

Northwestern University

Reports Required by Government
Auditing Standards and OMB 2 CFR 200
Uniform Administrative Requirements,
Cost Principles, and Audit Requirements
for the Year Ended August 31, 2017
EIN 36-2167817

**NORTHWESTERN UNIVERSITY
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Report of Independent Auditors

To the Board of Trustees of Northwestern University:

We have audited the accompanying consolidated financial statements of Northwestern University (the "University"), which comprise the consolidated statements of financial position as of August 31, 2017 and 2016, the related consolidated statement of activities for the year ended August 31, 2017 and of cash flows for the years ended August 31, 2017 and 2016, and the related notes to the financial statements.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on the consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the University's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the University's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Northwestern University as of August 31, 2017 and 2016, and the changes in its net assets for the year ended August 31, 2017, and its cash flows for the years ended August 31, 2017 and 2016, in accordance with accounting principles generally accepted in the United States of America.



Other Matters

We previously audited the consolidated statement of financial position as of August 31, 2016, and the related consolidated statement of activities (not presented herein) and of cash flows for the year then ended, and in our report dated February 2, 2017, we expressed an unmodified opinion on those consolidated financial statements. In our opinion, the information set forth in the accompanying summarized financial information as of August 31, 2016 and for the year then ended is consistent, in all material respects, with the audited consolidated financial statements from which it has been derived.

Other Information

Our audit was conducted for the purpose of forming an opinion on the consolidated financial statements as a whole. The accompanying schedule of expenditures of federal awards for the year ended August 31, 2017, is presented for purposes of additional analysis as required by Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance) and is not a required part of the consolidated financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the consolidated financial statements. The information has been subjected to the auditing procedures applied in the audit of the consolidated financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the consolidated financial statements or to the consolidated financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedule of expenditures of federal awards is fairly stated, in all material respects, in relation to the consolidated financial statements as a whole.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated January 10, 2018 on our consideration of Northwestern University's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements and other matters for the year ended August 31, 2017. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing and not to provide an opinion on the effectiveness of internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering Northwestern University's internal control over financial reporting and compliance.

PricewaterhouseCoopers LLP

January 10, 2018

Consolidated Statements of Financial Position

As of August 31, 2017, and August 31, 2016

<i>(in thousands of dollars)</i>	2017	2016
Assets		
Cash and cash equivalents	\$92,623	\$215,375
Accounts receivable, <i>net</i>	263,424	326,446
Notes receivable, <i>net</i>	151,679	156,428
Contributions receivable, <i>net</i>	318,780	263,423
Investments	10,717,787	10,312,782
Land, buildings, and equipment, <i>net</i>	2,933,679	2,368,598
Other assets	17,973	17,125
Total assets	\$14,495,945	\$13,660,177
Liabilities		
Accounts payable and accrued expenses	\$295,641	\$265,979
Deferred revenue	277,853	289,083
Deposits payable and actuarial liability of annuities payable	156,179	140,836
Government advances for student loans	30,559	37,766
Asset retirement obligations	3,250	2,940
Bonds, notes, and other debt payable	2,049,080	1,909,164
Total liabilities	\$2,812,562	\$2,645,768
Net assets		
Unrestricted	\$7,338,857	\$6,986,925
Temporarily restricted	2,720,408	2,472,172
Permanently restricted	1,624,118	1,555,312
Total net assets	\$11,683,383	\$11,014,409
Total liabilities and net assets	\$14,495,945	\$13,660,177

See Notes to the Consolidated Financial Statements, beginning on page 8.

Consolidated Statement of Activities

For the fiscal year ended August 31, 2017, and summarized financial information for the fiscal year ended August 31, 2016

<i>(in thousands of dollars)</i>	2017			2016	
Operating revenues	Unrestricted	Temporarily restricted	Permanently restricted	Total	Total
Tuition and fees	\$1,008,586			\$1,008,586	\$963,001
(less scholarships and fellowships)	(419,944)			(419,944)	(381,713)
Net tuition and fees	588,642			588,642	581,288
Auxiliary services	80,812			80,812	79,036
Grants and contracts	617,448			617,448	595,774
Private gifts	199,630			199,630	200,892
Investment return designated for operations	445,137	\$159,397		604,534	509,009
Sales and services	171,289			171,289	161,615
Professional fees	34,929			34,929	31,345
Royalties and trademarks	12,134			12,134	41,236
Other income	576			576	793
Total operating revenues	2,150,597	159,397		2,309,994	2,200,988
Net assets released from restrictions	197,968	(197,968)		—	—
Total operating revenues and other additions (reductions)	2,348,565	(38,571)	—	2,309,994	2,200,988
Operating expenses					
Salaries, wages, and benefits	1,343,723			1,343,723	1,242,279
Services, supplies, travel, and other	578,229			578,229	554,631
Depreciation and asset retirement obligation accretion	143,471			143,471	123,225
Operations of plant, rent, and equipment	118,351			118,351	109,283
Utilities and communications	59,687			59,687	55,210
Royalty and trademark fees	9,457			9,457	41,278
Interest on indebtedness	44,378			44,378	40,248
Total operating expenses	2,297,296	—	—	2,297,296	2,166,154
Excess (deficit) of operating revenues over expenses	51,269	(38,571)	—	12,698	34,834
Nonoperating revenues and expenses					
Private gifts and grants for buildings and equipment	512			512	1,597
Restricted private gifts		95,118	74,523	169,641	225,034
Net gain (loss) on annuity obligations		1,909	(5,717)	(3,808)	3,338
Investment returns, reduced by operating distribution	293,052	189,780		482,832	(112,488)
Change in value of derivative instruments	7,732			7,732	(1,557)
Other nonoperating net (expenses) revenues	(633)			(633)	70,673
Excess of nonoperating revenues over expenses	300,663	286,807	68,806	656,276	186,597
Change in net assets	351,932	248,236	68,806	668,974	221,431
Beginning net assets	6,986,925	2,472,172	1,555,312	11,014,409	10,792,978
Ending net assets	\$7,338,857	\$2,720,408	\$1,624,118	\$11,683,383	\$11,014,409

See Notes to the Consolidated Financial Statements, beginning on page 8.

Consolidated Statements of Cash Flows

For the fiscal years ended August 31, 2017, and August 31, 2016

<i>(in thousands of dollars)</i>	2017	2016
Cash flows from operating activities		
Change in net assets	\$668,974	\$221,431
Adjustments to reconcile change in net assets to net cash provided by (used in) operating activities		
Depreciation	143,339	117,398
Accretion for asset retirement obligations	132	5,827
Asset retirement obligations added (settled)	178	(2,780)
Change in estimated asset retirement obligations, <i>net</i>	—	(71,851)
Net (gains) losses on retirements and sales of buildings and equipment	(362)	6
Net amortization of discounts (and accretion) of premiums on bonds payable	(2,369)	(1,040)
Allowance for student loans receivable	317	667
Net realized and unrealized gains on investments	(1,040,580)	(343,820)
Gift of contributed securities	(51,886)	(49,919)
Proceeds from sale of contributed securities	46,886	49,919
Change in value of derivative instruments	(7,732)	1,557
Private gifts and grants for buildings and equipment	(512)	(1,597)
<i>Changes in assets and liabilities</i>		
Accounts receivable	63,022	(43,520)
Contributions receivable	(55,357)	(94,405)
Other assets	(789)	1,710
Accounts payable and accrued expenses	(3,617)	17,665
Increase in deposits and annuities payable	15,343	17,066
Deferred revenue	(11,230)	18,121
Government advances for student loans	(7,207)	(1,064)
Net cash provided by (used in) operating activities	(243,450)	(158,629)
Cash flows from investing activities		
Purchases of investments	(1,786,688)	(1,591,765)
Proceeds from sales of investments	2,439,081	2,128,801
Acquisitions of land, buildings, and equipment	(667,350)	(468,756)
Proceeds from sale of buildings or equipment	244	102
Student loans disbursed	(21,345)	(25,385)
Principal collected on student loans	28,113	29,892
Other	(14,154)	(23,076)
Net cash provided by (used in) investing activities	(22,099)	49,813
Cash flows from financing activities		
Proceeds from issuance of notes, bonds, and other debt payable	232,000	50,000
Principal payments on notes, bonds, and other debt payable	(89,715)	(4,535)
Proceeds from private gifts and grants for buildings and equipment	512	1,597
Net cash provided by (used in) financing activities	142,797	47,062
(Decrease) increase in cash and cash equivalents	(122,752)	(61,754)
Cash and cash equivalents at beginning of year	215,375	277,129
Cash and cash equivalents at end of year	\$92,623	\$215,375
Supplemental disclosure of cash flow information		
Accrued liabilities for construction in progress	\$60,677	\$31,466
Capitalized interest	23,243	24,135
Cash paid for interest	67,663	66,480

See Notes to the Consolidated Financial Statements, beginning on page 8.

Notes to the Consolidated Financial Statements

For the fiscal years ended August 31, 2017, and August 31, 2016

1. Summary of Significant Accounting Policies

University Activities

Northwestern University (Northwestern or the University) is a major private research university with more than 21,000 students enrolled in 12 academic divisions on two lakefront campuses in Evanston and Chicago and an international campus in Doha, Qatar.

Northwestern's mission is to provide the highest-quality education for its students, to develop innovative programs in research, and to sustain an academic community that embraces these enterprises. Activities supporting its mission may be classified as either operating or nonoperating. Operating revenues include student tuition, research funding, investment return designated for operations, educational sales and services, private gifts, royalties, and auxiliary services. Operating expenses reflect support for all functions of the University. Nonoperating activities include unrealized gains and losses on investments, temporarily restricted gifts for building, and all permanently restricted endowment gifts.

Basis of Accounting

General

The University maintains its accounts and prepares its consolidated financial statements on the accrual basis of accounting in conformity with generally accepted accounting principles in the United States of America (GAAP). The Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) is the source of authoritative GAAP. The University prepares its consolidated financial statements in accordance with the Not-for-Profit Entities Topic of the FASB ASC. These statements include all wholly owned subsidiaries. All significant intercompany transactions and accounts have been eliminated.

Net Asset Classifications

Net assets and the flow of those net assets are classified in three categories according to the existence or absence of donor-imposed restrictions. For further

discussion of the classification of donor-restricted endowment funds and disclosures about both donor-restricted and board-designated endowment funds, see note 9.

The category *Permanently Restricted Net Assets* applies to gifts, trusts, and pledges whose donors required that the principal be held in perpetuity and that only the income be available for stipulated program operations.

The category *Temporarily Restricted Net Assets* includes gifts for which donor-imposed restrictions have not been met (these may include future capital projects), as well as trust activity and pledges receivable whose ultimate use is not permanently restricted. In addition, the excess of the fair value over the historical cost of permanently restricted endowments is classified as temporarily restricted net assets until appropriated for expenditure.

The category *Unrestricted Net Assets* describes funds that are legally available for any purpose and have no donor-imposed restrictions. All revenues, expenses, gains, and losses are classified as unrestricted net assets unless they are changes in temporarily or permanently restricted net assets. Net unrealized losses on permanently restricted endowment funds for which the historical cost exceeds fair value are recorded as a reduction to unrestricted net assets.

Revenue from temporarily restricted sources is reclassified as unrestricted revenue when the circumstances of the restriction have been fulfilled. Donor-restricted revenues whose restrictions are met within the same fiscal year are reported as unrestricted revenue. The expiration of a donor-imposed restriction on a contribution is recognized in the period in which the restriction expires. All expenditures are reported in the unrestricted class of net assets, since the use of restricted contributions in accordance with the donor's stipulations causes the release of the restriction. Donor-restricted purposes include instruction, research, library collections, scholarship and awards, and building construction.

Fair Value Measurements

The University makes fair value measurements and enhanced disclosures about fair value measurements as required by the Fair Value Measurements and Disclosures Topic of the FASB ASC. For further discussion, see notes 4 and 8.

Cash and Cash Equivalents

Cash reflects currency and deposits or other accounts with financial institutions that may be deposited or withdrawn without restriction or penalty. *Cash equivalents* represent short-term and highly liquid investments that convert readily to cash and carry little risk of change in value at maturity due to interest-rate changes; maturities of the investments are three months or less at the date of purchase.

Contributions

Contributions received, including unconditional promises to give (pledges), are recognized by the University as revenues at their fair values. Private gifts, including unconditional promises to give, are recognized as revenues in the period received. Conditional promises to give are not included in revenue until the conditions are substantially met.

Investments

Investments in securities and financial instruments are recorded at fair value. The University values its investments using a hierarchy of valuation inputs based on the extent to which the inputs are observable in the marketplace. Observable inputs reflect market data obtained from sources independent of the reporting entity; unobservable inputs reflect the entity's own assumptions about how market participants would value an asset or a liability based on the best information available. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. The fair value hierarchy is based on three levels of inputs, of which the first two are considered observable and the last unobservable, that may be used to measure fair value. The following describes this hierarchy and the primary valuation methodologies used by the University for financial instruments measured at fair value on a recurring basis:

Level 1: Quoted prices in active markets for identical assets or liabilities. Market-price data are generally obtained from relevant exchanges or dealer markets.

Level 2: Inputs other than Level 1 that are observable either directly or indirectly, such as quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially all of the same term of the assets or liabilities. Inputs are obtained from various sources, including market participants, dealers, and brokers.

Level 3: Unobservable inputs that are supported by little or no market activity and are significant to the fair value of the assets or liabilities.

A financial instrument's categorization within the valuation hierarchy is based on the lowest level of input significant to the fair value measurement. In the event that changes in the inputs used in the fair value measurement of an asset or liability result in a transfer of the fair value measurement to a different categorization, such transfers between fair value categories are recognized at the end of the reporting period. The categorization of an investment is based upon its pricing transparency and liquidity and does not necessarily correspond to the University's perceived risk of that investment. As a practical expedient as permitted under GAAP, the reported net asset value (NAV) of investments with external managers is used to estimate their fair value. Investments that use NAV as a practical expedient for valuation purposes are shown separately from the valuation hierarchy. For further discussion, see note 4.

Equity securities with readily determinable fair values and debt securities are valued at the last sale price (if quotations are readily available) or at the closing bid price in the principal market in which such securities are normally traded (if no sale price is available). The fair values for these securities are classified as Level 1 because the securities have observable market inputs. Certain fixed income securities are valued based on dealer-supplied valuations; since these securities have significant other observable inputs, they are classified as Level 2.

The estimated fair values of equity securities that do not have readily determined fair values, and of other investments that are generally less liquid, are based on valuation information received on the relevant entity and may include last sale information or independent appraisals of value. In addition, standard valuation techniques, including discounted cash flow models or valuation multiples based on comparable investments, may be used. The fair values for these securities are classified as Level 3, reflecting significant unobservable inputs that are supported by little or no market inputs.

Investments in certain real assets and other investments are recorded at acquisition or construction cost, or at fair value as of donation date if received as a contribution. The University performs a periodic assessment of these assets for impairment by comparing the future cash flows expected from the asset to the carrying value of the asset. An impairment loss is recognized for the difference between estimated fair value and carrying value. In management's opinion, no impairment of investments held at cost existed as of August 31, 2017. For further discussion of such investments, see note 4.

The methods described above may produce a fair value that may not be indicative of net realizable value or of future fair values. Furthermore, while the University believes its valuation methods are appropriate and consistent with those of other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different estimate of fair value at the reporting date.

Investment income is recorded on the accrual basis, and purchases and sales of investment securities are reflected on a trade-date basis.

Derivative Financial Instruments

The University uses various financial instruments to obtain equity market exposure (e.g., equity price risk) of an underlying investment strategy; if applicable, these have a reference index (e.g., S&P 500) that is the same as, or highly correlated with, the reference index of the investment strategy. Such instruments are not

designated as hedges for accounting purposes and are recorded at fair value.

The University enters into swap agreements to hedge future interest-rate movements. It may also add various interest-rate options to hedge the overall portfolio and use an interest-rate swap agreement to hedge variable interest-rate exposure. Interest-rate swaps are valued using observable inputs, such as quotations received from the counterparty, dealers, or brokers, whenever they are available and considered reliable. If and when models are used, the value of the interest-rate swap depends on the contractual terms of and specific risks inherent in the instrument, as well as the availability and reliability of observable inputs. Such inputs include market prices for reference securities, yield curves, credit curves, measures of volatility, and prepayment rates as well as correlations of such inputs. The interest-rate swaps classified within Level 3 have unobservable inputs with little or no market activity. For further discussion, see notes 4 and 8.

Fair Values of Financial Instruments Other Than Investments

The fair values of financial instruments other than investments are based on a variety of factors. In some cases, fair values represent quoted market prices for identical or comparable instruments. In other cases, fair values have been estimated based on assumptions about the amount and timing of estimated future cash flows and assumed discount rates reflecting varying degrees of risk. Accordingly, the fair values may not represent actual values that could have been realized at year-end or that will be realized in the future.

Accounts and Notes Receivable

Accounts receivable are recorded at net realizable value. Those generally expected to be collected within one year are carried without an allowance. The allowance for student accounts receivable is based on an analysis of outstanding account balances and is calculated using percentages based on historical collection data applied to the outstanding accounts receivable balances. Accounts receivable deemed to be uncollectible are expensed at that time.

Notes receivable are recorded at net realizable value and are predominantly student loans with varying maturities. Notes receivable deemed to be uncollectible are expensed at that time.

Management assesses the adequacy of the allowance for credit losses on a regular basis by performing ongoing analysis of the student loan portfolio. Factors considered are differing economic risks associated with each loan category, the financial condition of specific borrowers, the economic environment in which the borrowers operate, the level of delinquent loans, and other significant influences. Loans disbursed under federally guaranteed student loan programs have special provisions. Based on this evaluation and management judgment, an uncollectible percentage is calculated and applied to each category of student loan balances outstanding. Management considers the allowance for student loan portfolio credit losses to be prudent and reasonable.

Contributions Receivable

Contributions receivable arising from unconditional promises to give are carried net of an allowance for uncollectible pledges. Additionally, unconditional promises are presented at estimated fair value considering duration and collection risk. These inputs to the fair value estimate are classified in Level 3 of the fair value hierarchy. In subsequent periods, the discount rate is unchanged, and the allowance for uncollectible amounts is reassessed and adjusted if necessary. There were no significant conditional promises to give as of August 31, 2017, and August 31, 2016.

Land, Buildings, and Equipment

The value of land, buildings, and equipment is recorded at cost or, if received as gifts, at fair value at the date of the gift. Significant renewals and replacements are capitalized. The cost of repairs and maintenance is expensed as incurred. Purchases of library books and works of art are also expensed.

Depreciation is calculated using the straight-line method over the useful lives of the equipment, which are estimated to be 3 to 20 years; of the buildings and land improvements, which are estimated to be up to 40 years; and of the leasehold improvements, which are estimated to be the shorter of the useful life or the lease term. The useful life of land is deemed indefinite and not depreciable.

The University reviews long-lived assets for impairment by comparing the future cash flows expected from the asset to the carrying value of the asset. If the carrying value of an asset exceeds the sum of estimated undiscounted future cash flows, an impairment loss is recognized for the difference between estimated fair value and carrying value. In management's opinion, no impairment existed as of August 31, 2017.

Charitable Remainder Trusts

Charitable remainder trusts are classified as permanently restricted net assets if, upon termination of the trust, the donor permanently restricts the remaining trust assets. If the remainder is not permanently restricted by the donor, the charitable remainder trust assets are recorded as temporarily restricted net assets.

Annuities Payable

Annuities payable consist of annuity payments currently due and the actuarial amount of annuities payable. The actuarial amount of annuities payable is the present value of the aggregate liability for annuity payments over the expected lives of the beneficiaries.

Self-Insurance Reserves

The University maintains a self-insurance program for general liability, professional liability, and certain employee and student insurance coverages. This program is supplemented with commercial excess insurance above the University's self-insurance retention. The reserves for self-insurance and postretirement medical and life insurance benefits are based on actuarial studies and management estimates. See notes 10 and 12 for additional discussion.

Asset Retirement Obligations

The University records all known asset retirement obligations (ARO) for which the fair value of the liability can be reasonably estimated, including certain obligations relating to regulatory remediation. ARO covered include those for which an entity has a legal obligation to perform an asset retirement activity; however, the timing and/or method of settling the obligation are conditional on a future event that may or may not be within the control of the entity. The reserves for ARO are based on analyses of University assets, review of applicable regulatory and other guidance, and management estimates.

Revenue Recognition

Revenues from tuition and fees are reported in the fiscal year in which they are earned, including pro-rata adjustments for educational programs crossing over fiscal years. Fiscal year 2018 fall-quarter tuition and fees, billed but not earned in fiscal year 2017, are reported as deferred revenue in fiscal year 2017. Similarly, fiscal year 2017 fall-quarter tuition and fees, billed but not earned in fiscal year 2016, are reported as deferred revenue in fiscal year 2016.

Revenues from auxiliary services, such as residence and food services, represent fees for goods and services furnished to University students, faculty, and staff; these revenues are recognized in the fiscal year in which the goods and services are provided. Grants and contracts revenue is recognized as expenses are incurred. Professional fees arise from faculty and department services provided to external institutions such as hospitals. Sales and services revenues represent fees for services and goods provided to external parties in the course of educational activities and also include revenues from the provision of physical plant services and goods to external institutions contiguous to the University campuses. Trademark and royalty revenues arise from licensing of innovative technologies, copyrights, and other intellectual property; these revenues are recognized in the fiscal year in which they are earned. Other income includes revenues not otherwise categorized that are also recognized in the fiscal year in which they are earned.

Federal Grants and Contracts Revenue

The University receives funding or reimbursement from federal agencies. In addition, indirect cost recovery on federal grants and contracts is based on an institutional rate negotiated with its cognizant federal agency, the United States Department of Health and Human Services.

Income Taxes

The Internal Revenue Service has determined that the University is exempt from income taxes under Section 501(c)(3) of the US Internal Revenue Code, except with regard to unrelated business income, which is taxed at

corporate income tax rates. The University files federal and various state and local tax returns. The statute of limitations on the University's federal tax returns remains open for fiscal years 2013 through 2017.

The University makes an assessment of individual tax positions and follows a process for recognition and measurement of uncertain tax positions. Tax positions are evaluated on whether they meet the "more likely than not" standard for sustainability on examination by tax authorities.

Uses of Estimates in the Preparation of Financial Statements

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities; the disclosure of contingent assets and liabilities at the date of the consolidated financial statements; and the reported amounts of revenues and expenses during the relevant period. Actual results could differ from those estimates.

The University believes that the methods and assumptions used are appropriate.

Recent Accounting Pronouncements

In August 2016, the FASB issued Accounting Standards Update (ASU) 2016-14, "Not-for-Profit Entities: Presentation of Financial Statements of Not-for-Profit Entities," the first phase of improvements to financial reporting and presentation. The guidance addresses net asset classifications, and reporting and disclosures about liquidity, financial performance, expenses, and cash flows. The standard is effective in fiscal year 2019 for the University, and its impact on policies, procedures, and the consolidated financial statements is under evaluation.

In February 2016, the FASB issued ASU 2016-02, "Leases," new guidance to increase the transparency and comparability of lease reporting by recognizing lease assets and liabilities on the balance sheet and disclosing key information about leasing activities. The principal difference from previous guidance is that the lease assets and liabilities that arise from operating leases with terms greater than one year

should be recognized in the statement of financial position. The standard is effective in fiscal year 2020 for the University, and its impact on policies, procedures, and the consolidated financial statements is under evaluation.

In January 2016, the FASB issued ASU 2016-01, “Financial Instruments—Overall: Recognition and Measurement of Financial Assets and Financial Liabilities,” affecting accounting for equity investments and financial liabilities under the fair value option and certain presentation and disclosure requirements for financial instruments. The standard is effective in fiscal year 2019 for the University, and its impact on policies, procedures, and the consolidated financial statements is under evaluation.

In May 2014, the FASB issued ASU 2014-09, “Revenue from Contracts with Customers,” a new revenue recognition topic in the Codification. In August 2015, ASU 2015-14 was issued to defer the effective date of ASU 2014-09 for all entities for one year. Now effective in fiscal year 2019 for the University, it provides a principle-based framework to replace earlier industry-specific and rule-based revenue recognition standards. Under the new ASU, revenue is recognized at an amount that reflects consideration to which the entity expects to be entitled from another entity in exchange for contracted services or goods that are an output of its ordinary activities. This approach requires use of more judgments and estimates by management, as well as more disclosures to describe estimation methods, inputs, and assumptions used. The University is evaluating the impact of its implementation on policies, procedures, and the consolidated financial statements.

Summarized Comparative Information

The financial statements include certain prior-year summarized comparative information in total but not by net asset class. Such information does not include sufficient detail to constitute a presentation in conformity with GAAP. Accordingly, such information

should be read in conjunction with the University’s financial statements for the year ended August 31, 2016, from which the summarized information was derived.

Reclassifications

In 2017, the University identified that certain cash flows from changes in accounts payable and accrued expenses were not correctly classified on the fiscal 2016 consolidated statements of cash flows. The University revised the 2016 consolidated statements of cash flows to reflect accounts payable and accrued expenses of \$17.7 million in net cash provided by operations, and acquisitions of land, buildings, and equipment of (\$468.8 million) in net cash used in investing activities.

In 2017, the University identified that certain cash flows from changes in deposits and annuities payable were not correctly classified on the fiscal 2016 consolidated statements of cash flows. As a result, the University revised the 2016 consolidated statements of cash flows to reflect deposits and annuities payable of \$17.1 million as net cash provided by operations, reclassified from net cash used in financing activities.

In 2017, the University also identified that certain cash flows from changes in purchases and sales of investments were not correctly classified on the fiscal 2016 consolidated statements of cash flows. As a result, the University revised the 2016 consolidated statements of cash flows to reflect a decrease to cash used in purchases of investments of \$74.4 million for a total of (\$1.6 billion) and a decrease to cash received from sales of investments (\$74.4 million) for a total of \$2.1 billion.

These revisions increased net cash used in operating activities by \$29.3 million, increased net cash provided by investing activities by \$46.4 million, and decreased net cash provided by financing activities by (\$17.1 million) for fiscal year 2016.

The University believes the impact of the error is not material to the prior year consolidated financial statements.

2. Accounts Receivable and Notes Receivable

Accounts receivable are summarized on the consolidated statements of financial position as follows:

<i>(in thousands of dollars)</i>	<i>August 31, 2017</i>	<i>August 31, 2016</i>
Research and other sponsored programs support	\$85,760	\$89,320
Student receivables	117,739	139,608
Royalty receivables	2,177	16,157
Other receivables	58,389	82,032
Accounts receivable subtotal	264,065	327,117
Less allowances for student uncollectible amounts	(641)	(671)
Total accounts receivable	\$263,424	\$326,446

Notes receivable are summarized on the consolidated statements of financial position as follows:

<i>(in thousands of dollars)</i>	<i>August 31, 2017</i>	<i>August 31, 2016</i>
Notes receivable	\$155,485	\$159,917
Less allowances for student uncollectible amounts	(3,806)	(3,489)
Total notes receivable	\$151,679	\$156,428

Activity within the allowances was insignificant for fiscal years 2017 and 2016.

3. Contributions Receivable

Contributions receivable consisted of the following:

<i>(in thousands of dollars)</i>	<i>August 31, 2017</i>	<i>August 31, 2016</i>
Unconditional promises expected to be collected in		
Less than one year	\$57,821	\$47,660
One year to five years	181,136	150,658
More than five years	130,727	118,781
Fair value and other reserves		
Fair value adjustment	(48,976)	(47,133)
Other reserves	(1,928)	(6,543)
Total contributions receivable	\$318,780	\$263,423

Contributions receivable are discounted based on the US Department of the Treasury Daily Treasury Yield Curve Rates corresponding to the terms of the pledges receivable. In prior years, contributions receivable were discounted based on the weighted average borrowing rates for short-term and long-term bonds, notes, and other debt payable to correspond to the terms of the pledges receivable. The

discount rates for pledges made in fiscal years 2017 and 2016 were 1.7 and 3.5 percent, respectively; the discount rates for pledges made in prior fiscal years ranged from 2.7 to 6.5 percent.

The next table summarizes the change in contributions receivable for the fiscal years ended August 31, 2017, and 2016.

<i>(in thousands of dollars)</i>	2017	2016
Balance—beginning of year	\$263,423	\$169,018
New pledges	117,320	170,498
Collections on pledges	(60,273)	(61,196)
Adjustments to pledges	(4,462)	(3,175)
Increase in discount to present value	(1,843)	(13,256)
Decrease in other reserves	4,615	1,534
Balance at end of year	\$318,780	\$263,423

4. Investments

The University's investments are overseen by the Investments Committee of the Board of Trustees. Guided by the policies established by the Investments Committee, the University's Investment Office or external equity investment managers, external and internal fixed income and cash managers, and various limited partnership managers direct the investment of endowment and trust assets, certain working capital,

temporarily invested expendable funds, and commercial real estate.

Substantially all of these assets are merged into internally managed investment pools on a market value basis. Each holder of units in the investment pools subscribes to or disposes of units on the basis of the market value per unit at the beginning of each month.

Investment Fair Value

The following tables show the estimated fair value of investments and derivatives, grouped by the valuation hierarchy as defined in note 1, as of August 31, 2017, and 2016:

<i>(in thousands of dollars)</i>	<i>August 31, 2017</i>				
	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	NAV as Practical Expedient (NAV)	Total fair value
Cash and cash equivalents	\$214,864	—	—	—	\$214,864
US equity	594,477	\$53,365	—	\$757,237	1,405,079
International equity	282,996	19,638	\$19	1,598,400	1,901,053
Fixed income	57,968	655,750	—	219,584	933,302
High-yield credit	—	—	—	334,441	334,441
Absolute return	49,951	50,806	—	1,888,951	1,989,708
Private investments	20,014	358	17,310	2,210,735	2,248,417
Real assets	103,536	16,612	112,719	1,367,522	1,600,389
Other investments	—	34,091	24,966	—	59,057
Interest-rate derivatives	4,000	(3,058)	—	—	942
Subtotal investment assets at fair value	1,327,806	827,562	155,014	8,376,870	10,687,252^(a)
Interest-rate swaps	—	(20,830)	—	—	(20,830)
Total	\$1,327,806	\$806,732	\$155,014	\$8,376,870	\$10,666,422

^(a) Investments held at cost totaling \$30,535 thousands should be added to the subtotal investment assets at fair value to reflect total investment assets as of August 31, 2017.

(in thousands of dollars)

August 31, 2016

	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	NAV as Practical Expedient (NAV)	Total fair value
Cash and cash equivalents	\$152,016	—	—	—	\$152,016
US equity	509,477	\$61,730	\$59	\$695,733	1,266,999
International equity	283,385	19,643	1,329	1,261,153	1,565,510
Fixed income	124,448	963,490	—	215,523	1,303,461
High-yield credit	—	—	—	336,112	336,112
Absolute return	(474)	171,755	—	1,902,528	2,073,809
Private investments	—	321	14,752	2,014,860	2,029,933
Real assets	86,299	11,385	98,589	1,324,192	1,520,465
Other investments	—	7,926	23,488	—	31,414
Interest-rate derivatives	5,500	(4,942)	—	—	558
Subtotal investment assets at fair value	1,160,651	1,231,308	138,217	7,750,101	10,280,277^(a)
Interest-rate swaps	—	(28,561)	—	—	(28,561)
Total	\$1,160,651	\$1,202,747	\$138,217	\$ 7,750,101	\$10,251,716

^(a) Investments held at cost totaling \$32,505 thousands should be added to the subtotal investment assets at fair value to reflect total investment assets as of August 31, 2016.

Investments included as NAV as Practical Expedient consist primarily of the University's ownership in external investments (principally limited partnership interests in long-only equity and credit, hedge, private equity, real estate, and other similar funds). As a practical expedient, when quoted market prices are not available, the estimated fair values of these investments are generally based on reported partners' capital or NAV provided by the associated external investment managers. In cases where the practical expedient threshold is not met, such as an investment not being in compliance with GAAP, or where a statement of partners' capital is not provided, the investment is reported as Level 3. Since a range of possible values exists for these partnership investments, the estimated values may be materially different from the values that would have been used had a ready market for these partnerships existed. The University exercises diligence in assessing the policies, procedures, and controls of external investment managers;

management's assessment includes a valuation review process of the most recent available audited and unaudited financial statements and discussions with the majority of external investment managers about the aggregate carrying value of the respective investments at August 31, 2017. The assessment may result in adjustment to the external managers' valuations of the securities' fair value if those valuations are not in accordance with GAAP. Management reviewed the valuation policies for all partnerships in which the University is invested and deemed that its policies are appropriate and that the carrying amount of these assets represents a reasonable estimate of fair value. A small number of investments within certain partnerships may have holdings at a carrying value of cost. In the absence of another basis, management has determined this method to be appropriate for these specific investments and representative of an approximation of the fair value.

The following tables summarize changes in the investments and derivatives classified by the University in Level 3 of the fair value hierarchy for the fiscal years ended August 31, 2017, and 2016:

	<i>(in thousands of dollars) August 31, 2016</i>					<i>August 31, 2017</i>	
	Fair value	Purchases	Sales and settlements	Unrealized gains (losses)	Realized gains (losses)	Transfers into and out of Level 3	Fair value
US equity securities	\$59	—	(\$54)	—	(\$5)	—	\$0
International equity	1,329	\$198	(1,304)	(\$205)	—	—	18
Private investments	14,752	6,726	(575)	(3,080)	(513)	—	17,310
Real assets	98,589	12,714	(9,197)	16,422	(5,809)	—	112,719
Other investments	23,488	—	—	1,477	—	—	24,965
Total investments	\$138,217	\$19,638	(\$11,130)	\$14,614	(\$6,327)	—	\$155,012

	<i>(in thousands of dollars) August 31, 2015</i>					<i>August 31, 2016</i>	
	Fair value	Purchases	Sales and settlements	Unrealized gains (losses)	Realized gains (losses)	Transfers into and out of Level 3	Fair value
US equity securities	—	\$141	(\$91)	\$74	(\$65)	—	\$59
International equity	\$63	1,089	—	656	(479)	—	1,329
Private investments	16,903	2,777	(671)	(4,257)	—	—	14,752
Real assets	101,502	10,346	(8,192)	(6,623)	1,556	—	98,589
Other investments	24,325	—	—	(837)	—	—	23,488
Total investments	\$142,793	\$14,353	(\$8,954)	(\$10,987)	\$1,012	—	\$138,217

There were no significant transfers or reclassifications between Levels 1 and 2 during fiscal years 2017 and 2016. In fiscal years 2017 and 2016, there were no transfers into or out of Level 3.

As of August 31, 2017, and 2016, investments held at cost included real estate totaling \$19.4 million. Investments held at cost also included property co-ownerships, mortgages, and other investments totaling \$11.1 million and \$13.1 million as of August 31, 2017, and 2016, respectively.

The table on the next page presents funding obligations and redemption terms of investments by asset class. The University is required under certain partnership agreements to advance additional funding up to specified levels over a period of several years. These uncalled commitments have fixed expiration dates and other termination clauses. At August 31, 2017, the University was committed to making future capital contributions in the amount of \$2 billion, primarily in the next five years, as detailed in the table. Certain agreements also contain notice periods, lock-ups, and gates that limit the University's ability to initiate redemptions.

(in thousands of dollars)

	Fair value	Remaining life	Uncalled commitments	Redemption terms	Redemption restrictions
US equity	\$1,405,079	No limit	—	Daily to annually, with 1- to 90-day notice periods	Lock-up provisions ranging from none to 3 years
International equity	1,901,053	No limit	\$18,557	Daily to annually, with 1- to 90-day notice periods	Lock-up provisions ranging from none to 5 years
Fixed income	933,302	No limit	—	Daily to quarterly, with 1- to 90-day notice periods	No lock-up provisions
High-yield credit	334,441	No limit to 12 years	163,122	Certain partnerships ineligible for redemption; other funds semiannually to annually, with 90-day notice periods	Certain partnerships not redeemable; other partnerships include side pockets subject to general partner discretion
Absolute return	1,989,708	No limit	20,000	Daily to greater than annually, with 1- to 120-day notice periods; private partnership ineligible for redemption	Lock-up provisions ranging from none to 5 years; side pockets on many funds; one partnership not redeemable
Private investments	2,248,417	No limit to 12 years	944,352	Partnerships ineligible for redemption; equity securities daily, with 1-day notice period	Private partnerships not redeemable; no lock-up provisions on equity securities
Real assets	1,600,389	No limit to 14 years	854,279	Partnerships ineligible for redemption; commodity and equity funds weekly to quarterly, with 1- to 45-day notice periods	Drawdown partnerships not redeemable; no restriction on commodity and equity funds

Cash and cash equivalents for investment purposes include bank accounts holding cash and money market funds consisting of short-term US Treasury securities. Cash and cash equivalents are highly liquid and are carried at amortized cost, which approximates fair value.

Northwestern's marketable securities categories include investments in US equities, international equity, and fixed income strategies via separately managed accounts, partnerships, and commingled funds. US equity strategies include large-, mid-, and small-cap public equities. One investment in this category currently may not be redeemed over the next year.

International equities include developed market (ex-US public equities) and emerging market strategies. Two investments in this category may not be

redeemed over the next year, while two others may only be partially redeemed.

Fixed income strategies include US government securities, agency securities, inflation-linked bonds (TIPS), corporate bonds, global bonds, and short-term cash investments.

The high-yield credit portfolio includes investments in distressed debt and other credit instruments with fixed income characteristics but more specific risk tied to the securities and their underlying cash flows.

The absolute return portfolio is weighted toward long-short equity managers, uncorrelated strategies, and diversifying event-driven or hedged tactical credit strategies. Six investments in this portfolio currently may not be redeemed over the next year due to lock-up provisions. As of August 31, 2017, the remaining investments have either full or partial liquidity over the next year, with the exception of those having side pockets.

The private investments portfolio includes investments in global buyout and venture capital funds. The real assets portfolio includes the University's investments in energy, timber, real estate, and public investments in some commodity and equity funds.

Management's estimate of the lives of the funds could vary significantly depending on the investment

decisions of the external fund managers, changes in the University's portfolio, and other circumstances. Furthermore, the University's obligation to fund these commitments may be waived by the fund managers for a variety of reasons, including the market environment and/or changes in investment strategy.

Investment Return

The components of total investment return were as follows:

<i>(in thousands of dollars)</i>	<i>August 31, 2017</i>	<i>August 31, 2016</i>
Investment income	\$45,855	\$52,987
Net realized gains	576,519	440,499
Net change in fair values, unrealized	464,992	(96,965)
Total investment return	\$1,087,366	\$396,521

Investment return designated for operations is defined as the investment payout, according to the spending guideline for the Long-Term Balanced Pool and the actual investment income for all other investments. In 2017, a \$75 million one-time adjustment to payout in excess of the spending rule was authorized to support strategic investment and is included in the investment return designated for operations line of the statement of activities. Gross investment income from specific investments held at cost totaled \$15.5 million and \$13.7 million for the fiscal years ended August 31, 2017, and 2016, respectively. Investment expenses related to specific investments held at cost totaled \$3 million and \$2.8 million for the fiscal years ended August 31, 2017, and 2016, respectively. All other investment returns are categorized as nonoperating. As reflected in the consolidated statement of activities, investment return was as follows:

<i>(in thousands of dollars)</i>	<i>August 31, 2017</i>	<i>August 31, 2016</i>
Changes in unrestricted net assets		
Operating: investment return	\$370,137	\$357,775
Operating: investment return to support strategic investment	75,000	—
Nonoperating: investment returns, reduced by operating distribution	293,052	(10,073)
Changes in temporarily restricted net assets		
Operating: investment return	159,397	151,234
Nonoperating: investment returns, reduced by operating distribution	189,780	(102,415)
Total investment return	\$1,087,366	\$396,521

Certain expenses paid directly by the University for investment management and custody services totaled \$65.4 million and \$56 million for the fiscal years ended August 31, 2017, and 2016, respectively, and have been netted against investment earnings.

Derivative Financial Instruments

The University has entered into hedging transactions via various interest-rate swaps and options and has maintained those positions since fiscal year 2010.

These instruments are held in the fixed income asset class of investments within Level 2.

Credit exposure represents the University's potential loss if all the counterparties fail to perform under the terms of the contracts, and if all collateral, if any, becomes worthless. This exposure is measured by the fair value of the cash collateral held at the counterparties at the reporting date. The University manages its exposure to credit risk by using highly rated counterparties, establishing risk-control limits, and obtaining collateral where appropriate. As a result, the University has limited credit risk. The University has entered into margin collateral agreements with major investment banks that impose a \$1 million threshold

on both parties. As of August 31, 2017, the University posted collateral of \$4 million to one counterparty. To date, the University has not incurred any losses on derivative financial instruments due to counterparty nonperformance.

The University has hired an external manager to use derivative financial instruments to obtain market exposure in equity and fixed income indices on excess cash balances. The University regularly reviews the use of derivative financial instruments by each of the managers of alternative investment funds in which it participates. While these outside managers generally use such instruments for hedging purposes, derivative financial instruments are employed for trading purposes by numerous independent asset managers of the University.

For further discussion of credit-related derivatives, see note 8.

The following tables summarize the derivative financial instruments held by the University as of August 31, 2017, and 2016:

(in thousands of dollars) *August 31, 2017*

	Notional amount	Assets	Liabilities	Fiscal year net gain (loss)
Investment-related derivatives				
Interest-rate swaptions	\$200,000	\$4,000	(\$3,058)	(\$145)
Equity futures	60,252	4,443	—	8,179
Total investment-related	260,252	8,443	(3,058)	8,034
Credit-related derivatives				
Interest-rate swaps	125,000	—	(20,830)	7,732
Total credit-related	125,000	—	(20,830)	7,732
Total derivative financial instruments	\$385,252	\$8,443	(\$23,888)	\$15,766

(in thousands of dollars) *August 31, 2016*

	Notional amount	Assets	Liabilities	Fiscal year net gain (loss)
Investment-related derivatives				
Interest-rate swaptions	\$400,000	\$5,500	(\$4,942)	(\$2,360)
Equity futures	52,701	4,451	—	3,091
Total investment-related	452,701	9,951	(4,942)	731
Credit-related derivatives				
Interest-rate swaps	125,000	—	(28,561)	(1,557)
Total credit-related	125,000	—	(28,561)	(1,557)
Total derivative financial instruments	\$577,701	\$9,951	(\$33,503)	(\$826)

5. Land, Buildings, and Equipment

Land, buildings, and equipment consisted of the following:

<i>(in thousands of dollars)</i>	<i>August 31, 2017</i>	<i>August 31, 2016</i>
Land	\$31,036	\$29,089
Construction in progress	688,360	606,726
Buildings and leasehold improvements	3,278,609	2,712,816
Equipment	607,409	552,482
Accumulated depreciation	(1,671,735)	(1,532,515)
Total land, buildings, and equipment	\$2,933,679	\$2,368,598

Included in construction-in-progress costs are building and leasehold improvement capitalizations. Building costs are funded by bonds, gifts (received or pledged), grants, and unrestricted funds.

Under the University's interest capitalization policy, actual interest expense incurred during the period of

construction of an asset for University use is capitalized until that asset is substantially completed and ready for use. The capitalized cost is reflected in the asset's total cost and depreciated over the asset's useful life. Assets may include buildings and major equipment.

Asset Retirement Obligations

Asset retirement obligations (ARO) were adjusted during fiscal years 2017 and 2016 as follows:

<i>(in thousands of dollars)</i>	<i>August 31, 2017</i>	<i>August 31, 2016</i>
Balance at beginning of year	\$2,940	\$121,035
Liabilities added (settled) in current period	178	(2,780)
Accretion expense	132	5,827
Change in estimated cash flows	—	(121,142)
Balance at end of year	\$3,250	\$2,940

In fiscal year 2016, management made a change in estimate of ARO based on an enhanced evaluation methodology, performance of a comprehensive study, and recalculations of remediation risks, assumptions, and costs. As a result of a change in estimate, the adjustment to the ARO liability eliminated the net asset retirement cost and reduced the net book value

of the associated fixed assets, resulting in a nonoperating gain. Building assets were reduced by \$62.9 million and accumulated depreciation was reduced by \$13.6 million on the consolidated statements of financial position, and a nonoperating gain of \$71.9 million was recorded on the consolidated statement of activities.

Lease Obligations

The University is obligated under numerous operating leases to pay base rent through the lease expiration dates. Operating leases consist primarily of leases for the use of real property and have terms expiring in various years through fiscal year 2031. Real estate lease expenses totaled \$13.4 million and \$12.5 million for the fiscal years ended August 31, 2017, and 2016, respectively. Sublease rentals totaled \$2.9 million and \$3 million for the fiscal years ended August 31, 2017, and 2016, respectively. At August 31, 2017, there were no subleases that are noncancelable for one year or more. The future minimum lease payments under noncancelable operating leases through August 31 of each period are shown at right.

(in thousands of dollars)

2018	\$14,917
2019	15,270
2020	14,763
2021	13,299
2022	11,910
2023 and thereafter	50,884
Total	\$121,043

Rentals under Leases

The University is entitled under numerous operating leases to receive rental payments. Operating leases consist primarily of leases for the use of real property and have terms expiring in various years through fiscal year 2021. The future minimum rental payments under noncancelable operating leases through August 31 of each period are shown at right.

(in thousands of dollars)

2018	\$1,166
2019	870
2020	97
2021	35
2022	—
2023 and thereafter	—
Total	\$2,168

6. Other Assets

Other assets are summarized on the consolidated statements of financial position as follows:

<i>(in thousands of dollars)</i>	<i>August 31, 2017</i>	<i>August 31, 2016</i>
Prepaid bond expenses	\$8,478	\$8,816
Inventories	2,707	2,602
Other assets	6,788	5,707
Total other assets	\$17,973	\$17,125

7. Deposits Payable and Actuarial Liability of Annuities Payable

Deposits payable and actuarial liability of annuities payable are summarized on the consolidated statements of financial position as follows:

<i>(in thousands of dollars)</i>	<i>August 31, 2017</i>	<i>August 31, 2016</i>
Agency deposits payable	\$119,777	\$87,804
Actuarial liability of annuities payable	20,239	21,882
Student loan deposits payable	7,981	10,436
Other deposits payable	8,182	20,714
Total deposits payable and actuarial liability of annuities payable	\$156,179	\$140,836

8. Bonds, Notes, and Other Debt Payable

Bonds and notes payable are as follows:

<i>(in thousands of dollars)</i>	<i>August 31, 2017</i>	<i>August 31, 2016</i>
Illinois Finance Authority (IFA)–Series 2004	\$135,800	\$135,800
IFA–Series 2008	125,000	125,000
Taxable–Series 2012	200,000	200,000
Taxable–Series 2013	572,945	577,660
Less unamortized loss on Taxable–Series 2013	(2,247)	(2,349)
Taxable–Series 2015	500,000	500,000
Less unamortized loss on Taxable–Series 2015	(611)	(634)
IFA–Series 2015	128,545	128,545
Plus unaccreted premium on Tax-Exempt–Series 2015	13,978	15,142
Bonds payable subtotal	1,673,410	1,679,164
Commercial paper, taxable	145,000	230,000
Promissory note	32,000	—
Less unamortized discount on promissory note	(1,330)	—
Notes payable subtotal	175,670	230,000
Other debt payable—lines of credit	200,000	—
Total bonds, notes, and other debt payable	\$2,049,080	\$1,909,164

Debt issuance	Interest-rate mode	Interest rate	Maturity
IFA–Series 2004	Variable	0.74% ^(a)	December 1, 2034
IFA–Series 2008	Variable	0.75% ^(a)	December 1, 2046
Taxable–Series 2012	Fixed	4.2%	December 1, 2039, to December 1, 2047
Taxable–Series 2013	Fixed	4.54% ^(b)	December 1, 2015, to December 1, 2044
Taxable–Series 2015	Fixed	3.78% ^(b)	December 1, 2038, to December 1, 2048
IFA–Series 2015	Fixed	4.24% ^(b)	December 1, 2022, to December 1, 2028
Commercial paper, taxable	Variable	1.22% ^(b)	September 12 to 29, 2017
Promissory note	Fixed	1.72%	July 1, 2021
Lines of credit, taxable	Variable	1.7% ^(b)	September 21 to October 3, 2017

^(a) Interest rate reset weekly

^(b) Weighted average interest rate at August 31, 2017

Total obligations including bonds, notes, and other debt payable at August 31, 2017, are scheduled to mature through August 31 of each period as noted below. The schedule has been prepared based on the contractual maturities of the debt outstanding at August 31, 2017. Accordingly, if remarketing of bonds fails in future periods, debt repayments may become more accelerated than presented here. The potential failed remarketings coincide with the interest rate reset dates and amounts noted above.

(in thousands of dollars)

2018	\$357,635
2019	12,667
2020	12,686
2021	12,922
2022	4,790
Thereafter	1,637,260
Total	\$2,037,960

Bonds Payable

The IFA-Series 2015 Revenue Bonds were issued to acquire, construct, renovate, improve, and equip certain educational facilities of the University as defined in the Illinois Finance Authority Act and to pay certain expenses incurred in connection with the issuance of the bonds as permitted under the Illinois Finance Authority Act, subject to conditions set forth in a trust indenture between the Illinois Finance Authority (IFA) and Wells Fargo Bank, National Association (NA); and a loan agreement between the University and the IFA.

The Taxable-Series 2015 Fixed Rate Bonds were issued to acquire, construct, renovate, and equip certain educational facilities of the University, to refund \$145.1 million of the University's outstanding IFA-Series 2006 Revenue Bonds, and to pay certain expenses incurred in connection with the redemption and the issuance of the bonds, subject to conditions set forth in a trust indenture between the University and Wells Fargo Bank, NA.

The Taxable-Series 2013 Fixed Rate Bonds were issued to acquire, construct, renovate, and equip certain educational facilities of the University, to refund \$185 million of the University's outstanding IEFA-Series 2003 Fixed Rate Revenue Bonds, and to pay certain expenses incurred in connection with the redemption and issuance of the bonds, subject to conditions set forth in a trust indenture between the University and Wells Fargo Bank, NA.

The Taxable-Series 2012 Fixed Rate Bonds were issued to acquire, construct, and equip certain educational facilities of the University and to pay certain costs relating to the issuance of the bonds, subject to conditions set forth in a trust indenture between the University and Wells Fargo Bank, NA.

The IFA-Series 2008 Adjustable Rate Revenue Bonds were issued to acquire, construct, renovate, remodel, improve, and equip certain educational facilities of the University as defined in the Illinois Finance Authority Act and to pay certain expenses incurred in connection with the issuance of the bonds as permitted under the Illinois Finance Authority Act, subject to conditions set forth in a trust indenture between the IFA and Wells Fargo Bank, NA; and a loan agreement between the University and the IFA. The bonds may operate in a daily, weekly, adjustable, or auction-rate mode.

The IFA-Series 2004 Adjustable Rate Revenue Bonds were issued to acquire, construct, renovate, improve, and equip certain educational facilities of the University as defined in the Illinois Finance Authority Act and to pay certain expenses incurred in connection with the issuance of the bonds as permitted under the Illinois Finance Authority Act, subject to conditions set forth in a trust indenture between the IFA and Wells Fargo Bank, NA; and a loan agreement between the University and the IFA. The bonds may operate in a daily, weekly, adjustable, or auction-rate mode.

Derivative Financial Instruments

The University has entered into interest-rate swap agreements to hedge variable interest-rate exposure related to its variable rate debt. The agreements effectively fix the interest rate from 4.12 percent to 4.38 percent. The notional value is \$125 million through expiration on August 31, 2023.

The University recognized a net unrealized gain on the swap investment totaling \$7.7 million for the fiscal year ended August 31, 2017, and a net unrealized loss of \$1.6 million for the fiscal year ended August 31, 2016. The fair values of the swap position were in a liability position of \$20.8 million and \$28.6 million as of August 31, 2017, and 2016, respectively, and are included in accounts payable and accrued expenses on the consolidated statements of financial position. Also see note 4.

Notes Payable

The University places commercial paper under a \$300 million Taxable Commercial Paper Note. In fiscal year 2017, the University recorded a \$32 million four-year promissory note related to the purchase of a building.

Other Debt Payable

At August 31, 2017, the University held or had the ability to draw \$350 million in standby lines of credit to supplement working capital requirements as follows:

(in thousands of dollars)

Expiration date	Available credit
December 8, 2017 ^(a)	\$25,000
March 31, 2018	75,000
June 30, 2018	25,000
July 20, 2018	125,000
June 30, 2019	50,000
October 17, 2019	50,000
Total	\$350,000

^(a) Renewed December 8, 2017, through December 7, 2018.

9. Endowments

The FASB ASC Not-for-Profit Entities Presentation of Financial Statements Subtopic provides guidance on the net asset classification of donor-restricted endowment funds for not-for-profit organizations subject to an enacted version of the Uniform Prudent Management of Institutional Funds Act (UPMIFA) and improves disclosure about an organization's endowment funds, both donor-restricted and board-designated, regardless of whether the organization is subject to UPMIFA.

The University interprets UPMIFA as requiring that the fair value of the original donor-restricted endowment gift be preserved as of the gift date unless there are explicit donor stipulations to the contrary. Therefore, the University classifies as permanently restricted net assets the original value of gifts donated to the permanent endowment, the original value of subsequent gifts, and accumulations to the permanent endowment made in accordance with the applicable donor gift instrument at the time the accumulation was added to the fund. The remaining portion of the donor-restricted endowment fund that is not classified in permanently restricted net assets is classified as temporarily restricted net assets until it is appropriated for University expenditure in a manner consistent with UPMIFA's standard of prudence. In accordance with UPMIFA, the University considers the following factors in determining to appropriate or accumulate donor-restricted endowment funds:

- The duration and preservation of the endowment fund
- The purposes of the institution and of the endowment fund
- General economic conditions
- Possible effects of inflation or deflation
- Expected total return from income and appreciation of investments
- Other resources of the institution
- The institutional investment policy

The University's endowment consists of about 2,600 individual donor-restricted endowment funds and about 1,000 funds it designates to function as endowments. The net assets associated with endowment funds, including funds designated by the University to function as endowments, are classified and reported

based on whether there are donor-imposed restrictions. Institution-designated endowment funds include quasi-endowments established by specific Board of Trustees approval as well as endowments created by management under general guidelines and policies approved by the Board of Trustees.

The following tables present the endowment net asset composition by type of fund at fair value as of August 31, 2017, and 2016:

(in thousands of dollars) *August 31, 2017*

Endowment net asset composition by type of fund	Unrestricted	Temporarily restricted	Permanently restricted	Total
Donor-restricted endowment funds	(\$57)	\$2,422,041	\$1,483,792	\$3,905,776
Institution-designated endowment funds	4,041,798			4,041,798
Total endowment funds	\$4,041,741	\$2,422,041	\$1,483,792	\$7,947,574

(in thousands of dollars) *August 31, 2016*

Endowment net asset composition by type of fund	Unrestricted	Temporarily restricted	Permanently restricted	Total
Donor-restricted endowment funds	(\$3,039)	\$2,235,406	\$1,411,130	\$3,643,497
Institution-designated endowment funds	3,834,670			3,834,670
Total endowment funds	\$3,831,631	\$2,235,406	\$1,411,130	\$7,478,167

Investment and Spending Policies

The University's endowment is primarily invested in the Long-Term Balanced Pool. The Investments Committee of the Board of Trustees annually reviews asset allocation policy for the pool.

The principal objective for the Long-Term Balanced Pool is to preserve purchasing power and to provide a growing stream of income to fund University programs. On average, the pool seeks to achieve an annual total rate of return (i.e., actual income plus appreciation) equal to inflation plus actual spending. This objective of preserving purchasing power emphasizes the need for a long-term perspective in formulating both spending and investment policies.

The Board of Trustees has adopted a guideline for the annual spending rate from the University's Long-Term Balanced Pool. The calculation blends market and spending elements for the total annual spending rate.

The market element is an amount equal to 4.35 percent of the market value of a unit in the pool, averaged for the 12 months ended October 31 of the prior fiscal year. It is weighted at 30 percent in determining the total. The spending element is an amount equal to the current fiscal year's spending amount increased by 1.5 percent plus the actual rate of inflation. It is weighted at 70 percent in determining the total.

If investment income received is not sufficient to support the total-return objective, the balance is provided from realized and unrealized gains. If the income received is in excess of the objective, the balance is reinvested in the Long-Term Balanced Pool on behalf of the unit holders.

The University's policy is to allocate the current income of all other investment pools.

Changes in Endowment Net Assets

The following tables represent changes in endowment net assets for the years ended August 31, 2017, and 2016:

(in thousands of dollars) *August 31, 2017*

	Unrestricted	Temporarily restricted	Permanently restricted	Total
Endowment net assets, beginning of year	\$3,831,631	\$2,235,406	\$1,411,130	\$7,478,167
Net investment loss	(6,188)	(6,247)	—	(12,435)
Net appreciation, realized and unrealized	357,024	354,471	—	711,495
Total investment return	350,836	348,224	—	699,060
Contributions		1,400	56,575	57,975
Appropriation of endowment assets for expenditure	(164,091)	(159,515)	—	(323,606)
Other changes				
Transfers to create institutional funds	66,740	—	—	66,740
Transfers of institutional funds per donor requirement		368	12,305	12,673
Spending of institution-designated endowment fund	(43,435)	—	—	(43,435)
Other reclassifications	60	(3,842)	3,782	—
Endowment net assets, end of year	\$4,041,741	\$2,422,041	\$1,483,792	\$7,947,574

(in thousands of dollars) *August 31, 2016*

	Unrestricted	Temporarily restricted	Permanently restricted	Total
Endowment net assets, beginning of year	\$3,911,697	\$2,333,376	\$1,342,956	\$7,588,029
Net investment loss	(4,824)	(7,189)	—	(12,013)
Net appreciation, realized and unrealized	32,527	54,829	—	87,356
Total investment return	27,703	47,640	—	75,343
Contributions		285	63,747	64,032
Appropriation of endowment assets for expenditure	(158,125)	(151,234)	—	(309,359)
Other changes				
Transfers to create institutional funds	139,902	—	—	139,902
Transfers of institutional funds per donor requirement		173	6,425	6,598
Spending of institution-designated endowment fund	(86,378)	—	—	(86,378)
Other reclassifications	(3,168)	5,166	(1,998)	—
Endowment net assets, end of year	\$3,831,631	\$2,235,406	\$1,411,130	\$7,478,167

Underwater Endowment Funds

The University monitors endowment funds to identify those for which historical cost was more than fair value. As of August 31, 2017, and 2016, the historical cost of such accounts was approximately \$1.9 million and \$196 million, and the market value totaled

\$1.8 million and \$193 million, respectively. Associated unrealized losses are recorded in the unrestricted net assets classification; subsequent gains increase unrestricted net assets.

10. Retirement Plans

The University maintains two contributory retirement plans for its eligible faculty and staff. The plans offer employees two investment company options, Teachers Insurance and Annuity Association (TIAA) and College Retirement Equities Fund (CREF), and the mutual funds offered by Fidelity Investments. Participating employee and University contributions are immediately vested. The University contributed \$77 million and \$71.1 million to the two plans in 2017 and 2016, respectively. It expects to contribute \$79.8 million to the two plans in 2018.

The University currently sponsors a healthcare plan permitting retirees to continue participation on a “pay-all” basis; it has no liability for participants past age 65. The retiree contribution is based on the average per-capita cost of coverage for the plan’s entire group of active employees and retirees rather than the per-capita cost for retirees only. Retirees are also eligible to participate in certain tuition reimbursement plans and may receive a payment for sick days accumulated at retirement. The accrued cost

for postemployment benefits was \$10.1 million and \$11.3 million at August 31, 2017, and 2016, respectively, and is included in accounts payable and accrued expenses on the consolidated statements of financial position.

The University recognizes an asset or a liability in the consolidated statements of financial position for the plans’ overfunded or underfunded status. The asset or liability is the difference between the fair value of plan assets and the related benefit obligation, defined as the projected benefit obligation for post-employment benefit programs and the accumulated postretirement benefit obligation (APBO) for post-retirement benefit programs, such as a retiree healthcare plan. In the consolidated statement of activities, the University recognizes actuarial gains or losses and prior service costs or credits that arise during the period but are not components of net periodic benefit cost. The University measures plan assets and obligations as of the date of its fiscal year-end and makes specified disclosures for the upcoming fiscal year.

The University funds the benefit costs as they are incurred. The following table sets forth the plan’s obligations, benefits paid, contributions, net periodic postretirement benefit cost, and assets:

<i>(in thousands of dollars)</i>	<i>August 31, 2017</i>	<i>August 31, 2016</i>
Benefit obligations	\$15,691	\$14,273
Benefits paid	1,003	930
Employer contributions	387	334
Contributions from participants	617	596
Net periodic postretirement benefit cost	985	857
Fair value of plan assets	—	—

The accumulated other comprehensive income included in unrestricted net assets on the consolidated statements of financial position totaled net gains of \$0.8 million and \$1.6 million as of August 31, 2017, and 2016, respectively; a decrease of \$0.8 million due to net losses during the fiscal year.

The APBO was \$15.7 million and \$14.3 million at August 31, 2017, and 2016, respectively, and is included

in accounts payable and accrued expenses on the consolidated statements of financial position.

The following tables present key actuarial assumptions used in determining APBO as of August 31, 2017, and 2016. For both fiscal years 2017 and 2016, the ultimate healthcare cost trend rate was 5 percent, and the year when the trend rate will reach the ultimate trend rate was 2025.

Additional assumptions used to determine benefit obligations were as follows:

	<i>August 31, 2017</i>	<i>August 31, 2016</i>
Settlement (discount) rate	3.3%	3%
Weighted average rate of increase in future compensation levels	3%	3%
Healthcare cost trend rate	7%	6.75%

Next, the assumptions used to determine net periodic benefit cost:

	<i>August 31, 2017</i>	<i>August 31, 2016</i>
Discount rate	3%	3.9%
Weighted average rate of increase in future compensation levels	3%	3%
Healthcare cost trend rate	6.75%	7%

A one-percentage-point change in assumed healthcare cost trend rates would have had these effects in fiscal year 2017:

<i>(in thousands of dollars)</i>	<i>1% point decrease</i>	<i>1% point increase</i>
(Decrease) increase in total of service and interest cost	(\$61)	\$70
(Decrease) increase in postretirement benefit obligation	(584)	656

Estimated future benefit payments reflecting anticipated service, as appropriate, are expected to be paid as shown below:

<i>(in thousands of dollars)</i>	
2018	\$893
2019	644
2020	771
2021	850
2022	942
2023–27	5,548
Total	\$9,648

The University offers a deferred compensation plan under Internal Revenue Code 457(b) to a select group of management and highly compensated employees. There is no University contribution related to this deferred compensation plan. The University has recorded both an asset and a liability related to the deferred compensation plan that totaled \$76.5 million and \$64.6 million in fiscal years 2017 and 2016, respectively; these are included in investments and deposits payable and actuarial liability of annuities payable on the consolidated statements of financial position.

11. Related Parties

Members of the University's Board of Trustees, senior management, and faculty may on occasion be associated either directly or indirectly with entities doing business with the University. The University bylaws and conflict of interest policies establish guidelines for disclosure and regulation of such activities as circumstances warrant. When such associations exist, measures are taken, in the best interests of the University, to mitigate any actual or perceived conflict. Transactions with related parties may include investment management, common membership in investment partnerships or other investment vehicles, and the purchase of goods or services.

Northwestern Medical Group (NMG) is a not-for-profit, multispecialty physician organization committed to providing clinical care to patients and to supporting the research and academic endeavors of Northwestern's Feinberg School of Medicine (Feinberg). NMG is governed by a board of directors, and its physicians are full-time faculty members or researchers at Feinberg. It is a wholly owned subsidiary of Northwestern Memorial Healthcare Corporation (NMHC), the not-for-profit parent corporation of Northwestern Memorial Hospital (NMH), which is the primary teaching hospital of Feinberg. As such, NMHC and NMG are related parties of the University. Under terms of agreements effective in fiscal year 2014 between the University, NMG, and NMHC, the University receives recurring contributions from NMHC to support the Feinberg research and education programs, basic and applied biomedical research facilities and programs, and research and educational support services.

As of August 31, 2017, accounts receivable arising from support and operational activities with NMHC totaled \$17 million and are included in accounts receivable on the consolidated statements of financial position. Through August 31, 2017, contributions totaling \$114.4 million have been made from NMHC to the University and are included in private gifts on the consolidated statement of activities.

As of August 31, 2016, accounts receivable arising from support and operational activities with NMHC totaled \$18.5 million and are included in accounts

receivable on the consolidated statements of financial position. Through August 31, 2016, contributions totaled \$133.8 million from NMHC to the University; these are included in private gifts on the consolidated statement of activities.

12. Self-Insurance Reserves and Other Contingencies

Reserves for losses under the University's self-insurance program, aggregating \$8 million and \$7.3 million at August 31, 2017, and 2016, respectively, include reserves for probable known losses and for losses incurred but not yet reported. The reserves are presented on a discounted basis. The discount rate was 7.5 percent in fiscal years 2017 and 2016. Self-insurance reserves are based on estimates of historical loss experience, and while management believes that the reserves are adequate, the ultimate liabilities may be more or less than the amounts provided. These reserves are included in accounts payable and accrued expenses on the consolidated statements of financial position.

Under an agreement in effect through fiscal year 2013 between the University and NMG, a proportionate share of primary medical professional liability costs that arise out of events prior to November 1, 2004, was borne by NMG. As a part of the clinical integration agreement between NMG, NMHC, and the University, signed September 1, 2013, any remaining liabilities related to the period prior to November 1, 2004, are the obligations of the University and included in the reserves, beginning in fiscal year 2014, for losses noted above.

In August 2009, the University, as originating lender, began participation in a student loan securitization program. It sold student loans to a school trust totaling \$65 million in 2009, \$19.8 million in 2010, and \$22.5 million in 2012; the University issued University-guaranteed notes, which were purchased by a funding trust that procures financing to support the lending program. The programs are managed to break even and generate no servicing assets or liabilities. Guaranteed notes under these programs totaled \$20.6 million and \$29.3 million as of August 31, 2017, and

2016, respectively. These loans are included in notes receivable and deposits payable on the consolidated statements of financial position. Reserves in anticipation of securitized student loan future defaults totaled \$74,000 and \$100,000 at August 31, 2017, and 2016, respectively. Notes receivable on the consolidated statements of financial position are shown net of these reserves in fiscal years 2017 and 2016.

In October 2013, the University purchased a \$61 million portfolio of private education loans from a lending agency; these loans were previously purchased by the lending agency from the University prior to 2009 and were serviced by the University. As of August 31, 2017, and 2016, respectively, these loans totaled \$23.1 million and \$30.6 million, and are included in notes receivable on the consolidated statements of financial position. The University continues to service the repurchased loans. At August 31, 2017, and 2016, \$83,000 and \$104,000, respectively, were reserved in anticipation of future defaults. Notes

receivable on the consolidated statements of financial position are shown net of these reserves in fiscal years 2017 and 2016.

From time to time, various claims and suits generally incidental to the conduct of normal business are pending or may arise against the University. It is the opinion of management of the University, after taking into account insurance coverage, that any losses from the resolution of pending litigation should not have a material effect on the University's financial position or results of operations.

All funds expended in connection with government grants and contracts are subject to audit by government agencies. While any ultimate liability from audits of government grants and contracts by government agencies cannot be determined at present, management believes that it should not have a material effect on the University's financial position or results of operations.

13. Grants and Contracts

Grants and contracts are summarized on the consolidated statement of activities as follows:

<i>(in thousands of dollars)</i>	<i>August 31, 2017</i>	<i>August 31, 2016</i>
Federal grants	\$461,741	\$444,304
Private grants and contracts	151,041	147,960
State grants	4,666	3,510
Total grants and contracts	\$617,448	\$595,774

14. Functional Classification of Expenses

Expenses by functional categories reflect salaries, wages, benefits, goods, and services used for those specific purposes. The University has allocated functional expenses for maintenance of facilities, as well as for depreciation, accretion for asset retirement

obligations, and interest on indebtedness, to other functional categories based on the functional use of space on the University's campuses.

Operating expenses incurred in the fiscal years ended August 31, 2017, and 2016, were as follows:

(in thousands of dollars)

August 31, 2017

	Maintenance of facilities	Depreciation and accretion	Interest on indebtedness	All other operating expenses	Total
Instruction	\$26,488	\$20,705	\$6,404	\$832,301	\$885,898
Research	47,272	36,952	11,430	398,801	494,455
Academic support	36,419	28,469	8,806	205,578	279,272
Student services	23,262	18,184	5,625	181,574	228,645
Institutional support	10,804	8,445	2,612	276,348	298,209
Auxiliary services	39,295	30,716	9,501	31,305	110,817
Total	\$183,540	\$143,471	\$44,378	\$1,925,907	\$2,297,296

(in thousands of dollars)

August 31, 2016

	Maintenance of facilities	Depreciation and accretion	Interest on indebtedness	All other operating expenses	Total
Instruction	\$26,936	\$18,154	\$5,930	\$771,599	\$822,619
Research	48,148	32,452	10,599	371,850	463,049
Academic support	34,682	23,375	7,635	217,736	283,428
Student services	21,728	14,645	4,783	157,574	198,730
Institutional support	9,628	6,489	2,120	272,242	290,479
Auxiliary services	41,707	28,110	9,181	28,851	107,849
Total	\$182,829	\$123,225	\$40,248	\$1,819,852	\$2,166,154

15. Subsequent Event

The University has evaluated subsequent events in accordance with the FASB ASC Subsequent Event Topic through January 10, 2018, the date when financial statements were issued. The following event was identified: In October 2017, the University issued \$500 million in taxable bonds with an average interest rate of 3.73 percent. Proceeds from this issuance will be used to finance capital construction.

Northwestern University

Schedule of Expenditures of Federal Awards
For the Year Ended August 31, 2017

Cluster Title/Federal Grantor/Subagency/Project Title	Pass-through ID Number	CFDA	Sponsor Award Number	Federal Expenditures	Passed to Subrecipients
Research and Development Cluster					
Agency for International Development					
Comparing HIV Mucosal Targets in US and Kenyan Populations	109	98.001	7503// AID-OAA-A-16-00032	\$39,530	
Next-generation products for prevention of HIV infection in women (Project NIX HIV)	62	98.001	NXS-17-001 // AID-OAA-A-17-00014	4,890	
Partners in Hope Agreement May 2017	161	98.001	AID-OAA-A-15-00070	2,697	
Testing the Effectiveness of Tailored Non-Formal Education Interventions Promoting Critical Thinking and Emotional Literacy in the Middle East	244	98.001	3003719520 // AID-OAA-A-15-00075 02	4,362	
The Role of Civil Servants in Reducing Corruption	107	98.001	DFG-20-LAQ1-NWU//AID-OAA-A-12-00039	<u>23,662</u>	
				75,141	
An osmotic pump vaginal insert for sustained delivery of anti-retrovirals	53	98.RD	MAPS2-15-056//AID-OAA-A-14-00010	49,151	
Preclinical Development of Longer Acting Topical Antiretroviral Delivery Systems	53	98.RD	MAPS2-14-029 //AID-OAA-A-14-00010	<u>124,067</u>	
Agency for International Development Total				248,359	
Department of Agriculture					
Molecular characterization of interferon-resistant HIV-1 using novel imaging techniques	201	10.001	DAA2-17-62986-1//59-0210-2-160	7,777	
National Institute of Food and Agriculture					
MARTX toxin effector domains modulate virulence of foodborne Vibrio vulnificus		10.310	2017-67011-26070	<u>27,161</u>	
Department of Agriculture Total				34,938	
Department of Commerce					
National Institute of Standards and Technology					
Advanced Materials Center for Excellence: Center for Hierarchical Materials Design (ChiMaD)		11.609	70NANB14H012 Amd 5	6,827,443	2,173,236
Rapid Qualification & Certification (RQC) Using Calorimetric, Optical, Mechanical, Microstructural (COMM) Validation	148	11.609	G2A62519 PO143327//70NANB13H194-02	<u>(31,332)</u>	
				6,796,111	2,173,236
NIST SURF - Gaithersburg		11.620	70NANB17H088	<u>30,732</u>	
Department of Commerce Total				6,826,843	2,173,236
Department of Defense					
Enhancing Quality of Orthotic Services with Process and Outcome Information	170	12.420	Agmt 12/19/16//W81XWH-16-1-0788	44,763	
A Fast-Light Enhanced Ring Laser Vibrometer for Detection of Extremely Small Vibrations	86	12.RD	PO No. 4440778007	48,722	
iGRAB: Innovative Glove for Rehabilitation and Assistance using Biomimicry	129	12.RD	W81XWH-16-C-0012	94,927	50,000

Northwestern University

Schedule of Expenditures of Federal Awards
For the Year Ended August 31, 2017

Cluster Title/Federal Grantor/Subagency/Project Title	Pass-through ID Number	CFDA	Sponsor Award Number	Federal Expenditures	Passed to Subrecipients
WRMC Pain Management	138	12.RD	MED0026//W911QY-13-C-0103	(8,406)	
WRMC Pain Management	138	12.RD	MED0035//W911QY-12-C-0039	(25,626)	
Air Force Office of Scientific Research					
A 4D Nanoprinter for Making and Manipulating Macroscopic Materials		12.800	FA9550-16-1-0150 P00002	1,799,148	880,094
ABC Stochastic Multiresolution Theory for Microstructure Based Predictive Materials Science: Application to Multiphase Polymer Systems.		12.800	FA9550-14-1-0032-P00003	195,108	
Biomimetic Lipid Nanoparticles: Bio-Sensing and Bio-Functional Applications		12.800	FA9550-13-1-0192	242,095	
BioProgrammable One-,Two-, and Three-Dimensional Materials		12.800	FA9550-11-1-0275 Mod. P00007	(75,930)	
BioProgrammable One-,Two-, and Three-Dimensional Materials		12.800	FA9550-11-1-0275 Mod. P00007	99,653	39,362
Colloidal Metal Chalcogenide Quantum Dots as Photo-Redox Catalysts for Model Reactions Relevant to the Formation of Liquid Fuels		12.800	FA9550-17-1-0271	50,672	
Combinatorial Screening of Emergent Nanophotonic Behavior through Biomolecule-Encoded Superlattice Formation		12.800	FA9550-12-1-0280/P00005	711,043	
Convergent Evolution to Engineering: Multiscale Structures and Mechanics in Damage Tolerant Functional Bio-composite and Biomimetic Materials	216	12.800	S-000700 03 // USAF FA9550-15-1-0009	211,628	
Discovering the Extent of Estimable Prediction in Science and Technology (DEEP)	221	12.800	FP059116-B // FA9550-15-1-0162	23,396	
Electrochemical Imaging and Mechanistic Studies on the Nanometer Scale		12.800	FA9550-14-1-0003/P00005	2,631,991	1,044,221
Electronic Structure Theory for Photo-Induced Spin-Forbidden Dynamics		12.800	FA9550-15-1-0031/P00002	135,855	
Fundamental studies of reactive processes at plasma-surface interfaces.	164	12.800	00002165//FA9550-14-1-0053	133,296	
Fundamentals of Filament Interaction	220	12.800	217178/05 // FA9550-11-1-0001	(4)	
Hybrid Plasmonic-MOF Nanoparticle Superlattices		12.800	FA9550-14-1-0274 P00003	486,122	
Logic-Enabled Spectroscopy of Single Trapped Molecular Ions		12.800	FA9550-13-1-0116	175,830	
Miniaturized Mechanical Tester for the Multiscale Testing of Biomaterials and Metamaterials		12.800	FA9550-16-1-0236	195,210	
Modeling and Predicting Individual Scientific Impact		12.800	FA9550-17-1-0089	19,903	
Molecular models to investigate diamagnetic anisotropy: Towards the directed synthesis of rare-earth free permanent magnets		12.800	FA9550-14-1-0358	116,864	
MURI Center for Dynamic Magneto-optics	244	12.800	3003023213 // FA9550-14-1-0040 05	195,959	
Nanostructured Interfaces and Patterning Tools for Probing Bioinspired Materials and Systems		12.800	FA9550-12-1-0141/P00003	250,173	
Novel Characterization Methods for Anisotropic and Mixed-Conduction Materials		12.800	FA9550-15-1-0247 P00002	212,506	
Novel Materials for Transverse Peltier Refrigeration		12.800	FA9550-15-1-0377 P00002	74,909	
PECASE: Multi-dimensional Vibrational-Electronic Spectroscopy to Probe Electronic-to-Vibrational Energy Transfer in Hybrid Nanomaterials		12.800	FA9550-16-1-0379-P00001	212,068	
Plasmonic Optoelectronic Interactions		12.800	FA2386-13-1-4124 Mod. P00003	130,570	
Polymeric and Molecular Materials for Advanced Organic Electronics		12.800	FA9550-15-1-0044 P00002	98,613	
Reconfigurable Matter from Programmable Atom Equivalents		12.800	FA9550-17-1-0348	266,556	

Northwestern University

Schedule of Expenditures of Federal Awards
For the Year Ended August 31, 2017

Cluster Title/Federal Grantor/Subagency/Project Title	Pass-through ID Number	CFDA	Sponsor Award Number	Federal Expenditures	Passed to Subrecipients
Soft Chemical Approaches to the Synthesis of Metastable Materials		12.800	FA9550-17-1-0247	32,189	
Spatial and Spectral Control of Excitons within Quantum Dot-Molecule Assemblies via Coupled Energy Transfer Processes		12.800	FA9550-14-1-0005-P00003	(41,833)	
Spatial and Spectral Control of Excitons within Quantum Dot-Molecule Assemblies via Coupled Energy Transfer Processes		12.800	FA9550-14-1-0005-P00003	183,829	160,231
Towards Software Apprentices that Learn in Dynamic Domains		12.800	FA9550-16-1-0138 P00001	264,792	
Two Color Electrochemical Tip-Enhanced Raman Spectroscopy		12.800	FA9550-16-1-0233	<u>196,000</u>	
				9,228,211	2,123,908
Air Force Research Laboratory					
Center of Excellence for Advanced Bioprogrammable Nanomaterials (C-ABN)		12.800	FA8650-15-2-5518-P00008	1,255,564	13,585
Development of a Targeted Intravascular Therapy to Stop Non-Compressible Torso Hemorrhage	223	12.800	010635-002//FA8650-17-2-6G19	127,099	
Managing the Mosaic of Microstructure	33	12.800	1150119-294722-P00007//FA9550-12-1-0458	<u>349,422</u>	
				1,732,085	13,585
Design and fabrication of high-performance LWIR photodetectors based on Type-II superlattices		12.910	FA9453-16-1-0036/P00002	99,179	
Enterprise APT Detection and Forensics with Provenance Graphs	110	12.RD	PO 5005026677//FA8650-15-C-7561	351,975	
Ptychography-based Rapid Imaging of Nano-Structures with Multi-layer Assemblies (PRISMA)	254	12.RD	No. 86101156 Amd 1 // FA8650-17-C-9112	123,409	
Army					
A Novel Approach to Assay DNA Methylation in Prostate Cancer		12.420	W81XWH-13-1-0319	90,821	21,695
Adaptations in Locus Ceruleus Induced by Post-Traumatic Stress Disorder		12.420	W81XWH-13-1-0018	6,251	
Beta-Blockers for the Prevention of Acute Exacerbations of COPD	207	12.420	000507860-008//W81XWH-15-1-0705	95,728	
Cobalt(III) Schiff base complexes as inhibitors of p53 aggregation in cancer		12.420	W81XWH-16-1-0379	73,832	
Comprehensive Molecular Profiling of African-American Prostate Cancer to Inform on Prognosis and Disease Biology	244	12.420	3003962014//W81XWH-15-1-0661	28,277	
Delivery of Nano-Tethered Therapies to Brain Metastases of Primary Breast Cancer Using a Cellular Trojan Horse		12.420	W81XWH-13-1-0341	2,650	
Development of Sub-Ischial Prosthetic Sockets with Assisted-Vacuum Suspension for Highly Active Persons with Transfemoral Amputations		12.420	W81XWH-10-1-0744	27,855	7,037
Disruption of Trophic Inhibitory Signaling in Autism Spectrum Disorders		12.420	W81XWH-14-1-0433	(70,767)	
Disruption of Trophic Inhibitory Signaling in Autism Spectrum Disorders		12.420	W81XWH-14-1-0433	7,314	(561)
Epigenomic Priming as an Immunotherapy Enhancer in Ovarian Cancer		12.420	W81XWH-17-1-0141	3,551	
Functional Performance Evaluation of the Northwestern University Flexible Sub-Ischial Vacuum (NU-FlexSIV) Socket for Persons with Transfemoral Amputation		12.420	W81XWH-15-1-0708	307,228	89,799

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Hyperexcitability in Sensory Circuits in Fragile X Syndrome		12.420	W81XWH-17-1-0230	70,035	
Increasing Bone Mass and Bone Strength in Individuals with Chronic Spinal Cord Injury: Maximizing Response to Therapy		12.420	W81XWH-16-1-0763	179,742	
In-vivo functional muscle regeneration utilizing an implantable modular bioreactor	273	12.420	WFUHS441082CF12/W81XWH1420004	201,218	55,320
Locally applied statins to reduce scarring	273	12.420	WFUHS441012 SR-02//W81XWH-13-2-0054	179,985	
Longitudinal Observation of Myoelectric Upper Limb Orthosis Use among Veterans with Upper Limb Impairment		12.420	W81XWH-16-1-0733	112,423	70,864
Loss of ZDHHC-mediated Scribble palmitoylation disrupts cell polarity and promotes prostate cancer progression		12.420	W81XWH-17-1-0362	1,073	
Macrophage Responses to Epithelial Dysfunction Promote Lung Fibrosis in Aging		12.420	W81XWH-15-1-0215	527,608	
Macrophage Responses to Epithelial Dysfunction Promote Lung Fibrosis in Aging		12.420	W81XWH-15-1-0214	296,740	98,684
Neuromodulation and Neurorehabilitation for Treatment of Functional Deficits after mTBI + PTSD	40	12.420	Pape-CDMRP II//W81XWH-15-1-0516	852	
No Longer Smooth: Introducing Striations into Prosthetic Socket Construction to Improve Suspension, Rotation, Fit and Comfort		12.420	W81XWH-16-1-0485	127,063	25,934
Peer-led Suicide Prevention: Promoting Healthy Family Role Transitions for Military Personnel	253	12.420	416496-G//W81XWH-14-1-0322	41,867	
Preclinical Testing of a Novel Method to Block TGFbeta Family Proteins in DMD		12.420	W81XWH-13-1-0234	(23,114)	
Prevention of Bone Loss after Acute SCI by Zoledronic Acid: Durability, Effect on Bone Strength and Use of Biomarkers to Guide Therapy		12.420	W81XWH-14-2-0193	276,369	44,092
PsychoMotor and Error Enabled Simulations: Modeling Vulnerable Skills in the Pre-Mastery Phase	170	12.420	CC# 81360 3164//W81XWH-13-1-0080	(1,401)	
Role of C10orf112 in Prostate Cancer		12.420	W81XWH-17-1-0578	1,299	
rTMS: A Treatment to Restore Function after Severe TBI	40	12.420	Pape 0020//W81XWH-14-1-0568	39,555	
SERS Nanosensors for in vivo Glucose Sensing		12.420	W81XWH-16-1-0375	227,324	
SERS Nanosensors for in vivo Glucose Sensing		12.420	W81XWH-16-1-0376	320,577	
Sleep homeostasis and synaptic plasticity		12.420	W81XWH-16-1-0169	138,405	
Targeted reinnervation as a means to treat neuromas associated with major limb amputation		12.420	WX1XWH-13-2-0100	325,895	59,345
Targeting EZH2 in castration-resistant prostate cancer		12.420	W81XWH-17-1-0406	3,617	
Targeting EZH2 in castration-resistant prostate cancer		12.420	W81XWH-17-1-0405	2,021	
The Impact of a Gene Expression Profile on Treatment Choice and Outcome Among Minority Men Newly Diagnosed with Prostate Cancer: A Randomized Trial		12.420	W81XWH-15-1-0534	74,880	
The Role of mDia1 in the Aberrant Innate Immune Signaling in del(5q) Myelodysplastic Syndromes		12.420	W81XWH-15-1-0335	191,467	
Therapeutic Sleep for Traumatic Brain Injury		12.420	W81XWH-16-1-0166	152,705	
Two-step Approach for Advanced Prostate Cancer Management: Targeting PLK1 After Castration		12.420	W81XWH-15-1-0105	7,424	

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Ubiquitin pathway activation: A new strategy for treating ALS		12.420	W81XWH-17-1-0086	82,076	
Why does acute post whiplash injury pain transform into chronic pain? Multi-modal assessment of risk factors and predictors of pain chronification	195	12.420	2018883-NW//W81XWH-15-1-0603	88,910	
				4,219,355	472,209
1.3.2: Ergodic Control for Optimal Information Acquisition		12.431	W911NF-14-1-0461-P00006	87,387	
10.2: Adoption of Innovations in Work Networks		12.431	W911NF-14-1-0259-P00004	95,765	
10.4: Properties Controlling Synchronization in Networks of Dynamical Systems		12.431	W911NF-15-1-0272-P00003	105,951	
4pi-Steradian Curved And Lensless Imagers (4pi-SCALE) 1.2.2.		12.431	W911NF-13-1-0485/P00003/P00004	(2,748)	
4pi-Steradian Curved And Lensless Imagers (4pi-SCALE) 1.2.2.		12.431	W911NF-13-1-0485/P00003/P00004	9,193	7,101
9.4: Next Generation Nano-electronics Utilizing Piezoelectricity and Piezoresistivity of 2D Materials Beyond Graphene		12.431	W911NF-15-1-0068/P00001	187,346	
A Comprehensive Study of Surface Defects in traditional Type II InAs_GaSb Superlattices and Ga_free Type II_Research Area 4_3_Electronic Sensing.		12.431	W911NF-15-1-0091/P00005	99,723	
Ab initio design of noncentrosymmetric metals: crystal engineering in oxide heterostructures. f. Research Area 6: Physics		12.431	W911NF-15-1-0017 P00004	283,655	
An Ultra-Sensitive and Compact Superluminal Ring Laser Gyroscope		12.431	W911NF-15-1-0643	809	
Autonomous Error Protection in Superconducting Circuits	164	12.431	SUB0000078 Amd. 4 // W911NF1510421	150,167	
Collective impact and common goals: Planned vs. emergent networks as tools for leveraging community outcomes		12.431	W911NF-16-1-0464 P00001	191,519	
Complex Dynamics and Systems: Controlling Energy Flow in Colloidal Nano-Networks		12.431	W911NF-13-1-0290	(1,868)	
Computational Analysis and Screening of Materials for Capture of Toxic Compounds (Topic 8.5)		12.431	W911NF-12-1-0130 Mod. P00005	4,738	
Creating and Manipulating High-Dimensional Photonic Entanglement		12.431	W911NF-12-1-0542/P00008	7,265	
Efficient GHz Surface-Normal Modulators for SWIR ToF Imagers		12.431	W911NF-16-1-0458	282,196	
Engineering nanoscale protein containers		12.431	W911NF-16-1-0169/P00002	131,678	
Engineering Synthetic Ribosomes (Topic 9.1)		12.431	W911NF-11-1-0445/P00004	(1,204)	
Engineering the translation apparatus for the synthesis of electronically active sequence-defined polymers		12.431	W911NF-16-1-0372 P00001	729,323	286,320
Exploring Sketching as a Modality for Intelligent Tutoring Systems: Adaptive and Intelligent Training Technologies, Paragraph 4.2.1, page 66		12.431	W911NF-17-2-0054 P00001	18,684	
Forecasting Emergent Phenomena with Human Computer Collaboration	173	12.431	A12789 // W911NF-16-1-0524	13,997	
Handling Adverse Visual Conditions for Target Tracking and Recognition		12.431	W911NF-16-1-0138 P00002	142,435	
Infinite Coordination Polymer Particles from Polymeric Coordinating Precursors		12.431	W911NF1510151	113,579	
Missile Impact with Material Comminution: New Concept - Turbulence Analogy		12.431	W911NF-15-1-0240-P00003	85,073	
Modeling Neuroscience for Enhancing Memory Operations through Non-Invasive Channels (MNEMONIC)	189	12.431	19-000275 03 // W911NF-16-2-0021	1,784,111	
Modeling Rate-Dependent Dissipation in Granular Solids via Continuum Thermodynamics		12.431	W911NF-16-1-0439/0010894483	49,820	
Modular Extracellular Sensor Architecture and Multigenic Assembly Platform		12.431	W911NF-11-2-0066 Mod: P00006	(4)	

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Multisensory Integration by Circadian Clocks - Area 3 Mathematics (Biomathematics) and Area 8 Life Sciences (Neurophysiology)		12.431	W911NF-16-1-0584 P00001	129,424	14,976
New Theoretical and Experimental Methods for Predicting Fundamental Mechanisms of Complex Chemical Processes	247	12.431	C00045065-5 Amd 6 // W911NF-14-1-0359	162,167	
Physically-based tempered fractional-order operators for efficient multiscale simulations		12.431	W911NF-15-1-0569	130,195	
Precision Chemical Dynamics and Quantum Control of Ultracold Molecular Ion Reactions	215	12.431	1000 G SA978 Amd 2 // W911NF-14-1-0378	111,414	
QUANTA: Quantitative Network-based Models of Adaptive Team Behavior	219	12.431	KK1623 03 // W911NF-15-1-0577	137,858	
Quantum Disc-based Focal Plane Arrays for Low-cost High-performance Uncooled LWIR Imaging		12.431	W911NF-16-1-0410 P00002	423,415	
Research Area 11.1: HCP Mg Alloys Formable at Room Temperature		12.431	W911NF-16-1-0294	37,139	
RFQ for Silver Bullet Program	149	12.431	PO 8200206547 // W911NF-17-C-0024	31,131	
Sea Urchin Spicules: Assembly of a Fracture-Toughened Material at the Nano- and Mesoscales	145	12.431	F8595-01//W911NF-16-1-0262	73,062	
Section II, A2, G-7.5 Metal-Organic Framework Materials for Force Protection		12.431	W911NF-13-1-0229 P00010	151,123	
Socio-Cognitive Networks: Theory & Data Driven Approaches for Understanding the Assembly and Interaction Networks of High Performance Teams		12.431	W911NF-14-1-0686-P00004	182,980	
Stabilization of Reactive Chemical Species and Fundamental Studies of Small-Molecule Reactivity in Metal-Organic Frameworks		12.431	W911NF-14-1-0168 P00007	88,141	
Strong Electron-Photon Coupling using Plasmonic Light Compressors		12.431	W911NF-11-1-0390/P00009	119,020	
Study Proposal:Transforming Terrestrial Agility At All Scales		12.431	W911NF-16-1-0035	30,706	28,772
TOPIC 1.3.4 Infrared Detectors: Demonstration of Dual-Band SWIR/MWIR Mini-Arrays and FPAs Based on Type-II Superlattices		12.431	W911NF-13-1-0412/P00002	452,570	
Validated Predictive Modeling of Engineered Cellulose Materials		12.431	W911NF-13-1-0241-P00003	10,340	
				6,839,275	337,169
Coevolution of Dynamic Multi-genre Networks and Information Streams	23	12.630	9500012803//Job13765353//W911NF-09-2-0053 Mod. 9	169,597	
Elastic Cloud-Based Make	80	12.630	PO 401037724 // DMDII-14-01-10	167,314	
OSCM: An Operating System for Cyberphysical Manufacturing	232	12.630	082621-16134 AE887 00 // W31P4Q1420001	83,205	
Rapid Process Certification and Verification for High-Value-Added and Low-Volume Production	203	12.630	0220160021 // W31P4Q-14-2-0001	302,690	121,355
				722,806	121,355
Syntaurus: An intelligent machine for chemical synthetic planning	88	12.910	W911NF-16-1-0384	365,720	
Conformal Photovoltaic Module Low Observability (ConPhormL)	135	12.RD	SR-1006-1-09-14//W15QKN-12-9-1006	(83)	
Industrial Production Methods for Ultra-High-Strength Fibers Based on Double-Walled Carbon Nanotubes	132	12.RD	Agmt 12/4/15 Amd 1//W912HZ-15-C-0004	116,774	
Network Sciences Collaborative Technology Alliance	23	12.RD	PO #9500010212 0029 // W911NF-09-2-0053	132,922	
Scaling & Supramolecular Engineering of Metal-Organic Frameworks (MOFs)	152	12.RD	A15A-T014// W911SR-17-C-0007	52,199	
Task 3 Further Development and Validation of the Lattice Discrete Particle Model (LDPM)	68	12.RD	9828 // Agmt 4/22/16 // W912HZ-15-C-0019	51,787	

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Defense Advanced Research Projects Agency					
Biochronicity Grand Challenge: Human Time Stamp Development, Validation and Prediction		12.910	D15AP00027	662,539	45,074
Flexible Asynchronous Space-Time (FAST) Imaging		12.910	HR0011-17-2-0044-P00001	69,869	
Generation of mouse-based bioelectronic noses	146	12.910	M160044709//15-A0-00-005162-01//HR0011-16-2-0007	119,384	
Montage: Capturing Collective Identity through Multidisciplinary Modeling and Experimentation	272	12.910	446016-19980 // D17AC00003 01	27,097	
Thermoelectric Threads for Thermal Management Fabrics		12.910	HR00111710005	9,100	
Using Temporal Phase Signatures to Predict and Control Biological Timing		12.910	D12AP00023/0010	597,177	149,366
				1,485,166	194,440
Achieving Closed-loop RNA-based PID Control with a Cell-free Testbed	245	12.RD	A005959604 Amd 1 // HR0011-16-C-0134	242,499	
IPA to the Defense Advanced Research Projects Agency (DARPA)		12.RD	IPA Agmt 1/29/15	102,817	
Nano Engineered Thermoelectric Systems (NETS) for Lightweight Portable Primary/Secondary Power Sources	272	12.RD	450391-19980//HR0011-16-C-0035 Mod 03	231,568	
Obtaining Multipath & Non-line-of-sight Information by Sensing Coherence & Intensity with Emerging Novel Techniques	186	12.RD	G001534-7505 // HR0011-16-C-0028 Amd No. 1	131,282	
The MIT-Broad Foundry: TA-2	131	12.RD	5710003941//HR0011-15-C-0084	22,585	
The MIT-Broad Foundry: TA-2	131	12.RD	5710004200//HR0011-15-C-0084	316,313	
Defense Security Cooperation Agency					
Novel Light Sources Based On Nonlinearity Enhanced By Nano-Antennas	86	12.RD	PO#4440432059 (1) 0620	63,996	
Defense Threat Reduction Agency					
A novel toolbox for rapid, on demand, in vitro glycoprotein synthesis		12.351	HDTRA1-15-1-0052 P00004	798,300	197,673
Hierarchically engineered porous materials for the protection against chemical threats		12.351	HDTRA1-14-1-0014 P00005	587,230	
				1,385,530	197,673
Navy					
A Bio-inspired Underwater Robot for Station keeping with Omnidirectional Disturbances		12.300	N00014-14-1-0594 // N00014-16-1-2132-P00002	143,009	39,104
A Materials Genome Approach to Understanding Biofilm Mechanics		12.300	N00014-15-1-2701 P00003	155,302	
Active Nanophotonics in the Flatland with Novel Hybrid Metasurfaces		12.300	N00014-17-1-2425 P00001	65,994	
An Analogical Approach to Autonomy and Social Inference in a Cognitive Architecture		12.300	N00014-16-1-2613-P00002/N00014-13-1-0470	459,201	
Blackbody Thermometry with Quantum-State-Prepared Molecular Ions		12.300	N00014-17-1-2258	49,914	
Bulk Nanostructured Materials with Two-Dimensional Building Blocks		12.300	N00014-16-1-2838	147,916	
Comparison and Analysis of Simulation Metamodel Fitting using various Software Packages		12.300	N00244-15-2-0004	(32,826)	
Conductive DNA Systems and Molecular Devices		12.300	N00014-11-1-0729 P00010	299,370	235,556
Consensus-Based Distributed Information Fusion		12.300	N00014-16-1-2106-P00001	185,058	

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Critical MASS (Midwest Association for Science and Service)	43	12.300	Agmt 8/12/16 // N00014-12-1-0738	3,766	
Cutset Sampling Topologies for Intelligence, Surveillance, and Reconnaissance		12.300	N00014-14-1-0215/N00014-17-1-2707	173,895	100,000
Cyberalloys 2020: Naval Materials by Design		12.300	N00014-12-1-0455 P00008	(15,417)	
Cyberalloys 2020: Naval Materials by Design		12.300	N00014-16-1-2400 P00001	279,661	
Data Farming from Simulations for Instantaneous Trade-off Analysis using Adaptive Batch-sequential Experiment Design		12.300	N00244-16-2-0002	43,094	
Design of stable solar cells with >15% efficiency based on 2D perovskites		12.300	N00014-17-1-2231-P00002	28,208	
Designing Hierarchical Three-dimensional Surfaces by Controlling Strain		12.300	N00014-17-1-2482	31,542	
Drugs to Stimulate Neurite Regeneration from Damaged Cochlear Neurons		12.300	N00014-15-1-2130//N00014-16-1-2508	307,671	
Dynamic Allocation of Autonomy for Limited-Bandwidth Human-Robot Teams Based on Measures of Trust in the Human	170	12.300	Agmt 04/21/17 // N00014-16-1-2247	125,490	
Dynamically Textured Polymer Surfaces		12.300	N00014-13-1-0172	4,513	
Enhancing Intuitive Decision Making Through Implicit Learning		12.300	N00014-16-1-2251 P00005	513,336	
Functional Crystals Through Encodable Hard and Soft Matter		12.300	N00014-16-1-3117-P00001//N00014-15-1-0043	484,260	
Functionalized Two-Dimensional Nanoelectronic Heterostructures		12.300	N00014-14-1-0669 P00006	122,038	
Fundamental Performance Limits of Adaptive Two Wave Mixing Spectral and Phase Demodulator Systems for Fiber Optic Dynamic Strain Sensors		12.300	N00014-15-1-2098	70,560	
Instrumentation for Functionalized Two-Dimensional Nanoelectronic Heterostructures		12.300	N00014-16-1-3179	835,337	
Integrated Optics for Single-Photon Nonlinear Interactions		12.300	N00014-17-1-2409	25,645	
Large Scale Optimization Methods for Data Science Applications		12.300	N00014-14-1-0313 P00004	160,347	
Learning by Reading for Robust Reasoning in Intelligent Agents		12.300	N00014-16-1-2177 P00002	97,899	
Materials Informatics Applied to Nanocomposites for Advanced Dielectric Technology	173	12.300	A12480//N000014-13-1-0173	16,758	
Mesoscale Integrated Photonic Systems for Structural Health Monitoring		12.300	N00014-16-1-3021	110,652	
Multi-Dimensional Control in Laterally-Confined Atomically-Thin Nanostructures		12.300	N00014-16-1-3055	163,039	
Multi-Dimensional Site-Specific and Correlative Studies of High-Strength High-Toughness Naval Steels		12.300	N00014-15-1-2443-P00002	147,361	
Multiscale Modeling of Thermoplastic Elastomers for Enhanced Blast Properties through Microstructural Design		12.300	N00014-14-1-0434 P00002	119,364	
Nanomanufacturing for Enhancing the Human-Machine Interface: Roll-to-Roll, High Speed Printing of Multifunctional, Distributed Sensor Networks on Flexible Plastic Substrates	245	12.300	A002181204//N00014-11-1-0690 9	291,612	
Nanomaterials Inspired from the Bacterial Adhesome and Mechanome		12.300	N00014-16-1-3175 P00001	159,121	
Optimizing nanoscale precipitates in Al alloys by microalloying with transition metals		12.300	N00014-16-1-2402 P00002	138,862	
Overcoming Noise and Delay in Mobile Sensor Networks		12.300	N00014-13-1-0331-P00002	5,855	
Performance Sustainment in Polar Operations		12.300	N00014-15-1-2767	(65)	
Photonic Integration Through 3D Printed Photonic Circuit Boards		12.300	N00014-15-1-2935	(96)	
Stochastic Optimization for Energy Efficient Outpost Modeling		12.300	N00014-15-1-0046/P00002	90,088	64,702
Structure-Properties Relationship of Particles of Crumpled Sheets		12.300	N00014-13-1-0556	46,306	

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Surface and Interface Engineering of van der Waals Nanoelectronic Heterostructures		12.300	N00014-17-1-2993	16,381	
The Dynamics of Nanowire Growth		12.300	N00014-14-1-0697	19,820	
The Dynamics of Nanowire Growth		12.300	N00014-16-1-3034	19,995	
The microbiome and responsiveness to stress: Countermeasure strategies for improving resilience to sleep and circadian disruption.	224	12.300	1553361 Mod. 2 // N00014-15-1-2809	308,843	
The Mutual Influence of Sacred Values and Social Responsibilities in Governance and Conflict Management: A Dynamic Interplay between Leaders, Devoted Actor Networks, General Populations, and Time.	144	12.300	Agmnt 12/14/16 //FA9550-14-1-0030	123,769	
Theoretical Bounds on Imaging Through Scattering Media		12.300	N00014-15-1-2735 P00002	236,140	83,109
Towards Flexible Sheet Cameras	49	12.300	1(GG010550) // N00014-16-1-2152 Amd 3	117,633	
Towards Intelligent Agents that Learn to Reason and Communicate		12.300	N00014-17-1-2092 P00001	69,918	
Tuning the entropic spring: A predictive modeling approach to dictating order in polymer conjugated peptide assemblies		12.300	N00014-13-1-0760-P00005	56,987	
Ultrasensitive Multi-Octave and Multi-dimensional Spectral Sensing by Single Element Detection and Compressive Sensing		12.300	N00014-16-1-2715-P00001	373,970	
Understanding Atomic Scale Structure in Four Dimensions to Design and Control Mesoscale Morphologies for Oxidation Resistant Alloys		12.300	N00014-16-1-2280-P00005//N00014-14-1-0675	1,198,484	758,590
Yielding and Progressive Failure of Composite Materials		12.300	N00014-16-1-2202-P00002	45,183	
				8,640,763	1,281,061
Agile Fabrication of Sheet Metal Components with Assured Properties (Agile 1)	15	12.630	0007A-6//N00014-14-14-2-0002	110,063	
BISC: Bioelectronic Interfacing to Sensory Cortex with massive, fully implanted, flexible, wireless CMOS surface recording and stimulating arrays	49	12.RD	5(GG012664) // N66001-17-C-4002	34,366	
Data-driven Discovery of Novel Thermoelectric Materials	167	12.RD	1267//N66001-15-C-4036	113,279	
High-Speed Electronically Tunable Multi Fiber-Optic Wavelength Filter based on Ultra-High-Resolution Super-Compact Grating on Silicon-Photonic Platform	157	12.RD	1300366716 // Agmt 4/28/15 // N68335-14-C-0040	32,467	
Theory-Driven Protocols for Replacing Elemental Composition of Strategic Materials	167	12.RD	P.O. 1210//N00014-14-C-0050	138,785	
Department of Defense Total				37,241,473	4,791,400
Department of Education					
Foreign Language and Area Studies Fellowships (FLAS) under Title VI Higher Education Act of 1965	232	84.015	2015-01858-01 Mod. 2 // P015B140048	76,390	
Proposal for Funding a Comprehensive National Resource Center and Foreign Language and Area Studies Fellowships under Title VI Higher Education Act of 1965	232	84.015	2014-07445-01-02 // P015A140048	142,208	
				218,598	

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Cluster Title/Federal Grantor/Subagency/Project Title	Pass-through ID Number	CFDA	Sponsor Award Number	Federal Expenditures	Passed to Subrecipients
Fulbright-Hays Doctoral Dissertation Research Abroad (DDRA) Fellowship Program		84.022	P022A150045-1	28,282	
Fulbright-Hays Doctoral Dissertation Research Abroad (DDRA) Fellowship Program		84.022	P022A160046-1	<u>30,172</u>	
				58,454	
Enhancing Middle School Mathematics Achievement through Spatial Skills Instruction	154	84.305	60046917//R305A150365-02	84,736	
Teaching Perceptual and Conceptual Processes in Graph Interpretation		84.305	R305A120531-15-7	<u>231,629</u>	<u>12,347</u>
				316,365	12,347
Institute of Education Sciences					
A Summer RCT Training Institute for Established Researchers		84.305	R305B130023 - 15A	177,910	28,522
Advanced State Specific Design Parameters for Randomized Field Experiments	222	84.305	5898-NU-02//R305D140019	185,696	
CALDER - State and Local	14	84.305	01023-03230 Mod. 4//R305C120008	325,231	211,395
Center for Interactive Knowledge Utilization	224	84.305	1551539 Mod 2//R305C140008	398,081	
Contexts Inside and Outside of School Walls as Predictors of Differential Effectiveness in Preschool Professional Development		84.305	R305A160013 -17	193,181	98,391
Multidisciplinary Program in Educational Sciences		84.305	R305B140042 - 17 Mod 4	875,197	
Post Doctoral Research Training Fellowship in Education Sciences		84.305	R305B100027 - 14	118,268	
Proposal to Conduct Annual Workshops on Better Quasi-Experimental Design and Analysis		84.305	R305B140029 - 16	228,030	31,213
RAP Club: Improving Mental Health and School Performance in Urban Eighth Graders	118	84.305	2003117335//R305A160082	10,350	
State Longitudinal Data Systems Public-Use Project	222	84.305	5897-NU-02//R305D140045	<u>143,369</u>	
				2,655,313	369,521
NCSER-EIEL Goal 3: An Efficacy trial of J-E.M.T: Enhanced Milieu Teaching Language Intervention plus Joint Attention, Engagement and Regulation Intervention for Toddlers with Autism	267	84.324	3403-019297 // R324A150094 Amd 2	313,903	
Training-Induced Language and Literacy Improvement in Children with Cochlear Implants	73	84.324	R01834 // R324A160193	<u>286,116</u>	
				600,019	
Department of Education Total				3,848,749	381,868
Department of Energy					
A Comprehensive Web Infrastructure for Standardizing, Storing, and Launching Density Functional Calculations of Materials and Chemical Compounds	46	81.049	Agmt 8/1/16//DE-SC0015106	154,228	
A Scintillating Xenon Bubble Chamber for Dark Matter Detection		81.049	DE-SC0012161-0003	124,147	
Antiferromagnetism and Superconductivity		81.049	DE-FG02-05ER46248 0013	67,808	
Approaches to Integrated Photochemical Systems for Solar Energy Conversion		81.049	DE-FG02-99ER14999 0018	352,138	
Argonne-Northwestern Solar Energy Research (ANSER) Center		81.049	DE-SC0001059/0008	3,103,935	690,630

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Bose-Einstein Condensation of Magnons and Potential Device Applications		81.049	DE-SC0014424 0002	182,430	
Center for Bio-Inspired Energy Science (CBES)		81.049	DE-SC0000989 0006	3,393,551	868,389
Collaboration with Photosynthetic Antenna Research Center (PARC)	274	81.049	WU-HT-11-05-MOD-8 PO No. 2910644P // DE-SC0001035	132,981	
COOLR: A New System for Dynamic Thermal-Aware Computing		81.049	DE-SC0012531/0001	98,367	
Coordination-Chemistry-Derived Materials Featuring Nanoscale Porosity and Selective Chemical Separation Capabilities		81.049	DE-FG02-08ER15967-0008	309,647	
Dark Matter and Track Triggering with the CMS Experiment		81.049	DE-SC0015973 0001	116,127	
Design of Next Generation Thermoelectrics		81.049	DE-SC0014520-0001	442,590	
Dynamic Visualization and Control of Emergent Phases in Complex Oxide Heterostructures	163	81.049	5076-NU-DOE-2375//DE-SC0012375-02	105,946	
Effect of Low Dose Irradiation on NFKB Signaling Networks and Mitochondria		81.049	DE-SC0001271/005	(25,278)	
EFRC/UMN: Inorganometallic Catalysts	245	81.049	A004527502 // DE-SC0012702 Amd 04	887,401	
Electronic Structure Theories of Singlet Fission and Multiple Exciton Generation		81.049	DE-SC0010265 0003	17,558	
Electrostatic Driven Self-Assembly Design of Functional Nanostructures		81.049	DE-FG02-08ER46539-0008	359,086	
Epitaxial Multifunctional Oxide Heterostructures		81.049	DE-FG02-06ER46346/0011	154,048	
Fundamental Studies of Light-Induced Charge Transfer, Energy Transfer, and Energy Conversion with Supramolecular Systems		81.049	DE-FG02-87ER13808/0033	215,150	
Granular Constraints and Size Effects in Polycrystalline Shape Memory Alloys		81.049	DE-SC0010594 0003	187,639	62,588
Hybrid Halide Perovskites: Advancing Optoelectronic Materials	219	81.049	KK1508//DE-SC0012541	201,047	
Institute for Environmental Catalysis		81.049	DE-FG02-03ER15457 0015	1,270,848	
Kinetics and Thermodynamics of Metal and Complex Hydride Nanoparticles		81.049	DE-FG02-07ER46433 Mod. 0009	313,638	160,682
Light-Driven Charge Transfer in Face-to-Face Donor-Spacer-Acceptor Supramolecular Systems		81.049	DE-FG02-96ER14684-0020	155,831	
Missing links in biological methane and ammonia oxidation		81.049	DE-SC0016284-0001	173,603	
Nanoengineering of Complex Materials		81.049	DE-FG02-00ER45810/0020	345,222	
Nanoporous Materials Genome: Methods and Software to Optimize Gas Storage, Separations, and Catalysis	245	81.049	A003127002 Amd 5//DE-SC0008688 Mod 5	116,316	
New Methods for Atomic Structure Determination of Nanoscale Materials		81.049	DE-FG02-01ER45945	199,425	
Nonlinear Optimization and Applications		81.049	DE-FG02-87ER25047/0030	95,544	
Probing Coherent States of Light and Matter in Two-Dimensional Semiconductors		81.049	DE-SC0012130 0003	166,590	
Properties, Electrochemical Activity, and Stability of Solid Oxide Cell Materials Under Extreme Conditions		81.049	DE-SC0016965	73,421	
Research in the Energy, Cosmic and Intensity Frontiers and Theoretical Physics at Northwestern University		81.049	DE-SC0015910	809,089	
Scalable Data-Management, Analysis, and Visualization (SDAV)		81.049	DE-SC0007456	136,977	
Scalable, In-situ Data Clustering Data Analysis for Extreme Scale Scientific Computing		81.049	DE-SC0014330 0002	136,110	
SISGR: Single Molecule Chemical Imaging at Femtosecond Time Scales		81.049	DE-SC0001785 0006	(8,163)	
Solid State Solar-Thermal Energy Conversion Center (S3TEC Center)	131	81.049	5710003775 Amd 1//DE-SC0001299	100,548	
Strong Field Coherent Dynamics and Control. From Alignment to High Harmonic Generation in Complex Systems		81.049	DE-FG02-04ER15612/0013	126,205	
Strong Interaction Studies with Medium Energy Probes		81.049	DE-FG02-87ER40344-0038	410,727	

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Surface Plasmon Enhanced Chemistry		81.049	DE-SC0004752 0007	80,974	
The Evolution of Topologically Complex Structures: Coarsening of Dendritic Mixtures		81.049	DE-FG02-99ER45782-0019	<u>60,097</u>	
				15,343,548	1,782,289
A Novel Lubricant Formulation Scheme for 2% Fuel Efficiency Improvement		81.086	DE-EE0006449-0008	269,278	
Rapid Freeform Sheet Metal Forming: Technology Development and System Verification	74	81.086	A10-PO14-164103//RQ13-235R07//DE-EE0005764	<u>(49,164)</u>	
				220,114	
C6-C14 Alcohol Production as a Pathway to Hydrocarbon Fuels	60	81.087	619-2 // DE-EE0007728	16,744	
Computational Design and Performance Prediction of Creep-Resistant Ferritic Superalloys	255	81.089	A15-0315-S001-A02//DE-FE0024054	103,389	
Scalable and Cost Effective Barrier Layer Coating to Improve Performance and Stability of SOFC Cathode	276	81.089	14-749-NU//DE-FE0023407	<u>140,073</u>	
				243,462	
Transformational SOFC Architecture (TSA)	77	81.098	F720161001s1 // DE-FE0027584	22,660	
High-Pressure Elastic Properties of Minerals, Glasses and Superhard Materials	32	81.112	4-10469-03 Amd 6 // DE-NA002006 0009	102,628	
Electrically-Assisted Tubing Processes for Enhancing Manufacturability of Oxide Dispersion Strengthened Structural Materials for Nuclear Reactor Applications		81.121	DE-NE0008409-0001	320,612	
NEET-3: Reactor Materials - Predictive Characterization of Aging and Degradation of Reactor Materials in Extreme Environments		81.121	DE-NE0000678-0005	<u>191,072</u>	
				511,684	
A Machine Learning-Based Materials Discovery Paradigm Applied to Solid Ion Conductors	46	81.135	Agmt 3/31/16//DE-AR0000707	42,977	
Solid Acid Fuel Cell Stack for Distributed Generation Applications	178	81.135	C2015.0008 // DE-AR0000495	<u>165,064</u>	
				208,041	
Advancing Predictive Capability for Brittle Failure Using Dynamic Graphs	125	81.RD	439358 // DE-AC52-06NA25396	96,050	
Apply Uncertainty Analysis Procedure to Vision Model	202	81.RD	3J-30081 // 3J-30081-0059A	5,050	
Argonne Joint Appointment - Hupp	202	81.RD	Agmt. 10/23/14	41,876	
Argonne Joint Appointment - Kanatzidis	202	81.RD	Agmt. 08/20/14	231,657	
Argonne Joint Appointment - Low	202	81.RD	Agmt. 10/14/14	90,910	
Argonne Joint Appointment - Poepelmeier	202	81.RD	Agmt. 11/14/14	87,809	
Argonne Joint Appointment - Wasielewski	202	81.RD	Agmt 11/12/14	53,544	
Biomimetic Hybrid Architectures for Solar Chemical Energy Conversion	202	81.RD	3J-30081-0007A (0007C)//DE-AC02-06CH11357	3,566	

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Center for Electrochemical Energy Science - II	202	81.RD	4F-32002-M0006//DE-AC02-06CH11357	864,309	
Center for Emergent Superconductivity (CES)	202	81.RD	3J-30081-0046D //DE-AC02-06CH11357	90,752	
Cesium Irradiator Replacement Project(CIRP)	159	81.RD	321688 // DE-AC05-76RL01830	55,075	
Concurrent Optimization of Component Capital Cost and Expected O&M	6	81.RD	XEJ-6-62151-01 // DE-AC36-08G028308	141,862	
Continuum Model for Prediction of Chemo-Mechanical Damage Due to Alkali Silica Reaction in Concrete	202	81.RD	3J-30081 // 3J-30081-0065A	25,000	
Development of a New, Lightweight Alloy for Advanced Cylinder Heads in High-Efficiency, Light-Duty Engines	81	81.RD	DE-EE0006082 // PO# TCS67912-001	156,254	
Development of Heavy Element Wide Band Gap Semiconductors	202	81.RD	BOA 3J-30081 // 3J-30081-0066A	30,109	
Development of High-Performance Cast Crankshafts	35	81.RD	C274812 Amd 3//DE-EE0006428	6,007	
Dynamics of Active Self-Assembled Materials	202	81.RD	3J-30081/3J-30081-0053C & 0053D	55,073	
Emine Begum Gulsoy-Joint NU/Argonne Appointment	202	81.RD	Agmt 9/23/15	12,836	
Emine Begum Gulsoy-Joint NU/Argonne appointment second project	202	81.RD	Agmt 8/1/2017	8,933	
Exploration of New Li-6 Containing Semiconductors	202	81.RD	3J-30081 // 3J-30081-0061A	37,082	
Fermi Joint Appointment - Eric Dahl	70	81.RD	Agmt 6/27/12 // DE-AC02-07CH11359 Rev 5	72,997	
Friction prediction modeling of Honed and LST treated ring and liner lubricated contact	202	81.RD	3J-30081 // 3J-30081-0064A	9,961	
Hobbes: OS and Runtime Support for Application Composition	179	81.RD	1403164/9 // DE-AC04-94AL85000	134,162	
James Rondinelli-Joint NU/Argonne Appointment	202	81.RD	Agmt 4/3/2017	36,167	
Jennifer Dunn - Joint NU/Argonne Appointment	202	81.RD	Agmt 7/27/2017	36,338	
Joint Appointment Agreement - Petriello	202	81.RD	Agmt. 08/26/14	123,571	
Joint Appointment Agreement - Stair	202	81.RD	Agmt. 08/27/14	37,550	
Joint Appointment Agreement for Gabriel Abelof	202	81.RD	5010100-137	3,299	
Joint appointment agreement for Hongxi Xing	202	81.RD	Agmt 8/31/2017	36,421	
Joint Center for Energy Storage Research	202	81.RD	3F-31142-M0010 // DE-AC02-06CH11357	140,945	
Kinetic Modeling of the Catalytic Upgrading of Vapors from Biomass Pyrolysis	6	81.RD	AEV-6-62063-01//DE-AC36-08G028308	62,545	
Lei Fang - Joint NU/Argonne appointment	202	81.RD	58906-MA-105	33,016	
Li Ion Battery X-ray Interface Studies	202	81.RD	3J-30081 / 3J-30081-0014A Rev. 0014E	48,311	
Marco Trovato CMS LPC Distinguished Research Award 2017	70	81.RD	No. 634049//DE-AC02-07CH11359	31,146	
MICCoM Water Electrode Studies	202	81.RD	3J-30081-0054B//31-30081	43,346	
Microstructural Studies of Nb3Sn Coatings for SRF Cavities	70	81.RD	PO No. 631010	110,502	
Midwest Integrated Center for Computational Materials	202	81.RD	3J-30081-0056A//3J-30081-0056B	207,907	
Monolayer Semiconductor Quantum Dots for Efficient Energy Conversion	202	81.RD	Award Letter 8/14/14	12,685	
Multi-objective Algorithm Optimization of Interfacial Structures	202	81.RD	3J-30081-0055A-0055B//3J-30081	42,604	
Nanolaminate Coatings for Improved Nuclear Fuel Cladding Performance	202	81.RD	3J-30081-0049A 0049E	35,701	
Novel Metal Sulfides to Achieve Effective Capture and Durable Consolidation of Radionuclides, FC-1	21	81.RD	00127985//DE-AC07-05ID14517	(404)	
Optimizing Superconductor Transport Properties	202	81.RD	3J-30081//3J-30081-0024A Rev 0024D	7,400	
PICO-60 Installation and Operations at SNOLAB	70	81.RD	PO No. 625740 // DE AC02-07CH11359	3,151	

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High Luminosity (HL) LHC CMS Detector Upgrade Project - Trigger & DAQ - Track Trigger	70	81.RD	PO NO. 637604 // E9936-&264-o2	30,909	
Raman Spectroscopy of Catalysis	202	81.RD	3J-30081-0051A Rev. 0051G	94,746	
Refractory Solar Selective Coatings	202	81.RD	3J-30081//3J-30081-0058A Rev 0058C	89,377	
Small Worlds Project Development of algorithms and models for 3D Snapshot Holographic Interferometric Microscopy (3D-SIHM) Subproject	202	81.RD	3J-30081 // 3J-30081-0050A Rev. No. 0050C	78,423	
Structural Characterization in Photocatalysis	202	81.RD	3J-30081 // 3J-30081-0039A Rev. 0039C	62,723	
Student support for Matthew Kirschner	202	81.RD	3J-30081/3J-30081-0043A Rev. 0043F	26,859	
Support for Daikang Yan	202	81.RD	3J-30081/3J-30081-0038A//DE-AC02-06CH11357	10,224	
Support for Daikang Yan	202	81.RD	3J-30081-0062A Rev. 0062B // 3J-30081	33,828	
Support for Kenan Li	202	81.RD	3J-30081-0035A-0035F	27,525	
Support for Luke Robison	116	81.RD	16-P0811//DE-AC05-06OR23177	4,510	
Support for Ming-Feng Tu	202	81.RD	3J-30081-0060A-0060B//3J-30081	42,849	
Support for Pufan Liu	202	81.RD	3J-30081-0063A Revision 0063B	21,575	
Support for Young Pyo Hong	202	81.RD	3J-30081-0036C	3,725	
Supported Single-Site Catalysts for Selective Alkane Oxidation	202	81.RD	3J-30081-0057A Rev. 0057B-C//3J-30081	62,619	
Synchrotron X-ray Studies of Nanostructured Polymer Films, Fibers and Composites	202	81.RD	3J-30081/3J-30081-0013A REV. 0013F	11,712	
Synthesis and Modification of Graphene for Catalytic and Plasmonic Applications-Andrew Mannix	202	81.RD	3J-30081/3J-30081-0015A Rev. 15E	9,010	
Technology Demonstration and Model Assessment of Fit-To-Use Water Availability from Selective Desalination of Impaired Water for Cooling Tower Operation	202	81.RD	Work Order No. 3J-30081-0067A	11,191	
The Design of Novel A2B2O5 Oxide Heterostructures	202	81.RD	3J-30081-0040A	6,720	
Thermoelectric Transport Properties from Materials Project Database	214	81.RD	7218473 Mod 2//DE-AC02-05CH11231	44,822	
Understanding Complex Oxide Surfaces in Reactive Environments	202	81.RD	3J-30081//3J-30081-0019H	43,694	
Understanding Complex Oxide Thin Film Synthesis	202	81.RD	31-30081-0031A 0031H/0031I	45,322	
Understanding Roles of Ultrafast and Coherent Electronic and Atomic Motions in Photochemical Reactions	202	81.RD	4F-3232 M0003//DE-AC02-06CH11357	221,691	
US CMS Phase 2 Upgrade R&D - Endcap Calorimeter	70	81.RD	PO No. 622384-1	9,426	
US CMS Phase 2 Upgrade R&D – Tracker/Track Trigger	70	81.RD	622384//DE-AC02-07CH11359	50,000	
Using Hard X-rays to Accelerate the Synthesis of Materials	202	81.RD	3J-30081 // 3J-30081-0052A	9,277	
Advanced Research Projects Agency-Energy					
A Novel Hierarchical Frequency-Based Load Control Architecture		81.135	DE-AR0000702	578,091	17,888
Distributed Electrochemical Production and Conversion of Carbon-neutral Ammonia	178	81.135	C2017.0013//DE-AR0000813	62,401	
Wide-angle planar microtracking microcell concentrating photovoltaics	163	81.135	5688-NU-EARPA-0626//DE-AR0000626	<u>33,333</u>	
				673,825	17,888

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Intermediate Temperature Fuel Cell Stack	204	81.RD	PO2603659//Agmt 1215334//DE-AR0000498	186,012	
National Energy Technology Laboratory Integrated Computation Materials Engineering (ICME) Development of Carbon Fiber Composites for Lightweight Vehicles	74	81.086	RQ15-016R02 Mod 2//DE-EE0006867	416,286	
National Nuclear Security Administration Bayesian Methods for Data Integration		81.113	DE-NA0002520	251,126	30,625
Ternary Heavy Metal Halide Semiconductors for Y-Radiation Detection		81.113	DE-NA0002522	<u>217,212</u>	
Department of Energy Total				468,338	30,625
				22,829,174	1,830,802
Department of Health and Human Services Eliminating Lupus Health Disparities Initiative (ELHDI)	12	93.004	AGMT 12-18-12 / CPIMP121064	8,473	
Evaluation of the Dementia-Capable Home & Community Services Grant	100	93.051	DCG1407//90DS2004-01-00	3,370	
Administration for Children and Families The Northwestern University Two-Generation Child and Family Outcomes Study of CAP Tulsa's CareerAdvance® Program	51	93.093	Agmt 8/24/16	223,657	
The Northwestern University Two-Generation Study (NU2Gen) of Parent and Child Human Capital Advancement		93.093	90HG1002-01-01	<u>230,459</u>	<u>20,889</u>
				454,116	20,889
Expanding the Cycle of Opportunity: Simultaneously Educating Parents and Children in Head Start		93.600	90YR0073-04-00	479,338	260,125
Expanding the Cycle of Opportunity: Simultaneously Educating Parents and Children in Head Start (non-competing continuation)		93.600	90YR0073-03-00	<u>246,897</u>	<u>236,889</u>
				726,235	497,014
CareerAdvance: A Dual-Generation Programs Effects on Families and Children		93.647	90PH0020-04-00	(6,725)	
CareerAdvance: A Dual-Generation Programs Effects on Families and Children		93.647	90PH0020-04-00	<u>12,314</u>	<u>10,878</u>
				5,589	10,878
Illinois DCFS Implementation of Trauma Affect Regulation: Guide for Education and Therapy (TARGET) for Post Adoption and Guardianship Families	188	93.652	Agmt Signed 10/12/16 // 90CO1122-02	18,144	

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Administration for Community Living					
Advanced Rehabilitation Research and Training (ARRT) Program		93.433	90AR5015-02-00	7,305	5,509
Advanced Rehabilitation Research and Training (ARRT) Program		93.433	90AR5010-02-00	101,043	
Field Initiated Project Programs Motivational Interviewing and Physical Activity Change in Parkinson's Disease	170	93.433	81421//901F0093-01-00	35,811	
Interventions for Neurologic Communication Disorders		93.433	90AR5015-02-00	175,437	37,486
Machines Assisting Recovery from Stroke and Spinal Cord Injury for Reintegration into Society (MARS3)	170	93.433	CC 81765//90RE5010-02-00	49,024	
Northwestern University Advanced Rehabilitation Research Training Application		93.433	90AR5019-02-00	4,458	
Northwestern University Advanced Rehabilitation Research Training Application		93.433	90AR5019-03-00	106,468	
Rehabilitation Science for Basic Scientists and Engineers: An Advanced Training Program		93.433	90AR5031-01-00	62,766	
Rehabilitation Strategies, Techniques, and Interventions	170	93.433	CC# 81353 3037//90ER5013-01-00	74,832	
The Development of an Algorithm for Intuitive Control of Grasp and Release During Functional Arm Activities Following Stroke		93.433	90IF0090-01-00	24,704	
The Midwest Regional Spinal Cord Injury Model System	170	93.433	RIC 1/5/17 // 90SI5022-01-00	8,955	
				650,803	42,995
Developing Optimal Strategies in Exercise and Survival Skills to increase Health and Function	170	93.443	CL3802, CC81039//90RT5027-01-00	60,761	
Agency for Healthcare Research and Quality					
Health Services Research Training Grant	221	93.225	FP037911//5T32HS000084-19	111,414	
Northwestern University-University of Chicago HSR Postdoctoral Training Program		93.225	5T32HS000078-20	718,857	315,466
				830,271	315,466
Addressing the Needs of Individuals Early After Stroke: An Adaptation of the 14-Weeks to a Healthier You Program		93.226	1F32HS024366-01	53,605	
Develop and Validate Health IT Safety Measures to Capture Violations of the 5 Rights of Medication Safety	49	93.226	4(GG012713-02)//1R01HS024538-01	21,717	
Development of SCRIPtS: Standardized Consent Redesign and Implementation Protocol for tPA in Stroke		93.226	1F32HS025330-01	1,493	
EHR Based Medication Complete Communication Strategy to Promote Safe Opioid Use		93.226	5R18HS023459-03	434,616	41,445
Evaluating the Implementation of a Multi-Component Quality Collaborative		93.226	5R01HS024516-02	262,921	2,911
Examining Non-Visit-Based Antibiotic Use to Improve Safety and Limit Resistance		93.226	5R01HS024930-03	66,077	
Health related quality of life and seizure medications after hemorrhagic stroke		93.226	5K18HS023437-02	179,419	3,782
Identifying Opportunities to Reduce STI/HIV Disparities among Recent Offenders.	103	93.226	1N4681903NW//5R01HS023318-02	30,462	
Improving Outpatient Safety of Older Adults through Electronic Patient Portals		93.226	1R21HS024071-01 REVISED	105,817	
Improving Safety for Ambulatory Surgical Seniors		93.226	5K08HS024158-02	85,801	
Improving the Quality of Pediatric Emergency Care Using an Electronic Medical Record		93.226	5R01HS020270-06	135,089	131,414
In Situ Simulation for Adoption of New Technology to Enhance Safety in Rural EDs		93.226	1R18HS024027-03	191,750	109,033
Innovative methods for modeling longitudinal medical costs		93.226	4R01HS020263-05	267,042	43,188

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Midwest Small Practice Care Transformation Research Alliance		93.226	5R18HS023921-03	4,238,279	2,800,412
Mitigating Geographic Disparity in Deceased-Donor Liver Allocation using a Systems-Approach.		93.226	1R36HS024840-01	32,566	
Northwestern University – Patient-centered Intervention and Engagement Training		93.226	5K12HS023011-04	741,960	109,803
Parent Training in Pediatric Primary Care: A Self Directed Tablet Based Approach	231	93.226	Agt4/21/17/15012705sub1/R01HS024273	19,401	
Physical Therapy Delivery Models for Long-Term Parkinsons Disease Management		93.226	5F32HS025077-02	68,569	
Preventing Wrong-Drug and Wrong-Patient Errors with Indication Alerts in CPOE Systems		93.226	5R01HS024945-02	186,287	76,902
R36 for Gayle Kricke in Support of: The Association between Multiple Chronic Conditions, Care Coordination, and the Perception of High Quality End-of-Life Care for Older Adults		93.226	1R36HS024890-01	23,411	
Reducing the risk of preventable postpartum lower extremity nerve injuries		93.226	1R03HS025267-01	6,029	
The Center for Education and Research on Therapeutics (CERTs) Scientific Forum	122	93.226	OOS100238-NWSTRN // U19HS021107 Amd. 1	8,842	
The Impact of Behavioral Health Treatment among Adolescent Offenders	103	93.226	5R01HS024296-02	40,000	
Tools for Optimizing Medication Safety (TOP-MEDS)		93.226	4U19HS021093-05	532,520	323,100
Using Location-Based Smartphone Alerts within a System of Care Coordination		93.226	1R21HS025000-02	133,413	11,423
				7,867,086	3,653,413
Measurements for NQF Project	136	93.RD	5U18HS020498//HHSP233201550101A	13,393	
Measures to National Quality Forum – 2	136	93.RD	Agmt 04/30/17//HHSP233201600230A	26,648	
The Comprehensive Unit-based Safety Program (CUSP) for Antibiotic Stewardship	118	93.RD	2003440649//HHSP233201500020I	31,597	
The National Implementation of Team STEPPS	91	93.RD	80784//HHSA2902010000I Task#9	34,090	
Centers for Disease Control and Prevention					
Engaging Indigenous Organizations to Sustain and Enhance Comprehensive Clinical Services for the Prevention, Care and Treatment of NIH/AIDS in the Federal Republic of Nigeria	3	93.067	Sub under U2GGH00924-05	76,446	
Developing and Disseminating Programs to Build Sustainable Lupus Awareness, Knowledge, Skills, and Partnerships	12	93.068	6NU58DP006138-02-02	4,674	
Community Counts: Public Health Surveillance for Bleeding Disorders (Region #V-West, HTC #553)	87	93.080	ATHN2015-VW-1-553/ 1 NU27DD001155-02-00	13,248	
Young Men who have Sex with Men HPV Prevalence Study	235	93.135	3210000169-16-138//5U48DP005014-02	6,533	
Chicago Center for Youth Violence Prevention	221	93.136	FP061138//1U01CE002712-01	139,065	
The roles of TfRs and HSPA5 uptake		93.262	5R01OH010469-04	578,176	183,924
An Individually Tailored, Family-Centered Intervention for Childhood Obesity: Connecting Services in Pediatric Primary Healthcare, the Home, and the Community.	19	93.535	16-995//1U18DP006255-01	198,751	
Rural Cancer Prevention Center 2014-2019 (SIP-15-007)	235	93.542	3210000447-17-156/3U48DP005014-03S6	78,362	
HIV Behavioral Surveillance Activities	41	93.940	30626//U1BPS003260	(2,416)	

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Effect of ACA Medicaid Expansion on Diabetes: Diagnosis, Treatment, Patient Compliance, and Health Outcomes		93.945	5U18DP006120-03	350,187	33,397
Effectiveness of a National Health Care Community Partnership to Prevent Diabetes		93.945	5U58DP002718-05 Revised	<u>25,453</u>	
				375,640	33,397
Illinois Perinatal Quality Collaborative (ILPQC)	99	93.946	66380016D//U38DP005367	143,600	42,866
Illinois Perinatal Quality Collaborative (ILPQC)	99	93.946	76380016E//5NU38DP005367-03-00	<u>218,038</u>	
				361,638	42,866
Biostatistical Support for HIV Outpatient Study (HOPS)	38	93.RD	Agmt 10/25/10	(115,124)	
Intergovernmental Personnel Act Agreement for Theresa Rowe		93.RD	17IPA1708457	30,404	
PRAMS for DADS Formative Research		93.RD	200-2015-M-63124//000HCUCJ-2015-85590	27,675	
Centers for Medicare & Medicaid Services					
Coordination of Healthcare for Complex Kids (CHECK)	231	93.610	15892//1C1CMS331342-03-00	22,793	
Geriatric Emergency Department Innovations (GEDI WISE)	94	93.610	0254-5703-4609/C1CMS331055-03-00	0	(1,405)
The UCSF and UNMC Dementia Care Ecosystem: Using Innovative Technologies to Personalize and Deliver Coordinated Dementia Care	248	93.610	36-5228-2013-002//5C1CMS331346-02-0	<u>9,930</u>	
				32,723	(1,405)
Development and Maintenance of Post-Acute Care Cross-Setting Standardized Patient Assessment Data	169	93.RD	9920170059//HHSM-500-2013-13014I	52,020	
Estimating Benefits in Risk Reduction from Cardiovascular Preventive Therapies in Medicare Patients	141	93.RD	106955//HHSM-500-2012-00008I	19,718	
MACRA-Provider Resource Network (M-PRN)	8	93.RD	SC-17-009//HHSM-500-2017- 00004	52,828	
Food and Drug Administration					
A double blind, randomized, vehicle controlled, crossover study with an open-label long-term extension, to evaluate the safety and efficacy of topical naloxone hydrochloride lotion, 0.5%, for the relief of pruritus in patients with the mycosis fungoides	65	93.103	No.EL-1007-01-01//R01FD005396	26,290	
Increasing the Quality and Efficiency of Clinical Trials	61	93.103	5R18FD005292-02 ADDENDUM	76,771	
Increasing the Quality and Efficiency of Clinical trials	61	93.103	203-8317//5R18FD005292-02	27,541	
Phase 2 Study of Esophageal String Test in Diagnosing Eosinophilic Esophagitis	231	93.103	Agmt Dated 992014//1R01FD004086-03	17,182	
Phase 2 Study of Intravenous Gallium Nitrate in the Treatment of Cystic Fibrosis	265	93.103	UWSC8836//2R01FD003704-03A1	<u>24,305</u>	
				172,089	

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The influence of brand and principal display panel (PDP) for safe consumer use of over-the-counter (OTC) drugs —Advancing the science		93.RD	HHSF223201510126C//0004	51,605	4,457
Health Resources and Services Administration					
Comparative Effectiveness Research through Collaborative Electronic Reporting (CER2)	10	93.110	NUCER2016//R40MC24943-03-04	25,589	6,064
Hemophilia Treatment Center (HRSA Award)	87	93.110	Agmt 10/31/16//H30MC24052	40,197	
Racial and Ethnic Disparities in Autism Diagnosis and Educational Therapy Utilization: Quantifying the Contribution of Modifiable Mediators		93.110	7 R40MC30751-01-00	<u>2,225</u>	
				68,011	6,064
A joint CCHHS/Northwestern Preventive Medicine Residency with Integrative Health Care Training Program	92	93.117	01351-NoA-NWU01//D33HP29245-01-01	158,136	49,495
Promotoras de Donación: Leveraging Lay Educators to Increase Donor Registration in Older Hispanic Women	196	93.134	1R390T29878-01-00	60,166	
Graduate Psychology Education Program		93.191	5 D40HP25719-03-00	15,171	
Affordable Care Act Teaching Health Center (THC) Graduate Medical Education (GME) Payment Program		93.530	6T91HP215420403	(29,197)	
Affordable Care Act Teaching Health Center (THC) Graduate Medical Education (GME) Payment Program		93.530	T91HP215420502	<u>2,379,193</u>	<u>979,338</u>
				2,349,996	979,338
Academic Units for Primary Care Training and Enhancement		93.884	1UH1HP29963-01-00	542,969	152,351
Faculty Development in Primary Care Program		93.884	D55HP23201-04-00	<u>64,705</u>	<u>63,466</u>
				607,674	215,817
Use of Social Media to Improve Engagement, Retention, and Health Outcomes along the HIV Care Continuum	93	93.928	AGREEMENT 3/10/16 // 1 H97HA288910100	21,421	
Better Health through Education and Transformation of Older Adult care in Illinois	176	93.969	1UQHP28715-02//6U1QHP287150101	1,942	
Building Data Infrastructure in the Safety Net to Conduct Patient-Centered Outcomes Research	7	93.RD	001C-06//HHSH25201400001C	18,883	
Building Data Infrastructure in the Safety Net to Conduct Patient-Centered Outcomes Research	7	93.RD	001C-07//HHSH25201400001C	17,918	
Building Data Infrastructure in the Safety Net to Conduct Patient-Centered Outcomes Research	7	93.RD	001C-08//HHSH25201400001C	6,173	
National Institutes of Health					
AHA Tobacco Regulatory Science and Addiction Center (A-TRAC)	246	93.077	65105010617-NWU//P50HL120163	21,370	
American Heart Association Tobacco Regulation and Addiction Center “A-TRACK”	13	93.077	FX-ATRAC-NWU-04//4P50HL120163-04	(4,969)	
American Heart Association Tobacco Regulation and Addiction Center “A-TRACK”	13	93.077	FX-ATRAC-NWU-04//4P50HL120163-04	<u>123,085</u>	
				139,486	

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Association of ALS to gene-environment mediated changes in HDL proteins		93.113	5R01ES022310-05	589,875	
Carbon Nanotube Structure-Activity Relationships for Predictive Toxicology	215	93.113	0521 G RA276//5R01ES022698-04	120,254	
Epigenetic Mechanisms of PM-Mediated CVD Risk	249	93.113	5104343//4R01ES020836-05	58,088	
Ex Vivo Female Reproductive Tract Integration In a 3D Microphysiologic System		93.113	3UH3TR001207-05S1	1,497,241	280,385
Gene-Environment Interaction of ZnT8 and Cadmium - A Link to Diabetes Mellitus?		93.113	4K08ES020880-05	19,059	
Mechanisms of airborne particulate matter induced thrombosis	221	93.113	FP058473/7R01ES015024	39,202	
Mitigation of asbestos induced alveolar epithelial cell injury		93.113	4R01ES020357-05	117,069	
Protein Adducts as Measures of Exposure Throughout Childhood Development		93.113	5R21ES026776-02	183,155	
Regulation of the DNA and RNA methylome by PM-induced mitochondrial ROS and IL-6	221	93.113	FP059070-02//R21ES025644	38,519	
The role of alpha-T-catenin in the pathogenesis of occupational asthma		93.113	5F30ES024622-03	44,376	
				2,706,838	280,385
Cortico-Striatal Plasticity in the Transition to Chronic Pain		93.121	5R01DE022746-04	(2,450)	
Cortico-striatal plasticity in the transition to chronic pain		93.121	4R01DE022746-05 REVISED	460,384	
Epigenetic Profiling of Oral Cancer Cells		93.121	5R21DE024388-02	46,932	
Impacting The Oral HPV Continuum: Prevention, Screening, And Early Detention	118	93.121	2003348761//1R35DE026631-01	6,222	
Nanoscale structure and phase composition of sound and carious enamel		93.121	5R03DE025303-02	52,506	
Nanotechnology Strategies for the Growth of Bones and Teeth		93.121	5R01DE015920-10	(27,703)	
Nanotechnology Strategies for the Growth of Bones and Teeth		93.121	5R01DE015920-10	56,315	56,315
The role of amorphous intergranular phases in the development of caries lesions		93.121	5R01DE025702-02 REVISED	534,769	
				1,126,975	56,315
Embedding Pharmacogenotyping in an Integrated Health System for the Underserved	102	93.172	1N4687739NU//5U01HG007762-03	31,390	
Gene Ontology Consortium	114	93.172	Agmt 7/31/12//2U41HG002273-16	39,252	
Genomic Medicine at Northwestern: Discovery and Implementation		93.172	5U01HG008673-03	1,032,276	
Interactive Multimedia Consent for Biobanking	233	93.172	1001514516//5R01HG008348-03	110,598	
				1,213,516	
A Family-Genetic Study of Language in Autism		93.173	5R01DC010191-08	292,673	7,852
Ability of older adults to benefit from dynamic pitch for speech recognition in noise		93.173	5F32DC014629-02	58,202	
Acoustic and Perceptual Effects of WDRC Amplification		93.173	5R01DC006014-11	(1,153)	
Acoustic and Perceptual Effects of WDRC Amplification		93.173	5R01DC006014-13	248,724	57,590
Anatomical Physiology of Semantic Associations in Primary Progressive Aphasia		93.173	5R03DC013386-03 REVISED	15,362	
Atrophy and resting state connectivity in primary progressive aphasia		93.173	5 K23 DC014303-03	162,834	
Attention-dependent neural oscillations in the human olfactory system		93.173	5R00DC012803-05 REVISED	294,771	

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Can Consumers and Audiologists Detect Ear Disease Prior to Hearing Aid Use?		93.173	5R33DC013115-05	624,263	335,233
Cellular Mechanisms Underlying Corticocollicular Modulation in the Auditory System	252	93.173	0033928 (124432-1)//5R56DC031272-02	51,901	
Central auditory deficits associated with HIV infection and treatment	56	93.173	R924 Amd 1 // 5R01DC009972-07	6,600	
Central auditory processing in HIV-positive individuals	56	93.173	R906//5R01DC014369-03 REVISED	23,577	
Characterizing Variability in Hearing Aid Outcomes Among Older Adults		93.173	4R01DC012289-05	223,316	135,857
Characterizing Variability in Hearing Aid Outcomes Among Older Adults		93.173	FDP2R01DC012289-06	63,851	
Core Center for Integrated Research on Human Communication Disorders		93.173	5P30DC012035-03	(1,027)	
Core Center for Integrated Research on Human Communication Disorders		93.173	5P30DC012035-05 REVISED	394,452	
CRCNS US-French Research Proposal Plastic Neural Circuits in Olfactory Learning		93.173	5R01DC015137-03	72,219	
Defining molecular mechanisms in the SLC26 family of proteins		93.173	5R03DC014553-03 REVISED	176,898	
Dynamic Interaction Among Proteins in Hair Cells		93.173	4R01DC011813-05	174,645	
Elucidating Mechanisms Underlying Odor-Mediated Memory Consolidation During Sleep and Wakefulness		93.173	5F31DC015374-02	43,529	
fMRI Correlates of Speech and Voice Impairment in Parkinson's Disease		93.173	5F31DC015717-02	33,511	
Genetic Determinants of Taste Preferences and Risk of Metabolic Disease		93.173	7R03DC013373-03	37,486	24,603
Glomerular domains and olfactory circuitry		93.173	5R03DC014565-02 REVISED	121,466	
Hearing in noise in early childhood: neurophysiological, cognitive, and linguistic mechanisms		93.173	1F31DC016205-01A1 REVISED	10,922	
Individual Differences with WDRC Amplification in Challenging Environments		93.173	1F31DC015373-01A1	37,301	
Language in Primary Progressive Aphasia		93.173	5R01DC008552-09	(11,775)	
Language in Primary Progressive Aphasia		93.173	4R01DC008552-10	379,328	
Language in Primary Progressive Aphasia		93.173	2R01DC008552-11	105,856	
Mapping and function of odorant receptors in the human olfactory system		93.173	5R01DC014426-03 REVISED	589,521	
Mechanisms Regulating Synaptic Function in the Developing Auditory System		93.173	5R03DC013841-03	169,059	
Nanotechnological Regeneration of Spiral Ganglion Neurons with Human Stem Cells		93.173	5K08DC013829-04	243,037	
Networks Underlying Visual Modulation of Speech Perception		93.173	1K99DC013828-01A1	289	
Networks Underlying Visual Modulation of Speech Perception	244	93.173	PO 3004297423 // 4R00DC013828-03	18,191	
Neural Correlates of Auditory Function and Training in Older Adults		93.173	5R01DC010016-05	69,734	
Neurobiology of Language Recovery in Aphasia: Natural History and Treatment-Induced Recovery		93.173	5P50DC012283-05 REVISED	2,338,519	1,028,779
Neurolinguistic Investigations of Aphasia and Recovery		93.173	2R01DC001948-20A1 REVISED	158,520	
NRSA F32 for Emily M Mugler in support of: The Cortical Dynamics of Motor Activity During Speech Production		93.173	5F32DC015708-02	43,300	
Olfactory Signaling, Cilia, and Sensory Disorders	227	93.173	UFDSP00010712//5R01DC009606-07	(380)	
Outer and Inner Hair Cell Development		93.173	1R01DC015903-01A1	22,779	
Perceptual Coding and Modulation of Odor Objects in the Human Brain		93.173	5R01DC010014-09 REVISED	255,565	
Pre-Implantation Communication Treatment for Children with Hearing Loss		93.173	5R03DC012639-04	(1,378)	
Principles of olfactory reward processing in the human brain		93.173	5R01DC015426-02	307,016	
PROMIS-Deaf Profile: Inclusion of Deaf Patients in Disability and Outcomes Research	79	93.173	0000025075//7R01DC014463-02	47,539	

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Proteome Biology of Noise Induced Hearing Loss		93.173	5R00DC013805-04 REVISED	254,108	
Regulation of singular expression in Trace Amine-Associated Receptors		93.173	3F32DC015962-01S1	32,093	
Research and Mentoring on Swallowing Impairment and Respiratory-Swallow Coordination		93.173	5K24DC012801-06 REVISED	125,409	
Rhythm and temporal processing in the perception of speech in noise		93.173	5F31DC014891-02 REVISED	4,048	
Role of B-cell mediated inflammation in Chronic Rhinosinusitis with Nasal Polyps		93.173	4K23DC012067-05 REVISED	113,677	
Sensory Interaction in Voice and Voice Disorders	266	93.173	629K031//1R01DC014519-01A1 Amd 1	43,608	
Spatiotemporal Mechanisms of Olfactory Processing in the Human Brain		93.173	5R01DC013243-03	(77)	
Spatiotemporal Mechanisms of Olfactory Processing in the Human Brain		93.173	5R01DC013243-05 REVISED	196,155	
Studies in Cochlear Hair Cell Transduction		93.173	5R01DC000089-45	95,329	
Talker-Listener Alignment During Speech Production and Perception		93.173	5R01DC005794-09	49,401	
The role of parent phenotype in parent-mediated language interventions for autism		93.173	5R01DC014709-03	678,720	17,980
The Roles of Espins in Hair Cell Stereocilia		93.173	5R01DC004314-16 REVISED	442,873	
Trace Amine-Associated Receptors and Olfactory Behavior in Mammals		93.173	5R01DC013576-04	602,966	
Understanding the Benefits of Infrared Nerve Stimulators for Neural Interfaces		93.173	4R01DC011855-05	332,339	
Understanding the Voice Control System in Parkinson's Disease	182	93.173	NW0001//1R03DC013883-02	4,732	
User-centered control of hearing aid signal processing	26	93.173	Agreement 8/14/2017 // 7R44DC013093-03	166,213	
				11,042,637	1,607,894
Brain mechanisms for clinical placebo in chronic pain		93.213	5R01AT007987-03	(132)	
Brain mechanisms for clinical placebo in chronic pain		93.213	4R01AT007987-05	1,042,895	
Creating and Optimizing Mindfulness Measures to Enhance and Normalize Clinical Evaluation (COMMENCE)		93.213	5R01AT009539-02	26,065	
Mass Spectrometric Studies of Thiotemplate Biosynthesis		93.213	5R01AT009143-14 REVISED	300,366	
Mechanisms of Probiotic Analgesia		93.213	5R01AT007701-03	362,844	
				1,732,038	
Multidisciplinary Treatment for Obstructive Sleep Apnea and Insomnia		93.233	7R01HL114529-05	231,523	
Sleep Disturbance and Risk for Adverse Pregnancy Outcomes		93.233	R01HL105549	58,328	31,128
				289,851	31,128
1/2 - Online Collaborative Learning Intervention to Prevent Perinatal Depression	231	93.242	2015-02053-01-00//R34MH102478	4,156	
2/2 - Suicide Prevention in Chinese Older Adults		93.242	5R34MH100393-03	156,402	118,880
2/2 Targeted Sequencing and Functional Evaluation of Mutations in Schizophrenia	150	93.242	EH13-344-S2//5R01MH100915-04 REVISED	27,695	
A Family-Genetic Study of Autism and Fragile X Syndrome		93.242	4R01MH091131-05	705,878	225,744
A Mobile Behavioral Monitoring Intervention for Bipolar Disorder		93.242	5R34MH100460-03	755	
Acute Estradiol Regulation of Excitatory Synapses in the Hippocampus		93.242	4R01MH095248-05 REVISED	193,566	

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Age-Related Histone Modification Effect on Antipsychotic Action		93.242	5R01MH109466-02 REVISED	314,452	
Artificial Intelligence in a Mobile Intervention for Depression (AIM)		93.242	5R01MH100482-03	215	
Artificial Intelligence in a Mobile Intervention fro Depression (AIM)		93.242	5R01MH100482-05	733,456	
Behavioral Relevance of Active Dendritic Mechanisms of Integration and Plasticity		93.242	5R01MH101297-05 REVISED	416,523	
Characterizing antidepressant-like effects of a novel peptide HCN channel inhibitor		93.242	1R21MH113262-01	66,674	
Chloride homeostasis and GABA maturation in fragile X syndrome		93.242	5R21MH104808-02	326,681	
Collaborative Data Synthesis for Adolescent Depression Trials		93.242	7 R01 MH040859-26	(9,507)	
Collaborative Data Synthesis for Adolescent Depression Trials		93.242	7 R01 MH040859-26	(125)	(125)
Connecting Patients and Therapists Using a Tech-Based Treatment Support System		93.242	5K08MH102336-04	240,126	
Contributions of Parallel Nigrostriatal Dopamine Circuits to Reward Learning and Habit Formation		93.242	4R00MH109569-03	53,592	
Core C:Genomics, Proteomics & Pheotyping; Conte Center for Computational System Genomics of Neuropsychiatric Phenotypes	221	93.242	FP046983-E//1P50MH094267-05	(3,078)	
Cortico-Hippocampal Mechanisms of Context Memory		93.242	5R01MH108837-02 REVISED	389,287	
Developing an Integrated Mental Health Model for Home Visitation		93.242	7 R34 MH093514-03	12,211	1,304
Dimensions of Early Temper Loss and Low Concern: Clinical Utility and Mechanisms		93.242	5U01MH082830-09 REVISED	677,520	91,041
Discovery of novel small molecule antidepressants		93.242	5R01MH106511-02 REVISED	445,728	
Early Traumatic Stress Exposure: Neurodevelopmental Mechanisms of Clinical Risk	226	93.242	UCHC6-67337016 // U01-MH090301	(11,033)	
Effectiveness Trial of Youth Suicide Prevention Delivered by Teen Peer Leaders	253	93.242	416177-G//R01MH091452	21,356	
Evaluation of antidepressant-like effects of hippocampal HCN channel modulation		93.242	5R21MH104471-02	24,486	
Exercise and markers of medial temporal health in youth at-risk for psychosis		93.242	4R33MH103231-03	274,346	30,859
From Irritability to Impairment: How Neurodevelopment of Executive Function and Parent-Child Neural Synchrony Influence the Transition from Normal to Abnormal	252	93.242	0046528 (126659-1)//1R01MH107540-02	27,365	
Generating an Earlier Science of When to Worry: A Neurodevelopmental, Transactional Approach to Characterizing Irritability Patterns Beginning in Infancy		93.242	5R01MH107652-02 REVISED	631,083	40,797
Health Consequences of Food & Nutrition Insecurity for HIV+ Women & Their Infants		93.242	7K01MH098902-06	48,499	
Health consequences of water insecurity for HIV-infected mothers & their infants		93.242	5R21MH108444-03 REVISED	71,903	53,259
Identification of cell type specific actions of antipsychotic drugs	175	93.242	AGMT 6/30/14 // P50MH090963	(10)	
IGFI and Depression		93.242	4R01MH094835-05	155,281	
Internet Psychotherapy for Treating Bipolar Disorder in Primary Care	252	93.242	0046483(126383-1)//1R34MH107541-03	72,221	
Kainate receptor signaling in striatal synaptic function and plasticity		93.242	5F31MH099807-03	(655)	
LATIN-MH: Latin America Treatment and Innovation Network in Mental Health	78	93.242	2016.86612.001//5U19MH098780-04	16,765	
LifeSense: Transforming Behavioral Assessment of Depression Using Personal Sensing Technology		93.242	1R01MH111610-01A1	17,628	
LiveWell: A Mobile Intervention for Bipolar Disorder		93.242	5R01MH110626-02	579,149	109,727
Mechanisms of Stress-Enhanced Aversive Conditioning		93.242	5R01MH078064-08	(16,029)	
Mechanisms of Stress-Enhanced Aversive Conditioning		93.242	5R01MH078064-11 REVISED	380,640	

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Molecular mechanisms of abnormal dendritic spine plasticity in schizophrenia		93.242	4R01MH097216-05	172,810	
Molecular, anatomic, and functional characterization of midbrain dopamine neuron subtypes		93.242	1R01MH110556-01A1	235,512	
Neural Habituation in Ultra High-Risk Youth		93.242	1R21MH110374-01A1	11,875	
New Tools to Study Neurosteroid Estrogens		93.242	5R01MH113189-02	688,676	
Noninvasive Manipulation of Hippocampal-Cortical Brain Networks and Memory		93.242	5R01MH106512-03	516,987	50,350
Noninvasive modulation of prefrontal contributions to the organization of episodic memories		93.242	5R21MH108863-02 REVISED	186,363	
Novel Methods for Evaluation and Implementation of Behavioral Intervention Technologies for Depression	49	93.242	1(GG008480)//1R01MH1094696-02	87,405	
NRSA F30 for Daniel W Fisher in support of: Role of HCN Channels in Major Depressive Disorder Etiology and Treatment		93.242	5F30MH109249-03	37,822	
Optimized dosing of repetitive transcranial magnetic stimulation for enhancement of hippocampal-cortical networks		93.242	1R01MH111790-01	288,181	
Perception and central coherence in autism: A family genetic eye-tracking study		93.242	5R03MH107834-02	61,072	
Plasticity of Auditory Cortical Circuits in Schizophrenia	252	93.242	0038377 (1245412-1)/5R01MH07533-13	217,759	
Positive affect skills for depression: Optimizing internet and mobile delivery		93.242	5R34MH101265-03	152,711	13,548
Postsynaptic roles of ankyrin		93.242	5R01MH107182-03 REVISED	670,112	
Preclinical and Patient Studies of Affective Disorders in Serbia		93.242	5R21MH098793-02	(3,962)	
Primary Care Internet-Based Depression Prevention for Adolescents	231	93.242	058831-00001//5R01MH09003505-06	34,724	
Recording Neural Activities onto DNA	170	93.242	CC# 81347 3024//1R01MH103910-01	(103)	
Recording Neural Activities onto DNA	170	93.242	CC 81347 3024//R01MH103910	491,645	
Reducing HIV Stigma to Improve Health Outcomes for African American Women	265	93.242	UWSC6862//4R01MH098675-05	65,315	22,104
Risk for Bipolar Disorder: Reward-Related Brain Function & Social Rhythms	196	93.242	360955-NW // 4R01MH077908-9	23,950	
SchizConnect: Large-Scale Schizophrenia Neuroimaging Data Mediation & Federation		93.242	5U01MH097435-03	(4,223)	(4,223)
SchizConnect: Large-Scale Schizophrenia Neuroimaging Data Mediation & Federation		93.242	4U01MH097435-04 REVISED	205,752	153,297
Sleep Homeostasis, Plasticity and Memory		93.242	5R01MH092273-05	24,547	
Small GTPase signaling in spines		93.242	5R01MH071316-13 REVISED	620,134	19,868
Stepped Telemental Health Care Intervention for Depression		93.242	5R01MH095753-02	(33)	
Stepped Telemental Health Care Intervention for Depression		93.242	5R01MH095753-02	1,571	1,571
Stepped Telemental Health Care Intervention for Depression		93.242	4R01MH095753-05	924,627	
Symptom Dimensions of Threat-and Reward-Related Neurocircuitry	215	93.242	0875 G SA507 Amd No. 3 // 5R01MH100177-04	340,441	
Synaptic and dendritic dysfunction in psychiatric disorders		93.242	2R01MH097216-06	33,102	
Systematic Functional Interpretation of Regulatory Variants in Schizophrenia	150	93.242	EH15-150-S1//5R01MH106575-02 REVISED	50,186	
Tech-Based Depression and Anxiety Treatment for Youth in High Risk Environments		93.242	4K08MH094441-05	165,483	
Technology Assisted Intervention for the Treatment and Prevention of Depression		93.242	5P20MH090318-05 revised	291,779	
The role of glutamate receptors in compulsive and perseverative behavior		93.242	5R01MH099114-04	(60,358)	
The role of glutamate receptors in compulsive and perseverative behavior		93.242	4R01MH099114-05	358,889	
Training Program in Neurobiology of Information Storage		93.242	5T32MH067564-13	(108)	

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Training Program in Neurobiology of Information Storage		93.242	4T32MH067564-15	196,883	
Transformation of the stress response into motor behavior by the external globus pallidus	258	93.242	0012774A/1R01MH112768-01A1	13,607	
Understanding the Role of Epac2 in Cognitive Function		93.242	4F30MH096457-04	20,530	
Virtual Reality Job Interview Training to Enhance Supported Employment for Adults with SMI	244	93.242	3004704106//R01MH110524	30,426	
Virtual Reality Job Interview Training to Enhance Supported Employment for Adults with SMI		93.242	1R01MH110524-01	<u>260,209</u>	<u>77,912</u>
				14,457,500	1,005,913
Alcohol Biomarkers in Post Liver Transplant Patients		93.273	5K24AA015390-10	13,147	13,147
College Alcohol Assessment and Intervention Training Simulation	183	93.273	Amend. 003//5R44AA022265-03	156,318	
Efficacy of Couples-Based HIV Prevention in Vulnerable Young Men		93.273	1R01AA024065-2	315,693	
Modulation of epigenetically controlled cardiac repair mechanisms by ethanol		93.273	5K01AA022134-03 REVISED	24,451	
Newborn Phosphatidylethanol Screening to Detect Fetal Alcohol Exposure in Uruguay		93.273	5U01AA023176-03	513,395	282,436
Role of Alcohol Disparities in HIV Risk among Sexual Minority Youth		93.273	2R01AA024409-02 REVISED	281,781	
Virtual Role-Plays to Train Cognitive-Behavioral Treatment for Addictions	183	93.273	Agr. 10/24/2014//5R44AA023719-03	<u>43,572</u>	
				1,348,357	295,583
A Multilevel Network Model of Drug Use and HIV Racial Disparities in Men		93.279	5K08DA037825-03	141,685	
A New Approach to Integrating Primary and Secondary HIV Prevention in Young Male Couples		93.279	1DP2DA042417-01	335,251	
A Systems-level Approach to Studying HIV/AIDS Susceptibility and Substance		93.279	4R01DA033773-05	690,216	206,377
A Systems-Level Approach to Studying HIV/AIDS Susceptibility and Substance Abuse		93.279	5R01DA033773-04	2,164	2,164
Center for Prevention Implementation Method for Drug Abuse & Sex Risk Behavior		93.279	3P30DA027828-05S1	(489)	
Center for Prevention Implementation Method for Drug Abuse & Sex Risk Behavior		93.279	3P30DA027828-05S1	5,053	4,876
Center for Prevention Implementation Methodology for Drug Use and HIV (Ce-PIM)		93.279	3P30DA027828-07	1,168,486	93,044
Chemokine Receptor Function in the Nervous System		93.279	5R01DA013141-15 REVISED	9,376	
Cognitive-Affective Substrates of Smoking: Targets for Maternal Behavior Change		93.279	3K23DA037913-03S1	164,196	
Different Components of Nicotine-Induced Upregulation of Nicotinic Receptors	221	93.279	FP052975//1R01DA035430-03	107,959	
Distress Intolerance on Smoking Lapse among Motivated vs. Unmotivated Smokers		93.279	7F32DA036947-02	384	
Diversity Supplement: Implementation of Evidence-Based Preventative Parenting Programs	19	93.279	15-737//R01DA0033991	55,526	
Drug Abuse, Incarceration, Health Disparities in HIV/AIDS		93.279	5R01DA028763-05	187,671	
Efficacy of Internet-Based HIV Prevention		93.279	5R01DA035145-04	(520)	
Efficacy of Internet-Based HIV Prevention		93.279	5R01DA035145-04	81,989	81,989
Efficacy of Internet-based HIV prevention		93.279	4R01DA035145-05	468,143	91,052
Evaluating the Effectiveness of an eHealth EBI for Latino Youth in Primary Care	243	93.279	669152//1R01DA040756-02	23,409	
fMRI-based biomarkers for multiple components of pain	224	93.279	1554072//4R01DA035484-05	27,789	
Identifying nicotine, withdrawal mechanisms hidden within habenular complexity		93.279	5R01DA040626-02	375,753	

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KiiDS: Knowing about Intervention Implementation in Detention Sites	67	93.279	T443871/U01 DA036233	(2,943)	
KiiDS: Knowing about Intervention Implementation in Detention Sites	67	93.279	T811257//5U01DA036233-05	23,645	
Measuring Coalition Capacity to Foster Program Sustainment	254	93.279	63501087//5R34DA037516-02	36,280	
Methamphetamine and Parkinson's disease: converging mechanisms of pathogenesis		93.279	5K99DA039253-02	150,066	
Methamphetamine and terminal oxidant stress in dopaminergic neurons	175	93.279	5P30DA035756-04	618	
Multilevel Influences on HIV and Substance use in a YMSM Cohort		93.279	5U01DA036939-04	1,723,837	6,428
netCanvas: Development, Hardening, and Dissemination of a Software Suite for the Collection of Complex Network and Contextual Data in HIV and Drug Research		93.279	5R01DA042711-02 REVISED	682,691	30,563
Neural mechanisms of context-dependent stimulus generalization in humans		93.279	1R03DA040668-01A1	226,951	
New Inactivators of GABA Aminotransferase for Addiction and Epilepsy		93.279	5R01DA030604-07 REVISED	417,650	56,421
Nicotinic acetylcholine receptor function in the mesolimbic dopamine system		93.279	5R01DA035942-04 REVISED	481,434	
NRSA F32 for Brian Feinstein in Support of: Dyadic influences on HIV risk behavior and substance abuse among young men who have sex with men and their partners		93.279	5F32DA042708-02	63,337	
RCT of an integrative intervention for non-treatment-seeking meth users	218	93.279	8244sc//5R01DA033854-05	11,517	
UIUC Neuroproteomics and Neurometabolomics Center on Cell to Cell Signaling	232	93.279	2014-01446-01//5P30DA018310-04	211,485	
Vulnerability to Drug Use & HIV: Advancing Prevention for Rural African Americans	228	93.279	RR376-428/4945376 Amd 5 // 2P30DA027827-06	165,133	
				8,035,742	572,914
Understanding the Role of Epac2 in Cognitive Function		93.282	5F30MH096457-03	(1,577)	
A Formalism for Customizing and Training Intelligent Assistive Devices		93.286	5R01EB019335-03	168,685	102,773
A Multi-Scale Modeling Construct of Knee Mechanics following ACL Reconstruction	170	93.286	CL4834//3U01EB015410-03S1	(35)	
A Multi-Scale Modeling Construct of Knee Mechanics following ACL Reconstruction	170	93.286	CL 4346 CC 81345 //5U01EB015410-02	121,556	
Antifouling Peptide Mimetic Polymers		93.286	5R01EB005772-07	(1)	
Antifouling Peptide Mimetic Polymers		93.286	5R01EB005772-07	126,066	126,066
Antifouling Peptide Mimetic Polymers		93.286	4R01EB005772-08	251,613	143,719
Antigen Loaded Particles for Tolerance Induction	244	93.286	Sub#3003585891//5R01EB013198-08	294,856	
Center of Excellence for Mobile Sensor Data-to-Knowledge (MD2K)	242	93.286	5-40604//5U54EB02040-04	173,848	
Enhancing Biomedical Engineering Senior Design at Northwestern University		93.286	5R25EB013060-05	6,003	
Frontal-Subcortical Development, Movement Abnormalities, and Risk for Psychosis	224	93.286	1554305 // 5R01MH094650-04	15,175	
High-throughput molecular-specific cell nanocytology for cancer screening		93.286	4R01EB016983-04	255,759	26,011
Interdisciplinary Graduate Education in Movement and Rehabilitation Sciences		93.286	5T32EB009406-07	159,206	
In-vivo characterization of pancreatic field carcinogenesis using spatially resolved reflectance measurements via a fiber optic probe		93.286	5F31EB022414-02	34,670	
Magnetic Nanocomposites for Catheter-Directed Drug Delivery to Liver Tumors		93.286	5R21EB017986-02	(743)	

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Mechanisms of Light Scattering in Living Tissue		93.286	5R01EB003682-08	(9)	(9)
Microconnectomics of neocortex: a multiscale computer model	192	93.286	1120566-75050/5U01EB017695-04	240,538	
Neurodegenerative and Neurodevelopmental Subcortical Shape Diffeomorphometry Software	118	93.286	2003341343//R01EB020062	92,847	
Preclinical Investigation of a Bioengineered Vascular Graft		93.286	5R01EB017129-03	(1,340)	
Preclinical Investigation of a Bioengineered Vascular Graft		93.286	4R01EB017129-04	304,439	58,570
Protein-Releasing Microporous Scaffolds for Cell Replacement Therapy	244	93.286	3003655776//5R01EB009910-08	218,410	
SCH: Interface Monitoring System to Promote Residual Limb Health		93.286	5R01EB019337-03	251,128	90,279
Shape Control and Transport Properties of DNA-Copolymer Micelles	118	93.286	2002586569 Amd 2//5R01EB018358-02-REVISED	191,928	
Steroid-Based Contrast Agents for Magnetic Resonance Imaging of Endocrine Diseases		93.286	5R01EB014806-04	3,311	2,059
Tissue-dynamics Imaging for Therapeutic Efficacy in Ovarian Cancer	165	93.286	4102-77270//5R01EB016582-03	44,520	
Transarterial Immunomodulatory Embolization: A novel approach to cancer therapy		93.286	3R21EB022291-02S1	193,841	47,202
Ultra-fast PCR amplification for a 5 minute Chlamydia point of care test	119	93.286	133055//5U54EB007958	19,163	
Unassisted Blood Pressure Monitoring Using Arterial Tonometry and Photoplethysmography		93.286	5U01EB020589-02	132,071	
Understanding Real-Life Falls in Amputees using Mobile Phone Technology	170	93.286	CC# 81920 CL3719//5R01EB019406-03	4,804	
				3,302,309	596,670
2017 LGBTQ Health Conference: Bridging Research and Practice		93.307	1R13MD011360-01	49,217	20,163
A Pragmatic Trial of An Adaptive eHealth HIV Prevention Program for Diverse Adolescent MSM		93.307	5U01MD011281-02	1,500,685	218,364
African American Cardiovascular pharmacogenetic CONsorTium (ACCOuNT): discovery and translation		93.307	5U54MD010723-02	1,397,804	926,862
Biological and Environmental modifiers of Vitamin D3 and Prostate Cancer Risk	209	93.307	281315//7R01MD007105-04	5,109	
Ethics in HIV Prevention Research Involving LGBT Youth		93.307	5R01MD009561-04 REVISED	502,572	199,915
Genomic Analysis of Enhanced Response to Heart Failure Therapy in African Americans	252	93.307	0041119 (124864-3)//1R01MD009118-02	5,719	
Genomic Analysis of Enhanced Response to Heart Failure Therapy in African Americans (GRAHF)	252	93.307	0041119(124864-6)//R01MD009118-02	18,375	
Health disparity in pharmacogenomics: African American SNPs and drug metabolism		93.307	5R01MD009217-05	319,407	
Integrating Text Messages into the Mothers and Babies Course to Address Depression in Low-Income Women and their Partners		93.307	5R21MD011320-02	188,557	68,813
Latino vs. Non-Latino Disparities in Advance Care Planning & End-of-Life Care	117	93.307	170406-01//5R01MD007652-04	49,585	2,157
Reducing Assessment Barriers for Patients with Low Literacy		93.307	1R01MD010440-01A1 REVISED	164,320	15,638
Steady 3: RECRUIT	258	93.307	0008663AU//U24 MD006941	51	
The Price of Debt: The Unequal Burden of Financial Debt and Its Impact on Health	239	93.307	S20140000026205// 5R01MD007723-03	13,108	
Understanding Patterns of Healthy Aging Among Men who have Sex with Men	252	93.307	0047269(126836-2)//5R01MD010680-03	88,748	
				4,303,257	1,451,912
A New High-Throughput Technology to Reveal the Dynamic Functional States of RNAs		93.310	7DP2GM110838-02	274,121	66,162
A Phase 2a Multi-Center Study of 18F-FDG PET, Safety, and Tolerability of AZD0530 in Mild Alzheimer's Disease	254	93.310	CTAFYN067//4UH3TR000967-02	51,616	

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A systems-level study of signaling networks and differentiation	221	93.310	FP060024//1R01EY025957-01A1	172,005	
Administrative Supplement to Study Sex/Gender Differences and HIV-1 Viral Particle Transmission Capability	191	93.310	66174//5R01GM111028-08	16,556	
Center for 3D Structure and Physics of the Genome	240	93.310	WA00474874/OSP2017053//5U54DK107980	76,464	
FYN Inhibition by AZD0530 for Alzheimer's Disease	217	93.310	67NWU/M15A11884	(210)	
Genetic mapping of visual circuits		93.310	1DP2EY027983-01	433,553	
National Research Mentoring Network for a Diverse Biomedical Workforce	245	93.310	Sub# N005259901//8U54GM119023-03	29,674	
National Research Mentoring Network for a Diverse Biomedical Workforce	266	93.310	706K661//5U54GM119023-03	32,627	
National Research Mentoring Network for a Diverse Biomedical Workforce	262	93.310	10045839-07//5U54GM119023-04	8,194	
Regulatory Circuits Controlling Regenerative Growth		93.310	1DP2DE024365-01	383,946	
Sub-micrometer x-ray tomography for neuroanatomy		93.310	5U01MH109100-03	647,977	201,950
				2,126,523	268,112
Improving Patient Reported Outcome Data for Research through Seamless Integration of the PROMIS Toolkit into EHR Workflows		93.350	5U01TR001806-02 REVISED	913,531	538,856
Northwestern University Clinical and Translational Science Institute (NUCATS)		93.350	5KL2TR001424-03	697,058	173,676
Northwestern University Clinical and Translational Science Institute (NUCATS)		93.350	5TL1TR001423-03	324,315	4,176
Northwestern University Clinical and Translational Sciences Institute (NUCATS)		93.350	5UL1TR001422-03	5,334,876	338,557
University of Pittsburgh Clinical and Translational Science Institute (CTSI) ACT Administrative Supplement	252	93.350	UoFP 0055353(128885-11//3UL1TR001857-01S1	20,137	
				7,289,917	1,055,265
EHR-Based Health Literacy Strategy to Promote Medication Therapy Management		93.361	5R01NR012745-05	132,775	4,961
EHR-based Universal Medication Schedule to Improve Adherence to Complex Regimens		93.361	5R01NR015444-02	295,420	114,957
HippoPCI Hippocampal Predictors of Cognitive Impairment in Breast Cancer Patients		93.361	5R01NR014182-04	(490)	
HippoPCI Hippocampal Predictors of Cognitive Impairment in Breast Cancer Patients		93.361	4R01NR014182-05	217,384	5,527
Interventions for Symptom Management in Older Patients with HAND	218	93.361	8729sc//5R01NR015223-03	46,211	
Life Enhancing Activities for Family Caregivers of People with Dementia	218	93.361	8431sc//R01NR014435-03	(5,010)	
Life Enhancing Activities for Family Caregivers of People with Dementia	218	93.361	9487sc//5R01NR015223-05	36,326	
More than a Movement Disorder: Applying Palliative Care to Parkinson's Disease	224	93.361	FY17.782.003//1R01NR016037-01A1	22,839	
Morning Light Treatment at Home to Improve Glucose Metabolism in People at Increased Risk for Type 2 Diabetes		93.361	7R21NR016377-02	4,734	
Quality of Life in Caregivers of Traumatic Brain Injury: The TBI-CareQOL	244	93.361	3002557849//5R01NR013658-04	86,000	
Refinement and expansion of the Palliative Care Research Cooperative Group	61	93.361	2035448//5U24NR014637-04	7,415	
Use of simulation to improve ventricular assist device self-management		93.361	1R21NR016745-01	142,173	

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User-Centered, Web-based Portal to Support Regimen Adherence in Transplant	67	93.361	T539496//R21NR014544	63,868	
Video Information Provider for HIV-Associated Non-AIDS (VIP-HANA) Symptoms	49	93.361	1(GG012114-01)//5R01NR015737-03	56,916	
				1,106,561	125,445
Annual International Science of Team Science Conference		93.389	5R13TR000046-05	8,753	8,753
Adapting patient navigation to promote cancer screening in Chicago's Chinatown		93.393	5R01CA163830-06	449,744	219,222
Aldo-keto reductase family 1 member B10 AKR1B10 in pancreatic carcinogenesis		93.393	4R01CA164041-05	179,208	17,885
Apigenin Restores TSP-1 Expression in UVB-Irradiated Keratinocytes		93.393	4R01CA172669-04	141,472	
Assessing PROMIS Other Simple Patient-Reported Measures for Cancer	133	93.393	1R01CA154537/ PO# 64197054	(170)	
Assessing PROMIS Other Simple Patient-Reported Measures for Cancer	133	93.393	PO 64780075/ NOR-178359-04 R01CA15453	38,633	
Behavioral Activation and Varenicline for Smoking Cessation in Depressed Smokers		93.393	5R01CA184211-04	785,936	395,274
Communicate and LEarn About youR Variant of Uncertain Significance (CLEAR VUS)		93.393	5R03CA194643-02 REVISED	101,486	23,174
Comparative Effectiveness of Genomics Assay for Active Surveillance Failure Prediction in African American Men: the impact of genetic ancestry and socioeconomic status		93.393	5R21CA20255-02 REVISED	200,542	17,430
Contralateral Prophylactic Mastectomy: The Patient Decision-Making Process		93.393	5R21CA175950-02	7,566	
Core Essential Genes in Primary Effusion Lymphoma Cell Lines		93.393	5R21CA210904-02	159,565	
Culturally Adapted Cognitive Behavioral Stress and Self-Management (C-CBSM) Intervention for PC		93.393	1R01CA206456-02	452,917	164,367
Evaluating the protective effect of a tissue selective estrogen complex (TSEC) in women with newly diagnosed ductal carcinoma in situ		93.393	1R01CA218436-01	8,150	
Exploring a new therapeutic approach through targeting epigenetic enzymes in ALL		93.393	5R00CA188293-04	179,456	
Extended Duration Varenicline for Smoking Among Cancer Patients: A Clinical Trial	251	93.393	559692//1R01CA165001-04	(309)	
Extended Duration Varenicline for Smoking Among Cancer Patients: A Clinical Trial	251	93.393	568912//4R01CA165001-05	202,708	
Functional Dissection of the K27M Histone Mutation In Gliomagenesis		93.393	7R01CA197313-02	46,540	
Genetically-Modified Neural Stem Cell Based Virotherapy for Invasive Gliomas		93.393	7R00CA160775-05	(10,748)	
Herpesvirus Gene Expression in Transformed Cells		93.393	5R01CA021776-38 REVISED	296,845	14,020
Histone Modification and Transcription Elongation in Human Cancer		93.393	5R50CA211428-02	171,342	
HPV and the DNA Damage Response		93.393	5R01CA142861-05	(3,118)	
HPV and the DNA Damage Response		93.393	5R01CA142861-07	349,360	
HPV Vaccination among Low-Income Hispanic Adolescents		93.393	5R21CA178592-03	35,818	29,887
In Vivo Model of Epstein-Barr Virus Latency		93.393	5R01CA073507-19	441,318	
Inhibition of pancreatic carcinogenesis via targeting c-Raf and sEH		93.393	5R01CA172431-05 REVISED	280,115	30,949
Inhibitors of the Epstgein-Barr Entry Machinery	190	93.393	60137701-40455-B//R01CA117794	(1,159)	
Inhibitors of the Epstgein-Barr Entry Machinery	190	93.393	60137701-40455//4R01CA117794-11	96,716	
Kaposi's Sarcoma-associated Herpesvirus Mimics of Cellular microRNAs		93.393	5R01CA180813-04 REVISED	175,774	

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Life Cycle of Human Papillomaviruses		93.393	5R37CA074202-18	(5,907)	
Methylomic biomarkers for magnesium deficiency and colon neoplasia prevention	267	93.393	VUMC 57993//5R01CA202936-03	452,442	
Mutations of Chromatin and its Modifying Machineries in Malignancies		93.393	5R35CA197569-03	912,418	
Progesterone Signaling and Blockade in Human Breast Tumorigenesis and Prevention		93.393	5R01CA192124-03	563,656	
PROMIS AYA/Optimizing Health Related Quality of Life Measurement in Adolescent and Young Adult Oncology: A PROMISing Solution	273	93.393	WFUHS114162//R01CA218398	4,296	
Prostate Cancer Susceptibility: The ICPG Study	133	93.393	64853091 NOR-181797-02//5U01CA089600-13	26,317	
Reducing the Effects of Active Surveillance Stress, Uncertainty and Rumination thru Engagement in Mindfulness Education (REASSURE ME)		93.393	5R01CA193331-02 REVISED	366,955	123,712
Regulation of Human Papillomavirus Gene Expression		93.393	5R01CA059655-24 REVISED	336,034	
Role of the Ndc80 Loop Domain and Cdt1 in Kinetochores Microtubule Attachments		93.393	5R00CA178188-05	218,783	
ROS and HIFa as molecular targets for chemoprevention in Sirt3 -/- breast cancers		93.393	5R01CA168292-04	(1,675)	
ROS and HIFa as molecular targets for chemoprevention in Sirt3 -/- breast cancers		93.393	4R01CA168292-05	278,023	
SIRT3 is a Mitochondrial Tumor Suppressor in ER/PR Positive Mammary Tumors		93.393	5R01CA152799-05	347,296	
Structural Cell Biology of DNA Repair Machines	214	93.393	7336107 // 2P01CA092584-16	52,808	
The National Person-Centered Assessment Resource (PCAR)		93.393	5U2CCA186878-04	1,446,969	538,464
Training primary care physicians to perform melanoma opportunistic surveillance		93.393	5R21CA182725-02	111,653	5,457
Transcriptional Elongation Control in Development and Disease		93.393	9R01CA214035-16S1	444,539	
Tumor Targeted Nanobins for the Treatment of Metastatic Breast and Ovarian Cancer		93.393	5U01CA151461-05	(266)	
Tumor Targeted Nanobins for the Treatment of Metastatic Breast and Ovarian Cancer		93.393	5U01CA151461-05	339	339
Using Text Messaging to Increase HPV Vaccination among Young Sexual Minority Men		93.393	5R21CA208329-02	115,694	
				10,456,081	1,580,180
(PQD5) imaging systemic tissue injuries induced by anticancer drugs		93.394	5R01CA185214-04 REVISED	494,412	
A comparison of interventions to teach patients skin self-examination		93.394	5R01CA154908-07 REVISED	664,101	256,528
A Phase IB/II Trial of ALT-801 in Combination with Cisplatin and Gemcitabine in Muscle Invasive or Metastatic Urothelial Cancer	9	93.394	CA-ALT-80-01-10//5R44CA097550-07	1,700	
Biophotonics to Couple Pancreatic with Upper GI Screening via Ultrathin Endoscopy		93.394	5R01CA183101-03	567,529	345,568
Detection of 5-hmC as a Novel Screening Biomarker for Pancreatic Cancer		93.394	5R21CA187869-02	105,633	
Development of 5hmC and 5mC biomarkers in cell-free circulating DNA for sensitive colon cancer detection and prognosis	221	93.394	FP064995//U01CA217078	1,006	
Identification of Long Non-coding RNAs as Novel Biomarkers for Heterogeneous Glioblastomas		93.394	5R21CA209345-02	105,033	
Imaging in 2020-VIII: Integrating Molecular Imaging and Complex Biology		93.394	4R13CA162890-05	9,095	
MRI-Guided Dendritic-Cell-Based Vaccine Immunotherapy for Pancreatic Cancer		93.394	1R01CA209886-02	314,818	
MRI-Guided Irreversible Electroporation Ablation for Liver Tumors		93.394	5R01CA196967-03	518,990	

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MRI-Monitored Delivery of Sorafenib-Eluting Microspheres to Liver Tumors		93.394	5R01CA181658-03 REVISED	541,522	
Nanoscale/Molecular Analysis of Fecal Colonocytes for Colorectal Cancer Screening		93.394	5R01CA165309-04	(232)	
Nanoscale/Molecular Analysis of Fecal Colonocytes for Colorectal Cancer Screening		93.394	5R01CA165309-04	17,999	17,999
Nanoscale/Molecular analysis of Fecal Colonocytes for Colorectal Cancer Screening		93.394	4R01CA165309-05	475,012	238,371
Optical Nanoscale Analysis of Buccal Cells: Transforming Lung Cancer Screening		93.394	5R01CA155284-04 REVISED	132,395	100,562
Quantitative MRI-Guided Nanoembolization for Liver Cancer		93.394	5R01CA159178-05	(4,263)	
Risk-stratification of Prostate Cancers via Field Carcinogenesis Nanocytology		93.394	5R01CA200064-03	590,434	361,342
Systemic RNA interference to reactivate p53 tumor suppression		93.394	1R01CA208783-01A1	85,835	
Transforming Colorectal Cancer Screening through Multimodal Spectral Markers	27	93.394	3727//3R01CA156186-06 Amd 3	14,288	
Transforming the diagnosis and care of patients with CTCL using TCR sequencing	29	93.394	114835//R01CA203731	97,862	
				4,733,169	1,320,370
Alliance for Clinical Trials in Oncology (Alliance) Executive Officer	29	93.395	110408//5U10CA180821-04	149,186	
An Epigenetic Strategy for Restoring Carboplatin Sensitivity in Ovarian Cancer		93.395	5R01CA182832-04 REVISED	281,806	46,885
CDK4/6 Inhibitor Therapy for Glioblastoma Multiforme	83	93.395	410676_GR40751-NU4424006/R01CA10594	93,428	
COG NCTN Radiation Oncology Reviewer Work Order	44	93.395	9500080215//U10CA180886	(1,856)	
COG NCTN Scientific Leadership Work Order	44	93.395	9500080217-XX//U10CA180886	25,293	
Dignity Therapy for Elderly Cancer Outpatients: 3 Arm Nurse or Chaplain Led Trial	227	93.395	UFDSP00011459//R01CA200867	69,359	
Discovery of Selective MAP2K4 Inhibitors to Target Metastasis		93.395	5R01CA188015-03 REVISED	358,583	38,466
Dys-regulation of the MnSOD-Ac-ROS-HIF2a axis promotes IR / Cisplatin resistance phenotype		93.395	1R01CA214025-01	47,383	
ECOG Cytogenetics CYTO39YZ-00	64	93.395	U10CA180820-02-NWU 1//U10CA180820	1,451	
ECOG-ACRIN NCI Community Oncology Research Program (NCORP) Research Base Grant	64	93.395	1UG1CA189828-01-NWU1//UG1CA189828-04	157,301	
ECOG-ACRIN NCORP Research Base: Cancer Care Delivery Research (CCDR)	64	93.395	1UG1CA189828-01-NWU2//UG1CA189828-04	30,655	
ECOG-ACRIN Nursing Committee	64	93.395	U10CA180820-01-NWU3	2,501	1,985
ECOG-ACRIN Operations Center (PI Committee)	64	93.395	U10CA180820-01-NWU2	17,367	
EMR Adverse Drug Event Detection for Pharmacovigilance	240	93.395	WA00356827/RFA2015095	29,697	
Exploiting synthetic-lethal interactions to target triple-negative breast cancer		93.395	5R00CA175700-05	261,154	
Exploring the Potential of Dual Kinase JAK 1/2 Inhibitor Ruxolitinib (INC424) with Reduced Intensity					
Allogeneic Hematopoietic Cell Transplantation in Patients with Myelofibrosis	94	93.395	AGMT-4/9/15//5P01CA108671-08	481	
High Density Lipoprotein Nanoparticles for siRNA Delivery		93.395	5R01CA167041-04	(530)	
High Density Lipoprotein Nanoparticles for siRNA Delivery		93.395	4R01CA167041-05	272,413	
Institutional Membership-Alliance for Clinical Trials in Oncology	5	93.395	Fully-executed 11/13/13	16,500	
Intimacy-Enhancing Couples' Intervention for Localized Prostate Cancer	177	93.395	8164//4R01CA140297-07	24,043	
Loss of Mitochondrial Sirt3, Decreased MnSOD Activity, and IR Induced Genomic Instability		93.395	5R01CA152601-08 REVISED	353,543	978
Magnetic Micelles for Catheter-Directed Sorafenib Delivery to Liver Tumors		93.395	5R21CA185274-02 REVISED	45,168	

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NRG Oncology Foundation, Inc: Member Institution Purchased Service Agreement (PSA)	151	93.395	Agmt Signed 9/5/14	37,316	6,000
Regulatory T Cells and Oncolytic Virotherapy of Glioma		93.395	7R01CA122930-09	77,700	
S1602 BIQSFP (2): A Randomized Trial to Evaluate the Influence of BCG Strain Differences and T Cell Priming with Intradermal BCG Before Intravesical Therapy for BCG-Naïve High-Grade Non-Muscle Invasive Bladder Cancer	158	93.395	9009627-009_Northwestern//3U10CA180888-04S1	8,414	
Small molecule CXCR4 modulators as molecular probes for studying AML		93.395	5R01CA189074-03	583,086	
Targeting BET Bromodomain in Pancreatic Cancer		93.395	5R01CA186885-04S1	534,576	9,016
Targeting EZH2 in Germinal Center Derived B-Cell Lymphoma	117	93.395	14040470//1R01CA187109-01	13,232	8,565
Targeting EZH2 in Germinal Center Derived B-Cell Lymphoma	227	93.395	UFDSP0011572//5R01CA187109-03/16122	11,338	
Targeting Ovarian Cancer Stem Cells through Selective Inhibition of ALDH1A1	103	93.395	IN4684739NWU/1R21CA198409-02	102,471	
Tele-based Psychosocial Intervention for Symptom Management & HRQOL in Men Living with Advanced Prostate Cancer		93.395	5R01CA157809-04	(2,463)	
Tele-based Psychosocial Intervention for Symptom Management & HRQOL in Men Living with Advanced Prostate Cancer		93.395	4R01CA157809-05	326,016	
The Role of Cidofovir and Structural Analogs as Adjuvant Therapy for Glioblastoma	193	93.395	571003 B.02//5R01CA184283-03	169,456	
Therapeutic Targeting of Malignant Glioma Stem Cells		93.395	5R35CA197725-04	891,683	18,835
Using SMART Design to Improve Symptom Management Strategies Among Cancer Patients	140	93.395	RC105782NU//5R01CA193706-02	54,675	
				5,042,426	130,730
Active Viral Hepatitis Diagnostics to Support Prevention/Treatment of HCC		93.396	5UH2CA189965-02	4,184	2,931
An In vivo Metastasis Sensor	244	93.396	3003585711 // 5R01CA173745-06 03	289,468	
Arsenic Trioxide Activated Pathways in Malignant Cells		93.396	5R01CA121192-09	380	
Arsenic Trioxide activated pathways in malignant cells		93.396	4R01CA121192-10	124,857	
B7H1 Mediated Immunosuppression in Glioma		93.396	4R01CA164714-05	288,430	
Bayesian Network Models for Genetics and Metabolomics Studies of Fetal Programming		93.396	1R03CA211318-01	136,629	
CD73 and Tumor Immunity		93.396	5R01CA149669-06	(37,295)	
CD73 and Tumor Immunity		93.396	5R01CA149669-06	7,998	5,177
Development of novel therapies for megakaryocytic malignancies		93.396	5R50CA211534-02	117,315	
DISE - a natural cancer surveillance mechanism - a new road to cancer therapy		93.396	5R35CA197450-03	885,899	
Elucidating the stress response regulatory networks that enable malignancy		93.396	5R00CA175293-04	268,779	
Genomics and bioinformatics analysis to understand castration-resistant prostate cancer		93.396	5R50CA211271-02	120,424	
Influence of AKT pathway on progesterone receptor function in endometrial cancer		93.396	4R01CA155513-05	244,499	
Integrating Epigenomic and Nuclear Receptor Signaling in Castrate Resistant Prostate Cancer		93.396	5R01CA196270-03	386,963	
Interferon-Induced SLFNs and Tumorigenesis		93.396	5R01CA161796-05	194,854	
Linking Oncogenic Signaling to Tumor Metabolism		93.396	4R00CA194192-03	117,944	

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Mechanisms of Leukemogenesis in Down Syndrome		93.396	4R01CA101774-14	130,301	
Mechanisms of Leukemogenesis in Down Syndrome		93.396	2R01CA101774-15	75,284	
Mitochondrial metabolism and ROS regulate cancer		93.396	1R35CA197532-02	1,128,140	
Mitochondrial Metabolism and ROS Regulate Lung Cancer		93.396	5R01CA123067-09	(6,911)	
Mnk Pathways and IFN-responses in Malignant Cells		93.396	5R01CA155566-05	160,975	
Modulation of Oncogenic Signaling in Glioblastomas		93.396	3R01CA159811-04S1	(420)	
Modulation of Oncogenic Signaling in Glioblastomas		93.396	4R01CA159811-05	240,000	
Multidisciplinary Integrative Genomic Approach to Distinguish Lethal from Indolent Prostate Cancer in Men of European and African Ancestry	118	93.396	2002911519//U01CA196390	17,674	
Prostate Cancer Recurrence: models and mechanisms		93.396	5R01CA167966-05	310,286	
Quantitative analyses of tumor cell extravasation	131	93.396	5710004167//5-U01-CA202177-02	132,009	
Regulation of Desmosomal Cadherins in Oral Cancer		93.396	5R01CA122151-09	499	
Regulation of Desmosomal Cadherins in Oral Cancer		93.396	4R01CA122151-10	214,035	
Role of Cdc25A in Breast Cancer		93.396	5R01CA112282-10	15,413	
Role of Oncogenic Kinase Pim-1 in Prostate Cancer		93.396	5R01CA123484-10 REVISED	234,667	
Signal Transduction of Type 1 Interferons in Malignant Cells		93.396	5R01CA077816-19	269,305	
Sirt2 Directs Kras IR Cell Resistance and Tumorigenesis		93.396	5R01CA182506-04	281,776	
The role of deubiquitinating enzyme USP33 in Slit-Robo signaling in lung cancer		93.396	5R01CA175360-04 REVISED	434,889	184,310
The role of GPSM3 in tumor-promoting emergency myelopoiesis		93.396	1R01CA208354-01A1	84,790	
The role of ICSBP in the pathogenesis of chronic myeloid leukemia		93.396	5R01CA174205-05 REVISED	213,868	
The Role of NOV (CCN3) in Prostate Cancer Progression		93.396	5R01CA172384-05 REVISED	472,130	
Triad1 regulates myelopoiesis and functions as a leukemia suppressor		93.396	5R01CA195642-03 REVISED	263,124	
UTX, MLL and Pathogenic Deregulation of Histone Methylation in Multiple Myeloma		93.396	5R01CA180475-02 REVISED	<u>32,255</u>	<u>23,154</u>
				7,855,417	215,572
An Electronic Platform for Cognitive Assessment in Cancer Patients	39	93.397	SC1520301//HHSN261201600060C	37,251	
Apigenin restores TSP-1 expression in UVB-irradiated keratinocytes	259	93.397	3001001952//7R01CA172669-05	31,287	
CCNE: Administrative Core (Mirkin/Rosen)		93.397	5U54CA151880-05	(76,103)	
CCNE: Administrative Core (Mirkin/Rosen)		93.397	5U54CA151880-05	7,901	7,901
ECOG/FSTRF PSA for ECOG Clinical Trial Protocols	76	93.397	Agmt 8/13/12 / U01CA021115	64,842	
GMaP Region 4: Building Research & Diversity Scholarship through the Cancer Disparities Research Network	106	93.397	Sub# 12305-52//3P30CA006927-50SB	3,882	
Improving Quality of Life among Hispanic/Latino Breast, Colorectal & Prostate Cancer Survivors: A Randomized Control Trial of Patient Navigators Using the LIVESTRONG Cancer Navigation Services Program	258	93.397	158815/158532//U54CA153511	22,596	
Nucleic Acid-Based Nanoconstructs for the Treatment of Cancer		93.397	5U54CA199091-03	2,826,753	8,695
Spatio-Temporal Organization of Chromatin and Information Transfer in Cancer		93.397	5U54CA193419-03 REVISED	1,999,265	650,997

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SPORE in Prostate Cancer		93.397	5P50CA180995-03	2,029,224	596,249
The Chicago Collaborative to Promote and Advance Cancer Health Equity		93.397	5U54CA203000-03	1,502,008	58,408
The Robert H. Lurie Comprehensive Cancer Center		93.397	3P30CA060553-21S1	(11,454)	
The Robert H. Lurie Comprehensive Cancer Center		93.397	3P30CA060553-21S1	5,817	2,830
The Robert H. Lurie Comprehensive Cancer Center		93.397	3P30CA060553-22S1	5,445,630	31,437
				13,888,899	1,356,517
A Highly Specific, Tissue-Permeable Inhibitor of Gli Transcription Factors		93.398	5F31CA186761-04 REVISED	28,404	
Alternative Splicing of Amyloid Precursor-Like Protein 2 during the Epithelial-Mesenchymal Transition and Cancer Metastasis		93.398	5F30CA196118-03 REVISED	43,127	
Behavioral and Psychosocial Research Training in Cancer Prevention and Control		93.398	5T32CA193193-03	393,314	
Cancer Nanotechnology Training Program		93.398	5T32CA186897-03	185,674	
Carcinogenesis Training Program		93.398	5T32CA009560-29	(176)	
Carcinogenesis Training Program		93.398	4T32CA009560-30	293,220	
Carcinogenesis Training Program		93.398	2T32CA009560-31 REVISED	33,661	
Clinical bacterial isolate engineered as an immunotherapy for prostate cancer		93.398	5F30CA203472-02 REVISED	55,820	
Defining the Role of Pin1 and CDK-mediated Smad3 Phosphorylation in Triple Negative Breast Cancer Migration and Metastasis	244	93.398	1F31CA206259-02	49,021	
Designing with Dissemination in Mind: Optimization of a mHealth Physical Activity Intervention for Breast Cancer Survivors		93.398	5K07CA196840-03	139,273	
Desmosomal Cadherin Regulation of Pro-inflammatory Cytokine Production in Melanomagenesis		93.398	1F32CA210498-01	56,868	
Development of an MRI Gene and Application to Probing the Tumor Microenvironment		93.398	4F31CA174281-04	22,497	
Fellowship for Chelsey Spriggs: The Role of The Fanconi Anemia Pathway in Human Papillomavirus Infection		93.398	5F31CA192801-03	32,218	
Investigating catalytic and non-catalytic roles for Trr/COMPASS in regulating enhancer function during Drosophila development		93.398	1F31CA213928-01 REVISED	27,045	
Molecular Mechanism of Hepatocyte Growth Factor Signaling		93.398	5F30CA177193-03	(2,300)	
Molecular Mechanism of Hepatocyte Growth Factor Signaling		93.398	4F30CA177193-04	42,636	
NRSA Fellowship for A. Cogswell in Support of A Novel Role for PML bodies in Leukemic Transformation		93.398	5F32CA189413-02 REVISED	(7,650)	
Overcoming Temozolomide Resistance using MGMT-targeting Spherical Nucleic Acids		93.398	5F30CA174058-03 REVISED	343	
Overcoming Temozolomide Resistance using MGMT-targeting Spherical Nucleic Acids		93.398	5F30CA174058-05 REVISED	56,016	
Profiling Glycosyltransferase Activities on the Epithelial-Mesenchymal Transition in Breast Epithelial Cells using peptide arrays and mass spectrometry		93.398	5F30CA196185-02 REVISED	40,184	
Role of desmoglein 1 in regulating redox and growth factor signaling in head and neck cancer		93.398	5F30CA192788-03	38,787	
Targeted discovery of anti-proliferative natural products using genomics and metabolomics		93.398	1F32CA221327-01	8,581	

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The role of glioblastoma derived activated leukocyte cell adhesion molecule in peripheral monocyte PD-L1 induction and immunosuppression		93.398	5F30CA206413-02 REVISED	49,289	
The role of the hippocampal-prefrontal network in cancer-related cognitive impairment; a multimodal cross sectional study		93.398	1F31CA210719-02	37,661	
The Role of ZEB1 Mutations in Cutaneous T Cell Lymphoma		93.398	5K08CA191019-04	163,121	
The Significance of Isocitrate Dehydrogenase Mutations in Gliomas		93.398	7K08CA155764-05	(3,980)	
Therapeutic and Sustained Cytokine Delivery at the Tumor Site Using Engineered Mononuclear Cells		93.398	5F30CA203325-02 REVISED	39,839	
Training Program in Oncogenesis and Developmental Biology		93.398	5T32CA080621-14	344,072	
Training Program in Signal Transduction and Cancer		93.398	3T32CA070085-20S1	252,809	
Training Program in Signal Transduction in Cancer		93.398	5T32CA070085-19	12	
Treating cognitive impairments in cancer patients via systematic light exposure		93.398	5K07CA184145-04	161,153	
				2,580,539	
10-Year Changes in Objectively-Measured Physical Activity and Sedentary Behavior in the CARDIA Cohort	122	93.837	2297-2539//1R56HL125423-01A1	11,985	
28th Annual Workshop on MR Angiography		93.837	1R13HL134191-01	10,000	
A novel gut microbial-dependent nutrient metabolite and atherosclerosis	249	93.837	5101819//5K01HL127159-02	3,238	
A novel implementation and social network strategy for acute pulmonary illnesses		93.837	5K23HL118139-05	176,321	
A Systems Science Approach to Understanding Racial/Ethnic Disparities in Obesity		93.837	5K01HL133531-02	142,784	
AAA Geometric Surrogates - Geometric Surrogates for Clinical Management of Abdominal Aortic Aneurysms	257	93.837	1000001715/1R01HL121293-03	1,635	
ACTG Supplemental Funding for Protocol A5314	29	93.837	7389sc//5R01HL117713-02	233	
Acute Coronary Syndrome Quality Improvement in Kerala (ACS QUIK)		93.837	5R00HL107749-05	201,673	72,694
Adolescent Family Stress and Early Cardiovascular Risk: Psychosocial and Behavioral Pathways		93.837	3F32HL134276-02	45,207	
Aortic Plaques and Stroke: Cardiovascular Therapy of Retrograde Embolization Risk		93.837	5R21HL132357-02	177,563	
Associations Among Apolipoprotein A1 Structural Variants and High-Density Lipoprotein Function		93.837	5K23HL133601-02	147,256	
AsthmaNet Clinical Trials	163	93.837	NWUHL098115 // 5U10HL098115	403,742	316,314
Atrial arrhythmias and Ca2+ waves in HF: simulation and experimental studies		93.837	5R01HL119095-04	508,686	153,109
Atrial fibrillation burden, vascular disease of the brain, and cardiac MRI in MESA	265	93.837	UWSC8533//1R01HL127659-01	66,043	
BEST-CLI: Trial to Compare Best Endovascular versus Best Surgical Therapy in Patients with Critical Limb Ischemia (BEST)	143	93.837	Agr. 8/7/14 // U01HL107407	9,851	
Beyond PECAM: Mechanisms of Transendothelial Migration		93.837	5R37HL064774-14 REVISED	8,426	
Beyond PECAM:Mechanisms of Transendothelial Migration		93.837	2R01HL064774-15A1	254,930	
Cardiomyocyte Integrin-Matrix Interactions Regulate Cardiac Fibrosis		93.837	5F32HL131301-02	66,341	
Cardiomyopathy Genomes Project		93.837	5R01HL128075-03	532,605	157,200
Cardiovascular Regenerative Medicine		93.837	5P01HL108795-05	(5,142)	
Cerebral Autoregulation Monitoring to Reduce Brain Injury from Cardiac Surgery		93.837	7R01HL092259-09	266,245	55,751

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Channelopathies and Cardiomyopathies Among Sudden Deaths in the Young		93.837	5U01HL131914-02	589,262	13,851
Characterizing HIV-related Diastolic Dysfunction	61	93.837	223700//U10HL084904	11,846	
Chicagoland Metropolitan AsthmaNet Consortium		93.837	5U10HL098096-07	172,949	164,446
Childhood Origins of CHD Disparities: Neural & Immune Pathways		93.837	5R01HL122328-03	641,399	27,038
Chronic Obstructive Pulmonary Disease in Non-Smokers	49	93.837	5(GG011046-01)//1R01HL130506-02	58,572	
Community Translation of the South Asian Healthy Lifestyle Intervention (SAHELI)		93.837	1R01HL132978-01A1	78,184	10,728
Comparing and Combining Bortezomib and Mycophenolate in SSc Pulmonary Fibrosis		93.837	5R34HL122558-03	143,765	
Comprehensive Cardiac Structure-Function Analysis in Heart Transplantation		93.837	5R01HL117888-04	578,169	
CXCR4-c-Kit Signaling and BM Progenitor Cell Recruitment in the Ischemic Heart		93.837	5R01HL113541-04	(546)	
Decrypting Variants of Uncertain Significance in Long-QT Syndrome		93.837	5R01HL122010-04	1,379,849	709,783
Determinants of Midlife & Longitudinal Change in Cognitive Function: CARDIA Study	122	93.837	200103-05//5R01HL122658-02	16,261	
Determinants, Trajectories, and Consequences of Abnormal Cardiac Mechanics		93.837	5R01HL107577-06	537,081	23,248
Development of combination immunotherapies for atherosclerotic inflammation		93.837	1DP2HL132390-01	649,065	
E2F1 in BM progenitor cell differentiation and cardiovascular repair		93.837	1R01HL131110-01A1 REVISED	3,558	
E2F1 in BM progenitor cell differentiation and cardiovascular repair	207	93.837	000514985-001//7R01HL131110-02	47,743	
Efferocytosis Directed Inflammation Resolution and Repair in the Hypoxic Heart		93.837	5R01HL122309-04	398,027	
Efficacy of Potassium Nitrate In Heart Failure with Preserved Ejection Fraction	251	93.837	569507//5R01HL121510-02	95,252	
Examination of the Functional Role of Sca1+ Vascular Progenitor Cells following Vascular Injury.		93.837	5F32HL129651-02	64,706	
Exercise in Genetic Cardiovascular Conditions	278	93.837	Yale 2.23.2017//R01HL125918	5,500	
Exploiting Tie2 Activation for the Treatment of Vascular Diseases		93.837	5R01HL124120-04	438,900	
Exploring the roles of Gi and S1Pr1 in endothelial barrier function in vivo		93.837	7K08HL105657-05	(1,033)	
Favorable Cardiovascular Health and the Compression of Morbidity in Older Age		93.837	5R01HL118289-03	412,025	23,308
Femoral Plaque Composition, Oxidative Stress, and Coronary Events		93.837	5R01HL109244-04	36,214	
FIGHT: Functional Impact of GLP-1 for Heart Failure Treatment	61	93.837	193603//U10HL084904	68	
Fox Transcription factors in Lymphatic vessel development		93.837	5R01HL126920-03	353,324	21,772
Function of the Ubiquitin-Specific Peptidase 22 (USP22) in Acute Myeloid Leukemia		93.837	1F31HL136107-01 REVISED	20,325	
Functional Cardiovascular 4D MRI in Congenital Heart Disease		93.837	5R01HL115828-04	15,224	15,224
Functional Cardiovascular 4D MRI in Congenital Heart Disease		93.837	4R01HL115828-05	408,596	170,888
Genotype-Phenotype Discordance in Long QT Syndrome	34	93.837	RES126034 Amd 2//R01HL124245	36,811	
HCMR - Novel Predictors of Outcome in Hypertrophic Cardiomyopathy	95	93.837	Study# 2222/0003//1U01HL117006-01A1	14,018	
Heart Failure Clinical Research Network Coordinating Center - HIV: HFN-HIV Core Lab: The NHLBI Heart Failure Network HIV Study Echocardiography Core Lab	61	93.837	203-8360/5U10HL084904-11 REVISED	36,354	
Hemodynamic Loading of the Left Ventricle and Aorta in Aortic Valve Disease		93.837	5K25HL119608-04	149,556	
High Resolution and Functional MRI Assessment of Intracranial Atherosclerotic Plaque		93.837	5R21HL130969-02	105,052	16,953
Hispanic Community Children's Health Study of Latino Youth - SOL Youth	249	93.837	5104518//5R01HL102130-04 REVISED	9,844	

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Hypercapnia and Neutrophil Function in Pulmonary Host Defense		93.837	5K01HL108860-05	(280)	
Identifying risk factors for subclinical myocardial disease in HIV infection	118	93.837	2002507820 Amend. # 1// R01HL126552	29,629	
Improve PAD Performance with METformin. The PERMET Trial		93.837	1R01HL131771-01A1	405,644	19,679
Individual response to vitamin D treatment	265	93.837	UWSC9381//2R01HL096875-05A1	25,976	
Integrative Epigenetic Analysis and Ex Vivo Generation of Megakaryocytes from Umbilical Cord Blood		93.837	5F31HL134331-02	37,552	
IRONOUT-HF: Oral Iron Repletion effects On Oxygen UpTake in Heart Failure	61	93.837	177494/200464/029692//U10HL084904	(12,516)	
Joint Effect of Malpractice Risk and Financial Incentives on Cardiac Testing	82	93.837	14-M49//7R01HL113550-03	104,760	
Long-Term Patterns in Cardiovascular Risk Factors and Their Time-Varying Impact on the Incidence of Cardiovascular Disease		93.837	5R21HL129022-02	129,404	
Low Intensity Exercise intervention for peripheral artery disease: The LITE Trial		93.837	5R01HL122846-03	605,729	53,105
Maternal-Offspring Metabolics: Family Intervention Trial (MOMFIT)		93.837	3U01HL114344-05S1	777,241	21,088
Mechanical circulatory support: Measures of adjustment and quality of life		93.837	5R01HL130502-02	721,265	229,866
Mechanisms of sulfonylurea receptor mediated cardiomyopathy		93.837	5R01HL122109-03	694,080	396,519
Mediators of Atherosclerosis in South Asians in America	218	93.837	8696sc//R01HL093009	273,637	
Metabolic Pathways Underlying the Contrasting Sodium-BP and DASH/OmniHeart-BP Relationships		93.837	1R01HL135486-01 REVISED	108,188	
Metabolomics-Measured Urinary Metabolites/Diet & BP, 17 Random Samples		93.837	5R01HL084228-08	201,114	102,379
Methods to Improve Personalized Cardiovascular Disease Prevention Across the Life Course		93.837	1R01HL136942-01	51,726	
Modeling the role of the genome in chemotherapy induced cardiotoxicity using iPSC		93.837	5R00HL121177-04	559,220	
Modulating senescence in induced pluripotent stem cell-derived endothelial cells for vascular disease modeling and therapy		93.837	1F32HL137292-01	10,661	
MRI of Diffuse Left Ventricular Fibrosis in Atrial Fibrillation		93.837	7R01HL116895-04	387,631	
MtDNA variant modifiers of cardiopulmonary responsiveness to physical activity	227	93.837	UFDSP00010117//R01HL121023	16,957	
Myosin binding protein H-like and its role in cardiomyopathy		93.837	5F32HL131304-02	53,367	
Neonatal Long QT Syndrome and Sudden Infant Death		93.837	5R01HL083374-08	277,210	17,099
NO Inhibits Arterial Injury After Vascular Procedures via Adventitial Stem Cells		93.837	5R01HL108118-05	56,494	
Nonenhanced 3T QISS MR Angiography of the Peripheral Arteries	150	93.837	EH15-107_S2//5R01HL130093-02	52,455	
Non-Invasive Biosensors To Detect Cardiovascular Changes In Heart Failure	84	93.837	RG884-G2 Amd 1 // R01HL130619	76,534	
Non-invasive detection of heart transplant rejection with MRI		93.837	5F31HL117618-05 REVISED	28,064	
Novel Vehicles for Targeted Cardiovascular Repair		93.837	5R01HL116577-03	(6,590)	
Novel Vehicles for Targeted Cardiovascular Repair		93.837	4R01HL116577-04	648,680	229,473
NRSA F32 for Matthew DeBerge in support of: Efferocytosis Regulation by Hypoxia and Reperfusion After Myocardial Infarction		93.837	5F32HL127958-03	62,634	
nuMOM2b Hearth Health Study Capitation Funding Memorandum of Understanding (MOU)	174	93.837	0214047//1U10HL119991	177,394	
PAI-1 and Vascular Senescence		93.837	5R01HL051387-21	378,826	
Parents' Dense and Supportive Social Networks Facilitate Children's Health		93.837	5F32HL119021-02 REVISED	740	

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Parents' Dense and Supportive Social Networks Facilitate Children's Health		93.837	5F32HL119021-02 REVISED	12,210	
Pathophysiological Significance of Atrial Fibrillation Electrogram Patterns		93.837	5R01HL125881-03	297,950	35,981
Pediatric Heart Transplantation: Transitioning to Adult Care	18	93.837	901477-NU//1R34HL111492-03	48,337	
Phagocyte Intoxication by ExoU in Pseudomonas Pneumonia		93.837	5F30HL107092-04 Revised	(13,501)	
Phagocyte Intoxication by ExoU in Pseudomonas Pneumonia		93.837	4F30HL107092-05	13,801	
PRE-DETERMINE: Biologic Markers and MRI SCD Cohort Study	29	93.837	R01 HL091069-01A1 // 104005	(1,835)	
Pregnancy as a Window for Future Cardiovascular Health		93.837	3U10HL119992-03S1	43,765	24,673
Pregnancy as a Window for Future Cardiovascular Health		93.837	4U10HL119992-04	65,551	
Pregnancy as a Window to Future Cardiovascular Health: Adverse Pregnancy Outcomes	174	93.837	888-15-16-12//1U10HL119991-01	14,579	
Pregnancy as a Window to Future Cardiovascular Health: Adverse Pregnancy Outcomes - Heart Health Study	174	93.837	7-312-0214047-52577L//1U10HL119991	13,442	
PROgenitor Cell Release Plus Exercise to Improve Functional Performance in PAD		93.837	5R01HL107510-05	192,067	
Progression of Coronary Atherosclerosis in MACS	118	93.837	2002350097/5R01HL25053-04	121,807	
Projection Imaging of Peripheral Vascular Calcifications	150	93.837	EH14-410-S1//5R21HL126015-02	38,764	
Prox1 in Mammalian Lymphangiogenesis		93.837	5R01HL073402-15	391,944	
Prox1 in Mammalian Lymphangiogenesis		93.837	2R01HL073402-16	23,109	
Pseudomonas Genomic Signatures Associated With Persistence in Cystic Fibrosis		93.837	5R21HL129930-02	239,738	51,165
Quantitative MRI for the assessment of subclinical CAD in T2DM		93.837	5K01HL121162-03	207,210	
Regulation of cardiac metabolism and heart failure by tristetraprolin		93.837	5F31HL132552-02 REVISED	38,790	
REPRIEVE A5332 and A5333s	130	93.837	PS#225707//U01HL123336	51,668	
Research Training in CVD Epidemiology and Prevention		93.837	5T32HL069771-14 REVISED	265,275	
Respiratory and Metabolic Adaptation to Hypoxia		93.837	5R01HL035440-29	432,900	69,967
Risk Factors for Ischemic Stroke	29	93.837	113896//5R01HL08851-07	28,953	
Risk Stratification in Older Persons with Acute Myocardial Infarction: Silver-AMI	278	93.837	Agmt 8/30/13//R01HL115295	8,101	
Role of SNRK in cardiac metabolism and development of heart failure		93.837	1R01HL127646-01A1	363,144	17,569
Role of Valve-Mediated Hemodynamics on Bicuspid Aortopathy		93.837	1R01HL133504-01A1	53,822	
Sarcoglycan in Myopathy and Muscle Membrane Stability		93.837	5R01HL061322-18	327,560	
Social and Cultural Influences on Cardiovascular Risk in South Asians		93.837	5R01HL120725-04	631,624	301,550
Sorafenib In Hepatopulmonary Syndrome	251	93.837	SUB#567266//5UM1HL116886-03	32,945	
Statistical methods for estimating relative intensity physical activity and its association with cardiometabolic disease		93.837	1R01HL131606-01A1	62,687	
Statistical methods to correct for measurement error in self-reported dietary data from lifestyle intervention trials		93.837	5R01HL127491-03	207,003	8,533
Study of Cardiac Mechanics in Systemic Hypertension		93.837	5R01HL107577-04	(1,576)	
Targeting Depression and Nicotine Dependence to Promote Cardiovascular Health		93.837	5F31HL129494-02 REVISED	35,151	
TElmsartan plus EXercise to improve functioning in PAD: The TELEX Trial		93.837	5R01HL126117-02	919,491	79,172
The regulation of transendothelial migration by calcium signaling in endothelial cells		93.837	1F31HL137352-01 REVISED	2,710	

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The Role of CD99L2 in Leukocyte Transendothelial Migration in vitro and in vivo		93.837	5F31HL131355-02 REVISED	38,282	
The Role of Gut Microbiota in Neointimal Hyperplasia After Vascular Injury		93.837	1K08HL130601-02	161,695	
The role of p21-activated Kinase (Pak1) in Atrial Fibrillation.	176	93.837	1R01HL128330-01A1//14091801	66,614	
The Role of Plasminogen Activator Inhibitor-1 in the Development and Progression of Obesity		93.837	1F32HL129695-02	58,238	
The Roles of Endothelial Cell PECAM and the LBRC in leukocyte transmigration		93.837	5R01HL046849-23	(1)	
The Roles of Endothelial PECAM and the LBRC in Leukocyte Transmigration		93.837	5R01HL046849-26	383,475	
Tissue sodium, inflammation, and blood pressure in MESA	267	93.837	VUMC 59440//1R01HL133860-01	305,684	
Training Grant in Circadian and Sleep Research		93.837	5T32HL007909-19	362,663	42,914
Transition from Risk Factors to Heart Failure: Prevalence, Pathogenesis, and Phenomics	273	93.837	WFUHS114488//R01HL127028	328,126	
Vascular Surgery Scientist Training Program		93.837	5T32HL094293-08	273,473	
Vimentin-mediated regulation of the inflammasome in acute lung injury		93.837	5R01HL128194-02	320,933	
				24,937,336	3,653,039
5 -Hydroxytryptophan Regulation of Endothelial Cell Signals for Lung Inflammation		93.838	5R01HL111624-03	(158)	
5 -Hydroxytryptophan Regulation of Endothelial Cell Signals for Lung Inflammation		93.838	4R01HL111624-04	347,398	
A Randomized Double-Blind Placebo-Controlled Trial of Ganciclovir/Valganciclovir for Prevention of Cytomegalovirus Reactivation in Acute Injury of the Lung and Respiratory Failure (The GRAIL Study)	75	93.838	0000788107//5U01HL102547-03	372	
Addressing Psychological Risk Factors Underlying Smoking Persistence in COPD Patients		93.838	1K23HL138165-01	10,614	
Approaches to Genetic Heterogeneity of Obstructive Sleep Apnea	251	93.838	570229//1R01HL134015-02	7,143	
Chitinase1 as a biomarker and therapeutic target in scleroderma lung disease	30	93.838	00000755//5R01HL115813-04	14,192	
CNS Pathways Integrating Respiratory and Metabolic Control		93.838	5R01HL122921-04	674,460	
Cortactin in Regulation of Pulmonary Vascular Permeability	231	93.838	2014-05076-01-00. EC//R56HL088144-0	19,351	
Genes Mediating Innate Immune Suppression by Hypercapnia in Mammals and Flies		93.838	5R01HL107629-04 REVISED	(7,635)	
Glucocorticoid induced G-CSF in lung inflammation		93.838	1R56HL133058-01	138,559	
Glucocorticosteroid Action In Inflammatory Disease		93.838	5R37HL068546-34	336,239	
Glycobiology of Inflammatory Lung Diseases	118	93.838	2002969467//5P01HL107151-07	357,544	
High carbon dioxide impairs lung repair		93.838	5K08HL125940-03	193,607	
Hypercapnia and Suppression of Anti-viral Host Defense		93.838	1R56HL131745-01	319,181	
Integrated analysis of autonomic biomarkers in prematurity-related ventilatory control: determination of neurorespiratory maturation and predictors of co-morbidity risk	18	93.838	901513-NU//1U01HL133704-01	19,572	
LUBAC Mediated Epithelial Signaling During Influenza A Infection		93.838	5F31HL132454-02	37,592	
Lung Function Decline and Disease Risk from Young Adulthood to Middle Age		93.838	5R01HL122477-04	705,384	473,988
Macrophage Modulation of Lung Fibrosis		93.838	1R01HL134375-01A1	402,801	
Mechanisms of Hydrocortisone Regulation of the Perinatal Pulmonary Vasculature		93.838	1K08HL124295-01A1	9,006	
Metabolic Regulation of Pulmonary Vascular Remodeling		93.838	5R01HL122062-04	215,353	44,995

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Multi-Level Understanding of Social Contributors to SES Disparities in Asthma		93.838	5R01HL108723-03	(48,628)	
Multi-Level Understanding of Social Contributors to SES Disparities in Asthma		93.838	4R01HL108723-05	311,785	99,142
Network Management Core (NEMO) for the Pulmonary Trials Cooperative (PTC) - Insight	252	93.838	9012549 (128373-13)//5U01HL128954-0	196	
Pathophysiology of Acute Lung Injury		93.838	5P01HL071643-12	2,137,902	
Pulmonary Complications in a Birth Cohort after a Randomized Trial of Exposure to Antenatal Corticosteroids: the ALPS Follow-Up Study	82	93.838	1-AF-28//2R01HL098354-04	6,029	
Pulmonary Microvascular Blood Flow and Cor Pulmonale Parvus in Emphysema/COPD	49	93.838	7(GG007619-04)//5R01HL093081-08	74,917	
Pulmonary microvascular perfusion in the Multi-Ethnic Study of Atherosclerosis	49	93.838	5(GG010919-03)//5R01HL077612-11	123,650	
PVDOMICS: Pulmonary Vascular Disease Phenomics Program (U01HL125177)	47	93.838	712-sub//5U01HL125177-03	10,398	
Redox Regulation of Vascular cGMP Signaling in Neonatal Lungs		93.838	5R01HL109478-05	(15,967)	
Redox Regulation of Vascular cGMP Signaling in Neonatal Lungs		93.838	5R01HL109478-05	8,798	8,798
Redox Regulation of Vascular cGMP Signaling in Neonatal Lungs		93.838	5R01HL109478-07	338,919	112,744
Regulation of Inflammation and Acute Lung Injury by the Transcription Factor Miz1		93.838	5R01HL114763-04	397,490	9,986
Regulatory T cell Uhrf1 and DNA methylation in repair of acute lung injury		93.838	5K08HL128867-03	147,540	
Role and Regulation of Sodium, Potassium ATPase in Lung		93.838	5R37HL048129-23	384,950	
Role of the Na K ATPase Beta 1 subunit in alveolar epithelial integrity		93.838	5R01HL113350-03	(4,808)	
Role of the Na K ATPase Beta 1 subunit in alveolar epithelial integrity		93.838	4R01HL113350-04	302,282	155,886
Self-Management Behaviors Among COPD Patients with Multi-Morbidity	94	93.838	0255-8782-4609//R01HL126508	148,137	
Self-management behaviors among COPD patients with multi-morbidity	94	93.838	0255-8783-4609//5R01HL126508-03	47,383	
Smoking in Asthmatic Pilot Study (SAPS): Smoking Cohort Study (SCS)	16	93.838	Award Letter 11/29/12//5R34HL109482-03	2,036	
Study of Soy Isoflavones in Asthma (SOYA)		93.838	U01HL087987	(543)	(543)
The deleterious effects of hypercapnia on the lungs		93.838	5R01HL085534-11	411,979	
The role of SIRT3 inducers in preventing alveolar epithelial cell death and lung fibrosis		93.838	5F32HL134222-02	57,564	
Training Program In Lung Sciences		93.838	5T32HL076139-14	411,525	
Trial of Late SURFactant (TOLSURF) to Prevent BPD (Clinical Coordinating Center)	218	93.838	6069sc / U01HL094338	55,126	450
Wnt/beta-catenin signaling and innate immunity in pulmonary fibrosis		93.838	1R56HL127245-01A1	467,909	
				9,577,144	905,446
Aberrant Megakaryopoiesis in the Myeloproliferative Neoplasms		93.839	5R01HL112792-03	(32)	
Aberrant Megakaryopoiesis in the Myeloproliferative Neoplasms		93.839	5R01HL112792-03	75,000	75,000
Aberrant Megakaryopoiesis in the Myeloproliferative Neoplasms		93.839	4R01HL112792-04	276,049	72,201
Aberrant megakaryopoiesis in the myeloproliferative neoplasms.		93.839	2R01HL112792-05	82,197	
Defining the Role of IQGAP1 in Leukocyte Transmigration in vitro and in vivo		93.839	5F30HL134202-02	46,689	
EHR Anticoagulants Pharmacovigilance	240	93.839	WA00406355-RFS2015140//5R01HL125089-02	37,744	
Electron Transfer within Protein Complexes		93.839	4R01HL063203-18	117,356	

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FGF-23 and the Risk of Stroke and Cognitive Decline	243	93.839	66917H/5R01HL108623-04	(893)	
Generating Human Cord-Blood-Derived Functional Megakaryocytes and Platelets	231	93.839	7800 Amd 2 // R01HL130760-03 / R01HL130760	183,866	
Membrane-Cytoskeletal Remodeling in Platelet Biogenesis		93.839	5K08HL114871-03	88,023	
Multiscale Modeling of Myelodysplastic Syndromes	271	93.839	FP00000825_SA003//7R01HL128173-02	135,982	
Quantitative renal oxygenation assessment with compartment specific calibration		93.839	5F31HL123360-02 REVISED	8,363	
Vascular-Targeted Genomic and Genetic Strategies for Acute Chest Syndrome	231	93.839	2012-04562-04-00//R01HL111656-03	(19)	
Vascular-Targeted Genomic and Genetic Strategies for Acute Chest Syndrome	231	93.839	2016-05307-04-00//R01HL111656-03	12,500	
				1,062,825	147,201
3-D printed hyperelastic bone composites for bone regeneration and spine fusion		93.846	1R01AR069580-01	265,875	
A Multi-Center Prospective Study of Quality of Life in Adult Scoliosis	274	93.846	WU-10-154 Amendment 04 //R01AR055176-02	(5,627)	
A prospective study of human bone adaptation using a novel in-vivo loading model	277	93.846	15-210750-00//7R01AR063691-03	(3)	
A Regulatory Checkpoint in the Pathogenesis of Inflammatory Arthritis		93.846	5R01AR064349-05 REVISED	276,165	
AAD-PEPR: Asthma and Atopic Dermatitis Validation of PROMIS Pediatric Instruments		93.846	1U19AR069526-01 REVISED	926,012	362,917
Adipokine Modulation of Fibrosis: Novel Scleroderma Pathway		93.846	5R03AR066343-03 REVISED	62,411	
Algorithms to Identify Systemic Lupus from Electronic Health Record Data		93.846	1R21AR072263-01	2,813	
Association of genetic and autoantibody signatures with SLE clinical course	207	93.846	000504653-SC002//5R01AR064820-03	47,770	
Cadherin clusters and actin filaments		93.846	5R01AR070166-02	396,791	
Caspase 8: A Novel Suppressor of Dendritic Cell-Mediated Autoimmunity		93.846	5K01AR064313-05	109,735	
Contribution of Adipocytes and Adipose Secreted Factors to Fibrosis in Systemic Sclerosis		93.846	1K08AR070285-02	144,581	
Desmoplakin Assembly and Function in Epidermis (R37 MERIT Extension Application R37AR043380)		93.846	5R37AR043380-22	517,336	
Development of a Novel RA/Atherosclerosis Mouse Model		93.846	5R01AR064546-03	991	
Development of a Novel RA/Atherosclerosis Mouse Model		93.846	5R01AR064546-05	381,294	
Epha/Ephrin - A Signaling in Epidermal Differentiation and Disease		93.846	4R01AR062110-05	247,658	
EphA/Ephrin-A Signaling in Epidermal Differentiation and Disease		93.846	5R01AR062110-04	74,775	
Evolving Adaptive and Effector Mechanisms from Pre-RA Through Established Disease	225	93.846	FY17.090.001//5UH2AR067681-03	191,612	67,546
Failed Regeneration in the Muscular Dystrophies: Inflammation, Fibrosis and Fat: Admin Core	227	93.846	UFDSP00010891//U54AR052646	7,075	
Failed Regeneration in the Muscular Dystrophies: Inflammation, Fibrosis and Fat: Project 2	251	93.846	554991//5U54AR052646	(17,040)	
Function of Desmoglein 1/Pemphigus Foliaceus Antigen		93.846	5R01AR041836-23	1,553	
Function of Desmoglein 1/Pemphigus Foliaceus Antigen		93.846	4R01AR041836-24	566,206	
Functional and Structural Links Between Cadherin Adhesion, Gamma-Secretase, and Notch		93.846	5R01AR057992-05	(258)	
Gene expression signatures for treatment response in systemic sclerosis	36	93.846	Agr. 10/06/2015//5R44AR061920-03	167,362	
Glycosphingolipids Mediate Diabetic Wound Healing Impairment		93.846	5R01AR068375-02 REVISED	488,675	
Human Rheumatoid Arthritis in Mice		93.846	5R03AR061593-03	70,333	
Inflammasome adaptor and effectors in Cryopyrinopathies and crystal arthropathies		93.846	5K01AR066739-03	85,271	

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Inflammatory arthritis: mechanistic insights into initiation and progression		93.846	1R01AR070025-01A1	3,312	
Inter-junctional signaling in epithelial junctional complex		93.846	2R56AR044016-20	1,120	
Inter-junctional signaling in epithelial junctional complex		93.846	2R01AR044016-21	413,743	
Knee OA: Predictors and Outcomes of Physical Inactivity-Activity Transitions		93.846	5R01AR054155-08	12,837	12,837
Knee OA: Predictors and Outcomes of Physical Inactivity-Activity Transitions		93.846	4R01AR054155-09	300,123	28,697
Long-term Significance of Pre-radiographic Lesions in Persons at Risk for Knee OA		93.846	5R01AR065473-04	1,123,305	869,134
Mapping Modifiers of Cardiomyopathy in Muscular Dystrophy	227	93.846	UFDSP00011387	290,917	
Mechanisms Underlying Heterotopic Ossification		93.846	5R01AR066539-03 REVISED	400,263	
Mobil-Wise: Mobile Phone Remote Coaching After Worksite Joint Adventure Exposure	176	93.846	Agmt 4/24/15//1R21AR065054-01A1	71,595	
Molecular biomarkers of improvement for patients with systemic sclerosis in an open label trial of mycophenolate mofetil	56	93.846	R284/1R21AR068035-02	28,811	
NIAMS Multidisciplinary Clinical Research Center in Rheumatology		93.846	5P60AR064464-03	11,229	1,663
NIAMS Multidisciplinary Clinical Research Center in Rheumatology		93.846	5P60AR064464-05	963,586	27,192
NIAMS: Core Center - Proteomics and Clinical Core	28	93.846	4500001928//5P30AR061271-05	(13,341)	
Noninvasive tools for assessing muscle structure and function		93.846	5R01AR071162-02	290,973	58,406
Northwestern University Skin Disease Reseach Core Center		93.846	5P30AR057216-09	433,371	
Northwestern University Skin Disease Research Core Center		93.846	P30AR057216	(620)	
OAI Ancillary- Prediction of Incident and progressive OA from imaging biomarkers	209	93.846	238323 Amend 1//R01AR066601	17,385	
Osteoarthritis Progression and Sensory Pathway Alterations	176	93.846	12052504-NU//4R01AR064251-04	228,426	
Post Graduate Program In Cutaneous Biology		93.846	5T32AR060710-04	(3,235)	
Post Graduate Program in Cutaneous Biology		93.846	4T32AR060710-05	101,294	
Postdoctoral Rheumatology Training		93.846	5T32AR007611-14	(7,515)	
Postdoctoral Rheumatology Training		93.846	4T32AR007611-15	211,453	99,975
Postdoctoral Rheumatology Training		93.846	2T32AR007611-16	27,715	
Predictive ability of gene expression signatures in skin as SSc biomarkers		93.846	5K23AR059763-03	11,692	
PROMIS Statistical Center		93.846	U54AR057951	(1,450)	
Pt Reported Outcomes Measurement Information System Technology Center (U54)		93.846	3U54AR057943-04S3	15,267	
Quantifying Underuse and Overuse of Knee Replacement		93.846	5R21AR069867-03	68,681	16,273
Regulators of Epidermal Gene Expression		93.846	5R00AR065480-04	180,562	
RhEumatoid Arthritis SynOvial tissue Network (REASON)		93.846	3UH2AR067687-01S2	75,862	22,799
Role of CCR7 in Clinical Response in Inflammatory Arthritis		93.846	5R21AR065076-02	(14,463)	
Sedentary Behavior Characteristics, Sedentary Profiles, and Subsequent Functional Loss		93.846	5R21AR068500-02	144,919	1,466
Selective Inhibition of CYP26A1 in the Skin for the Treatment of Ichthyosis	58	93.846	NIAMS//1R41AR069416-01A1	62,342	
Simultaneous Targeting of IRE1a in B Cells and Macrophages for Lupus Therapy		93.846	5R01AR066634-04	266,451	78,924
Study of Physical Activity Rewards and Telephonic Active Coaching or SPARTAC	29	93.846	115219//5U34AR069187-02	50,070	

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Synthetic Oleananes: Innovative Treatment of Fibrosis		93.846	5R03AR065800-03	109,280	
The Vasculitis of Kawasaki Disease		93.846	5R21AR068041-02	130,891	67,645
Topical Delivery of siRNA Nanoconjugates: Suppressing Epidermal Hyperplasia		93.846	5R01AR060810-04	16,257	
Validation of PROMIS Measures in Children with Brain Tumors		93.846	5R01CA174452-04 REVISED	148,682	
				11,181,156	1,715,474
10/22 Diabetes Prevention Program Outcomes Study (DPPOS) Phase 3- Research Project		93.847	2U01DK048380-23S2	331,757	
A Culturally Targeted Transplant Program to Increase Live Donation in Hispanics		93.847	5R01DK104876-02 REVISED	532,407	174,095
A Multi-Center Group to Study Acute Liver Failure	261	93.847	GMO-161131//5U01DK058369-17	109,089	
A Multi-Center Study of Acute Liver Failure in Adults	261	93.847	GMO111125//U01DK058369	(15,515)	
A Novel Approach to Phosphorus Lowering in Patients with Chronic Kidney Disease	268	93.847	08649004-318156//4U01DK097093-04	24,247	
A novel autophagy gene beclin 2 in the prevention of type 2 diabetes and obesity		93.847	5R00DK094980-05 REVISED	16,067	
A Phase 2a Study to Evaluate the Safety and Tolerability of OCR-002 (ornithine phenylacetate) in the Treatment of Patients with Acute Liver Failure/Severe Acute Liver Injury (STOP-ALF) --					
A Multi-Center Group to Study Acute Liver Failure	261	93.847	GMO-161130//2U01DK058369-16	1,931	
A2ALL-Patient Safety System Improvements in Living Donor Liver Transplantation		93.847	5R01DK090129-04	565	
Acute Liver Failure Study Group 13C-Methacetin Breath Test for the Prediction of Outcome in Acute Liver Failure	261	93.847	GMO160216//5U01DK058369-17	2,390	
Adult Life Predictors of Genitourinary Disorders	122	93.847	115-9107-03-M1//5R01 DK084997-04	(2)	
Altered Microbiome of Chronic Pelvic Pain		93.847	5R01DK103769-02 REVISED	223,685	9,812
An Assessment of Liver Disease in HIV-infected and HIV/HBV Co-infected Tanzanians		93.847	5K23DK095707-05 REVISED	143,410	18,334
Basic Science Training Grant in Urology		93.847	5T32DK062716-12 REVISED	34,983	
Brain imaging based strategies for treating UCPPS pain		93.847	1R01DK100924-01	1,928	
Chicago Center for Diabetes Translation Research	221	93.847	FP047431-08//P30DK092949	2,986	2,403
Cholestasis and the Unfolded Protein Response		93.847	5R01DK093807-04	29,387	
Cholestasis and the Unfolded Protein Response		93.847	2R01DK093807-05A1	9,416	
Circadian control of nutrient-sensing and fuel utilization in skeletal muscle		93.847	5K01DK105137-03	98,677	
Clinical Islet Transplantation: Data Coordinating Center	233	93.847	1001443305/5U01DK070431-11	97,490	
Collaborative Islet Transplant Registry (CITR)	66	93.847	CITR Agmt 4/22/2013	6,932	
Community Translation of a Lifestyle Intervention to Improve Health in Diabetes		93.847	5R18DK083941-06	144,866	
Defining bacterial virulence, cAMP and PKA in necrotizing enterocolitis		93.847	5K08DK106450-03	149,402	122,472
Design and Implementation of an Intervention for Transitions in Diabetes Care	221	93.847	FP047431-09//P30DK092949	7,525	
Development, cellular plasticity and homeostasis of the exocrine pancreas		93.847	5R01DK106266-04	262,028	
Diabetes Research and Training Center	221	93.847	FP035726-02-E//5P30DK020595-38	25,857	
Diabetes Risk Education and Communication Trial (DiRECT) for Primary Care Patients with Prediabetes		93.847	1R34DK113541-01	40,325	6,627
Effect of Barrier Function on HIV Interactions in the Glans after Circumcision		93.847	5R21DK105865-02	126,726	

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Effectiveness of Physiologic Testing in PPI Non-Responders		93.847	2R01DK092217-04A1	60,714	
Epidemiology of Diabetes Interventions and Complications (EDIC)	34	93.847	RES510027//DK094157	(14,665)	
Epidemiology of Diabetes Interventions and Complications (EDIC)	34	93.847	RES512231/2U01DK094157-07 REVISED	300	
Epidemiology of Diabetes Interventions and Complications (EDIC)	34	93.847	RES511132//4U01DK094157-06S1	166,471	
Expanding live donor kidney transplantation through advocacy training and social media	118	93.847	2003447902//R01DK111966	15,688	
F32 for Joseph Stephen Uzarski in Support of: Delineating Determinants of Renal Tubulogenesis in an ECM-based Co-culture Model		93.847	5F32DK103499-03	63,096	
FGF23 and Cardiovascular Disease in CKD		93.847	5R01DK081374-10 REVISED	(16,980)	
FGF23 and Cardiovascular Disease in CKD		93.847	5R01DK081374-10 REVISED	160	160
FGF23 and Cardiovascular Disease in CKD	61	93.847	2036138//7R01DK081374-11	74,899	
FGF23 and mineral metabolism in Acute Kidney Injury		93.847	5R21DK100754-02	136,194	41,531
Functional Retinal Imaging to Monitor Pharmaco-Therapies in Diabetic Retinopathy		93.847	1DP3DK108248-01 REVISED	522,913	
GATA1 Mutation in Defective Erythropoiesis		93.847	5R01DK101329-03	(62,812)	
GATA1 Mutation in Defective Erythropoiesis		93.847	4R01DK101329-05	250,482	
Genetics and Evolution of Fetal Human Fat Accretion During Development		93.847	5R01DK099820-05	275,943	175,076
Genetics and Genomics of Maternal Glycemia During Pregnancy		93.847	5R01DK097534-05	391,263	254,066
Health and Economic Impacts of Coverage Requirements and Health System-Community Coordination for Diabetes Prevention		93.847	1R18DK110741-01A1	88,205	
Health literacy intervention to improve diabetes outcomes among rural primary care	210	93.847	50961//R01DK107572	135,508	
Hyperglycemia and Adverse Pregnancy Outcome (HAPO) Follow Up Study		93.847	4U01DK094830-05	2,510,680	1,148,752
Hyperglycemia and Adverse Pregnancy Outcome (HAPO) Follow-Up Study		93.847	5U01DK094830-04	(698)	
Impact of Emerging Health Insurance Designs on Diabetes Complications	89	93.847	AH000527//5R01DK100304-04	9,955	
Impact of phosphate and FGF23 reduction on intermediate end points in CKD		93.847	5R01DK102438-04 REVISED	544,395	388,175
Impact of Pulse Rate on Swallowing Impairment Assessment and Radiation Exposure	137	93.847	MUSC16-102-8A028 // 4R01DK098222-04	10,444	
Improving Diabetes Risk Assessment and Screening in Minority-Predominant Community Health Center Patients		93.847	1R21DK112066-01	212,667	39,876
Integration of Feeding Time and Glucose Metabolism by the Circadian Gene Network		93.847	5R01DK090625-06 REVISED	648,482	
Interplay of Dietary Lipid and Circadian Dysregulation in Metabolic Syndrome		93.847	5R01DK100814-04 REVISED	546,001	
Lipoteichoic acid mediated immune modulation of chronic pain		93.847	5R01DK108127-02	365,261	
Living Donor Liver Transplant - Predictive Models for Long-Term Health Outcomes		93.847	5U01DK062467-12	(9,372)	
Lysosomes in neonatal enterocytes and their pathologies		93.847	5R01DK111032-02	327,638	
Mast cells in male pelvic pain and lower urinary tract dysfunction		93.847	5R01DK083609-07	417,048	
Maternal Obesity and Gestational Diabetes: Impact on Metabolome		93.847	4R01DK095963-04	310,624	205,420
Measuring Human BAT Volume and Activity by Quantitative and Functional MRI	18	93.847	901494-NU//R21DK103145-02	12,693	
Med1 in Liver Metabolism, Regeneration and Cancer		93.847	5R01DK097249-05	268,224	
Mentored Patient Oriented Research in Mineral Metabolism		93.847	5K24DK093723-05	(327)	

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Methylomics of prenatal GDM: Natural history & lifestyle intervention in children	162	93.847	1R01DK100790-50363-S2//1R01DK100790	670,629	
Molecular and Genetic Mechanisms of Fatty Liver Disease		93.847	1R56DK105824-01A1	181,912	
Multifunctional Printed Scaffolds for Enhancing Hepatocyte Viability and Function		93.847	5K01DK099454-03	503	
Multifunctional Printed Scaffolds for Enhancing Hepatocyte Viability and Function		93.847	5K01DK099454-05	141,249	
Neutrophil interactions with apical ICAM-1 regulate intestinal epithelial homeostasis		93.847	5K01DK101675-05	156,374	
Nonhuman Primate Model of Bladder Regeneration Using Autologous Bone Marrow Cells		93.847	1R01DK109539-01A1	57,451	
Novel Diagnostics and Therapeutic Targets for Calcification in CKD		93.847	5R01DK110087-02	326,024	205,681
Nuclear Repressors in Genomic Control of Healthful Obesity		93.847	5R01DK108987-02 REVISED	494,839	
NUKIDs: Scientist Training Program in Kidney Disease		93.847	5T32DK108738-02	104,742	
NW University Program in Endo Diabetes and Hormone Action		93.847	5T32DK007169-36	(493)	
NW University Program in Endo Diabetes and Hormone Action		93.847	2T32DK007169-37	273,912	
Omega-3 derived epoxy fatty acids and sEH in pancreatitis-induced carcinogenesis		93.847	5R01DK107767-02 REVISED	432,559	28,170
Optimization and control of hepatocyte activity via biofunctional modification		93.847	5K08DK101757-04	147,715	
OPT-IN: Optimizing Intensive Lifestyle Intervention for Weight Loss		93.847	4R01DK097364-05	534,217	63,929
Opt-IN: Optimizing Intensive Lifestyle Interventions for Weight Loss		93.847	5R01DK097364-04	(1,704)	
Opt-IN: Optimizing Intensive Lifestyle Interventions for Weight Loss		93.847	5R01DK097364-04	1,612	636
Pathogenesis of Diabetic Nephropathy		93.847	5R01DK060635-14	(1)	
Pathogenesis of Diabetic Nephropathy		93.847	4R01DK060635-15	235,564	
Pelvic Pain and Depression		93.847	5U01DK082342-09	989,660	17,608
PERL: A multicenter clinical trial of allopurinol to prevent GFR loss in T1D	120	93.847	1987203-6 AMEND 1UC4DK1101108-01	200,751	
Phenotype of urinary symptoms and relationships with genotype, sleep and obesity		93.847	3U01DK097779-04S1 REVISED	(959)	
Phenotype of urinary symptoms and relationships with genotype, sleep and obesity		93.847	4U01DK097779-06	701,713	193,423
Pilot Studies Targeting Mineral Metabolism in CKD		93.847	5U01DK099930-06	467,644	19,235
Pregnancy-Related Risk Factors and Glucose Intolerance in Women during Midlife	122	93.847	RNG200279-05//R01DK106201	28,353	
Prevention of Type-2 Diabetes: The Circadian System as a Novel Target for Long-Term Maintenance of Weight Loss	221	93.847	FP035726-02-H//5P30DK020595-40	10,333	
Probiotic Analgesia for Pelvic Pain		93.847	1R56DK102807-01 REVISED	50,557	
Promoting Utilization of Kidneys by Improving Patient Level Decision Making		93.847	5R21DK108104-02	133,933	
Promotora Intervention for Metabolic and MentalHealth (PRIME2)		93.847	1R03DK109243-01A1	18,315	4,686
Promotora-Led Intervention to Promote Weight Loss in Latinas at-risk for Diabetes		93.847	5K23DK095981-06	112,535	
Regulation of FGF23 by DMP1 in Health and in Chronic Kidney Disease (CKD)		93.847	5R01DK101730-03	407,092	14,498
Regulation of FGF23 in Chronic Kidney Disease (CKD) by iron and inflammation		93.847	5R01DK102815-03	367,975	60,303
Regulation of metabolism and diabetes mellitus by tristetraprolin		93.847	5F30DK102341-02	3,247	
Regulation of Ulcerative Colitis by mast cells and histamine		93.847	5K08DK097721-03	196,367	163,296
Residual Beta Cell Function in Patients with Long-Term Type 1 Diabetes	34	93.847	RES509477//DP3DK104438	2,877	
Role of FGF23 in Mineral Metabolism Across the Spectrum of Chronic Kidney Disease		93.847	5R01DK076116-10	(9,523)	

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Sensorimotor Impairments in Men with Chronic Prostatitis/Chronic Pelvic Pain Syndrome: Relationship of resting state brain activity to pelvic floor muscle activation	254	93.847	85596622//R01DK110669	18,883	
SMART Weight Loss Management		93.847	5R01DK108678-02 REVISED	640,581	65,372
T cells in Chronic Pelvic Pain		93.847	3R01DK094898-03S1	70	
T cells in Chronic Pelvic Pain		93.847	4R01DK094898-04	139,895	
Testing a medication risk communication and surveillance strategy: The EMC2 Trial		93.847	5R01DK103684-03	709,437	409,480
The effects of capsinoids on brown adipose tissue recruitment and activation in obesity		93.847	1R01DK112281-02	193,299	50,968
The Esophagogastric Junction in Health and Disease		93.847	5R01DK056033-14	85,157	
The function and regulation of the novel pregnancy-specific hexokinase HKDC1		93.847	5R01DK104927-02	(32)	
The genetic identity of the primary cilia ion channels of kidney collecting duct cells and their regulation by internal calcium		93.847	4R00DK106655-03	156,395	
The mechanics of symptom generation in dysphagia		93.847	5R01DK079902-09	343,548	
The Role of an RNA Binding Protein, Tristetrapolin, in Hepatic Glucose Metabolism and the Development of Diabetes		93.847	5F30DK109608-02	45,045	
The role of emergency granulopoiesis in the pathogenesis of Fanconi Anemia		93.847	5R01DK098812-04 REVISED	257,969	
The role of microenvironment in esophageal epithelial homeostasis		93.847	5R00DK094977-05	232,128	
The Role of PAI-1 and Circadian Disruption in the Pathogenesis of NASH		93.847	4K08DK095992-05	136,508	
The roles of pleckstrin-2 as a functional node in erythropoiesis		93.847	5R01DK102718-03 REVISED	357,078	34,041
Training Grant in Gastrointestinal Physiology and Psychology		93.847	5T32DK101363-04	264,605	
Transplant Regimen Adherence for Kidney Recipients by Engaging Information Technologies: The TAKE IT Trial		93.847	1R01DK110172-01A1	91,473	
Transplant Surgery Scientist Training Program		93.847	5T32DK077662-09	(2,503)	
Transplant Surgery Scientist Training Program		93.847	3T32DK077662-10S2	227,047	
Transplant Surgery Scientist Training Program		93.847	2T32DK077662-11S1	37,816	
Tryptase - PAR2 axis involved in urinary voiding dysfunction		93.847	5F32DK104544-03 REVISED	55,491	
Urinary Knowledge Study (U-KNOW)	127	93.847	206423//5R01DK104842-02	17,381	
Urinary Renin Angiotensin System in Diabetes		93.847	5R01DK104785-03 REVISED	245,571	
Vitamin D and type 2 diabetes (D2d study)	200	93.847	5008752-SERV//U01DK098245-03	(1)	
Vitamin D and type 2 diabetes (D2d study)	200	93.847	5008752-SERV//4U01DK098245-04	215,909	
Vitamin D Catabolism in Chronic Kidney Disease	265	93.847	UWSC7707//5R01DK099199-03	(2,144)	
				22,574,233	3,918,125
Donor Stem Cells, Campath, T/B Cell Regulation in HLA Identical Renal Transplants		93.849	R01 DK025243	(606)	
(CREST-2) Trial: Carotid Revascularization and Medical Management for Asymptomatic Carotid Stenosis Trial	134	93.853	NWU-187276-02//5U01NS080168-03	16,738	
A Primate Model of an Intra-Cortically Controlled FES Prosthesis for Grasp		93.853	5R01NS053603-10	115,945	

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A randomized, double-blind, placebo-controlled trial of urate-elevating inosine treatment to slow clinical decline in early Parkinson disease ("Inosine Phase 3")	130	93.853	Agmt 2/2/16 // 1U01NS090259-01A1	11,734	
A role for beta-arrestins in mGluR-dependent plasticity		93.853	5R21NS088916-02	(11,589)	
A wearable myoelectric computer interface to reduce muscle co-activation in acute and chronic stroke		93.853	1R01NS099210-02	231,256	19,353
An epigenomic approach to identifying noncoding mutations in epilepsy		93.853	5R00NS089858-04	216,375	
Assessing Aberrant Motor Learning in Parkinsons Disease	166	93.853	41880-A Amd 1//1R21NS083578-01A1	16,327	
Autophagy Regulation of Glioblastoma Tumorigenesis and Responses to Therapy		93.853	5R01NS095634-03	410,304	
B7-H1 Expressing Macrophages Mediate Immunosuppression in Glioma		93.853	5R00NS078055-05	304,232	
Biomimetic Somatosensory Feedback through Intracorticalmicrostimulation		93.853	5R01NS095251-02	518,761	244,524
BRAF Mutation in Malignant Astrocytoma Origin, Evolution, and Response to Therapy		93.853	5R01NS080619-05	513,200	412,376
Cajal-Retzius cells and neuronal signaling in postnatal cortical networks		93.853	5R01NS064135-08 REVISED	363,294	
Cellular dissection of herpes simplex encephalitis with iPS cells	175	93.853	5R01NS072381-08	174,626	
Cellular plasticity and equilibrium in GBM progression		93.853	1R01NS096376-01A1 REVISED	129,404	
Cerebral Small Vessels in Motor and Cognitive Decline		93.853	5R01NS085002-05 REVISED	394,361	
Chemokine Signaling in Diabetic Neuropathy		93.853	5K08NS079482-03	(3,716)	
Chemokine Signaling in Diabetic Neuropathy		93.853	5K08NS079482-05 REVISED	226,209	
Circadian Dysfunction, Encephalopathy, and Cognitive Outcomes after Critical Illness		93.853	5K23NS092975-03	171,431	
Clinical Coordination Center for STEADY-PD3		93.853	5U01NS080818-04	2,134,589	1,197,867
Clinical Research Sites for the Network of Excellence in Neuroscience Clinical Trials (NEXT Sites)		93.853	5U10NS077271-05	(231,963)	
Clinical Research Sites for the Network of Excellence in Neuroscience Clinical Trials (NEXT Sites)		93.853	5U10NS077271-05	232,140	1,413
Clinical Research Sites for the Network of Excellence in Neuroscience Clinical Trials (NEXT Sites)		93.853	5U10NS077271-07	223,451	12,031
Coding properties of Vibrissal-Responsive Trigeminal Ganglion Neurons		93.853	5R01NS093585-03	319,197	
Combined Approach to the Genetic Basis of Epilepsy		93.853	5R01NS053792-15 REVISED	480,436	92,481
Computer Simulations of Populations of Mammalian Motor Units		93.853	5R01NS071951-05	(2,906)	
Concordance of TDP-43 Inclusions with Cortical Atrophy and Clinical Phenotype		93.853	5R01NS085770-04	340,970	
DEFUSE 3: Endovascular ThErapy Following Imaging EvalUation for Ischemic Stroke E 3	223	93.853	010085-110021//1U01NS092076-01A1 R	18,090	
Dendritic Organization of Synaptic Input to CA1 Hippocampal Place Cells during Spatial Navigation		93.853	1F31NS098666-01A1	18,730	
Designing brain machine interfaces to drive plasticity and enhance recovery after brain injury		93.853	5R01NS094748-03	377,138	124,605
Determinants of Neurodegenerative Decline in Primary Progressive Aphasia		93.853	1R01NS075075-01A1	(42)	(42)
Determinants of Neurodegenerative Decline in Primary Progressive Aphasia		93.853	4R01NS075075-05	206,533	10,304
Developing novel treatment strategies for Spinocerebellar ataxia type 1		93.853	1R21NS099962-01	72,708	
Development of excitatory V2a connectivity within spinal circuits		93.853	5F32NS087889-02 REVISED	4,650	
Development of mouse models for ALS5 and SPG11		93.853	5R21NS096572-02 REVISED	227,069	
Development of Novel MR Imaging for Ischemic Stroke Evaluation	221	93.853	FP063797-1//R01NS093908	10,543	
Differing Neuronal Mechanisms Mediating Locomotion and Spasms After Spinal Cord Injury	208	93.853	S002//2R01NS047567-11A1	198,764	

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Disease Mechanisms in Human Ubiquilinopathy		93.853	4R01NS078504-05 REVISED	174,433	
Dopaminergic and Muscarinic Signaling in the Striatum		93.853	5R01NS034696-22	456,466	
Dopaminergic Neurotransmission in a Model of DOPA-responsive Dystonia	67	93.853	T733841//5R01NS088528-03	60,278	
DProt#99-705: Carotid Revascularization Endarterectomy vs. Stent Trial (CREST)	241	93.853	Agmt 06-16-03/ R01 NS038384-05	22,173	
Effect of Unilateral and Bilateral STN Stimulation on Eye-Hand Coordination		93.853	5R01NS092950-02	246,791	
Electrical and Mechanical Properties of Motor Units in a Mouse Model of ALS		93.853	5R01NS077863-05	93,912	88,644
Elp1 function in Familial Dysautonomia		93.853	1R56NS089626-01A1	59,138	
Elp1 function in Familial Dysautonomia		93.853	1R01NS095894-01	109,415	
Epigenetic Regulation of Nerve Injury	266	93.853	761K946//R01NS100510-01A1	2,553	
Evaluation of glucocerebrosidase pathway biomarkers in Parkinson Disease	94	93.853	0255-1042-4609//5U01NS094148-03	87,479	
Exploratory Study of Different Doses of Endurance Exercise in People with Parkinson's Disease	225	93.853	FY16.160.007 AMD4 / R01NS074343	5,068	
FTLD Clinical Research Consortium	218	93.853	F8568sc//5U54NS092089-03	642	
Functional Development of Motor Networks		93.853	5R01NS067299-08	474,770	
Functional Segregation Within the Whisker-Barrel Neuraxis	274	93.853	WU-16-153-MOD-1//5R01NS091439-02	160,195	
Functions of filamin in brain development and diseases		93.853	5R01NS087575-03	255,006	
GABAergic Signaling in the External Globus Pallidus		93.853	2R01NS069777-06A1	244,815	
Galectin Modulation of Glutamate Receptors and Neuronal Function		93.853	5R01NS080598-05 REVISED	346,537	
General Motor Control Mechanisms and Disease Training Program		93.853	5T32NS041234-15 REVISED	80,922	
Genetic labeling and visualization of CSMN in models of motor neuron disorders		93.853	5R21NS085750-02	(4,299)	
Genetic Modifiers of Childhood Epilepsy		93.853	5R01NS084959-04	353,214	
Genetic tools to study CNS development and function		93.853	5R21NS092034-02	174,946	
Glioblastoma Phenotype Modulation Through miRNA Control of Wnt Signaling		93.853	5R01NS093843-03	394,009	19,013
HCN channel trafficking in epilepsy		93.853	5R01NS059934-09 REVISED	347,951	
Hereditary Defects in Human Sodium Channels		93.853	5R01NS032387-23	18,857	
Hippocampal microcircuits regulating neurogenesis		93.853	1R21NS103138-01	41,191	
IDO1 and immunotolerance in glioblastoma.		93.853	5R01NS097851-02	239,236	
IL13Ra2 targeted T-cell therapy for glioma		93.853	7R21NS089802-03	246,787	59,588
Immune Modifying Microparticles for Acute Treatment of Spinal Cord Injury		93.853	5F30NS093811-02 REVISED	45,337	
Immunoregulation and Pathology of Chronic Relapsing EAE		93.853	5R01NS026543-26	(1,310)	
Immunoregulation and Pathology of Chronic-Relapsing EAE		93.853	4R01NS026543-27	297,330	
Impact of direct dopaminergic neuromodulation of the subthalamic nucleus in health and in experimental Parkinson's disease		93.853	1F31NS100357-01A1	3,896	
Induced Pluripotent Stem Cell Core for NINDS Investigators		93.853	5P30NS081774-04	(25)	
Induced Pluripotent Stem Cell Core for NINDS Investigators		93.853	4P30NS081774-05	382,006	
Information Processing in the Thermosensory System of Drosophila Melanogaster		93.853	5F31NS093873-03	38,433	

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Integration of synaptic excitation and inhibition in the deep cerebellar nuclei		93.853	5F31NS092329-03 REVISED	38,979	
Interneuron and Motoneuron Properties in Chronic Spinal Injury	208	93.853	AGMT 7/14/15//R01NS047567	(5,810)	
Intranasal Stem-Cell Based Therapy of Glioblastoma		93.853	5R01NS087990-04 REVISED	431,259	21,348
Intrinsic Plasticity and Information Storage in Cerebellar Purkinje Cells	221	93.853	FP038885//R01NS62771	15,326	
Investigation of ALS caused by mutant CHCHD10		93.853	5R01NS099638-02	500,456	11,317
Investigation of Histone H3 Post-Translational Modifications in Pediatric Brainstem Glioma		93.853	1K08NS097624-02	169,597	129,276
Ionic currents and spiking in cerebellar nuclear neurons		93.853	5R37NS039395-17	554,745	
Kainate Receptors in Signaling Between Hippocampal Mossy Cells and Granule Cells		93.853	1R21NS090040-01	86,332	
LRRK2-mediated molecular and synaptic events in the striatum		93.853	5R01NS097901-02	420,295	
L-type channels as pharmacological targets for the treatment and prevention of febrile seizures		93.853	5R21NS096424-02 REVISED	148,636	
Magnetic-vortex microdiscs for glioma therapy		93.853	7R01NS077388-05	498,875	227,602
Massive scale electrical neural recordings in vivo using commercial ROIC chips	170	93.853	CC# 81395 5U01NS094248-02	71,502	
Maternal Outcomes and Neurodevelopmental Effects of Antiepileptic Drugs	67	93.853	T470333//3U01NS038455-14	(3,681)	
Maternal Outcomes and Neurodevelopmental Effects of Antiepileptic Drugs	67	93.853	T652681//4U01NS038455-15	136,388	
Mechanical Signals and Trigeminal Ganglion Neuron Responses During Whisking		93.853	5F31NS090872-03	37,923	
Mechanisms of Distorted Inputs in Chronic Spinal Injury		93.853	5R01NS089313-04 REVISED	507,226	
Mechanisms of Early Recurrence in Intracranial Atherosclerotic Disease (MyRIAD)	243	93.853	662706//5R01NS084288-04	35,554	
Mechanisms of Early Recurrence in Intracranial Atherosclerotic Disease (MyRIAD)	243	93.853	662706//5R01NS084288-04	19,195	
Mechanisms Underlying Tau45-230-Induced Neuronal Degeneration		93.853	5R01NS090993-03	306,071	
Metabolic Control of Immune Suppression in Gliomas		93.853	5R01NS093903-03	666,565	119,401
MicroRNAs and Perinatal Hypoxia-Ischemia		93.853	5R01NS086945-03 REVISED	434,969	213,527
Minimally Invasive Surgery plus rt-PA for ICH Evacuation	118	93.853	2001995429//U01NS080824-02	29,438	
Molecular basis of Scapulothoracic SMA and Charcot-Marie-Tooth disease type 2C		93.853	5R01NS078287-04	31,721	
Molecular Mechanisms of CRAC Channel Gating		93.853	1F31NS101830-01	21,731	
Motor Cortical Function During Motor Learning with a Brain-Machine Interface		93.853	5F31NS092356-03	38,182	
Mouse model studies of TMEM230-linked Parkinson's disease		93.853	5R01NS099623-02	350,035	15,854
Myoelectric Computer Interface to Reduce Muscle Co-Activation after Stroke		93.853	5R21NS084069-02	19,926	3,549
Myoferlin in muscle membrane fusion and repair		93.853	5R01NS047726-12	272,272	
Neural Stem Cell Carriers for Glioblastoma Immunotherapy		93.853	1R21NS101150-01	76,323	
Neurogenetic Approaches to Study Directed Behavior in Drosophila		93.853	5R01NS086859-04 REVISED	275,085	
Neuroimaging Biomarkers in Parkinsonism: Differentiating Subtypes and Tracking Disease Progression	227	93.853	UFDSP00011947//U01NS102038	121	
NeuroNEXT Clinical Trials	130	93.853	Master Agrmnt 2/27/12/ U10NS077271	26,751	6,688
New Directions in Biology and Disease of Skeletal Muscle		93.853	1R13NS098752-01	11,800	

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NN104 / ZZ-3K3A-201: A multi-center, Phase 2 study using a continual reassessment method to determine the safety and tolerability of 3K3A-APC, a recombinant variant of human activated protein C (APC), in combination with tissue plasminogen activator (tPA)	130	93.853	NN104//U01NS088312	19,414	
NN105: An Exploratory Phase II Study to Determine the Tolerability, Safety, and Activity of a Novel Vasopressin 1a Receptor Antagonist (SRX246) in Irritable Subjects with Huntington's Disease (HD)	130	93.853	4U44NS090616-02	9,495	
NN106: Prospective Phase II Study of Cytochrome C Oxidase Activity as a Novel Biomarker In Subjects With Newly Diagnosed Primary Glioblastoma Multiforme	130	93.853	1 U01NS093663-01A1	7	
Novel Therapies for Epilepsy Using Biodegradable Immune-Modifying Nanoparticles		93.853	5R21NS094999-02	210,704	34,465
NRSA F31 for Daniel Ohm in Support of: Concordance between cortical atrophy and histopathology in PPA with AD pathology		93.853	1F31NS095652-01A1	38,367	
NRSA F31 for Natalie Mara Frederick in support of: Understanding the role of dystonia gene Thap1 in the nervous system		93.853	1F31NS095461-01A1 REVISED	23,584	
NRSA Fellowship for Warren Alexander McGee in support of: TDP-43-regulated microRNAs and TDP-43 Proteinopathy		93.853	5F30NS090893-03 REVISED	42,714	
NRSA Postdoctoral F32 Misregulation of ER membrane dynamics by alpha-synuclein in Parkinsons disease		93.853	1F32NS101778-01	13,882	
Pallidostratial Signaling in Parkinson's Disease		93.853	1F32NS098793-01 REVISED	41,599	
Pilot Project: Communication Bridge: Web-based speech-language therapy for individuals with dementia	218	93.853	9788sc/5U54NS092089-03	25,898	
ARRA - POINT: Platelet-Oriented Inhibition in New TIA	66	93.853	Agreement signed 11/9/10 // 1U01NS026835-01A1	24,394	
Postsynaptic functions of neuronal adhesion molecules: focus on Cntnap2		93.853	1R01NS100785-01A1	28,459	
Probing Somatosensory Representations in the Cuneate Nucleus of Awake Primates	221	93.853	FP060211//R01NS095162	285,504	
Radiation + Temozolomide Induced Mutation and Malignant Progression of GBM		93.853	5R01NS095642-02 REVISED	282,917	
Radiographic markers of clinical function in Cervical Spondylotic Myelopathy		93.853	1K23NS091430-01A1	105,591	
Rational derivation of DA neuron subtypes from iPS cells for improved modelling of Parkinson's disease		93.853	5R01NS096240-02 REVISED	687,908	
Regulating fibrosis and muscle growth in the muscular dystrophies		93.853	5P01NS072027-06	215,835	66,356
Regulation of CD4+ T cell-mediated Demyelination Following Oligo Ablation		93.853	1R01NS099334-01A1	17,287	
Regulation of Gliotransmission by Store-Operated Calcium Channels		93.853	5F30NS090817-02	40,704	
Regulation of neural progenitor cell migration by store-operated CRAC channels		93.853	5R01NS094011-03 REVISED	469,004	
Regulation of Neurotransmitter Metabolism		93.853	R01NS020778	(2)	
Research Education Program for Trainees in Neurology		93.853	5R25NS070695-08	68,357	
Reverse Engineering Motor Unit Discharge	265	93.853	UWSC8225*(BPO2840)/5R01NS085331-03	211,861	
Rhythmicity and Synchrony in the Basal Ganglia		93.853	5P50NS047085-13	(49,860)	
Rhythmicity and Synchrony in the Basal Ganglia		93.853	5P50NS047085-13	97,783	62,513
Rhythmicity and Synchrony in the Basal Ganglia		93.853	5P50NS047085-15	1,452,200	36,698
Role of PCDH12 in neural circuit formation during brain development and disease		93.853	4R00NS089943-03	80,308	
ScanImage: Flexible Software for Laser Scanning Microscopy in Neuroscience	269	93.853	R24NS086549-NU Amd 2	74,574	

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Shaping feedback to promote learning to use a human-machine interface to drive a power wheelchair by people with tetraplegia		93.853	1F31NS096878-01A1 REVISED	30,542	
Spatiotemporal Integration of Mechanical Information in the Rat Brainstem		93.853	5F31NS092335-03 REVISED	41,153	
Spinal Muscular Atrophy: Inducing SMN Expression	18	93.853	901483-NU/5R01NS060926-07	(10,756)	
Spinal Muscular Atrophy: Inducing SMN Expression	18	93.853	901483//5R01NS060926-05	56,610	
Spinal serotonin in cerebral palsy	150	93.853	EH15-177-S1//5R011NS091278-02	70,020	
Store-operated channels in the nervous system		93.853	4R01NS057499-09 REVISED	92,636	
Store-Operated Channels in the Nervous System		93.853	2R01NS057499-10	180,903	
Stretch Reflex Contributions to Multijoint Coordination	171	93.853	03.81888-Amd 5/2R01NS053813-05	32,430	
Stroke Trials Network - Regional Coordinating Stroke Centers		93.853	5U10NS086608-03	65,444	52,409
Stroke Trials Network - Regional Coordinating Stroke Centers		93.853	5U10NS086608-05	304,868	30,587
SUDEP Translational Research Alliance – SUTRA	34	93.853	RES511429//5U01NS090407-03	56,695	
Synaptic Circuit Organization of Motor Cortex		93.853	5R01NS061963-08	(18,296)	
Synaptic Circuit Organization of Motor Cortex		93.853	5R01NS061963-10	424,237	
Synaptic physiology in the zebrafish cerebellum during swimming and learning		93.853	5F31NS095476-02	40,889	
Synaptic Transmission, Plasticity and Integration in the Subthalamic Nucleus		93.853	5R37NS041280-17	(365)	
Synaptic Transmission, Plasticity, and Integration in the Subthalamic Nucleus		93.853	5R37NS041280-19 REVISED	346,226	
Targeting convergent modulatory systems to regulate striatal synaptogenesis		93.853	1F32NS103243-01	8,641	
Targeting histone demethylase activity for the treatment of pediatric brainstem glioma		93.853	5R01NS093079-03	319,252	
Targeting the NMDA receptor-mediated disruption of autonomous subthalamic nucleus activity to ameliorate physiological and motor symptoms in a mouse model of Parkinson's Disease		93.853	5F31NS090845-03 REVISED	47,694	
The Human Motor Output Map		93.853	1R01NS098509-02	352,243	105,610
The Interaction of IDO and TRegs Leads to Immunosuppression in Glioma		93.853	5R00NS082381-05	238,880	
The Neural Control of Internal Joint State		93.853	5R01NS086973-04	463,712	40,236
The Representation of Uncertainty in the Sensorimotor System	171	93.853	RIC 81881-NU/ R01 NS074044 AMD 6	113,037	
The role of amyloid precursor protein in HIV-1 replication and associated neurodegeneration		93.853	1R01NS099064-01A1	210,159	
The role of a-synuclein accumulation in lysosomal hydrolase trafficking and function		93.853	5R01NS092823-02	367,433	
The role of ATP13A2/PARK9 in secretion of exosomes and alpha synuclein		93.853	5R37NS096241-02	632,037	43,419
The Role of Glioma Metabolism in Promoting Tumor Immunosuppression		93.853	1F32NS098737-01A1	22,453	
The Role of Lysosomal Glucocerebrosidase in Synucleinopathies		93.853	5R01NS076054-06	79,112	
The Role of Lysosomal Glucocerebrosidase in Synucleinopathies		93.853	2R01NS076054-07	64,509	
The Role of Tumor Induced PD-L1 Expression on Myeloid Cells in GBM on Expansion of Regulatory T Cells and Systemic Immunosuppression		93.853	1F32NS101884-01	8,386	
The role of UCHL1 on the health and stability of upper motor neurons		93.853	5R01NS085161-03	(32,884)	
The role of UCHL1 on the health and stability of upper motor neurons		93.853	5R01NS085161-05	387,374	

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The role of uncertainty for motor learning and adaptation	170	93.853	81378 NU//2R01NS063399-07	28,827	
The Stroke Hyperglycemia Insulin Network Effort (SHINE) Trial	264	93.853	GC12107-149595//U01NS069498	(3,644)	
The Stroke Hyperglycemia Insulin Network Effort (SHINE) Trial	264	93.853	GB10253 152920//U01NS069498	17,212	
Tissue Factor as a Key Determinant of IDH1 Mutant versus IDH1 Wild-type Glioma Thrombosis and Malignancy		93.853	1R01NS102669-01	48,868	
Training in Neurotherapeutics Discovery and Development for Academic Scientists	212	93.853	4R25NS077582-05	1,073	
Training Program in the Neuroscience of Human Cognition		93.853	5T32NS047987-10	56,494	
TRPC3 channels as pharmacological targets for the treatment of ataxia		93.853	1R21NS090346-01A1	98,426	
Understanding the cellular basis of Movement Disorders		93.853	5R01NS082351-03	(47,282)	
Understanding the cellular basis of Movement Disorders		93.853	5R01NS082351-05	316,731	
Validation of the HD-HRQOL (Huntington Disease Health Related Quality of Life)	244	93.853	3002420992//5R01NS077946-04	48,264	
				30,189,659	3,503,012
(CTOTC-12/ ARTEMIS) Safety of Donor Alloantigen Reactive Tregs to Facilitate Minimization and/or Discontinuation of Immunosuppression in Adult Liver Transplant Recipients	218	93.855	4U01AI104347-04//9320sc	76,641	
A Development-Specific Mechanism of Pathogenesis in HSV Encephalitis		93.855	5F30AI116106-03 REVISED	46,784	
A novel mouse model to monitor inflammasome activation in vivo		93.855	5R21AI120618-02	156,765	
A surface-exposed region of the UL37 protein that is essential for alphaherpesvirus neuroinvasion		93.855	3F32AI116044-02S1	47,951	
Accessory Virulence Factors of Pseudomonas aeruginosa		93.855	1R01AI118257-01A1	603,810	
ACTG A5338 Committee Support	29	93.855	110229//UM1AI068636	18,839	
ACTG LOC Protocol A5320 Vice-Chair	29	93.855	110236 A5320//5UM1AI068636-11	3,535	
ACTG LOC Protocol Co-Chair for Protocol A5322	29	93.855	110229 A5322//5UM1AI068636-10	13,275	
ACTG Research Group DMC Committee Chair	29	93.855	110009//5UM1AI068636-11	18,765	
ACTG, Aids Clinical Trials Group - Berzins SASC Leadership Support	29	93.855	110007//5UM1AI068636-10	2,815	
Activate Silent and Cryptic Intact Fungal SM Gene Clusters through FACs for Novel Antibiotics Discovery	108	93.855	Agmt 8/30/16-001 // 2R44AI118086-02	62,492	
Aging and Fracture Risk Among HIV-infected and HIV-uninfected Men	118	93.855	2001586404//R01AI093520	13,950	
AIDS Clinical Trial Group Network Protocol Funds	29	93.855	Mod 1 //2UM1AI068636-10	270,152	
AIDS Clinical Trial Group Network Protocol Funds - Cost Reimbursement	29	93.855	111672//5UM1AI068636-11	173,648	
AIDS Clinical Trials Group - ARTS Chair Support	29	93.855	110009/5UM1AI068636-10	10,604	
AIDS Clinical Trials Group - Protocol A5353 Support	29	93.855	110237//5UM1AI068636-11	13,844	
AIDS Clinical Trials Group - Protocol Chair Support A5322	29	93.855	110237//5UM1AI068636-11	16,495	
AIDS Clinical Trials Group (ACTG) - WOW	29	93.855	114663//UM1AI068636	7,073	
AIDS Clinical Trials Group- Chair Support for Protocol A5316	29	93.855	110229//UM1AI068636	8,305	
Alloantigen Delivery Via ECDI-Fixed Cells for Tolerance to Monkey Islet Grafts	245	93.855	N002854801//5U01AI102463	(888)	
Alloantigen Delivery Via ECDI-Fixed Cells for Tolerance to Monkey Islet Grafts	245	93.855	N002854801//1U01AI1202463-01	228,199	
Alpha-Herpesvirus Transport in Axons		93.855	5R01AI056346-13	447,206	96,396

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An 'omics' approach towards influenza A replication and pathogenesis	94	93.855	0254-3244-4609//4U19AI106754-05	464,425	
An Open-Label Population Pharmacokinetic Study of Minocycline for Infection Following a Single Infusion in Critically-ill Adult Subjects	61	93.855	203-8439//5UM1AI104681-05	47,208	
Anti IL5 and Churg Strauss Syndrome: a double blind, placebo controlled trial	142	93.855	6182014/5U01AI097073-03	(2,472)	
Anti IL5 and Churg Strauss Syndrome: a double blind, placebo controlled trial	142	93.855	20083504//4U01AI097073-04	21,837	
Anti-TSLP (AMG 157) plus antigen-specific immunotherapy for induction of tolerance in individuals with cat allergy CATNIP	24	93.855	FY14ITN011//1UM1AI109565-04	278,603	
Assembly and Function of the Gonococcal Pilus		93.855	1R56AI114821-01A1	(2,318)	
Binding Antibody FcMediated Antiviral Functions Across Humans and Non-human Primates	61	93.855	2035489//1P01AI12075	52,545	
Biomarkers for Highly Virulent Pseudomonas aeruginosa Strains		93.855	1R21AI129167-01	983	
Bioresponsive Combination Microbicide Delivery System for HIV and HSV		93.855	7R33AI071971-06	183,377	183,377
Cervical/Vaginal Mucus and Microbicides		93.855	5R33AI094584-05	3,971	
Chicago Clinical Trials Unit		93.855	UM1AI069471	1,511,594	708,169
Chicago WIHS Consortium V (WIHS-V)	92	93.855	50615-324-NWU2-AI034993//5U01AI034993	48,308	
Chicago Women's Interagency HIV Study (WIHS V)		93.855	50612-324-NWU1-AI034993	34,406	
Chronic Rhinosinusitis Integrative Studies Program (CRISP)		93.855	5U19AI106683-03	(178)	
Chronic Rhinosinusitis Integrative Studies Program (CRISP)		93.855	5U19AI106683-03	287,621	287,621
Chronic Rhinosinusitis Integrative Studies Program (CRISP)		93.855	4U19AI106683-05	1,707,916	735,980
Clinical Islet Transplantation at Northwestern		93.855	5U01AI089316-03	(470)	
Consortium of Eosinophilic Gastrointestinal Disease Researchers: OMEGA	45	93.855	135408-CT1-OMEGA//5U54AI117804-03	60,713	7,800
Continuation Funding for the Immune Tolerance Network [ITN030ST (A-WISH)]	24	93.855	FY16ITN048//5UM1AI109565-02	17,455	
Control of E1 oligomerization regulates E1 function in papillomavirus DNA replication	48	93.855	55890312//1R01AI114897-03	3,535	
CRISPR Cas Genes and Legionella Pneumophila Infection		93.855	5R21AI103451-02	118	
Defense-in-depth against mucosal HIV clade C invasion	198	93.855	PO 39802//2P01AI048240-12A1	459,157	
Defining the Siderophore of Stenotrophomonas maltophilia, an Emerging, Multi-Drug Resistant Pathogen		93.855	1R21AI125968-01A1	12,799	
Dengue Human Immunology Project Consortium (DHIPC)	94	93.855	0255-8633-4609//5U19AI118610-03	463,823	
Develop the Oxford Nanopore MinION system for real-time cDNA/RNA sequencing of dengue, chikungunya, and zika viruses	94	93.855	0255-8641-4609//5U19AI118610-02	17,914	
Development of Immune-Modulated HIV Vaccines		93.855	1K22AI118421-02	127,615	
Development of Lipid-based Nanoparticle Vaccines Against Mycobacterium tuberculosis		93.855	1R21AI131035-01	69,871	
Development of Novel Anti-Biofilm Compounds for Treating Chronic Wounds	2	93.855	ASI//2R44AI092952-02A1	14,599	
Discovery and validation of avermectin resistance loci in free-living and parasitic nematodes		93.855	5R21AI121836-02	275,011	16,188
Distinct mast cell responses in male and female SJL mice underlie sex dimorphic EAE susceptibility		93.855	1R01AI128292-01A1	28,534	
Diverse Functions of p38α MAPK in T Helper Differentiation		93.855	1R03AI125813-01A1	16,459	
DLL4 Regulation of T Cell Migration in EAE		93.855	5R01AI101378-03 REVISED	(2)	

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Do Early Maternal Antibodies Facilitate Oral Transmission of HIV in Infants?	198	93.855	15-04442-003//5R01DE023049-06	175,733	
Drug at the Right Place & Concentration: Optimizing Combination Vaginal Ring PrEP	4	93.855	31103B // 5U19AI103461-06	124,617	
Drug at the Right Place & Concentration: Optimizing Combination Vaginal Ring PrEP	4	93.855	310841//5U19AI103461-03	(3,661)	
Drug at the Right Place and Concentration: Optimizing Sustained PreP Agents	4	93.855	31097B Amd. 5//5U19AI-103461-4	122,026	
Drug at the Right Place and Concentration: Optimizing Sustained PreP Agents	4	93.855	31103B // 5U19AI103461-06	107,401	
Effectiveness, Safety and Value of Integrating Molecular Diagnostics into the Post-Transplant Management of Kidney Transplant Recipients - The Next Frontier of Biomarker Research		93.855	1R34AI118493-01 REVISED	118,804	59,954
Efficacy of Ustekinumab (Anti-IL_12/23) followed by Abatcept (CTLA4-Ig) for the tretment of Psoriasis Vulgaris	24	93.855	FY16ITN093//5UM1AI109565-03	25,289	
EoE Clinical Study 2: Consortium of Eosinophilic Gastrointestinal Disease Researchers	45	93.855	135409//5U54AI117804-03	63,088	
Ethical and Sociocultural Implications of Genetic Testing in Transplantation		93.855	5R03AI126090-02	84,520	
Expanding Small Molecule Functional Metagenomics through Shuttle BAC Expression in Aspergillus Nidulans	108	93.855	AGMT 07/25/2014//2R44AI094885-02	236	
Food Allergy Outcomes Related to White and African American Racial Differences (FORWARD)		93.855	1R01AI130348-01A1	18,699	5,306
Function of Vibrio vulnificus MARTX toxin during early gut infection		93.855	4R01AI098369-05	110,029	
Genetics of Iron Acquisition by Legionella Pneumophila		93.855	5R01AI034937-19	(1,428)	
Genomics for Transplantation: Discovery and Biomarkers	181	93.855	5-23318// U19 AI063603	(3,709)	
Glucocorticoids and glucocorticoid receptor translational isoforms		93.855	5R21AI113935-02	9,534	
Group 1 CD1-restricted Autoreactive T cells in Inflammatory Disease		93.855	1R21AI117238-01	120,499	
Harnessing MUC16-IgG Interactions to Enhance HIV Vaccine Function		93.855	1R01AI125171-02	501,680	146,744
HIV and Tuberculosis Transmission and Future Trends in the African Population	265	93.855	UWSC8429 / K01AI095060	1,464	
HIV Research for Prevention 2016: Vaccine, Microbicide and ARV-based Prevention Science (HIV R4P)		93.855	1R13AI122959-01	74,378	
Hormones in allergic disease		93.855	1R01AI127783-01	262,758	
Host-Pathogen Interactions in a Failing Global lineage of MTBC:M.africanum	205	93.855	USTTB/NU/1R01AI1110386-02-2016	7,070	
How beta-catenin expands Foxp3+RORγt+ Pro-inflammatory T-regulatory cells	221	93.855	FP054763-B//1R01AI108682	(11)	
Identification of the Initial Targets of Transmission		93.855	5R01AI094595-05 REVISED	190,762	34,441
Identification of the Initial Targets of Transmission		93.855	2R01AI094595-06A1	12,737	
Immune profiling and network modeling of Chikungunya infections	94	93.855	U255-8624-4609//1U19AI118610-10	(1,407)	
Immunology and Molecular Pathogenesis Training Program		93.855	5T32AI007476-19	209	
Immunology and Molecular Pathogenesis Training Program		93.855	3T32AI007476-20S1	244,767	
Immunosuppressive Drug Withdrawal from Liver Transplant Recipients on Tacrolimus versus Sirolimus	24	93.855	FY17ITN165//5UM1AI109565-04	25,012	
IMPAACT Network Leadership and Operations Center (LOC) Grant - CRS 4001 PF	18	93.855	915377-NU//PTCL102002438850/UM1AI068632	62,183	
Impact of CCR5 Blockade in HIV+ Kidney Transplant Recipients	218	93.855	9254sc//5U01AI118594-02	85,567	
Implementation strategies for a new point-of-care test for early infant diagnosis	118	93.855	2002785688//R01AI116324-02	37,492	
Improving Food Allergy Management through an Electronic Physician Support Tool		93.855	5R21AI103433-02	(266)	
Influenza virus receptors on human airway epithelial cells	181	93.855	5-52470-1R01AI114730-02S	184,217	
Innate Immune Surveillance of HIV-1 During Transmission and Systemic Infection	180	93.855	60088-12935-NWU//1R01AI127302-01A1	13,550	

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Integrating Mechanistic Insights from Diverse Models to Prevent CMV Reactivation following Transplantation		93.855	5P01AI112522-03	2,313,859	45,629
Lipid Regulation of the Development of Responsiveness to Allergen in Neonates and Infants		93.855	1U01AI131337-01	83,511	
Mechanisms of Gonococcal Pilin Antigenic and Phase Variation		93.855	5R37AI033493-24	428,941	
Mechanisms of MCMV reactivation in immunodeficient transplant recipients		93.855	5R01AI112911-04	302,807	
Mechanistic Studies of Patatin-like Toxins		93.855	5R01AI053674-13	413,078	
Modeling concurrent cytomegalovirus infection and transplantation tolerance		93.855	5R01AI114824-02	279,523	
Molecular mechanism of V. vulnificus MARTX toxin in pathogenesis and food safety		93.855	2R01AI092825-06A1	344,322	10,349
Molecular Mechanism of V. Vulnificus MARTX Toxin in Pathogenesis and Food Safety		93.855	5R01AI092825-05 REVISED	52,533	
Molecular Regulation of Systemic Inflammation		93.855	5R01AI120625-02	327,989	
Mucosal mechanisms of altered HIV susceptibility in adolescents	265	93.855	UWSC9610//1R01AI128782-01	9,043	
Multicenter AIDS Cohort Study		93.855	5U01AI035039-25 REVISED	3,180,446	430,242
Neurotropic herpes virus envelopment and microtubule-mediated transport	4	93.855	310227//1R01AI125244-01A1	14,909	
Northwestern University Allergy Immunology Research Program (NUAIR)		93.855	5T32AI083216-08	272,918	54,121
Northwestern University Infectious Diseases Education and Science (NulDeas)		93.855	2T32AI095207-06	5,076	
Novel asthma pathogenesis genes in the mucosa of the human airways		93.855	5R21AI115055-02	137,380	
Novel long-acting microbicide and contraceptive intrauterine system	62	93.855	S140181-2 Amd. 3 // 5R01AI112009-04	142,206	
NRSA Fellowship for A. DuMont in Support of Mechanism of Action of Stenotrophomonas maltophilia proteases		93.855	5F32AI114130-03	48,280	
Optimizing Clinical Use of Polymyxin B: Teaching an Old Drug to Treat Superbugs	275	93.855	WSU15102-A1//5R01AI119446	43	
Optimizing clinical use of Polymyxin B: Teaching an old drug to treat superbugs	244	93.855	3004163905//7R01AI119446	100,998	
Pathogenesis of Rebound SIV/HIV Viremia After Antiretroviral Therapy		93.855	1P01AI131346-01	33,928	
Patient-Oriented Research on Hospital-Acquired Pathogens		93.855	4K24AI104831-05	90,410	8,382
Phenotypic and functional plasticity of mast cells in homeostasis and allergy		93.855	1F30AI129237-01A1 REVISED	14,797	
Pig-to-Monkey Islet Xenotransplantation	245	93.855	N004761502//1U01AI120130-02	17,845	
Pilot Study: Consortium of Eosinophilic Gastrointestinal Disease Researchers (CEGIR)	45	93.855	135407//1U54AI117804-02	(1,472)	
Post-transcriptional regulation of Crp in Yersinia pestis		93.855	5R21AI111018-02	126,074	
Poxvirus manipulation of the host cell protein synthesis machinery		93.855	1R01AI127456-01	271,979	
Prevention of HIV transmission/acquisition through informed contraceptive choice (Administrative Supplement)	126	93.855	16-17-103//R01AI110373	6,490	
Probing the Functions of KLF2 Downregulation		93.855	5R21AI119137-02	94,325	
Profiling and network modeling of innate immunity to human Zika virus infection	94	93.855	0255-8643-4609//5U19AI118610-02	104,698	
Project 3: An 'omics' approach towards influenza A replication and pathogenesis	94	93.855	0254-3243-4609//5U19AI106754-03	(4,124)	
Prospective Observational Evaluation of the Association between the Day 2 Vancomycin Exposure and Failure Rates among Adult Hospitalized Patients with MRSA Bloodstream Infections (PROVIDE)	61	93.855	UM1AI104681	773	500
Proteogenomics for Organ Transplantation: Prediction, Diagnosis, Intervention		93.855	5U01AI084146-05 REVISED	(19,782)	
Proteogenomics for Organ Transplantation: Prediction, Diagnosis, Intervention		93.855	5U01AI084146-05 REVISED	157,531	150,451
Proteomic Predictors of Chronic Kidney Disease in Liver Transplant Recipients		93.855	5R21AI113916-02	245,023	

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Protocol ITN056ST: Evaluation of Donor Specific Immune Senescence and Exhaustion as Biomarkers of Operational Tolerance Following Liver Transplantation in Adults	24	93.855	FY16ITN158//5UM1AI109565-04	373,103	
REDD1 dissociates the therapeutic and adverse effects of glucocorticoids in skin		93.855	1R01AI125366-01A1	59,240	
Regulation of Allergic Inflammation by Histamine		93.855	5R01AI076456-08	(17,448)	
Regulation of Allergic Inflammation by Histamine		93.855	5R01AI076456-10	460,733	
Regulation of cytosolic pattern recognition receptor signaling in macrophages		93.855	4R01AI099009-04	318,039	
Regulation of food allergy and anaphylaxis by IL 33		93.855	5R01AI105839-04	556,643	
Regulation of HPV Replication by Sirtuin Deacetylases		93.855	1R21AI133984-01	3,827	
REPRIEVE A5332 Women's Ancillary Study	29	93.855	5R01AI123001-02//BWH AGMT 11/23/16	2,723	
Role of CTCF in HPV replication and viral DNA looping		93.855	5R21AI120492-02	121,925	
Role of the Plasminogen Activator Protease During Pneumonic Plague		93.855	5R01AI093727-05	52,628	
Role of the Plasminogen Activator Protease during Pneumonic Plague		93.855	2R01AI093727-06A1	16,731	
Role of Thymic Stromal Lymphopoietin in Chronic Rhinosinusitis		93.855	5R01AI104733-04	464,996	
Roles of Early Life Colonization and Environmental Antigens on Childhood Asthma		93.855	1R21AI121742-01	61,247	
S. aureus and Regulatory T cells in the Failure of Oral Tolerance		93.855	5K23AI100995-03	(183)	
S. aureus and Regulatory T cells in the Failure of Oral Tolerance		93.855	4K23AI100995-05	118,089	102,060
Small, noncoding RNAs and the evolution of Yersinia pestis virulence		93.855	5R21AI103658-02	(1,284)	
Solid Organ Transplantation in HIV: Multi-Site Study	218	93.855	4693sc A06//U01AI052748	(186)	
Structural and Functional Studies of gp42 and HLA Class 2 in EBV Entry		93.855	5R01AI076183-15	567,534	353,623
Structure and Function of EBV Protein Complexes that Trigger Epithelial Cell Entry	190	93.855	61048128-117572//1R21AI119480-02	103,347	
Studies of human B cell responses and antibody production during chronic airway inflammation		93.855	1R56AI131239-01A1	74,634	
SubProject* Mechanisms of B Cell Responses in Autoimmune Disease: D14-AUC02-NWU	61	93.855	203-4117//5U19AI056363-10REV	28,549	
Sustained Long Acting Prevention Against HIV Program Operation		93.855	5UM1AI120184-03	3,650,154	1,724,328
Targeting Siglec-8/-F to Treat Eosinophil and Mast Cell Related Disorders		93.855	5R01AI072265-11	345,486	
Telomere Length and Molecular Mechanisms of Aging among HIV-infected Individuals on ART	29	93.855	1165293//5UM1AI068636-11	12,627	
The HIV Care Continuum Among Recent Offenders		103	93.855	IN4689683NW//5R01AI114435-02	87,321
The non-canonical role of the CRISPR Cas2 nuclease in infection by Legionella pneumophila		93.855	1R21AI123462-01A1	137,413	
The Pathogenesis of Kawasaki Disease		93.855	2R56AI106030-13A1	(595)	
The Pathogenesis of Kawasaki Disease		93.855	2R56AI106030-13A1	7,791	7,791
The regulation and function of CD1d-restricted T cells		93.855	5R01AI043407-18	440,753	
The Role of Group 1 CD1-restricted T Cells in Infectious Disease		93.855	5R01AI057460-13	485,690	57,522
The Role of MHC class Ib in T cell development and infectious disease		93.855	4R01AI040310-19	196,473	
The roles of Sirt1, a deacetylase, in immune tolerance and autoimmunity		93.855	5R01AI079056-09	327,256	
The roles of Synoviolin in immune tolerance and autoimmunity		93.855	5R01AI108634-04	385,026	
The Structure and Function of the Influenza Virus Genome		93.855	4R01AI020201-33	206,788	

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Third Coast Center for AIDS Research		93.855	5P30AI117943-03 REVISED	2,093,788	279,655
Tocopherol regulation of the development of responsiveness to allergen early in life		93.855	1R01AI127695-01A1	55,342	
Translational Control of Gene Expression during Poxvirus Infection		93.855	7R21AI105330-02 REVISED	14,444	
Translational Research Training in Infectious Diseases		93.855	5T32AI095207-04	(1,205)	
Translational Research Training in Infectious Diseases		93.855	4T32AI095207-05 REVISED	137,149	
Type II Secretion and Legionella pneumophila Infection		93.855	5R01AI043987-19	274,874	
UTI Immune Modulation by LPS Structure		93.855	5F31AI106357-05	28,826	
Virulence Mechanisms of the Emerging Pathogen Stenotrophomonas maltophilia		93.855	5R21AI117082-02	123,512	
Women's Interagency HIV Study	92	93.855	50612-324-NWU2-AI034993//5U01AI034993	(1,304)	
				33,187,909	5,506,629
Regulation of Bacterial Aggregation During Host Colonization		93.856	5R21AI117262-02 REVISED	188,112	
A Computational Biology Approach to Mapping Nucleosomes in Stem Cells		93.859	5R01GM107177-04 REVISED	360,004	
Activation Mechanisms of Store-Operated Calcium Channels		93.859	5R01GM114210-03 REVISED	286,891	
Activities of nucleoprotein complexes visualized in single-molecule experiments		93.859	cont5R01GM105847-03	(854)	
Activities of Nucleoprotein Complexes Visualized in Single-Molecule Experiments		93.859	4R01GM105847-04	163,869	
Analysis of lamin-chromatin interactions and their regulation of chromosome organization and gene expression	32	93.859	5-10742-01//2R01GM106023-05	92,700	
Analysis of Novel Virus-Induced RNAs		93.859	5R01GM111652-03	336,406	
Anesthesia-induced learning deficiency and brain hyperoxia	150	93.859	EH16-011-S1 Amd 2// R01GM112715	67,278	
Assembly and epigenetic inheritance of the human centromere		93.859	5R01GM111907-04	251,897	711
Biosynthetic and Biomimetic Investigations into Roseophilin		93.859	5F31GM119368-02 REVISED	34,119	
Biotechnology Predoctoral Training Program		93.859	5T32GM008449-24 REVISED	368,655	
Capturing Transient Protein Structures on Multiple Spatial and Temporal Scales		93.859	5R01GM115761-03	270,748	
Carbene Catalysis Strategies for Organic Synthesis		93.859	3R01GM073072-12S1	423,226	
Career Decision-Making of Future Minority Biomedical Science Faculty		93.859	5R01GM085385-08	(899)	
Cellular and Molecular Basis of Disease Training Program		93.859	5T32GM008061-35	819,128	
Characterization of pmoD		93.859	5F32GM119191-02	56,746	
Characterization of the antiviral and nuclear regulatory functions of FEZ1 & NEK1		93.859	5R01GM101975-05S1	210,601	
Chemistry of Life Processes Predoctoral Training Program		93.859	5T32GM105538-05 REVISED	276,437	
Chromatin Modifications by Histone Ubiquitination and Methylations		93.859	5R01GM069905-14	(42,692)	
Coboglobins-Cobalt-Substituted Hemoglobins and Myoglobin		93.859	5R01GM111097-45 REVISED	580,277	
Control and Function of Ndr/LATS Signaling Systems		93.859	5R01GM084223-09 REVISED	273,142	
Copper Acquisition by Methanotrophs.		93.859	5F32GM110934-03	35,855	
Cryo Ptychography Combined With X-Ray Fluorescence Analysis of Metals in Cells		93.859	4R01GM104530-04 REVISED	163,373	

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Cryo ptychography combined with x-ray fluorescence analysis of metals in cells		93.859	2R01GM104530-05	128,730	
Defining the molecular and cellular mechanism of epigenetic transcriptional memory		93.859	5R01GM118712-02	349,617	
Development of dictyBase, an online informatics resource		93.859	5R01GM064426-15 REVISED	410,622	
Developmental Dynamics of Ciliated Epithelia		93.859	5R01GM089970-08 REVISED	309,799	
Direct Determination of the Distribution of Fitness Effects of Spontaneous Mutations in Caenorhabditis Elegans	227	93.859	UFDSP00010414//R01GM107227-02	93,925	
Dissecting chromatin and lamin contributions to nuclear structure and function		93.859	5F32GM112422-02	56,119	
Dissecting functional cooperation among subunits in a catalytic ribonucleoprotein	154	93.859	60057276//R01GM120582	80,987	
DNA zip codes and the spatial organization of the yeast genome		93.859	4R01GM080484-09	178,969	
Eukaryotic Post-Translational Modifications		93.859	5R01GM067193-12	119,942	
Excitability in Dictyostelium Development		93.859	5K25GM098875-06	83,189	
Exploration of Novel Silyl Derived d1 Synthons Equivalents		93.859	5F31GM116532-03 REVISED	36,793	
Functional proteoform analysis of the glioma oncogene idh1		93.859	5F32GM120869-02	55,394	
Genetic Analysis of Beneficial Bacterial Colonization		93.859	5R35GM119627-02	335,541	
Global Characterization of Protein Palmitoylation in Trypanosomes		93.859	5R01GM102689-03	(1,380)	(1,380)
Global Characterization of Protein Palmitoylation in Trypanosomes		93.859	4R01GM102689-04	199,321	
High Throughput Screening for Small-molecules Facilitating Prion Study		93.859	5R01GM110045-03	269,708	
Information Processing by Post-Translational Modification	90	93.859	152213.5081815.0003//5R01GM105375-02	102,608	
Innate and Adaptive Immunity in Childhood Epilepsy	67	93.859	T547071//7R01NS073768-06	4,442	
Integrated Empirical and Translational Research to Diversify the Scientific Workforce		93.859	5R35GM118184-02 REVISED	544,759	32,604
Integrative informatics approach to develop safe glucocorticoid therapies		93.859	5R01GM112945-03 REVISED	664,805	161,246
Investigating The Functional Role Of Zinc Fluxes During Sperm Activation		93.859	5F31GM117971-02 REVISED	39,720	
Investigating the molecular mechanism of mitochondrial tethering		93.859	1R01GM120303-01A1	47,931	
Investigation into the Dynamic Zn Proteome during Mammalian Oocyte Maturation		93.859	5F32GM115052-03	59,588	
L-carnitine Treatment for Vasopressor Dependent Septic Shock	246	93.859	66100920513-NU//1R011GM103799	3,805	
Measuring signaling pathway dynamics during tissue growth in hydrogels	244	93.859	5R01GM097220-05	(11,366)	
Mechanism of Nuclear Signaling and cell-cell adhesion by catenins		93.859	5R01GM076561-09S1	25	
Mechanisms of Kinesin Regulation		93.859	5R01GM072656-09	(434)	
Mechanistic investigation of long non-coding RNAs in Drosophila oogenesis		93.859	1F32GM122349-01	31,058	
Medical Scientist Training Program		93.859	4T32GM008152-30	1,155,064	
Medical Scientist Training Program		93.859	2T32GM008152-31	126,097	
Mentoring for Success: Developing Fundamental Skills for Biomedical Research		93.859	5R25GM079300-11 REVISED	526,563	
Metalloenzymes and metal homeostasis		93.859	5R35GM118035-02 REVISED	658,857	
Metalloregulation by MerR and Fur Protein Families		93.859	5R01GM038784-27	47,099	
Metalloregulation by MerR and Fur Protein Families		93.859	2R01GM038784-28	203,906	
Microbial Succession and Adaptive Immune Responses in the Premature Infant		93.859	5R01GM108494-05	51,970	18,017

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MicroRNA Regulation of Biological Mechanisms		93.859	2R01GM077581-09A1	(8,086)	
Microtubule motors and generation of cell polarity		93.859	5R01GM052111-19	520,319	
Modeling scientific workforce dynamics using social network analysis	90	93.859	152451.5080936.0303 // 5U01GM112623-03	88,120	
Molecular Biophysics Training Grant		93.859	5T32GM008382-23	(130)	
Molecular Biophysics Training Program at Northwestern University		93.859	5T32GM008382-25 REVISED	279,546	
Molecular Mechanisms of Basolateral Targeting in Polarized Epithelial Cells		93.859	5R01GM070736-12	301,640	
Molecular Mechanisms of Gene Silencing by RNAi		93.859	5R01GM068743-12	(239)	
National Infrastructure for Standardized and Portable EHR Phenotyping Algorithms	117	93.859	16081299-03//R01GM105688-05	133,392	
National Resource for Translational and Developmental Proteomics		93.859	5P41GM108569-03	912,322	62,500
Neural Crest Ontogeny and the Control of Stem Cell Attributes		93.859	5R01GM116538-03	227,890	
Non-coding RNAs and their mechanisms and functions		93.859	5R35GM118144-02 REVISED	425,703	
Nuclear Organization Aberrations Underlying Systemic Lupus Erythematosus		93.859	5F32GM115046-02	36,095	
Orthogonal Ubiquitin Transfer to Profile E3 Substrate Specificity	85	93.859	SP00011584-01//5R01GM104498-04	17,793	
Particulate methane monooxygenase		93.859	5R01GM070473-11	(7,077)	
Pharmacological Inhibitors of Nedd4 ubiquitin ligase as anticancer therapeutics	229	93.859	R-17-0021 // 7R01GM115632	20,220	
Probing Cellular Membrane Processes by Single Particle Orientation and Rotational Tracking	85	93.859	SP00012129-01//1R01GM115763	163,793	
Regulation and Function of Intermediate Filaments in Cell Mechanics		93.859	3P01GM096971-05S1	345,898	215,889
Regulation of SoxE Function During Neural Crest Formation		93.859	5R01GM077288-04	(459)	
Regulatory Roles of Zinc Fluxes in Metalloprotein Occupancy and Cell Cycle Progression		93.859	5R01GM115848-03 REVISED	405,666	
Selective inhibition of nitric oxide synthase for multiple indications		93.859	5R01GM049725-22	435,765	70,224
Specific inhibition of transcription factors with Cobalt-Schiff Base Complexes		93.859	1R01GM121518-01A1	26,835	
Src kinase phosphoregulation of the human mitotic kinesin, Eg5		93.859	5R01GM107209-03	(1)	
Src kinase phosphoregulation of the human mitotic kinesin, Eg5		93.859	4R01GM107209-04	264,172	45,009
Structural and biophysical studies of DNA topoisomerases		93.859	2R01GM051350-21A1	143,813	
Structural mechanism of membrane remodeling during herpesvirus nuclear egress	200	93.859	100169-00001//R01GM111795	44,947	
Structural Mechanisms in Semaphorin Signaling		93.859	5R01GM098259-04	(106)	
Structural Studies of a Spectrin/Ankyrin Complex		93.859	5R01GM057692-15	2,182	
Structural Studies of RNase P		93.859	5R01GM058443-16	(57,769)	
Structure and function of desmosomal cadherins	49	93.859	1(GG011995-01)//1R01GM118584-01A1	33,351	
Structure and Function of Mammalian Copper Transporters		93.859	5R01GM115211-02	265,469	
Structure and Specificity in Metal Ion Homeostasis		93.859	5R01GM058518-17	14,914	
Super-resolution microscopy of nuclear lamin and spindle envelope/matrix function	32	93.859	5-10490-01//5R01GM106023-4	81,204	
Tailoring liposomal spherical nucleic acid nanoparticles for biological and therapeutic potency		93.859	5F31GM119392-02 REVISED	37,694	
Targets for Design of Drug Combinations that Select against Antibiotic Resistance		93.859	5R01GM113238-04 REVISED	246,784	177,713
Team Dynamics, Networks, & Assembly (Team DNA)	215	93.859	1295 G UA135//5R01GM112938-02	19,841	

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Team Dynamics, Networks, and Assembly (Team DNA)	215	93.859	1295 G TA411-1//5R01GM112938-02	133,143	
The Academy for Future Science Faculty Diversity through Theory Driven Coaching		93.859	5R01GM107701-03	803	
The Dictyostelium Stock Center		93.859	5R01GM087371-08 REVISED	278,312	
The Impact of Public Reporting on Clinical Outcomes and Quality Improvement		93.859	5F32GM113513-03 REVISED	(243)	
The role of innate immunity in the traumatic brain injury-induced immune suppression syndrome		93.859	5K08GM117341-03	202,678	
The role of the microtubule regulators Kif4 and EB1 in HIV-1 infection - Project 2	49	93.859	GG010108-13//5P01GM105536-04	562,608	
The Structure and Function of Perinucleolar Compartment		93.859	5R01GM078555-08	63,452	
Tissue morphogenesis: A study of molecular machines and cell mechanics		93.859	5R01GM098077-03	797	797
Tissue morphogenesis: A study of molecular machines and cell mechanics		93.859	4R01GM098077-04	251,530	95,000
Tube size control by Src and Yorkie/YAP		93.859	5R01GM108964-04 REVISED	333,693	
Virus Imaging Core P50 GM082545 CHEETAH	262	93.859	10027535-02//P50GM082545-A1	(32)	
Virus Imaging Core P50 GM082545 CHEETAH	262	93.859	10027535-02//5P50GM082545-10	275,798	
Why Do Research Prizes Have Effects on Minorities' Biomedical Research Careers?		93.859	5R01GM098568-03	(11,155)	
Zinc Regulation of Germline and Embryo Development in Caenorhabditis elegans		93.859	5F31GM112478-03	36,306	
				19,539,871	878,330
A Cognitive Test Battery for Intellectual Disabilities	212	93.865	201402548-02/R01HD076189	58,122	
A preschool biomarker for literacy		93.865	4R01HD069414-05	169,152	
A Randomized Study to Abate Truancy and Violence in Grades 3-9		93.865	5R01HD067500-06 REVISED	269,317	237,956
Altering Activation Patterns in the Distal Upper Extremity After Stroke	170	93.865	CC# 81370 CL3437//R01HD075813	10,810	
Application of Targeted Reinnervation for People with Transradial Amputation	170	93.865	CC#81930 CL4098//5R01HD081525-04	3,751	
Assessing microenvironment and endothelial cell instruction of testis function		93.865	1F31HD089693-01A1 REVISED	4,649	
Building Bridges, Breaking Barriers: An Academic-Community Partnership to Address Disparities in Uterine Fibroids		93.865	5R13HD085936-02	4,350	4,350
Career Development in Women's Health (CDWH)		93.865	5K12HD055884-09	19,348	19,348
Career Development in Women's Health (CDWH)		93.865	4K12HD055884-10	226,649	91,771
Center for Reproductive Health After Disease		93.865	5P50HD076188-05 REVISED	1,548,603	172,856
Center for Reproductive Research after Disease		93.865	5P50HD076188-03	51	
Characterizing the Epigenetic GATA Switch in Endometriosis		93.865	5R03HD082558-02	80,435	
Cognitive Architecture of Bilingual Language Processing		93.865	5R01HD059858-05	72,829	
Cognitive Architecture of Bilingual Language Processing		93.865	2R01HD059858-06A1	135,511	
Constraint induced movement therapy for walking in individuals post stroke	170	93.865	CC# 81388 CL4442//1R01HD082216-03	6,558	
Cortical Priming to Optimize Gait Rehabilitation Post Stroke	231	93.865	7201//5R01HD075777-04	35,249	
Cortical thickness, subcortical deformation, and structural covariance networks in youth with perinatally-acquired HIV: associations with HIV disease severity and cognition		93.865	1F30HD090842-01	25,989	
Cortisol, Socioeconomic Status, and Genetic Influences on Cognitive Development	256	93.865	UTA16-000087 // 1R01HD083613-01A1	12,606	

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Deubiquitinating Enzymes as Targets for Male Contraception	18	93.865	901501-NU 02 // 5U01HD084046-03	66,956	
Development of a serum biosignature for ectopic pregnancy	251	93.865	564595//R01HD076279-04	73,993	
Effect of a patient-centered decision app on TOLAC: An RCT	218	93.865	8231sc//5R01HD078748-03	197,450	
Effect of Injury Severity and Location on Spasms Post SCI		93.865	5K01HD084672-03	120,628	
Effect of Neural Constraints on Movement in Stroke		93.865	5R01HD039343-13	(29,611)	
Effect of Neural Constraints on Movement in Stroke		93.865	4R01HD039343-15	297,913	25,178
Endometriosis and Retinoids		93.865	5R37HD038691-18S1	541,895	
Engineering Career Development Center in Movement and Rehabilitation Sciences		93.865	5K12HD073945-04	(4,591)	
Engineering Career Development Center in Movement and Rehabilitation Sciences		93.865	5K12HD073945-04	97,039	94,872
Engineering Career Development Center in Movement and Rehabilitation Sciences		93.865	4K12HD073945-05	687,862	572,327
Genes, Androgens and Intrauterine Environment in PCOS		93.865	2P50HD044405-13	(3,201)	
Genes, Androgens and Intrauterine Environment in PCOS		93.865	2P50HD044405-13	362,605	360,495
Genes, Androgens and Intrauterine Environment in PCOS		93.865	3P50HD044405-15S1	955,470	334,031
Hormonal Signals that Regulate Ovarian Differentiation		93.865	5P01HD021921-25	(27,699)	
How Housing Vouchers Affect Biology & Health	118	93.865	2003262020 // U01HD075957	74,679	
Improve dynamic lateral balance of humans with SCI	170	93.865	CL5253//1R01HD083314	8,333	
Improving Mobility for Bilateral Transfemoral Amputees with Coordinated Robotic Prostheses	267	93.865	2404-017266//1R21HD076124-02	3,204	
Integrative Genomics, Epigenomics and Bioinformatics Analyses of Human Uterine Fibroids		93.865	1R01HD089552-02	420,436	53,416
Intensive Rehabilitation Research Grant Writing Workshops in the United States	137	93.865	MUSC14-024//T15HD074546-06	11,139	
INTER-CAMBIO: Community-Academic Meetings to Bridge Initiatives in Obesity		93.865	5R13HD075494-03	(1,256)	
Intimate Partner Violence in Sexual Minority Female Adolescents and Young Adults	223	93.865	010314-002//1R01HD08	371,007	
Linking language and cognition in infancy: Entry points and developmental change		93.865	3R01HD083310-03S1	497,084	
Manipulating cGMP Pathway to Impact Vascular Development in Neonatal BPD and ROP		93.865	5R21HD077336-02	87,551	5,655
Maternal-Fetal Medicine Units Network -- The Northwestern Study Center		93.865	5UG1HD040512-18 REVISED	286,089	40,519
Meeting Gestational Weight Gain Guidelines: Development of a Group Intervention During Pregnancy for Low-Income Racial/Ethnic Minority Obese Women and Their Providers		93.865	5K23HD076010-04	132,314	
MFMU Network Capitation Agreement	82	93.865	Agmt 4/25/14//U10HD036801	586,869	32,766
Motor impairment related changes in muscles properties in chronic stroke		93.865	5R01HD084009-03 REVISED	391,078	44,079
Motor Learning in a Customized Body-Machine Interface for Persons with Paralysis	170	93.865	CC#81750//R01HD072080	1,445	
Motor Learning in a Customized Body-Machine Interface for Persons with Paralysis	170	93.865	CC#81750//R01HD072080	182,039	
Multiethnic Fine-Mapping of Polycystic Ovary Syndrome Susceptibility Loci		93.865	1R01HD085227-01A1	237,457	41,446
Neuromuscular Mechanisms Underlying Poor Recovery from Whiplash Injuries		93.865	5R01HD079076-04	234,282	3,235
NRSA F32 for Daniel John Stieh in support of: Analysis of HIV acquisition via the ovary		93.865	5F32HD080540-03 REVISED	4,092	
Oncofertility Consortium Annual Conference		93.865	5R13HD063248-07	9,961	

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OPRC clinical project: Comprehensive evaluation of the safety and utility of pravastatin in prevention of preeclampsia in high-risk pregnant women	260	93.865	17-044//5U54HD047891-12 REVISED	12,637	
Optimizing Medication Management for Mothers with Depression during Pregnancy (OPTI-MOM)		93.865	5U54HD085601-02	580,305	28,776
Pathophysiology and Rehabilitation of Neural Dysfunction		93.865	5T32HD007418-24	(4,697)	
Pathophysiology and Rehabilitation of Neural Dysfunction		93.865	3T32HD007418-25S1	256,074	
Pathophysiology and Rehabilitation of Neural Dysfunction		93.865	2T32HD007418-26	7,316	
Pathways Linking Social Disparities, Inflammation, and Health Across Generations		93.865	1R01HD074765-01A1	4,213	4,213
PED Screen: Pediatric Sepsis EHR Registry, Clinical Outcomes, and Predictive Model		93.865	1R01HD087363-01A1	59,427	35,214
Pharmacologic strategies to use the levonorgestrel implant in HIV-infected women	248	93.865	34-2009-2031-001//5R01HD085887-02	29,865	
Phonetic echoes of cognitive disruptions in speech production		93.865	5R21HD077140-02	50,611	14,829
Prenatal Cytogenetic Diagnosis by Array-based Copy Number Analysis	49	93.865	10 (GG006961-04)//5U01HD055651-07	(687)	
Probing Mediator 12 function in uterine fibroids		93.865	5R21HD082781-02	230,976	
Promoting Safe Use of Pediatric Liquid Medications: A Health Literacy Approach	145	93.865	12-00512//5R01HD070864-05	9,808	
Regulation of NOD-like receptors in juvenile influenza A virus infection	262	93.865	10034012-CHIC//5K12HD047349-14	114,797	102,060
Remediating Academic and Non-Academic Skills Deficit among Disadvantaged Youth	221	93.865	FP053700-1//1P01HD076816	48,971	
Research Career Development in Obstetrics and Gynecology		93.865	5K12HD050121-13	341,997	
Role of MicroRNA-29 in Uterine Leiomyoma Pathogenesis		93.865	1R21HD077479-02	(2,750)	
Rural African American Young Adults' Pathways to Psychosocial and Physical Health	228	93.865	RR376-410/4708620 Amd 3 // 2R01HD03058820A1	164,664	
Self-regulation as a Health-Protective Factor in Adverse Socioeconomic Conditions		93.865	5F32HD078048-02 REVI	(4,271)	
Semi-autonomous Robotic Powered Wheelchair Functionality	105	93.865	Agmt 8/24/16 // 1R43HD085317-01	36,125	
Statistical Learning, Memory Systems, and Sleep-Based Memory Consolidation		93.865	5F32HD078223-02	1,621	
Targeted problem reactivation and incubation during slow-wave sleep		93.865	5R03HD087111-02	52,147	
The Chicago Longitudinal Study (CLS) Health Screening Examination	245	93.865	A005404701//2R01HD034294-22	113,509	
The Effect of Wrist Motion on Pattern-Recognition-Based Myoelectric Control		93.865	4F31HD078092-03 REVISED	747	
The Reproductive Window in Young Adult Cancer Survivors	217	93.865	55368070 // R01HD080952	40,050	
Training in the Neurobiology of Movement and Rehabilitation Sciences		93.865	5T32HD057845-05	(13,993)	
UBR7 is a novel chromatin directed E3 ubiquitin ligase		93.865	7R21HD078946-02	128,241	66,113
Uterine Leiomyoma Research Center Program		93.865	5P01HD057877	(18,461)	
Uterine Leiomyoma Research Center Program		93.865	5P01HD057877-08	1,283,075	211,074
Young Men's Health and the Transition to Fatherhood		93.865	5K23HD060664-05	(2,798)	
Young Men's Health and the Transition to Fatherhood		93.865	5K23HD060664-05	<u>26,072</u>	<u>25,750</u>
				13,104,082	2,622,329
2nd Kloster Seeon Meeting on BACE Proteases in Health and Disease		93.866	1R13AG054189-01	31,903	
7th Intern Conf on AD and Related Disorders in the Middle East		93.866	1R13AG055285-01	8,517	

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A novel, nanoparticle-based molecular MRI probe for early Alzheimer's diagnostics		93.866	5R21AG045637-02	(1,300)	
A Universal Medication Schedule to Promote Adherence to Complex Drug Regimens		93.866	5R01AG046352-03	615,588	238,374
Alterations in BMP Signaling in the Aging Brain		93.866	1R56AG050542-01A1	464,650	
Alzheimer's Disease Cooperative Study - A4	254	93.866	75689162//U19AG010483-25R	83,772	
Alzheimer's Disease Core Center		93.866	5P30AG013854-20	(84,321)	
Alzheimer's Disease Core Center		93.866	5P30AG013854-22S2	1,736,865	
Alzheimer's Disease Neuroimaging Initiative (ADNI3)	254	93.866	79634993/WEI2015-01/2U19AG02490411	15,097	
Alzheimer's Disease Neuroimaging Initiative 2 (ADNI2)	254	93.866	WE1929//5U01AG024904-10	16,963	
Anti-Amyloid Treatment in Asymptomatic Alzheimer's Disease (Study A4)	217	93.866	45893177//2U19AG010483-22	1,134	
BACE1 as a Therapeutic Target for Alzheimer's Disease		93.866	5R01AG022560-15	456,382	
C. elegans Model for Neurodegenerative Diseases of Aging		93.866	5R37AG026647-13	341,281	
Cardiovascular and HIV/AIDS Effects on Brain Structure/Function and Cognition	252	93.866	0050794(128001-6)//2R01AG034852-06	38,466	
Cell aging and vimentin glycation: Effects on the cytoskeleton and cell mechanics		93.866	5R21AG049218-02	171,717	
COCOA to improve walking performance in Peripheral Artery Disease: the COCOA-PAD Study		93.866	5R21AG050897-02 REVISED	217,206	20,103
Collaborative Care for the Older Injured Patient: A Trauma Medical Home	102	93.866	1N4688173NW/1R01AG0542493-01A1	17,518	
Comparative Effectiveness of Customary F&S vs Fit and Strong Plus	231	93.866	2011-06769-01-02 / R01AG039374	(481)	
Comparative Effectiveness of Customary F&S vs Fit and Strong Plus	231	93.866	7950//5R01AG039374-06	16,071	
Connectomic Imaging in Familial and Sporadic Frontotemporal Degeneration	251	93.866	569213//1U01AG052943-01	137,681	
Determinants of neurodegenerative decline in the aphasic variant of Alzheimer's disease		93.866	9R01AG056258-06 REVISED	70,908	
Developing a Longitudinal Resource for Genetic Research in Behavioral and Health Sciences	266	93.866	482K930//1R01AG041868-02	(54,729)	
Developing a Longitudinal Resource for Genetic Research in Behavioral and Health Sciences	266	93.866	636K694//1R01AG041868-01A1	291,642	
Development of a non-fibrillic amyloid-beta oligomer selective positron emission tomography imaging diagnostic for Alzheimer Disease	1	93.866	Agmt 3/5/17//R41AG054337-01	116,231	
Disordered Proteostasis as a Driver of Disease in the Aging Lung		93.866	5P01AG049665-02	2,112,737	624,680
Effects of a Dedicated Nurse Liaison Intervention for Geriatric Patients in the Emergency Department		93.866	1R03AG050945-01A1	72,599	
Exceptional Cognitive Aging: Neuropsychologic, Anatomic and Pathologic Correlates		93.866	5R01AG045571-04 REVISED	594,531	
F31 for Stephanie Anne Kielb in Support of: Cognitive, Motor, and Emotional Markers of Self-reported Cognitive Concerns		93.866	1F31AG051350-02	40,430	
Functional Properties of the Lateral Entorhinal Cortex in Learning and Aging		93.866	1F31AG055331-01	30,138	
Genetic Epidemiology of Caffeine and Cognitive Decline		93.866	5K01AG053477-02	100,820	
Integrative Analysis of Longitudinal Studies of Aging	158	93.866	908468_NU//4P01AG043362-05	171,751	
Integrative Pathways to Health and Illness	266	93.866	694K352//1U19AG051426-01A1	44,951	
Integrative Pathways to Health and Illness	266	93.866	760K454//5U19AG051426-02	10,591	
LitCog II: Health Literacy and Cognitive Function		93.866	5R01AG030611-08	(1,439)	
LitCog III: Health Literacy and Cognitive Function among Older Adults		93.866	5R01AG030611-10 REVISED	600,823	68,765

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Living Well With Later Life Multimorbidity: A Biopsychosocial Approach	165	93.866	4102-56030//1R01AG041750-01A1	8,702	
Longitudinal Evaluation of Amyloid Risk and Neurodegeneration - the LEARN Study.					
A companion study to Anti-Amyloid Treatment in Asymptomatic Alzheimer's Disease (A4) Trial	217	93.866	59504835//5U19AG010483-24	(17,492)	
Long-Term Nicotine Treatment of Mild Cognitive Impairment	254	93.866	81622655//6R01AG047992-02	1,260	
Mechanisms of Aging and Dementia Training Program		93.866	5T32AG020506-14	(16,891)	
Mechanisms Regulating Tau Alternative Pre-mRNA Splicing		93.866	5R01AG033004-05	(3,661)	
Molecular Neuropathology and Mechanisms of BACE1 Elevation in Alzheimer's Disease		93.866	5R01AG030142-08 REVISED	416,314	
Multidimensional Pathways to Healthy Aging Among Filipino Women	249	93.866	5-31773 Amd. 4//5R01AG039443-04	52,228	
National Alzheimer's Coordinating Center	265	93.866	UWSC7728//5U01AG016976-18	12,372	
National Health Literacy Mapping to Inform Healthcare Policy	249	93.866	5050165//5R01AG46267-04	14,019	
Noninvasive Stimulation to Improve Hippocampal-Dependent Memory in Older Adults		93.866	5R01AG049002-03 REVISED	503,359	
Non-Invasive Treatment of Abdominal Aortic Aneurysm Clinical Trial (N-TA3CT)	248	93.866	36-5360-2141-001//R01AG037120-09	40,893	
NRSA F30 Fellowship for Anil Ramesh Wadhvani in support of: Cell autonomous mechanisms of Apolipoprotein E isoform-dependent neurodegeneration		93.866	1F30AG051327-01A1 REVISED	47,545	
Optimal Older Donor and Recipient Matching to Enhance Liver Transplant Outcomes		93.866	1R21AG049385-02	128,970	30,895
Personality and Well-Being Trajectories in Adulthood		93.866	5R01AG018436-15	(7,090)	
Personality and Well-Being Trajectories in Adulthood		93.866	5R01AG018436-15	33,578	26,622
Personality and Well-being Trajectories in Adulthood		93.866	5R01AG018436-17	379,988	7,250
Physical Exercise to Prevent Disability (The Life Study)	227	93.866	UFDaSP00010684/U01AG022376	83,309	
Preclinical Alzheimers Disease Drug Development of Novel MAPK Inhibitors		93.866	4U01AG043415-05	965,639	77,358
Preclinical Alzheimer's Disease Drug Development of Novel MAPK Inhibitors		93.866	3U01AG043415-04S1	(31)	
Preclinical development of a selective attenuator of neuroinflammation for MCI/AD	235	93.866	3200001251-16-257//5U01AG050636-03	351,307	
Predoctoral and postdoctoral training program in aging and dementia		93.866	4T32AG020506-15	271,236	
Predoctoral and Postdoctoral Training Program in Aging And Dementia		93.866	2T32AG020506-16	104,572	
Regulation of tau expression in Alzheimer's disease and aging	94	93.866	0255-1551-4609//1R01AG054008-02	201,952	
RESveratrol To Improve Outcomes in oldeR pEople with PAD (the RESTORE Trial)		93.866	5R21AG047510-02	99,056	41,873
Role of CK2 in NMDAR trafficking during development and in Alzheimer's disease		93.866	5R00AG041225-04 REVISED	245,959	
Sirtuins: novel determinants and therapeutic target in systemic sclerosis		93.866	1R56AG054207-01	190,260	
Slow Outward Currents and Learning In Aging Hippocampus		93.866	5R37AG008796-26 REVISED	453,700	
Stellate Ganglion Blockade for the Management of Vasomotor Symptoms		93.866	1R01AG049924-01A1	438,885	92,830
Stress and Sexuality Divergent Neuropathy in Alzheimer's Disease		93.866	1R56AG053491-01	134,726	
Sustaining quality of life of the aged: Heart transplant or mechanical support?		93.866	5R01AG047416-03	671,640	339,582
Synaptic substrates of age-dependent memory deficits		93.866	2RF1AG017139-15	364,232	
Testing Tele-Savvy, an On-Line Psychoeducation Program for Informal Alzheimer's Caregivers	67	93.866	7745243//1R01AG054079-01	11,336	
The ENRGISE Study	227	93.866	UFDSP00011301//U01AG050499	258,764	

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Therapeutic Effect of Intranasal Insulin on Cognition, Function, and AD Biomarker	217	93.866	42756369///7RF1AG041845-02	(17,819)	
Therapeutic Effects of Intranasally-Administered insulin (INI) in Adults with Amnesic Mild Cognitive Impairment (aMCI) or Mild Alzheimer's Disease (AD)	254	93.866	CTAINI067//RF1AG041845	27,925	
Using Patient Outcomes to Inform Surgical Education	251	93.866	2802.38//5R01AG049757-02	1,894	
				14,939,329	1,568,332
A clinically applicable model of retinal oxygen metabolism		93.867	1R21EY027502-01	113,408	
A Novel Treatment for Retinal Ischemia	254	93.867	69129923//5R01EY022059-03	3,976	
Activation of the Angiotensin-Tie2 Pathway to Treat Ocular Hypertension and Glaucoma		93.867	5R01EY025799-02 REVISED	414,079	71,804
Biocompatible retinal prosthesis based on a conjugated polymer photoactive layer	129	93.867	Agmt 06/29/16//R43EY024802A	1,286	
Ca2+ channels in retinal photoreceptors	233	93.867	W000941480/1R01EY026817-01A1	49,193	
Corneal Epithelial Stem Cells		93.867	5R01EY006769-26	(1)	
Critical Period Plasticity and Binocular Matching in the Visual Cortex		93.867	5R01EY020950-08	595,134	
Deciding Where to Look Next: Frontal Eye Field's Role during Natural Viewing		93.867	5F31EY025532-03 REVISED	45,411	
Diabetic Retinopathy Clinical Research Network Chair Grant		93.867	5U10EY023207-04	289,904	74,620
Function of Basal Synapses at Mammalian Photoreceptors		93.867	5R01EY012141-20 REVISED	366,547	
Homeobox Gene Six3 in Forebrain and Visual System Development		93.867	7R01EY012162-17 REVISED	1,547	
Hyperspectral Imaging of the Normal and Age-related Macular Degeneration Fundus	145	93.867	12-01177 Proj #100944//5R01EY021470-03	(93)	
Investigating oxygen metabolism in diabetic retinopathy		93.867	5R01EY026078-02	358,320	170,239
Light responses and microcircuitry of two novel amacrine cell types in the mouse retina		93.867	5F32EY025930-03	58,688	
Long-term Follow-up of Patients Who Participated in the Multicenter Uveitis Steroid Treatment Trial (MUST Trial Follow-up Study)	118	93.867	2003214618//U10EY014660	2,825	
Macular Edema Treatment Trials Associated with MUST (META-MUST)	118	93.867	Sub#2002749092//5U10EY024527-03	23,075	
Mechanisms of anterior segment development and corneal neovascularization		93.867	2R01EY019484-01A1	113,072	
Multidisciplinary Visual Sciences Training Program		93.867	5T32EY025202-03 REVISED	120,626	
Multimodal Retinal Functional Imaging for Diabetic Retinopathy	72	93.867	800006243-01//7R01EY019951-05	(8,773)	
Natural dynamics of attention in primate prefrontal cortex		93.867	1F32EY027185-01A1	16,247	
Neural Mechanisms of Fixation Choice While Searching Natural Scenes		93.867	5R01EY021579-04	42,181	22,597
Neural Mechanisms of Fixation Choice While Searching Natural Scenes		93.867	2R01EY021579-05A1	62,854	
Novel Antiangiogenic Peptides for Treatment of Exudative AMD	266	93.867	553K221 Amd 2//5R24EY022883-03	(1,682)	(1,682)
Novel Antiangiogenic Peptides for Treatment of Exudative AMD	266	93.867	676K001//R24EY022883	485,402	
Novel Antiangiogenic Peptides for Treatment of Exudative AMD	266	93.867	770K973 // 4R24EY022883-05	245,262	
Novel circuit mapping strategies to reverse engineer the retina		93.867	1DP2EY026770-01	574,636	
NRSA: The flexibility of individuation and ensemble representation (Liverence)		93.867	5F32EY023508-03	4,464	
Oxygen delivery and metabolism in diabetic retinopathy using visible-light optical coherence tomography		93.867	5F30EY026472-02 REVISED	31,011	

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Role of Host Cell Factors in Herpes Simplex Virus (HSV) Keratitis		93.867	5R01EY023977-02 REVISED	296,004	
Signal Processing in the Inner Retina		93.867	5R01EY018204-10 REVISED	555,728	
The Mechanical Basis of Primary Open Angle Glaucoma		93.867	5R01EY019696-08	693,238	532,424
The Retinal Microenvironment in Diabetic Retinopathy		93.867	5R01EY021165-05	55,710	1,639
The Role of MicroRNAs in Corneal Epithelial Homeostasis		93.867	5R01EY019463-08	498,224	
Understanding Diabetic Eye Disease in the Underserved Using Health Data Exchange		93.867	5R21EY024050-02	27,688	
Visual Signal Transformation in the Retinocollicular Pathway		93.867	5R01EY026286-02 REVISED	<u>383,987</u>	
				6,519,178	871,641
A New Generation Clinical Decision Support System	252	93.879	0038305 (124684-1)//5R01LM011663-04	209,901	
A Novel Graph Processing Architecture to Ascertain & Monitor Care Coordination		93.879	5K01LM011973-03	156,693	
Improving Physician Adoption of Pharmacogenomic Clinical Decision Support via Implementation Science Methodologies		93.879	1F31LM012492-01 REVISED	4,077	
Informatics Platform for Mammalian Gene Regulation at Isoform-level		93.879	2R01LM011297-05A1	12,057	
Multidimensional Computer Adaptive Testing for Patient Reported Outcomes		93.879	5R01LM011962-03	298,584	79,978
Predoctoral Training Program in Biomedical Data Driven Discovery (BD3)		93.879	5T32LM012203-03	<u>134,135</u>	
				815,447	79,978
Diabetic Retinopathy Clinical Research Network	115	93.988	Agmt 12/13/12 // U10 EY14231	48,427	
Building Research And Innovation in Nigeria's Science - (BRAINS)	236	93.989	SP0031902-60041063//1D43TW010134-02	112,406	
Developing Innovative Interdisciplinary Biomedical Engineering Programs in Africa		93.989	5D43TW009374-05	365,826	157,182
Developing Innovative Interdisciplinary Biomedical Engineering Programs in Africa		93.989	1D43TW009374-03	(29,291)	
Developing Innovative Interdisciplinary Biomedical Engineering Programs in Africa		93.989	1D43TW009374-03	29,291	4,247
HIV and Mycobacterial Disease in Mali		93.989	5D43TW010350-02	372,831	159,266
Multidisciplinary NeuroAIDS Research Training to Improve HIV Outcomes in Nigeria		93.989	5D43TW009608-05	319,744	130,580
Northwestern and Jos University Research Training Program in HIV and Malignancies		93.989	5D43TW009575-04	361,935	88,485
Support of Training and Mentoring in Nigeria for Academics (STAMINA)	234	93.989	IJNWU-STAMINA-Y1//DW43TW010130	82,542	
Tobacco Cessation Strategies Among Acute Coronary Syndrome Patients in Kerala, India	267	93.989	VUMC 58837//5R25TW009337-06	33,779	
University of Ibadan MEPI Junior Faculty Research Training Program (UI-MEPI-J)	230	93.989	7/225/29/NU-02//D43TW010140-02	<u>77,799</u>	
				1,726,862	539,760
Ad5.hAC6 Gene Transfer for CHF	268	93.RD	08082-NU SUB//CRB-HLBI1-S-10-00076	1,641	
Asthma Cohort Support Contract		93.RD	HHSN275201300013C	784,514	22,663
Cancer Prevention Agent Development Program: Early Phase Clinical Research		93.RD	HHSN261201200351/HHSN26100008	1,355,527	210,832

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Center for Structural Genomics of Infectious Diseases		93.RD	HHSN272201200026C	5,177,895	3,633,321
Combined Top Down and Bottom Up Proteomics of CompRef Cancer Samples	123	93.RD	13XS108 Mod 06//HHSN261200800001E	5,778	
COMPASS: Capturing and Analyzing Sensor and Self-Report Data for Clinicians and Researchers	69	93.RD	Agmt 1/9/14//HHSN261201300055C	29,295	
Coronary Artery Risk Development in Young Adults (CARDIA) Study-Chicago Field Ctr		93.RD	HHSN268201300027C	698,771	6,475
Development of a Patient-Reported Outcomes Instrument to Measure Clinical Effectiveness of Drug Use Reduction Efforts	66	93.RD	Agmt 8/15/16 // HHSN271201500065C	10,961	
Early Therapeutics Development With Phase II Emphasis	221	93.RD	5-27050 / HHSN261201100071C	89,859	
ECOG PCO-RL: BIQE1512	76	93.RD	BIQUE1512-00//HHSN261200800001E	3,694	
EMR Dataset (Eskenazi Health EMR Dataset)	102	93.RD	Agr. 4/19/2016 //HHSN27601500744P	18,118	
Evaluation of Clinical Samples from DENVax Clinical Trial	22	93.RD	465426/HHSN272201200003I/HHSN27200011	329,909	
Folic Acid and Zinc Supplementation Trial (FAZST)	262	93.RD	10026957-03//HHSN27520100007C	24,982	
IPA Agreement 8/2016		93.RD	AGREEMENT 8/18/16	46,860	
Jackson Heart Study Field Center NHLBI-HV-13-10	246	93.RD	66102690414-04NWU/HHSN268201300047C	37,034	
Melanoma Early Detection RCT with Smartphones, Cognitive Computing & Family Social Support	270	93.RD	HHSN261201700003C	265	
MESA Urine Sodium Substudy Transfer	263	93.RD	31544SUB52291//HHSN268201600046P	25,974	
Multi-Ethnic Study of Atherosclerosis (MESA) Chicago Field Center Subcontract	265	93.RD	UWSC8539//HHSN268201500003I	798,417	
Multi-Site Study of the Efficacy of Speech Perception Training for Hearing-Aid Users	50	93.RD	CDT-2013-6//R33DC011174-02	17,376	
Phase II Multi-Center, Prospective, Randomized, Double-Blind Study of Nitazoxanide in Acute and Chronic Norovirus in Hematopoietic Stem Cell and Solid Organ Transplant Recipients		93.RD	HHSN272201600016C	116,278	6,047
Protocol Implementation	233	93.RD	HHSN2722013-15-0045 Task B	2,411	
Protocol Number: IRC-005 A Randomized Double-Blind, Phase 3 Study Comparing the Efficacy and Safety of High-Titer versus Low-Titer Anti-Influenza Immune Plasma for the Treatment of Severe Influenza A	185	93.RD	CRB-SSS-S-15-004659//HHSN2612008000	12,269	
Structural Genomics Centers for Infectious Diseases		93.RD	HHSN272201700060C	2,463	
SurvivorConcierge: Extending Cancer Survivorship Care Beyond the Clinic Using a Smartphone-enabled Monitoring, Navigation and Tailored Intervention Program	270	93.RD	HHSN261201500013C	93,351	
Targeting KRas Switch I with highly specific bacterial endopeptidase	160	93.RD	17-40-BIAN//HHSN26120080001E	7,444	
Office of Minority Health					
Addressing Lupus Health Disparities Adapting Culturally-Competent Community-Based Education Models Through Local and National Collaborative Partnerships		93.137	1 CPIMP151087-01-00	133,340	83,547
Office of the Assistant Secretary for Health					
National Lupus Outreach and Clinical Trail Education Program (Lupus program)-LUPUS CONVERSATIONS Project		93.137	1CPIMP171141-01-00	7,229	
Re-Entry Community Linkages (RE-LINK)		93.137	5 CPIMP161134-02-00	214,796	
				222,025	

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Office of the Director, National Institutes of Health					
ECHO Consortium on Perinatal Programming of Neurodevelopment	94	93.310	0255-2291-4609//1UG30D023337-01	25,540	
ECHO PRO Research Resource: A Developmentally-based Measurement Science Framework for Assessing Environmental Exposure and Child Health		93.310	1U240D023319-01	1,236,174	228,735
Environmental Contributors to Child Health Originating from the National Fetal Growth Study (ECCHO-NFGS)	137	93.310	MUSC16-087-8C267//1UG30D023316-01	12,790	
Illinois Precision Medicine Consortium (IPMC)		93.310	1UG30D023189-01 REVISED	1,388,269	615,284
Precision Medicine Initiative Cohort Program Coordinating Center (U2C)	267	93.310	VUMC60724//5U2COD023196-02	97,031	
Self-Organization of the Human Genome		93.310	1DP20D008717-01	(159)	
Self-Organization of the Human Genome		93.310	4DP20D008717-02	428,993	
The role of steady state broadly neutralizing antibody tissue levels in preventing distal site SHIV replication		93.310	1K010D024882-01	420	
TOP2A effects on transcription in gliomas: implications for personalized therapy		93.310	7DP50D021356-03	46,243	
				3,235,301	844,019
A Multi Facility Mass Spectrometer for Targeted Quantitation Experiments		93.351	1S100D021786-01	567,035	
An IC-ICP-MS for advanced speciation and metalomics analysis		93.351	1S100D020118-01	5,478	
Biostation CT (Cell Tracker)		93.351	1S100D021704-01A1	361,956	
PAGES (Progressing through the Ages: Global Climate Change, Evolution, and Societal Well-being)	232	93.351	2015-00533-01//R250D020203-01A1	7,047	
Science Club Summer Camp: Training Teachers and Youth in Authentic STEM Practice		93.351	5R250D020222-02	210,561	43,829
				1,152,077	43,829
Science Club Summer Camp: Training Teachers and Youth in Authentic STEM Practice		93.859	7R250D020222-03	34,988	
Substance Abuse and Mental Health Services					
APA/SAMHSA Fellowship for Lisette Rodriguez-Cabezas in Support of: APA/Substance Abuse and Mental Health Services Award	17	93.243	Award Letter 4/5/16 // 5T06SM060562-06	8,502	
National Child Traumatic Stress Initiative (NCTSI) – Category III, Community Treatment and Services (CTS)	279	93.RD	Agreement Date: 2/27/2014	37	
Department of Health and Human Services Total				325,063,656	48,774,295
Department of Homeland Security					
Chalcogenide semiconductors for g-ray detection from earth abundant elements		97.077	2014-DN-077-ARI086-04	507,204	
Monolithic, Widely Tunable, Quantum Cascade Laser Source		97.RD	HSHQDC-13-C-00034/P00003	465,787	
Next Generation Semiconductor Detectors for Identification of Special Nuclear Materials	168	97.RD	C14-09//Agmt 2-25-14//HSHQDC-13-C-B0039	(11,022)	
Novel Compound Semiconductor Radiation Detectors	147	97.RD	SUB-01//HSHQDC-14-R-B0009	(15,121)	

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Federal Emergency Management Agency FEMA Vehicle Crash Study: Firefighter Injury Reduction through Sustainable Risk Management Department of Homeland Security Total	209	97.044	229812//EMW-2013-FP-00351	<u>45,476</u> 992,324	
Department of Housing and Urban Development Juvenile Reentry Assistance Program (JRAP) Department of Housing and Urban Development Total	42	14.897	CONTRACT NO. 11841	<u>73,800</u> 73,800	
Department of Justice Bureau of Justice Assistance Sheriff Women's Justice Program	96	16.738	412329//2012-DJ-BX-0203	9,664	
National Institute of Justice Firearm Involvement in Delinquent Youth and Collateral Consequences in Young Adulthood: A Prospective Longitudinal Study		16.560	2016-R2-CX-0039	158,315	
Office of Justice Programs Northwestern Juvenile Project: Archiving Data, Part I Trajectories of Delinquency and the Juvenile Justice Systems Response Metropolitan Family Services Legal Aid Society Needs Assessment Department of Justice Total	139	16.540 16.541 16.582	2012-JR-FX-0005 2013-JF-FX-0057 Agreement 4/19/17//2012-VF-GX-K022	51,195 95,775 <u>9,870</u> 324,819	
Department of Labor Building "LINCS" for Supply Chain Management (Leveraging, Integrating, Networking, Coordinating Supplies) Department of Labor Total		17.282	TC-25004-13-60-A-17	<u>27,792</u> 27,792	
Department of the Interior United States Geological Survey Impacts of stormwater-induced road salt runoff on soil and water quality in urban greenspaces Department of the Interior Total	232	15.805	079901-16311-01 // G16AP00051	<u>2,714</u> 2,714	
Department of Transportation Federal Highway Administration Dwight David Eisenhower Transportation Fellowship Program Graduate Fellowship Active Transportation and Demand Management (ATDM) Analytical Methods for Urban Streets	124	20.215 20.RD	DTFH6416G00022 P010177604/DTFH61-12-D-00050	11,500 (1,208)	

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Analysis, Modeling, and Simulation (AMS) Testbed Development and Evaluation to Support Dynamic Mobility Applications (DMA) and Active Transportation and Demand Management (ATDM) Programs	25	20.RD	105952SB1M	7,836	
Development of an Analysis/Modeling/Simulation (AMS) Framework for V2I and CV Environment	124	20.RD	P010198023 // DTFH6116D00030	31,677	
Task Integrated Modeling for Road Condition Prediction - Phase 2	124	20.RD	P010178562 Mod 1//DTFH61-12-D-00045	179,250	
Department of Transportation Total				229,055	
Department of Veterans Affairs					
Edward Hines, Jr. VA Hospital					
Intergovernmental Personnel Act (IPA) Assignment Agreement for Elisa J. Gordon		64.018	578/151	16,166	
Intergovernmental Personnel Act (IPA) Assignment Agreement for Jennifer Kahn		64.018	IPA Agmt Signed 05/31/2017 (578/151)	5,872	
Intergovernmental Personnel Act (IPA) for Geoffrey Brown		64.018	IPA Agmt - 578/151	71,770	
Intergovernmental Personnel Act Agreement for Kenzie Cameron		64.018	IPA Agmt. signed 09/04/2015	502	
IPA Agreement for Kwang-Youn A. Kim: Maneuverability Enhancement Following Spinal Cord Injury		64.018	578/151	<u>5,849</u>	
				100,159	
James J. Peters VA Medical Center					
Development of Blood Pressure Symptom subdomain for the Spinal Cord Injury Quality of Life (Off-site Research for Dr. Jill Wecht)		16.RD	VA243-15-C-0182	2,664	
Extending Veteran Participation in the Validation of the SCI-QOL/CAT		16.RD	VA243-15-C-0191	2,855	
Jesse Brown VA Medical Center					
Intergovernmental Personnel Agreement for Chirag Shah		64.018	Agreement Date: 8/22/12	(2,605)	
Intergovernmental Personnel Act (IPA) Assignment Agreement for David Z. Ivancic		64.018	IPA Agmt. Signed 08/08/17	11,275	
Intergovernmental Personnel Act (IPA) Assignment Agreement for Elena Livia Sima, FY17		64.018	IPA Agmt. Signed 04/12/2017	39,128	
Intergovernmental Personnel Act (IPA) Assignment Agreement for Elspeth Beauchamp		64.018	IPA Agmt. Signed 09/27/2016	71,833	
Intergovernmental Personnel Act (IPA) Assignment Agreement for Ewa Kosciuczuk		64.018	Agmt. signed 11/18/2016 (537/151)	58,680	
Intergovernmental Personnel Act (IPA) Assignment Agreement for Hao Wang		64.018	IPA Agmt Signed 10/06/2016	34,750	
Intergovernmental Personnel Act (IPA) Assignment Agreement for John T. Brinkmann		64.018	IPA Agmt Signed 12/11/15 (IPA0028657)	581	
Intergovernmental Personnel Act (IPA) Assignment Agreement for Linda India (FY2016)		64.018	IPA Agmt. Signed 11/8/16	1,340	
Intergovernmental Personnel Act (IPA) Assignment Agreement for Michael Cavanaugh (FY2016)		64.018	IPA Agmt. Signed 02/15/2017	7,524	
Intergovernmental Personnel Act (IPA) Assignment Agreement for Michael Dixon		64.018	Agmt Signed 10/24/2016	51,555	
Intergovernmental Personnel Act (IPA) Assignment Agreement for Monica Chi		64.018	IPA Agmt Signed 10/19/2016	40,891	
Intergovernmental Personnel Act (IPA) Assignment Agreement for Qun Jiang		64.018	IPA Agmt. Signed 07/06/2016	(320)	
Intergovernmental Personnel Act (IPA) Assignment Agreement for Salvatore Condello (FY17)		64.018	IPA Agmt. Signed 01/11/2017	54,631	
Intergovernmental Personnel Act (IPA) Assignment Agreement for Saul Soberanes		64.018	IPA Agmt. Signed 09/30/2016	63,996	
Intergovernmental Personnel Act (IPA) Assignment Agreement for Seok-Jo Kim		64.018	IPA Agmt Signed 04/12/2017	56,900	

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Intergovernmental Personnel Act (IPA) Assignment Agreement for Vera Shively		64.018	IPA Agmt. Signed 07/06/2016	(12,308)	
Intergovernmental Personnel Act (IPA) Assignment Agreement for Weiqi Huang		64.018	IPA Agmt. signed 12/5/14 (537/151)	34,743	
IPA Assignment Agreement for Salvatore Condello		64.018	IPA AGMT signed 07/13/2016	36,029	
IPA for Paul Cheresh		64.018	Agmt Signed 10/6/16	67,912	
VA IPA for Kazumi Ebine		64.018	537/151	<u>28,708</u>	
				645,243	
Tuscaloosa VA Medical Center					
Intergovernmental Personnel Agreement: Development of a Multidimensional Pain Measure for Persons with Dementia (PIM-D)		64.018	679-D55001 (Year 04)	1,401	
VA Salt Lake City Health Care System					
Quality Enhancement Research Initiative (VA SLC Health Care System IPA Agreement for William Thompson)		64.018	IPA Agmt signed 02/10/17	77,357	
VHA Office of Informatics and Analytics					
Intergovernmental Personnel Agreement (IPA) Assignment Agreement for Madhusudhana C. Reddy		64.018	Agmt 05/13/2016	<u>37,637</u>	
Department of Veterans Affairs Total				867,316	
Institute of Museum and Library Services					
Institute of Museum and Library Services					
Engaging Engineering Experts: Facilitating Family STEM Learning in Museums and Libraries Through Narrative Storytelling and Object-Based Inquiry Activities	127	45.312	517350-NWU//MG-77-16-0118-16	<u>36,338</u>	
Institute of Museum and Library Services Total				36,338	
National Aeronautics and Space Administration					
A Novel Approach to the Common Envelope Evolution	184	43.001	TM6-17005X//NAS8-03060	27,715	
Energetics and Environment of Hydrogen-poor Core-Collapse SNe	184	43.001	G05-16064A//NAS8-03060	20,434	
Life Underground	254	43.001	65904754 Amd. 4 // NNA13AA92A	24,899	
Mapping the Zoo of engine driven explosions with late-time X-rays	184	43.001	G05-16059A//NAS8-03060	39,785	
Modeling Black Hole X-Ray Binaries in Globular Clusters	184	43.001	TM5-16004X//NAS8-03060	1,843	
Probing the Energetics and Environments of Hydrogen-poor Core-Collapse SNe	184	43.001	G06-17053A//NAS8-03060	6,770	
Source of energy and pre-explosion progenitor evolution of Super-Luminous SNe	184	43.001	G06-17052A//NAS8-03060	45,214	
The Triggering Mechanisms and Accretion Modes of AGN: New Cosmological Simulations to Interpret Chandra Surveys	184	43.001	TM7-18007X//NAS8-03060	43,604	
The unprecedented metamorphosis of SN2014C: from a H-stripped explosion to a strongly interacting supernova	184	43.001	G06-17054A//NAS8-03060	<u>10,070</u>	
				220,334	

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Multiple Undergraduate Research Projects	232	43.008	2015-05200-09(15789)-AB425-01//NNX154AI05H	70,499	
Combining Statistical Samples of Resolved-ISM Simulated Galaxies with Realistic Mock Observations to Fully Interpret HST and JWST Surveys	187	43.RD	HST-AR-14562.001-A//NAS5-26555	26,254	
Fast Light Enhanced Active Gyroscopes, Accelerometers and Fiber-Optic Sensors	59	43.RD	Agmt 5/30/16 // NNX16CM03C	109,068	
FORCAST Observations of YSO candidates and RadioFilaments in Sgr C	206	43.RD	SOF 04-0108//NAS2-97001	3,000	
G.O. Program to Characterize Magnetic Fields in Nearby Interstellar Clouds	31	43.RD	1563904//NNN12AA01C	26,837	
Hubble Fellowship for Wen-fai Fong	187	43.RD	HST-HF2-51390.001-A // NAS5-26555	12,713	
Identifying Globular Clusters Hosting Large Numbers of Black Holes	187	43.RD	HST-AR-14555.001-A//NAS5-26555	35,801	
Investigating the Gas within the Planck Galactic Cold Clumps	187	43.RD	HST-AR-14292.001-A	49,171	
Joint HAWC+/ALMA study of magnetic fields in Ophiuchus	206	43.RD	SOFIA 05-0133 01 // NAS2-97001	7,000	
Magnetic Field Structure in Perseus at 0.01 pc Scale	206	43.RD	NAS2-97001/SOF 04-0036 Santos	3,000	
Magnetic Field Structure in Perseus at 0.01 pc Scale	206	43.RD	SOF 05-0081 Santos // NAS2-97001	7,000	
Metallicity and Azimuthal Angle Diagnostics of Inflows and Outflows: Interpreting HST Measurements of Circum-Galactic Gas Flows	187	43.RD	HST-AR-14293.001-A//NAS5-26555	42,343	
Modeling the Blue Stragglers in Globular Clusters	187	43.RD	HST-AR-12829.004-A//NAS5-26555	1,249	
Modeling the Origins of Sub-subgiant Stars	187	43.RD	HST-AR-13910.001-A//NAS5-26555	3,915	
Monitoring the Awakening for the Dormant SMBH at the Center of Our Galaxy	187	43.RD	HST-GO-13403.006-A	16,219	
Preparation and Characterization of Sn- and Sb-based Zintl Phases as Promising Thermoelectric Materials	31	43.RD	1536068-001//NNN12AA01C	141,063	
Project AMIGA: Mapping the Circumgalactic Medium of Andromeda	187	43.RD	HST-GO-14268.022-A	3,472	
Sofia Wide-Field Far-IR Polarimetry and Fine-Structure-Line Imaging with the HAWC+ Upgrade	31	43.RD	Subk No. 1478794 Mod 13//NNN12AA01C	211,462	
The Awakening of the Super-Massive Black Hole at the Center of Our Galaxy	187	43.RD	HST-GO-13316.002-A//NAS5-26555	44,172	
NASA Ames Research Center					
Effects of Spaceflight on Gastrointestinal Microbiota in Mice: Mechanisms and Impact on Multi-System Physiology		43.007	NNX15AL05G 000007	287,158	13,511
HAWC+ Observations of two Galactic center Molecularclouds: G0.13-0.13 and G359.44-0.10	206	43.RD	SOF04-0105 Yusef-Zadeh//Contract NAS2-97001	3,000	
NASA George C. Marshall Space Flight Center					
Coarsening of Dendritic Solid-Liquid Mixtures: The Low Volume Fraction Limit		43.001	NNX14AB73G 000004	(1,118)	
The Columnar to Equiaxed Transitionand Dendrite Fragmentation		43.003	NNX17AD48G	21,703	
Coarsening of Dendritic Solid-Liquid Mixtures: The Low Volume Fraction Limit		43.007	NNX16AR13G 000001	149,833	
Fast Light Optical Gyroscopes for Precision Inertial Navigation		43.009	NNM13AA60C	6,036	

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NASA Goddard Space Flight Center					
Accurate TTV characterization of Kepler planetary systems, and the implications for their dynamics and formation		43.001	NNX15AT51H 000001	26,000	
Continued NuSTAR monitoring of the unprecedented metamorphosis of SN2014C		43.001	NNX17AI13G	2,015	
Correcting and Coating Thin Walled X-ray Optics via a Combination of Controlled Film Deposition and Magnetic Smart Materials		43.001	NNX17AE10G	61,943	
Deciphering Kepler's Planetary Systems		43.001	NNX14AD21G 000005	92,788	
Dynamical Modeling of Dense Star Clusters with a Parallel Monte Carlo Code		43.001	NNX14AP92G/000005	60,700	
Energy and Environment of Hydrogen-poor Core-Collapse SNe		43.001	NNX16AT58G	12,874	
Energy and Geometry of Jet-driven Explosions in the Local Universe		43.001	80NSSC17K0052	10,746	
Energy source and pre-explosion progenitor evolution of SuperLuminous Supernovae		43.001	NNX17AD89G	24,377	
Explosion mechanisms and energy sources powering super-luminous supernovae		43.001	NNX16AT51G	26,631	
Explosion mechanisms and energy sources powering super-luminous supernovae		43.001	NNX16AT81G	30,566	
Lipid Biomarkers of the Deep Subsurface Biosphere		43.001	NNX15AM08G 000002	88,278	
Low Frequency Gravitational Wave Astrophysics		43.001	NNX13AM10G/000003	57,299	
Supernova Remnant and Galaxy Cluster Observations with the Micro-X High-Resolution Microcalorimeter X-ray Imaging Rocket		43.001	NNX17AC96G	28,795	
Supernova Remnant Observations with Micro-X		43.001	NNX16AL94G-000001	385,522	38,286
The Balloon-borne Large Aperture Submillimeter Telescope - BLAST	251	43.001	560958 Amd. 5 // NNX13AE50G	101,825	
The Physical Nature of Circum-Galactic Gas		43.001	NNX15AB22G-000002	173,010	
The unprecedented metamorphosis of SN2014C: from a H-stripped explosion to a strongly interacting SN		43.001	NNX17AG80G	4,449	
Titan's Impact Craters and Associated Fluvial Features: Evidence for a Subsurface Ocean		43.001	NNX13AO02H 000001	2,951	
Understanding Gamma-Ray Emission from the Galactic Center: Constraining the Millisecond Pulsar Population		43.001	NNX15AU69G	10,357	
				1,201,126	38,286
Convective Effects on Solid/Liquid Interface Dynamics in the Freeze-Casting Process		43.008	NNX16AI78A	50,317	20,662
Further Development of Aperture: A Precise Extremely large Reflective Telescope Using Re-configurable Elements		43.009	NNX16AL31G-000001	209,380	87,992
Integrating Two-Dimensional Nanomaterials and Molecular Dielectrics for Radiation-Hard Non-Volatile Memory		43.009	NNX12AM44H/ 000003	(774)	
				208,606	87,992
Compact Robust Integrated PPM Laser Transceiver Chip Set with High Sensitivity, Efficiency, and Re-Configurability		43.012	NNX16AE02G 000002	191,209	86,663

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NASA Lyndon B. Johnson Space Center A US-Russian Collaborative Proposal for Data Collection in HERA: The Relationship between Composition, Interpersonal Relations, and Team Effectiveness in Space Crews	57	43.002	501237SG138//NNX16AQ48G	68,633	
CREWS: Crew Recommender for Effective Work in Space		43.003	NNX15AM32G-000003	272,605	101,371
HERO Twin Astronaut Study Consortium (TASC) Project: Metagenomic Sequencing of the Bacteriome in GI Tract of Twin Astronauts		43.003	NNX14AH26G-000005	50,380	
Team Task Switching in Astronaut Crews on the International Space Station: Integrating Multiteam Membership, Multiteam Systems, Multitasking, & Multidimensional Networks to Monitor & Enable Functional Work Shifts in Astronaut Crews	84	43.003	RF890-G1 // NNX15AK73G	(2,805) 320,180	101,371
NRI: Collaborative Research: Integrating Physics Models and Control Methodologies for Enhanced Legged Locomotion on Yielding Terrain		43.007	NNX15AR24G 000007	83,993	
National Aeronautics and Space Administration Total				3,625,248	348,485
National Science Foundation					
2017 INFORMS Applied Probability Society Conference		47.041	CMMI-1738406	7,004	
22nd International Symposium on Transportation and Traffic Theory		47.041	CMMI-1649114	75,000	
3D Braided Composite Structures - Experimental Characterization and Modeling of Fracturing Behavior		47.041	CMMI-1435950	66,512	
3D Near Field e-Writing with Submicron Resolution		47.041	CMMI-1404489	88,828	
3D Tissue Inks: Multifunctional 3D Printing Materials Platform for Bone Graft Substitutes		47.041	IIP-1508285	3,790	
Advancing Dynamic Relief Response: Integration of New Data Streams and Routing Models		47.041	CMMI-1265786	2,500	
An Optimal Design of Experiments Approach for Reliable Risk Assessment with Error-prone Electronic Medical Records		47.041	CMMI-1436574	117,173	
Assessing Supply Chain Technology Variability and Environmental Improvement Opportunities: A Hybrid Input-Output, Techno-Economic Life Cycle Modeling Approach		47.041	CBET-1236837	28,381	
Biophotonic Detection of Field Carcinogenesis of Pancreatic Cancer		47.041	CBET-1340617	(19,019)	
CAREER: Engineering Non-Growth Metabolism for High-Yield Biochemical Production		47.041	CBET-1452549-002	119,302	
CAREER: Functional Imaging to Prevent Blindness		47.041	CBET-1055379	26,469	
CAREER: Mechanics of Geomaterials Exposed to Multi-Physical Perturbations: Innovating Science, Training and Education through Fundamental Principles		47.041	CMMI-1351534	56,718	
CAREER: Prediction of multiscale emergent dynamics in decentralized cell populations		47.041	CBET-1653315	17,680	
CAREER: Rational design of a biomimetic nanomaterial library to probe mechanisms behind virus-induced immunopathology		47.041	CBET-1453576	93,881	

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Collaborative Research: Analysis and Solution Methods for Function Robust Optimization Models		47.041	CMMI-1361942	106,443	
Collaborative Research: Binary Constrained Convex Quadratic Programs with Complementarity Constraints and Extensions		47.041	CMMI-1334639	31,144	
Collaborative Research: Cyber-Enabled Demand-Interactive Transit for the Next-Generation Transportation Systems		47.041	CMMI-1402911	26,262	
Collaborative Research: Elucidation and Evaluation of Strategies to Mitigate Secondary Reactions in Cellulose Pyrolysis for Enhanced Production of Hydrolysable Anhydrosugars		47.041	CBET-1435228	6,417	
Collaborative Research: Engineering Polymer Nanodielectric Systems using a Descriptor-based Design Methodology		47.041	CMMI-1334929	271,319	
Collaborative Research: Ergodic Trajectories in Discrete Mechanics		47.041	CMMI-1334609	46,683	
Collaborative Research: Fundamentals of Material Behavior and Structure in Making Laminated Metal Composites with Assistance of Electrical Current in Bonding Operation		47.041	CMMI-1463459	35,041	
Collaborative Research: Integrated Measurement and Predictive Modeling of Adsorbate Coverage and Compositional Effects on Catalytic Activity		47.041	CBET-1264963	48,169	
Collaborative Research: Leveraging Noncontact Dimensional Metrology to Understand Complex Part-to-Part Variation		47.041	CMMI-1265709	57,430	
Collaborative Research: Model-Based Multidisciplinary Dynamic Decisions in Design		47.041	CMMI-1537641	67,508	
Collaborative Research: Optimizing Direct-Marketing Strategies in Non-Profit Fundraising: An Integrated Framework for Segmentation, Estimation and Control		47.041	CMMI-1335104-02	15,681	
Collaborative Research: The Positive Role of Queues on Consumer Value Perception and Firm Profits: Mathematical Models and Laboratory Experiments		47.041	CMMI-1301090	26,231	
Collaborative Research: Tribochemically Induced Gelation and Film Formation at Metal Interfaces		47.041	CMMI-1200529	(38)	
Collaborative Research: Workshop on Acquiring and Sharing Data within the CMMI Research Community		47.041	CMMI-1654469	8,123	
Computational Discovery and Analysis of Catalytic Routes to Bio-based Renewable Chemicals	113	47.041	Agmt 3/10/2017 // 400-72-04-33-15F1 Amd 2	66,030	
Control of Hybrid Locomotion with Impacts		47.041	CMMI-1436297	111,481	
CPS: Synergy: An Integrated Simulation and Process Control Platform for Distributed Manufacturing Process Chains		47.041	CMMI-1646592-001	60,923	
Curved Waterjet-Guided Laser Micro-Manufacturing		47.041	CMMI-1234491	97,339	
Cutting and Shuffling: A New Dynamical Systems Paradigm for Mixing		47.041	CMMI-1435065	64,716	
Design and exploration of high-temperature steels for electric power generation applications		47.041	CMMI-1462850	93,408	
Diffraction-grating coupled surface emitting Terahertz quantum cascade laser source for high power, room temperature continuous wave operation		47.041	ECCS-1607838	127,325	
DMREF: A Fundamental Approach to Study the Effect of Structural and Chemical Composition in Functionalized Graphene Materials		47.041	CMMI-1235480	(9,183)	
DMREF: Collaborative Research: Simulation-Based Design of Supramolecular Nanotubes With Tunable Interiors Toward Functional Porous Membranes		47.041	CBET-1234305	(856)	
EAGER: Optical Coherence Elastography (OCE): A novel tool for rapid, non-destructive, spatially resolved quantification of mesoscale biofilm mechanical properties		47.041	CBET-1701105	16,088	

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EFRI 2-DARE: Scalable Growth and Fabrication of Anti-Ambipolar Heterojunction Devices		47.041	EFRI-1433510	465,425	129,718
EFRI-BioFlex: Miniature, Low-cost Fiber-optics Technology for Measurement of Tissue Structure at Sub-diffractive Length Scales: A Platform for Cancer Screening		47.041	EFRI/EFMA-1240416-004	444,960	20,017
EFRI-BSBA: Nanoactuation and Sensing of Neural Function for Engineering Future Biomimetic Retinal Implants and Therapies	231	47.041	2009-06949-01-05//EFMA-0938072	1,374	
Electric Field Guided Micro Additive Manufacturing Process		47.041	CMMI-1463411	65,467	
Engineering a secretion-based, high-titer protein production process in bacteria		47.041	CBET-1706125	7,415	
Enhancing Identifiability of Computer Simulation Models via Design for Calibration		47.041	CMMI-1233403	1,030	
Exploring local confinement of ultrafast light to enable nondestructive acoustic metrology at the nanoscale		47.041	ECCS-1611356	128,206	
Feedback-based radiofrequency ablation system for user-defined three-dimensional ablation geometries	104	47.041	Agmt 8/9/2016//IIP-1622842	42,654	
Fractal Mechanics of Stretchable Piezoelectrics for Mechanical Energy Harvesting		47.041	CMMI-1400169	73,123	
Friction in Full View		47.041	CMMI-1400618	35,876	
Functionalities Emerging in Adaptive Brain Networks through Selective Synchronization of Neurons by Targeted Feedback		47.041	CMMI-1435358	42,635	
GOALI/Collaborative Research: Reliable Prediction of Endurance Life of Ultra-High-Strength Aerospace Rolling-Element Bearings		47.041	CMMI-1434834	39,475	
GOALI: Computer Simulation Analytics		47.041	CMMI-1537060	120,093	
GOALI: Models and Methods for Marathon Course Design using Multi-Objective Approaches		47.041	CMMI-1405231	118,278	
GOALI: Strength Loss in Clays During Earthquake and Other Cyclic Loading		47.041	CMMI-1434876	52,247	
Green Simulation: A Methodology for Reusing the Output of Past Computer Simulation Experiments		47.041	CMMI-1634982	28,602	
I-Corps: AdsProphet: Full-screen Delay-aware Mobile Ads Display		47.041	IIP-1558209	320	
I-Corps: The Planetary Laboratory: A networked platform for engaging K-12 STEM learning		47.041	IIP-1735031	22,926	
iSee: A Smart Device based Depression Behavior Monitoring and Analytics Service for College Students	140	47.041	RC106479NU//1632051	5,233	
Low-cost white light LED-based light source for visible-light Optical Coherent Tomography	156	47.041	6/15/2017 // IIP-1622907	65,653	
Managing Downstream Patient Flow Processes Using Improved Coordination and Staffing		47.041	CMMI-1335585	21,958	
Market Expectations, Long Term Risk, and Stochastic Spectral Theory		47.041	CMMI-1536503	70,756	
Molecular Organization and Transport in Synthetic and Biological Nanopores		47.041	CBET-1403058	137,471	
Monolithic Nanofabrication: A Bottom-up Approach for Manufacturing Nanotextured Surfaces		47.041	CMMI-1462633	107,568	
MRI: Instrument Development: Additive Rapid Prototyping Instrument (ARPI)		47.041	CMMI-1429658	108,876	
Multidimensional Network Analysis for Analyzing and Predicting Complex Customer-Product Relations in Engineering Design		47.041	CMMI-1436658	112,095	
Multiscale and Multiphysics Simulation of Reinforced Concrete Structures		47.041	CMMI-1435923	124,520	
Neuroprotective Engineering Based on Innate Responses to Stroke		47.041	CBET-1403036	94,053	
NNCI: Soft and Hybrid Nanotechnology Experimental (SHyNE) Resource		47.041	ECCS-1542205	1,054,923	342,121
Northwestern University Planning Grant: I/UCRC for Industry/University metal deFormation Center for US (iuFOCUS)		47.041	IIP-1624823	13,700	

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NRI: Task-Based Assistance for Software-Enabled Biomedical Devices		47.041	CBET-1637764	11,425	
On-demand Generation of Diamond-like-carbon Layers for Efficient Lubrication of Mechanical Systems		47.041	CMMI-1662606	39,343	
Opticent Health-Functional Imaging for Early Disease Detection		47.041	IIP-1507501	(49)	
PFI: AIR-TT SAFE (Situational Awareness for Events): A Data Visualization System		47.041	IIP-1640736	107,625	
PFI: AIR-TT: Hybrid Tri-pyramid Robot: A Novel Type of Double-Sided Incremental Forming Machine		47.041	IIP-1414394-003	46,331	
PFI: AIR - TT: BaTiO3 Photonic Crystal Electro-optic Devices for 50 GHz Applications		47.041	IIP-1500222 001	74,719	
PFI:BIC - Smart CROwdsourced Urban Delivery (CROUD) System		47.041	IIP-1534138	232,895	107,112
PFI:BIC: A Smart, "Always-on" Health Monitoring System		47.041	IIP-1534120-002	229,249	
PFI-AIR: Technology Translation - Highly Sensitive Eye-safe Flash LiDARs based on Nano-injection Detectors		47.041	IIP-1500314 001	110,198	
Photonic-jet Coupled Optical Antenna for Near Room Temperature Infrared Detectors and Imagers		47.041	ECCS-1310620	967	
Process Modeling and Enhancements of Laser-Induced Plasma Micro-Machining (LIP-MM)		47.041	CMMI-1335014	75,779	
Processing of Advanced Foam Scaffolds for Iron-Air Battery Applications		47.041	CMMI-1562941	103,926	
RAPID: Adaptive management of geotechnical construction in urban areas		47.041	CMMI-1603060	108,246	
REU Site: Research Experience for Undergraduates in Nanoscale Science and Engineering		47.041	EEC-1359004	5,947	
Robust Multi-Criteria Optimization With Application to Radiation Therapy		47.041	CMMI-1463489	56,310	
SBIR Phase I: A Large-Area, High-Throughput Desktop Nanoprinter	197	47.041	Agmt 8/31/16 // IIP-1621773	66,001	
Service Systems with Outbound Work and Blending		47.041	CMMI-1436518	66,861	
SNM: Collaborative Research: 3D Nanomanufacturing by Imprint and Strain Engineering (3D NISE)	118	47.041	2003142248/1635443	132,499	
SNM: Robust Scalable Nanomanufacturing of Photonic Structures		47.041	EEC-1530734	313,105	171,963
Soil Slip Versus Flow Failure in Rain-infiltrated Slopes: Using Principles of Geomechanical Stability to Enhance Spatially Distributed Models for Shallow Landslides		47.041	CMMI-1324834	56,739	
Spectroscopic photon localization microscopy for super-resolution molecular imaging		47.041	CBET-1706642 001	16,902	
Structural Dynamics of Polymer and Surfactant Solutions in Planar Extensional Flow Using In Situ X-ray Scattering		47.041	CBET-1336269	63,421	
SusChEM: Integrated Materials and Process Systems Development for Sustainable Carbon Capture		47.041	CBET-1604890	89,347	
SusChEM: Using theory-driven design to tailor novel nanocomposite oxides for solar fuel production		47.041	CBET-1438721	166,830	
Synchrotron Studies and Computational Modeling of Flow-Induced Polymer Crystallization in Shear and Extensional Flow		47.041	CMMI-1334719	46,425	
Terahertz source frequency comb based on difference frequency generation from a mid-IR quantum cascade laser		47.041	ECCS-1505409	127,810	
Tunable Continuous Wave THz Source Based on a Room Temperature Quantum Cascade Laser		47.041	ECCS-1306397	(11,239)	
Two-compartment microfluidic bioreactor with functionalized PEG hydrogels to promote platelet production in culture		47.041	CBET-1265029	59,465	
Unlocking Efficiencies in Earthmoving for Future Infrastructure: Modeling Plowing and Cutting Processes in Soils		47.041	CMMI-1742849	378	
UNS: Controlling mixing and segregation of granular media using unsteady flows		47.041	CBET-1511450	77,874	

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Using Biofluidynamics to Interrogate the Spinal Circuitry Controlling Movements		47.041	CBET-1066575	638	
US-Japan Materials Genome (MG) Workshop		47.041	CMMI-1541818	1,440	
				8,142,222	770,931
3he in Confinement		47.049	DMR-1602542	196,806	
Accretion and Star Formation Induced by the Galactic Center Supermassive Black Hole Sgr A*		47.049	AST-1517246 002	87,348	
Advanced Algorithms for Colloids with Induced Many-Body Interactions		47.049	DMR-1610796	85,430	
Algorithms for Nonlinear Nonconvex Optimization under Uncertainty		47.049	DMS-1522747	64,559	
Allosterically Regulated Supramolecular Capsules and Receptors Assembled via the WLA		47.049	CHE-1709888	4,474	
Amenable and recurrent actions of finitely generated groups		47.049	DMS-1352173 003	103,318	
An Atom-Probe Tomography and Lattice Kinetic Monte Carlo Study of Phase Separation in Ni-Al-Based Alloys from the Atomic Scale Up to Link with Continuum Theories		47.049	DMR-1207539/ Amd 003	44,435	
Analysis on Manifolds		47.049	DMS-1502632-001	307,677	
Arakelov geometry, Shimura varieties, and L-functions of motives		47.049	DMS-1702019	34,737	
ATD: A Mixture Modeling Framework for Statistical Identification of Multiple Genomes in Metagenomics Samples		47.049	DMS-1043080	(360)	
Atomistic Studies of Concentrated Multicomponent Nickel-Based Alloys Utilizing Atom-Probe Tomography and Vacancy-Mediated Lattice Kinetic Monte Carlo Simulations		47.049	DMR-1610367 001	67,639	
Bioengineering Single Crystal Growth		47.049	DMR-1508399-002	135,898	
Bio-Resorbable and Eco-Resorbable Electronics Materials, Modeling and Manufacturing	200	47.049	Agmt 01/14/2013//DMR-1242240	(14)	
Biouptake of Mercury: Speciation and Processes at the Cell Surface		47.049	CHE-1308504	40,977	
Black Holes in Dense Star Clusters		47.049	AST-1716762	2,282	
CAREER: Complexity of Disordered Systems		47.049	DMS-1653552	42,124	
CAREER: Interfacial Assembly of Soft Layered Materials		47.049	DMR-0955612/001	56,296	
CAREER: Ligand Engineering of Structure and Electronic Function in Complex Metal Oxyfluorides		47.049	DMR-1454688 003	50,514	37,793
CAREER: Planet Formations in the Age of Kepler		47.049	AST-1352369	28,278	
CAREER: Quantum Phases and Non-Equilibrium Dynamics of Strongly Correlated Photons		47.049	PHY-1055993	18,313	
CAREER: Synthesis and Studies of One-Dimensional Magnets Supported by Bulky, Redox-Active Benzoquinonoid Bridging Ligands		47.049	DMR-1351959-003	96,073	
CAREER: Synthesis of molecular electronic-spin based qubits enabled by new empirically derived design principles		47.049	CHE-1455017	158,012	
CAREER: Theories for Magnetic Properties of Lanthanide and Actinide Complexes		47.049	CHE-1351598	131,796	
CCI Phase II: Center for Sustainable Nanotechnology	266	47.049	630K475 Amd 2 // CHE-1503408	158,881	
CDS&E: Black Holes in Dense Star Clusters		47.049	AST-1312945	50,795	
CDS&E: Organization and Dynamics of Charged Molecules in Heterogeneous Media		47.049	DMR-1611076	73,034	
CEMRI: Multifunctional Nanoscale Material Structures		47.049	DMR-1121262 Amd 009	2,983,934	65,698
Center for Sustainable Polymers	245	47.049	A004088505//CHE-1413862	109,534	

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Charge Transfer as a Probe of the Permeability of Organic Adlayers on Colloidal Semiconductor Quantum Dots		47.049	CHE-1400596	99,680	
Coherent and Incoherent Control in Material Systems		47.049	CHE-1465201	311,920	
Cohomological and singularity invariants via Hodge modules and derived equivalences		47.049	DMS-1405516-002	16,782	
Collaborative Research: Algorithms for Large-Scale Stochastic and Nonlinear Optimization		47.049	DMS-1620022	5,302	
Collaborative Research: CDS&E: FIRE: Physically-Predictive Cosmological Simulations of Galaxy Formation with Resolved Feedback		47.049	AST-1412836	78,056	
Collaborative Research: Computational Thermochemistry of Compounds		47.049	DMR-1309957 Amd 001	62,501	
Collaborative Research: Controlled Disorder and Topological Defects in Magnetically Frustrated Thin Film Metamaterials		47.049	DMR-1507058	81,190	
Collaborative Research: Designer Glass Ceramics		47.049	DMR-1600837	61,322	
Collaborative Research: Enhancing Access to Radio Spectrum for Real-time Monitoring and Control		47.049	AST-1547328	102,663	
Collaborative Research: Factorization Homology and the Cobordism Hypothesis		47.049	DMS-1508040-002	84,032	
Collaborative Research: Fluctuating Hydrodynamics of Suspensions of Rigid Bodies		47.049	DMS-1418672	64,701	
Collaborative Research: High-Throughput Quantification of Solid State Electrochemistry for Next Generation Energy Technologies		47.049	DMR-1505103 002	153,839	
Collaborative Research: Integrated Computational and Experimental Studies of Solid Oxide Fuel Cell Electrode Structural Evolution and Electrochemical Characteristics		47.049	DMR-1506925	91,065	
Collaborative Research: Investigating Structural Dynamic Coherences of Transition Metal Complexes in Photochemical Processes		47.049	CHE-1363007	74,231	
Collaborative Research: Mathematics and Climate Change Research Network		47.049	DMS-0940262/001	6,778	
Collaborative Research: Methods for Stochastic and Nonlinear Optimization		47.049	DMS-1216567	(62)	
Collaborative Research: NanoMine: Data Driven Discovery for Nanocomposites		47.049	DMR-1310292	104,322	
Collaborative Research: Size Effects on Magneto-Mechanics of Ni-Mn-Ga Fibers		47.049	DMR-1207282	46,925	
Collaborative Research: Size-Effect Driven Nanoparticle Ferromagnetism		47.049	DMR-1508323 002	16,628	
Collaborative Research: Sustainable Energy Pathway: Development of Economically Viable, Highly Efficient Organic Photovoltaic Solar Cells		47.049	CHE-1230217	(202)	
Collective dynamics of particles at fluid interfaces		47.049	DMS-1716114	62,262	
Complex algebraic dynamics and geometry		47.049	DMS-1600718	93,061	
Complexity of Disordered Systems		47.049	DMS-1517864	18,411	
Conference on Derived Algebraic Geometry: Picard groups, Brauer groups, and Twists		47.049	DMS-1700795	19,660	
Dark Matter and Neutrino Physics with Cryogenic Detectors		47.049	PHY-1550658-002	134,030	
Deposition, Equilibrium Structure and Mechanical Response of Polyelectrolyte Complexes		47.049	DMR-1710491	14,263	
Design and Synthesis of Non-equilibrium Systems		47.049	CHE-1308107	(126)	
Deterministic and Stochastic Models of Water Limited Ecosystems: Implications of Pattern Formation, Bifurcations, Model Reduction, and Data	221	47.049	FP063753 // DMS-1639761 Amd 1	47,516	

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Dielectric Effects in Dynamical Self-Assembly of Anisotropic Colloids		47.049	DMR-1310211-001	8,764	
DMREF/Collaborative Research: Computationally Driven Targeting of Advanced Thermoelectric Materials		47.049	DMR-1333335	97,063	
DMREF: Collaborative Research: Tackling disorder and ensemble broadening in materials made of semiconductor nanostructures		47.049	DMR-1629383	14,953	
DMREF: Simulation-Driven Design of Highly Efficient MOF/Nanoparticle Hybrid Catalyst Materials		47.049	DMR-1334928	154,815	70,259
Doping in Non-Planar Heterostructures		47.049	DMR-1308654 Amd 002	(2,033)	
Dynamical aspects of Ramsey theory		47.049	DMS-1700147	20,730	
Dynamics with a combinatorial flavor		47.049	DMS-1500670	51,157	
EAGER: Towards Atomic-Scale Imaging of Hybrid Nanomaterials.		47.049	DMR-1341391	(580)	
Fellows On the Frontier 2015; September - 4, 2015; Evanston, IL		47.049	AST-1518974	26,444	
Geometric Analysis on complex manifolds		47.049	DMS-1610278 001	67,898	
Global Harmonic Analysis		47.049	DMS-1506591-001	131,601	
Gravitational-Wave Astrophysics: Getting Ready for the Advanced LIGO Era		47.049	PHY-1307020/002	2,369	
Gravitational-Wave Inference from Binary Compact Objects		47.049	PHY-1607709 0001	150,494	
GROW: strengthening the mathematical workforce		47.049	DMS-1619748	54,511	
Hardness and Elasticity of Superhard and Ultrahard Materials		47.049	DMR-1508577	103,507	
High-precision QCD Meets High-performance Computing		47.049	PHY-1520916-002	30,073	
High-throughput Computational Discovery of New Nanoporous Materials for Energy Storage		47.049	DMR-1308799	83,457	
Hodge theory and birational geometry		47.049	DMS-1700819	58,030	
Holomorphic functions and some geometric problems on certain Kahler manifolds		47.049	DMS-1700852	31,825	
Interest Rate Modeling at the Zero Lower Bound: Applications of Diffusions with Sticky Boundaries		47.049	DMS-1514698	70,238	
Interfacial ordering in aqueous solutions: X-ray scattering studies		47.049	DMR-1612876	70,725	
Intrinsically Acentric High-Response Electro-Optic Multilayers. Materials for High-Speed Optical Switching	34	47.049	RES504561/A1/Mod. 6//DMR-0423914	(15,545)	
Investigation of High Strain-Rate Deformation and Failure of FCC and BCC Nanostructures		47.049	DMR-1408901/ Amd. 001	173,300	
IRES: Nanomaterials undergraduate Research in Germany (NanoRING)		47.049	IIA-1460031	84,270	
Joint US-Africa Materials Advanced Studies Institute		47.049	DMR-1539724	14,993	
Kahler manifolds with curvature lower bound		47.049	DMS-1709894	31,198	
Knots, Sheaves, and Mirrors		47.049	DMS-1406024	71,441	
Linear Partial Differential Equations on Singular Spaces		47.049	DMS-1265568	4,781	
Linear Partial Differential Equations on Singular Spaces		47.049	DMS-1600023	66,772	
Local and Global Chromatic Stable Homotopy Theory		47.049	DMS-1308916	113,594	
Manipulating Multi-Spin Dynamics in Systems Targeting Organic Spintronics		47.049	CHE-1266201	(19,191)	
Materials World Network: Chemical and Biological Approaches to Sequence Controlled Polymers		47.049	DMR-1108350	(45)	
Mathematical Modeling of Biomembranes		47.049	DMS-1312935	38,570	
Microlocal Sheaves, Symplectic Geometry and Applications in Representation Theory		47.049	DMS-1710481	20,730	

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Midwest Dynamical Systems Seminar		47.049	DMS-1600654	12,735	
Midwest Topology Seminar		47.049	DMS-1413786	6,172	
Moduli Spaces of complex dynamical systems		47.049	DMS-1517080	20,953	
Molecular Ion Entanglement Detection by Single-Molecule Fluorescence		47.049	PHY-1404455-002	78,565	
Molecular Plasmonics: Single Molecule and Ultrafast Surface-Enhanced Raman Spectroscopy		47.049	CHE-1506683	66,902	
Molecular Plasmonics: Single Nanoparticle Assemblies, Single Molecules, and Ultrafast Stimulated Raman		47.049	CHE-1152547/001	(609)	
MRI: Development of a Cryogenic Sample Preparation Instrument (NU CRYOCLUSTER)		47.049	DMR-1229693	(11,039)	
MRSEC: Center for Nanoscale Science	163	47.049	5204-NU-NSF-0620-1// DMR-1420620	82,515	
Multiple-Scale Mathematical Models of Ultra-Short-Pulse Modelocked Lasers		47.049	DMS-1211912	(1,893)	
Multi-scale Analysis of Lignin for Drop-in Biofuels:From life-cycle assessment of feed-stocks to quantum chemical analysis of pretreatment methods		47.049	CHE-1314063	35,576	
Nanoscale Curvature Effects on the Properties of Anisotropic Nanomaterials		47.049	CHE-1507790	122,007	
New Stereoselective Fragment Coupling Reactions for Organic Synthesis		47.049	CHE-1361173	118,902	
Nonequilibrium States of Topological Quantum Fluids and Unconventional Superconductors		47.049	DMR-1508730 002	152,022	
Nonlinear Optical Surface Studies of Iron and its Oxides		47.049	CHE-1464916	156,923	
Nonlinear PDEs and complex geometry		47.049	DMS-1406164	7,638	
OP: Coherence and Energy Transfer Processes in Lattice Plasmon Lasers		47.049	DMR-1608258	161,847	
Organization of Charged Molecules in Heterogeneous Media		47.049	DMR-1309027	(5,916)	
Organo-f-Element Chemistry: Integrated Synthetic, Mechanistic, and Catalytic and Thermochemical Studies		47.049	CHE-1464488	191,938	
Oxide Surfaces, From Bulk to Nanoparticles		47.049	DMR-1507101 001	114,747	
Plasmon-Exciton Energy Transfer in Metal Nanocavities		47.049	DMR-1306514	981	
Predictive Computational Modeling of Two-Dimensional Materials: Defects and Morphologies	244	47.049	3003700315//1507033	23,504	
Properties and Applications of the Microlocal Category		47.049	DMS-1612437	46,747	
Quantum Coherent Phenomena in Superconducting Heterostructures		47.049	DMR-1006445	(86)	
Quantum Information and Quantum Computation for Chemistry: Challenges and Opportunities		47.049	CHE-1655187	71,173	13,533
Quantum Interference and Coherence Effects on Charge Transport in Organic Semiconductors		47.049	DMR-1710104	23,355	
QuBBD: Collaborative Research: Advancing mHealth using Big Data Analytics: Statistical and Dynamical Systems					
Modeling of Real-Time Adaptive m-Intervention for Pain		47.049	DMS-1557722	(1,673)	
REU Site: Preparing a Diverse Workforce through Interdisciplinary Astrophysics Research		47.049	AST-1359462-003	81,330	
Ricci Curvature and Geometric Analysis		47.049	DMS-1406259	19,444	
RTG: Interdisciplinary Training in Quantitative Biological Modeling		47.049	DMS-1547394	253,582	
Shape and Dimensional Precision in Polymeric Nanostructures		47.049	DMR-1508731	127,442	
Size Effect on the Evolution of Kirkendall Pores in Ti-Coated Ni Wires		47.049	DMR-1611308	89,381	
Solid State Chemistry of Complex Chalcogenides		47.049	DMR-1708254	14,402	
Solid-State Oxides and Oxide-Flourides		47.049	DMR-1307698	35,297	

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Solid-State Oxides and Oxide-Fluorides		47.049	DMR-1608218	186,849	
Solution-Processed Monodisperse Nanoelectronic Heterostructures		47.049	DMR-1505849	129,420	
Spectrum Sharing in the Shadow of Uncertainty: Risk, Incentives and Investment		47.049	AST-1343381	355,651	132,522
Spin Dynamics of Photogenerated Multi-Spin Systems		47.049	CHE-1565925	174,315	
Statics and Dynamics of Spatially and Dimensionally Constrained Oxides		47.049	DMR-1507810	131,591	
Statistical Mechanics of DNA-Protein Interactions and Chromosome Organization		47.049	DMR-1206868	73,400	
Statistical Methods for Functional Metagenomics Analysis Using Next Generation Sequencing	209	47.049	69026//DMS-1222592	1,137	
Structures and excited state dynamics of self-assembled photonic structures.		47.049	CHE-1465045	152,640	
Supernova Progenitors, Stellar Remnants, and their Binary Companions		47.049	AST-1517753	108,037	
Support for Matthew Rickert	20	47.049	1519126-2//AST-0836064	13,975	
Surface/interface order in liquids with electrostatic correlations: X-ray scattering studies		47.049	DMR-1309589/ Amd 002	79,502	
Surfaces of Secondary Organic Aerosol Particles		47.049	CHE-1607640	169,052	28,871
SusChEM: Visible Light-Driven Reduction of Carbon Dioxide using Heavy Metal-Free Colloidal Quantum Dots as Sensitizers		47.049	CHE-1664184	22,512	
Synthesis and Properties of Complex Crystalline and Glassy Metal Chalcogenides		47.049	DMR-1410169	310,344	
The Center for Chemistry at the Space-Time Limit (CaSTL)	213	47.049	2014-3122 Amd No 4//CHE-1414466	487,620	
The Interplay of Ergodic Theory, Additive Combinatorics, and Harmonic Analysis		47.049	DMS-1200971	(45)	
The Massive Black Hole at the Center of the Galaxy and Its Immediate Environment		47.049	AST-1109753/002	(243)	
The Midwest Probability Colloquium		47.049	DMS-1449300	21,636	
Topological Surface States and New Phases in Superfluid 3He		47.049	DMR-1103625/004	28,696	
Total Tomography of III-V Non-Planar Heterostructures		47.049	DMR-1611341	145,066	
Toughness and Friction of Model Polyelectrolyte Gels		47.049	DMR-1410968	90,051	
Toward physically-predictive modeling of massive black hole growth and feedback in galaxy formation		47.049	AST-1517491 002	108,744	
Unveiling the Obscured Formation of Stars and Galaxies: Large-Scale Legacy Surveys with a New Three Color High Resolution Imaging Polarimeter on a 50-m Telescope	238	47.049	17-009589 D/AST-1636621	34,026	
Voltage-dependent interfacial structure and properties of room temperature ionic liquids: operando X-ray studies		47.049	CHE-1665255	5,544	
Workshop on Multidisciplinary Complex Systems Research		47.049	DMS-1647351	57,265	
				13,776,098	348,676
CAREER: South Greenland's Holocene Climate History Reconstructed Using Three Paleolimnological Approaches		47.050	PLR-1454734	119,340	
CAREER: The Role of Sulfur in Regulating the Marine Carbon Cycle: Implications for Understanding Oceanic Anoxic Events		47.050	EAR-0955969	12,778	
CO2 evasion from the Greenland ice sheet		47.050	PLR-1304686/002	35,182	
Collaborative Research: Assessing the Impact of Small, Canadian Arctic River Flows (SCARFs) to the Freshwater Budget of the Canadian Archipelago		47.050	PLR-1304675	137,594	

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Collaborative Research: Bighorn Basin Coring Project (BBCP) - Targeted Continental Drilling of Paleogene Hyperthermals		47.050	EAR-0958717	(427)	
Collaborative Research: Evolution of the Midcontinent Rift as a Rift/Lip Hybrid		47.050	EAR-1550108	18,893	
Collaborative Research: Geophysical Investigation of the Mid-Continent Rift System		47.050	EAR-1148088	3,546	
Collaborative Research: Role of Interfacial Turbulence in Hyporheic Exchange and Fine Particle Dynamics		47.050	EAR-1215898	(592)	
Critical Zone Observatory Network for Intensively Managed Landscapes	232	47.050	2013-04254-03 Amd 3//EAR-1331906	63,026	
EAGER: FEW: Life cycle comparison of water, energy, nutrient, and carbon requirements of urban and conventional food production strategies		47.050	EAR-1541891	144,411	
EarthCube IA: Collaborative Proposal: Advancing biogeoscience community standards and cyberinfrastructure via Critical Zone domain engagement in synthesis science		47.050	ICER-1540938	19,261	
ELT COLLABORATIVE RESEARCH: Perturbation of the Marine Food Web and Extinction During the Oceanic Anoxic Event at the Cenomanian/Turonian Boundary		47.050	EAR-1338312-005	35,592	
Hazards SEES Type 2: From Sensors to Tweeters: A Sustainable Sociotechnical Approach for Detecting, Mitigating, and Building Resilience to Hazards	252	47.050	0036115 (011529-3) // OCE-1331463	119,366	
Hydration State of the Transition Zone and Lowermost Mantle		47.050	EAR-1452344-002	101,573	
INSPIRE Track 1: Earthcasting fluvial systems: Physical, ecological, and biogeochemical dynamics		47.050	EAR-1344280	108,057	40,339
Postdoctoral Research Fellowship for David Vinson: Host Institutional Allowance Request		47.050	EAR-1249916	745	
The Ca and Sr (radiogenic and stable) isotope geochemistry of weathering in Iceland		47.050	EAR-1613359	47,525	
The Subduction Margin Carbon Cycle: A Preliminary Assessment of the Distribution Patterns of Multicycle Carbon		47.050	OCE-1144483	(216)	
				965,654	40,339
A Low-Cost Integrated Agent-based Modeling and Physical Computing Platform		47.070	IIS-1438813	(206)	
AF: Small: Non-revelation Mechanism Design		47.070	CCF-1618502	181,173	
AitF: Collaborative Research: Algorithms for Probabilistic Inference in the Real World		47.070	CCF-1637585	30,719	
BD Spokes: SPOKE: MIDWEST: Collaborative: Advanced Computational Neuroscience Network (ACNN)	102	47.070	BL-4831218-NWUC//IIS-1636893	2,523	
BD Spokes: SPOKE: MIDWEST: Collaborative: Integrative Materials Design (IMaD): Leverage, Innovate, & Disseminate		47.070	IIS-1636909	2,908	
BPEC: Computational Thinking in STEM: A Whole-School Model for Broadening Participation and Education in Computing		47.070	CNS-1441041	128,309	
CAP: Collaborative Research: Building Capacity for Political and Cultural Perspectives to Strengthen the Learning Sciences		47.070	IIS-1555805	16,048	
CAREER: Advancing Online Social Support for Older Adults with Disabilities		47.070	IIS-1551574-001	76,132	
CAREER: Beyond Worst-Case Analysis: New Approaches in Approximation Algorithms and Machine Learning		47.070	CCF-1652491	3,573	
CAREER: Coherent Computational Imaging: Micro Measurements in a Macro World		47.070	IIS-1453192	37,730	
CAREER: Energy-Efficient and Energy-Proportional Silicon-Photonic Manycore Architectures		47.070	CCF-1453853 002	117,669	

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CAREER: Robot Learning from Motor-Impaired Instructors and Task Partners	170	47.070	81454 Letter 7/12/16 //IIS-1552706	47,848	
CAREER: Understanding and addressing geographic inequalities in location-aware technologies		47.070	IIS-1707296 001	59,995	
CAREER: Web Information Extraction: Scaling and Integration		47.070	IIS-1351029 004	110,851	
CC*DNI CI Engineer: Integrating Campus Cyberinfrastructure and Research Computing at Northwestern University		47.070	ACI-1541457	13,256	
CGV: Medium: Collaborative Research: Visualizing Comparisons		47.070	IIS-1162067 Amd 3	41,179	
CHS: Large: Collaborative Research: TextureShop: Tools for the Composition and Display of Virtual Texture		47.070	IIS-1518602 003	310,489	
CHS: Medium: Collaborative Research: Understanding online creative collaboration over multidimensional networks		47.070	IIS-1514427	166,665	
CHS: Small: Collaborative Research: Pathways to Community Success: Advancing a Comparative Science of Online Collaborative Organization		47.070	IIS-1617468	40,414	
CHS: Small: Collaborative Research: RUI: Human-centered Semantic Relatedness		47.070	IIS-1707319	111,185	
CHS: Small: Collaborative Research: The Presentation of Self in Networked Life		47.070	IIS-1617387 001	50,407	
CHS: Small: Coordination of Opportunistic Actions to Produce Globally Effective Behaviors for Physical Crowdsourcing		47.070	IIS-1618096	133,686	
CHS:Small: Robust Interactive Audio Source Separation		47.070	IIS-1420971	120,464	
CI-EN: Collaborative: Run Your Research with Redex		47.070	CNS-1405756 001	173,910	
CIF:Small: Many-user Information Theory: A New Paradigm		47.070	CCF-1423040	171,381	
CIF21 DIBBs: PD: Ontology-enabled Polymer Nanocomposite Open Community Data Resource	173	47.070	A12761//1640840	8,300	
Collaborative Research: Chameleon: A Large-Scale, Reconfigurable Experimental Environment for Cloud Research		47.070	CNS-1419138	286,836	
Collaborative Research: Designing Digital Rails to Foster Scientific Curiosity around Museum Collections		47.070	IIS-1550051	56,605	
Collaborative Research: Personalized Benchmarks for HPC Applications		47.070	ACI-1535112	91,560	
Collaborative Research: Responses of the Rodent Vibrissal-Trigeminal System to Air Currents		47.070	IIS-1208118	48,811	
Collaborative Research: SI2-SSI: Scalable Infrastructure for Enabling Multiscale and Multiphysics Applications in Fluid Dynamics, Solid Mechanics, and Fluid-Structure Interaction		47.070	ACI-1450374	60,109	
Collaborative Research: SI2-SSI: Software Framework for Electronic Structure of Molecules and Solids		47.070	ACI-1550481	134,059	
Collaborative Research: Understanding Climate Change: A Data Driven Approach		47.070	CCF-1029166/003	(1)	
CPS: Synergy: Collaborative Research: Learning Control Sharing Strategies for Assistive Cyber-Physical Systems	170	47.070	CC# 81394 CL 4811 // 1544741	67,751	
CPS: Synergy: Collaborative Research: Mapping and Querying Underground Infrastructure Systems		47.070	CNS-1646107	16,542	
CPS: Synergy: Collaborative Research: Mutually Stabilized Correction in Physical Demonstration		47.070	CNS-1329891	204,023	
CRII: CHS: Remote Paper Prototype Testing for Mobile Applications		47.070	IIS-1464315	4,068	
DIP: Collaborative Research: CRAFT: An Online Learning Platform for Scaffolding the Crowd Feedback Loop for Design Innovation Education		47.070	IIS-1530837	16,604	
DIP: Digital Studios for Social Innovation Networks		47.070	IIS-1530833	154,754	
DIP: Modeling in Levels		47.070	IIS-1441552	215,063	
EAGER: PUF-Locked Circuit Obfuscation for Counterfeit and Piracy Prevention		47.070	CNS-1651695 001	17,450	

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EAGER: Understanding Online Communication for Older Adults with Late-Life Vision Loss		47.070	IIS-1533340	19,922	
EXP: Advancing Early STEM Learning through Haptic Feedback Displays		47.070	IIS-1522921	101,770	
EXP: Agile Research Studios: Scaling Cognitive Apprenticeship to Advance Undergraduate and Graduate Research Training in STEM		47.070	IIS-1623635	71,270	
EXP: Collaborative Research: Engaging Interdisciplinary Students in Innovation Education Through Crowd-Based Technology		47.070	IIS-1217225	104,028	
EXP: Digital Lofts: Online Learning Environments for Real-World Innovation		47.070	IIS-1320693 002	29,778	9,088
Future Technology to Preserve College Student Health and Foster Wellbeing (StudentHealth)		47.070	IIS-1545751	6,999	
GENI Multi-Service Exchange (SDX)	23	47.070	Agmt 9/28/16 Mod 1 // CNS-1536090	82,647	
GENI Spiral 4: Prototype GENI Multi-Services Network Exchange (GMNE)	23	47.070	BBN Ref ID 14303 PO #9500012297//CNS-1346688	2,455	
HCC: Medium: Collaborative Research: Force Feedback for Fingertips		47.070	IIS-1302422	42,464	
HCC: Small: Building Audio Interfaces with Crowdsourced Concept Maps and Active Transfer Learning		47.070	IIS-1116384	(24)	
HCC-SMALL: A Joint Action Approach to Understanding and Supporting Interpersonal Attention In Virtual Organizations		47.070	IIS-1217143/005	79,392	
ICES: Large: Collaborative Research: Towards Realistic Mechanisms: Statistics, Inference, and Approximation in Simple Bayes-Nash Implementation		47.070	CCF-1101717	4,182	
ICES: Small: Collaborative Research: Understanding the Roles of Intermediaries in Matching Markets		47.070	CCF-1216095	(2,581)	
ICES: SMALL: Mechanism Design With Information-Sensitive Agents		47.070	CCF-1216006	11,836	
ICFP PLMW support 2016		47.070	CCF-1633588	18,235	
III: Large: Collaborative Research: Moving Objects Databases for Exploration of Virtual and Real Environments		47.070	IIS-1213038	77,325	
III: Small: Collaborative Research: Algorithms for Query by Example of Audio Databases		47.070	IIS-1617497	51,140	
III: Small: Collaborative Research: Automatically Generating Contextually-Relevant Visualizations Relatedness		47.070	IIS-1702440	67,421	
III: Small: Inferring First Movers in Large-Scale Network Games	244	47.070	3003577874//IIS-1538827	(331)	
III: Small: Quantifying Multifaceted Perception Dynamics in Online Social Networks	101	47.070	SA17-0018-S001//1618244	33,431	
INSPIRE: Glitch Zoo: Teaming Citizen Science with Machine Learning to Deepen LIGO's View of the Cosmos		47.070	IIS-1547880-002	405,875	256,247
IRNC: RXP: StarLight SDX - A Software Defined Networking Exchange for Global Science Research and Education		47.070	ACI-1450871	439,624	244,879
NeTS: SMALL: Broadband Service Reliability: Characterization And Improvement		47.070	CNS-1619317	96,566	
NeTS: Small: Collaborative Research: Leveraging Personalized Internet Services to Combat Online Trolling		47.070	CNS-1615837	13,500	
NeTS: Small: Endpoint User Profile Control		47.070	CNS-1319086	212,817	
NeTS: Small: Mashup Content Harvesting for an Open Internet		47.070	CNS-1526052	31,721	
NeTS:Large: Collaborative Research: Context-Driven Management of Heterogeneous Sensor Networks		47.070	CNS-0910952/005	(871)	
NRI: Autonomous Synthesis of Haptic Languages		47.070	IIS-1426961	123,963	
NRI: Electrosense imaging for underwater telepresence and manipulation		47.070	IIS-1427419-005	417,565	304,282
NRI: Small: Modeling, Quantification, and Optimization of Prosthesis-User Interface	170	47.070	CC#80793CL#2953//IIS-1317379	95,666	
Rl: Doctoral Student Workshop at the Fourth Annual Conference on Advances in Cognitive Systems		47.070	IIS-1637643	1,448	

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RI: Small: Contextual Mining and Learning for Video Scene Understanding		47.070	IIS-1217302/001	144,281	
RI: Small: Modeling and Learning Visual Similarities under Adverse Visual Conditions		47.070	IIS-1619078	34,768	
RI: Small: Dynamic In-Hand Robotic Manipulation		47.070	IIS-1527921	74,920	
SaTC: STARSS: ICM: Invariant Carrying Machine for Hardware Assurance		47.070	CNS-1441695	61,962	
SCH: INT: Collaborative Research: High-throughput Phenotyping on Electronic Health Records using Multi-Tensor Factorization		47.070	IIS-1417819	38,799	
SHF: Small: Collaborative Research: ALETHEIA: A Framework for Automatic Detection/Correction of Corruptions in Extreme Scale Scientific Executions		47.070	CCF-1619253	38,811	
SHF: Small: Collaborative Research: Designing a Patient-Oriented Prescription Language: An Executable Specification for a Medical Algorithm for Gestational Diabetes Mellitus		47.070	CCF-1219070/001	(2,891)	
SHF: Small: Collaborative Research: Designing a Programming Language for Patient-Oriented Prescriptions		47.070	CCF-1526109	128,537	
SHF: Small: Greybox Computing: An Associative Computing Methodology with Instruction Directed Power and Clock Management		47.070	CCF-1618065-001	93,522	
SHF: Small: Thermal Monitoring in 3D Integrated Circuits with Bimetallic Thin Film Thermocouples		47.070	CCF-1422489/001	142,463	
SHF: Medium: Collaborative Research: Compute on Data Path: Combating Data Movement in High Performance Computing	199	47.070	21P352-02//CCF-1409946	50,075	
SHF: Medium: Collaborative Research: Scalable Algorithms for Spatio-temporal Data Analysis		47.070	CCF-1409601	243,328	
TWC SBE: Medium: Collaborative: Incentive Compatible Wireless Security		47.070	CNS-1314620	98,551	
TWC: Medium: Collaborative: Neuroscience Meets Computer Security: Designing Systems Secure Against Coercion Attacks		47.070	CNS-1228357	49,036	
TWC: TTP Option: Medium: Collaborative: Identifying and mitigating trust violations in the smartphone ecosystem		47.070	CNS-1408790	199,048	
WiFiUS: Collaborative Research: Ultra-low latency and High Reliability for Wireless IoT		47.070	CNS-1701921	31,559	
Workshop: Doctoral Consortium for HCOMP 2016		47.070	IIS-1636983	16,533	
XPS: EXPL: CCA: Merging Parallel Run-times and Operating Systems		47.070	CCF-1533560 001	75,678	
XPS: FULL: FP: Design and Synthesis of New Energy-efficient Self-healing Computing Electronics with Real-time Configurability		47.070	CCF-1533656	146,246	
				7,835,301	814,496
Biophysical Studies of Metalloenzymes		47.074	MCB-1118613-003	(2,064)	
Biophysical Studies of Metalloenzymes		47.074	MCB-1515981	387,641	
CAREER: Uncovering Quantitative Design Principles of RNA Regulators for Synthetic Biology		47.074	MCB-1650040 001	111,603	78,274
CEIN: Predictive Toxicology Assessment and Safe Implementation of Nanotechnology in the Environment	215	47.074	0521 G RA112-005 Amd. 4// DBI-126	70,258	
Collaborative Research: EAGER: Customized cell biosensors for interrogating cancer cell physiology		47.074	MCB-1745753	1,322	
Collaborative Research: A New Twist on Muscle Contraction		47.074	IOS-1456623	103,337	
Collaborative Research: Bilateral BBSRC-NSF/BIO: Synthetic Biology for Lignin Utilization		47.074	MCB-1614953	154,976	

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Collaborative Research: Exploiting the syntegron technology platform for assembly and optimisation of complex genetic ensembles		47.074	MCB-1341414	(3,452)	
Collaborative Research: Glycoengineering Without Borders: Bacterial Cell-Free Glycoprotein Synthesis		47.074	MCB-1413563	165,121	
Collaborative Research: IDBR: Type A: The Nanosizer: A New Tool For the Photochemical Fabrication of Bioactive Nanoarrays		47.074	DBI-1353682	106,757	
Collaborative Research: Uncovering the Role of Sirtuins in Linking Food Availability and Stress Tolerance Through Multi-Scale Signaling Networks in Mussels		47.074	IOS-1557495	21,364	
CRCNS: Functional imaging and computational models of place field integration in pyramidal cell dendrites		47.074	IOS-1516235-001	243,898	
Dissecting the anatomy of regulatory divergence		47.074	IOS-1708518	210,949	
IDBR: Development of Higher Eigenmode Ultrasound Bioprobe for Sub-Cellular Biological Imaging		47.074	DBI-1256188	71,099	
IDBR: Type A: Directly Integratable Photoacoustic Microscopy with Established Optical Microscopy for Comprehensive Sub-cellular Biological Imaging		47.074	DBI-1353952/002	120,774	
Investigation of the Yeast Prion [SWI+]		47.074	MCB-1122135	24,253	
Micromechanical Analysis of Chromosome Structure		47.074	MCB-1022117	(10,999)	
Regulation of Host Colonization Specificity		47.074	IOS-1456963	68,490	
Regulation of Nuclear Receptor Function during Drosophila Development	237	47.074	27790-Z4573001//IOS-145714	95,426	
Reticulospinal Execution of Innate Decision-Making		47.074	IOS-1456830	263,959	
The Response of Primary Mesenchyme Cells to VEGF		47.074	IOS-1456837	208,630	
The Vibrissotactile Natural Scene		47.074	IOS-1558068	49,363	
Understanding the Mechanism of Import for Bacterial Transporters		47.074	MCB-1121872	83,960	
				2,546,665	78,274
A Cultural and Linguistic Anthropological Analysis of Youth Language Socialization		47.075	BCS-1323769	10,715	
Approximating Large Contests and other Auction-Like Games: a Mechanism Design Approach		47.075	SES-1325968	40,194	21,006
Assessing Evidence-Based Psychotherapy		47.075	SES-1535023	91,820	
Biological links between rhythm and reading		47.075	BCS-1430400	148,249	
CAREER: Comparative Statics and Dynamic Models		47.075	SES-1151410/003	31,008	
CAREER: Individuation in Visual Cognition		47.075	BCS-1056730 006	70,045	
CAREER: Leadership for Virtual Organizational Effectiveness		47.075	SES-1738297	94,649	
CAREER: Social Networks, Labor Markets and Agricultural Technology Adoption in Developing Countries		47.075	SES-1254380-005	54,637	
Chronological Change In Domestic Economy And Provisioning Strategy		47.075	BCS-1419672	42,333	
Clausal Ellipsis, Its Structure and Online Processing		47.075	BCS-1323245	18,863	
Collaborative Research: Dynamic Mechanisms without Transfers		47.075	SES-1530608	80,596	
Collaborative Research: Econometric Methods for Models with Clustered Data and Covariate-Adaptive Randomization		47.075	SES-1530534	84,578	

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Collaborative Research: Equilibria in Health Exchanges: Adverse Selection, Reclassification Risk, and Dynamic Contracting		47.075	SES-1260949	91,303	48,640
Collaborative Research: Family Structure and Inequality in Contemporary America		47.075	SES-1459631	(5,545)	
Collaborative Research: Media Characters: The Unhidden Persuaders in Food Marketing to Children		47.075	BCS-1251345	11,407	
Collaborative Research: Mind Mapping Consumers and Activists' Response to NGO-Corporate Partnerships		47.075	SES-1359610 001	16,119	
Collaborative Research: NCS-FO: Sleep's role in determining the fate of individual memories		47.075	BCS-1533512	84,556	
Collaborative Research: Time-Sharing Experiments for the Social Sciences (TESS): Proposal for Renewed Support, 2016-2019		47.075	SES-1628057	241,488	55,468
CompCog: Reading as a rational process of visual information gathering		47.075	BCS-1734217	18,376	
Consequences and Context of Stunting in the Bolivian Amazon	228	47.075	RR104-341/S000853//BCS-1519120	1,453	
Constructions of Traditional Medicine during Decolonization and the Global Cold War		47.075	SES-1456984	39,107	
Coordination and Information Design		47.075	SES-1730483	50,378	
Dissertation Grant: Medical Technologies and Social Identities		47.075	SES-1556591	4,770	
DNA Examiners: Judgment and Influence		47.075	SES-1356899	37,122	
Doctoral Dissertation Improvement Award: The Effect of War On The Transformation of Social Hierarchies		47.075	BCS-1546972	5,019	
Doctoral Dissertation Improvement Award: The Role of Heritage in Community Organization		47.075	BCS-1630141	2,582	
Doctoral Dissertation Improvement Grant: Keeping It Together?: State Centralization and Everyday Life in a Peripheral Neighborhood of Copan, Honduras		47.075	BCS-1330995	(214)	
Doctoral Dissertation Improvement: Conceptualizing the Adaptive Significance of Brown Adipose Tissue in Cold Climates		47.075	BCS-1455804	9,938	
Doctoral Dissertation Research in DRMS: Where Does Innovation Come From? Exploring the Dynamic Processes of Organizing and Managing Social Entrepreneurship and Innovation		47.075	SES-1730079	3,787	
Doctoral Dissertation Research in DRMS: Who's at Stake? Nonhuman Agency Concepts and Cultural Resource Conflict Among Indigenous and Mainstream Actors in Panama		47.075	SES-1427035	9,064	
Doctoral Dissertation Research: Why adapt? Phonotactic learning as non-native language adaptation		47.075	BCS-1728173	5,714	
Doctoral Dissertation Research: An evaluation of sedimentary lipid hydrogen isotopes as an Arctic precipitation proxy		47.075	BCS-1634118	3,298	
Doctoral Dissertation Research: Organizational Emergence in the Era of Racial Risk: The Black Guerilla Family and the Aryan Brotherhood in California		47.075	SES-1703056	1,937	
Doctoral Dissertation Research: Population Shifts and Suburban Governance		47.075	BCS-1528569	3,747	
Doctoral Dissertation Research: Standardizing Persecution in US Asylum Adjudications		47.075	SES-1702602	1,676	
Doctoral Dissertation Research: The Intergenerational Consequences of Incarceration		47.075	SES-1628126	1,321	
Doctoral Dissertation Research: The Role of Social Entrepreneurship in Addressing Poverty in the French "Banlieues"		47.075	SES-1602784	11,997	
Dynamic, Behavioral, and Multi-Agent Persuasion Mechanisms		47.075	SES-1427200	63,421	
Early environments, epigenetics, and inflammation during pregnancy		47.075	BCS-1440564	139,609	12,647
Econometric Tools for Analysis of Derivatives Data		47.075	SES-1530748	93,140	

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Engineering Children's Learning		47.075	BCS-1122712	32,158	
INSPIRE: Gradient Symbolic Computation	118	47.075	2001990798 // BCS-1344269-001	17,305	
Investigating the Origin and Development of Analogical Processing		47.075	BCS-1423917	73,552	
Manipulating and classifying memory processing during sleep		47.075	BCS-1461088 002	135,369	48,252
Matching Design: Mediated Bundling, Experimentation, and Observational Learning		47.075	SES-1530798	34,601	
Mechanism Design with Costly Verification		47.075	SES-1227434	4,635	
Motor exploration and motor learning during child development	140	47.075	RC107136NU//1654929	3,450	
NCRN-SN: Census Bureau Data Programs as Statistical Decision Problems		47.075	SES-1129475	237,740	
NSF Intergovernmental Personnel Act (IPA) Assignment - Fay Lomax Cook		47.075	SMA(SBE)-1451416-004	297,405	
NSF/SBE-BSF: Integration of kinesthetic and tactile information in perception, action, and learning	170	47.075	81464/CL5296//1632259	72,585	
Partial Identification of State Dependence		47.075	SES-1530538	15,681	
Spatial Intelligence Learning Center	196	47.075	330161-18110-7343-Amd 5//SMA-1041707	653,971	
SPRF-IBSS: Applying Structural Equation Modeling to Populations Undergoing Economic Transition		47.075	SMA-1306167	(147)	
Standard Research Grant: A Comparative Study of ICTs and Literacy Attainment		47.075	SES-1331060 Amd 2	28,345	
Surviving the Terminal Classic Maya Collapse: Settlement and Household Archaeology at Aventura, Belize		47.075	BCS-1732129	13,973	
The Development of Relational Processing in Infancy		47.075	BCS-1729720	15,416	
The Downside of Social Mobility: Status-Based Identity Uncertainty, Academic Achievement & Psychological Well-Being		47.075	BCS-1531016	33,130	
The International Cognitive Ability Resource		47.075	SMA-1419324	69,216	
Time-Sharing Experiments for the Social Sciences (TESS): Proposal for Renewed Support, 2012-2015		47.075	SES-1227179	435,707	343,817
WORKSHOP: Enhancing robustness and generalizability in the social and behavioral sciences		47.075	BCS-1647219	61,811	
				3,950,160	529,830
Collaborative Research: Mechanisms of Visuospatial Thinking in STEM		47.076	DRL-16661264	21,225	
A Whole-School Model for Integrating Computational Thinking in High School Science and Mathematics		47.076	DRL-1640201 002	368,879	
CAREER: Blocks, Stickers, and Puzzles: Rethinking Computational Literacy Experiences in Informal Environments		47.076	DRL-1451762 003	122,833	
Collaborative Proposal: Learning Linkages: Integrating Data Streams of Multiple Modalities and Timescales		47.076	DRL-1418020	76,794	
Collaborative Research to Understand the Role of Culture, Identity, Epistemology and Bi-Cultural Efficacy in American Indian Educational and Professional Success in STEM		47.076	DRL-1251516	32,438	
Collaborative Research: Advancing Early STEM Learning Opportunities Through Tinkering and Reflection		47.076	DRL-1515788-001	131,551	
Collaborative Research: AGEP Transformation Alliance: CIRTL AGEP - Improved Academic Climate for STEM Dissertators and Postdocs to Increase Interest in Faculty Careers		47.076	HRD-1647146	6,598	
Collaborative Research: Cognitive and Neural Indicators of School-based Improvements in Spatial Problem Solving		47.076	DRL-1420599	169,442	
Collaborative Research: Engaging Introductory Astronomy Students in Authentic Research through Citizen Science		47.076	DUE-1525725	118,901	76,379
Collaborative Research: Group-Based Cloud Computing for STEM Education Project		47.076	DRL-1614745	266,501	

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Collaborative Research: IUUSE: EHR - Enhancing and Expanding Experiential Learning Modules across Disciplines and Institutions		47.076	DUE-1504952	50,418	
Collaborative Research: Mixing Learning Experiences for Computer Programming Across Museums, Classrooms, and the Home Using Computational Music		47.076	DRL-1612619	55,277	
Collaborative research: Neural and cognitive strengthening of conceptual knowledge and reasoning in classroom-based spatial education		47.076	DRL-1661089	22,815	
Collaborative Research: Using Educational DVDs to Enhance Young Children's STEM Education		47.076	DRL-1252121	200,795	
EAGER: MAKER: A Cultural Framework for Equity in Maker Practices		47.076	DRL-1723750	13,702	
EAGER: MAKER: The Design and Engineering of Scientific Instrumentation as a Pathway for Introducing Making into High School Science Classrooms		47.076	DRL-1623550-01	154,252	
FUSE Studios: A New, Interest-Driven Model for Engaging Youth In STEM and Career Development Through Challenges and Partnership with Industry		47.076	DRL-1433724/001	369,691	
FUSE Studios: An Alternative Infrastructure for STEM Learning and Interest Development		47.076	DRL-1348800	447,674	15,580
Graduate Research Fellowships Program (GRFP)		47.076	DGE-1324585 009	4,965,269	
I-Corps L: nScope- a Lab for Every Laptop		47.076	DUE-1644555	15,343	
Improving the Generalizability of Findings from Educational Evaluations		47.076	DRL-1118978	(1,095)	
INSPIRE Track 1: Primary School Organizations as Open Systems: Strategic External Relationship Development to Promote Student Engagement in STEM Topics		47.076	DRL-1344266/003	124,728	60,138
Learning Ethnographies of New Engineers: A New Approach to Understanding the Transition from School to Work		47.076	DRL-1252372	361,566	62,982
Learning Evolution through Model-Based Inquiry: Supporting Agent-Based Modeling in STEM Classrooms		47.076	DRL-1109834	13,593	
Learning Labs: Using Videos, Exemplary STEM Instruction and Online Teacher Collaboration to Enhance Elementary Math and Science Practice and Classroom Discourse	194	47.076	2015-02//1417757	147,692	
Methods to Protect Privacy in State Longitudinal Data Systems Research Files	222	47.076	5968-NU//DGE-1437953	96,670	
New GK-12: Reach for the Stars: Computational Models for Teaching and Learning in Physics, Astronomy and Computer Science		47.076	DGE-0948017/006	(5)	
NRT-DESE: Training in Data-Driven Discovery - From the Earth and the Universe to the Successful Careers of the Future		47.076	DGE-1450006-001	464,611	
SPrEaD: Broadening implementation of an innovative STEAM learning environment: Scaling up FUSE Studios through two models of partnership engagement with industry and schools		47.076	DRL-1657438 001	24,410	
Supporting Scientific Practices in Elementary and Middle School Classrooms		47.076	DRL-1020316 Amd 005	345,402	147,936
				9,187,970	363,015
IRES: US-Dutch Research Collaboration in Cultural Heritage Science		47.079	IIA-1460143	46,221	
ARRA - International Materials Institute for Solar Energy Conversion		47.082	DMR-0843962	(1,025)	

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PIRE: Integrated Computational Materials Engineering for Active Materials and Interfaces in Chemical Fuel Production	232	47.083	2015-02361-02 // 1545907 01	121,077	
Synthetic Biology of Yeast	211	47.074	00009607 // 1330914	37,095	
National Science Foundation Total				46,607,438	2,945,561
The Corporation for National and Community Service Jumpstart Northwestern	121	94.006	920200	64,481	
The Corporation for National and Community Service Total				64,481	
United States Nuclear Regulatory Commission Service Lifetime Extension of Nuclear Power Plants: Prediction of Concrete Aging and Deterioration Through Accelerated Tests, Nondestructive Evaluation, and Stochastic Multiscale Computations		77.009	NRC-HQ-60-14-G-0003 M0007	342,586	199,368
United States Nuclear Regulatory Commission Total				342,586	199,368
Vietnam Education Foundation Vietnam Education Foundation Fellowship		85.802	F10024M	2,247	
Vietnam Education Foundation Fellowship		85.802	Letter 3/23/2012	2,000	
Vietnam Education Foundation Fellowship - Hoang Thai Nguyen		85.802	Letter 10/14/14	28,008	
Vietnam Education Foundation Total				32,255	
TOTAL RESEARCH AND DEVELOPMENT CLUSTER				449,319,358	61,445,015
Student Financial Assistance Cluster Department of Education Federal SEOG 2016-2017		84.007	P007A161246	2,186,241	
Federal Work-Study 2015-2016		84.033	P033A151246	84,187	
Federal Work-Study 2016-2017		84.033	P033A161246	3,010,080	
Federal Work-Study 2017-2018		84.033	P033A171246	82,433	
Federal Work-Study Administrative Cost Allowance		84.033		49,592	
				3,226,292	
Federal Pell Grant 2015-2016		84.063	P063P151371	(379)	
Federal Pell Grant 2016-2017		84.063	P063P161371	5,556,788	
				5,556,409	

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Federal Direct Loan Program 2015-2016		84.268	P268K161371	(8,008)	
Federal Direct Loan Program 2016-2017		84.268	P268K171371	165,922,194	
Federal Direct Loan Program 2017-2018		84.268	P268K181371	<u>6,208,705</u>	
				172,122,891	
Federal TEACH Grant 2016-2017		84.379	P379T171371	3,107	
Federal TEACH Grant 2017-2018		84.379	P379T181371	<u>311</u>	
				3,418	
Federal Perkins Loans - Administrative Cost Allowance		84.038		300,000	
Federal Perkins Loans - New Loans Issued during FY17		84.038		1,687,865	
Federal Perkins Loans - Outstanding as of 9/1/16		84.038		<u>37,046,029</u>	
				39,033,894	
Department of Education Total				222,129,145	
Department of Health and Human Services					
Health Professionals Student and Primary Care (Loans Issued FY17)		93.342		10,000	
Health Professionals Student and Primary Care (Loans Outstanding 9/1/16)		93.342		<u>189,770</u>	
Department of Health and Human Services Total				199,770	
TOTAL STUDENT FINANCIAL ASSISTANCE CLUSTER				222,328,915	
Other Programs					
Agency for International Development					
In silico and In vitro evaluation of Long Acting Contraceptive Delivery Systems	62	98.001	APSA-14-011//AID-OAA-A-10-00068	(306)	
Promoting Rule of Law in Georgia	63	98.001	AID-114-A-15-00004	<u>13,328</u>	
				13,022	
Juventud sin Prisión	172	98.U01	01/19/16//AID-523-A-15-00010	<u>55,596</u>	
Agency for International Development Total				68,618	
Department of Commerce					
National Institute of Standards and Technology					
Development of Roadmap and Consortium for Innovation in Sheet Metal Forming		11.609	70NANB14H056	147,842	6,886
Enhancing Teaching of Standards and Standards Development In U.S. Universities	55	11.U02	Subcontract Agmt 1/4/16	13,986	

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United States Patent and Trademark Office					
Conference on Intellectual Property and Entrepreneurship		11.U03	USPTO MOA No. 16143012-0000-000	1,039	
Research Conference on Innovation Economics 2016		11.U03	USPTO MOA No. 16147009-0000-001	<u>48,593</u>	
				49,632	
Department of Commerce Total				211,460	6,886
Department of Education					
Online Curriculum Consortium for Accelerating Middle School (OCCAMS)	153	84.206	Award 02/02/2017 // S206A150004	179,974	
Advancing and Scaling Science Education's New Terrain (ASSENT): Developing Systemic Leadership in Connecticut	52	84.366	Agmt 5/2/16// 648-100 12060-21592-2	163,587	
Department of Education Total				343,561	
Department of Health and Human Services					
Community Programs to Improve Minority Health Grant Program (Fellows Project)	128	93.137	FE Agmt. 02-24-15 / 1CPIMP141065-01-00	3,769	
Administration for Children and Families					
Permanency Innovations Initiative	97	93.648	Contract #0461569094	(13,465)	
Permanency Innovations Initiative	97	93.648	0461569095	<u>(4,435)</u>	
				(17,900)	
Centers for Disease Control and Prevention					
Promoting Adolescent Health Through School-Based HIV-STD Prevention and School-Based Surveillance	43	93.079	15-0303-PRC2//5U87PS004162-03	43,279	24,219
Hepatitis C Community Alliance for Testing and Treatment in Chicago (HepCCATT)	221	93.270	FP058209-B//U51PS004607	129,484	
2017 LGBTQ Health Conference: Bridging Research and Practice	37	93.339	COH 03.27.17 // NU14PS005075-01-00	20,328	
Evaluation Center Extension to Evaluate PrEP Implementation and Data to Care Services	41	93.940	CONTRACT PO #42045/236320/50105365//U62PS005021	160,967	13,008
Improving HIV prevention and treatment outcomes among HIV-infected persons by integrating community pharmacists and clinical sites into a model of patient centered HIV care (Describing optimal communication features of collaborative relationships between community pharmacies and HIV primary care providers to obtain maximal impact on individual and community health outcomes)	250	93.941	2016-0344-RN7067//5U65PS004275-03	10,297	
The HIV Outpatient Study (HOPS) Activity to Abstract Data from Persons Receiving Ambulatory Care for HIV Infection in the United States (the "Prime Agreement")	38	93.U04	Ag. 11/19/2015 // 200-2015-63931	225,188	
Centers for Medicare & Medicaid Services					
Great Lakes Practice Transformation Network	103	93.638	5345/L1CMS331444-02-00	4,336,140	3,342,769

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Health Resources and Services Administration ILPQC Implementation of the Alliance for Innovation on Maternal Health (AIM) Maternal Hypertension Bundle	11	93.110	Agr. 06/23/2016//UC4MC28042	24,029	16,369
Substance Abuse and Mental Health Services Center for Child Trauma Assessment and Service Planning		93.243	5U79SM061254-04	354,208	16,280
Center for Child Trauma Assessment, Services and Interventions		93.243	5U79SM080018-02	433,718	1,328
Lake County BHTCC	54	93.243	LC# 15058//H79SM061684	46,164	
National Child Traumatic Stress Initiative (NCTSI) Category III, Community Treatment and Services (CTS)	155	93.243	Agreement Date: 1/28/14	4,641	
National Child Traumatic Stress Initiative Treatment and Service Adaptation Centers (TSA) Category II		93.243	5U79SM061254-03 REVISED	(147,746)	
National Child Traumatic Stress Initiative Treatment and Service Adaptation Centers (TSA) Category II		93.243	5U79SM061254-03 REVISED	31,645	23,724
Trauma Informed Youth Services Initiative	279	93.243	Agmmt 012610	(151)	
				<u>722,479</u>	<u>41,332</u>
Department of Health and Human Services Total				5,658,060	3,437,697
Department of Justice Bureau of Justice Assistance Center on Wrongful Convictions of Youth		16.746	2016-FA-BX-0001	98,850	
Office on Violence Against Women Northwestern University Proposal for OVW 2014 Grant to Reduce Sexual Assault, Domestic Violence, Dating Violence, and Stalking on Campus		16.525	2014-WA-AX-0006	<u>105,356</u>	
Department of Justice Total				204,206	
Department of State Young African Leaders Initiative	112	19.009	S-ECAGD-15-CA-1125//FY16-YALI-BE-NW-03	67,924	
Young African Leaders Initiative	112	19.009	FY17-YALI-BE-NWU-04//SECAGD16CA1146	<u>130,741</u>	
				198,665	
Establishment of a Center of Journalism Excellence	111	19.501	Agmt Signed 5/8/14	<u>272,251</u>	
Department of State Total				470,916	
Institute of Museum and Library Services Beyond the Repository: Integrating Local Preservation Systems with National Distribution Services		45.312	LG-72-16-0135-16	<u>17,157</u>	
Institute of Museum and Library Services Total				17,157	

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National Aeronautics and Space Administration Meteoritic Nanodiamond Analysis by Atom-Probe Tomography	274	43.001	WU-14-06-MOD-2//NNX13AF53G	<u>29,097</u>	
National Aeronautics and Space Administration Total				<u>29,097</u>	
National Endowment for the Arts A Feast of Astonishments: Charlotte Moorman and the Avant-Garde, 1960-1990		45.024	16-4400-7054	<u>18,799</u>	
National Endowment for the Arts Total				<u>18,799</u>	
National Endowment for the Humanities Caravans of Gold, Fragments in Time: Art, Culture, and Trans-Saharan Exchange		45.164	GE-250133-16	48,158	
OLLI Humanities Initiative		45.164	GA-254198-16	<u>10,000</u>	
National Endowment for the Humanities Total				<u>58,158</u>	
TOTAL OTHER PROGRAMS				7,080,032	3,444,583
Cluster (CCDF) Department of Health and Human Services Administration for Children and Families Improving Caregiver Quality through Observation and Individualized Instructional Feedback		93.575	90YE0159-01-00	(2,078)	
Improving Caregiver Quality through Observation and Individualized Instructional Feedback		93.575	90YE0159-02-00	<u>16,929</u>	
Department of Health and Human Services Total				<u>14,851</u>	
Cluster (CCDF) Total				<u>14,851</u>	
Cluster (ACA—Maternal, Infant, and Early Childhood Home Visit Program) Department of Health and Human Services Mothers and Babies Infrastructure	98	93.505	FCSVS04131	48,419	
Mothers and Babies Infrastructure	98	93.505	FCSVS04131	6,448	
Health Resources and Services Administration Statewide Mothers and Babies Course Training	71	93.505	D89MC2826//Agreement #15-23-FY1617	<u>192,973</u>	
Department of Health and Human Services Total				<u>247,840</u>	
Cluster (ACA—Maternal, Infant, and Early Childhood Home Visit Program) Total				<u>247,840</u>	
TOTAL EXPENDITURES OF FEDERAL AWARDS				\$678,990,996	\$64,889,598

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Legend for Pass-Through Award Prime Recipients
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ID	Sponsor Full Name	ID	Sponsor Full Name
1	Acumen Pharmaceuticals, Inc.	47	Cleveland Clinic Lerner College of Medicine of Case Western Reserve University
2	Agile Sciences, Inc.	48	Cold Spring Harbor Laboratory
3	AIDS Prevention Initiative Nigeria, Ltd.	49	Columbia University
4	Albert Einstein College of Medicine, Inc.	50	Communication Disorders Technology, Inc.
5	Alliance for Clinical Trials in Oncology	51	Community Action Project of Tulsa County, Inc.
6	Alliance for Sustainable Energy, LLC, National Renewable Energy Laboratory	52	Connecticut Science Center
7	Alliance of Chicago Community Health Services	53	CONRAD Program
8	Altarum Institute	54	County of Lake
9	Altor BioScience Corporation	55	Dakota Consulting, Inc.
10	American Academy of Pediatrics	56	Dartmouth College
11	American College of Obstetricians and Gynecologists	57	DePaul University
12	American College of Rheumatology	58	DermaXon LLC
13	American Heart Association	59	Digital Optics Technologies, Inc.
14	American Institutes for Research	60	Dow Chemical Company
15	American Lightweight Materials Manufacturing Innovation Institute	61	Duke University
16	American Lung Association	62	Eastern Virginia Medical School
17	American Psychiatric Association	63	East-West Management Institute Inc.
18	Ann & Robert H. Lurie Children's Hospital	64	ECOG-ACRIN Medical Research Foundation, Inc.
19	Arizona State University	65	Elorac, Inc.
20	Associated Universities, Inc., National Radio Astronomy Observatory	66	EMMES Corporation
21	Battelle Energy Alliance, LLC, Idaho National Laboratory	67	Emory University
22	Battelle Memorial Institute	68	Engineering and Software System Solutions, Inc.
23	BBN Technologies	69	EveryFit, Inc.
24	Benaroya Research Institute at Virginia	70	Fermi Research Alliance, LLC, Fermi National Acceleratory Laboratory
25	Booz, Allen & Hamilton Inc.	71	Florida Association of Healthy Start Coalitions, Inc.
26	Bose Corporation	72	Florida International University
27	Boston Medical Center	73	Florida State University
28	Boston University	74	Ford Motor Company
29	Brigham and Women's Hospital	75	Fred Hutchinson Cancer Research Center
30	Brown University	76	Frontier Science and Technology Research Foundation
31	California Institute of Technology, Jet Propulsion Laboratory	77	FuelCell Energy, Inc.
32	Carnegie Institution of Washington	78	Fundação Faculdade de Medicina
33	Carnegie Mellon University	79	Gallaudet University
34	Case Western Reserve University	80	General Electric Company
35	Caterpillar, Inc.	81	General Motors Corporation
36	Celdara Medical, LLC	82	George Washington University
37	Center on Halsted	83	Georgetown University
38	Cerner Corporation	84	Georgia Institute of Technology
39	Charles River Analytics Inc.	85	Georgia State University
40	Chicago Association for Research and Education in Science	86	Government of Israel Ministry of Defense Mission to the USA
41	Chicago Department of Public Health	87	Great Lakes Hemophilia Foundation
42	Chicago Housing Authority	88	Grzybowski Scientific Inventions, Ltd.
43	Chicago Public Schools	89	Harvard Pilgrim Health Care, Inc.
44	Children's Hospital of Philadelphia	90	Harvard University
45	Cincinnati Children's Hospital Medical Center	91	Health Research and Educational Trust
46	Citrine Informatics	92	Hektoen Institute for Medical Research
		93	Howard Brown Health Center
		94	Icahn School of Medicine at Mount Sinai

Northwestern University

Schedule of Expenditures of Federal Awards
Legend for Pass-Through Award Prime Recipients
For the Year Ended August 31, 2017

ID	Sponsor Full Name	ID	Sponsor Full Name
95	ICON Clinical Research, LLC	144	New School
96	Illinois Criminal Justice Information Authority	145	New York University
97	Illinois Department of Children and Family Services	146	New York University School of Medicine
98	Illinois Department of Human Services	147	Nious Technologies Incorporated
99	Illinois Department of Public Health	148	Northern Illinois University
100	Illinois Department on Aging	149	Northrop Grumman Corporation
101	Illinois Institute of Technology	150	NorthShore University HealthSystem Research Institute
102	Indiana University	151	NRG Oncology Foundation, Inc.
103	Indiana University Purdue University Indianapolis	152	NuMat Technologies, Inc.
104	Innoblative Designs, Inc.	153	Ohio Department of Education
105	Innovative Design Labs, Inc.	154	Ohio State University
106	Institute for Cancer Research	155	One Hope United
107	Institute of International Education, Inc.	156	Opticent Health, Inc.
108	Intact Genomics, Inc.	157	OptoNet, Inc.
109	International AIDS Vaccine Initiative	158	Oregon Health & Science University
110	International Business Machines Corporation	159	Pacific Northwest National Laboratory
111	International Center for Journalists	160	Pancreatic Cancer Action Network, Inc.
112	International Research & Exchanges Board	161	Partners in Hope
113	Iowa State University	162	Pennington Biomedical Research Center
114	Jackson Laboratory	163	Pennsylvania State University
115	Jaeb Center for Health Research	164	Princeton University
116	Jefferson Science Associates, LLC, Thomas Jefferson National Accelerator Facility	165	Purdue University
117	Joan and Sanford I. Weill Medical College	166	Queens College, CUNY
118	Johns Hopkins University	167	QuesTek Innovations LLC
119	Johns Hopkins University Applied Phy	168	Radiation Monitoring Devices, Inc.
120	Joslin Diabetes Center, Inc.	169	RAND Corporation
121	Jumpstart for Young Children, Inc.	170	Rehabilitation Institute of Chicago
122	Kaiser Foundation Research Institute	171	Rehabilitation Institute Research Corporation
123	Leidos Biomedical Research, Inc.	172	Reinserta un Mexicano, A.C.
124	Leidos, Inc.	173	Rensselaer Polytechnic Institute
125	Los Alamos National Security, LLC, Los Alamos National Laboratory	174	Research Triangle Institute
126	Louisiana State University Health Sciences Center	175	Rockefeller University
127	Loyola University Chicago	176	Rush University Medical Center
128	Lupus Research Institute, Inc.	177	Rutgers University, the State University of New Jersey
129	Lynntech, Inc.	178	SAFCeLL, Inc.
130	Massachusetts General Hospital	179	Sandia Corporation, Sandia National Laboratory
131	Massachusetts Institute of Technology	180	Sanford Burnham Prebys Medical Discovery Institute
132	Materials and Electrochemical Research Corporation	181	Scripps Research Institute
133	Mayo Clinic	182	Seton Hall University
134	Mayo Clinic Jacksonville	183	SIMmersion LLC
135	MC10 Inc.	184	Smithsonian Astrophysical Observatory
136	Medical College of Wisconsin	185	Social & Scientific Systems, Inc.
137	Medical University of South Carolina	186	Southern Methodist University
138	MedPro Technologies, LLC	187	Space Telescope Science Institute
139	Metropolitan Family Services	188	Spaulding for Children (MI)
140	Michigan State University	189	SRI International
141	MITRE Corporation	190	Stanford University
142	National Jewish Health	191	State University of New York at Stony Brook
143	New England Research Institute, Inc.	192	State University of New York Health Science Center at Brooklyn
		193	Swedish Medical Center

Northwestern University

Schedule of Expenditures of Federal Awards
Legend for Pass-Through Award Prime Recipients
For the Year Ended August 31, 2017

ID	Sponsor Full Name	ID	Sponsor Full Name
194	Teaching Channel	244	University of Michigan
195	Technion - Israel Institute of Technology	245	University of Minnesota
196	Temple University	246	University of Mississippi Medical Center
197	Tera-Print LLC	247	University of Missouri-Columbia
198	Texas Biomedical Research Institute	248	University of Nebraska Medical Center
199	Texas Tech University	249	University of North Carolina at Chapel Hill
200	Tufts University	250	University of North Texas Health Science Center
201	U.S. Civilian Research & Development Foundation	251	University of Pennsylvania
202	UChicago Argonne, LLC, Argonne National Laboratory	252	University of Pittsburgh
203	UI Labs	253	University of Rochester
204	United Technologies Research Center	254	University of Southern California
205	Université de Bamako	255	University of Tennessee
206	Universities Space Research Association	256	University of Texas at Austin
207	University of Alabama at Birmingham	257	University of Texas at San Antonio
208	University of Alberta	258	University of Texas Health Science Center
209	University of Arizona	259	University of Texas M. D. Anderson C
210	University of Arkansas for Medical Sciences	260	University of Texas Medical Branch at Galveston
211	University of California, Berkeley	261	University of Texas Southwestern Med
212	University of California, Davis	262	University of Utah
213	University of California, Irvine	263	University of Vermont and State Agricultural College
214	University of California, Lawrence Berkeley National Laboratory	264	University of Virginia
215	University of California, Los Angeles	265	University of Washington
216	University of California, Riverside	266	University of Wisconsin-Madison
217	University of California, San Diego	267	Vanderbilt University
218	University of California, San Francisco	268	Veterans Medical Research Foundation of San Diego
219	University of California, Santa Barbara	269	Vidrio Technologies, LLC
220	University of Central Florida	270	Vignet Inc.
221	University of Chicago	271	Virginia Commonwealth University
222	University of Chicago, National Opinion Research Center	272	Virginia Polytechnic Institute and State University
223	University of Cincinnati	273	Wake Forest University Health Sciences
224	University of Colorado	274	Washington University in St. Louis
225	University of Colorado Denver	275	Wayne State University
226	University of Connecticut Health Center	276	West Virginia University
227	University of Florida	277	Worcester Polytechnic Institute
228	University of Georgia	278	Yale University
229	University of Houston	279	Youth Network Council
230	University of Ibadan		
231	University of Illinois at Chicago		
232	University of Illinois at Urbana-Champaign		
233	University of Iowa		
234	University of Jos		
235	University of Kentucky		
236	University of Lagos		
237	University of Maryland, College Park		
238	University of Massachusetts Amherst		
239	University of Massachusetts Boston		
240	University of Massachusetts Medical School		
241	University of Medicine and Dentistry of New Jersey		
242	University of Memphis		
243	University of Miami		

(Concluded)

Northwestern University

Notes to Schedule of Expenditures of Federal Awards
For the Year Ended August 31, 2017

1. ORGANIZATION AND SCOPE OF OPERATIONS

Northwestern University (the “University”) is a corporation organized under the laws of the State of Illinois, whose charter establishes a Board of Trustees to oversee the implementation of its mission to carry out research and education. All federal expenditures of the University are included in the scope of the U.S. Office of Management and Budget Circular OMB Single Audit Report. The U.S. Department of Health and Human Services has been designated as the University’s cognizant agency for the Single Audit.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Accounting – The accompanying schedule of expenditures of federal awards (the “Schedule”) summarizes the expenditures of the University and its subsidiaries under programs of the federal government for the year ended August 31, 2017. The Schedule is prepared on the accrual basis of accounting. Since the Schedule presents only a selected portion of the operations of the University, it is not intended to, and does not, present the financial position or changes in net assets of the University.

For purposes of the Schedule, federal awards include all grants, contracts, and similar agreements entered into directly between the University and agencies and departments of the federal government and all subawards to the University by nonfederal organizations pursuant to federal grants, contracts, and similar agreements. Complete CFDA numbers and pass-through numbers are provided on the Schedule when available.

De Minimis F&A – The University applies the 10% de minimis cost rate of modified total direct costs (MTDC) to subawards if the subrecipient does not receive an approved negotiated F&A rate as described in Section 200.414 of the Uniform Guidance.

Expenditure and Revenue Recognition – The Schedule presents the expenditures of individual programs. All program outlays, including accrued expenditures and capital outlays, are reported as expenditures. Related revenues are recognized up to award amounts for financial statement and program reporting. Award reporting periods do not necessarily coincide with the fiscal reporting period of the University. Negative amounts presented in the Schedule represent adjustments, in the normal course of business, to expenditures reported in prior years.

Pass-Through Awards – The University receives certain federal awards from pass-through awards of the State of Illinois and other nonfederal organizations. The total amount of such pass-through awards is included in the Schedule.

Subrecipients – The University passes through certain funds to subrecipient organizations. The total amount of such subrecipient expenditures is included in the Schedule.

Northwestern University

Notes to Schedule of Expenditures of Federal Awards
For the Year Ended August 31, 2017

3. FEDERAL STUDENT LOAN PROGRAMS

Loans made by the University to eligible students under federal student loan programs and federally guaranteed loans originating with the University and issued to its students during the year ended August 31, 2017, are summarized as follows:

Federal Perkins Loan Program (CFDA 84.038)	\$ 1,687,865
Federal Direct Loan Programs (CFDA 84.268)	165,922,194
HPSL—Primary Care Loans (CFDA 93.342)	<u>10,000</u>
Total Federal Student Loan Programs	<u>\$167,620,059</u>

The Perkins and Health Professions Student Loan (HPSL) programs are administered directly by the University and balances and transactions relating to these programs are included in the University's consolidated financial statements. The balances of loans outstanding under the Perkins (CFDA 84.038) and HPSL (CFDA 93.342) programs were \$30,778,672 and \$189,863, respectively, at August 31, 2017. The University incurred \$300,000 and \$49,592 in administrative expenses under the Perkins and Federal Work Study programs, respectively, for the year ended August 31, 2017.



Report of Independent Auditors on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*

To the Board of Trustees of Northwestern University:

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the consolidated financial statements of Northwestern University (the "University"), which comprise the consolidated statement of financial position as of August 31, 2017, and the related consolidated statement of activities and of cash flows for the year then ended, and the related notes to the financial statements, and have issued our report thereon dated January 10, 2018.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the University's internal control over financial reporting ("internal control") to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the University's internal control. Accordingly, we do not express an opinion on the effectiveness of the University's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether Northwestern University's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.



Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

PricewaterhouseCoopers LLP

January 10, 2018



**Report of Independent Auditors on Compliance with Requirements
That Could Have a Direct and Material Effect on Each Major Program and on Internal
Control Over Compliance in Accordance with the Uniform Guidance**

To the Board of Trustees of Northwestern University:

Report on Compliance for Each Major Federal Program

We have audited Northwestern University's (the "University") compliance with the types of compliance requirements described in the *OMB Compliance Supplement* that could have a direct and material effect on each of the University's major federal programs for the year ended August 31, 2017. The University's major federal programs are identified in the summary of auditors' results section of the accompanying schedule of findings and questioned costs.

Management's Responsibility

Management is responsible for compliance with federal statutes, regulations and the terms and conditions of its federal awards applicable to its federal programs.

Auditors' Responsibility

Our responsibility is to express an opinion on compliance for each of the University's major federal programs based on our audit of the types of compliance requirements referred to above. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the audit requirements of Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Those standards and the Uniform Guidance require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about the University's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances.

We believe that our audit provides a reasonable basis for our opinion on compliance for each major federal program. However, our audit does not provide a legal determination of Northwestern University's compliance.

Opinion on Each Major Federal Program

In our opinion, Northwestern University complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended August 31, 2017.

Other Matters

The results of our auditing procedures disclosed an instance of noncompliance, which is required to be reported in accordance with the Uniform Guidance and which is described in the accompanying schedule



of findings and questioned costs as item 2017-001. Our opinion on each major federal program is not modified with respect to this matter.

The University's response to the noncompliance finding identified in our audit is described in the accompanying Management's Views and Corrective Action Plan. The University's response was not subjected to the auditing procedures applied in the audit of compliance and, accordingly, we express no opinion on the response.

Report on Internal Control Over Compliance

Management of the University is responsible for establishing and maintaining effective internal control over compliance with the types of compliance requirements referred to above. In planning and performing our audit of compliance, we considered the University's internal control over compliance with the types of requirements that could have a direct and material effect on each major federal program to determine the auditing procedures that are appropriate in the circumstances for the purpose of expressing an opinion on compliance for each major federal program and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of the University's internal control over compliance.

A deficiency in internal control over compliance exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. *A material weakness in internal control over compliance* is a deficiency, or combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis. *A significant deficiency in internal control over compliance* is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a federal program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Accordingly, this report is not suitable for any other purpose.

PricewaterhouseCoopers LLP

May 11, 2018

Northwestern University

Schedule of Findings and Questioned Costs

For the Year Ended August 31, 2017

SECTION I – SUMMARY OF AUDIT RESULTS

Financial Statements

Type of auditors' report issued:

Unmodified

Internal control over financial reporting:

Material weakness(es) identified?

Yes

No

Significant deficiency(ies) identified that are not considered to be material weakness(es)?

Yes

None reported

Noncompliance material to financial statements noted?

Yes

No

Federal Awards

Internal control over major programs:

Material weakness(es) identified?

Yes

No

Significant deficiency(ies) identified that are not considered to be material weakness(es)?

Yes

None reported

Type of auditors' report issued on compliance for major programs:

Unmodified

Any audit findings disclosed that are required to be reported in accordance with 2 CFR 200.516(a)

Yes

No

Identification of Major Programs

CFDA Numbers

Various

Various

93.638

Name of Federal Program or Cluster

Student Financial Assistance Cluster

Research and Development Cluster

Great Lakes Practice

Transformation Network

Dollar threshold used to distinguish between Type A and Type B programs:

\$3,000,000

Auditee qualified as low-risk auditee?

Yes

No

Northwestern University

Schedule of Findings and Questioned Costs

For the Year Ended August 31, 2017

SECTION II – FINANCIAL STATEMENT FINDINGS

None noted.

SECTION III – FEDERAL AWARD FINDINGS AND QUESTIONED COSTS

Finding 2017-001: Enrollment Reporting

Award Information

Cluster: Student Financial Assistance Cluster

Grantor: Department of Education

Award Year: September 1, 2016–August 31, 2017

CFDA Number: 84.268

CFDA Title: Federal Direct Student Loans

Criteria

Federal regulations governing Title IV student aid programs require institutions, lenders, and the Direct Loan Servicer to monitor and update the enrollment status of students who receive federal student loans. Completion of Enrollment Reporting satisfies the regulatory requirements for schools. Under the Direct Loan programs, schools must complete and return within 15 days the Enrollment Reporting roster file placed in their Student Aid Internet Gateway (“SAIG”) mailboxes sent by Department of Education via the National Student Loan Data System (“NSLDS”). Once received, the institution must update for changes in student status and submit the changes electronically through the batch method or the NSLDS website. Unless the school expects to complete its next roster within 60 days, the school must notify the lender or the guaranty agency within 15 days if it discovers that a student who received a loan either did not enroll or ceased to be enrolled on at least a half-time basis (Direct Loan, 34 CFR section 685.309).

Condition

Through our testing of enrollment reporting, we identified that enrollment reports were not submitted within 60 days of receipt for 1 student from our sample of 25 tested. This student was reported 55 days late.

Cause

The degree conferral date of 1 student (7/14/2017) was subsequent to the conferral date for spring degrees (6/16/2017) within the Northwestern system, causing the student to be missed in the degree conferral file sent to the NSLDS. Management performs a review and manually adds to the conferral file students whose conferral dates differ. The student was erroneously missed.

Effect

The effective administration of Title IV loans could be impacted when changes in the students’ status are not reported timely and accurately. The accuracy of enrollment information is important as a student’s enrollment status determines eligibility for in-school status, deferment, grace periods, and repayments as well as the Government’s payment of interest subsidies.

Northwestern University

Schedule of Findings and Questioned Costs

For the Year Ended August 31, 2017

SECTION III – FEDERAL AWARD FINDINGS AND QUESTIONED COSTS (continued)

Questioned Costs

None identified.

Recommendation

We recommend the University implement a weekly review of all degree conferrals to ensure all individuals who graduated are included within the degree conferral file sent.

Management's Views and Corrective Action Plan

Management's views and corrective action plan are included at the end of this report.

Northwestern University

Summary Schedule of Prior Audit Findings

For the Year Ended August 31, 2017

SUMMARY SCHEDULE OF PRIOR AUDIT FINDINGS

Finding 2016-001: Remit Enrollment Reporting Corrections in a Timely Manner

Award Information

Cluster: Student Financial Aid Cluster
Grantor: Department of Education
Award Year: September 1, 2015–August 31, 2016
CFDA Number: 84.268
CFDA Title: Federal Direct Student Loans

Condition

Through our testing of enrollment reporting, we identified that enrollment reports were not submitted within 60 days of receipt for 5 students from our sample of 25 tested.

Recommendation

PwC recommended that the University should institute a control to ensure changes in enrollment are appropriately communicated to the Clearinghouse and that all errors are resolved to ensure they are reported to NSLDS timely.

Current Status

We changed the date of enrollment file submissions from the 5th of each month to the 27th of each month. We made this change as the Clearinghouse sends data to the NSLDS within the first few days of each month. This change ensures that the data is up-to-date with the Clearinghouse every time a transition occurs to the NSLDS. In addition, we now send additional submissions to the Clearinghouse at the beginning of the fall, winter, and spring quarters. These additional submissions ensure the timely reporting of new reporting data. These changes were implemented June 2017. Our updates ensure that changes in students' enrollment status reach the NSLDS within 60 days of the change occurring.

Northwestern University

Summary Schedule of Prior Audit Findings

For the Year Ended August 31, 2017

SUMMARY SCHEDULE OF PRIOR AUDIT FINDINGS (continued)

Finding 2016-002: Equipment and Real Property Management

Award Information

Cluster: Research and Development
Grantor: Various
Award Year: September 1, 2015–August 31, 2016
CFDA Number: Various
CFDA Title: Various

Condition

Through our testing of compliance requirements surrounding safeguarding and maintaining federally funded equipment and real property, we performed a physical inventory observation and selected 25 floor to sheet and 25 sheet to floor inventory items. The engagement team noted 1 asset of the 25 selected in floor to sheet testing that was improperly maintained by the University. The asset had been removed from the fixed asset system but not disposed of by the department. We also noted that the University was not consistently updating University records to reflect the results of annual inventory counts. The engagement team performed testing to ensure the differences between the physical inventory and equipment records were resolved. We selected 25 assets for testing and noted 1 instance in which management did not properly update the physical inventory records to reflect the disposal of a piece of equipment.

Recommendation

PwC recommended that the University should implement a thorough review process to ensure the property records appropriately reflect the real property maintained by the University. Management should reiterate to departments the proper procedures related to real property maintenance and disposal.

Current Status

We made the necessary changes to enhance the quality control review process for disposals. We ensured that the accounting staff took appropriate steps to implement this change by August 31, 2017. We updated the procedures associated with the disposition of equipment including tag removal and removal of or segregation from the area's functioning equipment. The appropriate departments were contacted and updated procedures reiterated by August 31, 2017.

Northwestern University

Management's Views and
Corrective Action Plan
Year Ended August 31, 2017

May 11, 2018

**Corrective Action Plan
Findings: Single Audit Report
Fiscal Year Ended August 31, 2017**

Listed below is Northwestern University's Corrective Action Plan to resolve audit findings resulting from the FY2017 audit.

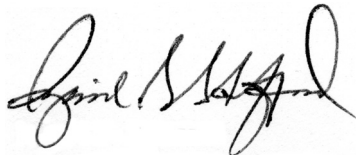
Finding 2017-001: Enrollment Reporting

Management response:

Management notes that there was an error in the submission of graduate degrees to the Clearinghouse. As a result, a student was missed in the submission of conferred degrees. In response to this finding, management has created a query that is run weekly on newly conferred graduates. This file ensures no graduates are missed and all data is appropriately reported to the Clearinghouse.

These procedures were started by management on October 18, 2017, and were implemented by Jacquelyn Casazza (University Registrar Department Head).

Please contact me at i-stafford@northwestern.edu or 847-491-7350 if you have any questions on these matters.



Ingrid S. Stafford
Vice President for Financial
Operations and Treasurer