Physical Medicine & Rehab	2016	9254
Physical Medicine & Rehab	2017	9343
Physical Medicine & Rehab	2018	9555
Physical Medicine & Rehab	2019	9767

Physical Medicine & Rehab	2020	9767
Plastic Surgery	2010	6822
Plastic Surgery	2011	6862
Plastic Surgery	2012	6902
Plastic Surgery	2013	6942
Plastic Surgery	2014	6981
Plastic Surgery	2015	7020
Plastic Surgery	2016	7081
Plastic Surgery	2017	7142
Plastic Surgery	2018	7230
Plastic Surgery	2019	7317
Plastic Surgery	2020	7317
Psychiatry	2010	38289
Psychiatry	2011	37958
Psychiatry	2012	37627
Psychiatry	2013	37296
Psychiatry	2014	37516
Psychiatry	2015	37736
Psychiatry	2016	37971
Psychiatry	2017	38205
Psychiatry	2018	38499
Psychiatry	2019	38792
Psychiatry	2020	38792
Radiation-Diagnostic/Oncology	2010	32445
Radiation-Diagnostic/Oncology	2011	34213
Radiation-Diagnostic/Oncology	2012	35982
Radiation-Diagnostic/Oncology	2013	37750
Radiation-Diagnostic/Oncology	2014	38191
Radiation-Diagnostic/Oncology	2015	38632
Radiation-Diagnostic/Oncology	2016	39239
Radiation-Diagnostic/Oncology	2017	39846

Radiation-Diagnostic/Oncology	2018	40572
Radiation-Diagnostic/Oncology	2019	41297
Radiation-Diagnostic/Oncology	2020	41297

Surgery	2010	26314
Surgery	2011	25938
Surgery	2012	25563
Surgery	2013	25187
Surgery	2014	25221
Surgery	2015	25254
Surgery	2016	25148
Surgery	2017	25042
Surgery	2018	25303
Surgery	2019	25564
Surgery	2020	25564
Urology	2010	9826
Urology	2011	9808
Urology	2012	9789
Urology	2013	9771
Urology	2014	9790
Urology	2015	9808
Urology	2016	9865
Urology	2017	9921
Urology	2018	10061
Urology	2019	10201
Urology	2020	10201

Appendix IV: 10 most commonly awarded grant-types from 2011-2020

Grant-type	Title	Description
F32	Postdoctoral Individual National Research Service Award	To provide postdoctoral research training to individuals to broaden their scientific background and extend their potential for research in specified health-related areas.
T32	Institutional National Research Service Award	To enable institutions to make National Research Service Awards to individuals selected by them for predoctoral and postdoctoral research training in specified shortage areas.
K01	Research Scientist Development Award - Research & Training	For support of a scientist, committed to research, in need of both advanced research training and additional experience.
K08	Clinical Investigator Award (CIA)	To provide the opportunity for promising medical scientists with demonstrated aptitude to develop into independent investigators, or for faculty members to pursue research aspects of categorical areas applicable to the awarding unit, and aid in filling the academic faculty gap in these shortage areas within health profession's institutions of the country.
K23	Mentored Patient-Oriented Research Career Development Award	To provide support for the career development of investigators who have made a commitment to focus their research endeavors on patient-oriented research. This mechanism provides support for a 3 year minimum up to 5 year period of supervised study and research for clinically trained professionals who have the potential to develop into productive, clinical investigators.
R01	Research Project	To support a discrete, specified, circumscribed project to be performed by the named investigator(s) in an area representing his or her specific interest and competencies
R03	Small Research Grants	To provide research support specifically limited in time and amount for studies in categorical program areas. Small grants provide flexibility for initiating studies which are generally for preliminary short-term projects and are non-renewable.
R21	Exploratory/Developmental Grants	To encourage the development of new research activities in categorical program areas. (Support generally is restricted in level of support and in time.)
P30	Center Core Grants	To support shared resources and facilities for categorical research by a number of investigators from different disciplines who provide a

		<p>multidisciplinary approach to a joint research effort or from the same discipline who focus on a common research problem. The core grant is integrated with the center's component projects or program projects, though funded independently from them. This support, by providing more accessible resources, is expected to assure a greater productivity than from the separate projects and program projects.</p>
U01	Research Project-- Cooperative Agreements	<p>To support a discrete, specified, circumscribed project to be performed by the named investigator(s) in an area representing his or her specific interest and competencies.</p>