



NORTHWESTERN UNIVERSITY

Single Audit Report

Year ended August 31, 2023

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KPMG LLP
Aon Center
Suite 5500
200 E. Randolph Street
Chicago, IL 60601-6436

Independent Auditors' Report

The Board of Trustees
Northwestern University:

Report on the Audit of the Consolidated Financial Statements

Opinion

We have audited the consolidated financial statements of Northwestern University (the University), which comprise the consolidated statements of financial position as of August 31, 2023 and 2022, the related consolidated statements of activities and cash flows for the years then ended, and the related notes to the consolidated financial statements.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the financial position of the University as of August 31, 2023 and 2022, and the changes in its net assets and its cash flows for the years then ended in accordance with U.S. generally accepted accounting principles.

Basis for Opinion

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are required to be independent of the University and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with U.S. generally accepted accounting principles, and for 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.

In preparing the consolidated financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the University's ability to continue as a going concern for one year after the date the consolidated financial statements are issued.

Auditors' Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the consolidated financial statements.



In performing an audit in accordance with GAAS and *Government Auditing Standards*, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements.
- Obtain an understanding of internal control relevant to the audit 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, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the consolidated financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the University's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control related matters that we identified during the audit.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated December 15, 2023 on our consideration of the 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. 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 the University's 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 the University's internal control over financial reporting and compliance.

KPMG LLP

Chicago, Illinois
December 15, 2023

Consolidated Statements of Financial Position

As of August 31, 2023 and 2022

<i>(in thousands of dollars)</i>	2023	2022
Assets		
Cash and cash equivalents	\$436,057	\$372,337
Accounts receivable, <i>net</i>	305,141	275,580
Contributions receivable, <i>net</i>	179,323	206,677
Notes receivable, <i>net</i>	238,107	131,870
Investments	14,030,298	14,383,550
Right-of-use assets—operating, <i>net</i>	149,791	142,653
Land, buildings, and equipment, <i>net</i>	3,165,387	3,120,855
Total assets	18,504,104	18,633,522
Liabilities		
Accounts payable and accrued liabilities	291,342	217,086
Deferred revenue	446,135	292,267
Deposits payable and actuarial liability of annuities payable	235,906	191,533
Lease liabilities—operating	156,474	149,019
Bonds, notes, and other debt payable, <i>net</i>	2,425,512	2,432,759
Total liabilities	3,555,369	3,282,664
Net assets		
Without donor restrictions	9,109,534	9,413,091
With donor restrictions	5,839,201	5,937,767
Total net assets	14,948,735	15,350,858
Total liabilities and net assets	\$18,504,104	\$18,633,522

See Notes to the Consolidated Financial Statements, beginning on page 11.

Consolidated Statements of Activities

For the fiscal years ended August 31, 2023 and 2022

(in thousands of dollars)

2023

2022

Net assets without donor restrictions

Operating revenues

Net tuition and fees (net of aid, \$586,372 in 2023 and \$558,947 in 2022)	\$733,083	\$740,877
Auxiliary services	115,638	108,327
Grants and contracts	885,512	828,525
Private gifts	291,509	270,909
Investment return designated for operations	481,107	436,784
Sales and services	230,298	217,826
Professional fees	50,965	53,960
Net assets released from restrictions	258,538	228,717
Total operating revenues	3,046,650	2,885,925

Operating expenses

Salaries, wages, and benefits	1,675,337	1,556,945
Services, supplies, maintenance, and other	1,059,170	895,136
Depreciation	209,913	204,358
Interest on indebtedness	93,640	90,737
Total operating expenses	3,038,060	2,747,176
Excess of operating revenues over expenses	\$8,590	\$138,749

Consolidated Statements of Activities continued on next page.

See Notes to the Consolidated Financial Statements, beginning on page 11.

Consolidated Statements of Activities (continued)

For the fiscal years ended August 31, 2023 and 2022

<i>(in thousands of dollars)</i>	2023	2022
Nonoperating revenues and expenses		
Investment loss, reduced by operating distribution	(322,154)	(621,639)
Change in value of derivative instruments	2,591	8,269
Net assets reclassified	6,172	16,652
Other nonoperating revenue, <i>net</i>	1,244	7,288
Excess of nonoperating revenues over expenses	(312,147)	(589,430)
Change in net assets without donor restrictions	(303,557)	(450,681)
 Net assets with donor restrictions		
Private gifts with donor restrictions and grants for buildings and equipment	64,000	10,100
Private gifts with donor restrictions	152,405	115,091
Net gain on annuity obligation	2,353	3,034
Investment loss with donor restrictions	(52,614)	(143,645)
Net assets reclassified	(6,172)	(16,652)
Net assets released from restrictions	(258,538)	(228,717)
Change in net assets with donor restrictions	(98,566)	(260,789)
 Change in total net assets	 (402,123)	 (711,470)
Beginning net assets	15,350,858	16,062,328
Ending net assets	\$14,948,735	\$15,350,858

See Notes to the Consolidated Financial Statements, beginning on page 11.

Consolidated Statements of Cash Flows

For the fiscal years ended August 31, 2023 and 2022

<i>(in thousands of dollars)</i>	2023	2022
Cash flows from operating activities		
Change in net assets	(\$402,123)	(\$711,470)
Adjustments to reconcile change in net assets to net cash used in operating activities		
Depreciation	209,913	204,358
Losses on disposals, retirements, and sales of buildings and equipment, <i>net</i>	13,128	4,574
Accretion of debt issuance costs, premiums, and discounts, <i>net</i>	(587)	(584)
Realized and unrealized (gains) losses on investments, <i>net</i>	(25,030)	354,100
Gifts of contributed securities	(24,987)	(43,446)
Proceeds from sale of unrestricted contributed securities	13,264	19,950
Change in value of derivative instruments	(2,591)	(8,269)
Restricted contributions received for long-term investment and capital projects	(212,064)	(118,748)
<i>Changes in assets and liabilities</i>		
Accounts receivable	(29,095)	(60,945)
Contributions receivable	18,038	29,584
Notes receivable	(6,690)	—
Reduction in the carrying amount of the right-of-use assets—operating	(7,138)	16,553
Accounts payable and accrued liabilities	64,100	8,710
Deferred revenue	66,511	86,517
Deposits payable and actuarial liability of annuities payable	32,491	8,981
Lease liabilities—operating	7,455	(16,604)
Net cash used in operating activities	(285,405)	(226,739)
Cash flows from investing activities		
Purchases of investments	(2,505,088)	(2,623,339)
Proceeds from sales of investments	2,894,785	3,021,023
Acquisitions of land, buildings, and equipment	(255,152)	(146,871)
Proceeds from sale of land, buildings, or equipment	326	3,839
Student loans disbursed	(36,141)	(25,179)
Principal collected on student loans	25,220	30,035
Other	(1,268)	(615)
Net cash provided by investing activities	122,682	258,893
Cash flows from financing activities		
Principal payments on notes, bonds, and other debt payable	(6,660)	(104,790)
Proceeds from sale of restricted contributed securities	11,723	18,390
Restricted contributions received for long-term investment and capital projects	221,380	141,524
Net cash provided by financing activities	226,443	55,124
Increase in cash and cash equivalents	63,720	87,278
Cash and cash equivalents at beginning of year	372,337	285,059
Cash and cash equivalents and restricted cash at end of year	\$436,057	\$372,337
Supplemental disclosure of cash flow information		
Change in accrued liabilities for construction in progress	\$12,659	\$9,653
Cash paid for interest	93,640	91,343
Issuance of note receivable, net of discount for sale of stock	\$87,357	—

Notes to the Consolidated Financial Statements

For the fiscal years ended August 31, 2023 and 2022

1. Summary of Significant Accounting Policies

University Activities

Northwestern University (Northwestern or the University) is a major private research university with more than 23,000 students enrolled in 12 colleges and schools on two lakefront campuses in Evanston and Chicago and an international campus in Doha, Qatar.

Northwestern's mission is to provide excellent teaching, pursue innovative research, and promote the personal and intellectual growth of its students in a diverse academic community.

Basis of Accounting

General

The University maintains its accounts and prepares its consolidated financial statements on the accrual basis of accounting in conformity with US generally accepted accounting principles (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. The accompanying consolidated financial statements include all wholly owned subsidiaries. All significant inter-entity transactions and accounts have been eliminated in consolidation.

Net Asset Classifications

Net assets and related changes therein are classified into two categories based on the existence or absence of donor-imposed restrictions.

The category *Net Assets without Donor Restrictions* describes funds that have no donor-imposed

restrictions. All revenues, expenses, gains, and losses that are not restricted by donors are included in this classification. Certain net assets without donor restrictions are institution-designated for specific uses under the internal operating budget.

The category *Net Assets with Donor Restrictions* describes funds subject to donor-imposed restrictions that will be met either by actions of the University, the passage of time, or may be perpetual in nature. These net assets include gifts for which donor-imposed restrictions have not been met in the year of receipt (these may include future capital projects), as well as trust activity and pledges receivable. Net assets with perpetual restrictions consist of donor-restricted endowment funds, contributions receivable for such funds, and certain trusts. For further discussion of the classification of donor-restricted endowment funds and disclosures about both donor-restricted and institution-designated endowment funds, see notes 4 and 10, respectively.

Revenue from donor-restricted sources is reclassified as an increase to net assets without donor restrictions when the circumstances of the restrictions have been fulfilled or the restrictions expire. Donor-restricted contributions whose restrictions are met within the same fiscal year in which they are received are reported as revenue without donor restrictions. All expenses are reported in net assets without donor restrictions. Absent explicit donor stipulations indicating otherwise, the University reports expiration of donor restrictions on long-lived assets as net assets without donor restrictions when the assets are placed in service.

Net assets as of August 31 are as follows:

			2023
	Without donor restrictions	With donor restrictions	Total net assets
<i>(in thousands of dollars)</i>			
Nature of specific net assets			
Teaching, research, and program support	\$3,102,111	\$3,702,402	\$6,804,513
Student financial aid	802,970	1,091,299	1,894,269
Capital and operations	1,158,701	696,506	1,855,207
Endowment net assets subtotal	5,063,782	5,490,207	10,553,989
Pledges	—	179,323	179,323
Unexpended gifts	—	81,472	81,472
Annuity and other split-interest agreements	—	53,044	53,044
Student loan funds	59,268	35,155	94,423
Operating and plant	3,986,484	—	3,986,484
Total	\$9,109,534	\$5,839,201	\$14,948,735

(in thousands of dollars)

2022

Nature of specific net assets	Without donor restrictions	With donor restrictions	Total net assets
Teaching, research, and program support	\$3,188,523	\$3,815,249	\$7,003,772
Student financial aid	838,033	1,121,571	1,959,604
Capital and operations	1,235,834	680,640	1,916,474
Endowment net assets subtotal	5,262,390	5,617,460	10,879,850
Pledges	—	206,677	206,677
Unexpended gifts	—	24,899	24,899
Annuity and other split-interest agreements	—	54,917	54,917
Student loan funds	63,113	33,814	96,927
Operating and plant	4,087,588	—	4,087,588
Total	\$9,413,091	\$5,937,767	\$15,350,858

Operating Activities

Operating activities in the consolidated statements of activities reflect all transactions increasing or decreasing net assets without donor restrictions, and excludes private gifts and grants for buildings and equipment; restricted private gifts; investment return net of operating distributions; gains (losses) from annuity obligations and derivative instruments; and certain other nonrecurring items.

Fair Value Measurements

The University makes fair value measurements and related disclosures thereon as required by the Fair Value Measurements and Disclosures Topic of the FASB ASC. For further discussion, see note 4.

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 with original maturities of three months or less. As of August 31, 2023, the University maintains \$83.09 million in cash balances that are subject to restrictions on their use. These restrictions primarily arise from specific donor agreements and can only be utilized in accordance with the terms specified by the donor. There were no significant restricted cash balances as of August 31, 2022. Cash and cash equivalents that are held for investment purposes are classified as investments on the consolidated statements of financial position and excluded from cash and cash equivalents on the consolidated statements of cash flows, as these funds are not used for operating needs. For further discussion, see note 4.

Contributions

Contributions received, including unconditional promises to give (contributions receivable), are recognized by the University as revenues at their fair values at the date of gift. Private gifts, including unconditional promises to give, are recognized as revenues in the period received. Conditional promises to give are not recognized until all barriers to entitlement of the assets are overcome and the promisor's rights of return or release have elapsed.

Investments

Investments in 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, whereas 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 following describes the fair value hierarchy and the primary valuation methodologies used by the University for assets and liabilities 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 terms of

the assets or liabilities. Inputs may be 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.

An investment's categorization within the valuation hierarchy is based on the lowest level of input significant to the fair value measurement. The categorization of an investment is based on 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. Such investments, for which NAV is used as a practical expedient, are not categorized in and are shown separately from the valuation hierarchy. For further discussion, see note 4.

Equity securities with readily determinable fair values 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 primarily classified as Level 1 because the securities have observable market inputs. Most fixed income securities and debt 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 without readily determinable fair values and of other generally less liquid investments are based on valuation information received on the relevant entities 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. Because the fair values for these assets are based predominantly on unobservable inputs, they are classified as Level 3.

Investments in certain real assets and other investments are recorded at acquisition or construction cost or, if received as a contribution, at fair value as of donation date. The University periodically assesses these assets for impairment by comparing their expected future cash flows with their carrying values. 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, 2023 and 2022. 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 investments 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 may enter into swap agreements to hedge future interest rate movements. It may also add various interest rate options to hedge the overall portfolio and use interest rate swap agreements to hedge variable interest rate exposures. 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 interest rate swaps 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. Due to significant other observable inputs, interest rate swaps are classified as Level 2. For further discussion, see note 4.

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. Accounts receivable deemed to be uncollectible are written off 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 written off.

Contributions Receivable

Contributions receivable that represent unconditional promises to give are recognized at fair value as

contributions with donor restrictions in the period such promises are made by donors. The amount will be recognized as revenue in the periods in which the conditions are fulfilled. Contributions are discounted at a risk-adjusted rate commensurate with the duration of the donor's payment plan. Amortization of the discounts is recorded as additional contribution revenue. Allowance is made for uncollectible contributions based on management's expectations regarding collection of outstanding promises to give and past collection experience. As of August 31, 2023 and 2022, there were conditional promises to give totaling \$598 million and \$385 million, respectively. This gift, with donor restrictions, is conditioned upon the completion of a new building.

Leases

The University has entered into a variety of operating leases for real estate and financing leases for fixtures and equipment. On the consolidated statements of financial position, operating leases as a lessee are included in right-of-use assets—operating, net, and lease liabilities—operating. Right-of-use assets represent the University's right to use an underlying asset for the lease term. Lease obligations represent the University's liability to make lease payments arising from the lease. The obligations associated with these leases have been recognized at their respective commencement dates as a liability in the consolidated statements of financial position based on future lease payments, discounted by an appropriate incremental borrowing rate. The incremental borrowing rate is based on the estimated interest rate for borrowing over a term similar to that of the lease payments available at the commencement of the lease. The credit quality of the University and current prevailing market conditions were factors used to determine the incremental borrowing rate. Northwestern has elected the practical expedient to account for lease and non-lease components as one lease component.

Lease terms may include options to extend or terminate certain leases. The value of a lease is reflected in the valuation if it is reasonably certain management will exercise an option to extend or terminate a lease.

Land, Buildings, and Equipment

Land, buildings, and equipment are recorded at cost or, if received as gifts, at fair value at the date of 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 equipment, which are estimated to be 3 to 20 years; of buildings, building improvements, and land improvements, which are estimated to be 10 to 40 years; and of leasehold improvements, which are estimated to be the shorter of the useful life or the lease term.

Charitable Remainder Trusts

Charitable remainder trusts are classified as net assets with donor restrictions and recognized at fair value.

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, automobile liability, property damage, educators' liability, cyber 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, postemployment benefits, and post-retirement medical and life insurance benefits are based on actuarial studies and management estimates. See notes 11 and 13 for additional discussion.

Revenue Recognition

Revenues from tuition and fees are reflected net of reductions from institutional student aid and are recognized as the services are provided over the academic year, including pro-rata adjustments for educational programs crossing over fiscal years. Institutional student aid includes amounts funded by endowment earnings, gifts, and other sources and reduces the published price of tuition for students receiving such aid. Fiscal year 2024 noncancelable fall-quarter tuition and fees, billed and received in fiscal year 2023, are reported as deferred revenue in fiscal year 2023. Fiscal year 2023 noncancelable fall-quarter tuition and fees, billed and received in fiscal year 2022, are reported as deferred revenue in fiscal year 2022. (For further discussion of deferred revenues, see note 7.) Of the \$733.1 million and \$740.9 million in revenue

recognized for the years ended August 31, 2023 and 2022, respectively, \$685.8 million and \$699.3 million, respectively, was from academic credit programs, and \$47.3 million and \$41.6 million, respectively, was from nonacademic credit programs.

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. Of the \$115.6 million and \$108.3 million in revenue recognized for the years ended August 31, 2023 and 2022, respectively, \$108.1 million and \$99.4 million, respectively, was from room and board, while the remaining revenue was from other miscellaneous residence and food services.

Grants and contracts revenue is received from federal and other sponsors. It may represent either an exchange transaction for an equivalent benefit in return or a nonexchange transaction in which the resources provided are for the benefit of the University, the funding organization's mission, or the public at large. Revenues from exchange transactions are recognized as performance obligations are satisfied, which in most cases are as related costs are incurred. Revenues from nonexchange transactions are recognized as revenue when qualifying expenditures are incurred and applicable conditions and restrictions under the agreements are met. Conditional awards from federal sponsors outstanding as of August 31, 2023 and 2022, were \$693.7 million and \$715.2 million, respectively.

Sales and services revenues represent fees for services and goods provided to external parties in the course of educational activities, revenues from the provision of physical plant services and goods to external institutions contiguous to the University campuses, and trademark and royalty revenues arising from licensing of innovative technologies, copyrights, and other intellectual property. These revenues are recognized in the fiscal year in which goods and services are provided.

Professional fees arise from faculty and department services provided to external institutions such as hospitals. Revenues are recognized in the fiscal year in which the services are provided.

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 taxable income (UBTI), 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 2020 through 2022.

The University had no uncertain tax positions in fiscal year 2023 or fiscal year 2022.

The University is subject to excise taxes on executive compensation, net investment income, and the calculation of UBTI. For the years ended August 31, 2023 and 2022, the University is subject to the federal excise tax of 1.4 percent.

Uses of Estimates in the Preparation of the Consolidated Financial Statements

The preparation of the consolidated 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.

Recent Accounting Pronouncements

In June 2016, the FASB issued ASU 2016-13, amending guidance on impairment of financial instruments, including those held by the University. The University is currently evaluating the standard, which will affect certain financial instruments such as student and notes receivables. Certain financial instruments such as pledge receivables will not be impacted by the standard. The effective date for adoption is fiscal year 2024.

2. Accounts Receivable and Notes Receivable

Accounts receivable as of August 31 are summarized on the consolidated statements of financial position as follows:

<i>(in thousands of dollars)</i>	2023	2022
Research and other sponsored programs support	\$166,531	\$169,193
Student receivables	25,496	37,460
Other receivables	113,709	69,521
Accounts receivable subtotal	305,736	276,174
Less allowances for student uncollectible amounts	(595)	(594)
Total accounts receivable, net	\$305,141	\$275,580

Notes receivable as of August 31 are summarized on the consolidated statements of financial position as follows:

<i>(in thousands of dollars)</i>	2023	2022
Notes receivable	\$240,699	\$134,170
Less allowances for student uncollectible amounts	(2,592)	(2,300)
Total notes receivable, net	\$238,107	\$131,870

There is one note receivable that makes up 38 percent of the total balance as of August 31, 2023.

3. Contributions Receivable

Contributions receivable as of August 31 are summarized on the consolidated statements of financial position as follows:

<i>(in thousands of dollars)</i>	2023	2022
Unconditional promises expected to be collected in		
Less than one year	\$43,616	\$48,825
One to five years	81,244	101,958
More than five years	80,218	85,416
Contributions receivable subtotal	205,078	236,199
Less unamortized discounts	(24,562)	(26,237)
Less allowances for uncollectible amounts	(1,193)	(3,285)
Total contributions receivable, net	\$179,323	\$206,677

Contributions receivable are discounted at rates ranging from 0.28 to 4.23 percent. There are two unconditional promises that make up 59 percent and 56 percent of the total contributions receivable balance as of August 31, 2023 and 2022, respectively.

4. Investments

The University's investments are overseen by the Investments Committee of the Board of Trustees. Guided by the policies established by the Investment 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,

expendable funds with donor restrictions temporarily invested, and commercial real estate.

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

Fair Value Disclosures

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

(in thousands of dollars) 2023

	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 ^(a)	\$239,550	—	—	—	\$239,550
Public equity	256,292	—	\$156	\$3,836,045	4,092,493
Private equity	36,007	\$321	12,312	1,621,616	1,670,256
Fixed income	93,690	714,894	—	—	808,584
Absolute return	—	—	—	2,174,813	2,174,813
Venture capital	—	417	3,758	2,871,162	2,875,337
Real assets	71,709	—	665	2,012,513	2,084,887
Other investments	47,308	301	25,698	—	73,307
Subtotal investment assets at fair value	744,556	715,933	42,589	12,516,149	14,019,227^(b)

^(a) This amount includes positions sold or redeemed pending settlement of \$102,487 thousand as of August 31, 2023.

^(b) Investments held at cost totaling \$22,624 thousand should be added to the subtotal investment assets at fair value, and beneficial interest in charitable remainder trusts totaling \$11,533 thousand should be subtracted from the subtotal investment assets at fair value to reconcile to total investment assets of \$14,030,298 thousand as of August 31, 2023.

(in thousands of dollars) 2022

	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	\$482,738	—	—	—	\$482,738
Public equity	372,126	—	\$147	\$3,481,797	3,854,070
Private equity	38,685	\$321	15,203	1,503,206	1,557,415
Fixed income	93,869	830,898	—	—	924,767
Absolute return	—	—	—	2,064,494	2,064,494
Venture capital	1,127	—	3,904	3,219,881	3,224,912
Real assets	67,174	15,350	665	2,101,351	2,184,540
Other investments	45,542	300	26,923	—	72,765
Subtotal investment assets at fair value	1,101,261	846,869	46,842	12,370,729	14,365,701^(a)
Interest rate swaps	—	(2,591)	—	—	(2,591)
Total	\$1,101,261	\$844,278	\$46,842	\$12,370,729	\$14,363,110

^(a) Investments held at cost totaling \$28,935 thousand should be added to the subtotal investment assets at fair value, and beneficial interest in charitable remainder trusts totaling \$11,086 thousand should be subtracted from the subtotal investment assets at fair value to reconcile to total investment assets of \$14,383,550 thousand as of August 31, 2022.

Investments reported as NAV as Practical Expedient consist primarily of the University's ownership in partnership investments (principally limited partnership interests in long-only equity and credit, hedge funds, 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 report 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 partnership investments existed.

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, 2023 and 2022:

<i>(in thousands of dollars)</i>	2022					2023
	Fair value	Purchases	Sales and settlements	Realized and unrealized gains (losses)	Transfers into and out of Level 3	Fair value
Public equity	\$147	—	—	\$9	—	\$156
Private equity	15,203	—	—	(2,891)	—	12,312
Venture capital	3,904	\$1,737	(\$23)	(1,860)	—	3,758
Real assets	665	—	—	—	—	665
Other investments	26,923	—	—	(1,225)	—	25,698
Total investments	\$46,842	\$1,737	(\$23)	(\$5,967)	—	\$42,589

<i>(in thousands of dollars)</i>	2021					2022
	Fair value	Purchases	Sales and settlements	Realized and unrealized gains (losses)	Transfers into and out of Level 3	Fair value
Public equity	\$178	—	—	(\$31)	—	\$147
Private equity	10,203	\$5,000	—	—	—	15,203
Venture capital	4,859	—	(\$1,250)	295	—	3,904
Real assets	665	—	—	—	—	665
Other investments	29,765	—	—	(2,842)	—	26,923
Total investments	\$45,670	\$5,000	(\$1,250)	(\$2,578)	—	\$46,842

In fiscal years 2023 and 2022, there were no transfers into or out of Level 3.

As of August 31, 2023 and 2022, 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 \$3.2 million and \$3.3 million as of August 31, 2023 and 2022, respectively.

The next table 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, 2023, the University was committed to making future capital contributions of \$2.8 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
Public equity	\$4,092,493	No limit	\$47,052	Daily to greater than annually, with 1- to 180-day notice periods	Lock-up provisions ranging from none to 5 years; side pockets on many funds; one partnership not redeemable
Private equity	\$1,670,256	No limit to 12 years	\$1,299,688	Partnerships ineligible for redemption; equity securities daily, with 1-day notice	Private partnerships not redeemable; equity securities have no lock-up provisions
Fixed income	\$808,584	No limit	—	Daily	No lock-up provisions
Absolute return	\$2,174,813	No limit	\$232,432	Daily to greater than annually, with 1- to 120-day notice periods; private partnerships ineligible for redemption	Lock-up provisions ranging from none to 3 years; side pockets on many funds; three partnerships not redeemable
Venture capital	\$2,875,337	No limit to 12 years	\$495,610	Partnerships ineligible for redemption; equity securities daily, with 1-day notice	Private partnerships not redeemable; equity securities have no lock-up provisions
Real assets	\$2,084,887	No limit to 14 years	\$702,693	Partnerships ineligible for redemption; commodity and equity funds weekly to quarterly, with 1- to 60-day notice periods	Drawdown partnerships not redeemable; no restriction on 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 equivalents are highly liquid and are carried at amortized cost, which approximates fair value.

The University's public equity categories include investments in US equity, international equity, and long-short equity strategies via separately managed accounts, partnerships, and commingled funds. US equity strategies include large-, mid-, and small-cap public equities.

International equities include developed market (ex-US public equities) and emerging market strategies. Eleven investments in public equity may not be redeemed over the next year.

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

The absolute return portfolio is weighted toward uncorrelated strategies, diversifying event-driven or hedged tactical credit strategies, and distressed debt funds. Two investments in this portfolio may not be redeemed over the next year due to lock-up

provisions. As of August 31, 2023, the remaining investments have either full or partial liquidity over the next year, with the exception of those having side pockets.

The private equity portfolio includes investments in global buyout, including large cap, middle market, and growth equity. Venture capital includes investments in early stage and late stage fund vehicles. The real assets portfolio includes the University's investments in energy, timber, real estate, and public investments in certain commodity and equity funds.

Lives of the specific 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 changes in the market environment and/or investment strategy.

Investment Return

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. Gross investment income from specific investments held at cost totaled \$17.7 million for the fiscal years ended August 31, 2023 and 2022. Investment expenses related to specific investments held at cost totaled \$6.3 million and \$4.7 million for the fiscal years ended August 31, 2023 and 2022, respectively. All other investment returns are categorized as nonoperating.

Certain direct expenses paid by the University for investment management and custody services have been netted against investment earnings.

Derivative Financial Instruments

The University has entered into hedging transactions via interest rate swaps, and the interest rate swaps have matured as of August 31, 2023.

The University continued its use of uncollateralized variable-to-fixed-rate interest rate swaps during fiscal year 2023 and has maintained those positions since fiscal year 2008. The University manages its exposure to interest rate risk by using highly rated

counterparties and on a net basis had obligations to counterparties as of August 31, 2023 and 2022, as disclosed in the following tables. As a result, the University has limited its interest rate risk associated with \$125 million in variable-rate debt (IFA-Series 2008 bonds).

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.

There are no derivative financial instruments held by the University as of August 31, 2023. The table below summarizes the derivative financial instruments held by the University as of August 31, 2022.

<i>(in thousands of dollars)</i>						2022
	Notional amount	Assets	Liabilities	Fiscal year net gain	Interest rate range	Maturity date
Debt-related derivatives						
Interest rate swaps	\$125,002	—	(\$2,591)	\$8,269	4.12–4.38%	08/31/23
Total derivative financial instruments	\$125,002	—	(\$2,591)	\$8,269	4.12–4.38%	08/31/23

5. Land, Buildings, and Equipment

Land, buildings, and equipment as of August 31 consisted of the following:

<i>(in thousands of dollars)</i>	2023	2022
Land	\$29,986	\$29,986
Construction-in-progress	166,716	75,399
Buildings and leasehold improvements	4,827,318	4,721,191
Equipment	774,878	746,311
Accumulated depreciation	(2,633,511)	(2,452,032)
Total land, buildings, and equipment, net	\$3,165,387	\$3,120,855

Included in construction-in-progress costs are building and leasehold improvement capitalizations. Building costs are funded by bonds, gifts (received or pledged), grants, and funds without donor restrictions.

Under the University's interest capitalization policy, actual interest costs incurred during the period of construction of an asset for University use are 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 qualifying for interest capitalization may include buildings and major equipment.

6. Leases

University as Lessee

At August 31, 2023, the net operating right-of-use assets and corresponding operating lease liabilities associated with future lease payments on the consolidated statements of financial position were \$149.8 million and \$156.5 million, respectively. Other lease information is summarized below.

<i>(in thousands of dollars)</i>	2023	2022
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows from operating leases	\$28,267	\$24,252
Right-of-use assets obtained in exchange for new operating lease liabilities	17,809	4,632
Weighted average remaining lease term	10 years	11 years
Weighted average discount rate	1.90%	1.52%

Lease Cost

The components of lease expense—included in services, supplies, maintenance, and other—for the fiscal years ended August 31 are as shown in the following table:

<i>(in thousands of dollars)</i>	2023	2022
Operating lease expense	\$28,411	\$24,648
Variable lease expense	733	494
Short-term lease expense	259	233
Less sublease income	(3,465)	(3,461)
Total lease expense	\$25,938	\$21,914

Future Lease Payments

Shown below are the lease payments expected to be paid for each fiscal year ending August 31:

<i>(in thousands of dollars)</i>	
2024	\$24,393
2025	24,863
2026	22,961
2027	21,352
2028	17,179
2029 and thereafter	57,690
Total future lease payments	168,438
Less present value discount	(11,964)
Lease liabilities—operating	\$156,474

University as Lessor

The University is entitled as lessor under its operating leases to receive rental income. Operating leases consist primarily of leases for the use of real property and have terms expiring through fiscal year 2040. The future minimum rental revenues associated with these leases through fiscal year 2040 are \$35.6 million.

7. Deferred Revenue

Deferred revenue as of August 31 is summarized on the consolidated statements of financial position as follows:

<i>(in thousands of dollars)</i>	2023	2022
Tuition and housing	\$166,191	\$162,474
Sponsored contracts (exchange)	73,564	104,797
Conditional contributions and grants	189,204	12,773
Other deferred revenue	17,176	12,223
Total deferred revenue	\$446,135	\$292,267

8. Deposits Payable and Actuarial Liability of Annuities Payable

Deposits payable and actuarial liability of annuities payable as of August 31 are summarized on the consolidated statements of financial position as follows:

<i>(in thousands of dollars)</i>	2023	2022
Agency deposits	\$208,353	\$164,880
Actuarial liability of annuities	15,525	16,349
Student tuition and room and board	7,381	8,468
Other deposits payable	4,647	1,836
Total deposits payable and actuarial liability of annuities payable	\$235,906	\$191,533

9. Bonds, Notes, and Other Debt Payable

Bonds, notes, and other debt payable as of August 31 are summarized on the consolidated statements of financial position as follows:

<i>(in thousands of dollars)</i>	Interest rate mode	Fiscal year maturity	Interest rate ^(a)	2023	2022
Illinois Finance Authority (IFA)–Series 2004	Variable	2035	4.13%	\$135,800	\$135,800
IFA–Series 2008	Variable	2047	3.93%	125,000	125,000
Taxable–Series 2012	Fixed	2040–2048	4.20%	200,000	200,000
Taxable–Series 2013	Fixed	2034–2045	4.64%	547,915	547,915
Taxable–Series 2015	Fixed	2035–2049	3.80%	500,000	500,000
IFA–Series 2015	Fixed	2023–2029	2.99%	121,885	128,545
Taxable–Series 2017	Fixed	2048–2058	3.71%	500,000	500,000
Taxable–Series 2020	Fixed	2050–2051	2.64%	300,000	300,000
Commercial paper (\$300,000 available)	Variable	NA	NA	—	—
Bonds, notes, and other debt payable subtotal				2,430,600	2,437,260
Unamortized issuance costs, premiums, and discounts, <i>net</i>				(5,088)	(4,501)
Total bonds, notes, and other debt payable, net				\$2,425,512	\$2,432,759

^(a) Weighted average interest rate at August 31, 2023

Total obligations including bonds, notes, and other debt payable at August 31, 2023, are scheduled to mature through August 31 of each period as noted in the table below. The schedule has been prepared based on the contractual maturities of the debt outstanding at August 31, 2023. Accordingly, if remarketings of variable-rate debt offerings fail 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)

2024	\$7,710
2025	10,240
2026	10,750
2027	29,840
2028	31,130
2029 and thereafter	2,340,930
Total	\$2,430,600

10. Endowments

Donor-restricted endowment funds are subject to Illinois's enacted version of the Uniform Prudent Management of Institutional Funds Act (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 the following as part of net assets with donor restrictions: 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 is classified as net assets with donor restrictions until those amounts are 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 whether 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 3,100 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:

<i>(in thousands of dollars)</i>	With donor restrictions				2023
	Without donor restrictions	Funds held in perpetuity	Accumulated gains (losses)	Total	
Institution-designated endowment funds	\$5,063,782	—	—	—	\$5,063,782
With donor restrictions					
Underwater funds		\$248,081	(\$12,279)	\$235,802	235,802
All other funds		1,971,288	3,283,117	5,254,405	5,254,405
Endowment net assets, end of year	\$5,063,782	\$2,219,369	\$3,270,838	\$5,490,207	\$10,553,989

<i>(in thousands of dollars)</i>	With donor restrictions				2022
	Without donor restrictions	Funds held in perpetuity	Accumulated gains (losses)	Total	
Institution-designated endowment funds	\$5,262,391	—	—	—	\$5,262,391
With donor restrictions					
Underwater funds		\$96,539	(\$4,574)	\$91,965	91,965
All other funds		1,962,766	3,562,729	5,525,495	5,525,495
Endowment net assets, end of year	\$5,262,391	\$2,059,304	\$3,558,155	\$5,617,460	\$10,879,850

Underwater Endowment Funds

The University monitors endowment funds to identify those for which historical cost was more than fair value. Associated unrealized losses of \$12.3 million and \$4.6 million as of August 31, 2023 and 2022, respectively, are recorded in the net assets with donor restrictions classification; subsequent gains increase net assets with donor restrictions.

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 the 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 5.1 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 1.0 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 reinvest the current income of all other investment pools.

Changes in Endowment Net Assets

The following tables represent changes in endowment net assets for the fiscal years ended August 31:

(in thousands of dollars) 2023

	Without donor restrictions	With donor restrictions	Total
Endowment net assets, beginning of year	\$5,262,390	\$5,617,460	\$10,879,850
Interest and dividends, net of expenses	(27,819)	(29,626)	(57,445)
Net depreciation, realized and unrealized	(28,048)	(29,869)	(57,917)
Total investment loss	(55,867)	(59,495)	(115,362)
Contributions	—	150,206	150,206
Appropriation of endowment assets for expenditure	(209,799)	(229,848)	(439,647)
Other changes			
Transfers to create institutional funds	83,009	—	83,009
Transfers of institutional funds per donor requirement	—	18,056	18,056
Spending of institution-designated endowment fund	(22,123)	—	(22,123)
Other reclassifications	6,172	(6,172)	0
Endowment net assets, end of year	5,063,782	5,490,207	10,553,989

(in thousands of dollars) 2022

	Without donor restrictions	With donor restrictions	Total
Endowment net assets, beginning of year	\$5,562,129	\$5,799,053	\$11,361,182
Interest and dividends, net of expenses	(28,802)	(27,062)	(55,864)
Net appreciation, realized and unrealized	(116,426)	(109,390)	(225,816)
Total investment loss	(145,228)	(136,452)	(281,680)
Contributions	—	130,194	130,194
Appropriation of endowment assets for expenditure	(190,612)	(204,791)	(395,403)
Other changes			
Transfers to create institutional funds	56,659	—	56,659
Transfers of institutional funds per donor requirement	—	32,375	32,375
Spending of institution-designated endowment fund	(14,729)	—	(14,729)
Other reclassifications	(5,829)	(2,919)	(8,748)
Endowment net assets, end of year	\$5,262,390	\$5,617,460	\$10,879,850

11. Postretirement and Postemployment Benefit 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 certain mutual funds offered by Fidelity Investments. Participating employee and University contributions are immediately vested. The University contributed \$91.1 million and \$85.5 million to the two plans in 2023 and 2022, respectively.

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. Certain postemployment benefit plans are also sponsored.

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 health-care plan. In the consolidated statements 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 accrued cost for postemployment benefits was \$8.9 million and \$7.8 million at August 31, 2023 and 2022, respectively, and is included in accounts payable and accrued liabilities on the consolidated statements of financial position.

The University funds the plan on a pay-as-you-go basis. The following table sets forth key amounts for the postretirement plan for the fiscal years ended August 31:

<i>(in thousands of dollars)</i>	2023	2022
Benefit obligation	\$14,618	\$16,396
Benefits paid	3,024	3,127
Employer contributions	1,978	2,068
Contributions from participants	1,046	1,059
Net periodic postretirement benefit cost	1,462	2,065
Fair value of plan assets	—	—

Service costs included in net periodic post-retirement benefit cost shown above were \$743 thousand and \$1.1 million as of August 31, 2023 and 2022, respectively.

The changes in other than periodic benefit cost included in net assets without donor restrictions on the consolidated statements of activities totaled net gains of \$1.2 million and \$33 thousand as of August 31, 2023 and 2022, respectively, for an increase of \$1.2 million due to net gains during the fiscal year.

The APBO was \$14.6 million and \$16.4 million at August 31, 2023 and 2022, respectively, and is included in accounts payable and accrued liabilities on the consolidated statements of financial position.

The following tables present key actuarial assumptions used in determining APBO as of August 31, 2023 and 2022. For both fiscal years 2023 and 2022, the ultimate healthcare cost trend rate was 5 percent, and the year when the trend rate will reach the ultimate trend rate was 2032.

Additional assumptions used to determine benefit obligations for the fiscal years ended August 31 were as follows:

	2023	2022
Weighted average settlement (discount) rate	5.0%	4.3%
Weighted average rate of increase in future compensation levels	3.0%	3.0%
Healthcare cost trend rate	7.5%	7.0%

The assumptions used to determine net periodic benefit cost for the fiscal years ended August 31:

	2023	2022
Discount rate	4.3%	2.3%
Weighted average rate of increase in future compensation levels	3.0%	2.5%
Healthcare cost trend rate	7.0%	5.0%

Estimated future benefit payments reflecting anticipated service, as appropriate, are expected to be paid as shown below for the fiscal years ended August 31:

(in thousands of dollars)

2024	\$931
2025	872
2026	933
2027	1,010
2028	1,067
2029–2033	5,899
Total	\$10,712

The University offers a deferred compensation plan under Internal Revenue Code 457(b) to a select group of management and highly compensated employees. The University does not contribute to this deferred compensation plan. The University has recorded both an asset and a liability related to the deferred compensation plan that totaled \$129.5 million and \$117.7 million as of August 31, 2023 and 2022, respectively; these are included in investments and deposits payable and actuarial liability of annuities payable on the consolidated statements of financial position.

12. 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.

The University maintains several clinical and education affiliation agreements with other organizations. Revenues and expenses from these agreements are accounted for in the operating activities section of the consolidated statement of activities. The most significant agreements are with Northwestern Medical Group (NMG) and Northwestern Memorial Healthcare Corporation (NMHC). NMG is a not-for-profit, multi-specialty 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 subsidiary of NMHC, the not-for-profit parent corporation of Northwestern Memorial Hospital (NMH), which is the primary teaching hospital of Feinberg. 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.

13. Self-Insurance Reserves and Other Contingencies

Reserves for losses under the University's self-insurance program, aggregating \$21.2 million and \$14.9 million at August 31, 2023 and 2022, 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 6.55 percent in fiscal years 2023 and 2022. 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 liabilities on the consolidated statements of financial position.

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 adequate provision has been made and 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 consolidated financial position or results of operations.

14. Grants and Contracts

Grants and contracts for the fiscal years ended August 31 are summarized on the consolidated statements of activities as follows:

<i>(in thousands of dollars)</i>	2023	2022
Federal grants	\$682,779	\$653,671
Private grants and contracts	195,020	169,621
State grants	7,713	5,233
Total grants and contracts	\$885,512	\$828,525

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.

15. Liquidity and Availability

Financial assets and resources available within one year of August 31 for general expenditure are as follows:

<i>(in thousands of dollars)</i>	2023	2022
Financial assets		
Cash and cash equivalents	\$352,965	\$372,337
Accounts receivable, net	293,608	264,493
Notes receivable	25,220	28,570
Contributions receivable	29,618	24,096
Endowment payout made available for operations	744,500	666,000
Financial assets available within one year	1,445,911	1,355,496
Liquidity resources		
Commercial paper	300,000	300,000
Bank lines of credit	625,000	625,000
Total financial assets and liquidity resources available within one year for general expenditure	\$2,370,911	\$2,280,496

The University manages liquidity by structuring its financial assets to be available as its operating expenses, liabilities, and other obligations come due. Working capital funds, which are generated through the temporary differences between operating receipts and disbursements, are held in a variety of money market instruments or are invested in the Long-Term Balanced Pool. The income from investing them is used for general operating purposes.

In addition, the University may place commercial paper under a \$300 million Taxable Commercial Paper Note. Under this agreement, no outstanding borrowings existed as of August 31, 2023 and 2022. The University also may draw \$625 million in standby

lines of credit to supplement working capital requirements. Under this agreement, no outstanding borrowings existed as of August 31, 2023 and 2022.

Lastly, the University holds institution-designated endowments of \$5,064 million and \$5,262 million as of August 31, 2023 and 2022, respectively. Although the University does not intend to spend from its institution-designated endowment funds—other than amounts appropriated for spending through its annual budget approval and appropriation process—amounts from its institution-designated endowment could be made available if necessary, subject to liquidity of the underlying investments.

16. 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 depreciation, interest on indebtedness, and certain other expenses related to operation and maintenance of plant to other functional categories based on the functional use of space on the University's campuses.

(in thousands of dollars) 2023

	Academic	Research	Support	Total
Salaries, wages, and benefits	\$1,026,265	\$349,926	\$299,146	\$1,675,337
Services, supplies, maintenance, and other	687,930	244,538	126,702	1,059,170
Depreciation	153,100	42,406	14,407	209,913
Interest on indebtedness	68,296	18,917	6,427	93,640
Total	\$1,935,591	\$655,787	\$446,682	\$3,038,060

(in thousands of dollars) 2022

	Academic	Research	Support	Total
Salaries, wages, and benefits	\$953,253	\$329,092	\$274,600	\$1,556,945
Services, supplies, maintenance, and other	621,709	220,951	52,476	895,136
Depreciation	138,941	48,837	16,580	204,358
Interest on indebtedness	61,692	21,683	7,362	90,737
Total	\$1,775,595	\$620,563	\$351,018	\$2,747,176

17. Subsequent Events

The University has evaluated subsequent events in accordance with the FASB ASC Subsequent Event Topic through December 15, 2023, the date when the consolidated financial statements were issued. The University did not identify any events to be disclosed.

NORTHWESTERN UNIVERSITY
 Supplementary Schedule of Expenditures of Federal Awards
 Year ended August 31, 2023

Cluster title/federal grantor/subagency/project title	Pass-through entity	Assistance listing number	Sponsor award number	Federal expenditures	Subrecipient expenditures
Research and Development:					
Department of Agriculture (USDA):					
Developing Mathematical Models for the Formation of New Collaborations at Conferences	166	10.001	27675//58-3022-0-005	\$ 111,860	—
Increasing Production Capacity, Metabolomic Understanding, and Knowledge of Cancer Survivor Consumer Attitudes of Maple-Based Products for Health Promotion		10.174	AM22ACERIL1017-00	84,144	50,000
The Effect of the Opioid Crisis on the Farm Sector: Implications from the Rural Economy	233	10.310	SUB00001814//2019-67023-29347	2,716	—
National Institute of Food and Agriculture:					
The Family Check-Up 4 Health: A Family-Centered Health Maintenance Approach to Improve Nutrition and Prevent Obesity in Early Childhood	19	10.310	ASUB22-03//2018-68001-27550	40,219	—
A defensible, next generation approach to quantifying and characterizing land use change		10.312	2018-10008-28530	—	—
A defensible, next generation approach to quantifying and characterizing land use change		10.312	2018-10008-28530	79,356	79,356
				119,575	79,356
Total Department of Agriculture				318,295	129,356
Department of Commerce:					
National Oceanic and Atmospheric Administration:					
Using Habitat Suitability Modeling to Determine the Vulnerability of Rare Illinois Plant Species to Climate Change	161	11.417	F0008309702069//NA18OAR4170082	5,685	—
Illinois Indiana Sea Grant	161	11.417	F0008309702095//NA22OAR4170100	7,380	—
Evaluating the Social and Ecological Aspects of Lawn Replacement	161	11.417	F0008309702121//NA22OAR4170100	573	—
				13,638	—
National Institute of Standards and Technology:					
Development of Levitated, Macroscopically Delocalized Atom Interferometers for a New Measurement of Newton's Constant G		11.609	60NANB19D168 AMD 2	11,142	—
Advanced Materials Center for Excellence: Center for Hierarchical Materials Design (CHIMaD)		11.609	70NANB19H005 Amnd 4	4,510,292	1,495,214
				4,521,434	1,495,214
Total Department of Commerce				4,535,072	1,495,214
Department of Defense:					
"Rational design and implementation of novel polymer adsorbents for selective uptake of per-and polyfluoroalkyl substances from groundwater"	56	12.RD	82296-11070 AMD 2//W312HQ18C052	253	—
Air Force Office of Scientific Research:					
Foreign Military Training: Building Effective Armed Forces in Weak States		12.630	FA9550-20-1-0277 P00003	105,966	—
Development of a Targeted Intravascular Therapy to Stop Non-Compressible Torso Hemorrhage Human Fix a Flat	227	12.800	013840-00002 AMD 1//FA8650-21-2-6K01	293,999	—
MURI: Unraveling the Biology, Chemistry and Nanoscience of Natural and Synthetic Melanins	222	12.800	104170196 005//FA9550-18-1-0142// P00005	293,139	—
Stochastic Self-Consistent Clustering Theory for Composite Performance Prediction: from extreme value microstructure attributes to design of interphase for toughness	66	12.800	313-0866-05//FA9550-18-1-0381	6,518	—
Scientific Autonomous Reasoning Agent (SARA) Integrating Materials Theory, Experiment and Computation	56	12.800	80776-11044//FA9550-18-1-0136	76,525	—
Hybrid biomolecular synapses for multifunctional sensing and neuromorphic computing at the edge of biology	264	12.800	A23-0483-S001//FA9550-22-1-0426	191,316	—
Hierarchical Assembly of Spider Silk Proteins: Exploring Structural Biology of Biomaterials from the Atomic to the Mesoscale	178	12.800	D8771-03 SA752 A2 5A157A 7802 // FA9550-20-1-0103	70,376	—
Engineering bacterial transcription factors to sense human performance biomarkers		12.800	FA2386-21-1-4078	33,229	—
PECASE: Multi-dimensional Vibrational-Electronic Spectroscopy to Probe Electronic-to-Vibrational Energy Transfer in Hybrid Nanomaterials		12.800	FA9550-16-1-0379-P00004	21,445	—
Reconfigurable Matter from Programmable Atom Equivalents		12.800	FA9550-17-1-0348-P00004	(29,791)	—
Molecular Ion Quantum Control		12.800	FA9550-17-1-0352-P00004	32,410	—
Rotation, Shift and Scale Invariant Ultrafast Automatic Image Recognition Using an Opto-Electronic Correlator		12.800	FA9550-18-1-0359-P00003	142,844	—
Investigation of Experimental and Theoretical Challenges for Developing Superluminal Sensors		12.800	FA9550-18-1-0401 P00003	24,538	—
A Biophysical Approach to Uncover the Role of Cell Membrane Mechanics in Sensing Mechanical Force		12.800	FA9550-19-1-0039 P00004	4,763	—
Low-dimensional materials for high-efficiency/high-power nonlinear optical applications at infrared		12.800	FA9550-19-1-0243-P00001	(3,484)	—
Fundamental Dynamics, Predictability, and Uncertainty of Scientific Discovery & Advance		12.800	FA9550-19-1-0354 P00006	1,292,546	379,450
Fundamental Study of p-Type Doping in MOCVD-Grown Ga2O3		12.800	FA9550-19-1-0410	94,871	—
Reasoning for Social Autonomous Agents		12.800	FA9550-20-1-0091 P0003	487,043	—
Phonon Propagation in Biological Structures and Implications on Phononic Tunability of Synthetic Materials		12.800	FA9550-20-1-0258 P00002	81,128	—
Expanding functionality and enhancing documentation of scQubits, an open-source Python package for superconducting qubits		12.800	FA9550-20-1-0271	13,986	—
Manipulation of Intra-Manifold Excitonic Energy Redistribution in Colloidal Semiconductor Nanoplatelets: Toward High-Temperature Quantum Emitters		12.800	FA9550-20-1-0364 P00003	95,653	—
Determining the Absolute Molecular Weights of Pi-Conjugated Polymers for Mechanically Flexible and Stretchable Electronics		12.800	FA9550-22-1-0158	145,539	—
Robotic Architected Materials with Distributed Sensorimotor Capabilities via Free-form Electrochemical Composites		12.800	FA9550-22-1-0218	175,901	—
Stabilization of Silica Bubbles in Ultra High Temperature Ceramic Nanocomposites		12.800	FA9550-22-1-0221 P00001	143,004	—
Closed and Open Architecture Colloidal Crystals with Properties by Design		12.800	FA9550-22-1-0300	868,587	—
Photocontrolled synthesis of pi-conjugated polymers		12.800	FA9550-22-1-0421-P00001	159,141	—
Soft Hybrid Materials for Flexible, Stretchable, Patternable Electronics		12.800	FA9550-22-1-0423-P00001	96,786	—
SEM Acquisition for Structural and Mechanical Characterization of Bio-, Meta- and Low Dimensional Materials		12.800	FA9550-22-1-0474	101,561	—
Low-Temperature, High-Magnetic Field Photonic Measurement System for Magneto-Photonics Research		12.800	FA9550-22-1-0512	158,020	—
Discovery and Exploration of Quantum Nitrides	224	12.800	KK2340//FA9550-23-1-0042	123,038	—
Machine Learning for Physics-based Systems: Optimal Approximations, Architectures, and Training	267	12.800	UTA20-001225//FA9550-21-1-0084	227,280	—
				5,527,877	379,450
Air Force Research Laboratory:					
AFRL RESCU Cloud: Secure and Verifiable SQL for the Zero-Trust Cloud		12.800	FA8750-22-2-0156-P00006;P00007	219,407	—
Optimization of Ink-Printed, 2D-Materials for Selective, Wearable, Environmental Sensors	209	12.800	S-193-001-001//NB18-21-19//FA86501825402	146,101	—
Searching for what's new: the systematic development of dynamic x-ray microscopy	125	12.800	s6091 PO # 943367//FA9550-23-1-0284	1,243	—
				366,751	—
VeriGOOD-ML: Verilog Generator (Open-source), Optimized for Designs for Machine Learning					
Normalizing Timing of Rhythms Across Internal Networks of Circadian Clocks (NTRAIN)	250	12.910	A008043202//FA8650-20-2-7009 Amd No. 4	111,846	—
		12.910	FA8650-21-2-7119 P00008	6,374,226	3,947,798
				6,486,072	3,947,798
Army:					
Beta-Blockers for the Prevention of Acute Exacerbations of COPD	214	12.420	000507860-SC008-A08//W81XWH-15-1-0705	3,439	—
A pilot clinical trial to assess the effect of transfemoral socket design on hip muscle function	236	12.420	17748//W81XWH1910507	3,386	—
CRISPR-Cas9 Gene Therapy for ALS Enhanced by TJ-Targeted Barrier Modulation	268	12.420	2008590//W81XWH2110219 AMD 2	60,355	—
Targeting Balance Confidence as a Strategy to Increase Integration and Improve Outcomes in Users of Lower-limb Prostheses	174	12.420	322801NWU//W81XWH-17-1-0697	(1)	—
Fieldable Ultrasound Treatment to Enhance Inflammatory-Proliferative Phase Transition and Reduce Wound Healing Time.	80	12.420	401171213//W81XWH-15-9-0001	413,588	—
Optimizing Prosthetic Shock Absorption for High Demand Mobility of Service Members with Leg Amputation	251	12.420	45-1014-1000-202//W81XWH2120007	41,175	27,707

NORTHWESTERN UNIVERSITY
 Supplementary Schedule of Expenditures of Federal Awards
 Year ended August 31, 2023

Cluster title/federal grantor/subagency/project title	Pass-through entity	Assistance listing number	Sponsor award number	Federal expenditures	Subrecipient expenditures
Improving Diagnosis and Clinical Management of Familial Hypercholesterolemia Through Integrated Machine Learning, Implementation Science, and Behavioral Economics	258	12.420	582840/W81XWH-21-1-0421	\$ 36,331	—
Personalized Mobility Interventions Using Smart Sensor Resources for Lower-Limb Prosthesis Users	165	12.420	7197 cc82196amd/W81XWH1820057	950	—
Personalized Mobility Interventions using Smart Sensor Resources for Lower-limb Prostheses Users	165	12.420	82196.NU.Y1011/W81XWH1820057	73,370	—
Targeting Ovarian Cancer Stem Cells Interactions with the Niche	103	12.420	8260-NW/W81XWH-19-1-0008	17,504	—
Blood-Based DNA Methylation Biomarkers of Acquired Platinum Resistance in Women with Ovarian Cancer	103	12.420	8904/W81XWH-21-1-0281	47,969	—
Electrical Stimulation to Accelerate Nerve Regeneration	150	12.420	GR121986/SPC-1000004983 Amnd 2/W81XWH1920065	83,983	—
Role of Subtype-Specific Essential Factor Networks in Small Cell Lung Cancer		12.420	HT9425-23-1-0360	45,500	—
Integrative analysis of exons in metastatic prostate cancer	250	12.420	P007461501 Amendment 1/W81XWH1910161	223,385	—
Restoration of the Functional Aesthetic Craniofacial Envelope and Extremities	131	12.420	S3-W81XWH-19-2-0038/W81XWH1920038	(362)	—
Assessing Rehabilitation Outcomes after Severe Neuromusculoskeletal Injury: Development of Patient Reported Outcomes Assessment Instruments	232	12.420	UDR0000202/W81XWH-17-1-0335	100,719	—
Targeted reinnervation as a means to treat neuromas associated with major limb amputation		12.420	W81XWH-13-2-0100	(1,484)	(1,484)
Targeting EZH2 in castration-resistant prostate cancer		12.420	W81XWH-17-1-0405	882	—
Targeting EZH2 in castration-resistant prostate cancer		12.420	W81XWH-17-1-0406 P00003	(27)	—
D-Cycloserine for the Treatment of Chronic, Refractory Low Back Pain		12.420	W81XWH-17-1-0426	1,169,618	—
Role of C10orf112 in Prostate Cancer		12.420	W81XWH-17-1-0578	3,043	—
A novel serum and tissue immunoglycomic biomarker panel to distinguish progressive Prostate Cancer		12.420	W81XWH-17-1-0642-P00001	5,470	—
Testing of Novel Pro-Survival Strategies in the Setting of Prolonged Damage Control Resuscitation		12.420	W81XWH-17-1-0701	590,034	—
Assessing high affinity anti-latent TGFbeta binding protein-4 antibodies in combination with steroid treatment for DMD		12.420	W81XWH1810244	32,071	—
TOWARDS CHIMERIC ANTIGEN RECEPTOR TRANSGENIC T CELL THERAPY FOR TUBEROUS SCLEROSIS COMPLEX		12.420	W81XWH1810479-P00002	6,173	—
Uncovering the circulating factor in FSGS		12.420	W81XWH1810748	52,733	43,261
Stem Cell Regeneration of Human Spiral Ganglion Neurons toward Hearing Restoration		12.420	W81XWH1810752 P00002	56,506	42,242
Understanding and Supporting Public Information Needs about VCA Donation		12.420	W81XWH1810780	14,952	—
Immune control of triple negative breast cancer by WEE1 inhibition		12.420	W81XWH1910106	(280)	—
Restoring pancreatic endocrine function via autologous islet transplantation to the omentum		12.420	W81XWH1910230	117,058	—
Optimal Selection of Prosthetic Knee and Foot Combination for Improving Walking and Standing Performance in Transfemoral Prosthesis Users		12.420	W81XWH1910447	254,093	57,208
Investigation of the Tumor Microenvironment as a Protective Niche that Supports Treatment Resistance of Bladder Cancer		12.420	W81XWH1910477-P00001	(933)	—
The role of A-to-I RNA editing in advanced prostate cancer		12.420	W81XWH1910563	76,669	—
T cell Trafficking Into the Cold Tumor Immune Microenvironment		12.420	W81XWH1910582 P00001	138,998	—
Modulating the Cochlear Proteostasis Network to Prevent Hidden Hearing Loss		12.420	W81XWH1910627	6,592	—
Comparative Effectiveness of Socket Casting Methods: Improving Form and Fit		12.420	W81XWH1910835-P000022	590,320	426,089
Ethical Factors Impacting Patients' Decisions to Pursue VCA		12.420	W81XWH1920033	101,029	—
Targeting CysLTR1 in triple negative breast cancer		12.420	W81XWH-20-1-0024	364,319	—
Uncovering New Therapeutics and Neuroprotective Mechanisms for TBI		12.420	W81XWH2010211	199,200	—
Towards a Self-Administered Hearing Protection Regimen		12.420	W81XWH2010484	511,404	—
The role of BMI1-associated lncRNAs in advanced prostate cancer		12.420	W81XWH2010504	168,451	—
Improving Acceptability and Outcomes for Upper Extremity Transplantation in Service Members and Veterans		12.420	W81XWH2010507	59,091	—
Determinants of basal forebrain cholinergic neuron vulnerability in Parkinson's disease and Lewy body dementia		12.420	W81XWH2010667	442,282	—
Glycoprotein sialylation of CTC clusters in breast cancer metastasis		12.420	W81XWH2010679	297,276	—
EHR-based Longitudinal Cohort to Explore Pregnancy Outcomes in SLE (ELIPTCL)		12.420	W81XWH2010692 P00001	141,545	8,431
The regulatory axis of lncRNA PRCAT71-AR in advanced prostate cancer		12.420	W81XWH2110146	232,354	—
Suppression of TDP-43 Proteinopathy in Mice by Targeting rad-23		12.420	W81XWH-21-1-0236	232,667	—
Targeting Cholesterol Metabolism in Platinum-Resistant Ovarian Cancer		12.420	W81XWH2110378	362,886	—
Mechanism and therapeutic potential of PTEN-regulated MDSCs in glioblastoma		12.420	W81XWH2110380	331,818	—
Dysfunction in Sensory Circuits in Fragile X Syndrome		12.420	W81XWH2110493	554,974	359,779
Role of E3 Ubiquitin Ligase TRIM25 in Prostate Cancer		12.420	W81XWH2110548	144,068	—
Overcoming androgen receptor-mediated prostate cancer resistance to immunotherapy		12.420	W81XWH211057401	306,852	—
Mechanisms Underlying Sleep Disturbances in Parkinson's Disease		12.420	W81XWH2110582	415,352	—
Mechanisms Underlying Sleep Disturbances in Parkinson's Diseases		12.420	W81XWH2110749	353,923	—
Expanding an Active Surveillance Cohort to Improve Survivorship for Black Men with Favorable Risk Prostate Cancer		12.420	W81XWH-21-1-0849	146,039	—
Sites-Specific Nanofiber-Coated Regulatory T Cells for the Induction of Tolerance in Vascularized Composite Allotransplants		12.420	W81XWH2110862	206,432	—
Sites-Specific Nanofiber-Coated Regulatory T Cells for the Induction of Tolerance in Vascularized Composite Allotransplants		12.420	W81XWH2110911	321,115	—
Aligning Dosimetry and Biomarkers of Lung Injury with Prophylaxis and Mitigation of Damage from Radionuclides and Metals		12.420	W81XWH2110984	1,638,773	1,018,261
Leveraging Systematic Chemical-Genetic Profiling as a Path to Expand Precision Medicine in Breast Cancer		12.420	W81XWH2210018	292,351	—
Enhanced Targeting of CBP/p300 in a Subtype of Metastatic Prostate Cancer		12.420	W81XWH2210125	200,718	—
Identification and Utilization of Upper Motor Neuron Biomarkers for ALS		12.420	W81XWH2210166	99,007	—
Discovery of In Vivo Molecular Pathways Mediating Tau Induced Sleep and Circadian Disruption		12.420	W81XWH2210217	314,493	—
Developing Cell-Based and Mechanism-Focused Preclinical Platforms with Diseased Upper Motor Neurons		12.420	W81XWH-22-1-0271	213,146	—
Targeting Chromothripsis in Malignant Glioma		12.420	W81XWH2210373	98,371	—
Targeting an RNA Binding Protein Network in Glioblastoma by Decoy RNA Oligonucleotides		12.420	W81XWH2210374	122,156	—
A New Humanized Mouse Model For The Study of Peripheral Neuropathies		12.420	W81XWH2210386	40,610	—
New PROTACs Targeting Tissue Transglutaminase in Ovarian Cancer		12.420	W81XWH2210470	163,387	—
New PROTACs Targeting Tissue Transglutaminase in Ovarian Cancer		12.420	W81XWH221047101	156,068	—
Elucidating the Biology of Aggressive Kinase-fusion-driven Cutaneous T Cell Lymphomas.		12.420	W81XWH2210763	132,071	—
Enhancing Cochlear Proteome Fidelity to Prevent Noise-Induced Hearing Loss		12.420	W81XWH-22-1-0773	405,299	—
HYPERBARIC OXYGEN THERAPY TO MITIGATE CHILDHOOD RADIATION INDUCED NEUROCOGNITIVE AND SKELETAL TOXICITY: MULTIMODALITY EVALUATION IN A YOUNG RODENT MODEL		12.420	W81XWH2210822	180,899	—
Multi-institutional Phase 2/3 Trial of Fresh Frozen Plasma (FFP) in Patients with Moderate to Severe Traumatic Brain Injury (TBI)		12.420	W81XWH2211106	351,207	—
Creation of an Anesthesia Resuscitation Kit (ARK) for Prolonged Field Care of Military Casualties with Traumatic Brain Injury		12.420	W81XWH2220060	103,161	—
Developing a MALDI/PET Early Warning Imaging System for Lethal Prostate Cancer	288	12.420	WU-20-307-MOD-3/W81XWH1910795	23,392	—
				14,691,965	1,981,494
SCAN: Socio-Cultural Attitudinal Networks	245	12.431	104773-Z8424106-B/W911NF1610342	58,480	—
Machine learning enhanced models: enabling new materials for hypersonic and protection applications	161	12.431	13001195-045/W911NF-22-2-0123	73,083	—
Developing Quantum Nano-Wire (non-tunnel-junction) Based Superconducting Qubits	228	12.431	1562164/W911NF-22-1-0050	61,724	—
Specifically Triggerable Multi-Scale Responses in Organized Assemblies	246	12.431	16-008956-E-04 // W911NF-15-1-0568	851	—
Generation, manipulation, control, and applications of entanglement in a large network	215	12.431	641796 Mod 2/W911NF2110325 P00001	90,937	—
Self-assembly of Hybrid Synthetic Organelles	222	12.431	703559/W911NF-13-1-0383	57,759	—
Plasma Driven Solution Electrochemistry	250	12.431	A008178002 6 REV/W911NF2010105 P00006	230,272	—
Formal Foundations of Algorithmic Matter and Emergent Computation	85	12.431	AWD-000084-G2/W911NF1910233	114,059	—
Novel Solid Electrolytes Based on Polymeric Ionic Liquids	224	12.431	KK2349/W911NF-23-1-0015	230	—

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Cluster title/federal grantor/subagency/project title	Pass-through entity	Assistance listing number	Sponsor award number	Federal expenditures	Subrecipient expenditures
Design and Construction of a High throughput Oxidation Screening Test (HOST)	80	12.431	PO401182952//W911NF2220114	\$ 196,595	—
Predicting and Controlling the Response of Particulate Systems through Grain-Scale Engineering	33	12.431	S428657-08//W911NF1910245	126,187	—
Disorder engineering: A Geometry-Enhanced Network Theory for irregular METamaterials (GENT-MET)	33	12.431	S576544//W911NF2220109	106,623	—
Realizing High-Fidelity Gates in Protected Qubits	159	12.431	SUB0000298//W911NF1910016	99,359	—
Endosymbiotic control and enhancement of leafhopper brochosomes	267	12.431	UTA20-000832//W911NF2010195 AMD 03	43,706	—
Engineering the translation apparatus for the synthesis of electronically active sequence-defined polymers		12.431	W911NF-16-1-0372 P00018	508,102	264,437
7.4 Reactive Chemical Systems: Assembly and Dynamics of Soft Matter Observed by Liquid Cell TEM		12.431	W911NF-17-1-0326 P00009	30,175	28,409
Stimuli-Responsive Control of Protein-Based Molecular Structure		12.431	W911NF-18-1-0200 P00010	918,473	434,684
Failure Probability and Safety Gain of Super-Strong Biomimetic Nacreous Materials		12.431	W911NF1910039 P00007	28,511	—
The impact of organizational strategy on performance of in vitro biosynthesis reactions		12.431	W911NF-19-1-0298 P00002	58,759	—
II.A.1.b.iii.3: Coupling Magnetic and Ferroelectric Phenomena in Designed 2D Thio- and Selenophosphate Crystals		12.431	W911NF1910335-P00003	3,065	—
II.A.1.a.i.4: Towards Design Rules for the Synthesis of Functional Metal-Organic Frameworks in Aqueous Media at Ambient Temperature for Targeted Applications		12.431	W911NF1910340/P00005	(13,426)	—
Sensitivity and Non-Normality in Network Control and Failure Propagation		12.431	W911NF1910383 P0005	51,197	—
3D Mesosstructures as Active Interfaces to Individual Neurons in 3D Neural Networks		12.431	W911NF1920169-P00010	97,196	—
SR SEQUESTRATION AND MINERALIZATION IN ACANTHAREA		12.431	W911NF2010137 P00004	212,838	—
Development of Metal-Organic Framework@Fiber-based Solid State Catalyst for Degradation of Chemical Warfare Agents: A. 1.a.i.4		12.431	W911NF2020136 P00005	174,211	—
Enhancing Material Development and Manufacturing Technologies of Lightweight Alloys and Tribological Performances for Unmanned Aerial Systems		12.431	W911NF2020292	176,272	—
Deciphering the role of endogenous neurotransmitters in bacterial biofilms		12.431	W911NF-21-1-0291-P00002	164,186	—
Building Constitutive Relationships in Responsive Thermosets: A Multi-scale Experimental and Simulation Effort		12.431	W911NF2120085 P00001	(48,483)	—
CCE-ScMVR-2: High-Power-Density and Energy-Efficient Engine and Drivetrain Technologies (Integrating Materials and Manufacturing Development of Lightweight Alloys and Tribological solutions for UAS)		12.431	W911NF2120199 P00002	1,407,516	—
Examining the Outcomes of Repeated Client Referrals Based on the Trajectories of Care		12.431	W911NF2210180	129,362	—
Dynamics of Grain Shape Evolution in Particulate Media Subjected to Impact		12.431	W911NF2210204 P00001	94,630	—
Generative Models for Tool Use from Robot Play		12.431	W911NF2210286 P00002	124,686	—
Tuning the Molecular Topology of Polymeric Materials for Superior Ballistic Performance		12.431	W911NF2210287-P00001	72,495	—
Improving the engineering performance of coarse-grained soils with direct current electric fields		12.431	W911NF2210291 P00001	124,916	—
The Army Synthetic Biology Center for Predictive Materials Design (PreMaDe)		12.431	W911NF220246 P00001	161,718	—
Preparative Methods for Responsive Polymers		12.431	W911NF-23-1-0098	85,884	—
Exploiting Asymmetry for the Control of Multi-Agent Systems		12.431	W911NF-23-1-0102	18,254	—
Chemical Sciences (2) Electrochemistry: Earth Abundant Electrocatalytic Materials for Converting CO2 to Value-Added Products		12.431	W911NF-23-1-0141	146,105	—
Electrochemistry ARL-BAA-0025: Megalibraries of Electrocatalysts – Synthesis and Optical Screening Methods		12.431	W911NF2310285	27,824	—
Emergent Properties from Hybridization of Conjugated Organic-Inorganic Semiconductor (H-COINS) Halides	171	12.431	X03060652//W911NF2210158	26,164	—
				6,040,495	727,530
DoD Center of Excellence in Advanced Quantum Sensing (CoE-AQS)	62	12.630	21-155HEH AMD 3 // W911NF202076	421,577	—
Rate Effects in the Deformation of Microscale Metallic Samples – Experiments and Simulations	114	12.630	PO #2004091092//W911NF1220022	393	—
The Signatures of Success in Human-Agent Teams		12.630	W911NF1920140-P00005	247,461	150,277
				669,431	150,277
Distributed cell-free manufacturing of biologics-based medical countermeasures		12.910	W911NF2320039 P00002	284,052	11,693
Profiling changes in enzyme activities arising from viral infection using SAMDI mass spectrometry	287	12.RD	1667-45829-11000000777//W 15QKN-16-9-1002	227,187	—
Operator 4.0 via Fatigue and Motion Analyses in a Human Digital Twin Enabled Framework for Smart Manufacturing	210	12.RD	19-13-05//W15QKN-19-3-0003	83,256	54,180
MTEC-17-08-MT-0340: The Effects of Complete and Partial Resuscitative Endovascular Balloon Occlusion of the Aorta (REBOA) with Pharmacologic Treatment in Swine Models of Hemorrhagic Shock, Traumatic Brain Injury, and Complex Vascular Injuries.	2	12.RD	2021-590//W81XWH-19-9-0009	569,815	99,352
AlGaIn for Solar-Blind Avalanche Photo Detectors	148	12.RD	ST18C-003//W912CG-20-C-0009	63,881	—
BA150793: Dose Optimization of Valproic Acid in a Swine Model of Traumatic Brain Injury, Hemorrhage, and Poly-Trauma, with the Initiation of a Clinical Trial.	249	12.RD	SUBK00015247//W81XWH-17-C-0246	2,118	—
Adaptive Technology to Optimize Rehabilitation of Lower Extremity Musculoskeletal Injuries throughout Recovery	204	12.RD	TSI-5077-22-20210199//W81XWH-22-C-0102	1,675	—
Drinking Water Treatment Residuals as Material for in-situ Capping of Metal Contaminated Sediments	233	12.RD	UFDSP00012338//W912HQ18C0039	62,061	—
Cell-free Biomanufacturing Institute		12.RD	W52P1J-21-9-3023 P00001/CS-21-0701	4,726,350	—
CHIPs	259	12.RD	W81XWH2190014//FY2022-18520-SVC	74,498	—
Assistant Secretary of Defense for Health Affairs:					
Top Down Proteomics of Laser Capture Microdissected Samples for the Cancer Moonshot – Supplement	95	12.750	5674 Amnd 2//HU00012120002	(70,532)	—
The Biological Basis of Cognitive and Physical Resilience	95	12.750	5902/66627//HU00012020026	43,821	—
Top Down Proteomics of Laser Capture Microdissected Samples for the Cancer Moonshot	95	12.750	Subaward 5872 PO 1038625 HJF# 66941//HU00012220006	162,870	—
				136,159	—
Defense Advanced Research Projects Agency:					
TRAUMAS: Treatment and recovery augmented with electrical and ultrasound- mediated actuation and sensing	53	12.910	2(GG015670) AMD6//D20AC00004	142,753	—
Self Assembled Morphogenic Metal Coatings	114	12.910	2005560827 Mod No. 2//HR00112220033	219,815	—
D20AC00002 -REPAIR Regenerative Elec. Platform	259	12.910	AWD00001593 (419447-2)//D20AC00002-08	444,222	—
REPAIR: Regenerative Electronic Patch through Advanced Intelligent Regulation	259	12.910	AWD00001593(416052-2) AMD2//D20AC00002	(27,597)	—
				779,193	—
EURYALE: Combating Emergent Execution with a GLANCE	19	12.RD	ASUB00001148//N6600122C4026-P00004	23,716	—
Bringing Auditability to Privacy-Preserving Electronic Health Record Aggregation using Zero-Knowledge Proofs	191	12.RD	HR001120C0087	7,664	—
Wizkit: Wide-Scale Zero-Knowledge Interpreter Toolkit	191	12.RD	Wang AGMT 3/8/21//HRO002230C0087	84,522	—
Defense Logistics Agency:					
Integration of ICME Tools in Casting Design and Process Optimization for Intelligent Manufacturing	11	12.RD	AGMT 2/27/23//SP4701-17-D-1134	7,424	—
Defense Threat Reduction Agency:					
An integrated multi-scale camouflaging platform for cloaking immunogenicity and evading non-specific clearance of therapeutic proteins	56	12.351	90425-20126 Amnd2// HDTRA12010004	49,485	—
Highly Stable and Bifunctional Bio-inspired Catalytic MOFs for Destruction of Chemical Threats		12.351	HDTRA11810003-P00005	13,124	—
Topology-Enhanced Diffusion of Chemical Warfare Agents in Metal-Organic Frameworks for Detoxification		12.351	HDTRA11910007-P00008	346,104	—
Novel Reactive, Porous, and Processable Polymers for Chem-Bio Defense		12.351	HDTRA1-19-1-0010 Amnd P00005	121,127	—
Machine learning-guided design of modular, protein-based medical countermeasures		12.351	HDTRA12110038 P00004	487,953	114,022
Elimination of Chemical Threats via Reactive Metal-Organic Frameworks		12.351	HDTRA12210035	107,080	—
Flexible and Breathable 2-D HOF Composite Fibers for HD Blocking and Degradation in the Dark		12.351	HDTRA12210041 P00001	124,731	—
Interaction with Ionizing Radiation with Matter, University Research Alliance (IIRM-URA)	157	12.351	SA21-09 AMD 04//HDTRA12020002	218,458	—
				1,468,062	114,022

NORTHWESTERN UNIVERSITY
Supplementary Schedule of Expenditures of Federal Awards
Year ended August 31, 2023

Cluster title/federal grantor/subagency/project title	Pass-through entity	Assistance listing number	Sponsor award number	Federal expenditures	Subrecipient expenditures
Intelligence Advanced Research Projects: GRAIL: Generative Range and Altitude Identity Learning	263	12.RD	No. SCON-00002884//No. 2022-21102100007	\$ 250,180	—
Navy:					
A CyberOctopus that Learns, Evolves, and Adapts	237	12.300	095643-17467//N00014-19-1-2373 Amd. 5	49,292	—
From Percolation to Passivation (P2P): Multiscale Prediction and Interrogation of Surface and Oxidation Phenomena in Multi-Principal Element Alloys (MPEAs)	114	12.300	2004734071//N00014-20-1-2368 Amd. #1	328,288	—
Integrated Harvesting and Storage of Oxygen from Seawater Using Efficient Bipolar Membrane Electrolysis, Impurity Tolerant Electrocatalysts, and Desig	257	12.300	234640C//N00014-20-1-2517	173,126	—
Mesoscopic quantum science and metrology with levitated mechanical systems	260	12.300	417315/URFAO: GR510772 AMD. 10//N00014-18-1-2370	53,336	—
Development of Lightweight, Power-Efficient, Soft Electronic Sensor Systems for Next-Generation Oceanographic Measurements	230	12.300	438651//N00014-21-1-2342	19,541	—
Generating Documents that are Consistent with a Knowledge Base	82	12.300	E2045224 Amd 4//N00014-18-1-2670 A00002	386,454	—
Understanding Atomic Scale Structure in Four Dimensions to Design and Control Mesoscale Morphologies for Oxidation Resistant Alloys		12.300	N00014-16-1-2280-P00011	223,270	125,391
Hierarchical Nanoscale Metamaterials		12.300	N00014-17-1-3023 P00005	238,860	—
Plasmonic-Dielectric Metamaterials for Enhanced Spectroscopy and Controlled Chemistry		12.300	N00014-17-1-3024 P00005	486,022	—
Screening For and Preclinical Evaluation of Drugs for Hearing Loss		12.300	N00014-18-1-2508 P00005	111,946	—
High-Strength High-Toughness 10%Ni Naval Steels		12.300	N00014-18-1-2594 P00005	(1)	—
A New Method for Compact, High-Performance Atom Interferometric Sensors		12.300	N00014-19-1-2181 P00004	897	—
Theoretical Foundations and Scalable Algorithms for Mixed-Integer Convex Optimization with System Choice		12.300	N00014-19-1-2321 P00001	55,508	53,169
Building Adaptive, Dependable, and Secure Systems with a Cross-Layer Weakly-Hard Paradigm		12.300	N00014-19-1-2496 P00004	160,265	91,957
Manufacturing Process Compiler – A Foundation for New Process Generation		12.300	N00014-19-1-2642-P00004	375,598	—
Disruptive Durable All-Polymer Solar Cells (FY2019-000119-AS)		12.300	N00014-20-1-2116-P00004	245,048	—
Integrated Computational Materials Engineering of Functional Materials Using Phase Field Methods		12.300	N00014-20-1-2327	218,544	—
Towards Intelligent Agents that Learn by Multimodal Communication		12.300	N00014-20-1-2447-P00004	174,815	—
COVID-19: Retrofitting stainless steel with a self-sanitizing surface layer		12.300	N00014-20-1-2685//P00001	1,835	—
Design of 1D/2D/3D perovskite composites for enhancing the stability of high efficiency solar cells		12.300	N00014-20-1-2725 P00003	127,485	—
3D assembly of bidirectional bioelectronic scaffolds towards accelerated tissue repair		12.300	N00014-20-1-2777	182,518	—
Automated Mental Health Assessment (AMHA) to Predict Destructive Behaviors		12.300	N00014-21-1-2216 P00002	98,313	—
Direct Laser Writing of In-Fiber Ring Resonator Acoustic Emission Sensors for Structural Health Monitoring 20-000000919		12.300	N00014-21-1-2233 P00001	81,283	—
Collective Coupling in Hybrid Plasmon Lattice-Exciton Materials		12.300	N00014-21-1-2289 P00002	342,967	—
Fundamental Principles of Phase Transformations, Strength and Toughness in High-Strength 10 wt.% Ni Steels for US Naval Applications		12.300	N00014-21-1-2398 P00004	61,481	—
Multi-scale Metamorphic Manufacturing (MMM): Double-Sided Incremental Forming for Functional Metal Plates with Multi-scale Riblet Textures		12.300	N00014-21-1-2484 P00001	147,645	—
Stochastic Constrained Optimization		12.300	N00014-21-1-2675 P00004	137,751	—
Surface and Interface Engineering of Borophene Nanoelectronic Materials		12.300	N00014-21-1-2679 P00004	234,962	—
ACTIVE LEARNING SENSOR-OBJECT MODELS IN HIGHLY VARIABLE ENVIRONMENTS		12.300	N00014-21-1-2706 P00002	121,194	—
Additive manufacturing of ultra-strong precipitation-hardened aluminum alloys for high and ambient temperature applications		12.300	N00014-21-1-2782 P00002	137,175	—
Phase Field Fracture Simulation Assessment		12.300	N00014-21-1-2784 P00002	248,592	139,638
Femtosecond Fiber Laser Engine for Multiscale Multiphoton 3D Direct Laser Writing		12.300	N00014-21-1-2874	263	—
Physics-Based Machine Learning Parametrization of Force Fields with in-situ TEM Experimental Validation		12.300	N00014-22-1-2133 P00002	200,774	—
Towards the exploitability escalation for software vulnerabilities		12.300	N00014-22-1-2158/P00003	175,931	—
Cognitive Expertise by Repetition-Enhanced Simulation-based (CERES 2) Training continuation		12.300	N00014-22-1-2162 P00001	211,780	—
Disorder-Promoted Synchronization. 21-000000008		12.300	N00014-22-1-2200 P00004	315,085	169,754
Self-Sensing, Optoelectronic Artificial Muscle Tissues for Energy Efficient Locomotion in Soft Machines		12.300	N00014-22-1-2447 P00001	191,028	—
Generalized Submodular Optimization: Theory, Algorithms, and Computation (21-000000918)		12.300	N00014-22-1-2602-P00002	117,188	—
Mechanistic investigations of the production of fuels from captured CO2		12.300	N00014-22-1-2690	279,481	—
Microstructure, mechanical properties, and damping capacity in High-Mn Steels		12.300	N00014-22-1-2693/P00001	35,362	—
Revealing The Electrode and Electrolyte Microstructure in Li-Ion Batteries		12.300	N00014-22-1-2747	166,933	—
Learning by Multimodal Communication by Intelligent Agents		12.300	N00014-23-1-2294	42,048	—
Discovery of High-Capacity Oxyulfide Cathode Materials with Reversible Anion Redox		12.300	N00014-23-1-2311	12,376	—
Femtosecond Laser Structuring of Active Optical Fiber Sensors for System Health Monitoring		12.300	N00014-23-1-2529	93,443	—
				7,065,702	579,909
Planar Type-II Superlattice Photodetectors for High Operating Temperature MWIR	148	12.RD	AGMT 9/19/22//N6833521C0650	36,999	—
Monolithic Integration of Quantum Cascade Lasers on Silicon Substrates	148	12.RD	AGMT 9/19/22//N6893622C0023	51,024	—
Planar Type-II Superlattice Photodetectors for High Operating Temperature MWIR	148	12.RD	LETTER – 07/27/2021//N6833521C0650	(12,146)	—
Total Department of Defense				49,776,236	8,045,705
Department of Education:					
Fulbright Hays DDRR De Leon		84.022	P022A200036-1	25,884	—
Real Pay for Real Jobs: Virginia DIF	284	84.421	CTR011717//H421D220008	111,981	—
Institute of Education Sciences:					
Evaluation of an Intervention to Improve Academic Outcomes for Low-Income Urban Youth through Instruction in Effective Coping Supported by Mentoring Relationships	63	84.305	501600SG2205//R305A210263	105,008	—
Moving Beyond the Average: Building a Comprehensive Model of Classroom Quality that Incorporates Children's Individual Experiences	253	84.305	511787B//R305A200308	5,211	—
Validity Evidence on the Spatial Ability Assessment for STEM Instruction and Evaluation	213	84.305	A21-0360-S002-A01//R305A210428-22	45,760	—
Sense-Making in the Disciplines: Supporting Reading and Argumentation in Literature and History		84.305	R305A180463-21	225,088	20,974
A Summer RCT Institute for Established Researchers		84.305	R305B200029-22-3	171,373	21,619
Multidisciplinary Program in Educational Sciences		84.305	R305B200037-3	1,250,583	—
Design Comparable Effect Sizes for Single Case Designs		84.305	R305D220052-23	91,475	—
What We have Learned in 20 Years of IES Randomized Trials		84.305	R305U200005 – 21	210,223	—
Exploring the Spatial Alignment Hypothesis in STEM Learning Environments	293	84.305	S-00014999 // R305A170165	45,759	—
Meta-Analysis Training Institute	86	84.305	SP00014145-01 Amd 2//R305B190002	18,101	—
Meta-analysis Training Institute	86	84.305	SP00015498-02//R305B220007	24,911	—
				2,193,492	42,593
Rethinking Accessibility Using NAEP Process Data: Exploring Universal Design and Accommodations	12	84.324	0517600001 MOD No. 01//R324P210002	22,553	—
Training-Induced Language and Literacy Improvement in Children with Cochlear Implants	78	84.324	R01834 // R324A160193	5,480	—
Reducing Time to Autism Diagnosis for Toddlers Enrolled in Early Intervention		84.324	R324X220088 – 23	683,332	—
				711,365	—
Total Department of Education				3,042,722	42,593

NORTHWESTERN UNIVERSITY
 Supplementary Schedule of Expenditures of Federal Awards
 Year ended August 31, 2023

Cluster title/federal grantor/subagency/project title	Pass-through entity	Assistance listing number	Sponsor award number	Federal expenditures	Subrecipient expenditures
Department of Energy:					
Autoxidation Mechanisms and Methods for Plastics Upcycling	275	81.049	000002714//DE-SC0023281	\$ 3,574	—
Quantum Materials for Energy Efficient Neuromorphic Computing (Q-MEEN-C)	222	81.049	112383860//DE-SC0019273	(15,489)	—
Enhancing the Performance of Plasma-facing Materials Through Solute-stabilized Nanostructured Tungsten Alloys	190	81.049	1142453/2/79383 // DESC0017899	(607)	—
Surfactants at Air-Aqueous Interfaces for Lanthanide Recovery	258	81.049	583468 AMND 1//DE-SC0022240	46,087	—
Nanoporous Materials Genome: Methods and Software to Optimize Gas Storage, Separations, and Catalysis	250	81.049	A003127002 Amd 11//DE-SC0008688	16,216	—
EFRC/UMN: Inorganometallic Catalysts	250	81.049	A004527502//DE-SC0012702 Amd #10	24,601	—
Development of Machine Learning and Molecular Simulation Approaches to Accelerate the Discovery of Porous Materials for Energy-Relevant Applications	250	81.049	A010026304//DE-SC0023454	124,613	—
Center for Interacting Geo-processes in Mineral Carbon Storage	250	81.049	A010319801//DE-SC0023429	106,334	—
Development of LiInP2Se6 for Ultra-High Resolution Neutron Imaging	264	81.049	A19-0447-S002//DE-SC0019446	104,517	—
Quantum Wrapper Networking for Entanglement Management and Control in Transparent Optical Quantum Networks	217	81.049	A22-1495-S001//DE-SC0022336	124,921	—
Tailoring the Selective Transport Pathway of Rare Earth Elements in Solid Ionic Channels Guided by In Situ Characterization and Predictive Modeling	226	81.049	AWD102447 (SUB00000607) Amnd 1//DE-SC0022231	53,482	—
Institute for Environmental Catalysis	81.049	81.049	DE-FG02-03ER15457-0020	1,508,286	—
Antiferromagnetism and Superconductivity	81.049	81.049	DE-FG02-05ER46248-0018	(1,633)	—
Epitaxial Multifunctional Oxide Heterostructures	81.049	81.049	DE-FG02-06ER46346-0015	7,876	—
Coordination-Chemistry-Derived Materials Featuring Nanoscale Porosity and Selective Chemical Separation Capabilities	81.049	81.049	DE-FG02-08ER15967/0017	269,877	—
Electrostatic Driven Self-Assembly Design of Functional Nanostructures	81.049	81.049	DE-FG02-08ER46539-0014	227,224	—
Fundamental Studies of Light-Induced Charge Transfer, Energy Transfer, and Energy Conversion with Supramolecular Systems	81.049	81.049	DE-FG02-87ER13808 Mod 0041	216,898	—
Approaches to Integrated Photochemical Systems for Solar Energy Conversion	81.049	81.049	DE-FG02-99ER14999-0024	406,893	—
Center for Bio-Inspired Energy Science (CBES)	81.049	81.049	DE-SC0009899-0012	1,266,176	599,078
CENTER FOR LIGHT ENERGY ACTIVATED REDOX PROCESSES (LEAP) (Formerly ANSER)	81.049	81.049	DE-SC0001059 Amd 0010	(79)	(79)
Surface Plasmon Enhanced Chemistry	81.049	81.049	DE-SC0004752-0013	139,779	—
Design of Next Generation Thermoelectrics	81.049	81.049	DE-SC0014520-0006	116,713	—
Research in the Energy, Cosmic and Intensity Frontiers and Theoretical Physics at Northwestern University	81.049	81.049	DE-SC0015910-0007	1,076,039	—
Missing links in biological methane and ammonia oxidation	81.049	81.049	DE-SC0016284 0005	107,179	—
Properties, Electrochemical Activity, and Stability of Solid Oxide Cell Materials Under Extreme Conditions	81.049	81.049	DE-SC0016965-0006	224,650	—
Geophysical Feedbacks between Fluid-Assisted Sediment Fracture, Compaction and Faulting	81.049	81.049	DE-SC0017615 0006	138,641	—
Establishing a Clostridia foundry for biosystems design by integrating computational modeling, systems-level analyses, and cell-free engineering technologies	81.049	81.049	DE-SC0018249-P0004	1,250,402	802,203
Employing bacterial microcompartments to create privileged redox pools for biofuel production	81.049	81.049	DE-SC0019337 0002	(1,175)	—
Biosynthesis of bioprivileged, linear molecules via novel carboligase reactions	81.049	81.049	DE-SC0019339/0003	(16,427)	—
Towards the Mechanism of N2 Fixation by Nitrogenase	81.049	81.049	DE-SC0019342/0005	225,546	—
Creating and Interfacing Designer Chemical Qubits	81.049	81.049	DE-SC0019356-0005	1,516,420	1,020,457
PROTEUS: Machine Learning Driven Resilience for Extreme-scale Systems	81.049	81.049	DE-SC0019358//18SC503797	316,756	—
Systems for Transducing Entanglement between Photons and Electron Spins	81.049	81.049	DE-SC0020168 0002	136,387	67,047
Supramolecular Dynamics in Self-Assembling Materials	81.049	81.049	DE-SC0020884-0003	43,566	—
Understanding functional dynamics on the nano scale through an integrated experimental-computational framework	81.049	81.049	DE-SC0020885-0002	214,286	—
Toward Selective Photocatalytic Conversion of Methane to Methanol by a Colloidal Quantum Dot: Spatio-Temporal Reaction Control and in Situ Methanol Protection Schemes	81.049	81.049	DE-SC0021169 0002	48,457	—
Catalytic Kinetics and Mechanisms in Phosphorus Recycling from Ribonucleotide Structures by Iron Oxide Minerals	81.049	81.049	DE-SC0021172 0002	74,692	—
Center for Molecular Quantum Transduction (CMQT)	81.049	81.049	DE-SC0021314 0003	3,319,156	1,514,320
RAPIDS2: A SciDAC Institute for Computer Science, Data, and Artificial Intelligence	81.049	81.049	DE-SC0021399-0003	121,481	—
Structure-Property Relationships in Porous Electrodes for Electrochemical Energy Storage	81.049	81.049	DE-SC0022119-0002	127,618	—
Engineering bacterial microcompartments in Clostridium autoethanogenum to overcome bottlenecks in sustainable production of synthetic rubber	81.049	81.049	DE-SC0022180-0002	647,443	438,439
Quantitative Analysis of Metabolic Segregation of Lignin Deconstruction and Catabolism in Outer Membrane Vesicles of Soil Pseudomonas species	81.049	81.049	DE-SC0022181-0002	142,893	—
Low-Valent Actinide Complexes Featuring Tunable Carborane-Based Ligands	81.049	81.049	DE-SC0022204/0003	271,424	—
X-CELLENT: X-Compiler Extending LLVM for Enhanced Natural Translation	81.049	81.049	DE-SC0022268-0002	187,550	—
Spatio-Temporal Dynamics of CO2 Capture by Sorbents: Multimodal, In-Situ and Operando Measurements	81.049	81.049	DE-SC0022332 0002	1,215,456	369,568
Modeling Accelerated Development of Interface Engineered Tungsten Alloy Plasma Facing Materials	81.049	81.049	DE-SC0023219-0001	177,496	—
Systems for Transducing Entanglement between Photons & Electron Spins	81.049	81.049	DE-SC0023233 Mod0001	212,527	45,215
Integrating cell-free systems and genome engineering to accelerate biosystems design for carbon-negative biomanufacturing	81.049	81.049	DE-SC0023278-0001	191,591	—
Interfacial Spectromicroscopy of Water Oxidation at Earth Abundant Solar Photoanodes	81.049	81.049	DE-SC0023342 002	294,538	—
Community Research On Climate and Urban Science (CROCUS)	81.049	81.049	DE-SC0023364	63,753	—
EFRC: Catalyst Design for Decarbonization Center	226	81.049	DE-SC0023383//AWD103461 (SUB00000767)	443,677	—
Hydrogen in Energy and Information Sciences (HEISs)	81.049	81.049	DE-SC0023450/0001	1,222,388	437,115
Scale Invariance, Unitarity Limit and Entanglement Suppression in Nuclei and Hardons	81.049	81.049	DE-SC0023522	76,633	—
Redesigning Polymers to Leverage A Circular Economy (RePLACE)	52	81.049	G-64020-02 AMND No. 1//DE-SC0022290	358,206	—
Hybrid Metal Halides: Advancing Optoelectronic Materials	224	81.049	KK2107 02//DE-SC0012541	223,514	—
Switchable Quantum Buffer for Transparent Optical Quantum Network	158	81.049	Kumar AGMT 6/16/21//DE-SC0020537	333,245	—
High Efficiency Semiconductors for Nuclear Material Accounting	163	81.049	RMD C21-15//DE-SC0020039	(4,873)	—
LiInP2Se6, a New Semiconductor Detector Material for High Resolution Neutron Imaging	163	81.049	RMD C22-19 Amnd 1//DE-SC0021554	151,745	—
Biological Imaging Using Entangled Photons	249	81.049	SUBK00015295-1//DE-SC0022118	246,132	—
Mechano-Chemical Understanding of Solid Ion Conductors (MUSIC)	249	81.049	SUBK00017482//DE-SC0023438	140,502	—
				20,265,773	5,293,363
Artificial Intelligence (AI) – Assisted Hybrid Renewable Energy, Nutrient, and Water Recovery from Municipal Wastewater					
Theory-Guided Design and Discovery of Materials for Reversible Methane and Hydrogen Storage	226	81.086	AWD102571 (SUB00000611)//DE-EE0009505	134,312	—
Crossing the Finish Line: Integration of Data-Driven Process Control for Maximization of Energy and Resource Efficiency in Advanced Water Resource Recovery Facilities	289	81.086	DE-EE0008816-0003	112,429	—
Replacing Cerium with Energy-Efficient Mischmetal in Cast Aluminum Alloys for Aerospace Applications	81.086	81.086	DE-EE0009508//5143	38,694	—
Securing Grid-Interactive Efficient Buildings (GEB) through Cyber Defense and Resilient System (CYDRES)	198	81.086	DE-EE0010221	69,328	—
A Digitally Informed Approach to Enhanced Heat Recovery through Additive Manufacturing of "Adaptive Thermoelectric Modules" for Energy Conversion Plat	3	81.086	M2001973-02//DE-EE0009150	53,995	—
Novel Organosulfur-Based Electrolytes for Safe Operation of High Voltage Li-ion Batteries Over a Wide Operating Temperature	81	81.086	PO 200136011//DE-EE0009104	286,713	—
				114,738	—
				810,209	—
Role of Fluid and Temperature in Fracture Mechanics and Coupled THMC Processes for Enhanced Geothermal Systems					
Reprocessing and Upcycling of Mixed Polyurethane Waste Streams	161	81.087	14000614-021-02//10039612-PURDUE-5-2557	129,017	—
Identifying Performance Advantaged Biobased Chemicals Utilizing Bioprivileged Molecules	193	81.087	20-01-RR-4071//DE-EE0007897	275,285	50,000
Development of Instruments and Techniques that Can Assess Tire Life and Increase Re-Manufacturing of Commercial Vehicle Tires	107	81.087	401-20-25A AMD 3//DE-EE0008492/003	217	—
Engineered reversal of the β -oxidation cycle in clostridia for the synthesis of fuels and chemicals	133	81.087	AGMT 3/29/22//DE-EE0007897	30,144	—
Efficient Reversible Operation and Stability of Novel Solid Oxide Cells	81.087	81.087	DE-EE0008354-0002	146,791	146,133
ResIn: Responsible Innovation for Highly Recyclable Plastics	81.087	81.087	DE-EE0008437-0005	7,393	5,847
				391,088	—

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REMADE: Chemical Recycling of Mixed PET/Polyolefin Streams Through Sequential Pyrolysis and Catalytic Upgrading	156	81.087	S002565-RI//20 01 RR 4034(DE-EE0007897)	\$ 147,993	—
Integrated biochemical and electrochemical technologies (IBET) to convert organic wastes to biopower via North American research and educational partnerships	249	81.087	SUBK00013108 AMD 1//DE-EE0009284	133,954	—
				1,261,882	201,980
Novel Algae Technology to Utilize CO2 for Value Added Products	93	81.089	DE-FE0031710	70,556	—
Versatile Reversible Solid Oxide Cell System for Hydrogen and Electricity Production	143	81.089	DE-FE0031986//Barnett 2/18/22	70,889	—
				141,445	—
Uranium Recovery from Used Nuclear Fuel Using Metal Sulfides		81.121	DE-NE0009173-0001	163,018	—
Concurrent Design of a Multimaterial Niobium Alloy System for Next-generation Turbine Applications	162	81.135	Agreement 5/16/23//DE-AR0001436-0002	80,437	—
Accelerated Discovery of Compositionally Complex Alloys for Direct Thermal Energy Conversion	188	81.RD	197455//DE-AC02-76SF00515-MOD05	179,635	—
Statement of Work by Northwestern University for SuperCDMS Operations	188	81.RD	219799//DE-AC02-76SF00515	24,707	—
Growth and Integration of Two-Dimensional Transition Metal Dichalcogenides for Logic and Memory	139	81.RD	2207198//DE-NA0003525	150,983	—
DOE NQI Center: Co-design Center for Quantum Advantage	30	81.RD	390039-Mod 5//DE-SC0012704	231,039	—
Structure and Properties of Al-Ce-based eutectic alloys created by Laser Powder-Bed fusion	277	81.RD	4000179340//DE-AC05-00OR22725	5,356	—
Compressive Creep Behavior of Cast Al-Cu-Mn-Zr Alloys	277	81.RD	4000182026 Mod# 6//DE-AC05-00OR22725	100,927	—
Rational Design and Development of Crystalline and Amorphous Metal Sulfides for the Sequestration of Peractin from Simulated Nuclear Waste Streams and Tank Waste	111	81.RD	634D74-NWU//TOA 0000456322	(63)	—
Illinois-Express Quantum Network (IEQNET)	76	81.RD	664603 MOD 3//DE-AC02-07CH11359	220,240	—
QuantiSED research at Fermilab	76	81.RD	667512//DE-AC02-07CH11359 MOD 2	61,508	—
Support for Eric Viklund	76	81.RD	669754//DE-AC02-07CH11359 Mod. 2	70,948	—
(SQMS Prime) Superconducting Quantum Materials & Systems	76	81.RD	674560-MOD004//DE-AC02-07CH11359	3,438,401	—
Graduate Student Support: Tae-Yoon Kim	76	81.RD	675487//DE-AC02-07CH11359	61,508	—
Joint Appointment of Vedran Brdar	76	81.RD	675731	8,137	—
Research on potential of 3D printing superconductor for SCU applications	76	81.RD	677927//DE-AC02-07CH11359	69,167	—
Accelerator Real-time Edge AI for Distributed Systems (READS)	76	81.RD	678041 Mod. 1//DE-AC02-07CH11359	164,131	—
Neutrino Theory Network	76	81.RD	679023//DE-AC02-07CH11359	90,772	—
A Design Methodology for ASICs in Cryogenic Operation	76	81.RD	679396//DE-AC02-07CH11359	31,712	—
Multi-Node Entanglement Swapping Demonstrator	76	81.RD	687755//DE-AC02-07CH11359	79,125	—
For support of Innes Bigaran	76	81.RD	692681//DE-AC02-07CH11359	61,087	—
Development of the Quantum Science Center Underground Test Stand (QUIET)	76	81.RD	692966//DE-AC02-07CH11359	58,528	—
LUX-ZEPLIN (LZ) Experiment Support and Operations	219	81.RD	7579174-Mod02//DE-AC02-05CH11231	1,841	—
Joint BioEnergy Institute	219	81.RD	7653251 Mod No. 1//DE-AC02-05CH11231	55,339	—
Effects of Ultrafast and Coherent Electronic and Nuclear Motions in Photochemical Processes	208	81.RD	8F-30078-M0007//DE-AC02-06CH11357	2,090	—
Joint Center for Energy Storage Research	208	81.RD	8F-30158//DE-AC02-06CH11357 M00014	232,819	—
Center for Electrolyte-Electrode Interface Science (CEEIS)	208	81.RD	8J-30009//8J-30009-0009A-0009E	(117)	—
Biofuels for enhanced fuel economy	208	81.RD	8J-30009-0019A Rev No. 0019E	94,254	—
High-performance I/O Research, Development, and Deployment for DataLib	208	81.RD	8J-30009-0020A	77,920	—
COVID-19: Tunable, Robust, Foul-resistant, Hybrid Hydrophobic-Hydrophilic (TuRF) Metasurfaces for High Temperature Heat Exchange Operations	208	81.RD	8J-30009-0021C	58,020	—
Exploring Machine Learning-based Approaches to Auto-tuning Distributed Memory Communication	208	81.RD	8J-30009-0027A Rev No. 0027E	148,200	—
Threadwork: A Transformative Co-Design Approach to Materials and Computer Architecture Research	208	81.RD	8J-30009-0032A REV NO. 0032C	196,422	—
National Quantum Information Science Research Centers	208	81.RD	8J-30009-0033B	164,039	—
Advanced Statistical Analysis of Coherent X-Ray Diffraction Data	208	81.RD	8J-30009-0036A//DE-AC02-06CH11357	58,463	—
Ultrafast Dynamics and Coherence Measurements in Organic Frameworks	208	81.RD	8J-30009-0037A//DE-AC02-06CH11357	26,952	—
Support for Mauricio Angelone	208	81.RD	8J-30009-0038B//DE-AC02-06CH11357	17,369	—
Rational Synthesis of Superconductors	208	81.RD	8J-30009-0039A//DE-AC02-06CH11357	127,125	—
Experimental investigation of dynamic behavior in colloids powered by Quincke rotations	208	81.RD	8J-30009-0040A REV NO. 0040B	68,190	—
Graduate Student Work Order – Anirudh Ramesh: Quantum Entanglement Distribution over Deployed Fiber at Argonne	208	81.RD	8J-30009-0043A-0043B//DE-AC02-06CH11357	44,828	—
Selective Upgrading of Alkenes via Organometallic-Support Electronic Interactions	208	81.RD	8J-30009-0044A//DE-AC02-06CH11357	22,778	—
Graduate Student Work Order – Shinjan Dutta	208	81.RD	8J-30009-0045A	50,525	—
Support for Kagan Simsek	208	81.RD	8J-30009-0046A//DE-AC02-06CH11357	15,132	—
Exploration of skyrmion lattice behavior in 2-D materials	208	81.RD	8J-30009-0047A	46,487	—
Advanced Materials for Energy-Water Systems	208	81.RD	8J-30009-0048B//DE-AC02-06CH11357	85,191	—
Support of Emmanuel Aneke	208	81.RD	8J-30009-0049A//DE-AC02-06CH11357	15,377	—
Wastewater Systems	208	81.RD	8J-30009-0050A//DE-AC02-06CH11357	19,722	—
Perovskite Semiconductors	208	81.RD	8J-30009-0051A//DE-AC02-06CH11357	18,346	—
Redesigning Multimodal Transit Systems with Shared Fleet Mobility Services (SFMS)	208	81.RD	8J-30009-0052A REV NO. 0052B	65,581	—
Mobile Robotic Hot Cell/Glovebox System for Hazardous and Radioactive Waste Disposition	208	81.RD	8J-30009-0053A	112,175	—
Ultrafast Functional Structural Dynamics in Solar Energy Conversion	208	81.RD	8J-30009-0054B//DE-AC02-06CH11357	35,374	—
Joint appointment-Pyosang Kim Argonne funding	208	81.RD	Agmt 02/01/2023	44,577	—
Advanced Materials for Energy-Water Systems (AMEWS)	208	81.RD	Agmt 08/01/22 // 8J-30009-0008A-Revision 0008F	3,347	—
Advanced Materials for Energy-Water Systems (AMEWS)	208	81.RD	Agmt 09/15/21 // 8J-30009-0007A-0007E	31,777	—
Argonne joint appointment funding-Shu Xu	208	81.RD	Agmt 1/6/2022 ANL-JA-9629	44,661	—
Renewal JA – Wei-Keng Liao	208	81.RD	Agmt 10/19/2022	293,801	—
Sri Bala Gorugantu Argonne joint appointment funding	208	81.RD	AGMT 10/28/22	42,071	—
ANL joint appointment funding-Alok Choudhary-data libraries	208	81.RD	Agmt 10/31/2022	12,301	—
JA Renewal for Jennifer Dunn	208	81.RD	Agmt 10/31/2022	41,008	—
Joint Appointment Funding Qunfei Zhou	208	81.RD	Agmt 12/13/2022	46,964	—
Hacksung Kim Renewal JA funding	208	81.RD	AGMT 12/13/22	104,533	—
Luqing Wang JA funding	208	81.RD	Agmt 12/8/2022	71,442	—
ANL JA Funding Bhupendra Raut	208	81.RD	Agmt 2/1/23	78,339	—
Argonne joint appointment funding for Joseph Swantek	208	81.RD	Agmt 5/4/2022	40,057	—
Haoran Wu Joint Appointment Funding	208	81.RD	Agmt 7/7/2022	69,720	—
Joint appointment-funding for Hacksung Kim	208	81.RD	AGMT 8/24/22	53,376	—
Argonne Joint Appointment – Low	208	81.RD	Agmt 9/1/21	(3,580)	—
Argonne joint appointment funding for Joshua Paul	208	81.RD	Agmt# 09/26/22	75,964	—
Support for Daniel Wiegand	208	81.RD	Agreement 9/14/18	(1)	—
Joint Appointment – Yinsheng Huang	208	81.RD	ANL-JA-10754	40,021	—
Joint Appointment – Minglei Xiao	208	81.RD	ANL-JA-10757	43,184	—
Argonne Joint Appointment – Kanatzidis	208	81.RD	ANL-JA-11582	203,411	—
Argonne Joint Appointment – Low	208	81.RD	ANL-JA-11583	102,408	—

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Argonne Joint Appointment – Petriello	208	81.RD	ANL-JA-11584	\$ 117,229	—
Joint Appointment – Poeppelmeier	208	81.RD	ANL-JA-11867	10,240	—
Argonne joint appointment funding for Sai Phani Kumar Vangala	208	81.RD	ANL-JA-8364	13,230	—
Argonne joint appointment funding for Sabyasachi Das	208	81.RD	ANL-JA-9267	11,203	—
Argonne Joint Appointment – Kanatzidis	208	81.RD	EDSR Agmt. 08/20/14	5,095	—
Joint Appointment Agreement – Petriello	208	81.RD	EDSR Agmt. 08/26/14	(4,090)	—
Unlocking the Tunable Plasmonic Properties of Borophene for Optoelectronics	149	81.RD	Letter 6/30/21	8,409	—
SFA-Secure Biosystems Design: Rapid Design and Engineering of Smart and Secure Microbiological Systems	208	81.RD	No. 8J-30009 0029C-Rev No. 0029F	138,054	—
Development of Hi-Z X-ray Detector	208	81.RD	NO. 8J-30009-0031D	106,527	—
Exploring Role of Disorder on Artificial Spin Ices	208	81.RD	NO. 8J-30009-0041B	61,983	—
Mapping Atomic Scale Topological Excitations in Quantum Materials	208	81.RD	NO. 8J-30009-0042B	60,432	—
SFA-Secure Biosystems Design: Intrinsic Control for Genome and Transcriptome Editing in Communities	139	81.RD	PO 2223937//DE-NA0003525	311,576	—
Resistive Memory Development	139	81.RD	PO# 2330357 Rev.4//DE-NA0003525	131,444	—
REMADE: Material Characterizations and Sorting Specifications That Can Allow the Development of Advanced Tire Constructions with High Incorporation of Recovered Rubber Materials	133	81.RD	REMADE-18-02//DE-EE0007897	(47)	—
Institute for Cooperative Catalysis in Upcycling of Polymers (ICOU)	108	81.RD	SC-20-534 Mod 7//DE-AC02-07CH11358	246,535	—
Synthesis and Analysis of Performance-Advantaged Bioproducts (PABPs)	6	81.RD	SUB-2021-10692 Mod. 3//DE-AC36-08GO28308	121,744	—
Structure and Properties of Al-Ce-based eutectic alloys created by Laser Powder-Bed Fusion	277	81.RD	Task Order 4000192632//DE-AC05-00OR22725	65,175	—
Rational Synthesis of Superconductors and Superconductivity and Magnetism	208	81.RD	WO 8J-30009-0028A-0028D	68,427	—
Advanced Research Projects Agency-Energy:					
Additive Manufacturing of Ultrahigh Temperature Refractory Metal Alloys	275	81.135	0000001327//DE-AR0001431	101,131	—
Hybrid Interior-Point/Active-Set PSCOPF Algorithms Exploiting Power System Characteristics	119	81.135	543891-78001//DE-AR0001073	26,111	—
Adaptive Discovery and Mixed-Variable Optimization of Next Generation Synthesizable Microelectronic Materials		81.135	DE-AR0001209-001	144,625	15,395
LOCOMOTIVES: Lowering CO2 -- Models to Optimize Train Infrastructure, Vehicles, and Energy Storage		81.135	DE-AR0001469-0004	323,317	—
Self-Assembling Cell-Free Systems for Scalable Bioconversion	274	81.135	UWSC13104 AMND No. 1//DE-AR0001514	40,422	—
				635,606	15,395
National Nuclear Security Administration:					
Chicago-DOE Alliance Center – A Center of Excellence for High Pressure Science and Technology	236	81.112	18046-03//DE-NA0003975 Mod 0010	96,661	—
Actinide Center for Excellence	255	81.112	203186NU AMD 6//DE-NA0003763	156,841	—
				253,502	—
Advanced Grid Modeling Project on Optimized Resilience for Distribution and Transmission Systems	203	81.RD	6656 Mod. 2//89233218CNA000001	112,934	—
Total Department of Energy				33,605,643	5,510,738
Department of Health and Human Services:					
Administration for Children and Families:					
Florida's Office of Early Learning Sunshine Portal Project	233	93.434	SUB00002383-02//P0177546//90TP0068-01-00	73,980	—
Administration for Community Living:					
Rehabilitation Research Training Center (RRTC) on employment for people with Physical Disabilities	165	93.433	80413//90RTEME0001-05-00	22,374	—
Collaborative Machines Enhancing Therapies (COMET)	165	93.433	82258//90REGE0005	6,436	—
Rehabilitation Science for Basic Scientists and Engineers: An Advanced Training Program		93.433	90AR5031-05-03	5,028	650
Advanced Rehabilitation Research Training (ARRT) Program – Community Living and Participation		93.433	90ARCP0006-01-01	10,790	—
Advanced Rehabilitation Research Training (ARRT) Program – Community Living and Participation		93.433	90ARCP0006-02-00	16,210	—
Advanced Rehabilitation Research Training (ARRT) Program – Employment		93.433	90AREM0003-02-00	(360)	—
Advanced Rehabilitation Research Training (ARRT) Program – Employment		93.433	90AREM0003-03-00	5,337	—
Advanced Rehabilitation Research and Training (ARRT) Program: Northwestern University Advanced Rehabilitation Research Training Application		93.433	90ARHF0003-04-00	28,960	—
Advanced Rehabilitation Research and Training (ARRT) Program: Northwestern University Advanced Rehabilitation Research Training Application		93.433	90ARHF0003-05-00	60,209	—
Advanced Rehabilitation Research Training: Interventions for Neurologic Communication Disorders		93.433	90ARHF0007-01-00	1,634	—
Advanced Rehabilitation Research Training: Interventions for Neurologic Communication Disorders		93.433	90ARHF0007-02-00	120,977	12,977
Advanced Rehabilitation Research Training: Interventions for Neurologic Communication Disorders		93.433	90ARHF0007-03-00	28,962	—
Northwestern University Policy Research Fellowship		93.433	90ARPO0001-05-02	37,147	—
Enhancing Community Living and Increasing Participation through Self Efficacy (Eclipse)	165	93.433	90RTCP0005-01-00AMD1//90RTCP0005-02-00	25,813	—
Enhancing Community Living and Increasing Participation through Self Efficacy (Eclipse)	165	93.433	90RTCP0005-01-00-AMD2//CL9664	5,656	—
Multi-site Clinical Trial of Hypoxia in Incomplete SCI	165	93.433	cc81478 6323//90SIMS0001-05-00	73,635	—
Sensor Technology Applied to Rehabilitation in Stroke – STARS	165	93.433	CC82285 Amnd 1//90REGE0010-04-00	103,015	—
Sensor Technology Applied to Rehabilitation in Stroke	165	93.433	cc82288 8161//90REGE0010 -01-01	49,421	—
				601,244	13,627
Agency for Healthcare Research and Quality:					
Northwestern University-University of Chicago HSR Postdoctoral Training Program		93.225	2T32HS000078-17	(2,778)	—
The University of Chicago and Northwestern University Predoctoral Health Services Research Program	226	93.225	AWD037911 (5213438601-4) AMD 5//5T32HS000084-24 AM	103,934	—
				101,156	—
Improving Safe Antibiotic Prescribing in Telehealth: A Randomized Trial	263	93.226	110597268 // 5R01HS026506-04	3,267	—
Improving Interhospital Transfer of Patients with Neurologic Emergencies		93.226	1K08HS029208-02	129,624	—
Outcomes and Affordability of Observation Status for Children (OASIS)		93.226	1R01HS029004-01A1	1,158	—
Patient-reported health-related quality of life as complex patient outcomes in stroke survivors		93.226	1R36HS028941-01A1	36,927	—
The Community Health Center – Reproductive Life Plan (CHC-RLP) Project	7	93.226	205-RLP-NU//1R03HS027686-01A1	2,730	—
A Cluster-Randomized Trial of the Northwestern Embedded Emergency Department Physical Therapy (NEED-PT) Protocol for Acute Low Back Pain		93.226	3R01HS027426-04S1	424,014	—
COVID-19: A Chicago Center of Excellence in Learning Health Systems Research Training (ACCELERAT)		93.226	5K12HS026385-05	1,480	1,480
A Chicago Center of Excellence in Learning Health Systems Research Training (ACCELERAT)		93.226	5K12HS026385-05	414,606	128,660
Evaluating the Implementation of a Multi-Component Quality Collaborative		93.226	5R01HS024516-05	(2,237)	—
Preventing Wrong-Drug and Wrong-Patient Errors with Indication Alerts in CPOE Systems		93.226	5R01HS024945-05	(3,619)	—
Preventing Wrong-Drug and Wrong-Patient Errors with Indication Alerts in CPOE Systems		93.226	5R01HS024945-05	87,606	87,606
A Randomized Controlled Trial of Geriatric Emergency Department Innovations		93.226	5R01HS026489-04	331,555	51,724
Implementation of Digital Mental Health Tools in Ambulatory Care Coordination		93.226	5R01HS028003-03	265,106	—
Redesigning Systems to Improve Quality for Hospitalized Patients		93.226	5R18HS025649-05 Revised	106,896	—
Implementation and Testing of a Diabetes Discharge Intervention to Improve Safety During Transitions of Care		93.226	5R18HS026143-03	236,858	709
Expansion, Implementation & Evaluation of Electronic Health Record-Integrated Patient-Reported Symptom Screening in a Comprehensive Cancer Center		93.226	5R18HS026170-03 REVISED	98,274	16,910

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Intervention in Small Primary care practices to Implement Reduction in unhealthy alcohol use (INSPIRE)		93.226	5R18HS027088-03	\$ 164,616	105,121
Identify, Teach and Treat (IT2): Automating clinical decision pathways for the care of women		93.226	5U18HS028744-02	264,422	—
Newborn Circumcision Care Redesign	17	93.226	A23-0008-S002 – NU//1R18HS028783-01A1	13,114	—
Newborn Circumcision Care Redesign	17	93.226	A23-0008-S005 – NU Amendment 2//5R18HS028783-02	4,129	—
Targeted Healthcare Engineering for Systems Interventions in Stroke (THESIS)	226	93.226	AWD100490 (SUB00000216) AMD 3//5R18HS027264-04	53,030	—
Enhancing Stroke Prehospital and Emergency Evaluation and Delivery (E-SPEED) study	226	93.226	AWD100573 (SUB0000238)//5R18HS025359-05	2,053	—
Preventing Opioid Misuse through Safe Opioid Use Agreements between Patients and Surgical Providers (PROMISE ME)	269	93.226	SA0002723//7R18HS027331-03	65,185	—
Healthy Hearts in Michigan (H2M)	8	93.226	SC-21-003//5U18HS027954-02	408,080	—
COVID-19: The Role of Telehealth in COVID-19 Response	263	93.226	SCON-00002221 Amnd 1//5R01HS028127-02	30,336	—
Safely Improving Emergency Diagnostic Testing through Clinical Safe Harbors	280	93.226	VUMC73418 AMD 5//5R18HS025931-05	29,429	—
				3,168,639	392,210
Centers for Disease Control and Prevention:					
A novel innate immunity risk factor for amyotrophic lateral sclerosis		93.061	5 R01TS000294-03-00	4,326	—
A Sentinel Network for Evaluation of the Reach, Implementation, Effectiveness, and Costs of Evidence-Based Lifestyle Interventions to Prevent Type 2 Diabetes in U.S. Adults		93.068	5 U18DP006709-02-00	366,230	—
Developing and Disseminating Programs to Build Sustainable Lupus Awareness, Knowledge, Skills, and Partnerships	10	93.068	AGMT 11-30-22//5NU58DP006908-03-00	6,413	—
				376,969	—
Public Health Surveillance for the Prevention of Complications of Bleeding Disorders	87	93.080	ATHN2020CDC-VW-03//NU27DD000020-03-00	13,834	—
Identifying host biomarkers that determine susceptibility to colonization with an emerging fungal pathogen Candida auris.	109	93.084	JCVI-21-005 02//1U54CK000603-01-00	37,685	—
Microbiome of Driveline Exit Sites	109	93.084	JCVI-21-006 Mod 2//U54CK000603-01-01	29,615	—
				81,134	—
Firearm Involvement in Adolescent Children of Formerly Incarcerated Parents: A Prospective Intergenerational Study of Resilience Within Families		93.136	5 R01CE003271-03-00	422,815	—
Chicago Center for Youth Violence Prevention	226	93.136	FP061138 (5201068601-5)//5U01CE002712-07	11,794	—
				434,609	—
Wastewater-Based Epidemiology to Monitor Infectious Pathogens in the State of Oklahoma	256	93.323	2022-81//Agr 05242022//NU50CK000535	36,690	—
Midwest TTXXT: Scale up of an Evidence-based Intervention to Promote HIV Medication Adherence	17	93.943	901638-NU//5U01PS005214-02-00	7,363	—
Effects of Medicaid Coverage and State-Level Delivery Approaches on Healthcare Quality, Outcomes, and Costs for Adults with Diabetes		93.945	5 U18DP006524-04-00	533,790	132,687
Assessing the Burden of Diabetes By Type in Children, Adolescents and Young Adults (DiCAYA) – 2020 Component A (#90164)	17	93.945	901641-NU//U18DP006693	19,005	—
Assessing the Burden of Diabetes By Type in Children, Adolescents and Young Adults (DiCAYA) – 2020 Component B (#901642)	17	93.945	901642-NU//U18DP006694	18,670	—
				615,518	132,687
Intergovernmental Personnel Act (IPA) Assignment Agreement for Debra Duquette		93.RD	1IPA2109977 MOD1	36,096	—
CDC Intergovernmental Personnel Agreement		93.RD	21-IPA-2108989	960	—
CDC Intergovernmental Personnel Agreement		93.RD	21-IPA-2108990	105,462	—
Intergovernmental Personnel Act Agreement for Theresa Rowe-IPA		93.RD	22IPA2212990	54,708	—
Group A Streptococcus Molecular Epidemiology and Ecology	17	93.RD	75D30122C15605//A23-0011-S001/AWD001702	49,103	—
The HIV Outpatient Study (HOPS) Activity to Abstract Data from Persons Receiving Ambulatory Care for HIV Infection in the United States	40	93.RD	Agmt# 11-14-22 Amnd 2//75D30120C08752	115,164	—
Food and Drug Administration:					
Methods to Improve Clinical Trials for A-T	114	93.103	2005729193//R01FD007605-01	21,324	—
Northwestern University Clinical Outcome Assessment Team (NUCOAT)		93.103	5UG3FD006794-03	(321)	—
Northwestern University Clinical Outcome Assessment Team (NUCOAT)		93.103	5UG3FD006794-03	24,921	24,921
Northwestern University Clinical Outcome Assessment Team (NUCOAT)		93.103	5UH3FD006794-04	811,848	58,475
Qualification Plan Preparation to Support DDT COA #000123 PROMIS Physical Function Short Form for Individuals with Multiple Sclerosis: Development of a Qualification Plan for the PROMIS Short Form v2.1-Physical Function-Multiple Sclerosis 15a (DDT COA #	58	93.103	DDT COA #000123-01//1 U01 FD006999-01	1,823	—
Development of a Full Qualification Package for the PROMIS Short Form v1.0—Fatigue-Multiple Sclerosis 8a (DDT COA #000069)	58	93.103	FDA-1U01FD007765-NU2023//1U01FD007765-01	72,088	—
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	70	93.103	No.EL-1007-01-01//R01FD005396	6,720	—
Preparing a clinical outcomes assessment set for nephrotic syndrome [Prepare-NS]	249	93.103	SUBK00014282 Amd3//5UG3FD007308-02	124,334	—
				1,062,737	83,396
Development and Validation of CRRT-Specific Beta-Lactam Population Pharmacokinetic Models to Guide Treatment for Patients with Hospital-Acquired Pneumonia	135	93.RD	11-1075-7211-5790//75F40122C00134	5,475	—
Evaluation of a Global Item for Side Effect Bother		93.RD	75F40121C00162	191,336	87,687
Assessing the Effectiveness of Text Enhancements to Prevent Drug Name Confusion Errors		93.RD	75F40122C00191	61,340	—
Health Resources and Services Administration:					
Awareness and Access to Care for Children and Youth with Epilepsy	17	93.110	901579 – NU//5 H98MC33237-04-00	15,742	—
Hemophilia Treatment Center (HRSA Award)	87	93.110	Agmt. Signed 10-15-21//H30MC24052	24,937	—
				40,679	—
SPNS Initiative Emerging Strategies to Improve Health Outcomes for People Aging with HIV: Capacity-Building Provider	91	93.145	5740-06//5U28HA27644-03-00	21,097	—
Affordable Care Act Teaching Health Center (THC) Graduate Medical Education (GME) Payment Program		93.530	2 T91HP21542-10-00	1,396,083	678,821
Teaching Health Center Graduate Medical Education Program		93.530	2 T9CHP42255-02-00	1,428,784	—
				2,845,964	678,821
Academic Units for Primary Care Training and Enhancement		93.884	6UH1HP29963-05-01	—	—
Academic Units for Primary Care Training and Enhancement		93.884	6UH1HP29963-05-01	30,414	30,414
				30,414	30,414
Special Projects of National Significance – Demonstration/Implementation Sites	226	93.928	AWD103147 (SUB00000891)//6 H97HA46079-01-04	4,392	—
Geriatrics Workforce Enhancement Program: Collaborative Action Team training for Community Health — Older adult Network (CATCH-ON)	175	93.969	15012901-Sub13 Amnd 4//6 U1QHP28715-06-01	2,551	—
National Institutes of Health:					
Effects of Flame Retardants on brain function and attentional deficits in school-age children – brain imaging, neurobehavioral, and gut microbiome studies in a longitudinal birth cohort	53	93.113	1(GG013015-01)//5R01ES027845-05	80,113	—
Environmental Obesogens and Weight Change in the POUNDS LOST Trial	89	93.113	111308-5113944 // 5R01ES022981-08	55,659	—
Environmental Pollutants and AHR pathway in Uterine Leiomyoma		93.113	1R01ES034753-01	293,553	—
Arsenic suppresses progesterone receptor signaling and promotes tamoxifen resistance and metastasis of ER+ breast cancer		93.113	1R56ES033398-01A1	145,358	—
Monocyte-derived alveolar macrophages drive inflammatory response to lung ozone exposure	66	93.113	303001342//1R01ES034350-01	84,786	—

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Cluster title/federal grantor/subagency/project title	Pass-through entity	Assistance listing number	Sponsor award number	Federal expenditures	Subrecipient expenditures
Investigating the role of the membrane in particulate methane monooxygenase (pMMO) structure and function		93.113	5F31ES034283-02	\$ 43,169	—
Mechanisms of Cadmium Induced Dysglycemia and Type 2 Diabetes Mellitus		93.113	5R01ES027011-05	(1,087)	—
Environmental Arsenic in the Subtype Specification of Breast Cancer		93.113	5R01ES028149-05	191,695	—
Discovery of conserved molecular mechanisms underlying population-wide variation in toxin responses		93.113	5R01ES029930-05	634,031	362,726
Investigating Environmental Risk Factors for Breast Cancer Using Adductomics		93.113	5R01ES031809-03	769,125	38,615
PCOS and androgen-related disease modeling and drug testing in Multi-organ Integrated Microfluidic Reproductive Platform		93.113	5UH3ES029073-05	447,835	177,618
Role of alveolar macrophages in particulate matter-induced cardiopulmonary disease	226	93.113	AWD058473-03-PR-AMD4//5R01ES015024-15	40,325	—
Particulate Air Pollutants and Autism Risk: Exposure Characteristics, Indicators of Susceptibility, and Mechanistic Pathways	116	93.113	RNG114259-NW//5R01ES029963-04	30,328	—
				2,814,890	578,959
Enamel atlas: systems-level amelogenesis tools at multiple scales	223	93.121	11549sc//5UG3DE028872-02	3,354	—
Enamel atlas: systems-level amelogenesis tools at multiple scales	223	93.121	13003sc AMND 01//4UH3DE028872-03 REVISED	377,164	—
Effectiveness of Nicotine Replacement Therapy Sampling in Dental Practices	94	93.121	15429-5//4UH3DE029973-03	50,719	—
The Role of SoxE Transcription Factors in Neural Crest Cell Specialization		93.121	1K99DE031825-01A1	12,862	—
Identifying Sox family transcription factor partners and targets essential for neural crest formation		93.121	5F32DE029113-03	5,042	—
Role of translational fidelity in cellular physiology of oral streptococci	240	93.121	AWD-0002569 AMD 2//5R01DE031455-02	16,128	—
Multi-Tissue Craniofacial Engineering using 3D-BMP9-Notch-Synergized Graphene Citrate Composite Scaffolds	226	93.121	AWD101989 (SUB00000493) AMD 3//5R01DE030480-03	430,883	—
				896,152	—
Creating Comprehensive Maps of Worm and Fly Transcription Factor Binding Site	274	93.172	11524//5U41HG007355-08	211,191	—
Decoding the Noncoding Regulatory Genome with Super-resolution via Single-cell Multiomics Integration	218	93.172	2022-1775//HG012572-01	52,415	—
Mapping the 3D architecture of native human replisomes	177	93.172	33221-213-415 AMD2//5R01GH10658-04	112,108	—
NORTH CAROLINA CLINICAL GENOMIC EVALUATION BY NEXT-GEN EXOME SEQUENCING 2	253	93.172	5117472//3U01HG006487-08	79,812	—
Visualization, modeling and validation of chromatin interaction data		93.172	5R01HG009906-06	213,314	—
Computational methods to identify neo-TADs and enhancer-hijacking in rearranged genomes		93.172	5R01HG011207-03	385,338	40,709
Maximizing Quantitative Structural Information from High-Throughput RNA Structure Probing		93.172	5R03HG011113-02 REVISED	71,998	—
Use of a Machine Learning Approach to Impute Gene Expression in African Americans		93.172	5R21HG011695-02	226,348	—
COVID-19: Northwestern Genomic Risk Assessment and Management Program		93.172	5U01HG011169-03	55,512	—
Northwestern Genomic Risk Assessment and Management Program		93.172	5U01HG011169-03	1,332,825	—
Molecular and cellular characterization of essential human genes.		93.172	5UM1HG012649-02	1,456,532	—
Production Center for Mapping Regulatory Regions of the Human Genome	187	93.172	62295506-124217//5UM1HG009442-03	(947)	—
Elucidating the phenome-wide impact of sex and gender on disease	280	93.172	VUMC95892//5R01HG011405-02	127,993	—
WashU-Northwestern Genomic Variation and Function Data and Administrative Coordinating Center	288	93.172	WU-22-0138//1U24HG012070-01	(43,205)	—
WashU-Northwestern Genomic Variation and Function Data and Administrative Coordinating Center	288	93.172	WU-23-0051//5U24HG012070-02	238,548	—
				4,519,482	40,709
Maximizing and predicting sentence processing treatment outcomes in aphasia		93.173	1R56DC019157-01A1	20	—
Outer hair cells and noise-induced hearing loss		93.173	1R56DC020542-01A1	11,983	—
Outer and Inner Hair Cell Development		93.173	3R01DC015903-05S1	(52,120)	—
Spatiotemporal Mechanisms of Olfactory Processing in the Human Brain	258	93.173	579297//5-R01-DC-018075-03	13,186	—
Evaluating Human Cochlear Aging Using Otoacoustic Emissions (OAEs)		93.173	5F32DC019557-03	74,004	—
Investigating the relationship between directional microphones, compression, and working memory in realistic spatial conditions		93.173	5K01DC018324-02	61,684	—
Development of Afferent and Efferent Innervation in the Inner Ear		93.173	5K01DC018852-04	118,999	—
Data Science Applications in Communication and Swallowing Disorders		93.173	5K24DC012801-10	188,508	—
Neurolinguistic Investigations of Aphasia and Recovery		93.173	5R01DC001948-24	125,254	—
Acoustic and Perceptual Effects of WDRC Amplification		93.173	5R01DC006014-16	91,172	19,344
Language in Primary Progressive Aphasia		93.173	5R01DC008552-15	(1,552)	—
A Family-Genetic Study of Language in Autism		93.173	5R01DC010191-11	418	—
Characterizing Variability in Hearing Aid Outcomes Among Older Adults		93.173	5R01DC012289-10	139,070	5,185
Principles of olfactory reward processing in the human brain		93.173	5R01DC015426-07	511,098	—
Outer and Inner Hair Cell Development		93.173	5R01DC015903-07	529,550	—
COVID-19: The When to Worry about Language Study (W2W-L): Joint consideration of developmental patterning and neural substrates for enhancing early identification of language impairment		93.173	5R01DC016273-05 REVISED	72	—
The When to Worry about Language Study (W2W-L): Joint consideration of developmental patterning and neural substrates for enhancing early identification of language impairment		93.173	5R01DC016273-05 REVISED	602,162	24,674
The function of respiratory-linked local field potential oscillations in human olfactory and limbic brain regions		93.173	5R01DC016364-05	374,703	33,245
Type-2 inflammation mediates olfactory loss in Chronic Rhinosinusitis: mechanisms and therapeutic opportunities		93.173	5R01DC016645-05	496,949	—
Early Communication Intervention for Toddlers with Hearing Loss		93.173	5R01DC016877-05	726,401	23,061
Molecular Mechanisms of Tonotopy Development in the Brain Stem		93.173	5R01DC017167-04	336,002	—
Defining the pathological mechanisms of hereditary hearing loss		93.173	5R01DC017482-05 REVISED	318,120	—
Characterizing the primary olfactory subregions of the human amygdala		93.173	5R01DC018539-03	405,552	39,712
Opto-Electrical Cochlear Implants		93.173	5R01DC018666-03	401,481	29,397
Mechanisms of Trace Amine-associated Receptor Gene Choice		93.173	5R01DC018738-04	543,073	—
Hearing Protection in Cisplatin Chemotherapy		93.173	5R01DC019434-02	305,427	—
Transdifferentiation in the Cochlea		93.173	5R01DC019834-02	744,467	—
Optimizing Outcomes through Sequencing Parent-Mediated Interventions for Young Children with Autism		93.173	5R01DC020457-02	356,745	36,258
Novel Computational Analysis of Prosody in ASD and the Broad Autism Phenotype		93.173	5R03DC018644-02	5,447	—
Connectome-guided high-definition tDCS for the treatment of tinnitus		93.173	5R21DC015880-04	(2,284)	—
Parent-toddler EEG neural synchrony as a window into social communication deficits in autism		93.173	5R21DC017210-02	15,800	—
Phase 2 Development of a Spoken Language Biomarker of Cognitive Impairment in Parkinson's Disease		93.173	5R21DC017255-03	51,516	—
Spoken Language Processing as an Early Marker of Language Impairment in Bilingual Children		93.173	5R21DC018357-03 REVISED	207,532	—
Mechanisms of accented speech recognition in native and non-native listeners: Biological insights		93.173	5R21DC019448-03	228,299	—
Defining Trajectories of Cognitive-Communicative and Quality of Life Outcomes following Stroke	165	93.173	82910//5R01DC017174-05	32,091	—
Supplement to Defining Trajectories of Cognitive-Communicative and Quality of Life Outcomes following Stroke	165	93.173	82915 AMD 1//3R01DC017174-02S1	16,216	—
An Open-source Speech Processing Platform (OSP) for Research on Hearing Loss and Related Disorders	137	93.173	Agmt 01/24/2023//1R44DC020406-01	41,647	—
Modulating Stimuli Intensity to Improve Clinical Outcomes in Aphasia Treatment	165	93.173	cc82912 AMD 5//R01DC016979	41,731	—
Implementation of Communication Disability Collection and Accommodations in Primary Care Settings	229	93.173	FY23.966.002//1R01DC020188-01A1	8,555	—
Hyperglycemia, Hearing Loss and Vestibular Dysfunction: The CARDIA Study	250	93.173	P007560702Amd5//5R01DC017613-04	33,593	—
Role of Subthalamic nucleus in Speech and Movement among people with Parkinson's as Revealed by Intraoperative Recordings and Deep Brain Stimulation	238	93.173	S01816-01-03//5R01DC017718-04	38,223	—
Maximizing outcomes for preschoolers with developmental language disorders: testing the effects of a sequentially targeted naturalistic intervention	279	93.173	UNIV60403-AMD6//5U01DC017135-05	528,753	—

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Cluster title/federal grantor/subagency/project title	Pass-through entity	Assistance listing number	Sponsor award number	Federal expenditures	Subrecipient expenditures
Auditory-Motor Control of Voice in Individuals with Essential Vocal Tremor	267	93.173	UTA19-001014-03//1R21DC017001-01A1	\$ 1,534	—
Excitability and Excitotoxicity in Type-I Cochlear Afferents: Synapse Structure and Function	288	93.173	WU-22-0420-MOD-01//2R01DC014712-07	117,153	—
				8,788,234	210,876
Evaluating inflammatory response to a mobile health well-being intervention	275	93.213	000002879//1U24AT011289-01	12,809	—
FOREST (Fostering Optimal Regulation of Emotion for prevention of Secondary Trauma): Implementation and evaluation of a burnout prevention program for staff in gun violence prevention programs.		93.213	1R21AT011863-01	261,562	71,354
Mass Spectrometric Studies of Thiostemate Biosynthesis		93.213	5R01AT009143-17	(8,414)	—
Mapping and Understanding Production of Natural Products in Fungi		93.213	5R01AT009143-19	443,705	16,462
Creating and Optimizing Mindfulness Measures to Enhance and Normalize Clinical Evaluation (COMMENCE)		93.213	5R01AT009539-05	721,757	456,347
SCH: INT: Collaborative Research: Development and analysis of new mathematical and statistical models for chronic pain		93.213	5R01AT010413-04	209,749	68,651
Mind-Body Approach to Improve Health-Related Quality of Life for People with Narcolepsy		93.213	5R34AT009551-02	101,402	—
				1,742,570	612,814
Developing an intervention targeting sleep disturbances among minority bereaved individuals		93.233	5K01HL149987-04	163,334	—
Strengthening circadian signals to enhance cardiometabolic function		93.233	5R01HL140580-05 REVISED	690,466	—
Leveraging a Unique existing Cohort to elucidate the Link between sleep and cardio-metabolic disease		93.233	5R01HL141881-04	505,444	84,719
Determinants and Cardiovascular Consequences of Disparities in Sleep and Circadian Rhythms between Black and White Adults		93.233	5R01HL152442-03	1,038,462	266,309
		93.233	5T32HL007909-24	494,057	—
Training Grant in Circadian and Sleep Research				2,891,763	351,028
Harm avoidance and incompleteness as dimensional endophenotypes in anxiety and OC spectrum disorders	31	93.242	00001242//5R01MH110449-05	65,607	—
Individualized approaches to determining likelihood of ASD caseness	223	93.242	13922sc//1R01MH128288-01A1 REVISED	25,429	—
Social Processing Deficits in Remitted Adolescent Depression	167	93.242	147186//5R01MH119771-02	397,549	—
How Early-Life Experiences Create Individual Variation in Dopamine Circuit Architecture: Understanding Risk for Psychiatric Disease		93.242	1DP2MH122401-01	556,125	—
Development matters: Characterizing patterns of emergent ADHD risk through a neurodevelopmental framework		93.242	1F31MH133395-01	15,541	—
Clarifying the Role of Psychomotor Retardation in Reward-Based Reinforcement Learning Deficits in MDD: A Computational and fMRI Study		93.242	1K23MH129607-01A1	91,522	—
Plasticity and Function of Dopamine Circuits Regulating the Transition to Habit		93.242	1R01MH125885-01A1	58,508	—
Targeting Postsynaptic Small G-protein Regulators		93.242	1R01MH130838-01	651,281	—
Reducing HIV vaccine and prevention hesitancy among sexual and gender minority adolescents		93.242	1R01MH132414-01	7,298	—
Multimodal Neuroimaging Predictors of Non-Suicidal Self-Injury in the ABCD Study		93.242	1R01MH132920-01	37,776	—
Understanding the synergistic roles of water insecurity and food insecurity in the health of Mexican adults		93.242	1R03MH133200-01	39,480	—
Training Program in Translational Science, HIV, and Sexual and Gender Minority Health		93.242	1T32MH130325-01	219,011	—
The Short Course on the Application of Machine Learning for Automated Quantification of Behavior	110	93.242	210389-0324-03//5R25MH129298-02	786	—
Linking VA and non-VA data to study the risk of suicide in chronic pain patients	113	93.242	222891-4//5R01MH1219071-03	92,347	—
RCT of a parent-focused approach to improving sexual health in adolescent men who have sex with men	83	93.242	22-M19 AMD1//5R01MH129169-02	66,955	—
Integrated Reward-Inflammation Model of First Onset of Major Depression in Adolescence	196	93.242	267148-NWU AMD 2//1R01MH123473-03	66,616	—
Integrated Reward-Circadian Rhythm Model of First Onset of Bipolar Spectrum Disorders in Adolescence	196	93.242	267715-NWU Amd 2//5R01MH126911-03	99,902	—
Rac-GEF signaling in dendritic spines		93.242	2R01MH071316-17A1	14,908	—
Small GTPase signaling in dendrites and spines		93.242	2R56MH071316-16	(25,056)	—
Training Program in Neurobiology of Information Storage		93.242	2T32MH067564-21	12,607	—
Multidisciplinary Training Program in Digital Mental Health		93.242	2T32MH115882-06A1	18,208	—
Screening, Tracking and Treatment for Anxiety and Depression in Community Colleges		93.242	3814 G LA104//5P50MH126337-02	22,046	—
Expanding College Student Mental Health with Stress Management Mobile Technologies	220	93.242	3K08MH112878-04S1	9,679	—
mHealth for suicide prevention: Design, development, and feasibility of a scalable SMS-based safety planning intervention		93.242	3K08MH128640-02S1	151,158	—
Generating an Earlier Science of When to Worry: A Neurodevelopmental, Transactional Approach to Characterizing Irritability Patterns Beginning in Infancy		93.242	3R01MH107652-05S1	28,800	—
Mechanisms regulating lncRNA short and long range signaling		93.242	3R01MH111267-05S1	551,241	127,753
Optimizing prediction of preschool psychopathology from brain: behavior markers of emotion dysregulation from birth: A computational, developmental cognitive neuroscience approach		93.242	3R01MH121877-04S1	2,743,546	1,489,803
Effectiveness of a Targeted Brief Intervention for Recent Suicide Attempt Survivors	260	93.242	417659-G/UR FAO GR511006//R01 MH119264-04	3,200	—
Hippocampal Mechanisms of Stress-Induced Generalization of Negative Memories		93.242	5F30MH122130-04	39,554	—
60058064 NRSA F30 for Radhika Rawat: Neurogenesis, BMP signaling, and mechanisms of Ketamine's antidepressant effects		93.242	5F30MH124269-02	15,604	—
The Neural Mechanisms of Motor Dysfunction in Clinical High-Risk Youth.		93.242	5F31MH123121-02 REVISED	142	—
NRSA Predoc Fellowship for Sarah Lurie: The Role of Hippocampal Theta Phase in Human Memory Encoding		93.242	5F31MH125577-02	18,282	—
Characterizing phosphorylation-dependent regulation of metabotropic glutamate receptors by middle-down mass spectrometry		93.242	5F31MH129114-02	41,006	—
Technology-Enabled Prevention Service for At-Risk Youth		93.242	5K01MH121854-03	189,792	—
Adaptive Messaging to Support Depression Self-Management		93.242	5K01MH125172-03	158,041	—
Opioid-BNST interactions in the regulation of trauma-induced anxiety states		93.242	5K08MH126166-04	152,916	—
60059499 K99 for Elif Tunc-Ozcan in support of: Neural activity and circuitry-mediated hippocampal stress responses		93.242	5K99MH125016-02	73,968	—
Technology Enabled Services for Coordinated Care of Depression in Healthcare Settings		93.242	5P50MH119029-04	1,500,170	290,998
CAUSAL MECHANISMS OF DISTRIBUTED BRAIN NETWORK FUNCTION DURING EPISODIC MEMORY RETRIEVAL		93.242	5R00MH117226-05	174,107	—
Modeling a Neural Circuit for Flexible Control of Innate Behaviors		93.242	5R00MH117264-05	265,135	—
Mechanisms Underlying Large-Scale Coordination of Cortical Activity during Perceptual Decisions		93.242	5R00MH120047-05	263,887	—
A Family-Genetic Study of Autism and Fragile X Syndrome		93.242	5R01MH091131-10	660,551	27,080
Synaptic and dendritic dysfunction in psychiatric disorders		93.242	5R01MH097216-10	(486)	—
The role of glutamate receptors in compulsive and perseverative behavior		93.242	5R01MH099114-10	177,622	—
Behavioral relevance of active dendritic mechanisms of integration and plasticity		93.242	5R01MH101297-10	508,064	—
Postsynaptic roles of ankyrins		93.242	5R01MH107182-07	482,903	—
2-Arachidonoylglycerol signaling in anxiety, depression, and stress adaptation		93.242	5R01MH107435-08	793,306	—
Molecular, anatomic, and functional characterization of midbrain dopamine neuron subtypes		93.242	5R01MH110556-05	123,334	—
LiveWell: A Mobile Intervention for Bipolar Disorder		93.242	5R01MH110626-04	125	—
LifeSense: Transforming Behavioral Assessment of Depression Using Personal Sensing Technology		93.242	5R01MH111610-04	231,688	97,392
2/3 Community psychosis risk screening: An instrument development study		93.242	5R01MH112545-05	89,758	—
New Tools to Study Neurosteroid Estrogens		93.242	5R01MH113189-05	109,113	—
BMP Signaling and Neurogenesis in Major Depressive Disorder		93.242	5R01MH114923-05	349,001	—
Development of Sub 100 nm Resolution X-ray Nanotomography of Centimeter-Sized Tissues		93.242	5R01MH115265-04	52,787	—
Neurohypophyseal regulation of midbrain dopamine systems.		93.242	5R01MH117111-05	266,232	—
Synthesis of Trials to Prevent Suicide Risk Behavior in Sexual and Gender Minorities		93.242	5R01MH117598-04	245,839	145,220
A pragmatic trial of two strategies for implementing an effective eHealth HIV prevention program		93.242	5R01MH118213-05	956,680	114,229
An examination of psychomotor disturbance in current and remitted MDD: An RDoC Study		93.242	5R01MH118741-04	818,098	141,733
Central Amygdala Glutamatergic Circuits in Fear Learning and Extinction		93.242	5R01MH119817-06	470,262	—

NORTHWESTERN UNIVERSITY

Supplementary Schedule of Expenditures of Federal Awards

Year ended August 31, 2023

Cluster title/federal grantor/subagency/project title	Pass-through entity	Assistance listing number	Sponsor award number	Federal expenditures	Subrecipient expenditures
2/5 CAPER Computerized assessment of psychosis risk		93.242	5R01MH120088-04	\$ 290,948	—
A Comparative Effectiveness Trial of Strategies to Implement Firearm Safety Promotion as a Universal Suicide Prevention Strategy in Pediatric Primary Care		93.242	5R01MH123491-05	104,972	—
A Stepped Wedge Hybrid Type II Trial of an Online Positive Affect Intervention: Blending Implementation and Effectiveness to Improve HIV Continuum Outcomes in Ryan White Clinics in Chicago		93.242	5R01MH124632-04	1,093,597	476,524
Role of myeloid cells in CNS and systemic reservoirs and rebound		93.242	5R01MH125778-02	893,454	225,160
Effectiveness and implementation of text messaging to improve HIV testing in sexual and gender minority adolescents		93.242	5R01MH129207-02	544,850	—
Effectors of presynaptic cAMP dependent potentiation at mossy fiber synapses		93.242	5R01MH130428-02	760,820	—
Promoting Sustained Viral Suppression Through Implementation of an Adapted Evidence-Informed Low-Barrier Care Model in a System of HIV Primary Care Clinics		93.242	5R01MH132149-02	608,797	—
Title: Neurobiology of seizure generalization during electroconvulsive therapy for major depression		93.242	5R03MH121769-02 REVISED	12,441	—
Mouse models for live-cell imaging of endogenous Evf2 lncRNA		93.242	5R03MH126145-02	117,046	—
High-Risk Psychosis Youth and Caregivers: Emotion in Interaction		93.242	5R21MH115231-02	(2,893)	—
Using Speech Acoustics to Reveal Motor Disruptions in Psychosis		93.242	5R21MH119677-02	38,260	—
Post-Graduate Research Training Aligned with the NIMH Strategic Plan		93.242	5R25MH115855-05	238,081	—
Digital Mental Health Service for Non-Treatment Seeking Young Adults		93.242	5R34MH124960-03	212,399	25,241
Digital Mental Health Intervention for Nonsuicidal Self-Injury in Young Adults		93.242	5R34MH128410-02	396,256	32,621
Prevention of Perinatal Depression in Birthing People with a History of Adverse Childhood Experiences: A Type 2 Effectiveness Implementation Trial		93.242	5R34MH130969-02	76,142	—
Training Program in Neurobiology of Information Storage		93.242	5T32MH067564-20	172,163	—
Multidisciplinary Training Program in Digital Mental Health		93.242	5T32MH115882-05	219,259	—
Northwestern University Mental Health, Earlier: Transdiagnostic, Transdisciplinary, Translational Training Program in Neurodevelopmental Mechanisms of Psychopathology		93.242	5T32MH126368-02	253,634	—
Developing an app-based behavioral intervention to help depressed individuals return to work	104	93.242	60061119/R42MH127971-01	215,432	—
Synaptic Protein Networks, Genetic Risk, and Spine Loss in Schizophrenia	259	93.242	AWD00000863 (133093-1)//5R01MH118497-03	31,782	—
Implementation and Dissemination of Evidence-Based Interventions to Improve PrEP Care Continuum Outcomes Among Women in Community Health Clinics in the Southern US	226	93.242	AWD102381(SUB00000565)//5R01MH128051-02	40,385	—
Human hippocampal contributions to rapid encoding-retrieval interactions during memory formation	226	93.242	AWD103402 (SUB00000774)//1R01MH128552-01	43,928	—
ProNET: Psychosis-Risk Outcomes Network	296	93.242	CON-80004439 (GR120608) Amnd 4//5U01MH124639-04	357,674	—
HARM-A: A neurobiological predictor of comorbidity and stress reactivity in anxiety disorders	199	93.242	M2102399//5R01MH125083-03	32,800	—
Integrating a suite of mental health apps for depression in a healthcare setting	1	93.242	NU_Mohr-Year 3/00028727//2R44MH114725-03	46,792	—
Scaling a Parenting EBI for Latinx Youth Mental Health in Primary Care	248	93.242	OS00000743//1R01MH124718	68,443	—
Altered auditory networks in HIV-induced central nervous system dysfunction	60	93.242	R1072//5R01NS108809-05	67,573	—
Genetic Influences on Infant Brain Development: Understanding the Developmental Origins of Mental Illness	134	93.242	RC112665D- AMD 1//R01MH123716	31,120	—
Transformation of the stress response into motor behavior by the external globus pallidus	269	93.242	SA0000539 // 5R01MH112768-05	(6,803)	—
Prodromal Inventory for Negative Symptoms (PINS): A Development and Validation Study	234	93.242	SUB00001927//5R01MH116039-05	185,314	—
Mapping Dimensional Aspects of Biobehavioral Threat Reactivity in Young, Violence-Exposed Children: Linkages to Fear and Distress	231	93.242	UHC7-160980729-A4//U01MH113390	8,298	—
Targeting negative affect through mindfulness training in youth at risk for internalizing problems	279	93.242	UNIV61518//5R61MH119270-02	126,855	—
Development of in vivo probes to study the function of TRIP8b in cognition	280	93.242	VUMC105874 Amnd 1//5R56MH128747-02	166,469	—
Development of Memory Networks in Children	290	93.242	WSU22173//5R01MH107512-07	51,522	—
Early Life Adversity, Biological Embedding, and Risk for Developmental Precursors of Mental Disorders	288	93.242	WU-19-11-MOD-6//5R01MH113883-05	21,370	—
				22,768,731	3,193,754
Addressing alcohol misuse in HIV prevention and care: The Brown University Alcohol Research Center on HIV (ARCH)	31	93.273	00002144//5P01AA019072-13	100,580	—
Endocannabinoid Mechanisms in the Pathophysiology of Alcohol Use Disorders		93.273	2R01AA026186-07A1	174,857	—
COVID-19: Role of Alcohol Disparities in HIV Risk among Sexual Minority Youth		93.273	3R01AA024409-05S1	114,909	22,292
COVID-19: Role of Alcohol Disparities in HIV Risk among Sexual Minority Youth		93.273	3R01AA024409-05S2	181,388	111,592
A mixed-methods approach to understanding stress and hazardous drinking among same-sex female couples		93.273	4R00AA028049-04	153,015	—
Corticolic Neuroimmune Determinants of Social Stress-Associated Alcohol Drinking		93.273	4R00AA029180-03	31,752	—
Deep brain live imaging of cAMP and protein kinase A activities underlying synaptic- and circuit-level mechanisms during learned behaviors		93.273	5R00AA027740-03	327,889	—
Efficacy of Couples-Based HIV Prevention in Vulnerable Young Men		93.273	5R01AA024065-05	193,368	—
Role of Alcohol Disparities in HIV Risk among Sexual Minority Youth		93.273	5R01AA024409-05	9,811	—
Intersectional Approaches to Population-Level Health Research: Role of HIV Risk and Mental Health in Alcohol Use Disparities among Diverse Sexual Minority Youth		93.273	5R01AA029044-03S1	583,818	55,533
Project Recognize: Improving Measurement of Alcohol Use and Other Disparities by Sex, Sexual Orientation, and Gender Identity through Community Engagement		93.273	5R01AA029076-03	740,050	117,034
Endocannabinoid Mechanisms in the Pathophysiology of Alcohol Use Disorders		93.273	7R01AA026186-06	6,595	—
				2,618,032	306,451
The Neuroproteomics and Neurometabolomics Center on Cell-Cell Signaling	237	93.279	096739-17681 AMD 3 // 2P30DA018310-16	211,264	—
Collaborating Consortium of Cohorts Producing NIDA Opportunities (C3PNO)	220	93.279	1935 G XA461-04//5U24DA044554-05	(10,664)	—
Collaborating Consortium of Cohorts Producing NIDA Opportunities (C3PNO) Bridge Funding Supplement	220	93.279	1935 G XA461-AMD6//3U24DA044554-05S3	41,688	—
How Do Parents' Experiences with Services Influence Their Children's Service Use? A Longitudinal, Intergenerational Study of High-Risk Families		93.279	1F31DA057811-01A1	2,256	—
A Mixed Methods Evaluation of Violence, Substance Use, and HIV Risk Among a Vulnerable Population of Male Couples		93.279	1F32DA057128-01	53,756	—
Integrated neuroimmune model of problematic substance use and depression in people living with HIV		93.279	1K01DA057143-01A1	51,298	—
Network Canvas 2.0: Enhancing network data capture for drug use and HIV research		93.279	1R01DA057973-01A1	186,071	—
Leveraging state drug overdose data to build a comprehensive case level national dataset to inform prevention and mitigation strategies.		93.279	1R21DA058583-01	109,224	—
COVID-19: 2/2 Optimizing access, engagement and assessment to elucidate prenatal influences on neurodevelopment: The Brains Begin Before Birth(B4) Midwest Consortium		93.279	1R34DA050266-01 REVISED	3,033	—
2/2 Optimizing access, engagement and assessment to elucidate prenatal influences on neurodevelopment: The Brains Begin Before Birth(B4) Midwest Consortium		93.279	1R34DA050266-01 REVISED	1,027	—
Research Adoption Support Center	187	93.279	1U2CDA057717-01//63067731-257650	201,932	—
Reduced complexity mapping of oxycodone self-administration and stress responsiveness in rats	265	93.279	22-3008-NWU AMD 2//5R01DA048017-03	46,471	—
Wake Forest NCORP Research Base	287	93.279	360-32491-11000001232//3UG1CA189824-09S1	77,263	—
Interferon-modulated vaccines against HIV		93.279	3DP2DA051912-01S2	397,673	—
Developing and Testing a Social Network Data Capture Tool to Improve Partner Services		93.279	3R34DA052216-03S1	315,961	—
Improving Outcomes of Adolescents in Residential Substance use Treatment via a Technology-Assisted Parenting Intervention		93.279	3R37DA052918-03S1	526,121	104,616
FP: Wake Forest NCORP Research Base	287	93.279	487-32491-11000001232 AMD 2//3UG1CA189824-09S1	23,983	—
Contribution of the Virome to HIV/AIDS pathogenesis		93.279	5DP1DA048493-05 REVISED	724,005	—
The design, synthesis, and evaluation of natural product-inspired small molecules targeting the 5-HT2C receptor as novel therapeutics for opioid use disorder		93.279	5F30DA050445-03 REVISED	(2,033)	—
Chronic Pain Modulation of Mesolimbic Dopamine Signaling for Natural and Opiate Rewards (NRSA Predoc Fellowship for Gabriela C. Lopez, MS.)		93.279	5F31DA056200-02	46,769	—
Pilot Implementation of Measurement-Based Care in Community Opioid Treatment Programs		93.279	5K23DA050729-04	206,717	—
COVID-19: Center for Prevention Implementation Methodology for Drug Use and HIV (Ce-PIM)		93.279	5P30DA027828-10	(14,627)	—
Center for Prevention Implementation Methodology for Drug Use and HIV (Ce-PIM)		93.279	5P30DA027828-10	(73,895)	—
Center for chronic pain and drug abuse		93.279	5P50DA044121-05	1,882,442	160,487
Drug Abuse and Related Health Disparities: An Intergenerational Longitudinal Study of Offspring of Delinquent Youth (Northwestern Offspring Project)		93.279	5R01DA042082-05	581,561	—
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	5R01DA042711-05	58,549	—
Implementing contingency management in opioid treatment centers across New England: A hybrid type 3 trial		93.279	5R01DA046941-04	363,444	72,428
Elucidating Mechanisms of Pregnancy's Protective Effect on Drug Abuse Using Integrated Data Analysis		93.279	5R01DA050700-02	260,367	181,619
Leveraging data synthesis to identify optimal and robust strategies for HIV elimination among substance-using MSM		93.279	5R01DA055502-02	538,794	202,085

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Cluster title/federal grantor/subagency/project title	Pass-through entity	Assistance listing number	Sponsor award number	Federal expenditures	Subrecipient expenditures
Autophagic regulation of cocaine abuse		93.279	5R01DA056720-02	\$ 463,425	58,908
COVID-19: Multilevel Influences on HIV and Substance Use in a YMSM cohort		93.279	5U01DA036939-09	135,784	—
Multilevel Influences on HIV and Substance Use in a YMSM cohort		93.279	5U01DA036939-09	2,057,902	—
9/24- Healthy Brain and Child Development National Consortium		93.279	5U01DA055355-03	1,519,209	156,304
Stagewise Implementation To Target – Medications for Addiction Treatment (SITT-MAT)	187	93.279	62756859-181406//5R01DA052975-03	35,991	—
Center for Dissemination and Implementation at Stanford (C-DIAS)	187	93.279	62967837-199049//1P50DA054072-01A1	278,047	—
Center for Dissemination and Implementation At Stanford (C-DIAS)	187	93.279	62968986-199049//1P50DA054072-01A1	288,241	—
Research Adoption Support Center	187	93.279	63005326-257650//1U2CDA057717-01	54,319	—
Development and Preliminary Testing of an Adjunct Smartphone App to Reduce Marijuana Use in Court-Involved, Non-Incarcerated Adolescents		93.279	7K23DA048062-04	130,498	—
Assessing the impact of opioid prescription duration limits		93.279	7R21DA050047-02	92,203	73,871
Robust modeling of within- and across-area population dynamics through the development of a practical recurrent neural network toolkit	71	93.279	A580885//1RF1DA055667-01	150,424	—
Examining the Quality of Opioid Use Disorder Treatment in a Medicaid Research Network	259	93.279	AWD00000608 (132578-11)//5R01DA048029-03	29,943	—
Improving racial equity in opioid use disorder treatment in Medicaid	259	93.279	AWD00006300 (138503-13)//1R01DA055585-01	16,721	—
The Healthy Brain and Child Development National Consortium Administrative Core	222	93.279	KR 705056//5U24DA055325	124,634	—
Optimizing PrEP Adherence in Sexual Minority Men who Use Stimulants	248	93.279	OS00000283//5R01DA051848-03	10,979	—
Family-based Recovery Support Service Network for Youth OUD	155	93.279	PTEA AGMT 10/21/22//1R24DA051946-01	36,640	—
Supporting Treatment Adherence for Resilience and Thriving (START): A mHealth intervention to improve ART adherence for HIV-positive stimulant-using	248	93.279	SPC-002231//R01DA049843	18,321	—
Neuroscience, Immunology, Social Adversity and the Roots of Addictive Behaviors: Toward a New Framework for Drug Use Etiology and Prevention	234	93.279	SUB00002412 Amdnd 4/5P50DA051361-03	315,416	—
Stress and Opioid Misuse Risk: The Role of Endogenous Opioid and Endocannabinoid Mechanisms	280	93.279	VUMC10071//1R01DA050334-01A1	11,626	—
Development of an implantable closed-loop system for delivery of naloxone for the prevention of opioid-related overdose deaths	288	93.279	WU-22-0220 AMND No. 2//4UH3DA050303-03	1,504,304	—
				14,085,077	1,010,318
Valency and distance co-optimized peptide bound PEG-b-PPS Filomicelles hydrogel depot for anti-integrin therapeutics	236	93.286	18850 AMND 1//5R03EB032602-02	6,964	—
Development of a Novel Split Enzyme Diagnostic Platform for Use at the Point of Care		93.286	1K99EB034778-01	25,977	—
Rationally Designed, Target-specific Imaging Probes for Nephro-urology Diagnoses		93.286	1R01EB033377-01A1 Revised	105,207	—
Novel MRI coil technology for safe imaging of children with implants		93.286	1R01EB034377-01	18,701	—
Assessing RF heating of active implantable medical devices in low-field MRI system		93.286	1R03EB033864-01	67,248	—
BehaviorSight: Privacy enhancing wearable system to detect health risk behaviors in real-time.		93.286	1R21EB030305-01	194,572	—
COVID-19: The Center for Innovation in Point-of-Care Technologies for HIV/AIDS at Northwestern University (C-THAN) RADx Supplemental Request		93.286	3U54EB027049-02S1 REVISED	308,080	25,128
The Center for Innovation in Point-of-Care Technologies for HIV/AIDS at Northwestern University (C-THAN)		93.286	3U54EB027049-05S1	1,568,645	543,562
High-content High-speed Chemical Imaging of Metabolic Reprogramming by Integration of Advanced Instrumentation and Data Science	26	93.286	4500004177 AMD 001//1R01EB032391-01 Revised	16,837	—
An Enzyme Self-Amplification System for Ultrasensitive Detection of Biomarkers at the Point of Care		93.286	5F32EB031608-02	61,172	—
Developing a virtual placenta biobank		93.286	5K08EB030120-03	148,785	—
Patient-adjustable MRI technology for high-resolution imaging of deep brain stimulation		93.286	5R00EB021320-04	(5,459)	—
Image-Guided Transcatheter Delivery of Natural Killer Cell Therapy Augmented with IFN-Gamma Eluting Microspheres		93.286	5R01EB026207-04	146,031	—
Design-driven engineering of robust mammalian sense-and-respond functions		93.286	5R01EB026510-04	145,292	—
Developing a SMART scaffold for bladder augmentation		93.286	5R01EB026572-04	473,764	—
Reconfigurable MRI technology for safe and high-resolution imaging of deep brain stimulation at 3T		93.286	5R01EB030324-03	586,323	167,783
A universal multi-drug encapsulation and delivery system employing supramolecular nanogels that self-assemble via dynamic sulfone bonding		93.286	5R01EB030629-02	691,419	—
Assessing RF heating of deep brain stimulation implants in high-field open-bore MRI systems		93.286	5R03EB029587-02	13,063	—
Application of machine learning for fast prediction of MRI-induced RF heating in patients with implanted conductive leads		93.286	5R03EB032943-02	51,924	—
Rapid Pediatric Cardiovascular MRI without Contrast Agent or Anesthesia		93.286	5R21EB024315-02 REVISED	17,614	17,614
Next-Generation Cardiovascular MRI powered by Artificial Intelligence		93.286	5R21EB030806-02 REVISED	139,016	—
3D Bioprinting of Strong Living Scaffolds		93.286	5R21EB032535-02	124,964	—
Interdisciplinary Graduate Education in Movement and Rehabilitation Sciences		93.286	5T32EB009406-12	46,514	—
Graduate Training Program for Magnetic Resonance Imaging		93.286	5T32EB025766-05	204,371	—
Regenerative Engineering Training Program (RE-Training)		93.286	5T32EB031527-03	295,429	—
Enabling Next Generation Machine Learning for Large Scale Image Analysis	172	93.286	Advance Account//2R44EB032722-02A1	5,931	—
Human and Machine Learning for Customized Control of Assistive Robots	165	93.286	cc 81301 Amend 4//1R01EB024058	99,568	—
COVID-19: RADx Clinical Studies Core	247	93.286	OSP/WPM33765-NW//3U54HL143541-02S2	924,291	353,698
Development of Software to Rapidly Assess Placenta Images at Birth	156	93.286	S003662-DHHS//1 R01 EB030130-01A1	9,035	—
Bioresorbable RF Coils for Post-Surgical Monitoring by MRI	279	93.286	UNIV61946//5R21EB027881-02	149	—
				6,491,427	1,107,785
Genomic Analysis of Enhanced Response to Heart Failure Therapy in African Americans (GRAHF)	259	93.307	0041119(124864-3)//5R01MD009118-05 REVISED	(364)	—
Understanding health disparities in Pakistani, Bangladeshi and Asian Indian immigrants: the role of socio-cultural context, acculturation and resilience resources	223	93.307	13067sc//5R01MD016071-03	172,868	—
2021 National LGBTQ Health Conference: Bridging Research and Practice		93.307	1R13MD015672-01	22,199	—
Racial disparities in police use of deadly force as a cause of racial disparities in sleep health across the life course	124	93.307	236743 Amd 3//5U01MD014023-03	18,557	—
Developing and Pilot Testing Peer Ambassador Stories for Increasing HIV-Prevention and Behavioral Health Treatment Uptake among Latino MSM	248	93.307	5K23MD015690-03/ OS00000839 Amd 2	19,655	—
Reducing Assessment Barriers for Patients with Low Literacy		93.307	5R01MD010440-05	640,412	382,370
Understanding socioeconomic disparities in perinatal risk: The role of epigenetic and transcriptional regulation in the placenta		93.307	5R01MD011749-05	102,655	—
Effectiveness and Implementation of a Mindfulness Intervention for Depressive Symptoms Among Low-income, Racial/Ethnic Minority Adults in a Federally Qualified Health Center		93.307	5R01MD012236-05	166,913	—
Characterizing PrEP Adherence and Patterns of Use in a Diverse Community Cohort of Young Men		93.307	5R01MD013609-04	167,962	—
COVID-19: Collateral Consequences of Parents Incarcerations for Their Adolescent Children: A Prospective Longitudinal Study		93.307	5R01MD014020-04	42,506	—
Collateral Consequences of Parents Incarcerations for Their Adolescent Children: A Prospective Longitudinal Study		93.307	5R01MD014020-04	702,338	—
The OPTIMIZE Study: Optimizing Patient Navigation for Perinatal Care		93.307	5R01MD014068-05	475,108	343,438
Simulation Modeling to Understand and Address HIV Disparities in Racial, Ethnic, and Sexual Minority Populations		93.307	5R01MD014703-04 REVISED	429,776	324,236
Enhancing Perinatal Care Support to Improve Maternal Mortality Disparities		93.307	5R01MD016280-03	187,654	74,487
Preventing postpartum depression among immigrant Latinas through a virtual group intervention		93.307	5R01MD017622-02	343,192	136,910
African-American Social Support Effectiveness Treatment- Partners Alleviating Perinatal Depression (ASSET-PPD)		93.307	5R21MD014798-02	123,901	42,785
Northwestern University Minority Health and Health Disparities Research Training (NU-MHRT)		93.307	5T37MD014248-05	285,387	169,568
A Pragmatic Trial of An Adaptive eHealth HIV Prevention Program for Diverse Adolescent MSM		93.307	5U01MD011281-05	328,194	19,647
Unraveling Racial Disparities in Portal Hypertension: A Clinical, Spectroscopic and SNP Approach	23	93.307	MD013631-02//7R21MD013631-03	19,090	—
VietAmerican Health Pilot Study	254	93.307	RF00219-2021-0066//1R21MD013542-01A1	3,717	—
A Community Based Participatory Trial to Increase Stroke Treatment	249	93.307	SUBK00018347//5U01MD010579-05	41,371	—
				4,293,091	1,493,441
Impact of Culturally Aware Mentoring Interventions on Research Mentors and Graduate Training Programs	275	93.310	000002668//1U01GM132372-1	48,680	—
Enhanced Grant Writing Coaching Groups for a Diverse Biomedical Workforce	272	93.310	10050224-03//5U01GM132366-04	76,839	—
Identifying Mechanisms Governing T Cell Diversity		93.310	1DP2A1136599-01	(6,222)	—

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Cluster title/federal grantor/subagency/project title	Pass-through entity	Assistance listing number	Sponsor award number	Federal expenditures	Subrecipient expenditures
Cell-free DNA sequencing approaches to define the genetic etiology of unexplained epilepsy		93.310	1DP2NS111506-01 REVISED	\$ 426,649	—
NURTURE: Northwestern University Recruitment to Transform UnderRepresentation and achieve Equity		93.310	1U54CA272163-01	353,491	—
COVID-19: RADx-UP Coordination and Data Collection Center	66	93.310	303000056 AMD2 // 5U24MD016258-03	62,860	—
The 4D nucleome of muscle regeneration in ischemia-induced tissue damage and repair	66	93.310	303000909//5U01HL156064-03	68,343	—
Mechanisms of Genome Organization in Brain Development and Behavior		93.310	5U01DA053691-04	485,298	—
Nutrition Precision Health for All of Us (Chicago Center)		93.310	5UG1HD107697-02	758,879	217,150
Renewable and Specific Affinity Reagents for Mapping Proteoforms in Human Tissues		93.310	5UH3CA246635-03	(1,233)	—
The 4D nucleome of muscle regeneration in ischemia-induced tissue damage and repair	66	93.310	A034155-01//1U01-HL156064-01	(63,743)	—
The 4D nucleome of muscle regeneration in ischemia-induced tissue damage and repair	66	93.310	A035307//5U01-HL156064-02	55,014	—
COVID-19: Community network driven COVID-19 testing among most vulnerable populations in the Central United States	226	93.310	AWD101615 (SUB00000363)//3UG1DA050066-03S1	106	—
COVID-19 testing and vaccination social network diffusion for diverse criminal legal involved communities	226	93.310	AWD102706 (SUB00000760)//5U01MD017414-02	10,584	—
COVID-19: SCENTinel: A Rapid Smell Test for COVID-19 Surveillance	136	93.310	NIH073A03DALTO//5U01DC019578-03	106,755	—
A streamlined platform for phosphoproteome mapping of human tissues	154	93.310	No. 546717, Mod 3//1UG3CA256967-01	107,871	—
The role of nucleoli in human genome organization in normal and disease states	247	93.310	OSP33101-00//5U01CA260699-03	403,906	—
Center for 3D Structure and Physics of the Genome	247	93.310	OSP33133-04//5UM1HG011536-03	99,000	—
Center for 3D Structure and Physics of the Genome	247	93.310	OSP33133-05//5UM1HG011536-03	69,123	—
Midwest Murine-Tissue Mapping Center (MM-TMC) – Admin Core	250	93.310	P00924301//1U54AG079754-01	46,984	—
Midwest Murine-Tissue Mapping Center (MM-TMC) – BIOLOGICAL ANALYSIS CORE	250	93.310	P010409101//1U54AG079754-01 Revised	274,628	—
Midwest Murine-Tissue Mapping Center (MM-TMC) – DATA ANALYSIS CORE	250	93.310	P010409601//1U54AG079754-01 REVISED	36,888	—
Evaluating diverse technologies for detecting and validating senescent cells in vivo	32	93.310	SA16036-NU//5UG3CA268105-02	203,228	—
Evaluating diverse technologies for detecting and validating senescent cells in vivo	32	93.310	SA16042-NU//5UG3CA268105-02	59,774	—
Biospecimen Core for Procurement of Human Somatic and Reproductive Tissues for Senescent Cell Mapping	32	93.310	SA60001-NU AMD 1//5U54AG075932-02	219,232	—
Center for 3D Structure and Physics of the Genome	247	93.310	SUB00000208//3UM1HG011536-03S1	78,591	—
Genetics and quantum chemistry as tools for unknown metabolite identification	234	93.310	SUB00001824//U2CES030167	6,428	—
				3,987,953	217,150
Translating Scientific Evidence into Practice using Digital Medicine and Electronic Patient Reported Outcomes	96	93.350	0255-D514-4609//5U01TR002997-04	87,039	—
Informing Ethical Translation of Xenotransplantation Clinical Trials	90	93.350	410Amd2//5R01TR003844-02	123,487	—
Northwestern University Clinical and Translational Science Institute (NUCATS)		93.350	5KL2TR001424-09	867,529	160,708
Northwestern University Clinical and Translational Science Institute (NUCATS)		93.350	5TL1TR001423-08	225,837	—
CRITICAL: Collaborative Resource for Intensive care Translational science, Informatics, Comprehensive Analytics, and Learning		93.350	5U01TR003528-03	1,306,436	909,486
COVID-19: Northwestern University Clinical and Translational Science Institute		93.350	5UL1TR001422-08	34,807	—
Northwestern University Clinical and Translational Science Institute		93.350	5UL1TR001422-08	6,068,465	776,365
COVID-19: Clinical and Translational Science Award – Trans-NIH Research Support (Sub award)	128	93.350	AGMT Black 8/16/22//3UL1TR001436-07S1	175,354	—
Advancing Standardized Clinical Outcome Tools for Duchenne Muscular Dystrophy	283	93.350	FP00014097_SA001//5R21TR004007-02	8,280	—
				8,997,234	1,846,559
Analyzing and Interpreting Clinician and Patient Adverse Event Data to Better Understand Tolerability in ECOG-ACRIN Studies	59	93.353	1204004//5U01CA233169-05 AMD6	100,752	—
Structure and Function of the SS18-SSX-containing mSWI/SNF (BAF) Complex Unveiling New Paths Toward Therapeutic Targeting	59	93.353	1205703//1U54CA231638-01 REV	(200)	—
Structure and Function of the SS18-SSX-containing mSWI/SNF (BAF) Complex Unveiling New Paths Toward Therapeutic Targeting	59	93.353	1205704//1U54CA231638-01 REVISED	(38,002)	—
Structure and Function of the SS18-SSX-containing mSWI/SNF (BAF) Complex Unveiling New Paths Toward Therapeutic Targeting	59	93.353	1205705//1U54CA231638-01 REV	376,212	—
Center for Synovial Sarcoma Biology and Therapeutics	59	93.353	132501//3U54CA231638-01S1	55,885	—
Elucidating the mechanism of Ga13 mediated tumor suppression in pancreatic cancer		93.353	1R01CA283925-01	99	—
Structure and Function of the SS18-SSX-containing mSWI/SNF (BAF) Complex Unveiling New Paths Toward Therapeutic Targeting	59	93.353	1U54CA231638-01//1205702	(6,421)	—
Implementation and Evaluation of an Expanded Bilingual Electronic Symptom Management Program across a Multi-site, Fully-integrated Comprehensive Cancer Center		93.353	3UM1CA233035-01S1	1,781,279	246,056
Advancing the Quality of Cancer Care through Behavioral Economics and Implementation Science	258	93.353	5-P50-CA-244690-03//585589	61,879	—
Scalable TELealth Cancer CARE: The STELLAR Program to Treat Cancer Risk Behaviors		93.353	5P50CA271353-02S1	984,202	—
Using Information Technology to Improve Outcomes for Children Living with Cancer		93.353	5U01CA246612-04	394,325	—
Accelerating Colorectal Cancer Screening and Follow-up through Implementation Science in Chicago (ACCSIS-Chicago)	226	93.353	AWD069107-01-PR (SUB00000212)Amd3//5UH3CA233229-05	37,899	—
				3,747,909	246,056
COVID-19: Transcending COVID-19 barriers to pain care in rural America: Pragmatic comparative effectiveness trial of evidence-based, on-demand, digital behavioral treatments for chronic pain	39	93.361	0001896810//1R01NR019947	19,966	—
Pain Response Evaluation of a Combined Intervention to Cope Effectively (PRECICE)	287	93.361	349-33391-11000001253 AMD2//1UG3NR019196-01	38,959	—
Managed Problem Solving for ART Adherence and HIV Care Retention Delivered by Community Health Workers: A Stepped Wedge Hybrid Type II Effectiveness Implementation Trial	258	93.361	580811//5-R01-NR-019753-03	114,365	—
EHR-based Universal Medication Schedule to Improve Adherence to Complex Regimens		93.361	5R01NR015444-05	69,517	69,517
Building a causal pathway framework to identify interventions to eliminate racial/ethnic disparities in severe maternal morbidity	187	93.361	62736588-206060 AMD1//5R01NR020335-02	33,816	10,878
				276,623	80,395
Mitigating Long-term Treatment-related Morbidity in Childhood Cancer Survivors	214	93.393	000519160-003//5R35CA220502-04	148,002	—
Disease Beliefs and Cognition: Effect on Diabetes Management in Older Breast Cancer Survivors	96	93.393	0255-3801-4609 Amnd 8//5R01CA214491-05	110,291	—
Modeling Best Approaches for Cardiovascular Disease Prevention in Cancer Survivors	96	93.393	0255-H281-4609//1R01CA271604-01A1	16,440	—
Novel Health Equity Intervention to Improve Pediatric Oncology Outcome Disparities: Targeting Poverty and Psychosocial Stress	59	93.393	1289702//5R01CA267107-02	19,762	—
Every Day Counts: A lifestyle program for women metastatic breast cancer	128	93.393	1R01CA258759-01A1//Bonini AGMT 7/12/22	20,074	—
West Africa Self-Sampling HPV Based Cervical Cancer Control Program (WA-SS-HCCP) for WLWHA: Barriers, challenges, and needs		93.393	1U01CA275129-01	609,413	259,082
Patient-Centered Reminders to Inform, Motivate, and Engage Colorectal Cancer Screening Adherence in Rural Communities: The PRIME-CRC Trial	121	93.393	21-08-003 AMD 2//5R01CA240496-03	95,028	—
Improving Emergency Care and Outcomes of Immune-related Adverse Events: The Immune-related Emergency Disposition Index (IREDI)	270	93.393	3001922293 Amnd 1//5R01CA267856-02	81,286	—
Using MOST to EMPOWER: Optimizing an emotion regulation intervention to enhance well-being among young adult cancer survivors	287	93.393	412-45117-10000550033Amd3//5R01CA242849-04	75,031	—
Testing Novel Pharmacogenetic and Adherence Optimization Treatments to Improve the Effectiveness of Smoking Cessation Treatments for Smokers with HIV	258	93.393	578028//5R01CA243914-03	210,577	—
K00 for Deanna Tiek in support of: Novel relationships of splicing factors in temozolomide-resistant glioblastoma		93.393	5K00CA234799-06	93,515	—
Regulation of Human Papillomavirus Gene Expression		93.393	5R01CA059655-30	358,354	—
HPV and the DNA Damage Response		93.393	5R01CA142861-10	(7,473)	—
Patient Navigation 2.0: Addressing the Challenge of Scaling Navigation through Checklist-based Implementation		93.393	5R01CA163830-10	650,387	(8,131)
Progesterone Signaling and Blockade in Human Breast Tumorigenesis and Prevention		93.393	5R01CA192124-05	(145)	—
Reducing the Effects of Active Surveillance Stress, Uncertainty and Rumination thru Engagement in Mindfulness Education (REASSURE ME)		93.393	5R01CA193331-06 REVISED	110,693	23,825
The inhibitory network between EZH2 and PARG1 in triple-negative breast cancer		93.393	5R01CA208257-07	176,859	—
Evaluating the protective effect of a tissue selective estrogen complex (TSEC) in women with newly diagnosed ductal carcinoma in situ		93.393	5R01CA218436-05	294,057	118,366
Genomic Prediction of Doxorubicin-Induced Cardiotoxicity		93.393	5R01CA220002-05	474,830	—
Translating buccal nancology for lung cancer screening into clinical practice		93.393	5R01CA225002-06	543,804	162,466
Role of NF90 in Prostate Cancer		93.393	5R01CA227918-05	198,035	—

NORTHWESTERN UNIVERSITY
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Cluster title/federal grantor/subagency/project title	Pass-through entity	Assistance listing number	Sponsor award number	Federal expenditures	Subrecipient expenditures
Determinants of transdermal drug delivery to the normal and the radiated breast		93.393	5R01CA235647-05	\$ 324,406	9,708
Targeting Posttranslational Modifications in Breast Carcinogenesis		93.393	5R01CA250110-02	(204)	—
Small molecule probes of MYC stability and function intumorigenesis		93.393	5R01CA257258-03	661,949	—
Predicting and Preventing Chemotherapy-Induced Cardiotoxicity in African American Children		93.393	5R01CA261898-03	648,204	322,043
Optimization of a mHealth Physical Activity Promotion Intervention with Mindful Awareness for Adolescent and Young Adult Cancer Survivors		93.393	5R01CA262357-02	779,281	85,981
Evaluating Patient-Reported Outcomes Monitoring in Routine Care of Patients with Chronic Myeloid Leukemia for Increasing Adherence and Clinical Response to THERAPY: The EMPATHY Pilot Study		93.393	5R21CA230367-02	2,189	1,670
Mutations of Chromatin and its Modifying Machineries in Malignancies		93.393	5R35CA197569-07	(15,264)	—
Mutations of Chromatin and its Modifying Machineries in Malignancies		93.393	5R35CA197569-09	1,007,855	—
Technology Facilitated Behavioral Intervention for Depression among Diverse Patients in Ambulatory Oncology		93.393	5R37CA255875-03	814,767	252,214
Surgical Multispecialty Access to Research in Residency Training (SMART)		93.393	5R38CA245095-03	387,206	61,738
Informatics Tools for Quantitative Digital Pathology Profiling and Integrated Prognostic Modeling		93.393	5U01CA220401-04	103,926	65,277
Subcontract: Targeting Posttranslational Modifications in Breast Carcinogenesis	71	93.393	A662277/1R01CA250110-03REVISED	79,425	—
Improving PRO Interpretation at the Individual Level for Patients with Cancer using Conversational Agents and Data Visualization	205	93.393	AMD 7/17/23/1R01CA271145	54,116	—
CXCR4 as a target for colon cancer chemoprevention	226	93.393	AWD100181 (SUB00000087) AMD 3/15R01CA240710-04	39,729	—
Evaluating a mobile application to reduce distress in breast cancer survivors using an adaptive design	273	93.393	GB10933.PO#2333666/1R37CA248434-02	18,911	—
Biomarker-Based Phase IIB Trial of (Bazedoxifene-Conjugated Estrogen) to Reduce Risk for Breast Cancer	240	93.393	GR16843/5R01CA249437-02	1,083	—
Structural Cell Biology of DNA Repair Machines	219	93.393	NO. 7615718-02/5P01CA092584-22	65,861	—
Biomarkers to Improve Targeting of Breast Cancer Prevention in Women with Atypical Hyperplasia	126	93.393	NWU-263646-04 Amendment 5/5R01CA237607-04	54,623	—
The ECOG-ACRIN SUPPORT Trial: Multilevel Intervention to Improve Diverse Enrollment in Cancer Clinical Trials	69	93.393	U01CA274996-01-NWU1/1U01CA274996-01	88,329	—
				9,395,212	1,354,239
Multi-site adaptive trial of a technology-based, EHR-integrated physical activity intervention in breast and endometrial cancer survivors	275	93.394	000000266/1R37CA225877-01A1 Amd. No. 2	9,249	—
Predicting Pancreatic Ductal Adenocarcinoma (PDAC) through Artificial Intelligence Analysis of Pre-diagnostic CT Images	39	93.394	0002121330/5R01CA260955-02	79,707	—
Optimization of a remote intervention to improve nutrition and physical activity in colorectal cancer survivors	223	93.394	12586sc/5R37CA248774-03	20,301	—
Establishing the clinical utility of cell-free tumor DNA methylation profiling as a reliable liquid biopsy approach in brain tumors	211	93.394	1R01CA263196-01	2,071	—
Development of Next-Generation Blood-to-barcode (B2B) chip for In Vivo CRISPR-Based Discovery of Metastasis Regulators		93.394	1R01CA277507-01	308,579	—
Imaging in 2020: Imaging in Immuno-oncology (I3O)		93.394	1R13CA254380-01 REVISED	5,609	—
Special Public T Cell Receptor Sequences that Predict Outcomes for Cancer Patients		93.394	1R21CA277285-01	82,064	—
Comprehensive validation and commercial readiness of SpliceO, a software platform for neoantigen discovery using RNA-seq data	72	93.394	1R44CA265446-01-NU//1R44CA265446-01A1	165,155	—
Hybrid Intelligence for Trustable Diagnosis And Patient Management of Prostate Cancer (HIT-PIRADS)		93.394	1U01CA268808-01A1	13,689	—
Infection-Associated Cancer Research Training Program in Mali		93.394	5D43CA260658-03	267,938	131,380
Risk-stratification of Prostate Cancers via Field Carcinogenesis Nanocytology		93.394	5R01CA200064-05	96,580	96,100
Tumor immune and glycan biomarkers for progressive prostate cancer		93.394	5R01CA212409-05	220,164	55,476
Catheter-Directed Image-Guided Delivery of Cytostatic and Cytotoxic Combination Therapy to Liver Tumors		93.394	5R01CA218659-05	275,862	49,185
Radiologist-Centered Artificial Intelligence (RCAI) for Lung Cancer Screening and Diagnosis		93.394	5R01CA240639-03	571,454	111,521
A Multilevel Physical Activity Intervention for South Asian Women and Girls		93.394	5R01CA242520-05	580,713	122,142
Novel IL-12 Gene Delivery Vehicles for Transformation of Solid Tumors		93.394	5R01CA244872-04	1,121,764	34,353
Cyst-X: Interpretable Deep Learning Based Risk Stratification of Pancreatic Cystic Tumors		93.394	5R01CA246704-04	776,171	97,614
Development of microfluidic enabled CRISPR-Cas9 functional genetic screening technologies for target discovery in cancer immunotherapy		93.394	5R01CA260170-03	260,900	80,913
Fit2ThriveMIND: Optimizing a mHealth Physical Activity Intervention with Mindful Awareness Lessons in Breast Cancer Survivors		93.394	5R01CA266178-02	570,747	—
Microvasculature in Colon Field Carcinogenesis: Clinical-Biological Implications	23	93.394	7000001387/5R01CA224911-05	153,832	—
Multi-Site adaptive trial of a technology-based, EHR-integrated physical activity intervention in breast and endometrial cancer survivors		93.394	7R37CA225877-05	156,925	—
Multi-site adaptive trial of a technology-based, EHR-integrated physical activity intervention in breast and endometrial cancer survivors	275	93.394	893K546 AMD 5/1R37CA225877-01A1	161,766	—
Improved whole-brain spectroscopic MRI for radiation therapy planning	71	93.394	A659518-Amd 1//5U01CA264039-05	36,226	—
A highly sensitive linear amplification based DNA methylation profiling technique for clinical cancer research	226	93.394	AWD103095 (SUB00000749)/1R33CA269100-01	101,816	—
Improved Detection of Cerebral Metastases using a Novel T1 Relaxation-Enhanced Steady-State (T1RESS) MRI Technique	147	93.394	EH21-211-S1//1R01CA263091-01A1	16,426	—
Development of 5hmC and 5mC biomarkers in cell-free circulating DNA for sensitive colon cancer detection and prognosis	226	93.394	FP064995/5U01CA217078-05	36,938	—
Epigenomic markers of circulating cell-free DNA and treatment outcome in multiple myeloma	226	93.394	FP066297-02-PR-B/5R01CA223662-05	90,486	—
Fluorescent Indocarbocyanine PEGylated Lipid Nanoparticles for Understanding and Overcoming Barriers to Drug Delivery in Invasive Glioblastoma	229	93.394	FY23.1060.001//1R01CA257958-01A1	130,390	—
Real-time volumetric specimen imager for 3D intra-operative lumpectomy margin assessment	48	93.394	S01/5R44CA206801-05	167,601	—
Spherical Nucleic Acid nano-architectures as first-in-class cGAS agonists for the immunotherapeutic treatment of Glioblastoma	288	93.394	WU-23-0259/1R01CA275430-01	181,948	—
				6,663,071	778,684
Early Therapeutics and Rare Cancer Vice Chair Role	152	93.395	1013080_NORTHWESTERN/5U10CA180888-09 AMD 4	19,622	—
Alliance for Clinical Trials in Oncology (Alliance Executive Officer)	27	93.395	120870/5U10CA180821-10	121,658	—
Alliance Operations – Administrative Core	27	93.395	120870/5U10CA180821-10	220,174	—
Optimizing pre-analytic sample handling for high throughput TCR sequencing in cutaneous T cell lymphoma	27	93.395	123941 AMD 3//5U01CA253190-04	46,991	—
Lineage Plasticity, due to Disruption of MnSOD Biology, drives resistance to Ionizing Radiation / Androgen Deprivation Therapy	269	93.395	169448/169447/5 R01 CA257148-02	16,176	—
Innovative Research for Cancer Nanotechnology (IRCN) for Enhancing Melanoma-specific Immune Responses by the Rational Design of Spherical Nucleic Acids		93.395	1R01CA257926-01A1	625,680	—
Chemo-mediated transcriptional reprogramming in ovarian cancer		93.395	1R01CA267544-01	349,629	—
Phenotypic marker-guided development of selective antimetastasis therapeutic leads		93.395	1R01CA269967-01	594,019	194,792
A Phase II Clinical Trial in Newly Diagnosed Glioblastoma Patients Treated with WP1066 and Radiation		93.395	1R01CA272639-01A1	33,380	—
A Novel ULK1 Pathway as a New Therapeutic Target in Melanoma		93.395	1R21CA245447-01A1	71,522	—
Pelvic fascia spARing radical prostatectomy TRIAL (PARTIAL)	113	93.395	213607/1 R01 CA259173-01A1	69,476	—
Evaluation of Transperineal Biopsy under Local Anesthesia, a Novel approach to Decrease Post-Biopsy Infections and Improve Cancer Detection	113	93.395	223295-2 amd3/5R01CA241758-03	94,349	—
Phase II trial of mTORC1/mTORC2 inhibitor AZD2014 for sporadic meningioma	124	93.395	229149 AZD2014/5R01CA201130-04	(8,589)	—
Epigenetic study of oral HPV infection-associated oral cancer in people living with HIV in Nigeria		93.395	3R01CA274952-02S1	585,385	349,787
North American Star Consortium	211	93.395	410013075/3UM1CA186644-06S2	94,549	—
A biomarker-driven strategy to guide the use of radiotherapy in non-small cell lung cancer		93.395	4R37CA222294-06	72,431	—
Modulation of Microglia and T Cell Interactions in Malignant Glioma		93.395	5R01CA120813-15	502,839	132,859
Separating autoimmunity and anti-tumor immunity		93.395	5R01CA191317-05	(262)	—
NKG2D superagonist co-stimulation to enhance adaptive immunotherapy of cancer		93.395	5R01CA208246-05	223,295	—
Retrospective NCI Phantom-Monte Carlo Dosimetry for Late Effects in Wilms Tumor		93.395	5R01CA219013-05	516,137	513,237
Radiation induced cancer risk reduction as a function of dose protraction: interspecies comparison		93.395	5R01CA221150-05	(6,136)	—
Giving and receiving: A reciprocal support writing intervention to reduce symptoms during stem cell transplant		93.395	5R01CA223963-04	384,364	187,937
Targeting Lipid Unsaturation in Ovarian Cancer Stem Cells		93.395	5R01CA224275-05	521,732	169,862
Reducing Cancer Transcriptional Heterogeneity through Regulation of Chromatin Structure		93.395	5R01CA228272-05 REVISED	518,953	84,671
Yttrium-90 radiation lobectomy: Dose optimization and prediction of FLR hypertrophy to enable resection of HCC		93.395	5R01CA233878-03	250,185	—
Blood-brain barrier disruption with implantable ultrasound to enhance paclitaxel delivery: A Phase 1-2 clinical trial in recurrent glioblastoma		93.395	5R01CA245969-03	403,022	—

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Cluster title/federal grantor/subagency/project title	Pass-through entity	Assistance listing number	Sponsor award number	Federal expenditures	Subrecipient expenditures
Using Prostate Health Index and MRI in Combination for Cost-effectively Detecting High-Grade Prostate Cancer in Minorities		93.395	5R01CA249973-04	\$ 726,262	252,593
Bioinspired chemical probe approach targeting telomerase reverse transcriptase		93.395	5R01CA254047-03	519,396	264,941
Investigating Rational Combination Therapies for Triple-Negative Breast Cancer		93.395	5R01CA258833-02	189,280	—
Ornithine Aminotransferase Inactivation, a New Approach for Treatment of Cancers		93.395	5R01CA260250-03	450,399	26,558
Training Swallowing Initiation during Expiration: Impact on Safety and Efficiency Following Treatment for Oropharyngeal Head and Neck Cancer		93.395	5R01CA262502-03	588,347	—
Co-targeting BET Bromodomain Proteins and MNK Kinases in Pancreatic Cancer		93.395	5R01CA265997-02	457,006	—
Web-based Pain Coping Skills Training to Improve Pain and Poor Adherence caused by Aromatase Inhibitor-Associated Arthralgia In Breast Cancer Survivors (SKIP-Arthralgia): A Randomized Controlled Trial		93.395	5R01CA271220-02	435,901	66,074
Rapid evaluation of immunotherapy regimens in ex vivo human pancreatic tumor slice cultures.		93.395	5R21CA255291-02	92,230	—
Therapeutic Targeting of Malignant Glioma Stem Cells		93.395	5R35CA197725-08	(1,163)	—
A biomarker-driven strategy to guide the use of radiotherapy in non-small cell lung cancer		93.395	5R37CA222294-05	332,023	—
Development of B-cell-based vaccine for Glioblastoma		93.395	5R37CA258426-03	353,351	—
Nano-therapeutics Reprogramming of Immunosuppressive Myeloid Cells Potentiate Radiotherapy for Glioblastoma		93.395	5R37CA266487-02	358,107	—
Cellular plasticity gives rise to phenotypic equilibrium in small cell lung carcinoma		93.395	5U01CA268052-02	430,570	5,034
Northwestern University Lead Academic Participating Site		93.395	5UG1CA233320-05	799,970	—
In vivo Drug Testing of Pediatric CNS Tumors Using Patient Derived Orthotopic Xenograft Models	17	93.395	901640-NU AMD 1//5U01CA199288-07	33,361	—
Acceptance and Commitment Therapy for Fatigue Interference in Metastatic Breast Cancer	103	93.395	9121_NW//5R01CA230542-04	24,646	—
Radiation Oncology Chair of the Children's Oncology Group	160	93.395	AR10934//U10CA180886	22,624	—
Institutional Membership-Alliance for Clinical Trials in Oncology	5	93.395	Fully-executed 11/13/13	30,107	—
Toward Translation of an Immunotherapeutic Nanomedicine for Neuroblastoma	279	93.395	OSA00000121//1R01CA274675-01	44,369	—
PSMA-targeted AuNPs for MR guided radiotherapy and radiosensitization	38	93.395	RES516065 Amnd 3//5R01CA260847-03	188,993	—
ECOG-ACRIN Deputy Chair of Policy and Implementation	69	93.395	U10CA180820-06-NWU1A//5U10CA180820-10	62,304	—
				12,458,664	2,248,345
Pre-clinical development of a novel class of immunotherapeutic antibody for metastatic prostate cancer	35	93.396	1001NU//1R44CA247503-02	(636)	—
Advancing treatment and understanding of immunotherapy in glioblastoma	223	93.396	13167sc Amendment 1//5U19CA264338-02	300,650	—
MnSOD-K68-Ac reprograms a lineage plasticity switch / stemness in ER+ breast malignancies	269	93.396	169017//169016//5R01CA253678-02	16,255	—
Optogenetic Control of Tumor Initiation and Tumor Progression in vivo	236	93.396	19012 AMD 1//5R33CA258012-02	78,273	—
Targeting posttranslational modifications of CD73 in TNBCs		93.396	1R01CA258857-01	(3,815)	—
Novel immune suppressive activities of Fas/CD95 in triple negative breast cancer		93.396	1R01CA267815-01A1	482,133	—
The hypoxic niche in glioblastoma is maintained by myeloid produced creatine		93.396	1R01CA279686-01	133,758	—
Mechanisms of KSHV-induced endothelial cell loss of contact inhibition of proliferation		93.396	1R01CA285193-01	52,945	—
Mechanism and therapeutic potential of macrophage regulation in glioblastoma		93.396	5R00CA240896-04	291,090	—
Tumor suppressive functions of TET proteins in B cell malignancies: role of G-quadruplex structures		93.396	5R00CA248835-04	303,218	—
Signal Transduction of Type 1 Interferons in Malignant Cells		93.396	5R01CA077816-22	382,025	—
Targeting Novel Protein Complexes for the Treatment of Acute Myeloid Leukemia		93.396	5R01CA121192-15	288,985	—
Renewal: HPV and the DNA Damage Response		93.396	5R01CA142861-12	304,766	—
Target MIC shedding to revive anti-tumor immunity		93.396	5R01CA204021-07	270,437	—
The role of GPSM3 in tumor-promoting emergency myelopoiesis		93.396	5R01CA208354-05	95,703	—
Identification and targeting of mechanisms specific to glioma stem cells in glioblastoma		93.396	5R01CA214928-05	275,164	30,482
MnSOD Acetylation Promotes Cancer Stem Cell Phenotypes in Breast Cancer		93.396	5R01CA216882-05	247,841	—
Galpha13 and pancreatic cancer progression		93.396	5R01CA217907-05	236,141	—
Targeting Musashi-2 (MSI2) regulation of VEGFR2/VEGF-A in lung cancer		93.396	5R01CA218802-05	229,594	20,571
WEE1 inhibition and tumor immunity		93.396	5R01CA222963-06	210,352	—
Role of Desmoglein 1 in Keratinocyte-Melanocyte Communication and Melanoma		93.396	5R01CA228196-05	416,087	9,255
Genetic mechanisms underlying sexual dimorphism in cancer and response to therapy		93.396	5R01CA229618-06	690,551	324,141
Targeting a Treg deubiquitinase in antitumor immune therapy		93.396	5R01CA232347-05	288,445	—
How Circulating Melanoma Cells Usurp the Leukocyte Transmigration Mechanism for Successful Metastasis		93.396	5R01CA236904-05	482,245	—
Understanding Progesterone Receptor action in Obesity for Endometrial Cancer Prevention		93.396	5R01CA243249-05	418,285	71,814
Molecular mechanisms underlying circulating tumor cell aggregation		93.396	5R01CA245699-04	431,944	—
Transcriptional Control of Cellular Survival and Proliferation in KSHV-transformed B Cells		93.396	5R01CA247619-04	438,092	—
Modeling the Glioblastoma Microenvironment to Uncover Progression Mechanisms and Therapeutic Targets		93.396	5R01CA247905-03	646,793	19,445
The distinct role of cysteinyl leukotriene receptor for myeloid-derived suppressive cells		93.396	5R01CA250101-04	611,385	—
Reactive Oxygen Species in the Initiation, Survival and Racial Disparity of Uterine Leiomyoma		93.396	5R01CA254367-03	562,580	—
A non-canonical role for EZH2 in rRNA methylation		93.396	5R01CA256741-02	522,781	107,635
Comprehensive analyses of HOXB13-regulated transcriptional programs critical for prostate cancer progression		93.396	5R01CA257446-02 REVISED	441,320	—
A deubiquitination module controls Treg adaptation to tumor microenvironment		93.396	5R01CA257520-03	727,566	—
Genome-wide mapping and characterization of exons in human cancer		93.396	5R01CA259388-02	293,590	—
Mechanisms of Lymphomagenesis of Skin Resident Gamma Delta T cells		93.396	5R01CA260064-02 REVISED	526,225	121,266
Stinging the Glioma Immune Landscape		93.396	5R01NS120547-03 REVISED	285,338	49,509
KSHV-induced oncogenic changes in a primary human lymphatic endothelial cell model of Kaposi's Sarcoma		93.396	5R21CA265574-02	203,911	—
DISE – a natural cancer surveillance mechanism – a new road to cancer therapy		93.396	5R35CA197450-07	(2,405)	—
Mitochondrial metabolism and ROS regulate cancer		93.396	5R35CA197532-07	794,419	—
Computational Approaches for Studying Transcription Elongation Control in Cancer		93.396	5R50CA265372-02	142,780	—
Matching panels of in vivo and in vitro model system of pediatric brain tumors	17	93.396	901599-NU AMD 2//5U01CA217613-03	16,427	—
Targeting posttranslational modifications of B7-H4 in carcinogenesis and therapy	71	93.396	A679170//7R01CA258765-02REVISED	11,916	—
Targeting posttranslational modifications of CD73 in TNBCs	71	93.396	A679670//7R01CA258857-02 REVISED	426,132	—
				13,571,286	754,118
SPORE for Translational Approaches to Brain Cancer		93.397	2P50CA221747-06	2,253	—
Adapting Colorectal Cancer Screening Education Material for Two-Spirit, LGBTQIA, and Urban Native Americans	91	93.397	3P30CA016056-44S3	7,258	—
Northwestern University Center for Chromatin Nanolmaging in Cancer (NU-CCNIC)		93.397	3U54CA268084-02S1	1,603,005	—
Mechanical determinants of organ-selective metastatic colonization, dormancy and outgrowth	59	93.397	4560701//U54CA261694/S5594 PO#709222	292,367	—
The Robert H. Lurie Comprehensive Cancer Center – Merit Extension		93.397	4P30CA060553-29	260,692	—
The Northwestern University Cancer Health Equity Research SPORE (NU-CHERS)		93.397	5P20CA233304-03	1,142,135	59,874
The Robert H. Lurie Comprehensive Cancer Center		93.397	5P30CA060553-28	5,657,743	—
SPORE in Prostate Cancer		93.397	5P50CA180995-05	(679)	—
SPORE in Prostate Cancer		93.397	5P50CA180995-07	1,945,581	25,571
SPORE for Translational Approaches to Brain Cancer		93.397	5P50CA221747-05	1,902,762	68,236

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Cluster title/federal grantor/subagency/project title	Pass-through entity	Assistance listing number	Sponsor award number	Federal expenditures	Subrecipient expenditures
1/3: The Chicago Cancer Health Equity Collaborative (ChicagoCHEC)		93.397	5U54CA203000-08	\$ 1,497,111	—
Epigenomic Biomarkers of HIV-Associated Cancers in Nigeria		93.397	5U54CA221205-05	233,933	58,492
				14,544,161	212,173
The HDAC3 pathway in LKB1-mutant lung cancer and senescence		93.398	1K22CA251636-01A1	174,120	—
Development and Initial Testing of a Behavioral Intervention to Increase Pre-Test Genetic Counseling Among Families at Risk of Lynch Syndrome		93.398	1K99CA277584-01	51,668	—
NU-TRIHO (Northwestern University Translational Research in Hematology-Oncology) Training Program		93.398	1T32CA268935-01A1	25,330	—
Training Program in Signal Transduction and Cancer		93.398	2T32CA070085-26A1	25,706	—
Tissue factor regulation of receptor tyrosine kinases in glioblastoma		93.398	5F30CA243288-03	46,302	—
Elucidation of a structural rationale for the binding of Myc by small molecule inhibitors		93.398	5F30CA250196-04	50,046	—
Investigating Mechanisms of Cancer Redox Homeostasis with Metabolic CRISPR-Based Screens		93.398	5F30CA250236-04	44,601	—
Mechanistic Basis of Resistance to Chemohormonal Treatment in Prostate Cancer		93.398	5F30CA250248-03	48,272	—
Development of Rationally Designed Cancer Vaccines using Protein-Like Polymers (PLPs)		93.398	5F30CA257519-03	60,931	—
Elucidating the Role of C16orf72 in the Cellular Stress Response Network		93.398	5F30CA264513-03	30,742	—
The design, synthesis, and characterization of potent and selective MEK7 inhibitors as targeted therapies for T-cell acute lymphoblastic leukemia		93.398	5F31CA228431-04 REVISED	40,597	—
Bioresponsive MR probes for imaging pancreatic cancer		93.398	5F31CA235997-04 REVISED	8,213	—
Irreversible Inhibition of Cerebellar Gli Transcription Factors by Cobalt (III) Complexes		93.398	5F31CA236175-04 REVISED	60	—
A patient-specific hiPSC model of breast cancer to identify genetic determinants of subclonal response and resistance to PARP inhibitors		93.398	5F31CA247395-03	40,975	—
Ovarian Inflammation as a Mechanism for Ovarian Cancer – NRSA in support of Shweta Satish Dipali		93.398	5F31CA257300-02	39,735	—
Characterizing the role of SRCAP in Epidermal Homeostasis and Squamous Cell Carcinoma		93.398	5F31CA261114-03	45,435	—
Elucidating transcriptional and epigenetic regulators of aggressive cutaneous T cell lymphoma		93.398	5F31CA268839-02 REVISED	41,853	—
FOXA1 loss-of-function induces inflammatory cytokine signaling and immune suppression in prostate cancer		93.398	5F31CA271826-02	28,654	—
Top-down proteomic characterization of MEK/ERK in MAPK-driven cancers		93.398	5F32CA246894-02 REVISED	10,813	—
Exosomal CD44 in the metastasis of triple negative breast cancer		93.398	5F32CA257345-02	42,202	—
Mechanisms and therapeutic implications of temozolomide resistance in glioblastoma		93.398	5F32CA264883-02	68,284	—
Improving adherence to posttreatment follow-up care for rural lung cancer survivors through a community-clinical survivorship care team model		93.398	5K01CA262342-03	151,647	—
Using Real Time Mobile Health Approaches to Understand and Promote Oral Chemotherapy Adherence in Adolescents and Young Adults with Leukemia		93.398	5K08CA241335-06	116,944	—
Mechanisms of Translation Regulation by N4-acetylcytidine in Cancer Cells		93.398	5R00CA245035-04	207,436	—
Discovery of Small Molecule-Mediated Protein Degradation Pathways in Human Cancer		93.398	5R00CA248715-04	273,992	—
Carcinogenesis Training Program		93.398	5T32CA009560-35	(1,444)	—
Carcinogenesis Training Program		93.398	5T32CA009560-37	305,850	—
Training Program in Signal Transduction and Cancer		93.398	5T32CA070085-25	123,501	—
Behavioral and Psychosocial Research Training in Cancer Prevention and Control		93.398	5T32CA193193-09	331,323	—
Collaborative Northwestern Surgical Oncology Research Training (CONSORT)		93.398	5T32CA247801-04	310,931	—
				2,744,719	—
Northwestern Cancer Prevention Consortium		93.399	5UG1CA242643-04	987,121	185,932
NCI Community Oncology Research Program (NCORP) Research Bases (UG1)	69	93.399	UG1CA189828-06-NWU1//5UG1CA189828-09	182,290	—
ECOG-ACRIN NCORP Research Base: Cancer Care Delivery Research (CCDR)	69	93.399	UG1CA189828-06-NWU2//5UG1CA189828-09	38,329	—
ECOG-ACRIN NCORP Research Base – CT – Pilot Study	69	93.399	UG1CA189828-07-NWU4//5UG1CA189828-07	30,002	30,000
ECOG-ACRIN NCORP Research Base-Clinical Trials-NWU6	69	93.399	UG1CA189828-07-NWU6//5UG1CA189828-09	40,836	—
ECOG-ACRIN NCORP Research Base-CCDR-NWU7	69	93.399	UG1CA189828-07-NWU7 Amnd 2//5UG1CA189828-09	20,476	—
				1,299,054	215,932
Young Adult and Midlife Transitions in Physical Activity and Sedentary Behavior with Heart Failure Risk and Progression: Coronary Artery Risk Development in Young Adults (CARDIA)	214	93.837	000528250-SC001//5R01HL149796-01A2	131,985	—
Risk Assessment of Cerebral Aneurysm Growth with 4D flow MRI	161	93.837	11001052-014Amnd3//5R01HL115267-08	103,179	—
Machine Learning for the Automated Identification and Tracking of Rare Myocardial Diseases	27	93.837	120816//5R01HL140731-04	92,613	—
Leveraging a Natural Experiment to Estimate the Effects of School Racial Segregation on Cardiovascular Risk Factors among Youth and Young Adults	223	93.837	12245sc AMD 2//R01HL151638	13,438	—
Cardiac Exosomes in myocardial Ischemic injury	27	93.837	123168//5R01HL150401-04	54,134	—
Intersection of Material-Need Insecurities and Health Outcomes among People Living with HIV	223	93.837	12480sc-Amnd 02//5R01HL155226-03	10,749	—
Genomics of Post-Operative Atrial Fibrillation after Cardiac Surgery	27	93.837	125218//5R01HL149998-03	44,056	—
Proteomics of Cardiovascular Risk: The Multiethnic Study of Atherosclerosis	223	93.837	12917SCAmnd1//5R01HL159081-02	34,162	—
Metabolic effects and mechanisms for heart failure in South Asians	223	93.837	12997sc//1R01HL149809-02	602,177	—
Are Interventions Supporting Physical Activity modified by the Environment (InSPACE)?	181	93.837	13018SUB//5R01HL157166-02	6,383	—
Are Interventions Supporting Physical Activity modified by the Environment (InSPACE) consortium opportunity	181	93.837	13023SUB // 5R01HL157166-02	6,127	—
Enabling AI/ML Readiness and Modernization of Longitudinal Pregnancy and Cardiovascular Health Data	169	93.837	15-312-0217457 Amnd 1//3U01HL145358-03S1	12,631	—
Cholesterol Regulation of Endothelial K+ Channels	236	93.837	18591//5R01HL73965-15	45,958	—
Coronary Artery Calcium and its Association with Protective/Risk Factors and Epigenetic Patterns in Diverse US Hispanic/Latino Adults	236	93.837	18741 AMD1//5R01HL152692-02	275,996	—
High-Definition Conformal Electronics for VT/VF	83	93.837	19-S13-02//5R01HL141470-03	(103,329)	—
Dissecting the Role of Desmoplakin in Inflammation in Cardiomyopathy		93.837	1F30HL162454-01A1	22,916	—
Dual-Venc 5D flow for Assessment of Congenital Heart Disease in Pediatrics		93.837	1F30HL165805-01A1	4,218	—
Utilizing Patient-Specific hiPSC-CMs to Investigate Pediatric Calmodulinopathy (NRSA Predoc Fellowship for Katherine A. Fetterman, BA.)		93.837	1F31HL156596-02	11,171	—
A Mixed-Methods Evaluation of mHealth Weight Management for Racial/Ethnic Minorities		93.837	1F31HL162555-01A1	41,814	—
Mechanosensing and Mechanotransduction in the Endothelial Nucleus		93.837	1F31HL165767-01	38,682	—
Measurement of ab-initio physiomechanical using wearable sensors to predict aneurysm growth and formation		93.837	1F32HL162417-01 REVISED	64,062	—
Physiologic stress in advanced tissue culture models of cardiomyopathy		93.837	1K08HL163392-01A1	74,361	—
Mechanisms linking the frail sarcomere to noncompaction cardiomyopathy		93.837	1K99HL168239-01	6,818	—
Reagentless Sensor Technologies For Continuous Monitoring of Heart Failure Biomarkers		93.837	1R01HL165002-01A1	225,200	—
Quantitative Detection of Coronary Microvascular Dysfunction in Long COVID Patients using a Comprehensive, Rapid, Free-Breathing Cardiovascular MRI		93.837	1R01HL167148-01A1	52,824	—
Extracellular matrix regulation of cellular crosstalk in cardiac fibrosis		93.837	1R01HL167813-01	29,388	—
STRIVE: Understanding the contributions of stress reactivity to racial disparities in adverse placental and pregnancy outcomes		93.837	1R01HL168409-01	39,238	—
Bridging Basic and Translational Science in Cardiovascular Disease		93.837	1R13HL165778-01	30,000	—
Mitral Regurgitation Quantification Using Dual-venc 4D flow MRI and Deep learning		93.837	1R21HL168612-01	2,341	—
Optimization of electromechanical monitoring of engineered heart tissues		93.837	1R33HL168758-01	85,838	—
Optimizing the Implementation of a Population Panel Management Intervention in Safety-Net Clinics for Childhood Hypertension		93.837	1R56HL148192-01	—	—
Optimizing the Implementation of a Population Panel Management Intervention in Safety-Net Clinics for Childhood Hypertension		93.837	1R56HL148192-01	625	625
Blood Pressure as a Modifiable Risk Factor for Cardiovascular Events in Liver Transplant Recipients		93.837	1R56HL155093-01	210,550	133,410
2-Generation Interventions to Improve Cardiovascular Health in Indiana and Illinois Through Home Visiting (2-NOURISH)		93.837	1UG3HL163121-01	556,187	59,537
The Rhythm Evaluation for Anticoagulation with Continuous Monitoring of Atrial Fibrillation Trial (REACT-AF)		93.837	1UG3HL165065-01	1,809,168	1,391,630
Interplay of Myocardial Fibrosis and Cardiac TTR Amyloidosis in Age-Related Cardiac Remodeling in MESA	114	93.837	2005511387//1R01HL159987-01A1	43,154	—

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Cluster title/federal grantor/subagency/project title	Pass-through entity	Assistance listing number	Sponsor award number	Federal expenditures	Subrecipient expenditures
Effect of Hospital-Cardiologist Integration on Clinical Practice, Healthcare Quality, and Medicare Spending	83	93.837	20-M38 AMD3//5R01HL153154-03	\$ 190,964	—
Stigma and the non-communicable disease syndemic in aging HIV positive and HIV negative MSM	176	93.837	25400369//7R01HL60326-03	13,633	—
Pleiotropic Role of PAI-1 in Cardiovascular Aging		93.837	2R01HL051387-26	25,545	—
Implementing an evidence-based mHealth healthy diet and physical activity intervention: Make Better Choices 2 for rural Appalachians	241	93.837	3200004756-23-020//5R01HL152714-03	72,716	—
Decrypting Variants of Uncertain Significance in Long-QT Syndrome		93.837	3R01HL122010-08S1	(35,481)	—
Decrypting Variants of Uncertain Significance in Long-QT Syndrome		93.837	3R01HL122010-08S1	43,069	43,069
An Interpersonal Relationships Intervention for Improving Cardiovascular Health in Youth		93.837	3R01HL136676-05S1	753,365	303,116
COVID-19: Administrative Supplement to Real-time Wideband Cardiac MRI for Patients with a Cardiac Implantable Electronic Device		93.837	3R01HL151079-01S1	131,293	—
Immunologic, Inflammatory, and Clinical contributors to HIV-Related Heart Failure with Preserved Ejection Fraction (HFpEF)		93.837	3R01HL156792-03S1	868,889	430,341
Mitochondrial DNA, Nuclear DNA Methylation, and Cardiometabolic Disease Traits	26	93.837	4500004054 AMD 001//5R01HL155569-02	24,950	—
Racial/Ethnic Disparities in Heart Failure: A cross-cohort collaboration	118	93.837	5001732-02-NORTHW//5R01HL150170-02	79,002	—
Cook County Clinical Research Site (CC CRS) of the MACS/WIHS Combined Cohort Study (MW CCS)	92	93.837	50811-324-NWU//5U01HL146245-03 AMD 05	36,079	—
Metabolic pathways to cardiovascular disease: A multi-omics approach	253	93.837	5116709//5R01HL143885-04	27,130	—
Efficacy of Potassium Nitrate In Heart Failure with Preserved Ejection Fraction	258	93.837	574598 Amnd 6//5R01HL121510-05	(4,176)	—
Early Psychosocial Intervention and Child and Parent Cardiovascular Disease Risk	156	93.837	5875-NU-DHHS-7809 AMD 5//HL137809	35,187	—
Evaluation of Aortic Hemodynamics and Compliance in Aortic Stenosis		93.837	5F30HL145995-04	39,809	—
Skin-like, stretchable, and wearable sensors for monitoring QT interval and hemodynamic variables in Atrial Fibrillation (Fellowship award for Andreas Tzavelis)		93.837	5F30HL157066-03	32,504	—
Requirements and mechanisms of alloantigen-induced cardiac allograft survival by cDC1s – NRSA F30 to support Samantha Leigh Schroth		93.837	5F30HL162456-02	41,588	—
Alternative Mechanisms of Monocyte Transendothelial Migration in Inflammation (NRSA Predoc Fellowship for Margarette Clevenger)		93.837	5F31HL147413-04 REVISED	48,529	—
"Youth Exposure to Violence and Pulmonary and Cardiovascular Health: Meta- and Primary-Analytic Approaches to Understanding Mediators and Moderators."		93.837	5F31HL147509-03 REVISED	23,754	—
NRSA Predoc Fellowship for Emily Pinheiro: A Patient-Specific iPSC Model of Nilotinib-Induced Peripheral Artery Disease Pharmacogenomics		93.837	5F31HL151160-03	29,625	—
NIH NRSA Predoc Fellowship for Mallory Filipp: MerTK as a new target to understand and ameliorate HFpEF (Fellow-Mallory Filipp)		93.837	5F31HL156408-03	45,463	—
Elucidating the Mechanisms by which Macrophages and their TAM Receptors Promote Cardiac Regeneration F31for Connor W Lantz		93.837	5F31HL158200-02	49,073	—
Arrhythmia-resolved 5D Flow MRI in Atrial Fibrillation and Stroke		93.837	5F31HL165915-02	41,978	—
Social Network Characteristics and Cardiovascular Health in South Asian Americans		93.837	5F32HL149187-02	(2,208)	—
Neighborhood-level Structural Racism and Cardiovascular Health Among African American Youth and Young Adults		93.837	5F32HL164050-02	68,612	—
Predicting risk of cardiotoxicity among young and emerging adult breast cancer patients from treatment to survivorship		93.837	5K01HL152009-04	184,631	—
Pathogenesis of Heart Failure with Preserved Ejection Fraction in Chronic Kidney Disease		93.837	5K23HL150236-03	193,465	—
Electronic Health Record Nudges to Improve Quality of Care in Heart Failure		93.837	5K23HL155970-03	182,998	—
MASALA-2G: Multi-level Assessment of the South Asian Life-course of Atherosclerosis (2nd Generation Offspring Study)		93.837	5K23HL157766-02	168,556	—
Mentored patient-oriented research of novel mechanisms for cardiovascular disease in patients with chronic kidney disease		93.837	5K24HL150235-04	136,680	—
A Fully Biodegradable, Implantable, Wireless, Battery-free, Miniaturized Cardiac Pacemaker with Closed-loop System for Neonatal and Pediatric Patients		93.837	5K99HL155844-02	12,418	—
Non-contrast 3D T1p Mapping for Myocardial Fibrosis Quantification of Pediatric Cardiomyopathy Patients		93.837	5K99HL161469-02	73,410	—
PAI-1 and Vascular Senescence		93.837	5R01HL051387-25	213,467	39,149
Sarcoglycan in Myopathy and Muscle Membrane Stability		93.837	5R01HL061322-23	225,330	—
Prox1 in Mammalian Lymphangiogenesis		93.837	5R01HL073402-19	(114,637)	—
Determinants, Trajectories, and Consequences of Abnormal Cardiac Mechanics		93.837	5R01HL107577-08	(56,797)	—
Functional Cardiovascular 4D MRI in Congenital Heart Disease		93.837	5R01HL115828-09	348,476	229,479
Precision MRI of Left Atrial Fibrosis for Patients with Atrial Fibrillation		93.837	5R01HL116895-08	625,671	81,148
Comprehensive Cardiac Structure-Function Analysis in Heart Transplantation		93.837	5R01HL117888-07	614,010	116,451
Decrypting Variants of Uncertain Significance in Long-QT Syndrome		93.837	5R01HL122010-10	1,099,685	547,574
Efferocytosis-Directed Inflammation Resolution and Repair in the Hypoxic Heart		93.837	5R01HL122309-09 Revised	532,174	90,886
Cardiomyopathy Genomes Project		93.837	5R01HL128075-09	625,820	289,247
Mechanical circulatory support: Measures of adjustment and quality of life		93.837	5R01HL130502-05	68,827	—
Improve PAD PERFORMANCE with METformin. The PERMET Trial		93.837	5R01HL131771-05 REVISED)	295,113	38,171
Community Translation of the South Asian Healthy Lifestyle Intervention (SAHELI)		93.837	5R01HL132978-05	349,493	168,899
Metabolic Pathways Underlying the Contrasting Sodium-BP and DASH/OmniHeart-BP Relationships		93.837	5R01HL135486-04	83,117	19,185
Methods to Improve Personalized Cardiovascular Disease Prevention Across the Life Course		93.837	5R01HL136942-04	114,798	—
Rapid Real-Time Cardiovascular MRI for Detecting Coronary Artery Disease		93.837	5R01HL138578-03	2,203	—
Mechanistic insights into the deleterious effects of SIRT2 in the heart under stress conditions		93.837	5R01HL138982-04 Revised	271,369	—
TAM-Kinases in Transplant		93.837	5R01HL139812-04	377,140	51,757
Mechanistic insights into the role of mitochondrial iron in doxorubicin-induced cardiomyopathy using human induced pluripotent stem cells		93.837	5R01HL140927-04	475,966	—
Regulating fibrosis and growth through latent TGFbeta binding proteins		93.837	5R01HL140938-04	3,069	—
Mechanistic insights into HIV-mediated heart failure with preserved ejection fraction		93.837	5R01HL140973-04	101,778	—
Low-Profile 3D-Printed Radiopaque Bioresorbable Vascular Scaffolds		93.837	5R01HL141933-04	613,108	17,471
Spontaneous cardiac fibrosis in PAI-1-deficient mice and men: A rare mutation informs a common molecular pathophysiology		93.837	5R01HL142761-04 Revised	208,668	—
Molecular mechanisms of Foxc-mediated angiogenesis		93.837	5R01HL144129-04	142,346	—
Epigenetic Determinants of Lipoproteins Across the Early Adult Life Course		93.837	5R01HL146844-04	325,053	11,364
Pathogenesis of lung injury mediated by lung-restricted antibodies		93.837	5R01HL147290-04	258,933	97,696
Role of Spleen educated monocytes in mediating ischemia-reperfusion injury following lung transplant		93.837	5R01HL147575-04	136,524	—
Non-invasive Evaluation of Intracranial Atherosclerotic Disease Using Hemodynamic Biomarkers		93.837	5R01HL149787-04	576,429	295,107
Cardiovascular Health Associations with Minority stress: Biobehavioral Evaluations and self-Reported Sociopsychological outcomes by SOGI status (CHAMBERS)		93.837	5R01HL149866-04	613,290	271,797
Real-time Wideband Cardiac MRI for Patients with a Cardiac Implantable Electronic Device		93.837	5R01HL151079-04 REVISED	574,051	72,516
Functional roles of lymphatics in organogenesis and tissue repair		93.837	5R01HL151388-03 Revised	507,148	—
The identification and pathophysiology of non-infarcted but injured myocardium in the post-ischemic heart		93.837	5R01HL152712-03 Revised	830,009	12,163
Targeting the Meta-organismal Butyrate Pathway to Prevent Arterial Restenosis after Vascular Surgery		93.837	5R01HL153306-03	787,218	57,865
Myocardial Vulnerability to Ischemia-Induced Dysfunction and Heart Failure: The Impact of HIV/SIV, ART, and Targeted Immunotherapy		93.837	5R01HL154862-03	732,708	550,662
Cardiovascular Health Trajectories from Birth Thru Adolescence in A Diverse Cohort of Children		93.837	5R01HL155864-03	809,252	237,493
Role of mRNA-binding protein tristetraprolin in cardiac mRNA regulation and the development of heart failure		93.837	5R01HL155953-02 Revised	357,523	6,912
Combining longitudinal cohort studies to examine cardiovascular risk factor trajectories across the adult lifespan and their association with disease		93.837	5R01HL158963-03	681,847	290,918
Contributions of Myeloid Metabolism to Diastolic Dysfunction		93.837	5R01HL159964-02	484,565	—
New roles of endothelial regrowth in ischemic tissue recovery and regeneration		93.837	5R01HL159976-02	597,305	7,879
Defining cellular mechanisms of chronic graft failure in transplanted hearts with single cell multi-omics		93.837	5R01HL160552-02	389,381	37,653
PRenancy OuTcomEs and subclinical Cardiovascular disease sTudy: (PROTECT)		93.837	5R01HL161514-02 Revised	523,546	304,220
Mitochondrial respiration as a regulator of lymphatic cell fate and therapeutic lymphangiogenesis		93.837	5R01HL162800-02	525,293	—
Microbe-Related Modulation of Neointimal Hyperplasia after Arterial Injury		93.837	5R03HL146880-02	(550)	—
4D Virtual Catheter (vCath) Assessment of Hemodynamic Pathways in Aortopathy Pathogenesis		93.837	5R21HL150498-02 REVISED	16,029	—
Risk-Based Primary Prevention of Heart Failure		93.837	5R21HL165376-02	55,202	—
Vascular Growth and Regeneration		93.837	5R35HL140014-06	1,087,274	—
New and Disruptive Therapeutic Approaches to Target Fundamental Molecular Mechanisms Underlying Atrial Fibrillation		93.837	5R35HL161249-02	1,387,533	—

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Cluster title/federal grantor/subagency/project title	Pass-through entity	Assistance listing number	Sponsor award number	Federal expenditures	Subrecipient expenditures
The Role of Placental Maternal Vascular Underperfusion in Neonatal Pulmonary Hypertension	222	93.838	705214//7R01HL139798-06	\$ 12,860	—
Pulmonary Complications in a Birth Cohort after a Randomized Trial of Exposure to Antenatal Corticosteroids: the ALPS Follow-Up Study	83	93.838	Agmt 6/7/17//5R01HL098354-08	188	—
Wearable Microfluidic Systems for Measuring Sweat Biomarkers in Cystic Fibrosis Patients During Exercise	73	93.838	Agmt 8/30/2023 Amnd 1//1R43HL162246-01	29,886	—
COVID-19: MFMU PASC-PREG: Post-Acute Sequelae of SARS-CoV-2 Infection in Pregnant Patients and Their Offspring	272	93.838	Agreement 10063508-08-NW U//OT2HL161847-01	40,574	—
Losartan Effects on Emphysema Progression Trial (LEEP)	13	93.838	ALA-ACRC LEEP 6/1/2021//5U01HL128954-04	10,349	10,000
A novel data science and network analysis approach to quantifying facilitators and barriers of low tidal volume ventilation in an international consortium of medical centers	147	93.838	EH17-325-S7 AMD 4//5R01HL140362-05	129,735	—
COVID-19: RECOVER-EHR-PCORnet Research Program	44	93.838	EHR-02-21//OT2HL161847-01	58,911	—
Metabolic perturbations in conventional dendritic cells modulate Tfh13 induction in asthmatic sensitization	283	93.838	FP00017337_SA001//1R01HL162991-01A1	13,398	—
Azithromycin and the Airway Microbiome in Asthma	226	93.838	FP064388-02 // 5R34HL136991-02	(13,719)	—
Chicago Metropolitan Asthma Consortium for severe/exacerbation-prone asthma	226	93.838	FP066077-E AMD 7//5U1HL139125-06	59,085	—
Third Coast HIV-related Cardiovascular and Sleep Disorders K12 Career Development Program (TC-CSK12)	226	93.838	FP068767-01-PR Amnd 4//5K12HL143959-05	176,470	—
Resolution of Diffuse Inflammatory Lung Injury in Neonatal Mice	44	93.838	GRT-0000547/PO No. 20203251//5R01HL114800-08	(9,689)	—
Eliminating Monitor Overuse (EMO) Hybrid Effectiveness-Deimplementation Trial	44	93.838	GRT-00001474-0823/ PO# 20414085//5U01HL159880-02	38,170	—
COVID-19: PASC Recover Capitation Agreement	83	93.838	Miller AGMT 5/18/22//OT2HL161847-01	426,983	98,146
COVID-19: Lung delivery of novel ACE2 proteins for COVID-19	16	93.838	NU-001//1R43HL160432-O1A1	2,638	—
PAD2 and C1H3 in Pathogenesis of Sepsis-induced ALI	249	93.838	SUBK00014340#1//5R01HL155116-02	37,727	—
Mechanisms of Alveolar Homeostasis, Injury, Regeneration, and Fibrosis	249	93.838	SUBK00014970-01//5R35HL160770-02	8,036	—
				16,443,908	5,055,443
Targeting gasdermin D to treat myelodysplastic syndromes		93.839	1R01HL169507-01	12,245	—
Understanding thrombosis formation in myeloproliferative diseases	258	93.839	579931//5R01HL148014-03 AMD 2	61,427	—
Probing silent cerebral infarct pathogenesis in sickle cell disease with cerebrovascular MRI – F31 for Kristina Marie Zvolanek		93.839	5F31HL166079-02	42,036	—
Tailored Adaptation of the AHRQ VTE QI Guide to Local Hospital Context.		93.839	5K08HL145139-04	1,006	—
Implementing Prevention of Venous Thromboembolism for Ambulatory Patients with Cancer (PREVenT-APC)		93.839	5K23HL157758-02	167,806	—
Timeliness of Management of Trauma Related Hemorrhage and Trauma Related Coagulopathy		93.839	5K23HL157832-02	183,008	—
The roles of mDia2 in hematopoietic stem and progenitor cell engraftment and migration		93.839	5R01HL148012-04	494,068	52,673
MOLECULAR MECHANISMS UNDERLYING CLONAL EXPANSION OF HEMATOPOIETIC STEM CELLS		93.839	5R01HL150624-04	355,310	—
The role of Pleckstrin-2 as a functional node in myeloid proliferation		93.839	5R01HL150729-09	657,356	24,275
An ultra-low-input RNase footprinting assay to quantify cytosolic and mitochondrial translation simultaneously		93.839	5R01HL161389-02	456,090	—
Transendothelial Migration of Leukocytes: Developing New Paradigms in Health and Disease		93.839	5R35HL155652-03	873,374	—
Leveraging the Microbiome, Local Admixture, and Machine Learning to Optimize Anticoagulant Pharmacogenomics in Medically Underserved Patients	215	93.839	638586 AMD1//5R01HL158686-02	83,590	—
Immunobiology of Transfusion	273	93.839	GB10756.169831//5P01HL132819-05	(1)	—
Developing small molecule inhibitors of Pleckstrin-2 to treat thrombosis	18	93.839	NU-1//1R43HL165997-01	44,841	—
Links between Cardiovascular disease, Lung disease, and Obstructive sleep apnea in HIV: Understanding complex patients	274	93.839	UWSC14529 BPO# 73413//2R01HL126538-04	18,419	—
1/2 CATHETER-DIRECTED THERAPY FOR CHRONIC DVT(C-TRACT TRIAL)	288	93.839	WU-18-261//UG3HL138325	7,844	—
Supplemental funds: 1/2 CATHETER-DIRECTED THERAPY FOR CHRONIC DVT(C-TRACT TRIAL)	288	93.839	WU-23-0360//5UH3HL138325-05	23,312	—
				3,481,731	76,948
Supporting Transitions to Primary care among Under-resourced, Postpartum women: The STEP-UP		93.840	1R01HL168832-01	303,742	43,449
The International Seminar on Cardiovascular Epidemiology and Prevention, 2020		93.840	1R13HL154583-01	4,831	—
Implementation and scale-up science of salt reduction policies in Nigeria	212	93.840	1UG3HL152381-01_NU_001 AMD1//UG3HL152381	9,095	—
Mentoring in community engaged implementation research to reduce cardiovascular disparities		93.840	3K24HL155897-03S1	129,173	—
A mixed methods study to identify and refine implementation strategies to increase use of cardiac rehabilitation for patients with heart failure		93.840	3R01HL146884-05S1	723,046	268,868
Leveraging Behavioral Economics to Equitably Implement Cascade Screening in Individuals with Familial Hypercholesterolemia in Partnership with the FH Foundation		93.840	4R33HL161752-02	97,712	10,830
Evaluating the Implementation and Scale-Up of Nigeria National Sodium Reduction Program	212	93.840	4UH3HL152381-03_NU_001	76,907	—
Leveraging Behavioral Economics to Equitably Implement Cascade Screening in Individuals with Familial Hypercholesterolemia in Partnership with the FH Foundation	258	93.840	584319//1R61HL161752-01	68,293	—
Development and Validation of an Observational Rating System for Individual Tailoring in Family-Based Pediatric Obesity Interventions		93.840	5F31HL160534-02 REVISED	43,751	—
Community Intervention to Reduce Cardiovascular Disease in Chicago (CIRCL-Chicago)		93.840	5UG3HL154297-03	1,503,422	530,536
Integrating Hypertension & Cardiovascular Disease Care into existing HIV Services Package in Botswana	216	93.840	AGMT 2-16-23//4UH3HL154499-03//4UH3HL154409-03	11,396	—
Transforming Hypertension Management in Nigeria	288	93.840	WU-23-0306//7R01HL144708-04	161,896	—
Transforming Hypertension Management in Nigeria	288	93.840	WU-23-0484//5R01HL144708-05	54,939	—
				3,188,203	853,683
Characterization of the lupus nephritis microRNAome	214	93.846	000518393-002-A06//5R01AR073850-04	4,123	—
Molecular Pathways of Pain Generation in Osteoarthritis	175	93.846	10012005-Sub04//5R01AR060364-10	76,096	—
Osteoarthritis Progression And Sensory Pathway Alterations	175	93.846	12052504-Sub05//5R01AR064251-09 AMD 7	190,974	—
Regulation of T helper cell functions by aryl hydrocarbon receptor	27	93.846	125457 Amendment 2//5R01AR078769-03	23,322	—
Knee Arthroplasty AcTivity (KArAT) Trial	27	93.846	128060//1R01AR080346-01A1	25,960	—
The Role of Mechanosensation Pathways in Osteoarthritis Joint Damage and Pain	175	93.846	19050702-Sub01//5R01AR077019-03	8,101	—
Phosphatase-dependent regulation of desmosome intercellular junctions		93.846	1F32AR081677-01A1	28,908	—
Mentored Patient-Oriented Research of Novel Mechanisms Linking Pain, Sleep-Wake Patterns, and Autonomic Activity in Rheumatic Diseases		93.846	1K24AR080840-01A1	90,087	3,357
Role of healthy skin molecular phenotype in the switch to specific skin diseases		93.846	1R21AR081520-01	60,001	—
An In Silico, Medical Record-based Model for Understanding the INitiation of Autoimmune Events (IMMUNE)		93.846	1R61AR076824-01 REVISED	29,127	—
Chicago Center for Translational Research in Musculoskeletal Pain	175	93.846	20032404-Sub01 AMT1//5P30AR079206-02	164,605	—
SKOAP – A Sequenced-Strategy for Improving Outcomes in Patients with Knee Osteoarthritis Pain	114	93.846	2004852077//4UH3AR077360-04	72,612	—
Mapping the joint-nerve interactome of the knee	175	93.846	22021106-SUB02//1UC2AR082186-01	62,307	—
Replacing Sedentary Time using an Innovative mHealth Intervention among Total Knee Replacement Patients	261	93.846	22-4828//5R21AR074780-03	12,142	—
Computer-guided Action Planning to Support Physical Activity (CAPPA) for Employees with Chronic Knee Symptoms	123	93.846	2417-02-02//1R21AR081007-01A1	51,764	—
Function of Desmoglein 1/Pemphigus Foliaceus Antigen		93.846	2R01AR041836-30	448,017	—
Noninvasive tools for assessing muscle structure and function		93.846	2R01AR071162-07	514,620	236,537
Transcriptional regulation of skin stem cells and their niche		93.846	2R01AR071435-07	246,166	—
Breaking down barriers: defining the role of EphA2 in building epidermal tight junctions in atopic dermatitis		93.846	3K01AR072773-03S1	365	—
Targeting keratinocyte cholesterol metabolism to reveal novel mechanisms for treating inflammatory skin disease		93.846	5F31AR081685-02	27,176	—
Core Center for Clinical Research at Northwestern University		93.846	5P30AR072579-05 REVISED	18,459	8,413
Core Center for Clinical Research at Northwestern University		93.846	5P30AR072579-07	844,036	—
Northwestern University Skin Biology and Diseases Resource-based Center		93.846	5P30AR075049-05	706,139	—
Function of Desmoglein 1/Pemphigus Foliaceus Antigen		93.846	5R01AR041836-29	44	—
Desmoplakin Assembly and Function in Epidermis		93.846	5R01AR043380-28	619,242	—
Inter-junctional signaling in epithelial junctional complex		93.846	5R01AR044016-24	(3,438)	—
CNS Pain Mechanisms in Early Rheumatoid Arthritis: Implications for the Acute to Chronic Pain Transition		93.846	5R01AR064850-10	544,275	265,002

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Cluster title/federal grantor/subagency/project title	Pass-through entity	Assistance listing number	Sponsor award number	Federal expenditures	Subrecipient expenditures
Genetic Analysis of MicroRNA Functions in Skin Stem Cells In Vivo		93.846	5R01AR066703-10 REVISED	\$ 530,381	—
Inflammatory arthritis: mechanistic insights into initiation and progression		93.846	5R01AR070025-05	(7,426)	—
Cadherin Clusters and actin filaments		93.846	5R01AR070166-07 REVISED	460,831	—
Lupus Intervention Fatigue Trial (LIFT)		93.846	5R01AR071091-05	528,387	88,428
Noninvasive tools for assessing muscle structure and function		93.846	5R01AR071162-05	—	—
Noninvasive tools for assessing muscle structure and function		93.846	5R01AR071162-05	10,990	10,990
Transcriptional regulation of skin stem cells and their niche		93.846	5R01AR071435-06	102,486	—
Supramolecular nanofibers for recombinant growth factor-free spine fusion		93.846	5R01AR072721-05	506,040	393,553
The molecular basis of Interleukin-31 driven itch		93.846	5R01AR073279-05	349,546	—
Brain Pathophysiology of Osteoarthritis Pain		93.846	5R01AR074274-05 REVISED	544,046	—
Damage-Associated Molecular Patterns Driving Fibrosis Progression in Scleroderma		93.846	5R01AR074997-02	(127)	(127)
Epidermal Gene Regulation by Transcription Elongation and Termination		93.846	5R01AR075015-04	308,479	—
Synovial Macrophage Transcriptional Signatures for Predicting Therapeutic Efficacy		93.846	5R01AR075423-05	489,747	9,833
Neuron-Keratinocyte Communication in the Epidermis in Normal and Diabetic Wound Healing		93.846	5R01AR077691-03	758,509	—
Social Determinants and Timeliness of Total Knee Replacement: A National Perspective		93.846	5R01AR078342-02	771,521	33,759
Leveraging Community-Academic Partnerships and Social Networks to Disseminate Vaccine-Related Information and Increase Vaccine Uptake Among Black Individuals with Rheumatic Diseases		93.846	5R01AR080089-02	690,693	381,716
Macrophage Heterogeneity in Rheumatoid Arthritis		93.846	5R01AR080513-02 REVISED	925,852	—
Investigate MOF regulated epigenetic mechanisms of skin development		93.846	5R01AR081103-02	523,188	—
Investigating immunophenotypic and transcriptional heterogeneity as biomarkers of pain centralization in rheumatoid arthritis		93.846	5R21AR080351-02	179,537	—
Automatic MRI segmentation for upper limb muscles for clinical applications		93.846	5R21AR080953-02	73,463	29,452
Identification of therapeutic small molecules for treatment of skin fibrosis by modulating epidermal pro-inflammatory signaling		93.846	5R21AR081475-02	134,085	—
Post Graduate Program in Cutaneous Biology		93.846	5T32AR060710-10	187,624	—
Translation of novel and repurposed drugs to address the acute and late effects of mustard exposure		93.846	5U01AR071168-05	204,519	20,436
Barrier Damage and The Immune Cascade: Northwestern University CounterACT Center of Excellence (NUCCX) *Admin Core A*		93.846	5U54AR079795-02	2,907,355	20,653
MicroRNA-mediated regulation in mammalian skin		93.846	7R01AR059697-11	(2,042)	—
The pregnancy transcriptome in rheumatoid arthritis		93.846	7R01AR073111-05	208,504	8,381
A precision medicine approach to assess progression from undifferentiated arthritis to rheumatoid arthritis		93.846	7R21AR076026-03	85,462	—
IMPACT: Infrastructure for Musculoskeletal Pediatric Acute Care Clinical Trials	17	93.846	901634-NORTHWESTERN-AMD//5U01AR079113-02	12,850	—
Evolving Adaptive and Effector Mechanisms from Pre-RA Through Established Disease	229	93.846	FY17.090.001 FY23.090.001_AMD1//5UH2AR067681-05	(43,907)	—
Pathogenic Wnt-beta catenin target genes in macrophages and fibrosis	296	93.846	GR106866(CON-80001829) Amnd 4//5R01AR073270-03	345,936	—
ELLIPSS: ELucidating the Landscape of Immunoendotypes in Psoriatic Skin and Synovium	260	93.846	SUB00000303/JR FAO:GR532320 Amnd 1//1UC2AR081029-0	58,608	—
Understanding and Improving Therapies for the Muscular Dystrophies	233	93.846	SUB00002815//2P50AR052646-16A1	139,271	—
Understanding and Improving Therapies for the Muscular Dystrophie	233	93.846	SUB000003405//P50AR052646	286,585	—
Understanding and Improving Therapies for the Muscular Dystrophies	233	93.846	SUB00003406//P50AR052646	8,965	—
Metaorganismal TMAO pathway driving scleroderma pathogenesis: novel gene-environment interaction paradigm and therapeutic target	249	93.846	SUBK00015632//7R61AR076821-02	12,131	—
Metaorganismal TMAO pathway driving scleroderma pathogenesis: novel gene-environment interaction paradigm and therapeutic target- R33 Phase -	249	93.846	SUBK00017921//4R33AR076821-03	9,070	—
Postdoctoral Rheumatology Training		93.846	T32AR007611-20	211,809	72,094
Establishing the validity, responsiveness, and appropriateness of patient-reported outcome measures for adult traumatic brachial plexus injury	288	93.846	WU-22-0495-MOD-1//5R01AR079139-03	4,280	—
				17,382,478	1,582,477
Advancing Multiparametric Kidney Functional Magnetic Resonance Imaging to Identify Kidney Histopathologic Lesions	25	93.847	01_NWU_05439//5U2CDK114886-4	2,365	—
SpHinterotomy for Acute Recurrent Pancreatitis Trial (SHARP)	152	93.847	1020881_NORTHWESTERN Amnd 1//5U01DK116743-05	10,272	—
Phosphate Binder Therapy and Chronic Kidney Disease in Children	220	93.847	1652 G YA008//5U01DK122013-03	107,950	—
Mechanisms of Diabetes From Acute Pancreatitis in African Americans and Hispanics	236	93.847	18174 Amnd 2//5U01DK127378-03	22,098	—
Imaging Morphology of Pancreas in Diabetic Patients following Acute Pancreatitis (IMMINENT)	236	93.847	19093//5 U01 DK127384-03 / UILCDK127384-SUP	113,455	—
Dissecting the role of dynamic epigenome prompting pathways leading to kidney allograft fibrosis	244	93.847	19283 Amendment 3//5R01DK122682-05	20,533	—
A role for hypothalamic dopamine in predicting homeostatic need		93.847	1F32DK135313-01	29,963	—
Circadian SCN-Liver Axis in the Neuroendocrine Response to Calorie Restriction		93.847	1R01DK132647-01A1	225,994	—
Role of FGF23 peptides in chronic kidney disease (CKD)		93.847	1R01DK132657-01A1	329,344	—
SMARTer weight loss management		93.847	1R01DK134629-01	10,225	—
Identifying Neutrophil Specific Mechanisms for Resistance to Biologics in Ulcerative Colitis		93.847	1R01DK135620-01	22,139	—
Hyperbaric Oxygen Therapy for Ulcerative Colitis Patients Hospitalized for Moderate to Severe Flares: A Phase 3 Multi-Center, Randomized, Double-Blind, Sham-Controlled Trial		93.847	1U01DK134321-01	463,032	—
Wireless mechano-electrical stimulation of pudendal nerve using piezoelectric platform for stress urinary incontinence	50	93.847	200002654//1R01DK135472-01	713	—
Expanding live donor kidney transplantation through advocacy training and social media	114	93.847	2003447902//5R01DK1119662-05	7,780	—
Wake Forest Collaborative Application for an APOLLO Clinical Center	287	93.847	287-32841-1100000854//5U01DK116040-05	10,223	—
Mechanism of autophagy activation in exercise-induced anti-diabetic benefits		93.847	2R01DK113170-06	347,403	—
Transplant Surgery Scientist Training Program		93.847	2T32DK077662-16A1	33,135	—
10/22 Limited Competition for the Continuation of the Diabetes Prevention Program Outcomes Study (DPPOS) – Clinical Center		93.847	2U01DK048380-28 REVISED	49,270	—
Renal Osteodystrophy Precision Medicine Project	53	93.847	3(GG016514-01)//1R56DK127986-01A1	267,022	—
HiLo – Pragmatic trial of higher vs. lower serum phosphate targets in patients undergoing hemodialysis (UH3 phase)	66	93.847	303000905//5UH3DK118748-05	23,398	—
Accelerate AHEAD Study: Evaluating Diabetes Technology Use in Primary Care	4	93.847	312131//5P30DK020541-47S1	62,228	—
NRSA Postdoc Fellowship for Chelsea Hepler: A Central Circadian Clock-Adipose Tissue Circuit Regulates Thermogenesis and Energy Balance		93.847	3F32DK122675-03S1	45,044	—
SenseWhy: Overeating in Obesity Through the Lens of Passive Sensing		93.847	3K25DK113242-04S1	63,809	—
Endothelial PHD2/HIF Axis in Ischemic Kidney Injury and Inflammation		93.847	3R01DK115850-05S1	71,230	—
Enhanced Clinical Decisions for Management of Benign Prostatic Hyperplasia Using Patient-Reported Outcomes		93.847	3R01DK130963-02S1	339,730	93,517
NW University Program in Endo Diabetes and Hormone Action		93.847	3T32DK007169-44S1	283,977	68,079
Glycemic Profile of Pregnancy Consortium Biostatistics Research Center		93.847	3U01DK123759-03S1	2,922,636	2,112,851
Preconceptional health of Latinas and its association with child adiposity	253	93.847	5112424 AMD 5//5R01DK116028-05	36,278	32,372
Cure GN 2.0 – UNC-PCC	253	93.847	5124463 AMD2//5U01DK100867-10	8,356	—
CUREGN -2.0 – Travel supplement	253	93.847	5126187//5U01DK100867-10	2,132	—
Technology Enabled Strategies to Promote Treatment Adherence in Liver Transplant: The TEST Trial	258	93.847	585109 Amnd 1//5R01DK131547-02	103,991	—
Continuation of the Coordinating Center for the Chronic Renal Insufficiency Cohort (CRIC) Study	258	93.847	585234//5U24DK060990-22	41,066	—
Strategies in Renal Nanomedicine to Impact Treatment Paradigms in Kidney Disease		93.847	5F30DK123985-05	35,595	—
Biomechanical Mechanisms Underlying Pathologic Hepatic Stellate Cell Behavior in Liver Fibrosis		93.847	5F30DK129002-02	35,357	—
Circadian Mechanisms of Hedonic Feeding in Obesity		93.847	5F31DK130589-02	46,769	—
Testing Intervention Strategies for Addressing Obesity and Binge Eating		93.847	5K01DK116925-05	148,663	—
Dissecting the Nutritional Regulation of Feeding Circuits		93.847	5K08DK118188-05	47,501	—
Non-invasive Imaging Biomarkers to Identify a High-risk Chronic Kidney Disease Phenotype		93.847	5K23DK120811-03	73,200	—
Circadian Neuronal Basis for Obesity and Diabetes		93.847	5K99DK124682-02 REVISED	11,927	—

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Cluster title/federal grantor/subagency/project title	Pass-through entity	Assistance listing number	Sponsor award number	Federal expenditures	Subrecipient expenditures
Disordered Tissue Biomechanics as a Driver of Esophageal Disease		93.847	5P01DK117824-05	\$ 1,330,691	82,860
Kidney Therapeutics: Translating Discoveries into Prevention, Treatment and Cures for Kidney Diseases		93.847	5P30DK114857-05	1,147,147	44,738
Pathogenesis of Diabetic Nephropathy		93.847	5R01DK060635-19	383,829	—
Mast cells in male pelvic pain and lower urinary tract dysfunction		93.847	5R01DK083609-10	(4,103)	—
Integration of Feeding Time and Glucose Metabolism by the Circadian Gene Network		93.847	5R01DK090625-11	692,684	—
Targeting Hypervigilance and Autonomic Arousal: the Psycho-physiologic Model of GERD		93.847	5R01DK092217-10	448,452	104,683
Cholestasis and the Unfolded Protein Response		93.847	5R01DK093807-08	(170)	—
Regulation of FGF23 in Chronic Kidney Disease (CKD) by iron and inflammation		93.847	5R01DK102815-08	574,521	—
A Culturally Targeted Transplant Program to Increase Live Donation in Hispanics		93.847	5R01DK104876-05	6,130	—
Lipoteichoic acid mediated modulation of chronic pain		93.847	5R01DK108127-06	438,158	—
Barrier integrity, microbiome and HIV target cell interactions in the human male genital tract pre and post circumcision		93.847	5R01DK108434-05	501,210	160,442
SMART Weight Loss Management		93.847	5R01DK108678-05	6,286	—
Nuclear Repressors in Genomic Control of Healthful Obesity		93.847	5R01DK108987-08	457,663	—
Nonhuman Primate Model of Bladder Regeneration Using Autologous Bone Marrow Cells		93.847	5R01DK109539-05	330,460	277,445
Novel Diagnostics and Therapeutic Targets for Calcification in CKD		93.847	5R01DK110087-05	11,454	1,046
Transplant Regimen Adherence for Kidney Recipients by Engaging Information Technologies: The TAKE IT Trial		93.847	5R01DK110172-04	—	—
Transplant Regimen Adherence for Kidney Recipients by Engaging Information Technologies: The TAKE IT Trial		93.847	5R01DK110172-04	32,585	32,585
The Circadian System as a Neuronal Regulator of Feeding Time and Body Weight Setpoint		93.847	5R01DK113011-04	75,092	—
Mechanism of autophagy activation in the prevention of type 2 diabetes		93.847	5R01DK113170-05	25,030	22,587
Role of HNF4a in the regulation of FGF23 in health and disease		93.847	5R01DK114158-04	27,406	—
Molecular Mechanisms of Epithelial Contribution to Esophageal Inflammation and Tissue Repair		93.847	5R01DK116988-05 REVISED	175,934	—
Predicting Newborn and Childhood Adiposity: An Integrated Omics Approach		93.847	5R01DK117491-05	347,587	50,855
Rescuing Kidneys at Risk of Discard		93.847	5R01DK118425-04	438,442	78,840
Molecular mechanisms for bone marrow failure and clonal progression during the innate immune response in Fanconi Anemia		93.847	5R01DK121354-04	45,774	—
Estrogen and Abdominal Muscle Fibrosis		93.847	5R01DK121529-05	633,695	17,687
The Unfolded Protein Response in Fatty Liver		93.847	5R01DK121997-04	317,000	—
Clock Control of Muscle Glucose Metabolism and HIF Activity		93.847	5R01DK123358-04	339,760	—
Autophagy-facilitated secretion in metabolic maintenance		93.847	5R01DK123447-03	394,954	—
Molecular dysregulation of primary cilia TRPP2 channels caused by Finger 1 variants		93.847	5R01DK123463-05	427,539	—
Neutrophils instruct macrophage responses to promote mucosal healing		93.847	5R01DK124199-04	357,821	—
The roles of mDia2 in membrane remodeling and organelle clearance during reticulocyte formation		93.847	5R01DK124220-04	441,101	—
Effects of Epigenetic Regulation in Chronic Pelvic Pain Syndrome		93.847	5R01DK124460-03	231,907	—
Methodological and data-driven approach to infer durable behavior change from mHealth data		93.847	5R01DK125414-03	478,619	191,863
Evaluating the EVO treatment optimized for resource constraints: Elements Vital to treat Obesity		93.847	5R01DK125749-03	42,110	6,803
Evaluating the EVO treatment optimized for resource constraints: Elements Vital to treat Obesity	264	93.847	5R01DK125749-04	326,014	—
Promoting Preconception Care and Diabetes Self-Management among Reproductive-Aged Women with Diabetes: The PREPARED Trial		93.847	5R01DK127184-03	565,641	125,680
Cross-regulation of Immunometabolism and Circadian Pathways in Obesity Pathophysiology		93.847	5R01DK127800-03	623,871	—
Integrating a culturally competent APOL1 genetic testing program into living donor evaluation		93.847	5R01DK128207-02	569,656	184,131
Rapid hormonal modulation of feeding circuit dynamics and its disruption in obesity		93.847	5R01DK128477-03	403,886	—
EAT: A Reliable Eating Assessment Technology for Free-living Individuals.		93.847	5R01DK129843-02	734,935	44,506
REDUCING DISPARITIES IN URINARY CONTROL SYMPTOMS FOR MINORITY WOMEN		93.847	5R01DK129849-02	157,666	—
Role of FGF23 and Phosphate in Chronic Kidney Disease		93.847	5R01DK131046-02-REVISED	599,839	—
Cilia calcium dysregulation in polycystic kidney disease		93.847	5R01DK131118-02	535,284	—
Natural history, risk prediction and cost of cirrhosis in insured Americans.		93.847	5R01DK131164-02	419,010	—
Telemetric Regenerative Bandage for Accelerating Wound Healing		93.847	5R01DK131302-03	879,672	—
Adaption, Implementation and Testing of a Telehealth Diabetes Discharge Intervention to Improve Transitions of Care		93.847	5R01DK131469-02	240,318	18,811
Macrophages and attenuation of inflammation resolution in APOL1 nephropathy		93.847	5R01DK131521-02	629,344	—
The role of DMP1 in FGF23-induced hypophosphatemia		93.847	5R01DK132342-02	700,173	—
Harnessing hypoxia responses to treat posts ischemic kidney injury and inflammation		93.847	5R01DK132672-02	262,360	—
A Micro-Randomized Trial to Optimize Just-in-Time Adaptive Intervention for Binge Eating & Weight-related Behaviors		93.847	5R01DK133300-02	432,989	26,082
WildCam: A Privacy Conscious Wearable Eating Detection Camera People will Actually Wear in the Wild		93.847	5R03DK127128-02	77,368	—
Designing a Mobile Obesity & Binge Eating Intervention for Implementation in Clinical Settings		93.847	5R03DK128531-02	67,343	—
Health and Economic Impacts of Coverage Requirements and Health System-Community Coordination for Diabetes Prevention		93.847	5R18DK110741-05	132,270	—
Behavioral Nudges for Diabetes Prevention (BEGIN) Trial in Primary Care		93.847	5R18DK123375-04	856,437	187,164
Use of simulation-based mastery learning to improve polypectomy outcomes		93.847	5R21DK124816-02	29,268	—
Sustaining Women's Engagement and Enabling Transitions after Gestational Diabetes Mellitus (SWEET)		93.847	5R34DK125958-02	69,709	—
Transplant Surgery Scientist Training Program		93.847	5T32DK077662-15	212,435	—
The Northwestern Summer Research Program for Medical Students		93.847	5T35DK126628-03	48,422	—
NRSA Training Core		93.847	5TL1DK132769-03	555,101	229,341
Pelvic Pain and Depression		93.847	5U01DK082342-13	126,863	—
LURN II: Enhanced Characterization of Patients with LUTS Using Biopsychosocial Approaches		93.847	5U01DK097779-11	520,834	149,430
Glycemic Profiles and Pregnancy Outcomes Study (GLOSS)		93.847	5U01DK123745-03	797,134	26,517
NORTHWESTERN UNIVERSITY PLUS CLINICAL SITE		93.847	5U01DK126045-04	257,356	—
Liver Cirrhosis Network: Scientific and Data Coordination Center		93.847	5U24DK130164-02	1,886,053	26,921
Chicago Kidney Urology Hematology network FOR city-Wide reseArch Training and career Development (Chicago KUH FORWARD)		93.847	5U2CDK129917-03	401,047	35,469
Hyperbaric Oxygen Therapy for Ulcerative Colitis Patients Hospitalized for Moderate to Severe Flares: A Multi-Center, Randomized, Double-Blind, Sham Controlled Trial (HBOT-UC)		93.847	7U34DK126626-02	(23,837)	—
Sharing Digital Self-Monitoring Data with Others to Enhance Long-Term Weight Loss: A Randomized Trial using a Factorial Design	65	93.847	900144 AMD 1//5R01DK129300-02	16,539	—
Aberrant DNA Methylation Underlying Adverse Prenatal Exposures and Increased Newborn and Childhood Adiposity	17	93.847	901556 – NU AMD 4//5R01DK118403-05	117,701	—
Aberrant DNA Methylation Underlying Adverse Prenatal Exposures and Increased Newborn and Childhood Adiposity	17	93.847	901608 – NU //3R01DK118403-02S1 REVISED	2,302	—
Stent vs. Indomethacin for Preventing Post-ERCP Pancreatitis: The SVI Trial	130	93.847	A00-2010-S010 Amnd 5//5U01DK104833-06	51,317	—
SpHinterotomy for Acute Recurrent Pancreatitis	130	93.847	A00-3656-S009//5U01DK116743-03	1,300	—
Excess Radiation Exposure in Infants and Children From Videofluoroscopic Swallow Studies	130	93.847	A20-0260-S001 Amnd. 2//5R01DK122975-03	(5,161)	—
Novel Biomarkers for Post-Liver Transplant NASH Fibrosis	259	93.847	AWD00006105 (138711-3) Amendment 1//5R01DK130294-0	70,776	—
Role of Clock-HIF signaling in adult muscle stem cell regenerative capacity during obesity	226	93.847	AWD035726-03-PR (SUB00000561)//5P30DK020595-45	45,226	—
Longitudinal patterns of cardiometabolic risk factors, gestational diabetes, and diabetes	226	93.847	AWD047431-02-PR (SUB00000333)//5P30DK092949-10	(3,000)	—
Technology supported treatment of sleep apnea in prediabetes	226	93.847	AWD100319 (SUB00000080)//5R01DK120312-04	45,043	—
Longitudinal patterns of cardiometabolic risk factors, gestational diabetes, and diabetes	226	93.847	AWD102383 (SUB00000573)//2P30DK092949-11	1,330	—
Chicago Center for Diabetes Translation Research	226	93.847	AWD102383 (SUB00000604)-AMD1//5P30DK092949-12	206,606	—
Patient and Clinician Perspectives on Preventing and Managing T2DM among Older Adults Engaged in HIV Care	226	93.847	AWD102383 (SUB00000676) Amnd 1//2P30DK092949-11	10,703	—
Chicago Center for Diabetes Translation Research: Just a Spoonful of Sugar Helps the Messages Go Down: Improving Prediabetes Awareness and Risk Communication among					

NORTHWESTERN UNIVERSITY
Supplementary Schedule of Expenditures of Federal Awards
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Cluster title/federal grantor/subagency/project title	Pass-through entity	Assistance listing number	Sponsor award number	Federal expenditures	Subrecipient expenditures
Hispanic/Latino Adults	226	93.847	AWD102383 (SUB00000696) AMD 1//2P30DK092949-11	\$ 30,000	8,333
Inflammatory Pathways in BPH/LUTS	147	93.847	EH17-341-S1//5R01DK117906-04	28,640	—
A Multicenter Randomized Controlled Trial of Surveillance vs. Endoscopic Therapy for Barrett's Esophagus with Low-grade Dysplasia: The SURVENT Trial	229	93.847	FY23.1035.018//1U01DK129191-01	20,809	—
Plasticity of Renin Cells in the Kidney Vasculature	273	93.847	GB10541.P.O# 2231728//5R01DK116718-03	24,694	—
Shaping diabetogenic T cells by IL-27 in type 1 diabetes	128	93.847	MCW 1-9-23//5R01DK121747-04	79,981	—
Biochemical Mechanism of Beta-Cell Destruction	128	93.847	MCW Agrmt 2/1/23//2R01DK052194-25	3,571	—
Data Coordinating Center for the Type 1 Diabetes in Acute Pancreatitis Consortium (T1DAPC)	156	93.847	NWUDK127384 Amnd 1//5U01DK127384-03	58,813	—
Data Coordinating Center for the Type 1 Diabetes in Acute Pancreatitis Consortium	156	93.847	NWUDK127384 -PC Amnd 1//5U01DK127384-03	7,342	—
Large-scale nutrigenetics and genomics in a tractable metazoan model	247	93.847	OSP2018042//5R01DK115960-04	(17)	—
Epidemiology of Diabetes and Interventions and Complications (EDIC)	38	93.847	RES516366//5U01DK094157-11	(1,699)	—
UroEDIC Bladder: Bladder Dysfunction in Type 1 Diabetes	38	93.847	RES516477//1R01DK116723-01A1	11,886	—
Epidemiology of Diabetes Interventions and Complications Study (EDIC)	38	93.847	RES600215//2U01DK094157-12	169,515	—
Novel Role of Hepatic SEL1L-HRD1 ERAD in FGF21 Gene Transcription	249	93.847	SUBK00009305//5R01DK120330-04	2,387	—
Novel Role of Hepatic SEL1L-HRD1 ERAD in FGF21 Gene Transcription	249	93.847	SUBK00017277//2R01DK120330-05	203,827	—
Control of islet beta specific Pdx-1 and MafA transcription	279	93.847	UNIV59587//5R01DK05203-22	(616)	—
Regulation of Rhythmic m6A RNA Modification by ER associated Degradation	290	93.847	WSU21103-A2//5R01DK126908-03	308,762	—
				33,235,609	4,441,638
Schwann Cell Reprogramming after Nerve Injury	275	93.853	000003066//1R01NS130566-01A1	13,805	—
AtRIal Cardiopathy and Antithrombotic Drugs in prevention After cryptogenicstroke (ARCADIA) "study"	227	93.853	010785-133385 Amd. 2//1U01NS095869-02 Revised	15,273	—
ARCADIA CSI (Cognition and Silent Infarcts) "Study"	227	93.853	012340-133385//5U01NS110728-02	2,158	—
Multimodal wireless electrical stimulation for tissue regeneration	220	93.853	0125 G LA398//1R01NS126918-01	403,306	—
FVIIa for Acute hemorrhagic Stroke Administered at Earliest Time (FASTEST) Trial	227	93.853	012765-00017//5U01NS110772-02	80,900	—
FVIIa for Acute hemorrhagic Stroke Administered at Earliest Time (FASTEST) Trial	227	93.853	012765-133385//1U01NS110772-01	17,487	—
Scalable Electrode Technology for High Resolution Chronic Recording of Brain	268	93.853	1806591 AMD 4//R01NS104344	147,792	—
Novel tools for in vitro electrophysiology and neurotrauma modeling	236	93.853	18429 Amd 4//5R01NS113935-05	271,983	—
Cracking the Olfactory Code (Project 1)	142	93.853	19-A0-00-1002081-113030 Amnd 4//5U19NS112953-05	644,939	—
Cracking the Olfactory Code (Project 3)	142	93.853	19-A0-00-1002081-113032//5U19NS112953-02	57,154	—
Combining Physiological, Genetic, and Computational Approaches with Naturalistic Climbing Behavior to Elucidate the Functional Elements of Descending		93.853	1DP2NS120847-01	281,738	—
Comparative Approaches for the Study of Somatosensory Processing in Drosophila		93.853	1F31NS129270-01	22,520	—
Identifying mechanisms underlying sex differences in motoneuron discharge		93.853	1F31NS130767-01A1	1,362	—
The Role of Neutrophils in Ischemia/Reperfusion Injury following Acute Stroke		93.853	1F31NS130939-01 REVISED	30,224	—
The role of ER-phagy in maintaining protein homeostasis in PD patient derived neurons.		93.853	1F31NS131055-01	28,956	—
Glucocorticoid regulation of dopamine circuit function		93.853	1F99NS130873-01	42,732	—
Multi-scale disease modeling of SCN2A-related epilepsy due to gain-of-function variants		93.853	1K08NS121601-01A1	229,168	—
Mechanisms of Neurodegeneration in KIF5A ALS/FTD		93.853	1K08NS130146-01A1	12,758	—
Mitochondrial Fidelity in Mammalian Neurons		93.853	1K99NS126639-01A1	83,824	—
Precise Prediction and Treatment of Seizures After Intracranial Hemorrhage		93.853	1R01NS117608-01A1	1,596	—
Targeting RNA Splicing in Glioma		93.853	1R01NS125318-01A1	390,505	—
Post-stroke normal appearing white matter diffusion properties and cognitive trajectories across age		93.853	1R01NS126509-01A1	85,195	—
Elucidating cellular mechanisms underlying neurodegeneration		93.853	1R01NS127204-01	533,761	—
Regulation of Hippocampal Neurogenesis and Behavior by Noggin		93.853	1R01NS128053-01A1	225,512	—
The interplay between HIV-1 and amyloid precursor protein in infection and neurotoxicity		93.853	1R01NS131094-01A1	194,784	—
Development of an EMG-controlled BCI for biomimetic control of hand movement in humans		93.853	1R01NS131953-01	21,380	—
Investigating the Contribution of ALS/FTD-Associated Mutations in the NEK1 Kinase to Disease Pathophysiology		93.853	1R01NS134166-01	7,330	—
Blast-induced TBI in the ferret: small brains, big opportunities		93.853	1R21NS116638-01A1	114,074	—
Towards elucidation of circuit mechanisms for feeding-related manual dexterity		93.853	1R21NS116886-01	(4,059)	—
A Synthesis Platform to Leverage the Neuroscience Potential of Yohimbine Alkaloids		93.853	1R21NS120521-01	125,342	—
The role of poison exons in neurodevelopment		93.853	1R21NS121572-01A1	253,433	—
Regulation of microglia-mediated neuroinflammation by store operated Orai1 channels		93.853	1R21NS122347-01	163,097	—
COVID-19: Neurological consequences of COVID-19 during the early recovery period: Imaging Analysis of the Blood Brain Barrier and Neurovascular alterations		93.853	1R21NS123871-01	168,099	—
A zebrafish model to study functional regeneration of motor circuits		93.853	1R21NS125207-01	177,752	—
Profiles of Common and Unique aspects of Upper Motor Neuron degeneration in HSP and ALS		93.853	1R21NS125465-01A1	173,830	—
Developing new paradigms for mouse forelimb sensorimotor circuit analysis		93.853	1R21NS125594-01	335,528	—
Cysteine Depletion-induced Ferroptosis as a Therapeutic Vulnerability in Glioblastoma Temozolomide Resistance		93.853	1R21NS126810-01	133,273	—
Adapting Neurogenetic Technologies for Use in the Desert-dwelling Fly Drosophila Mojavensis		93.853	1R21NS130554-01	154,121	—
Defining the Mechanisms by Which Mutations in DNAJC7 Increase Susceptibility to ALS/FTD		93.853	1R21NS131713-01	86,109	—
Genetic Mapping of Modifier Loci in a Mouse Model KCNB1 Encephalopathy		93.853	1R21NS134236-01	27,590	—
Brainstem circuits of corticospinal neurons		93.853	1R34NS116713-01	135,749	—
Bidirectional circuits of locus ceruleus and motor cortex neurons		93.853	1R34NS127119-01	213,736	—
The Physiology of Store-Operated Channels in the Nervous System		93.853	1R35NS132349-01 REVISED	143,689	—
Dementia Risk Prediction Pooling Project		93.853	1R61NS120245-01	64,616	56,712
VEGF-Mimetic Supramolecular Nanoparticles for Treating Spinocerebellar Ataxia Type 1		93.853	1R61NS127141-01A1	8,151	—
Examining the role of glycosphingolipids in the progression and heterogeneity of synucleinopathies		93.853	1RF1NS109157-01 REVISED	272,562	—
Multiplex Imaging of Brain Activity and Plasticity with Optimized FRET/FLIM-based Sensors		93.853	1U01NS128655-01	349,990	—
Development of anti-LTBP4 as a biologic to treat Neuromuscular Diseases		93.853	1UG3NS127383-01	804,694	—
Hippocampal neural dynamics driving affiliation and attachment	220	93.853	2000 G YK444//1UF1NS122124-01 Revised	86,559	—
Examining the role of phosphatidylethanolamine and autophagic disruption in Lewy Body Dementias and Parkinson's disease	121	93.853	22-08-001//1R56NS114272-01A1	101,833	—
AT-HOME-PD (Tele-Health Extension for Phase 3 Parkinson's Disease Trial Cohorts)	124	93.853	232297 AMD 05//5U01NS107009-05	54,317	—
Dopaminergic and Muscarinic Signaling in the Striatum		93.853	2R37NS034696-24 REVISED	656,739	—
Investigation of Pallidal Neurons in Motor Inhibition		93.853	2R56NS069777-11	338,534	—
Adhesion molecules and developmental epilepsy disorders		93.853	2R56NS100785-05A1	417,905	27,976
Cerebral Small Vessels in Motor and Cognitive Decline: Neuroimaging Signatures of Vulnerability & Resilience		93.853	2RF1NS085002-06	442,203	—
Clinical Research Site for the Network of Excellence in Neuroscience Clinical Trials (NeuroNEXT site)		93.853	2U24NS107213-06	13,497	—
Fgl2 neutralizing therapy for inducing tumor specific brain resident immune memory against CNS tumor relapse	270	93.853	3001813107 Amendment 3//5R01NS122857-03	86,527	—
5-Cog battery to improve detection of cognitive impairment and dementia: pragmatic clinical trial	4	93.853	312248//2U01NS105565-07	44,906	—
Fecal Microbiota Transfer Attenuates Aged Gut Dysbiosis and Functional Deficits after Traumatic Brain Injury		93.853	3K99NS130277-01S1	78,774	—
LRRK2-mediated molecular and synaptic events in the striatum		93.853	3R01NS097901-06S1	(416)	—
A wireless, closed-loop neural probe for optogenetics, pharmacology and neurochemical monitoring	230	93.853	431257//RF1NS118287	356,218	—
Online education for high school students to reduce HIV and related sexual behavior risk	26	93.853	4500003971 AMD1//5R21HD105482-02	20,185	—

NORTHWESTERN UNIVERSITY
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Cluster title/federal grantor/subagency/project title	Pass-through entity	Assistance listing number	Sponsor award number	Federal expenditures	Subrecipient expenditures
Role for Ion Conducting Proteins in Cortical Malformation Diseases		93.853	4R00NS112604-03	\$ 171,606	—
Interpretable machine learning for understanding the neural control of movement		93.853	4R00NS119787-03	26,333	—
Dementia Risk Prediction Pooling Project		93.853	4R33NS120245-02	631,697	53,514
The role of ATP13A2/PARK9 in secretion of exosomes and alpha synuclein		93.853	4R37NS096241-05	(3,265)	—
Functional Annotation of a Comprehensive Set of SCN2A Variants	29	93.853	5001370-5500001215//5R21NS110355-02	(64)	—
The Use of Eye Movement Testing to Detect Neurocognitive Change Associated with Subconcussive Impacts		93.853	5F31NS106840-02 REVISED	(566)	—
Intraoperative functional mapping using infrared thermography		93.853	5F31NS115362-03 REVISED	6,459	—
A Predictive Model for Assessment of CSF Flow Through Ventricular Shunts		93.853	5F31NS115422-03	86	—
A subtype-specific ablation of dopamine neurons to mimic human Parkinson's disease		93.853	5F31NS115524-03	47,667	—
Effects of oxaliplatin-based chemotherapy on proprioception in cancer survivors		93.853	5F31NS118832-02	(148)	—
Trigeminal Nerve Stimulation in Chronic Hemiparetic Stroke		93.853	5F31NS120500-02	10,318	—
EEG Correlates of Inhibitory Control During STN Deep Brain Stimulation		93.853	5F31NS120695-02	16,488	—
NRSA in support of Maria Milagros Pereira Luppi: The role of transcription factor SOX6 in midbrain dopamine neuron lineage and molecular diversity		93.853	5F31NS122481-02	17,191	—
Characterization of a Novel Ataxia Phenotype (NRSA Predoc Fellowship for Alexander Telenson, MS.)		93.853	5F31NS122495-03	41,569	—
Dopamine Dependence of Offset Analgesia		93.853	5F31NS126012-02	39,868	—
Investigation of Histone H3 Post-Translational Modifications in Pediatric Brainstem Glioma		93.853	5K08NS097624-03	(36)	—
Cerebellar Modulation of Innate Defensive Behaviors		93.853	5K99NS119783-02	8,702	—
Molecular mechanisms underlying mitochondria-lysosome membrane contact sites in neuronal function and neurodegeneration		93.853	5R00NS109252-05	83,372	—
A novel blood-CSF adaptive immune response in Alzheimer's disease		93.853	5R00NS112458-04	182,512	—
Measuring Electrical Activity from the Human Brain to Predict Memory Formation and Behavior Across the Lifespan		93.853	5R00NS115918-04	251,567	—
Targeting the Integrated Stress Response to Protect Oligodendrocyte lineage Cells		93.853	5R01NS034939-23	503,729	—
Resilience, Dysregulation, and Rescue of Basal Ganglia Indirect Pathway Function in Progressive Parkinsonism		93.853	5R01NS041280-22	585,769	—
Myoferlin in muscle membrane fusion and repair		93.853	5R01NS047726-17	278,797	—
A primate model of an intra-cortically controlled FES prosthesis for grasp		93.853	5R01NS053603-15	273,202	—
Store-operated channels in the nervous system		93.853	5R01NS057499-15	312,917	—
The Loss of Independent Joint Control of the Upper Limb in Spastic Hemiparetic CP		93.853	5R01NS058667-09 REVISED	287,298	—
Synaptic Circuit Organization of Motor Cortex		93.853	5R01NS061963-15	343,981	—
Cajal-Retzius cells and neuronal signaling in postnatal cortical networks		93.853	5R01NS064135-13	304,505	—
ZFP24 Control of the myelination program of oligodendrocytes		93.853	5R01NS067550-09	400,845	—
Understanding the Cellular Basis of Movement Disorders		93.853	5R01NS082351-10	196,816	—
Genetic Modifiers of Childhood Epilepsy		93.853	5R01NS084959-09 REVISED	650,032	—
Concordance of TDP-43 Inclusions with Cortical Atrophy and Clinical Phenotype		93.853	5R01NS085770-09	567,760	169,409
Neurogenetic Approaches to Study Directed Behavior in Drosophila		93.853	5R01NS086859-10	500,981	—
The role of a-synuclein accumulation in lysosomal hydrolase trafficking and function		93.853	5R01NS092823-07	404,250	—
Effect of Unilateral and Bilateral STN Stimulation on Eye-Hand Coordination		93.853	5R01NS092950-05	(2,112)	—
Coding properties of Vibrissal-Responsive Trigeminal Ganglion Neurons		93.853	5R01NS093585-05	136,084	—
Biomimetic Somatosensory Feedback through Intracorticalmicrostimulation		93.853	5R01NS095251-05	(4,274)	—
Biomimetic Somatosensory Feedback through Intracorticalmicrostimulation		93.853	5R01NS095251-05	(27,374)	(27,374)
Microcircuits of the Subiculum and Epilepsy		93.853	5R01NS096092-05	307,609	—
Cellular Plasticity and equilibrium in GBM Progression		93.853	5R01NS096376-07	433,141	—
IDO1 and Immunotolerance in Glioblastoma		93.853	5R01NS097851-07	255,112	—
The Human Motor Output Map		93.853	5R01NS098509-05	(914)	—
The Human Motor Output Map		93.853	5R01NS098509-05	34,403	34,403
The role of amyloid precursor protein in HIV-1 replication and associated neurodegeneration		93.853	5R01NS099064-05	116,810	—
A wearable myoelectric computer interface to reduce muscle co-activation in acute and chronic stroke		93.853	5R01NS099210-05	32,972	—
Regulation of CD4+ T cell-mediated Demyelination Following Oligo Ablation		93.853	5R01NS099334-05	(4,604)	—
Mouse model studies of TMEM230-linked Parkinson's disease		93.853	5R01NS099623-07	444,019	—
Investigation of ALS caused by mutant CHCHD10		93.853	5R01NS099638-05	(3,981)	—
Subcortical auditory processing in sports-related concussions and contact/collision sports		93.853	5R01NS102500-05	320,552	—
Tissue Factor as a Key Determinant of IDH1 Mutant versus IDH1 Wild-type Glioma Thrombosis and Malignancy		93.853	5R01NS102669-05	(1,977)	—
Determining How Defective Nucleo-Cytoplasmic Trafficking Leads To Neurodegeneration In C9orf72-Related ALS And FTD		93.853	5R01NS104219-05	112,772	3,253
Cellular and Molecular Role of CXCR4 signaling in Painful Diabetic Neuropathy		93.853	5R01NS104295-05	49,815	—
Deciphering the Roles of Kainate Receptors in Developing CNS Circuits		93.853	5R01NS105502-05	422,702	—
Contralateral Corticobulbospinal Structural and Functional Changes Post Stroke: Biomarkers for the upper limb flexion synergy		93.853	5R01NS105759-05	395,141	7,255
Genetic Approaches to Optimize CAR T cells for Glioblastoma Therapy		93.853	5R01NS106379-05	332,580	86,218
Molecular Mechanisms Integrating Circadian Timing and Photic Signaling		93.853	5R01NS106955-05 REVISED	212,661	—
The Role of Mitochondria in TDP-43 Proteinopathy		93.853	5R01NS107396-07	(207,324)	—
Mechanisms of striatal structural and functional plasticity.		93.853	5R01NS107539-05	307,809	—
Reversible mRNA methylation in oligodendrocyte development and CNS myelination		93.853	5R01NS109372-05	396,230	—
Mechanisms of electrical stimulation of a canonical motor microcircuit		93.853	5R01NS109552-05	474,456	—
Role of Host Cell Factors in Newborn Herpes Simplex Virus (HSV) Encephalitis		93.853	5R01NS110631-04	169,944	—
MAPK as target of glioma immunoeediting by CD8 T-cells, and predictor of response to immunotherapy		93.853	5R01NS110703-04 REVISED	356,345	—
Hemostasis, Hematoma Expansion, and Outcomes After Intracerebral Hemorrhage		93.853	5R01NS110779-05//5R01NS110779-05	820,086	373,436
Motoneuron mortality in neurodegenerative diseases induced by homeostatic dysregulation of excitability		93.853	5R01NS110953-05	532,833	332,285
Modulation of the prefrontal cortical network in neuropathic pain		93.853	5R01NS112292-04	523,086	16,422
Optimizing the restoration and rehabilitation of function using cortically-controlled FES following SCI		93.853	5R01NS112535-05	388,693	70,874
Role of purine metabolism in chemoresistance		93.853	5R01NS112856-05	285,926	—
Combining myoelectric training with sleep-based memory reactivation to improve motor recovery after stroke		93.853	5R01NS112942-05	680,047	—
SLFN5: A Novel Therapeutic Target for Glioblastoma		93.853	5R01NS113352-04	300,886	—
Development of Novel MNK Inhibitors for Treating Glioblastoma		93.853	5R01NS113425-05	500,242	—
Cellular mechanisms of hippocampal network neuroplasticity generated by brain stimulation		93.853	5R01NS113804-05	1,749,756	1,083,012
Neuronal excitability and copy number variation disorders		93.853	5R01NS114977-04	423,847	91,407
Role of Protein Methylation in Cell Mitosis and Glioblastoma		93.853	5R01NS115403-04	503,682	25,918
Glutamate receptor signaling pathways in the circuit integration of adult-born neurons		93.853	5R01NS115471-03	395,842	41,441
Regulation of synaptic plasticity and cognitive functions by store-operated Orai1 channels		93.853	5R01NS115508-03	407,510	11,937
Real-Time Tracking of Gene Therapy by Bioactivated MR contrast Probes		93.853	5R01NS115571-04	699,679	360,514
Arginine Metabolism Regulates Myeloid Immune Suppression in Glioblastoma		93.853	5R01NS115955-04	385,194	—
High-resolution Infrared Thermal Imaging (ITI) for Simultaneous Functional Mapping of the Entire Craniotomy in Awake Patients		93.853	5R01NS116190-03 REVISED	535,849	—
Models of rodent facial musculature for the study of active tactile sensing		93.853	5R01NS116277-03	380,591	—
Interaction between Tissue Factor, Junctional Adhesion Molecule-A, and Integrin B1 to drive self-renewal in glioblastoma		93.853	5R01NS117104-04	261,716	—

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Cluster title/federal grantor/subagency/project title	Pass-through entity	Assistance listing number	Sponsor award number	Federal expenditures	Subrecipient expenditures
Immune-modifying nanoparticles for the treatment of traumatic brain injury		93.853	5R01NS117476-04	\$ 330,483	—
Neuronal roles of Parkinsons Disease Vps13C in regulating autophagy and calcium dynamics		93.853	5R01NS117750-04	561,890	—
Quantitative ASL MR angiography and perfusion imaging for cerebral revascularization		93.853	5R01NS118019-05	125,975	—
Targeting IDH mutations to improve seizure control in glioma patients		93.853	5R01NS118039-04	498,610	—
Mechanisms of gene regulation and RNA processing in synucleinopathies		93.853	5R01NS118824-04	527,481	—
Development of a novel therapeutic strategy for treatment of SOD1-linked ALS by CRISPR/Cas9-mediated SOD1 promoter editing		93.853	5R01NS118928-03	234,504	—
Developmental underpinnings of substantia nigra vulnerability		93.853	5R01NS119690-03	558,457	—
The role of the cortex and brainstem in motor preparation for proximal and distal upper extremity movements		93.853	5R01NS120226-03	268,631	—
Determinants of Basal Ganglia Pathology in Parkinson's Disease		93.853	5R01NS121174-03	728,545	—
Understanding the Behavior of Novel IL13Ralpha2-directed T cell Engager for GBM		93.853	5R01NS122395-03	340,212	42,221
Dopamine, Synaptic Plasticity and Striatal Ensemble Dynamics Underlying Motor Learning		93.853	5R01NS122840-02	576,175	—
RAD23 Control of ALS phenotypes		93.853	5R01NS122908-02	431,348	—
New Inactivators of GABA Aminotransferase for Epilepsy and Neuropathic Pain		93.853	5R01NS123057-03	643,871	173,886
Identifying pathogenic mechanisms underlying PACS1 Syndrome: implications for neural development		93.853	5R01NS123163-02	666,569	—
Mechanisms of Genome Architecture Regulation in Motor Learning		93.853	5R01NS123285-02	579,642	—
Mechanism and therapeutic potential of microglia regulation in glioblastoma		93.853	5R01NS124594-02	375,364	—
Defining mechanisms underlying C9orf72-associated frontotemporal dementia with C. elegans and mammalian models		93.853	5R01NS124802-02	752,950	243,104
Cellular Pathophysiology of Neuronal NaK-ATPase Dysfunction		93.853	5R01NS125785-02	509,623	—
Supercomputer-based Models of Motoneurons for Estimating Their Synaptic Inputs in Humans		93.853	5R01NS125863-02	319,862	92,944
Trauma, the gut, and the brain: the gut microbiota-microglia axis in traumatic brain injury		93.853	5R01NS127865-02	711,709	20,978
Modern approach to electrical conductivity mapping of spinal cord tissues		93.853	5R21NS120166-02	189,681	13,695
Improving Human Cerebrovascular Function Using Acute Intermittent Hypoxia		93.853	5R21NS121742-02 REVISED	299,384	—
Targeting ATG4B to Treat Glioblastoma		93.853	5R21NS122375-02	158,485	—
The Role of Aortic-Carotid Hemodynamics and Aberrant Flow in HIV Cerebral Injury		93.853	5R21NS122511-02	157,330	57,745
Kainate Receptors as a Target for the Anticonvulsant Perampanel		93.853	5R21NS123780-02	130,464	—
Imaging tools to assess circuit connectivity and function in zebrafish		93.853	5R21NS125187-02	155,198	—
Investigating Divergent Disease Severity in Human Neuronal Models of KCNQ2-Related Developmental and Epilepsy Disorders		93.853	5R21NS125503-02 REVISED	252,390	—
Exploring the Pathogenic Mechanisms of Batten's disease MFSD8 mutations using patient iPSC derived neurons.		93.853	5R21NS125847-02	208,467	—
Characterized Adult Primary Human Microglia Cells for Research		93.853	5R24NS104160-04	222,977	—
Research Education Program for Trainees in Neurology		93.853	5R25NS070695-13	94,190	—
Synaptic Coding in the Cerebellar Corticonuclear Circuit		93.853	5R35NS116854-03	712,357	—
Mechanistic Analysis of Genetic Modifiers in Parkinson's Disease		93.853	5R35NS122257-02	1,121,773	—
General Motor Control Mechanisms and Disease Training Program		93.853	5T32NS041234-20	266,232	—
TRAINING PROGRAM IN THE NEUROSCIENCE OF HUMAN COGNITION		93.853	5T32NS047987-15	145,360	—
Clinical Coordination Center for STEADY-PD3		93.853	5U01NS080818-04	357	—
Primary Care Detection of Cognitive Impairment Leveraging Health and Consumer Technologies in Underserved Communities: The MyCog Trial		93.853	5U01NS105562-07	733,893	—
Study in Parkinson Disease of Exercise Phase 3 Clinical Trial: SPARX3		93.853	5U01NS113851-02	3,817,568	2,186,294
Clinical Research Sites for the Network of Excellence in Neuroscience Clinical Trials (NEXT Sites)		93.853	5U24NS107213-05	265,756	—
Channelopathy-Associated Epilepsy Research Center		93.853	5U54NS108874-05	2,446,047	1,556,815
MyCog – Rapid detection of cognitive impairment in everyday clinical settings		93.853	5UH3NS105562-05	10,012	3,981
Maternal Outcomes and Neurodevelopmental Effects of Antiepileptic Drugs (MONEAD) II	187	93.853	61869966-125439//5U01NS038455-20	37,621	—
Perfusion imaging to identify posterior circulation candidates for thrombectomy (PRECISE)	187	93.853	62747531-193654 AMND 1//5R01NS121720-02	5,630	—
Epigenetic Regulation of Nerve Injury	275	93.853	761K946//5R01NS100510-05	2,558	—
An Intracortical Brain-Computer Interface Model for High-Efficiency Development of Closed-Loop Neural Decoding Algorithms.	77	93.853	800010796/000153//R01NS109257 AMD 3	99,812	—
Safety and Cognitive Effects of Acute Intermittent Hypoxia-Induced Neuroplasticity in TBI	165	93.853	80255-03 Amendment 2//1R21NS114815	52,549	—
Targeting Transcriptional Elongation in Pediatric Glioma	17	93.853	901657-NU//1R01NS126513-01	7,633	—
From Neural Control of Movement to Treatments for Spinal Cord Injury	165	93.853	9833//1R35NS122336-01	21,937	—
Targeting Transcriptional Elongation in Pediatric Glioma	214	93.853	ADVANCE ACCOUNT	2,015	—
Perinatal Arterial Stroke (PAS): A Phase III Multi-site Trial of I-ACQUIRE	17	93.853	Agmt 3//20//1U01NS106655-01A1	13,618	—
MACC/EPICC-Net as a Hub for the HEAL Initiative EPICC-NET	128	93.853	AGMT 5//20//21 Amnd 2//1U24NS115679-01 REVISED	7,754	—
MR Imaging of Bioscaffold-Induced Neural Progenitor Migration	259	93.853	AW D00004190 (136332-1) Amnd 2//1R01NS122768-03	128,306	—
Calcium Channels in Glioblastoma	273	93.853	AW D-004192.GR-100549//1R01NS122222-01A1	70,073	—
Predicting Stroke Risk in Intracranial Atherosclerotic Disease with Novel High Resolution, Functional and Molecular MRI Techniques	226	93.853	AWD101460 (SUB00000411)//5R01NS114632-02	158,534	—
The Interplay between Kinematic and Force Representations in Motor and Somatosensory Cortices during Reaching, Grasping, and Object Transport	226	93.853	AWD102733 (SUB00000633)//5R01NS125270-02	81,711	—
The contribution of the vermiform appendix to Parkinson's disease	278	93.853	CON-000008 Amd 1//5R01NS114409-04	27,618	—
Role of interneurons in brain tissue oxygen regulation	147	93.853	EH17-251-S1//5R01NS107383-05	53,636	—
Cell Type Specific Genetic Manipulation to Dissect Cholinergic Interneuron Function and Plasticity in a Symptomatic Model of DYT1 Dystonia	271	93.853	GMO210305 PO 000002283 03//5R01NS110853-03	67,206	—
(CREST-2) Trial: Carotid Revascularization and Medical Management for Asymptomatic Carotid Stenosis Trial	127	93.853	NWU-224063-03//5U01NS080168-07	1,125	—
Molecular and cellular dissection of the pathogenesis of herpes simplex encephalitis with iPSC-derived CNS and PNS cells	173	93.853	SUB00000264 AMD 5// 5R01NS072381-12	106,873	—
Molecular and cellular dissection of the pathogenesis of herpes simplex encephalitis with iPSC-derived CNS and PNS cells	173	93.853	SUB00000338//5R01NS072381-13	47,502	—
Web-based Automated Imaging Differentiation of Parkinsonism	233	93.853	SUB00003119//U01NS119562	24,010	—
Web-based Automated Imaging Differentiation of Parkinsonism	233	93.853	SUB00003776//5U01NS119562-03	480	—
Multiplatform Variant Prediction (MVP) in Epilepsy	249	93.853	SUBK00011889AMD2//5U54 NS117170-03	135,726	—
NN110 – A Dose Selection Trial of Light Therapy for Impaired Sleep in Parkinson's Disease	124	93.853	U01NS114401	19,613	—
Revealing neural circuits underlying zebrafish behavior using mesoscopic light field microscopy	288	93.853	WU-22-0102-MOD-1-Mod-2//1R34NS123913-01	114,234	—
				54,841,195	7,210,275
COVID-19: ACTG CoVPN Startup Fund: COVID Vaccine Prevention Network ("CoVPN")	220	93.855	(CoVPN) 1560 B WA693 // 3UM1AI068636-14S2 REVISED	(8,452)	—
Fecal Microbiota Transplant for C. Difficile Infection in Solid Organ Transplant Recipients	275	93.855	0000001731//5U01AI125053-04	4,819	—
Fecal Microbiota Transplant for C. difficile infection in Solid Organ Transplant Recipients	275	93.855	0000002711//5U01AI125053-05	19,619	—
COVID-19: CoVPN 3006 Protocol Funding (Fixed-Price)	79	93.855	0001062455 Amnd 3//3 UM1 AI068614-15S1	253,366	—
Fluomics: The Next Generation	96	93.855	0255-A135-4609-04 // 5U19AI135972-05	24,193	—
COVID-19: SARS-CoV adaptations through a Systems Biology Lens (SYBIL)	96	93.855	0255-A136-4609//2U19AI135972-06	30,321	—
Dengue Human Immunology Project Consortium (DHIPC) Core B	96	93.855	0255-C164-4609//5U19AI118610-07	(53,711)	—
Systems Biology of Early Atopy (SUNBEAM) Analysis and Bioinformatics Center	96	93.855	0255-H271-4609//1UM1AI173380-01	108,615	—
EpiMoRPH: A simulation environment for generating spatially-refined intervention strategies for the control of infectious disease	145	93.855	1005080-02//R01AI168144	201,046	—
CHEETAH CENTER FOR THE STRUCTURAL BIOLOGY OF HIV INFECTION, RESTRICTION, AND VIRAL DYNAMICS	272	93.855	10062103-07-NW AMD 1//5U54AI170856-02	389,900	—
Systems-based pharmacologic modeling to elucidate beta-lactam clinical pharmacodynamics and define optimal dosing regimens in severe pneumonia	135	93.855	11-1075-7116-5792 Amnd 1//5R01AI158530-02	147,696	—
Applying precision Medicine to optimize desensitization with novel bIologics or cellular theRApies in highly sensiTized kidney transplant patiEnts (AMELIORATE)	223	93.855	13136SC//5U01AI113362-09	19,400	—
QCRG Pandemic Response Program	223	93.855	13650sc//1U19AI171110-01	179,459	—

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Cluster title/federal grantor/subagency/project title	Pass-through entity	Assistance listing number	Sponsor award number	Federal expenditures	Subrecipient expenditures
HARC Core 2: Genetics	223	93.855	13895sc Amd 1//1U54A1170792-01	\$ 49,850	—
HARC 2.0: Project 3: Genetics and evolution of HIV restriction factors	223	93.855	13901sc//5U54A1170792-02	66,080	—
Controlling HIV Latency By Manipulating Cyt1 Turnover	223	93.855	14151sc//1R01A1167778-01A1	21,004	—
Recent Advances in AIDS and HIV Research	223	93.855	14200sc//5R13A1102630-10	14,611	—
Understanding the Role of HUWE1 in HIV Infection	223	93.855	14548sc//5U54A1170792-02	2,407	—
Development of Novel Antiviral Agents Targeting Viral Helicases	223	93.855	14578sc//1U19A1171110-01	10,690	—
COVID-19: COVID-19 CoVPN Protocol 3003/Janssen	220	93.855	1560 B YB245 AMD 9//3UM1A1068636-16S2	2,963	—
ACTG UCLA Protocol Funds	220	93.855	1560 B YB245 Amnd 7//2UM1A1068636-15	199,327	—
COVID-19: ACTG A5401 Protocol Chair Support	220	93.855	1560 G LB027//3UM1A1068636-15S1	10,834	—
AIDS Clinical Trials Group for Research on Therapeutics for HIV and Related Infections [ACTG LOC: TSG-Sci Comm-DMC]	220	93.855	1560 G YB416 Amnd 3//5UM1A1068636-17	67,237	—
ACTG A5357 Protocol Co-Chair Support	220	93.855	1560 G YB703 Amnd 3//5UM1A1068636-17	3,521	—
AIDS Clinical Trials Group for Research on Therapeutics for HIV and Related Infections [ACTG LOC: Chair A5382]	220	93.855	1560 G YB704 Amnd 2 // 2UM1A1068636-16	4,278	—
AIDS Clinical Trials Group for Research on Therapeutics for HIV and Related Infections [ACTG LOC: Chair A5392]	220	93.855	1560 G YB725 Amnd 2//5UM1A1068636-16	1,931	—
AIDS Clinical Trials Group for Research on Therapeutics for HIV and Related Infections [ACTG CF TSG CR]	220	93.855	1560 G ZB055//5UM1A1068636-16	1,176	—
Precise Combination Strategies Targeting Carbapenem-Resistant Klebsiella pneumoniae	236	93.855	19318//1R01A1173064-01	41,331	—
Determine host surface interactions of MARTX toxin of foodborne Vibrio vulnificus	93.855	93.855	1F31A1172382-01	41,965	—
Quantifying the potential contribution of asymptomatic screening and treatment to malaria control and elimination	93.855	93.855	1F31A1172387-01	37,240	—
Deciphering the roles of eosinophils and T lymphocytes in EGD	93.855	93.855	1K23A1171085-01A1	80,758	—
Unraveling the Mechanisms of HIV Persistence and Rebound	93.855	93.855	1P01A1169600-01	849,759	48,987
Clinical analysis and therapeutic development of exosomal ACE2	93.855	93.855	1R01A1167272-01A1	465,909	—
+TIPs as novel host capsid-binding co-factors in early HIV-1 infection	93.855	93.855	1R01A1172818-01A1	178,578	—
Turning off HIV White Noise: Switching from Long-Lived to Short-Lived Reservoir	93.855	93.855	1R01A1176599-01	96,744	—
Lakeside Conference on Protein Toxins and Effectors 2021	93.855	93.855	1R13A1154685-01A1	2,205	—
Stenotrophomonas maltophilia Type IV Secretion: Modulator of Both Host-Cell Apoptosis and Interbacterial Killing	93.855	93.855	1R21A1139596-01A1	46,297	—
Stenotrophomonas maltophilia TfcA and TfcB: Antibacterial T4SS effectors from an emerging human pathogen	93.855	93.855	1R21A1171325-01A1	140,644	—
miR-342, a novel glucocorticoid-responsive miRNA necessary for Foxp3+ regulatory T cell function	93.855	93.855	1R21A1172135-01A1	64,016	—
Rethinking Legionella pneumophila type IV pili and their roles in intracellular infection	93.855	93.855	1R21A1173514-01A1	18,725	—
Ex vivo maintenance of endothelial cell barrier integrity via gap junction modification to prevent early ischemic injury in solid organ transplantation	93.855	93.855	1R21A1173763-01A1	1,446	—
Mucinases as Emerging Players in Legionella pneumophila Pathogenesis	93.855	93.855	1R21A1175460-01	98,293	—
A new mouse model to study the function of CD1b-restricted germline encoded, mycolyl lipid-reactive (GEM) T cells	93.855	93.855	1R21A1178629-01	20,299	—
TGFBR1 Blockade as Novel Release and Kill HIV Strategy	93.855	93.855	1R56A1157822-01A	84,182	—
Limited Interaction Efficacy Trial of MyPEEPS Mobile to Reduce HIV Incidence in Young Men who Have Sex with Men and Use of Targeted Geospatial Epidemiology (MyPEEPS Mobile-LITE)	53	93.855	2(GG017774-01)//1UG3A1169658-01	20,260	—
HOPE in Action: A Clinical Trial of HIV-to-HIV Liver Transplantation	114	93.855	2004130714//5U01A1138897-03	14,306	—
NEW HORIZONS IN THE PREVENTION AND TREATMENT OF FOOD ALLERGY – Opportunity Fund	114	93.855	2005712406//5UM2A1130836-07	20,956	—
Modulation of Lung Immune Responses to Viral Infection	110	93.855	210310-0223-23 Amnd 1//5U19A1142733-05	17,821	—
Partnering and Programming for a BIPOC SGM Runway to HIV Research	83	93.855	21-M107//5P30A1117970-07	72,889	—
Donor-specific anti-HIV/SIV immunity mediated by APOBEC3 enzymes	201	93.855	23-05097.101//1R56A1174877-01	8,878	—
Regulation of SAMHD1 antiviral activity	4	93.855	2R01A1150455-08//311789 AMND 4	27,942	—
Mechanisms of Gonococcal Pilin Antigenic and Phase Variation	93.855	93.855	2R01A1033493-30A1	84,485	—
COVID-19: Successful Clinical Response In Pneumonia Therapy (SCRIPT) Systems Biology Center	93.855	93.855	2U19A1135964-06 REVISED	1,366,931	—
Evaluation of a Behavioral Intervention to Promote Food Allergy Self-Management Among Early Adolescents: The Food Allergy Mastery Program	45	93.855	30007544-01//1R01A1168090-01A1	39,808	—
Consortium of Eosinophilic Gastrointestinal Disease Researchers, 309363	46	93.855	309363 Amnd 2//5U54A1117804-08	32,634	—
Consortium of Eosinophilic Gastrointestinal Disease Researchers (CEGIR)	46	93.855	309364 (CT2) Amnd 2//5U54A1117804-08	74,136	—
Consortium of Eosinophilic Gastrointestinal Disease Researchers – Pilot Core	46	93.855	309365 Amnd 3//5U54A1117804-08	16,707	—
Neurotropic herpesvirus envelopment and microtubule-mediated transport	4	93.855	310227//5R01A1125244-06	1,595	—
Allograft Inflammatory Factor-1 and Immune Tolerance	4	93.855	312153//5R21A1171739-02	4,069	—
Neurotropic herpesvirus envelopment and microtubule-mediated transport	4	93.855	312269//P0926565//2R01A1125244-07A1	1,578	—
HIV Vaccine Research and Design (HIVRAD) Program (Project 1)	243	93.855	330183-01//5P01A1048240-16	4,601	—
COVID-19: Identification of the Initial Targets of Transmission	93.855	93.855	3R37A1094595-10S1	479,162	437,498
COVID-19: Assessing SARS-CoV-2 Variant Evolution in Patients	93.855	93.855	3U19A1135964-04S2 REVISED	251,518	—
COVID-19: Expansion of SARS-CoV-2 Testing Supplement, Chicago Clinical Trials Unit	93.855	93.855	3UM1A1069471-14S1	62,438	—
Examining Social Ecological and Network Factors to Assess Epidemiological Risk in a Large National Cohort of Cis-gender Women	53	93.855	4(GG017770-01)//1R01A1172469-01	12,024	—
Metabolic impairment plays a critical role in radiation-induced T cell immune dysfunction	84	93.855	425424_AWD775243-NWU-Amnd 1//1U01A1170024-01	13,689	—
Rapid Access to Antibiotic Biosynthesis Machinery Using Synthetic Biology	29	93.855	5001434-5500001350Amd4//5U19A1142780-04	79,384	—
Influenza virus receptors on human airway epithelial cells	180	93.855	5-54319 Amnd 2//5R01A1114730-08	172,695	—
Innate Immune Surveillance of HIV-1 During Transmission and Systemic Infection	180	93.855	5-54728//7R01A1127302-06	86,995	—
An Age-Dependent Role of the Inflammasome in the Pathogenesis of HSV Encephalitis	93.855	93.855	5F30A1150049-04 Revised	44,483	—
Role of molecular drivers in memory group 1 CD1-restricted T cell differentiation and Mycobacterium tuberculosis infection	93.855	93.855	5F30A1157314-03	39,735	—
Combining Bacterial Glycosylation Tools and Nanotechnology to Optimize Siglec Ligands for the Treatment of Allergy and Anaphylaxis	93.855	93.855	5F31A1165279-02 REVISED	33,806	—
Cellular and Molecular Mechanisms of the Pathogenesis of Aspirin Exacerbated Respiratory Disease	93.855	93.855	5K23A1141694-04	193,998	—
Patient-Oriented Research on Pseudomonas aeruginosa	93.855	93.855	5K24A1104831-09	110,736	—
Northwestern-UNIQOS mentored Program for Enhanced Research Administration (NUMPERA)	239	93.855	5K43-1556-02//1G11A1169625-01	8,677	—
Small host GTPases: Direct targets of Vibrio vulnificus MARTX toxin effectors	93.855	93.855	5K99A1167819-02	80,793	—
Pathogenesis of Rebound SIV/HIV Viremia After Antiretroviral Therapy	93.855	93.855	5P01A1131346-05	799,075	159,568
Chronic Rhinosinusitis Integrative Studies Program 2 (CRISP2)	93.855	93.855	5P01A1145818-05	1,641,388	585,623
Multi-Scale Evaluation and Mitigation of Toxicities Following Internal Radionuclide Contamination	93.855	93.855	5P01A1165380-02	1,576,375	1,037,381
Third Coast Center for AIDS Research	93.855	93.855	5P30A1117943-05 REVISED	(921)	—
Third Coast Center for AIDS Research	93.855	93.855	5P30A1117943-05 REVISED	(1,690)	(1,690)
Third Coast Center for AIDS Research	93.855	93.855	5P30A1117943-09	4,812,725	1,615,747
ALPHA-HERPESVIRUS TRANSPORT IN AXONS	93.855	93.855	5R01A1056346-18	532,634	168,778
The Role of Group 1 CD1-restricted T Cells in Infectious Disease	93.855	93.855	5R01A1057460-16	78,518	—
Population Analysis of Pseudomonas aeruginosa Virulence	93.855	93.855	5R01A1118257-08	557,424	—
Harnessing MUC16-IgG Interactions to Enhance HIV Vaccine Function	93.855	93.855	5R01A1125171-05	167,770	—
The role of IL-27/Lag3 axis in regulating Foxp3+ regulatory T cell function	93.855	93.855	5R01A1125247-06	70,872	—
REDD1 dissociates the therapeutic and adverse effects of glucocorticoids in skin	93.855	93.855	5R01A1125366-05	287,436	—
Poxvirus manipulation of the host cell protein synthesis machinery	93.855	93.855	5R01A1127456-07	488,035	75,178
Hormones in allergic disease	93.855	93.855	5R01A1127783-05	51,072	—
Distinct mast cell responses in male and female SJL mice underlie sex dimorphic EAE susceptibility	93.855	93.855	5R01A1128292-05	(9,918)	—
Food Allergy Management and Outcomes Related to Racial/Ethnic Differences from Infancy through Adolescence: The FORWARD Study	93.855	93.855	5R01A1130348-07S1	917,384	257,614
Macrophage Redox State in Sterilizing and Injurious Inflammation	93.855	93.855	5R01A1131267-05	168,267	75,667

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Cluster title/federal grantor/subagency/project title	Pass-through entity	Assistance listing number	Sponsor award number	Federal expenditures	Subrecipient expenditures
Autoantibody mediated pathogenesis in chronic rhinosinusitis with nasal polyps: mechanisms and consequences		93.855	5R01AI134952-05	\$ 362,898	—
Immune mechanisms regulating allergy		93.855	5R01AI136942-06	784,741	—
Initiators, biomarkers and mechanisms of epithelial dysfunction and immune pathogenesis in chronic rhinosinusitis and aspirin exacerbated respiratory disease (AERD)		93.855	5R01AI137174-05	315,449	—
Structure and Function of EBV Protein Complexes that Trigger Epithelial Cell Entry		93.855	5R01AI137267-05	725,676	542,701
Siderophores of Legionella pneumophila		93.855	5R01AI139054-04	225,918	—
The role of non-classical MHC class I molecules in immune responses to Mycobacterium tuberculosis infection		93.855	5R01AI141083-05	326,131	—
Nuclear rotation and cellular reorganization during Cytomegalovirus infection		93.855	5R01AI141470-05	496,594	—
Modulating endothelial cell immunometabolism and mitochondrial morphology implications for organ transplantation		93.855	5R01AI142079-06	466,715	57,752
Design and characterization of biomimetic nanobiomaterials to elicit CD1-restricted T cell responses during sub-unit vaccination		93.855	5R01AI145345-04	624,783	—
Targeting the functions of the gonococcal Type IV pilus		93.855	5R01AI146073-04	597,924	—
Characterizing Mucosal Changes in the FRT Leading to Increased HIV Acquisition		93.855	5R01AI146087-04	561,083	277,807
Foxp3+ regulatory T cell-dependent treatment of allergic inflammation by glucocorticoids		93.855	5R01AI147498-05	493,587	44,881
Mitochondria regulate adaptive immunity		93.855	5R01AI148190-05	423,942	—
Mechanism of Herpes Simplex Virus (HSV) Induced Membrane Fusion		93.855	5R01AI148478-04	642,147	179,029
Virus-host interactions governing alpha-herpesvirus genome delivery and neuroinvasion		93.855	5R01AI148780-04	624,026	93,270
The role of FEZ1 in early HIV-1 infection		93.855	5R01AI150559-09	227,181	—
Evolution and consequences of multidrug resistant ribosome		93.855	5R01AI150986-04	541,788	82,976
Functionally Defining HIV-Host Interactions During the Early HIV-1 Lifecycle		93.855	5R01AI150998-04	1,490,048	741,176
Heterogeneity of T cell phenotype and function in food allergy		93.855	5R01AI151707-05	229,071	86,605
Discovery of novel benzimidazole resistance mechanisms		93.855	5R01AI153088-03	573,043	291,675
Long Non-Coding RNAs in Allergy		93.855	5R01AI153344-03	343,069	—
Vascular endothelial cells and macrophages coordinate neutrophil trafficking in inflammation		93.855	5R01AI153568-03	461,912	—
Transcriptional Regulators in Aging Macrophages		93.855	5R01AI163742-03	557,216	42,203
Deciphering the Role of CPSF6 in HIV Infection		93.855	5R01AI165236-03	384,779	—
The Relationship Between Brain Macrophages and Cognitive Dysfunction in Systemic Lupus Erythematosus		93.855	5R01AI170938-02	743,911	—
Critical Role for KLF2 in Regulation of PD-1 Expression in T cells		93.855	5R03AI159591-02	34,532	—
HIV immune environment impact on pre-eclampsia		93.855	5R03AI170156-02	91,315	—
Mechanisms and Modifiers of Zika Virus Innate Immune Evasion		93.855	5R21AI148949-02	1,022	—
An unbiased screen to identify Neisseria gonorrhoeae genes important for survival to neutrophil killing mechanisms		93.855	5R21AI148981-02	109,876	—
Vibrio vulnificus toxin-receptor interactions		93.855	5R21AI149061-02	80,955	—
6mer seed toxicity and AIDS		93.855	5R21AI150910-02	7,475	—
Defining the Effector T cell KLF2 Transcriptome		93.855	5R21AI151333-02	65,509	—
Dynamics of Pseudomonas aeruginosa During Bacteremia		93.855	5R21AI153953-02	49,370	—
Dynamic interactions within alpha-herpesvirus virions and their impact on infection		93.855	5R21AI154104-02	48,574	—
The Role of Social, Economic and Environmental Factors in Food Allergy Disparities		93.855	5R21AI159562-02	193,721	19,211
Exploiting Siglec-6 for targeted anti-allergy drug delivery into human mast cells		93.855	5R21AI159586-02	145,810	—
Identification of the immunomodulatory mechanisms of nanocarrier-enhanced costimulation blockade in an allogeneic portal vein islet transplantation model		93.855	5R21AI159795-02	353,207	—
Targeting Ischemia/Reperfusion Stress to Inhibit Cytomegalovirus Reactivation After Lung Transplant		93.855	5R21AI163876-02	239,738	—
COVID-19: Assessing the Risk of SARS-CoV-2 Remdesivir Resistance		93.855	5R21AI163912-02	185,962	—
High-Risk Clones of Pseudomonas aeruginosa		93.855	5R21AI164254-02	174,140	—
Regulation of HPV Replication		93.855	5R21AI165941-02	288,961	—
Novel Short ACE2 variant for Delayed Graft Function		93.855	5R21AI166940-02	219,137	—
Differentiating clinical characteristics between two subtypes of antiphosphatidylethanolamine		93.855	5R21AI171491-02	194,169	—
Ordered gene knockout libraries for Neisseria gonorrhoeae		93.855	5R24AI155395-03	547,358	—
Mechanisms of Gonococcal Pilin Antigenic and Phase Variation		93.855	5R37AI033493-29	373,483	—
Vibrio MARTX toxin effectors in signaling and pathogenesis		93.855	5R37AI092825-12	482,611	—
Identification of the Initial Targets of Transmission		93.855	5R37AI094595-10	147,207	35,161
Identification of the Initial Targets of Transmission		93.855	5R37AI094595-12	656,782	217,001
Immunology and Molecular Pathogenesis Training Program		93.855	5T32AI007476-25	1,440	—
Northwestern University Allergy and Immunology Research (NUAIR) Program		93.855	5T32AI083216-13	356,390	132,425
Northwestern University Infectious Diseases Education and Science (NuIdeas)		93.855	5T32AI095207-10	18,354	—
Proteogenomics for Organ Transplantation: Prediction, Diagnosis, Intervention		93.855	5U01AI084146-05 REVISED	(9,795)	(9,795)
Effectiveness of Relationship Education for Reducing HIV Incidence in Men Who Have Sex with Men		93.855	5U01AI156874-03	1,426,269	—
Utility of Biomarkers of Rejection and Kidney Injury in Tailoring Liver Transplant Immunosuppression		93.855	5U01AI163081-03	620,706	280,531
Immune Basis of FPIES		93.855	5U01AI170836-02	146,491	10,754
COVID-19: Successful Clinical Response In Pneumonia Therapy (SCRIPT) Systems Biology Center		93.855	5U19AI135964-05 REVISED	16,070	—
Successful Clinical Response In Pneumonia Therapy (SCRIPT) Systems Biology Center		93.855	5U19AI135964-05 REVISED	878,902	57,623
Using siglecs and their ligands to treat allergic diseases SALTAD		93.855	5U19AI136443-05 Revised	621,030	366,194
Chicago Clinical Trials Unit		93.855	5UM1AI069471-17	1,117,771	14,122
Sustained Long Acting Prevention Against HIV Program Operation		93.855	5UM1AI120184-05	255,368	245,259
Innate Immune Surveillance of HIV-1 During Transmission and Systemic Infection	179	93.855	60088-12935-NWU// 5 R01 AI127302-05	(3,386)	—
[U19] Integrated Genomics of Mucosal Infections: Viral Diversity and Pathogenicity in Mucosal Respiratory and Gastrointestinal Disease	23	93.855	700000881//5U19AI144297-03	2,468	—
A novel multifunctional role of diverse substrate binding and import by the Haemophilus Sap transporter	168	93.855	700191-0223-00-4//5R01AI139519-05	228,995	—
lncRNA Control of Airway Epithelial Cell Responses to Type 2 Inflammation		93.855	7R01AI141609-05	276,977	—
Phenotypic, Functional and Transcriptional Heterogeneity in T Cell Exhaustion		93.855	7R01AI148403-04	171,190	—
Mechanisms for Initiation of Food Allergy Early in Life	103	93.855	8575 Amd 3//1R01AI153239-02	2,455	—
Intervention to Reduce Early Peanut Allergy in Children (iREACH)	17	93.855	901576-NU//5U01AI138907-04	27,084	—
Identifying Specific Antigenic Targets of Kawasaki Disease	17	93.855	901622 AMD 2//5R01AI150719-03	16,599	—
Soy Isoflavones for Inner City Infants at Risk for Asthma (SIRA)	17	93.855	901635-NU FMM AMD 4//5U01AI160018-02	18,211	—
Soy Isoflavones for Inner City Infants at Risk for Asthma (SIRA)	17	93.855	901635-NU-DCC (Kim) Amd 3//1U01AI160018-02	29,299	—
EpiModel 2.0: Integrated Network Models for HIV/STI Prevention Science	71	93.855	A011168//5R01AI138783-03	97,129	—
Impact of Antibody Effector Function Diversity on Antiviral Activity In Situ	66	93.855	A035460 AMD 1//5P01-AI162242-03	160,068	—
Intervention to Reduce Early Peanut Allergy in Children (iREACH)	17	93.855	A19-0148-S001//5U01AI138907-04	628,058	—
Targeting Inflammation and Alloimmunity in Heart Transplant Recipients with Tocilizumab	124	93.855	AGMT 8/11/20//5U01AI136816-02	7,216	—
Dissecting How Xenobiotics Act as Adjuvants for Oral Allergic Sensitization	296	93.855	CON-80003656 (GR116267)//5R01AI162645-02	20,533	—
Next-Generation Phylodynamics-targeted Partner Service Models for Combined HIV Prevention	226	93.855	FP066835-A (5208888601-6) Amd 5//5R01AI136056-05	46,246	—
Immune Tolerance Network	24	93.855	FY22ITN590//SUM1AI109565-09	33,643	—
Mucosal mechanisms of altered HIV susceptibility in adolescents	250	93.855	N008806602//R01AI128782	4,145	—
Consortium of Eosinophilic Gastrointestinal Disease Researchers	46	93.855	OS00000145/309362 (Admin.) // 5U54AI117804-09	19,112	—
Allergen Loaded Nanoparticles for Food Allergy Tolerance	249	93.855	SUBK00012728Amd2//5R01AI155678-03	306,931	—

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Cluster title/federal grantor/subagency/project title	Pass-through entity	Assistance listing number	Sponsor award number	Federal expenditures	Subrecipient expenditures
Structure-based functional annotation of microbial genomes	249	93.855	SUBK00016785//5R01A1134678-06	\$ 113,615	—
The Role of Lipid-specific T cells in Mediating Protection Against M. tuberculosis	274	93.855	UWSC12062//5R01A1146072-03	217,791	—
The Push and Pull of Inflammation on HIV Susceptibility: Impact of Host Variation in CD101 and AXL	274	93.855	UWSC14078- BPO# 68976//1R01A1172479-01	47,360	—
Cytomegalovirus (CMV) Vaccine in Orthotopic Liver Transplant candidates ("COLT")	274	93.855	UWSC14466//5U01A1163090-02	2,163	—
Comparison of High Dose vs. Standard Dose Influenza Vaccines in Lung Allograft Recipients	280	93.855	VUMC100494 amd1//5U01A1167789-02	13,972	—
Comparison of High vs. Standard Dose Influenza Vaccines in Adult Solid Organ Transplant Recipients	280	93.855	VUMC85656 Amendment 4//5U01A1152967-04	84,444	—
Viral and Host Determinants of Infant and Childhood Allergy and Asthma	280	93.855	VUMC94252 Amnd 2//5U19A1095227-14	207,162	—
				45,799,768	8,268,912
Center for the Structural Biology of Cellular Host Elements in Egress, Trafficking, and Assembly of HIV (CHEETAH Center)	272	93.859	10044932-10//5P50A1150464-15	(1,237)	—
Micromechanical basis of meiotic chromosome condensation and architecture	237	93.859	101111-18038Amd2//1R01GM135549-01A1	78,377	—
Cell Penetration Profiling for Biotherapeutics	206	93.859	102184-00001//2R01GM127585-05	12,659	—
Information Processing by Post-Translational Modification	89	93.859	153447.5111019.0005 AMD3//5R01GM105375-08	74,341	—
Optical nanosensor for 3D force sensing in intact tissues of live animals	228	93.859	1560378//1R21GM140347-01 Amd #1	59,611	—
High-throughput discovery of protein energy landscapes in natural and designed proteomes		93.859	1DP2GM140927-01	470,083	—
The dynamic architecture of living cells: Uncovering intra-organelle events at nanoscale levels		93.859	1DP2GM146322-01	625,155	—
Elucidating mechanisms of acetylcholine signaling in bacterial biofilms		93.859	1F31GM143907-01A1	42,584	—
F31 Microtubule function in the onset of whole-body regeneration		93.859	1F31GM149178-01 REVISED	9,767	—
Resource for Quantitative Elemental Mapping for the Life Sciences		93.859	1P41GM135018-01	(277)	—
Intercellular junctions and cell polarity		93.859	1R01GM148571-01	292,485	—
Role of BAP1/ASXL3 complex in transcriptional regulation and development		93.859	1R35GM146979-01	478,789	—
Regulation of whole-body regeneration		93.859	1R35GM149280-01	64,450	—
HiDef B8: Commercialization and scaled production of defined, robust, and cost-effective media for iPSCs	61	93.859	1R44GM140750-01A1//Burridge AGMT 8/26/21	63,422	—
Sex differences in circadian circuits influence photic processing and photoperiodic encoding	123	93.859	2317-01-02//5R01GM143545-02	177,794	—
Northwestern University Postbaccalaureate Research Education Program		93.859	2R25GM121231-06	355,592	—
Structural and biophysical studies of proteins, nucleic acids, and their complexes		93.859	2R35GM118108-06	225,661	—
Accessing the Silent Majority: Induction of Gene Expression in Fungal Artificial Chromosomes for Natural Product Discovery		93.859	3F32GM134679-03S1	(667)	—
Investigating the molecular mechanism and function of mitochondrial tethering		93.859	3R01GM120303-07S1	401,446	—
Regulation mechanisms of ABC transporters		93.859	3R01GM140584-04S1	308,260	—
Role of Membrane Trafficking in Epithelial Homeostasis		93.859	3R01GM141233-02S1	358,605	—
Metalloenzymes and metal homeostasis		93.859	3R35GM118035-08S1	660,132	—
Structural and biophysical studies of proteins, nucleic acids, and their complexes		93.859	3R35GM118108-05S1	173,351	—
Non-coding RNAs and their mechanisms and functions		93.859	3R35GM118144-08S1	559,246	—
The molecular mechanisms and functional significance of gene positioning		93.859	3R35GM136419-04S1	554,874	—
Computational approaches to delineate non-canonical splicing events		93.859	3R35GM142441-04S1	362,109	—
Medical Scientist Training Program		93.859	3T32GM008152-35S1	68,846	—
Medical Scientist Training Program		93.859	3T32GM144295-02S1	1,559,865	—
Postdoctoral Pathways – Broadening Access to Career Advancement	26	93.859	450004318//3R25GM121257-05S1	61,765	—
Tissue-Based Metal Imaging Tools and Their Application Towards Spatiotemporal Mapping of Zinc Fluxes in Ovaries (NRSA Postdoc Fellowship Award for David Zhi Hong Zee, PhD)		93.859	5F32GM139401-03	59,795	—
Structural and functional characterization of putative Cu importer CopD		93.859	5F32GM140573-02 REVISED	16,632	—
A Biosynthetic Strategy to Manufacture Less Toxic Amphotericins		93.859	5F32GM142211-02 REVISED	(6,563)	—
Structural and Functional Synthetic Proteomimetics of Ankyrin Repeat Proteins		93.859	5F32GM143925-02	64,927	—
The Functions of Mitochondrial Membrane Contact Sites in Space and Time		93.859	5F32GM145160-02	68,149	—
Regulation and Function of Intermediate Filaments in Cell Mechanics		93.859	5P01GM096971-09	226,433	82,992
National Resource for Translational and Developmental Proteomics		93.859	5P41GM108569-09	1,743,944	—
Electrocatalysis for the synthesis of chiral and PET imaging pharmaceuticals		93.859	5R00GM140249-03	243,810	—
Metalloregulation by MerR and Fur Protein Families		93.859	5R01GM038784-31 REVISED	16,941	—
Developmental Dynamics of Ciliated Epithelia		93.859	5R01GM089970-13	323,543	—
Cryo ptychography combined with x-ray fluorescence analysis of metals in cells		93.859	5R01GM104530-08	(13)	(13)
Activities of nucleoprotein complexes visualized in single-molecule experiments		93.859	5R01GM105847-06 Revised	378,104	—
Biological Transition Metals		93.859	5R01GM111097-51 revised	494,462	—
Assembly and epigenetic inheritance of the human centromere		93.859	5R01GM111907-09	368,497	—
Molecular Regulation of Radial Intercalation		93.859	5R01GM113922-06	375,648	—
Algorithms for Glyco-Proteome Detection		93.859	5R01GM115739-06	64,005	—
Capturing Transient Protein and Nucleic Acid Structures During Their Functions on Multiple Spatial and Temporal Scales		93.859	5R01GM115761-09	449,418	—
Investigating the molecular mechanism of mitochondrial tethering		93.859	5R01GM120303-05	(470)	—
RNA Ligation Pathways in Mammalian Unfolded Protein Response		93.859	5R01GM120307-04	28,879	—
Regulation and function of bacterial 100S ribosome		93.859	5R01GM121359-05	7,980	—
Regulation and function of bacterial hibernating 100S ribosome		93.859	5R01GM121359-07	361,087	—
Specific inhibition of transcription factors with Cobalt-Schiff Base Complexes		93.859	5R01GM121518-04	(5,615)	—
New Methods and Strategies for the Concise Synthesis of Bioactive Polycyclic Molecules		93.859	5R01GM124089-04	215,703	—
Regulation of chromosome segregation during oocyte meiosis		93.859	5R01GM124354-05 REVISED	268,324	—
Social signals that regulate C. elegans development		93.859	5R01GM126125-03	318,423	—
Prion-mediated protein aggregation/co-aggregation and cellular consequence		93.859	5R01GM126318-05	250,562	—
Cadherin-catenin regulation in dividing epithelial cells		93.859	5R01GM129312-04	202,755	—
Cell signaling in regeneration and tissue scaling		93.859	5R01GM129339-04 REVISED	85,525	—
The role of monocyte and microglia interaction in the evolution of traumatic brain injury-induced neurodegeneration		93.859	5R01GM130662-05	369,907	2,311
Enhancement of neural regeneration		93.859	5R01GM130835-04	657,859	—
Functional Roles of Nascent RNA Structure in Regulating and Coordinating Gene Expression		93.859	5R01GM130901-04 REVISED	362,778	—
Continuous Probing of Nanoconstruct-Cell Interactions at Biologically Relevant Time Scales		93.859	5R01GM131421-04	173,849	—
Development of Photoreversible 4D Cell Culture Technologies		93.859	5R01GM132677-04	231,915	91,838
Molecular mechanisms controlling kinetochore-microtubule attachments during mitosis		93.859	5R01GM135391-04	366,615	—
Regulation of de novo purine synthesis by the MAPK/ERK pathway		93.859	5R01GM135587-04 REVISED	522,129	—
Structure and Mechanism of Non-Homologous End Joining		93.859	5R01GM135651-04 REVISED	129,780	5,066
Cytokinesis staging mechanisms		93.859	5R01GM137133-04	394,671	—
SCISIPBIO: Understanding and Assembling Dream Teams to Conduct Clinical and Translational Science		93.859	5R01GM137410-04	209,499	61,041
Intrinsic-contrast super-resolution imaging of DNA at 2-nm resolution		93.859	5R01GM139151-04	208,636	—
Quantitative analysis of metabotropic glutamate receptor activation and modulation		93.859	5R01GM140272-04	332,042	—
The Interplay of Electric Potential and Morphology of Biomembranes		93.859	5R01GM140461-04	410,298	—
Development of spectroscopic Single-Molecule Localization Microscopy		93.859	5R01GM140478-03 Revised	309,698	—

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Mechanisms of acentrosomal spindle assembly and stability during oocyte meiosis		93.859	5R01GM141386-02	\$ 215,441	—
Control of RNA methylation by growth signals through the mTORC1 pathway		93.859	5R01GM143334-02	511,893	—
Histone chaperone networks for new and evicted histones		93.859	5R01GM143638-03	428,331	—
Structure and Mechanism of Eukaryotic Transcription Regulation		93.859	5R01GM144559-02	387,639	12,509
Regulation and interplay of Heat Shock Factors in growth-associated proteotoxic stresses		93.859	5R01GM144617-02	306,660	—
Optogenomic mapping of chromatin accessibility in live cells		93.859	5R01GM149076-02	285,067	—
A Microfluidic Device for Temporal Live-Cell Analysis of Intracellular Biomolecules		93.859	5R21GM132709-02	65,887	—
Bright and switchable fluorophores for highly multiplexed super-resolution microscopy towards molecular interaction imaging		93.859	5R21GM141675-02 REVISED	6,278	—
Developing cell-penetrating miniproteins as a new class of therapeutics		93.859	5R21GM143560-02	157,718	—
Exploring the sepsis-delirium connection through glycoproteomics		93.859	5R21GM147847-02	147,571	—
Dictyostelium Community Resource		93.859	5R24GM137770-04	837,322	—
Northwestern University Interdepartmental Neuroscience Postbaccalaureate Research Education Program		93.859	5R25GM121231-05	(29,419)	—
ESTELE: Developing The Next Generation Of NGSS Elementary Science Teacher Leaders		93.859	5R25GM146332-02	124,774	—
Integrated Empirical and Translational Research to Diversify the Scientific Workforce		93.859	5R35GM118184-08	677,402	16,691
Impact of genetic variants on gene regulation and 3D genome organization in human diseases		93.859	5R35GM124820-05	1	—
High throughput interrogation of non-coding variants and 3D genome organization		93.859	5R35GM124820-07	364,759	—
The Roles of Enhancer RNAs in the Regulation of Gene Expression		93.859	5R35GM128900-05	358,905	—
Microtubule motors, cytoskeletal organization and cell polarity		93.859	5R35GM131752-05	1,130,335	—
Selective inhibition of nitric oxide synthase for multiple indications		93.859	5R35GM131788-04	351,589	53,626
New Cooperative Catalysis Concepts for Asymmetric Synthesis		93.859	5R35GM136440-04	327,830	—
Characterizing functional translation in putative 'noncoding' regions of a genome		93.859	5R35GM138192-04	371,301	—
Single Cell Mosaic Mutation Atlas of Human Organ		93.859	5R35GM142539-04	329,843	—
Emergent metabolic coordination and cell-to-cell signaling in bacterial biofilms		93.859	5R35GM147170-02	427,450	—
Cellular and Molecular Basis of Disease Training Program		93.859	5T32GM008061-40	953,455	—
Biotechnology Predoctoral Training Program		93.859	5T32GM008449-30	460,097	—
Chemistry of Life Processes Predoctoral Training Program		93.859	5T32GM105538-10 Revised	301,527	—
Molecular Biophysics Training Program at Northwestern University		93.859	5T32GM140995-03	388,117	—
Physical Genomics and Engineering Training Program		93.859	5T32GM142604-03	290,049	—
Dissecting functional cooperation among subunits in a catalytic ribonucleoprotein	150	93.859	60057276/R01GM120582	(66)	—
The role of dynamics in GPCR and arrestin allostery		93.859	7R35GM143054-03	55,679	—
Genetic variation and function of body axis determinants in midges and other flies	226	93.859	AWD102729 (SUB00000627) Amnd 1//5R01GM127366-04	21,926	—
Establishing the market-readiness of an in vivo technology for assessing drug toxicity-induced tissue damage	67	93.859	NW-0221//1R41GM140538-01	43,571	—
Photoactivatable Fluorophores for High-Throughput Multiplexed Tracking of Single-Molecules in Live Cells	248	93.859	OS0000959//1R01GM143397-01A1	70,135	—
Resource for Quantitative Elemental Mapping for the Life Sciences	134	93.859	RC113087NWU-01 Amnd 2//P41GM135018	471,004	—
Mechanobiology of Vimentin Intermediate Filaments in 3D Collective Cell Migration	125	93.859	S5271, PO# 560195 AMD 2//R01GM140108-01	35,670	—
Orthogonal Ubiquitin Transfer to Profile E3 Substrate Specificity	86	93.859	SP0014037-01//3R01GM104498-07S2	15,326	—
Orthogonal Ubiquitin Transfer to Profile E3 Substrate Specificity	86	93.859	SP0013463-01//5R01GM104498-09	24,930	—
100K spontaneous mutations: the foundation for an evolutionary systems biology of C. elegans	233	93.859	UFDSP00012271 AMD 4//R01GM127433	123,001	—
				30,436,647	326,061
New Evidence on Conception and Pregnancy Loss in the U.S	275	93.865	000000695 AMD 2//1R01HD102207-01	10,258	—
Development of a standardized measure of social-communication abilities for children with neurodevelopmental disorders	223	93.865	10364sc//5R01HD093012-04	39,145	—
Molecular basis of altered drug metabolism during pregnancy	161	93.865	11001136-002//7R01HD089455-06	101,310	—
Pediatric HIV/AIDS Cohort Study (PHACS): 2020	89	93.865	117267-0107-5115573//5P01HD103133-04	54,974	—
Pediatric HIV/AIDS Cohort Study (PHACS) 2020	89	93.865	117267-0182-5119269//5P01HD103133-04	19,020	—
Health Outcomes around Pregnancy and Exposure to HIV/ARV (HOPE):	89	93.865	117270-5112849Amd2//5R01HD101351-02REVISED	56,353	—
Cortical Interneuron Dysfunction in Fragile X Syndrome	220	93.865	1580 G LA313//1R01HD108370-01	296,463	—
Cortical Priming to Optimize Gait Rehabilitation Post Stroke	236	93.865	18583//5R01HD075777-08	18,415	—
Universal strengths-based parenting support in pediatric health care for families with very young children following the Flint Water Crisis	142	93.865	18-A1-00-1001408 AMD 5//5R01HD096909-05	11,082	—
Effects of Bilateral Motor Priming and Task Specific Training on Corticomotor Excitability and Transcallosal Inhibition in People with Upper Limb Hemiparesis Secondary to Stroke		93.865	1F31HD111318-01	33,400	—
COVID-19: Bridging gaps in healthcare services for new families due to COVID-19		93.865	1R01HD105499-01	(3,897)	—
Modeling p63-associated human birth defects with systems developmental biology approaches		93.865	1R01HD107841-01A1	448,273	—
Clinician perspectives on the postpartum pain experience and attitudes about pain management		93.865	1R03HD112103-01	48,691	—
Upper Midwest Summit for Reproductive Science		93.865	1R13HD113376-01	2,358	—
ENDEAVOR TO STOP NAUSEA/VOMITING ASSOCIATED WITH PREGNANCY (E-SNAP)		93.865	1R21HD105101-01A1	187,846	—
SBIR from Wearfil Inc	291	93.865	1R43HD101189//XU AGMT 8/19/21	320	—
Pelvic Floor Disorders Network Clinical Site		93.865	1UG1HD110057-01	74,885	—
Shift from unilateral to bilateral sensory-motor connectivity in chronic hemiparetic stroke	256	93.865	2023-31//1R01HD109157-01	15,058	—
Pathways linking Early Adversity and Support to Behavioral and Physical Health	255	93.865	203344NU//5R01HD091235-05	26,465	—
Quantification of Shoulder Pathology and Manual Wheelchair Propulsion in Children and Adults with Spinal Cord Injury using Advanced Biomechanical Modeling and Diagnostic Imaging	276	93.865	203405427//R01HD098698 AMD 2	(4,929)	—
Glycemic Observation Using A1C for Gestational Diabetes Diagnosis	124	93.865	241200//5R01HD104756-02	28,819	—
Maternal Fetal Medicine Units Network – Northwestern Study Center		93.865	2UG1HD040512-24	100,628	—
School-age Outcome After In Utero ZIKV Exposure in Children Without Congenital Zika Syndrome	45	93.865	30006103-03//5R01HD102445-02	8,077	—
Pathophysiology and Rehabilitation of Neural Dysfunction		93.865	3T32HD007418-32S1	310,088	—
Bridging gaps in healthcare services for new families due to COVID-19	295	93.865	5001901-NWU//7R01HD105499-02	187,033	—
Multi-level factors affecting postpartum sterilization	253	93.865	5122028//5R01HD098127-04	8,220	—
Clinical utility of novel biomarkers for prediction of early pregnancy loss	258	93.865	586797//1-R01-HD-110448-01	19,242	—
Quantification of Musculoskeletal Structural Adaptations Underlying Passive Wrist Joint Properties in Children and Adults with Hemiparetic Cerebral Palsy -F31 to support Divya Joshi		93.865	5F31HD110236-02	41,940	—
Maternal psychological stress, adverse birth outcomes, and the role of inflammatory mediators in the placenta		93.865	5F32HD100076-03 REVISED	167	—
Cerebral organoid models of CHD2-associated intellectual and developmental disabilities (NRSA Postdoc Fellowship for Kay-marie Lamar, PhD.)		93.865	5F32HD101280-03	241	—
Intergenerational health impacts of interpersonal and community-based violence: From childbirth to childbearing		93.865	5F32HD102152-03 Revised	(1,778)	—
Developmental origins and downstream consequences of abstract verbal reference		93.865	5F32HD104408-03	73,071	—
Examining the Effects of a Two-Generation Education Intervention on Children's Developmental Outcomes and Family Processes Using Diverse Methodological Approaches		93.865	5F32HD106691-02 REVISED	74,065	—
Research Career Development in Obstetrics and Gynecology		93.865	5K12HD050121-19	317,147	—
Interdisciplinary Engineering Career Development Center in Movement and Rehabilitation Sciences		93.865	5K12HD073945-10	689,066	649,132
Upper-Extremity Torque Perceptual Impairments in Chronic Hemiparetic Stroke		93.865	5K25HD096116-05	(869)	—
Mechanotransduction mechanisms of ovarian aging		93.865	5K99HD108424-02	116,381	—
Northwestern Uterine Leiomyoma Research Center		93.865	5P50HD098580-05	1,323,755	530,002
Cognitive Architecture of Bilingual Language Processing		93.865	5R01HD059858-12	205,996	—
PED Screen: Pediatric Sepsis EHR Registry, Clinical Outcomes, and Predictive Model		93.865	5R01HD087363-05 REVISED	292,006	292,006

NORTHWESTERN UNIVERSITY

Supplementary Schedule of Expenditures of Federal Awards

Year ended August 31, 2023

Cluster title/federal grantor/subagency/project title	Pass-through entity	Assistance listing number	Sponsor award number	Federal expenditures	Subrecipient expenditures
Integrative Genomics, Epigenomics and Bioinformatics Analyses of Human Uterine Fibroids		93.865	5R01HD089552-05	\$ 208,769	108,089
Bilateral Priming Plus Task Specific Training for Severe Upper Limb Hemiparesis		93.865	5R01HD091492-05	163,692	107,338
Understanding Diverging Profiles of Academic and Physical Health Outcomes in African American Youth		93.865	5R01HD093718-05	713,159	97,902
Homeostatic to reactive hyaluronan matrices in ovarian reproductive aging		93.865	5R01HD093726-05	136,906	55,007
Firearm Involvement Among Parents and Their Adolescent Children: A Prospective Longitudinal Study of At-Risk Youth		93.865	5R01HD093935-05	573,405	—
Effects of device-assisted practice of activities of daily living in a close-to-normal pattern on upper extremity motor recovery in individuals with moderate to severe stroke		93.865	5R01HD095187-05	348,143	—
PRogressive Abduction LoadIng thErapy (PRALINE): A Phase IIb Stroke Rehabilitation Trial with Longitudinal Tracking		93.865	5R01HD096071-05	473,151	153,067
Effects of a Prenatal Depression Preventive Intervention on Parenting and Young Children's Self-Regulation and Functioning (EPIC)		93.865	5R01HD097215-05	676,805	—
Patient navigation to improve outcomes among low-income women in the postpartum period		93.865	5R01HD098178-05	783,433	43,777
Clinical Trial of ENhancing Recovery in CHildren Undergoing Surgery – ENRICH-US		93.865	5R01HD099344-05	639,108	255,275
3/4: Pre-IVF treatment with a GnRH antagonist in women with endometriosis – A prospective double blind placebo controlled trial (PREGNANT)		93.865	5R01HD100318-04	253,087	—
AMH signaling pathway variation in PCOS		93.865	5R01HD100630-03 Revised	915,404	352,176
Defining epigenetic mechanisms for embryonic patterning		93.865	5R01HD101563-03	411,991	—
Oocyte genomic instability as a driver of the aging ovarian innate immune response		93.865	5R01HD105752-03	471,947	179,765
Extremely Long Lived Proteins and Female Reproductive Aging		93.865	5R21HD098498-02	(909)	—
Determination of the Recruitment of Indirect Motor Pathways in Chronic Hemiparetic Stroke		93.865	5R21HD099710-02	44,952	11,787
Early origins of health disparities: Chronic inflammation		93.865	5R21HD101757-02	48,968	—
Safety Assessment of Perioperative Pain Medications for Children (SAPPhire)		93.865	5R21HD104078-02	303,596	97,955
Role of m6A modification in Alpha 1-antitrypsin deficiency induces liver disease		93.865	5R21HD104904-02	97,342	—
Language development in bilingual preschoolers: A cross-linguistic and cross-cultural comparison		93.865	5R21HD106759-02	143,222	—
COVID-19: Identification of Risk Factors for predicting outcomes of COVID-19-Related Multisystem Inflammatory Syndrome in Children (MISC) using Real World Clinical Data		93.865	5R21HD107571-02	78,384	—
Pathophysiology and Rehabilitation of Neural Dysfunction		93.865	5T32HD007418-30	(9,790)	—
Northwestern Center for Reproductive Science Predoctoral Training Program in Reproductive Science, Medicine, and Technology		93.865	5T32HD094699-04	204,641	—
Research Training in Sensorimotor Neurorehabilitation		93.865	5T32HD101395-02	292,007	—
Maternal-Fetal Medicine Units Network -- The Northwestern Study Center		93.865	5UG1HD040512-23	150,351	50,086
Intensive Combination Approach to Rollback the Epidemic (iCARE) in Nigerian Adolescents		93.865	5UH3HD096920-05	1,347,017	730,416
Locomotor function following transcutaneous electrical spinal cord stimulation in individuals with hemiplegic stroke	165	93.865	80428.NU.Y101//R01HD106015	127,693	—
Center for Smart Use of Technology to Assess Rehabilitation	165	93.865	8963J//P2CHD101899	49,177	—
Intensive Rehabilitation Research Grant Writing Workshops in the United States	130	93.865	A00-3512-S001//5R25HD074546-11	12,200	—
A Cognitive Test Battery for Intellectual Disabilities	217	93.865	A20-1951-S003 AMD2//R01HD076189	44,094	—
Preterm human milk composition in conditions of maternal overweight and obesity and effects of milk constituents on preterm infant body composition	17	93.865	A21-0107-S001//5R21HD102778-02	11,271	—
Developmental Origins of Polycystic Ovary Syndrome: Very Early Phenotypes During the Mini Puberty of Infancy and Beyond	17	93.865	A22-0163-S001 Amendment 1//1R01HD108399-01	30,141	—
Reverse Engineering the Extracellular Neighborhood to Support the Functional Tissue Unit: A Use Case to Restore Ovarian Function	17	93.865	A22-0169 – NU //1U01HD110336-01	101,018	—
SIESTA (Sleep of Inpatients: Empower Staff to Act) for Acute Stroke Rehabilitation	226	93.865	AWD100824 (SUB00000246) AMD 3//5R01HD097786-03	86,076	—
Accelerating Nerve Regeneration with Therapeutic Electrical Stimulation and Botulinum Toxin	165	93.865	cc 82347 AMD 1 // 5R03HD101090-02	25,485	—
Large scale genome sequencing and integrative analyses to define genomic predictors of recurrent pregnancy loss	296	93.865	CON-80003728 (GR116814) AMD1//5R01HD105267-02	20,238	—
Psychosocial Intervention, Maternal Inflammation, and Birth Outcomes: Centering vs Routine Prenatal Care (PIINC)	147	93.865	EH17-256-S2-1//5R01HD092446-05	105,016	—
Viral pathogenesis of chronic inflammatory lesions of placenta	147	93.865	EH21-007-S1//5R01HD103762-02	10,202	—
COVID-19: The Impact of structural racism and discrimination on perinatal health during the COVID-19 pandemic	147	93.865	EH21-184-S1//3R01HD092446-04S1	74,099	—
Identifying the contributions of the gestational and caregiving environments to socioeconomic disparities in child language and cognitive development	147	93.865	EH21-336-S1 Amd 1//5R01HD109291-02	136,226	—
FSH Glycoforms and Ovarian Signaling	229	93.865	FY22.1115.001_AMD2//5R01HD103384-02	86,466	—
Soft Spring Continence Pessary for Women	120	93.865	Gaupp AGMT 6/14/22//5R44HD105574-02	32,095	—
Cord Blood Adductomics in Bronchopulmonary Dysplasia	222	93.865	KR 705246//7R21HD100831-03	5,408	—
COVID-19: Prejudices and Discrimination Toward Asians and Hispanics During and After COVID-19	53	93.865	PO: SAPO G17333 Subaward #1(GG016142-01)//1R21HD10	13,077	—
Adolescent Medicine Trials Network for HIV AIDS Interventions (ATN) Scientific Leadership Center	78	93.865	R000003150//1UM2HD111102-01	445	—
Novel Pediatric Neurocognitive Screening Using Central Auditory Tests	60	93.865	R1064 4//5R01HD095277-05	88,306	—
Long-term effects of zika virus infection on sound processing in the brain	60	93.865	R1297//2R21DC017603-02	13,988	—
Intensive Rehabilitation Research Grant Writing Workshops in the United States (TIGRR)	182	93.865	SHEP-23-0004//R25HD074546	4,329	—
Developmental, Contextual, and Psychosocial Predictors of Weathering and Health among Rural African Americans in their Fourth Decade of Life	234	93.865	SUB00002073Amd5//R01HD030588	204,819	—
MFMU Network Capitation Agreement	83	93.865	U24HD036801//AGMT 10/18/21	331,542	82,677
Gestational Diabetes and Pharmacotherapy (GAP)- A Randomized Controlled Trail Investigating Timing of Pharmacotherapy Initiation for Patients with Gestational Diabetes	128	93.865	YEE 1/17/23//1R01HD108194-01	7,185	—
				16,318,162	3,796,457
Integrative Pathways to Health and Illness	275	93.866	0000000784//1U19AG051426-01A1	536	—
Best Case/Worst Case: A Multisite Randomized Clinical Trial of Scenario Planning for Patients with End-Stage Kidney Disease	275	93.866	000002088 AMD 2 // 1R01AG065365-01	29,023	—
MIDUS: Integrative pathways to Health & Illness	275	93.866	0000002491//2U19AG051426-06A1	95,085	—
Natural Language Processing and Automated Speech Recognition to Identify Older Adults with Cognitive Impairment	96	93.866	0255-D461-4609-Amnd 3//5R01AG066471-04	117,016	—
The tRNA pool in C9-ALS/FTD	202	93.866	080-02000-S50301//1R21AG082005-01	8,505	—
Blood mitochondrial DNA biomarkers of midlife cognitive decline and adverse brain imaging changes – A longitudinal investigation in the CARDIA population-based cohort study.	53	93.866	1(G017449-01)-AMD3//5R01AG069120-04	313,536	—
A new biomarker for frontotemporal lobar degeneration with TDP-43 proteinopathy and Alzheimer's Disease	272	93.866	10064064-01-NW//1R21AG080502-01	17,489	—
Long-term Outcomes of Knee OA in the OAI Cohort	223	93.866	10477sc//5R01AG050469-05 AMD 05	4,868	—
Glucose homeostasis and the risk of Alzheimer's disease and Alzheimer's disease related dementias in the Multi-Ethnic Study of Atherosclerosis	287	93.866	1100-45116-1100000260//1RF1AG070881-01A1	59,296	—
Structural characterization of Aβ strain variation in AD mouse models	283	93.866	110365091 AMD 4//5R01AG061865-05	217,929	—
The Subclinical Vascular Contributions to Alzheimer's Disease: The Multi-Ethnic Study of Atherosclerosis (MESA) Multisite Study of AD	287	93.866	111-33664-10000551083//5R01AG058969	426,516	—
Predicting post-transplant mortality and global functional health based on pre-transplant functional status in liver transplantation	223	93.866	11739sc Amendment 4//5R01AG059183-05	27,666	—
Anti-Amyloid Treatment in Asymptomatic Alzheimer's Disease (A4) Open-Label Extension Study	263	93.866	120151062//1R01AG063689-01/via BWH Subaward #12133	42,250	—
Application of Economics and Social Psychology to Improve Opioid Prescribing Safety (AESOPS)	263	93.866	124931788 Amnd 4 // 5R33AG057395-05	17,967	—
Longitudinal Relationships Among Sleep, Cognition and Alzheimer's Disease Biomarkers: Discerning Causal Associations, Mediators, and Susceptibility	27	93.866	125298//5R01AG070867-03	256,603	—
The A3 Study: Ante-Amyloid prevention of Alzheimer's disease	263	93.866	131741339//5R01AG054029-02	6,507	—
Combination anti-amyloid therapy for preclinical Alzheimer's disease (A45)	263	93.866	131741549//1R01AG061848-01	68	—
Global Alzheimer's Platform Trial-Ready Cohort for Preclinical/Prodromal Alzheimer's Disease (TRC-PAD Fixed Price CTA)	263	93.866	135242420//1R01AG053798-01A1	20,551	—
Global Alzheimer's Platform Trial-Ready Cohort for Preclinical/Prodromal Alzheimer's Disease (TRC-PAD)	263	93.866	135871077//5R01AG053798-05	33,306	—
Alzheimer's Disease Neuroimaging Initiative (ADNI3) Diversity Taskforce Project]	263	93.866	137206820//U19AG024904-12	(391)	—
Wake Forest REHAB-HFpEF	287	93.866	1481-32041-11000001166//1R01AG078153-01	49,076	—
Physical Rehabilitation for Older Patients with Acute HFpEF-The REHAB-HFpEF Trial (REHAB-PP)	287	93.866	1591-32041-11000001260//1R01AG078153-01	800	—
A Dynamic Environmental Exposure Approach to Study Behaviors in Mid-Life	236	93.866	17784//5R01AG062180-03	53,752	—
Hippocampal neurogenesis in cognitive function and dysfunction in Alzheimer's disease	236	93.866	18994-01//5R01AG076940-02	27,674	—
Development of Protein Like Polymer Therapeutics for Modulating the Nrf2/Keap1 Protein Protein Interaction in Neurodegenerative Diseases	93.866	93.866	1F30AG076317-01A1 REVISED	40,904	—
The gut microbiome in Alzheimer's disease: exploring the role of astrocytes	93.866	93.866	1F30AG079577-01	51,942	—
Antemortem White Matter Integrity Quantification from DTI and Relationship with Postmortem TDP-43 – F31 to support Ashley Alexandra Heywood	93.866	93.866	1F31AG079630-01	32,811	—

NORTHWESTERN UNIVERSITY
Supplementary Schedule of Expenditures of Federal Awards
Year ended August 31, 2023

Cluster title/federal grantor/subagency/project title	Pass-through entity	Assistance listing number	Sponsor award number	Federal expenditures	Subrecipient expenditures
NRSA Predoc Fellowship for N. Rao in support of: Elucidating the contribution of amyloidogenic APP processing to AD-relevant impaired synaptic protein turnover		93.866	1F31AG079653-01	\$ 31,338	—
Heart-brain MRI for the evaluation of hemodynamic coupling in aging and Alzheimer's disease		93.866	1K01AG080070-01	70,464	—
Cerebral Autoregulation, Metabolic derangement, and Edema in Encephalopathy Outcome (CAMEEO)		93.866	1K23AG078705-01A1	51,697	—
Defining native proteoform landscape for amyloid-beta in Alzheimers disease		93.866	1R01AG063903-01	595,591	—
Reducing High Risk Polypharmacy Using Behavioral Economics through Electronic Health Records		93.866	1R01AG070054-01A1	268,189	19,022
COVID-19: Long-Term Impact of the COVID-19 Pandemic on Self-Management of Chronic Conditions: The C3 Study		93.866	1R01AG075043-01	498,740	71,328
Understanding Amyloid Pathology – Multiomic Activity Imaging of Plaque Formation Dynamics (AmyMAP)		93.866	1R01AG078796-01	306,153	—
Epigenetic Regulation in Aging and Alzheimer's Disease		93.866	1R01AG079989-01	200,451	—
PATIENT-TAILORED PHYSICAL ACTIVITY INTERVENTION AMONG OLDER WOMEN WITH GYNECOLOGIC CANCERS UNDERGOING CHEMOTHERAPY (FIT4TREATMENT)		93.866	1R01AG081291-01	224,012	—
Hepatocyte growth factor to Improve Functioning in PAD: the HI-PAD Study		93.866	1R21AG056903-01	(384)	—
Molecular Targets of Aging-Triggered Memory Decline in a Stress-Reactive Rat Strain		93.866	1R21AG062968-01A1	(6,699)	—
Understanding the impact of stress reactivity on racial/ethnic disparities in cognitive function.		93.866	1R21AG069435-01	33,415	11,776
Microglia mediate cognitive dysfunction in elderly survivors of pneumonia		93.866	1R21AG075423-01	154,583	—
Far Red Light to Improve Functioning in PAD: the LIGHT PAD Trial		93.866	1R21AG080426-01	51,064	—
Insights into Amyloid Pathogenicity Dynamics		93.866	1R21AG080705-01	127,384	—
Mitochondrial Stress Response in FUS proteinopathy and related dementia		93.866	1R56AG061327-01A1 REVISED	46,434	—
Evolutionary Advantage of Heterozygous PAI-1 Deficiency in Humans		93.866	1R56AG077278-01	301,100	—
Regulation of Peripheral Proteostasis		93.866	1RF1AG057296-01	(57,439)	—
Molecular and cellular mechanisms of the UNC5C netrin receptor in Alzheimer's disease pathogenesis		93.866	1RF1AG057727-01A1 REVISED	60,660	—
Sex Differences in Central Stress Response and Alzheimer's Disease Neuropathology		93.866	1RF1AG057884-01	24,523	—
The Role of RNA Binding Protein Networks in Tauopathy and Related Dementia		93.866	1RF1AG068140-01	1,420,639	—
Exploring the origins of myelin abnormalities in normal ageing and in vascular dementia		93.866	1RF1AG072080-01	559,574	—
Estrogen, Astrocyte Reactivity, and Sex Differences in Alzheimer's Disease		93.866	1RF1AG079419-01A1	164,065	—
Mechanisms of Angiotensin I Converting Enzyme in Alzheimer's disease		93.866	1RF1AG080092-01	839,346	—
GMP Production and Extended Toxicology of an Oral Formulation Drug for Alzheimer's Disease		93.866	1U01AG076480-01	1,641,593	588,576
ARMCADA – Advancing Reliable Measurement in Cognitive Aging and Decision-making Ability		93.866	1U24AG082022-01	189,886	38,477
Leveraging the 24-hour Movement Paradigm to Preserve Cognitive Function and Prevent Alzheimer's Disease: The Multi-Ethnic Study of Atherosclerosis (MESA) 24H-ACT Study	53	93.866	2(GG0115353-03)/R01AG071032-02	78,555	—
The role of human blood and brain 5-hydroxymethylcytosine in linking vascular risk factors to AD in older White and Black persons	175	93.866	20112002-Sub02-AMD01/1RF1AG074549-01	146,766	—
Microbiome-mediated therapies for aging and healthspan in marmosets	201	93.866	22-04848.401/5R01AG065546-03	27,922	—
Physical Activity and Weight Loss to Improve Function and Pain after Total Knee Replacement	261	93.866	22-4568-AMD 1/5R01AG070004-02	23,224	—
Chicago Asian Resource Center for Minority Aging Research (RCMAR)	176	93.866	2675 Amd 1//5P30AG059304-05	19,768	—
Communication Bridge: A person-centered Internet-based intervention for individuals with primary progressive aphasia		93.866	2R56AG055425-06	832,295	7,799
Synaptic substrates of age-dependent memory deficits		93.866	2RF1AG017139-15	7,766	—
BACE1 as a Therapeutic Target for Alzheimer's Disease		93.866	2RF1AG022560-16 REVISED	300,703	—
Predoctoral and Postdoctoral Training Program in Aging and Dementia		93.866	2T32AG020506-21	394,184	—
The Mobile Toolbox for Monitoring Cognitive and Behavioral Function (MTB2)		93.866	2U2CAG060426-06	3,980	—
First-in-human SAD & MAD trials for MW151, a novel Alzheimer's disease drug candidate that attenuates proinflammatory cytokine dysregulation	241	93.866	320002345-19-178//R01AG061898-03	105,684	—
Novel Gastrocnemius Muscle Characteristics in Peripheral Artery Disease Patients Associated with Impaired Functional Performance	241	93.866	3200003801-21-236 AMD 2//5R01AG066724-03	19,375	—
COVID-19: Genetic Epidemiology of Caffeine and Cognitive Decline		93.866	3K01AG053477-05S1	97,623	—
Genetic Epidemiology of Caffeine and Cognitive Decline		93.866	3K01AG053477-05S1	(16,092)	—
Integrative Multi-Scale Systems Analysis of Gene-Expression-Driven Aging Morbidity		93.866	3K99AG068544-02S1	64,242	—
Alterations of Sleep and Circadian Timing in Aging		93.866	3P01AG011412-22S1	732,508	151,374
Sustaining quality of life of the aged: Heart transplant or mechanical support?		93.866	3R01AG047416-05S1	(6,017)	(6,017)
COVID-19: Pathogenic mechanisms of Neuro-PASC in older adults		93.866	3R01AG059291-04S1	469,522	—
Clinical, Neuroanatomic, and Pathologic Signatures of FTDL-tau in Dementia Phenotypes		93.866	3R01AG062566-04S1	481,439	—
Slow Outward Currents and Learning In Aging Hippocampus		93.866	3R37AG008796-28S1	(1,014)	—
Boston Early Adversity and Mortality Study (BEAMS): Linking administrative data to long-term longitudinal studies		93.866	3RF1AG064006-01S2	905,940	594,931
Transition to Aging Research for Predoctoral Students (F99/K00 Clinical Trial Not Allowed)		93.866	4K00AG068511-03	44,404	—
Emotion, Aging, and Decision Making	63	93.866	501668SG2231 01//2R01AG043533-06A1	43,622	—
Life Course Process of Alzheimer's Disease: Sex Difference and Biosocial Mechanisms	253	93.866	5113263 AMD 4//5R01AG057800-05	78,626	—
CARDIA Year 35 Brain MRI Renewal	258	93.866	578134//5R01AG062819-04	93,847	—
Effect of Post-Acute Care Pay for Performance in Skilled Nursing Facilities on Outcomes and Disparities	258	93.866	584483//5R01AG071610-02	42,699	—
Modeling Ovarian Aging Phenotype in Mechanically Tuned 3D Matrices (NIH NRSA Predoc Fellowship for Emma Gargus, BS.)		93.866	5F30AG058387-04	(90)	—
NRSA in support of Michael Fernandopulle: Mechanisms of autophagic dysfunction in progranulin-related neurodegeneration		93.866	5F30AG060722-04 Revised	6,588	—
NRSA in support of Wesley Peng: Regulation of neuronal calcium transfer between mitochondria and lysosomes in health and neurodegeneration.		93.866	5F30AG066333-04	34,426	—
Alzheimer's Disease Characterization via a Novel Native Mass Spectrometry Platform		93.866	5F31AG069456-02	516	—
Dysfunction of microglial proteostasis drives neuroinflammation and cognitive decline following pneumonia		93.866	5F31AG071225-03 Revised	35,677	—
Pathologic Substrates of Neuropsychiatric Symptoms in Aphasic Dementia		93.866	5F31AG076318-02 Revised	55,021	—
Development of Novel Synthetic Proteomimetics for Mediating Tauopathy in Alzheimer's Disease		93.866	5F31AG076334-02	40,229	—
The role of APOE and Bone Morphogenic protein 4 (BMP4) in early cellular pathophysiology of Alzheimer's Disease		93.866	5F31AG079540-02	47,404	—
Management of Complex Medication Regimens among Older Adults with Alzheimer's Disease and Related Dementias and their Caregivers		93.866	5K01AG070107-03	132,879	—
Aging, immunosenescence and glioblastoma		93.866	5K02AG68617-03	46,417	—
Investigating the role of neuroinflammation in Limbic-predominant age related TDP43 encephalopathy		93.866	5K08AG065463-03 REVISED	56,955	—
COVID-19: Disordered Proteostasis as a Driver of Disease in the Aging Lung		93.866	5P01AG049665-08	81,333	—
Disordered Proteostasis as a Driver of Disease in the Aging Lung		93.866	5P01AG049665-08	1,995,621	255,451
Proteostasis in Aging and Neurodegenerative Disease		93.866	5P01AG054407-05	2,991,980	2,395,047
Alzheimer's Disease Core Center		93.866	5P30AG013854-25	(8,880)	—
Alzheimer's Disease Core Center		93.866	5P30AG013854-25	10,416	10,416
The Claude D. Pepper Older Americans Independence Center (OAIC) at Northwestern University		93.866	5P30AG059988-04	1,431,293	32,210
Northwestern Alzheimer's Disease Research Center		93.866	5P30AG072977-02	3,226,207	—
Personality and Well-being Trajectories in Adulthood		93.866	5R01AG018436-20	288,239	102,130
COVID-19: LitCog IV: Health Literacy and Cognitive Function Among Older Adults		93.866	5R01AG030611-16	2,252	—
LitCog IV: Health Literacy and Cognitive Function Among Older Adults		93.866	5R01AG030611-16	1,050,545	89,620
Noninvasive Stimulation to Improve Hippocampal-Dependent Memory in Older Adults		93.866	5R01AG049002-06	26,911	—
Stellate Ganglion Blockade for the Management of Vasomotor Symptoms		93.866	5R01AG049924-05	(158,453)	—
Stellate Ganglion Blockade for the Management of Vasomotor Symptoms		93.866	5R01AG049924-05	262,735	262,735
Role of BMP Signaling in the Aging Brain		93.866	5R01AG054429-05	(130,011)	—
Communication Bridge: A person-centered Internet-based intervention for individuals with primary progressive aphasia		93.866	5R01AG055425-04	81,467	60,031
Determinants of neurodegenerative decline in the aphasic variant of Alzheimer's disease		93.866	5R01AG056258-10 REVISED	844,774	—
INTERmittent pneumatic ComprESSION for Disability rEversal in PAD: the INTERCEDE Trial		93.866	5R01AG057693-05	400,024	107,020

NORTHWESTERN UNIVERSITY
 Supplementary Schedule of Expenditures of Federal Awards
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Cluster title/federal grantor/subagency/project title	Pass-through entity	Assistance listing number	Sponsor award number	Federal expenditures	Subrecipient expenditures
LEAF 2.0: Randomized trial of a technology-based positive emotion intervention for informal caregivers of individuals with Alzheimer's disease		93.866	5R01AG058613-05	\$ 927,278	456,553
Decision Making and Implementation of Aging-in-Place/Long Term Care Plans among Older Adults		93.866	5R01AG058777-05	616,295	—
An Epidemiologic Study of Disparities in Sleep and Cognition in Older Adults (DISCO)		93.866	5R01AG059291-05	1,194,567	3,813
Lifecourse determinants and outcomes of epigenetic age acceleration across two generations		93.866	5R01AG061006-05	377,700	247,437
Novel Protein Aggregation Inhibitors and Upper Motor Neuron Stabilizers for ALS and other Neurodegenerative Diseases		93.866	5R01AG061708-04	718,844	—
The role of activity induced exosome signaling in synaptic pathology of Alzheimer's Disease		93.866	5R01AG061787-05	141,622	—
Molecular Mechanisms Underlying Behavioral and Psychological Symptoms in Alzheimers Disease		93.866	5R01AG062249-05	492,957	120,075
Genetic modifiers of the Mediterranean-DASH diet Intervention for Neurodegenerative Delay (MIND) response		93.866	5R01AG065398-03	386,084	169,559
Bioenergetic Mechanisms Underlying Circadian Dietary Intervention		93.866	5R01AG065988-04	513,824	—
Contributions of stress reactivity to risk of Alzheimer's disease and related dementia's in a community-based cohort		93.866	5R01AG067557-03	1,118,309	268,132
Personality and Non-Cognitive Factors in the Prediction and Moderation of Risk of Dementia Progression and Physical Health		93.866	5R01AG067622-05	890,538	427,387
Cognitive SuperAging: A model to explore resilience and resistance to aging and Alzheimers disease		93.866	5R01AG067781-04	1,058,407	98,019
Negotiation Training to Optimize Caregiver Communication in Alzheimer's Disease		93.866	5R01AG068421-04	519,149	7,249
COCOA flavanols to improve walking performance in PAD: the COCOA-PAD II Trial		93.866	5R01AG068458-03	802,417	244,203
Reconstructing the temporal landscape of gene regulation in aging		93.866	5R01AG068579-03	620,224	236,389
ToolBox Detect: Low Cost Detection of Cognitive Decline in Primary Care Settings		93.866	5R01AG069762-03	1,572,478	32,862
LIVOPT -- LIVer cirrhosis -- Optimizing Prediction of Patient Outcomes		93.866	5R01AG070194-02	594,705	—
Health Literacy and Cognitive Function among Middle-Aged Adults: The MidCog Study		93.866	5R01AG070212-03	753,932	65,341
BEET root juice to reverse functional impairment in PAD: The BEET PAD Trial		93.866	5R01AG073257-02	549,382	107,172
Development and Validation of a Telehealth Strategy for Routine Detection of Cognitive Impairment in Primary Care: The MyCog Mobile Assessment		93.866	5R01AG074245-03	908,110	—
Sequential Multiple Assessment Randomized Trial of Exercise for PAD: SMART Exercise for PAD		93.866	5R01AG076577-02 Revised	414,006	27,962
Asymmetric Neurodegeneration and Language in Primary Progressive Aphasia		93.866	5R01AG077444-17	1,280,814	317,227
The role of apolipoprotein E in Alzheimer's adaptive immunity		93.866	5R01AG078713-02	690,219	—
Epigenomic landscape of individual- and neighborhood-level social disadvantages and cardiovascular health disparity		93.866	5R01AG081244-02	351,750	—
Longitudinal Trajectories of Physical and Cognitive Function among Persons Aging with HIV		93.866	5R03AG067980-02	120,918	—
A PILOT STUDY OF PREHABILITATION DURING THE NEOADJUVANT WINDOW OF OPPORTUNITY IN OLDER WOMEN WITH OVARIAN CANCER (FIT4SURGERY)		93.866	5R03AG074031-02	113,497	—
A test of the calcium hypothesis of Alzheimers disease		93.866	5R21AG060267-02	(276)	—
Unacylated Ghrelin to Improve Functioning in PAD: the GIFT Trial		93.866	5R21AG063076-02	22,078	—
APelin, EXercise, and mobility in Peripheral Artery Disease, the APEX-PAD Study		93.866	5R21AG065705-02 REVISED	47,562	—
Long-lived proteins as pillars of mitochondrial architecture in rodent brains		93.866	5R21AG072343-02	238,063	—
Fisetin to Reduce Senescence and mobility impairment in PAD: the FIRST Pilot Randomized Trial		93.866	5R21AG075613-02	50,766	11,892
Behavioral Economics Applications to Geriatrics Leveraging EHRs (BEAGLE)		93.866	5R33AG057383-05	406,906	112,391
The Impact of Race on Quality of Life of the Aged after Heart Transplant or Destination Therapy Mechanical Support		93.866	5R36AG073531-02	57,002	—
Predoctoral and postdoctoral training program in aging and dementia		93.866	5T32AG020506-20	(979)	—
Preclinical development of a novel small molecule inhibitor of Alzheimer's disease-related cognitive impairment		93.866	5U01AG066722-04	913,365	371,429
Study to Uncover Pathways to Exceptional Cognitive Resilience in Aging (SUPERAGING)		93.866	5U19AG073153-03	2,637,341	1,300,191
ARMADA: Advancing Reliable Measurement in Alzheimer's Disease and cognitive Aging.		93.866	5U2CAG057441-03	760,889	273,491
The Mobile Toolbox for Monitoring Cognitive Function		93.866	5U2CAG060426-05	2,811,292	1,706,650
Role of pericyte nanotubes in age-related neurovascular dysfunction	23	93.866	7000001746/1R21AG074163-01A1	26,727	—
Prot #PBD 01187: A Phase 2A Randomized Double-Blind Placebo-Controlled Trial to Evaluate the Efficacy and Safety of Varoglutamstat (PQ912) in Patients with Early Alzheimer's Disease with a Stage Gate to Phase 2B (VIVA-MIND)	222	93.866	705194/5R01AG061146-03	18,697	—
Early Onset AD Consortium – the LEAD Study (LEADS)	103	93.866	7861_NW -Amdn 9//5U01AG057195-05	60,442	—
Alzheimer's Disease Neuroimaging Initiative (ADNI3)	263	93.866	79634993_AMD 5//WEI2015-01/U19AG024904	110,499	—
Quantitative cerebral blood vessel imaging biomarkers for AD and VCID		93.866	7RF1AG072490-02	642,740	—
Long-Term Nicotine Treatment of Mild Cognitive Impairment	263	93.866	81622655//6R01AG047992-02	(22,448)	—
The role of personality in cognitive aging and dementia	190	93.866	83945/2/1152237//5R01AG06093304	47,655	—
Contribution of Longitudinal Neighborhood Determinants to Cognitive Health and Dementia Disparities within a Multi-Ethnic Cohort	65	93.866	900142//5R01AG072634-03	46,734	—
Social Worker Funding – Subaward No. 9092_NW (SW) – LEADS	103	93.866	9092_NW (SW)//5U01AG057195-04	6,609	—
PRagmatic Evaluation of eVENTs And Benefits of Lipid-lowering in oldEr Adults (PREVENTABLE)	66	93.866	A032814//1U19AG065188-01	32,066	—
Functional Limitations and Disability Among Middle-Aged Adults	66	93.866	A033130//5R01AG062502-04	50,646	—
Personality and Health: A Longitudinal Study	153	93.866	AGMT 6/30/22//5R01AG020048-24	58,335	—
Cardiovascular and HIV/AIDS Effects on Brain Structure/Function and Cognition	259	93.866	CNVA00050794(128001-6)//5R01AG0348529-10	37,311	—
Building the Geriatric Emergency Care Applied Research (GEAR) Network	296	93.866	CON-80002943 (GR112405)//5R33AG058926-06	57,424	—
Improving Emergency Department Care and Care Transitions: Perspectives of Persons Living with Dementia and their Care Partners	296	93.866	CON-80003990 (GR118438)//5R61AG069822-02	30,989	—
Identifying Older Adults with Delirium in the Emergency Department: Risk Factors and Phenotypes	296	93.866	CON-80004022 (GR118506)//5R33AG058926-06	25,350	—
Geriatric Emergency care Applied Research network 2.0 – Advancing Dementia Care (GEAR 2.0 ADC)	296	93.866	CON-80004264(GR119224)//4R33AG069822-03	64,643	—
Improving Emergency Department Care and Care Transitions: Perspectives of Persons Living with Dementia and their Care Partners	296	93.866	CON-80004519(GR121110)//4R33AG069822-03	13,259	—
Geriatric Emergency care Applied Research network 2.0 – Advancing Dementia Care (GEAR 2.0 ADC)	296	93.866	GR113862 (CON80003141)//1R61AG069822-02	65,705	—
A harmonized medial temporal lobe subregion segmentation protocol: an essential element for dementia research	150	93.866	GR127026 PO-SPC-100006859//R01AG070592	24,184	—
Amyloid beta oligomer induction of Alzheimer's disease in nonhuman primates	285	93.866	Klein AGMT 5/20/21//9R44AG067832-02	6,618	—
ARTFL LEFFTDS Longitudinal Frontotemporal Lobar Degeneration (ALLFTD)	126	93.866	NOR-263134-02//PO#8234739//5U19AG063911-03	36,531	—
Optimization of small molecule SERCA2b activators to inhibit neuron loss in Alzheimer's disease	140	93.866	NW-0521//2R42AG062001-02A1	93,901	—
ARTFL LEFFTDS Longitudinal Frontotemporal Lobar Degeneration (ALLFTD)--Fixed Price	126	93.866	NWU-263134-01//5U19AG063911-03	5,616	—
Trial of Parkinson's And Zoledronic Acid (TOPAZ)	194	93.866	P-163-PO2800007864//R01AG059417	8,454	—
The Effect of High Intensity Walking on Frailty	47	93.866	R01AG060162/AGMT 12/17/2020	47,603	—
SAGE LEAF: Reducing Burden in Alzheimer's Disease Caregivers through Positive Emotion Regulation and Virtual Support	28	93.866	R43AG065080-SB1//R43AG065080	(532)	—
Tailored Non-Pharmacotherapy Services for Chronic Pain: Testing Scalable and Pragmatic Approaches	116	93.866	RNG210885-NORTHWESTERN//5UH3AG067493-04	28,375	—
Using the PROMIS Cognition Item Bank for Early Detection of Cognitive Decline in Primary Care	164	93.866	SCON-0000397-01//R61AG069776	30,555	—
Long-Term Nicotine Treatment of Mild Cognitive Impairment	263	93.866	SCON-00003468//2R56AG047992-07A1	371	—
Guiding Aging Long-Term Opioid Therapy Users Into Safer Use Patterns	263	93.866	SCON-00004067//3P30AG024968-20S1	56,892	—
(DPPOS-4) Alzheimer's Disease and Alzheimer's Disease Related Dementias in Prediabetes and Type 2 Diabetes: The Diabetes Prevention Program Outcomes Study AD/ADRD Project	83	93.866	S-DPA2223-LM10//1U19AG078558-01	282,898	—
Development of a novel anti-neuroinflammatory experimental therapeutic for epilepsy and Alzheimer's risk	102	93.866	SP0064289 AMD 2//1R44AG071062-01A1	55,839	—
Production and quality analysis of clinical drug for a novel CNS protein kinase inhibitor therapeutic candidate	141	93.866	STTR//4R42AG062095	(20,170)	—
National Alzheimer's Coordinating Center (NACC)	274	93.866	UWSC12990//SU24AG072122-02 REVISED	43,176	—
Innovative Analytical Methods for DNA Methylation Age	288	93.866	WU-22-0335-MOD-1//5R21AG068955-02	15,916	—
Well-being as a Protective Factor against Cognitive Decline and Dementia	288	93.866	WU-23-0295-MOD-1//4R00AG071838-04	78,185	—
Lifecourse CVD Risk and Midlife Cognitive Trajectories and Brain Aging: Implications for Alzheimer's and Dementia Prevention	146	93.866	YAF2194-04 AMD3//5R01AG063887-04	41,015	—
				55,472,555	11,397,350

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 Supplementary Schedule of Expenditures of Federal Awards
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Cluster title/federal grantor/subagency/project title	Pass-through entity	Assistance listing number	Sponsor award number	Federal expenditures	Subrecipient expenditures
Role of the ipRGC Circadian Clock in Visual Perception		93.867	1F31EY034387-01	\$ 40,948	—
Health Disparities in Utilization, Quality, and Outcomes for Three Common Ocular Conditions (HealthDOC)		93.867	1R01EY034444-01	51,991	—
Investigating the function and mechanism of interleukin 7 receptor-expressing pro-angiogenic macrophages during experimental choroidal neovascularization		93.867	1R01EY034486-01	89,750	—
Novel ocular imaging and molecular analysis of anterior eye segment for glaucoma		93.867	1R01EY034740-01	166,911	—
Re-engineering Connectivity in the Drosophila Brain		93.867	1R21EY031849-01	217,300	—
Genetic Manipulation of Retinal Ganglion Cell Subtypes		93.867	1R21EY033523-01A1	180,951	—
Dynamic Tracer Kinetic Model to Detect Preclinical Diabetic Retinopathy	192	93.867	2103355-02 Amendment 1//5R01EY032222-03	114,471	—
Mechanisms of neurovascular coupling in the retina and their dysfunction in diabetes		93.867	5F30EY031565-03	46,586	—
NIH NRSA Predoc Fellowship for Andrew Jo: Intersectional Genetic Dissection of Inner Retinal Circuits		93.867	5F31EY031985-03	45,131	—
The role of beta2-adrenergic receptor and interleukin-6 signaling in macrophage-driven choroidal neovascularization		93.867	5K08EY030923-04	202,654	—
The Role of Vimentin Cytoskeleton in the Mechanobiology of Schlemm's Canal Endothelium.		93.867	5K99EY032547-02	94,556	—
Function of Basal Synapses at Mammalian Photoreceptors		93.867	5R01EY012141-24	(3,606)	—
Signal Processing in the Inner Retina		93.867	5R01EY018204-12	512,138	—
The Role of MicroRNAs in Corneal Epithelial Homeostasis		93.867	5R01EY019463-13	342,737	—
Activation of the Angiotensin-Tie2/TEK Pathway to Treat Ocular Hypertension and Glaucoma		93.867	5R01EY025799-08	494,854	—
Mechanisms underlying the formation of the cornea and ocular surface epithelium		93.867	5R01EY028304-04	158,293	—
The Roles of Autophagy in Limbal/Corneal Epithelia.		93.867	5R01EY028560-05	337,892	—
Investigating nanoscale neuronal damages in early glaucoma towards clinical optical detection		93.867	5R01EY029121-04	282,731	66,855
Spatially resolved measurements of retinal metabolism		93.867	5R01EY029306-03	85,724	—
Exploring the angiogenesis-to-fibrosis transition in ischemic retinopathies		93.867	5R01EY030121-04	344,102	—
Cell types and functional circuitry in the mouse retina		93.867	5R01EY030169-05	319,847	—
Non-canonical GABAergic Pathways in the Visual System		93.867	5R01EY030565-04	472,133	—
Synapses as Independent Computational Units in the Excitatory Pathways of the Retina		93.867	5R01EY031029-04	427,885	—
Functional consequences of heterotypic retinal ganglion cell coupling		93.867	5R01EY031329-03	418,133	—
Monitoring the hemodynamic response to therapy in diabetic retinopathy		93.867	5R01EY031815-04	355,716	44,115
Regulation of kainate receptor expression in cone bipolar cells		93.867	5R01EY032506-02	378,140	—
The role of Angiotensin-Tie2/TEK signaling in polypoidal choroidal vasculopathy		93.867	5R01EY032609-03	517,824	—
Single-cell RNA sequencing reveals novel regulatory pathways in maintaining limbal epithelial stem cell homeostasis		93.867	5R01EY032922-03	324,160	—
A Nanocarrier Platform for Targeting Schlemm's Canal Cells		93.867	5R01EY033813-02	288,607	2,244
Reconstructing positional information in the eye from scRNA-seq and relating it to signal transduction		93.867	5R21EY032233-02 REVISED	208,916	—
Multidisciplinary Visual Sciences Training Program		93.867	5T32EY025202-09	102,150	—
Clinical glaucoma management enabled by visible-light OCT		93.867	5U01EY033001-03	295,851	17,501
DRCR Retina Network Chair Emeritus – Diabetic Retinopathy Clinical Research Network	112	93.867	Agmt#12/3/19 Amd 2	55,292	—
CLARIFYING THE OPTIMAL APPLICATION OF SLT THERAPY (COAST)	259	93.867	AW D00002935 (136658-2)//5UG1EY031651-02	28,074	—
Diabetic Retinopathy Clinical Research Network 2019-2023 Master Agreement	112	93.867	DRCR Site 61: JCHR-Site DRCR Addendum AF	783	—
Data-Driven Biomechanical Simulation of Eye Movement and Strabismus	82	93.867	E2048123 AMD 4 // R01EY029715	33,794	—
ER stress and diabetic retinopathy	189	93.867	R1217228//5R01EY019949-13	98,594	—
				8,132,013	130,715
Developing novel deep-learning based methods for deciphering non-coding gene regulatory code	190	93.879	1R01LM01372201//1170742/2/92468 AMD1	6,933	—
Network Models for Metabolomics	246	93.879	21-015788 A01//5R01LM013444-03	198,910	—
Guiding humans to create better labeled datasets for machine learning in biomedical research		93.879	3R01LM013523-02S1	513,658	276,978
Health For All: Advancing Library-Academic Medical Center Partnerships to Navigate Wellness and Scale Preventive Services Access		93.879	5G08LM013188-03	120,733	—
Modeling the Incompleteness and Biases of Health Data		93.879	5R01LM013337-04	254,881	218
Network of the National Library of Medicine Evaluation Center		93.879	5U24LM013751-03	798,786	16,434
				1,893,901	293,630
Partnership for Global Health Research Training Program	89	93.989	117181-5121333 Amendment 2//5D43TW010543-07	18,730	—
Building capacity for patient-centered outcomes research to improve the quality and impact of HIV care in Tanzania		93.989	3D43TW010946-05S1	339,339	138,100
Simulator-Based Focused Cardiac Ultrasound (FoCUS) Training in Haiti	25	93.989	5970-NWUC-02A1//5R21 TW012165-02	5,645	—
Northwestern/Nigeria Research Training Program in HIV and Malignancies (NN-HAM)		93.989	5D43TW009575-09	361,090	219,627
Expanded Multidisciplinary NeuroAIDS Research Training to Improve HIV Outcomes in Nigeria		93.989	5D43TW009608-10	235,793	94,249
Building the Next Generation of Researchers in TB/HIV Diagnostics in Mali (B-NextGen)		93.989	5D43TW010350-08	257,749	164,612
Cardiovascular Research Training In Nigeria (CeRTIN)		93.989	5D43TW011976-03	195,861	28,357
Global Hypomethylation Biomarkers for Cervical Cancer Screening in Women Living with HIV in LMICs		93.989	5R21TW012092-02	88,114	11,887
University of Ibadan MEPI Junior Faculty Research Training Program (UI-MEPI-J)	235	93.989	7/225/29/NU-06/NCE//D43TW010140-05	10,065	—
Building Research And Innovation in Nigeria's Science – (BRAINS)	242	93.989	SP0031902-60041063//5D43TW010134-05	1,476	—
				1,513,862	656,832
ACTG A5423 Protocol Chair Support	220	93.RD	1560 G IA637//5UM1AI068636-17	10,463	—
A randomized, double-blind, placebo-controlled study of 4-hydroxymoxifen topical gel in women with mammographically dense breasts -fixed pricing	270	93.RD	300861182//HHSN2612012000034I-TO11-4	1,275	—
Cognitive Function, Self-Management, and Health Outcomes among Liver Transplant Recipients: the LivCog Cohort	258	93.RD	584798 Amnd 1//5R01DK132138-02	115,733	—
Multi-Ethnic Study of Atherosclerosis – Field Center		93.RD	75N92020D00004/75N92020F00001-P00003	570,022	—
Multi-Ethnic Study of Atherosclerosis (MESA) Exam 7 – Task Area B		93.RD	75N92020D00004-75N92021F00001	407,043	—
Coronary Artery Risk Development in Young Adults (CARDIA) Study – Chicago Field Center		93.RD	75N92023D00004	63,954	—
Centers for Research on Structural Biology of Infectious Diseases		93.RD	75N93022C00035	3,475,209	2,058,208
Pilot Testing, Refinement, and Validating of the NBT, and Preparation for Norming Study (NIH Infant and Toddler Toolbox: TO 2)		93.RD	75N94019D00005 P00002	(6,148)	—
NIH Infant and Toddler Toolbox Task Order 3		93.RD	75N94019D00005-75N94021F00001	1,976,023	987,074
NIH Infant and Toddler Toolbox Task Order 4		93.RD	75N94019D00005-75N94022F00001	1,866,473	900,028
A PreTACT meeting for study and milestone discussion for a BPN Biologics project (Contract for UG3-Development of anti-LTBP4 as a biologic to treat Neuromuscular Diseases)		93.RD	75N95A23P00038	2,400	—
NU NC120C06 – Phase II Trial of the Immune Checkpoint Inhibitor Nivolumab in Patients with Recurrent Select Rare CNS Cancers	129	93.RD	75N98020D00086	6,618	—
WashU-Northwestern Genomic Variation and Function Data and Administrative Coordinating Center	288	93.RD	Advance Account	24,615	—
Determining how neurotensin mediates valence processing and compulsive cocaine seeking		93.RD	Advanced Account	42,336	—
IPA for Michael Bass		93.RD	Agmt 10/10/20	18,756	—
Cancer Prevention Agent Development Program: Early Phase Clinical Research		93.RD	HHSN261201200035I 75N91019F00130 P00005	347,975	—
Cancer Prevention Agent Development Program: Early Phase Clinical Research		93.RD	HHSN261201200035I/HHSN26100014 P00005	621,039	210,909
CARDIA Task Area B – Cohort Limited Exam (Year 35)		93.RD	HHSN268201800003I 75N92020F00001	303,175	—
Coronary Artery Risk Development in Young Adults (CARDIA) Study – Chicago Field Center		93.RD	HHSN268201800003I-P0003	503,466	8,179
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	42,053	29,786
Structural Genomics Centers for Infectious Diseases		93.RD	HHSN272201700060C-14 P00017	(1,569)	—

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Structural Genomics Centers for Infectious Diseases		93.RD	HHSN272201700060C-14 P00017	\$ 1,333,603	1,333,603
Intergovernmental Personnel Act- IPA Assignment Agreement		93.RD	IPA AGMT 10/28/22	25,107	—
Intergovernmental Personnel Act IPA Assignment Agreement		93.RD	IPA AGMT 8/9/22	26,933	—
COVID-19: A Federated COVID-Rich ICU Database	125	93.RD	SS207, PO#584331//75N97020C00013	18,426	—
Per- and polyfluoroalkyl substances (PFAS) and breast cancer risk in a racially and ethnically diverse U.S. cohort	184	93.RD	SSS-FUN-S-22-01007//HHSN273201800005I	124,672	—
Adductomics analysis in the Sister Study	184	93.RD	SSS-FUN-S-23-01015//HHSN273201800005I, TO HHSN2730	4,567	—
Rutgers-NYU Center for Asian Health Promotion and Equity	176	93.RD	SUB00002389//7P50MD017356-02	30,604	—
Office of the Director, National Institutes of Health:					
Comparing Harmonization Methods in ECHO	66	93.310	303001174//5U2COD023375-07	83,074	—
Infrastructure: Illinois Precision Medicine Consortium (IPMC)		93.310	3OT2OD026557-01S5	14,347,422	9,259,803
ECHO PRO Research Resource: A Developmentally-based Measurement Science Framework for Assessing Environmental Exposure and Child Health		93.310	5U24OD023319-05	4,283,576	364,954
All of Us Participant Technology Systems Center (OT2)	281	93.310	AGMT – 09/24/2021//3OT2OD030043-01S4	292,974	—
Promoting Color Brave Conversations in Families: A Public Health Strategy to Advance Racial Equity	207	93.310	TUL-HSC-559715-21&22//1U01OD033242-01	48,607	—
				<u>19,055,653</u>	<u>9,624,757</u>
Kinetic Imaging Plate Reader for Drug Discovery and Biology		93.351	1S10OD030339-01	595,268	—
State-of-the-art High Field 7T MRI System Upgrade to Accelerate Translational Sciences		93.351	1S10OD032221-01A1	903,994	—
Illumina MiSeq High-Throughput DNA Sequencer		93.351	1S10OD032243-01A1	101,970	—
Electrical/Asymmetric Flow Field-Flow Fractionation (EAF4) System with Light Scattering Detection		93.351	1S10OD032342-01	324,593	—
A robotic plate handling system for high content screening and 3D organoid culture		93.351	1S10OD032367-01	137,000	—
Orbitrap Eclipse Mass Spectrometer for Northwestern University Neuroproteomic Collaboration Hub		93.351	1S10OD032464-01A1	1,345,196	—
SyncroPatch 384 Automated Patch Clamp Instrument		93.351	1S10OD034362-01	599,040	—
Understanding the mechanism(s) of systemic antibody delivery, distribution, and localization to mucosal sites in the in vivo macaque model		93.351	3K01OD026571-03S1	(1,863)	—
Tandem Genetically Encoded Voltage and Calcium Indicator Mice for Optical Physiology of Excitable Cells		93.351	5R21OD025345-02 REVISED	65,611	—
Genetic and genomic tools for C. briggsae research	150	93.351	SPC1000006269 GR126698-001//5R21OD030067-02	49,164	—
				<u>4,119,973</u>	<u>—</u>
Data and Research Support Center	280	93.368	VUMC 107289//1OT2OD035404-01	36,054	—
Data and Research Support Center: Precision Medicine Initiative Cohort Program Coordinating Center (U2C)	280	93.910	VUMC60724//5U2COD023196-05	62,065	—
Flexible Hybrid Cloud Infrastructure for Seamless Management of HuBMAP Resources	37	93.RD	1090672 -463891 // 1OT2OD026675	6,240	—
Comprehensive Structural and Functional Mapping of the Mammalian Cardiac Nervous System	220	93.RD	1553 G ZF013//OT2OD023848-01S7	21,800	—
Substance Abuse and Mental Health Services:					
Center for Child Trauma Assessment, Services and Interventions		93.243	5H79SM085084-03	599,794	22,271
Implementing Agent Based Models to reduce overdose deaths	262	93.788	5820-1336-00-A//1H79T1083343 (SOR-CARE-39)	2,175	—
Total Department of Health and Human Services				<u>522,502,954</u>	<u>84,894,169</u>
Department of Homeland Security:					
Wireless Physiological Monitoring for Heat Stress Accumulation	225	97.044	GR107351//EMW-2021-FP-00567	69,225	—
COVID-19: Value-focused Robust Optimization for Disaster Response	19	97.061	ASUB00000364//17STQAC00001-06-00	84,704	—
Total Department of Homeland Security				<u>153,929</u>	<u>—</u>
Department of Justice:					
Office on Violence Against Women:					
Testing the effectiveness of a domestic violence intervention at reducing recidivism		16.026	2020-SI-AX-0009	106,707	—
National Institute of Justice:					
Firearm involvement of parents and their adolescent children: A prospective intergenerational study of high-risk youth		16.560	2017-IJ-CX-0019	(479)	—
Delinquent and Criminal Behaviors of Parents and Their Adolescent Children: A Prospective Intergenerational Study of Children of Former Juvenile Offenders		16.560	2020-MU-MU-0001	214,348	—
Improving Employment & Reducing Recidivism Among Prison Offenders via Virtual Reality Job Interview Training	249	16.560	SUBK00009850//2019-MU-MU-0004 – AMD 02	1,770	—
				<u>215,639</u>	<u>—</u>
Total Department of Justice				<u>322,346</u>	<u>—</u>
Department of State:					
Innovative Approaches to Evaluating Citizen-Led Rule of Law Initiatives in Ukraine		19.345	SLMAQM19GR2131 M003	42,355	—
Total Department of State				<u>42,355</u>	<u>—</u>
Department of the Interior:					
United States Geological Survey:					
Probabilistic Seismic Hazard Map testing in Nepal: A cooperative agreement between the USGS and Northwestern University		15.808	G19AC00104-02	2,434	—
Total Department of the Interior				<u>2,434</u>	<u>—</u>
Department of Transportation:					
Tier I Center on TELEMObILITY		20.701	69A3552047139	80,497	14,107
Federal Highway Administration:					
Optimizing Bridge Abutment Slope Protection at Stream Crossing	294	20.RD	0092-21-02	6,028	—
Third Generation Simulation (TGSim) Data: A Closer Look at the Impacts of Automated Driving Systems on Human Behavior	237	20.RD	102471-18316//693JJ321C000002	36,893	—
Total Department of Transportation				<u>123,418</u>	<u>14,107</u>
Department of Veterans Affairs:					
Edward Hines, Jr. VA Hospital:					
Amplify Gait to Improve Locomotor Engagement in Spinal Cord Injury (AGILE SCI Trial)		64.RD	36C24E21D0007 P00002	34,581	—
VA IPA for Erin Reedy		64.RD	Agmt 4/14/23	11,597	—
IPA For Todd Parrish: Neural Target Identification for Functional Disability Associated with Alcohol Related Characteristics Among Veterans with Co-occurring AUD+mTBI		64.RD	Agmt 5/78/151	12,158	—
Intergovernmental Personnel Act (IPA) Assignment Agreement for Elizabeth Platt (Sponsored by NU Principal Investigator Dr. Bonnie Martin-Harris, PhD.)		64.RD	IPA AGMT Signed 04/18/2023	8,072	—
VA IPA agreement for Shamali Dusane		64.RD	IPA AGMT Signed 08-15-2022 (FY2022-23)	28,872	—
Intergovernmental Personnel Act (IPA) Assignment Agreement for Jungwha (Julia) Lee, Sponsored by Dr. Bonnie Martin-Harris		64.RD	IPA Agmt. Signed 01/13/2023 (5/78/151)	6,615	—
Intergovernmental Personnel Act (IPA) Assignment Agreement for Jungwha (Julia) Lee (Sponsored by NU PI, Dr. Bonnie M. Harris, PhD.)		64.RD	IPA AGMT. Signed 04/18/2023	3,780	—
Development of ultrasound imaging phantoms appropriate for quantification of muscle (Cheng Sun, Effort)		64.RD	IPA AGMT. SIGNED 07/07/2022	10,751	—

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Vu, Thanh Huyen VA Proposal		64.RD	IPA AGMT. Signed 08/02/2022 (PO #578-D27103)	\$ 36,455	—
IPA Agreement for Megan McHugh		64.RD	IPA AGMT. Signed 08/30/2023	31,687	—
Intergovernmental Personnel Act (IPA) Assignment Agreement for Heather Henderson		64.RD	IPA AGMT. Signed 09/01/2021	6,837	—
Intergovernmental Personnel Act (IPA) Assignment Agreement for Erin Lindsay Reedy (FY2021-22)		64.RD	IPA AGMT. Signed 12/19/2022 (578/151)	31,892	—
Intergovernmental Personnel Act (IPA) Assignment Agreement for Elizabeth Bisch Platt		64.RD	IPA AGMT. Signed 12/20/22 (578/151)	13,705	—
Development of ultrasound imaging phantoms appropriate for quantification of muscle fascicle architecture and mechanical properties (Eric Perreault, Effort)		64.RD	IPA AGMT. Signed 7/12/22	15,002	—
Jesse Brown VA Medical Center:					
FY2020-21 VA IPA for Christina Spaulding		64.018	IPA Agmt 04/05/2021	6,799	—
Intergovernmental Personnel Act (IPA) Assignment Agreement for Elisa J. Gordon (NU Supervisor: David Bentrem)		64.018	IPA Agmt. Signed 08/03/2021	3,067	—
				<u>9,866</u>	—
IPA for Fei Chen with Jesse Brown VA Medical Center		64.RD	Agmt 08/01/2023	71,198	—
Intergovernmental Personnel Act (IPA) Assignment Agreement in support of Bin Liu		64.RD	Agmt 08/10/22	59,686	—
Linda India IPA FY23		64.RD	Agmt 10/05/22	1,424	—
VA IPA for Francis Suh FY22		64.RD	AGMT Eklund 8/10/22	74,735	—
VA IPA for Nida Mubin 07/01/22-09/30/22		64.RD	AGMT Munshi 7/14/22	6,115	—
VA-IPA for Nida Mubin 10/01/2022-09/30/2023		64.RD	AGMT Munshi 7/14/22	48,922	—
IPA Agreement FY23 – Isac		64.RD	Agreement 4/19/23	35,406	—
IPA for Marina S. Casalino Matsuda, PhD with Jesse Brown VA Medical Center		64.RD	IPA Agmt 8/1/2023	38,660	—
Intergovernmental Personnel Act (IPA) Assignment Agreement for Yanni Yu FY2022-2023 (Sponsored by NU PI, Dr. Joshua Meeks, MD)		64.RD	IPA AGMT. 04/06/2023	65,491	—
Dr. Marcelo Bonini VA-IPA 1101BX004268		64.RD	IPA AGMT. Signed 03/04/2021	1,063	—
Intergovernmental Personnel Act (IPA) Assignment Agreement for Christina Spaulding (Dec FY2022 to Sept FY2023)		64.RD	IPA AGMT. Signed 06/28/2022	60,708	—
IPA Agreement FY21 – Cardenas		64.RD	IPA AGMT. Signed 06/28/2023	25,317	—
Intergovernmental Personnel Act (IPA) Assignment Agreement for Aneta Baran		64.RD	IPA AGMT. Signed 08/10/2022	57,002	—
Intergovernmental Personnel Act (IPA) Assignment Agreement in Support of Weiqi Huang		64.RD	IPA Agmt. Signed 08/26/22	72,335	—
Intergovernmental Personnel Act (IPA) Assignment Agreement for Hao Wang		64.RD	IPA AGMT. Signed 08/26/22	95,354	—
Intergovernmental Personnel Act (IPA) Assignment Agreement for Julie Johnson (Supervisor: David Bentrem)		64.RD	IPA AGMT. Signed 09/03/2021	1,334	—
Intergovernmental Personnel Act (IPA) Assignment Agreement for Yasuhiro Omura		64.RD	IPA AGMT. Signed 09/12/2022	32,479	—
Intergovernmental Personnel Act (IPA) Assignment Agreement for Yinu Wang		64.RD	IPA AGMT. Signed 09/17/2021	77,385	—
Intergovernmental Personnel Act (IPA) Assignment Agreement for Yaqi Zhang		64.RD	IPA AGMT. Signed 09/17/2021	2,453	—
Intergovernmental Personnel Act (IPA) Assignment Agreement for Ryan Caldwell FY21 IPA		64.RD	IPA AGMT. Signed 11/3/2022	12,896	—
Intergovernmental Personnel Act (IPA) Assignment Agreement for Stefania Fatone, Sponsored by Dr. Steven Gard		64.RD	IPA AGMT. Signed 7/07/2021 (537/151)	(4)	—
VA IPA Agreement for Christopher Futtner for FY21		64.RD	IPA AGMT. Signed 8/10/22	87,473	—
VA IPA FY20 for Elspeth Beauchamp		64.RD	IPA AGMT. Signed 8/26/22	43,844	—
VA IPA: Jun Qian (2022-2023)		64.RD	Meeks 7/14/22	89,666	—
VA IPA: Mairah Khan (2022-2023)		64.RD	Meeks 7/14/22	46,086	—
VA-IPA for Anastasia Metropulos 10/01/2022-09/30/2023		64.RD	Munshi AGMT 7/13/22	55,216	—
Total Department of Veterans Affairs				<u>1,424,114</u>	—
Environmental Protection Agency:					
Approaches to Reduce Nutrient Loadings for Harmful Algal Blooms Management	289	66.509	Wells AGMT 12/15/20//84008601	48,202	—
Total Environmental Protection Agency				<u>48,202</u>	—
National Aeronautics and Space Administration:					
Stellar Dynamics and Stellar Collisions in Star-by-Star Models of Nuclear Star Clusters	37	43.001	1110258 – 471048 // 80NSSC22K0722	66,118	—
Accretion Physics from Horizon Scale Black Hole Images and Movies	228	43.001	1558870 04//80NSSC20K0527	75,726	—
Testing the Predictions of RAT Theory in Star Forming Clouds	282	43.001	530105Northwestern//SOFIA Grant 09_0535 AMND No. 1	24,039	—
Biosignature Preservation in Sulfate-Dominated Hypersaline Environments	84	43.001	AWD7774162-GR206675//80NSSC20K0849	33,367	—
The Late-time X-ray Behavior of Short Gamma-ray Bursts: Implications for Energetics and Rates	183	43.001	GO1-22043X-1//NAS8-03060	8,818	—
Investigating a novel role for iron redox cycling in the lithification of microbial mats and the rise and fall of stromatolites in Earth history	263	43.001	SCON-00004012//80NSSC19K0479	92,875	—
Multi-Scale Modeling of AGN Outbursts & Feedback in M87	183	43.001	TM1-22005X Amd 2//NAS8-03060	34,650	—
Testing the Predicted Two-phase Growth of SMBHs with X-ray Observations Across Mass and Redshift	183	43.001	TM2-23005X AMD 1//NAS8-03060	49,655	—
				<u>385,248</u>	—
Project FUSION: Facilitating Unified Systems of Interdependent Organizational Networks	234	43.003	SUB00001667//80NSSC18K0511	(74)	—
Multiple Undergraduate Research Projects	237	43.008	099286-17921 05//80NSSC20M0046	98,495	—
Air-Carbon Boundary Layer Chemistry for Hypersonic Ablation.	228	43.012	1561377//80NSSC21K1574	24,270	—
ACRE – Autonomous Casting RovEr	138	43.RD	Award Letter 3/9/23	108,254	—
Testing a new physical model for the formation of galactic disks and its implications for star formation variability, ISM kinematics and galactic winds	186	43.RD	HST-AR-16124.001-A AMND #4//NAS5- 26555	73,411	—
Using the full power of the HST Archive to Address the Red Supergiant Problem (Support for Dr. Charles Kilpatrick)	186	43.RD	HST-AR-16136.006-A Amnd 4//NAS5-26555	4,368	—
Measuring the Star Formation Efficiency of Molecular Clouds in the Small Magellanic Cloud	186	43.RD	HST-GO-15912.001-A AMND #5//NAS5- 26555	52,578	—
The Panchromatic Hubble Andromeda Southern Treasury (PHAST)	186	43.RD	HST-GO-16778.013-A//NAS5- 26555	13,399	—
Solidifying the Origin of a Possible Kilonova at 350 Mpc	186	43.RD	HST-GO-16923.005-A//NAS5- 26555	24,586	—
Snapshot Observations of Type II Supernovae	186	43.RD	HST-GO-17070.001-A//NAS5- 26555	51,092	—
Spatially Resolving the First z>1 Fast Radio Burst Host Galaxy	186	43.RD	HST-GO-17277.006-A//NAS5- 26555	18,446	—
Stellar Afterlives and Black Hole Cataclysms: Learning about Stars, Galaxies, and the Cosmic Expansion with Gravitational Waves	186	43.RD	HST-HF2-51455.001-A Amnd 1//NAS5-26555	20,328	—
The study of hyper-accreting black holes and the origin of gold in the Universe	186	43.RD	HST-HF2-51487.001-A AMD#2//NAS5- 26555	100,987	—
Illuminating the Progenitors and Environments of Energetic Transients with Radio Observations	186	43.RD	HST-HF2-51504.001-A Amd 1//NAS5-26555	116,420	—
High Contrast Imaging of Exoplanets and Exoplanetary Systems with JWST	186	43.RD	JWST-ERS-01386.047-A//NAS5- 03127	11,984	—
Imaging the Shadow of a Black Hole through SGr A* Monitoring	186	43.RD	JWST-GO- 02235.001-A//NAS5-03127	36,740	—
The First Resolved View of Individual Star Formation Across a Spiral Arm	186	43.RD	JWST-GO-02128.006-A//NAS5-03127	12,761	—
CECILIA: A direct-method metallicity calibration for Cosmic Noon through the Epoch of Reionization	186	43.RD	JWST-GO-02593.008-A//NAS5- 03127	36,960	—
NASA Ames Research Center:					
Rodent Research Standard Housing Mission: Multidisciplinary Approach to Understanding Spaceflight Responses.		43.001	80NSSC23K0599	34,826	—
Effects of Partial Gravity on Multi-system Mammalian Physiology: Microbiome and Related Systems		43.007	80NSSC20K1519 P00004	229,352	—
Effects of Spaceflight on Gastrointestinal Microbiota in Mice: Mechanisms and Impact on Multi-System Physiology		43.007	NNX15AL05G 000015	12,265	—
				<u>276,443</u>	—

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NASA George C. Marshall Space Flight Center:					
The Columnar to Equiaxed Transition and Dendrite Fragmentation		43.003	NNX17AD48G-000011	\$ (12)	—
Microstructure Evolution in Freeze-Cast Materials		43.007	80NSSC18K0196-P00013	150,216	—
Investigation of Spin Squeezing for Quantum Sensors.		43.012	80NSSC23M0106	28,662	—
NASA Goddard Space Flight Center:					
The Strontium Isotope Composition of Neoproterozoic Carbonates: Implications for the Carbon Cycle and the Evolution of the Biosphere		43.001	80NSSC17K0245 P00003	34,235	—
The Physics, Observational Signatures, and Consequences of AGN-Driven Galactic Winds		43.001	80NSSC18K1096 P00004	106,738	—
Tools for Modeling Selection Biases and for Advanced Astrophysical Interpretation of LISA Observations		43.001	80NSSC19K0323-P00002	188,175	—
Multi-messenger Constraints on Close Binary Evolution in the Milky Way		43.001	80NSSC20K0504 – P00004	41,708	—
Magneto-Rotational Instability in the Sun? Global Radiation-MHD Simulations of the Near-Surface Shear Layer		43.001	80NSSC20K1280 P00002	481,927	302,890
Preparing LISA for Intermediate-Mass Black Hole Science		43.001	80NSSC21K1722 P00002	277,550	104,227
Relativistic Simulations of Accreting Neutron Stars		43.001	80NSSC21K1746 P00001	182,441	—
Simulating neutron star merger remnant outflows and their electromagnetic signatures		43.001	80NSSC21K1851 P00003	41,116	—
COVID-19: Supernova Remnant Observations with Micro-X COVID Extension		43.001	80NSSC21K1856 P00001	11,257	—
Simulating Dynamical Ejecta Effects On High Energy Emission From Neutron Star and Black Hole Collisions		43.001	80NSSC22K0031	80,000	—
A Search for the first X-ray counterpart to an extragalactic FRB		43.001	80NSSC22K0221	18,579	—
A SWIFT Response to Thermonuclear Explosions		43.001	80NSSC22K0541	8,139	—
On the quest of BeX-ray transients: how do highly magnetized neutron stars cool?		43.001	80NSSC22K0799	33,022	—
A Survey of Late-Time X-ray Emission in VLASS Detected Supernovae		43.001	80NSSC22K0800	8,576	—
The Physics of the CGM and its Role in Galaxy Evolution		43.001	80NSSC22K0809	52,622	—
Dynamical Signatures of Planet Formation in Wide-Separation Exoplanets and Brown Dwarfs		43.001	80NSSC23K0280	65,474	45,045
Remote quantification of evolving stability conditions in deep-seated landslides from InSAR displacement rate measurements, structural mapping, and geomechanical modeling		43.001	80NSSC23K0734	24,685	—
				1,656,244	452,162
Self-Organized Nanostructured Bonds through Transient Liquid Phase Dealloying					
Grain Boundary Engineering of Thermoelectrics for RTGs		43.012	80NSSC21K1810 P00002	163,394	—
		43.012	80NSSC22K1217-P00001	68,541	—
				231,935	—
NASA Lyndon B. Johnson Space Center:					
Team Task Switching in Astronaut Crews on the International Space Station: Integrating Multiteam Membership, Multiteam Systems, multi-tasking, & Multidimensional Networks to Monitor & Enable Functional Work Shifts in Astronaut Crews		43.003	80NSSC18K0276 – P00016	18,965	—
Composing Teams with TEAMSTaR: Tool for Evaluating And Mitigating Space Team Risk		43.003	80NSSC21K0925 P00008	415,590	—
CREWS: Crew Recommender for Effective Work in Space		43.003	NNX15AM32G-000022	8,793	—
				443,348	—
Total National Aeronautics and Space Administration				3,977,089	452,162
National Science Foundation:					
EFRI C3 SoRo: An integrated approach towards computational design, fabrication and understanding of bio-hybrid soft architectures capable of adaptive behavior	237	47.041	093088-175159//EFMA-1830881-03	1,213	—
Engineering Research Center for Innovative and Strategic Transformation of Alkane Resources – CISTAR	161	47.041	10001437-044 AMD 9 // 1647722-EEC	555,207	—
EFRI CEE: Engineered Retinal Epigenomics	263	47.041	132226948 AMD No. 2//EFMA-1933394	305,882	—
Novel force sensors for in vivo live animal applications	228	47.041	1562737 01//CBET 2029559	45,535	—
DMREF: Collaborative Research: A Data-Centric Approach for Accelerating the Design of Future Nanostructured Polymers and Composites Systems	66	47.041	333-2389 AMD 5//1818574	93,974	—
RAISE--EQUIP: Single--Chip, Wall--Plug Photon Pair Source and CMOS Quantum Systems on Chip	26	47.041	4500002864//ECCS-1842692	4,521	—
RoL: RAISE: DESYN-C3: A platform for Modular Pseudo-Organelles for Compartmentalization and Control of Pseudo-Cell Processes		47.041	4CBET-1844336	140,500	—
NRI: INT: Co-Robot Controllers for Human-Like Physical Interaction and Improved Motor Learning	165	47.041	8913 cc 82089//2024488	112,224	—
EFRI C3 SoRo: Strong Soft Robots--Multiscale Burrowing & Inverse Design	250	47.041	A007037602 AMD 1 // EFMA-1830950	3,991	—
Multi-functional, scalable graphene-based protective coatings for high energy density lithium-ion cathodes	286	47.041	AGMT 2-25-22//IIP-2036267	141,721	—
Scalable Manufacturing of Supramolecular Polymers for Regenerative Medicine	14	47.041	AGMT 4/22/22//IIP-2151711	14,813	—
Oleophilic Hydrophobic Multifunctional (OHM) Sponge: An Environmental Remediation Platform	132	47.041	Agmt 8-29-22//TI-2151578	76,961	—
SNM: Scalable Nanomanufacturing of Graphene-based Real-time Water Sensors through Customized Inkjet Printing	226	47.041	AWD101315 (SUB00000317)//2039268	(2,573)	—
FMRG: Manufacturing Advanced Electronics through Printing Using Bio-based and Locally Identified Chemicals (MADE-PUBLIC)	226	47.041	AWD101466 (SUB00000407)-2//2037026	478,075	—
PIPP Phase I: Robust Epidemic Surveillance and Modeling (RESUME)	226	47.041	AWD103196 (SUB00000703)//2200234	46,893	—
Collaborative Research: DMREF: GOAL: Discovering Materials for CO2 Capture in the Presence of Water via Integrated Experiment, Modeling, and Theory		47.041	CBET 2119433	335,182	—
Spectroscopic photon localization microscopy for super-resolution molecular imaging		47.041	CBET-1706642 001	254	—
GOAL: Advanced biomanufacturing with inducible feedback promoters		47.041	CBET-1803747	15,108	—
GOAL: Charge Interactions in Transport of Mixed Solutes in Nanofiltration Membranes		47.041	CBET-1840816-001	92,747	—
COVID-19: Convergence: RAISE: Systems Approaches for Vulnerability Evaluation and Urban Resilience (SAVEUR)		47.041	CBET-1848683	16,469	16,469
Convergence: RAISE: Systems Approaches for Vulnerability Evaluation and Urban Resilience (SAVEUR)		47.041	CBET-1848683	(11,764)	—
Convergence: RAISE: Systems Approaches for Vulnerability Evaluation and Urban Resilience (SAVEUR)		47.041	CBET-1848683	3,046	3,046
Collaborative Research: Towards a Generalized Microkinetic Description of Lignin Liquefaction		47.041	CBET-1926412	(124)	—
GOAL: Flow driven segregation at the particle level		47.041	CBET-1929265	115,719	—
Collaborative Research: Cell-free glycoprotein synthesis technology for point-of-care vaccine biomanufacturing		47.041	CBET-1936789-001	61,154	—
Structural Health Monitoring of Biofilms for Sustainable Reactive Nitrogen Management		47.041	CBET-1937290	24,665	—
Elucidating and Computing Metabolic Networks for Co-Valorization of Cellulose and Lignin Derivatives		47.041	CBET-2022854	232,317	—
ECO-CBET: Collaborative Research: Towards a Circular Nitrogen Bioeconomy: Tandem Bio- and Chemocatalysis for Sustainable Nitrogen Recovery and Nitrous Oxide Mitigation		47.041	CBET-2033793	273,420	—
CAREER: Metabolomics-Enabled Approaches to Advance Characterization of Organic Matter Trapping in Natural and Engineered Matrices		47.041	CBET-2041669	49,328	—
CAREER: Redefining 'antimicrobial' in the context of microbe-chemical interactions indoors		47.041	CBET-2043156 -003	121,134	—
Collaborative Research: Engineering MS2 Capsid Assembly Using Systematic Fitness Landscapes		47.041	CBET-2043973	79,371	7,512
CAREER: Design Rules for Electrical Transport in Suspensions of Conductive Particles		47.041	CBET-2047365	61,783	—
Electrohydrodynamic interactions of drops		47.041	CBET-2126498	39,111	—
CAREER: Probing and Controlling Acidic Electrocatalytic Oxidation Mechanisms and Catalyst Degradation Processes		47.041	CBET-2144365 001	66,923	—
Addressing Rigor and Reproducibility in Heterogeneous, Thermal Catalysis		47.041	CBET-2152559	(49)	—
GOAL: Fine Particle De-Mixing in Granular Flows		47.041	CBET-2203703	137,199	—
CAREER: Assessing Air Quality Co-Benefits and Tradeoffs of Sustainable Climate Solutions		47.041	CBET-2239834	22,725	—
Conference Travel: CECAM Flagship Workshop, Lausanne, Switzerland		47.041	CBET-2317140	5,000	—
CONFERENCE: micro Flow and Interfacial Phenomena (µFIP)		47.041	CBET-2326060	13,100	—
Strong and Multifunctional Geopolymer Composites: A Multi-Scale Study		47.041	CMMI 1829101 002	(12,587)	—
LEAP-HI: Catalyzing Resilient Urban Infrastructure Systems: Integrating the Natural and Built Environments		47.041	CMMI 1854827 004	528,584	350,360

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CAREER: The mechanics of subsurface urban heat islands		47.041	CMMI 2046586	\$ 141,704	—
Collaborative Research: AI-Driven Multi-Scale Design of Materials under Processing Constraints		47.041	CMMI 2053929	133,351	—
EAGER: Collaborative Research: An Autonomous Modular Vehicle Technology-based Multifaceted Mobility Service Paradigm – A Proof-of-Concept Study		47.041	CMMI 2127678	98,515	—
Dynamic Matching Problems with Application to Kidney Allocation		47.041	CMMI 2137286	312,454	245,404
Exploiting Network Structure in Routing Problems: Applications to School Bus Routing		47.041	CMMI-1727744-002	(235)	—
Data-driven multiscale damage and failure prediction		47.041	CMMI-1762035-001	(1)	—
Equitable and Efficient Scarce Resource Allocation using Stochastic Fractional Optimization		47.041	CMMI-1763035	32,460	—
Collaborative Research: GOALI: Modeling and optimizing patient-flow dynamics in hospitals and hospital networks		47.041	CMMI-1763100	(127)	—
Decision-Flow Queueing Networks for Analysis of Knowledge-Based Service Operations Systems		47.041	CMMI-1826353	(1,375)	—
CAREER: Modeling Soil-Machine Interaction for Advances in Civil Construction and Terrestrial Robotics		47.041	CMMI-1846817	132,404	—
CAREER: Transformative mobility analysis: Mixed Methods framework		47.041	CMMI-1847537	122,652	—
Convergence: RAISE: Auto-regulatory Scaffolds for Directed Evolution of Non-living Functional Materials		47.041	CMMI-1848613	2,308	—
Asset Allocation: A Statistical Learning Approach		47.041	CMMI-1916616	33,792	—
Multi Scale Multi Material Printing of 3D Bead Arrays via Self Focused Electrohydrodynamic Jets		47.041	CMMI-1934350	97,741	—
Manipulating Nanoparticle-Modified Melt Pool Dynamics in Additive Manufacturing		47.041	CMMI-1934367-005	178,610	—
An Atomistic Experimental Investigation of Fracture in Transitional Metal Dichalcogenides		47.041	CMMI-1953806	76,282	—
Collaborative Research: A Hierarchical Multidimensional Network-based Approach for Multi-Competitor Product Design		47.041	CMMI-2005661-0001	156,823	—
Service Systems with Dependencies: Theory and Applications		47.041	CMMI-2006350	41,070	—
Freeze-Cast Manufacturing of Stable Iron-Alloy Foams for Energy Conversion and Storage		47.041	CMMI-2015641	144,432	—
NRI: INT: Robotic Shepherding for Flow Control in Uncertain Dynamic Environments		47.041	CMMI-2024774	330,330	—
Photonic Moiré Nanostructures for Scalable Fabrication of Quantum Structures		47.041	CMMI-2028773	101,984	—
New Kind of Experiment and Theory to Determine the Effect of Crack-Parallel Stresses on Fracture of Concrete and Similar Materials		47.041	CMMI-2029641 001	113,056	—
Linking Matrix Composition with Spatially Resolved Mechanical Properties in Polymicrobial Biofilms		47.041	CMMI-2100447	57,200	—
Micro-Casting of Titanium Alloys in Self-boiling Molds		47.041	CMMI-2132252	147,691	—
Policy-Robust Processing Networks: Characterization and Design		47.041	CMMI-2139566	251,844	225,338
CAREER: Catastrophic Rare Events: Theory of Heavy Tails and Applications		47.041	CMMI-2146530	164,097	—
Cusatis NSF Rotator Appointment		47.041	CMMI-2148861-006	319,859	—
Collaborative Research: Inference on expensive, grey-box simulation models		47.041	CMMI-2206973	41,786	—
Toward an integrative approach to machine learning for traffic management		47.041	CMMI-2225087	99,875	—
BRITE Fellow: AI Enabled Discovery and Design of Programmable Material Systems		47.041	CMMI-2227641	1,360	—
Travel Support for Dynamic Traffic Assignment Conference (DTA 2023); Evanston, Illinois; 10-12 July 2023		47.041	CMMI-2330274	15,145	—
Collaborative Research: Designing Polymer Grafted-Nanoparticle Melts through a Hierarchical Computational Approach		47.041	DMR-2226081	22,125	—
NNCI: Soft and Hybrid Nanotechnology Experimental (SHyNE) Resource		47.041	ECCS 2025633 AMD 004	1,255,976	444,385
CAREER: Principled Deep Reinforcement Learning for Societal Systems		47.041	ECCS 2048075	70,506	—
NCS-FO: How Ecology Induces Cognition: Paleontology, Machine Learning, and Neuroscience		47.041	ECCS-1835389	51,533	—
CPS: Medium: Information based Control of Cyber-Physical Systems operating in uncertain environments		47.041	ECCS-1837515	84,207	—
Anti-ferromagnetic Electric-field-controlled Memory Devices		47.041	ECCS-1853879	45,133	—
NSF-BSF: CCSS: Resistance Tomography with 2D Sensor Membranes		47.041	ECCS-1912694-001	78,414	—
BioNet: a distributed network of bioelectronic devices for closed-loop control of physiological processes		47.041	ECCS-2023849	422,761	109,239
Collaborative Research: SWIFT: LARGE: Dynamics and Security Aware Predictive Spectrum Sharing with Active and Passive Users		47.041	ECCS-2030251	167,171	—
Room temperature high-power terahertz semiconductor laser with high-quality beam shape and stable spectral emission		47.041	ECCS-2149908-003	169,220	—
Spintronic Spectrum Analyzer and Limiter based on Tunable Magnetic Tunnel Junction Arrays		47.041	ECCS-2203242	13,093	—
Scalable Three Terminal Memory Devices based on Silicon-Compatible Antiferromagnetic Materials		47.041	ECCS-2203243	14,020	—
REU SITE: RESEARCH EXPERIENCE FOR UNDERGRADUATES IN NANOSCALE SCIENCE AND ENGINEERING PROPOSAL		47.041	EEC-1757618	(23,653)	—
RET Site: Collaborative Research: Research Experiences for Teachers across the National Nanotechnology Coordinated Infrastructure		47.041	EEC-1953437	32,080	—
EFRI CEE: Macro-genomic engineering via modulation of chromatin nancoenvironment		47.041	EFMA-1830961-006	614,063	43,596
EFRI-CEE: Epigenetic Cell Reprogramming In Situ: A Novel Tool for Regenerative Engineering		47.041	EFMA-1830968-008	209,023	—
EFRI CEE: Epigenetic Regulation Over Multiple Length Scales: Understanding Chromatin Modifications Through Label Free Imaging and Multi-Scale Modeling	226	47.041	FP068540-01-PR AMD 3//1830969	99,602	—
Partnership for development of high-performance magnetic memory technology		47.041	IIP-1919109	175,645	69,541
Collaborative Research: FW-HTF-R: Toward an Ecosystem of Artificial-intelligence-powered Music Production (TEAMuP)		47.041	IIS-2222369	70,860	—
NSF Engineering Research Center for Hybrid Autonomous Manufacturing Moving Evolution to Revolution (HAMMER)	150	47.041	SPC-1000006997 GR128751//2133630	226,503	—
Collaborative Research: FW-HTF-R: Toward an Ecosystem of Artificial-intelligence-powered Music Production (TEAMuP)	260	47.041	SUB00000521/URFAO:GR533249//2222129	61,114	—
Integrating Human and Machine Learning for Enabling Co-Adaptive Body-Machine Interfaces	165	47.041	Subaward 9531//2054406	63,585	—
				11,558,820	1,514,890
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	246	47.049	17-009589 D Amd. 3/AST-1636621	79,040	—
PREM: UTA/NU Partnership for Functional Materials	266	47.049	2021GC0406//2122128	22,826	—
SII-Center: SpectrumX – The National Center for Spectrum Innovation	255	47.049	204303NU AMND 4//2132700	368,841	—
U.S. CMS Operations at the Large Hadron Collider	252	47.049	25-0521-0244-009//PHY-2121686	13,592	—
Center for the Chemistry of Molecularly Optimized Networks	66	47.049	333-2440// CHE-1832256	(3,774)	—
CCI Phase I: NSF Center for Synthesizing Coherence	66	47.049	333-2555//CHE-1925690	(571)	—
NSF Center for Molecularly Optimized Networks	66	47.049	333-2766//CHE-2116298-001	433,889	—
CCI Phase I: Center for Sustainable Separations of Metals	258	47.049	577550//1925708	22,801	—
U.S. CMS Upgrades for the High-Luminosity Large Hadron Collider	56	47.049	79433-20666-06//PHY-1946735	146,700	—
Center for Sustainable Polymers	250	47.049	A008060101//CHE-1901635 Amd.3	150,297	—
Center for Sustainable Polymers	250	47.049	A008060102-03//CHE-1901635	94,741	—
NSF Center for Sustainable Polymers: Quantitative framework for cost and sustainability evaluation of emerging sustainable polymers	250	47.049	A008060113 AMD2//CHE-1901635	104,700	—
Student Observing Support Program	20	47.049	Agmt 3/17/21//AST-1519126	525	—
Accretion and Star Formation Induced by the Galactic Center Supermassive Black Hole Sgr A*		47.049	AST-1517246 002	(1)	—
CAREER: The Physics of Stellar Feedback and Star Formation Regulation in Galaxies		47.049	AST-1652522	168,729	—
WoU-MMA, Collaborative Research: Searches After Gravitational Waves Using Arizona's Observatories		47.049	AST-1909358	(83)	—
WoU-MMA: Luminous Supermassive Black Hole Accretion Systems as High-Energy Neutrino Factories		47.049	AST-2009884	163,036	—
CAREER: Navigating the Environments of the Universe's Fastest Transients		47.049	AST-2047919 AMD 000	241,947	—
A Self-Consistent Bayesian Investigation of Star Cluster Binary Populations		47.049	AST-2107738	179,056	—
Collaborative Research: CDS&E: Constraining the uncertain physics of galaxy formation: cosmic rays, black holes, and beyond		47.049	AST-2108230	5,111	—
Gravitational Wave Sources from Dense Star Clusters		47.049	AST-2108624	79,827	—
REU Site: Preparing a Diverse Workforce through Interdisciplinary Astrophysics Research		47.049	AST-2149425	127,637	—
Collaborative Research: Tidal Disruption of Stars by Massive Black Holes		47.049	AST-2206471	25,825	—
Materials Research and Science Engineering Center – Renewal 02	226	47.049	AWD101244 (SUB00000356)-3//2011854	151,349	—
ACME III: Advanced Cold Molecule Electron Electric Dipole Moment Search	226	47.049	AWD102289 (SUB00000527)//2136573	35,548	—

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Conference: Active Matter and Complex Media		47.049	CBET-2227695	\$ 14,997	—
Collaborative Research: Electronic Coherence Effects in Multichromophore Systems Probed by Two-Dimensional Electronic Spectroscopy		47.049	CHE 1955806	119,855	—
New Lewis Bases for Chemical Catalysis		47.049	CHE-1665141	14,820	—
Voltage-dependent interfacial structure and properties of room temperature ionic liquids: operando X-ray studies		47.049	CHE-1665255	540	—
Allosterically Regulated Supramolecular Capsules and Receptors Assembled via the WLA		47.049	CHE-1709888-001	(8,559)	—
Correlative Tools for in Situ Analysis of Single Nanoparticles and their Ligands		47.049	CHE-1808502	137,165	—
Transient Physicochemical Properties of Nanomaterials		47.049	CHE-1808590	47,276	—
CAREER: Photocontrolled Dynamic Covalent Crosslinkers for Light-Responsive Polymer Networks		47.049	CHE-1847948 003	198,210	—
Synthetic, Mechanistic, and Catalytic Studies of Electrophilic d- and f-Element Complexes		47.049	CHE-1856619 001	180,844	—
Hyperpolarized Multi-Spin Systems as Qubits for Quantum Information Science		47.049	CHE-1900422	(532)	—
Studying the Processes of Assembly and Stimuli-Responsive Morphological Transformations in Solvated Macromolecular Nano-Assemblies		47.049	CHE-1905270	(20,332)	—
Studying the Processes of Assembly and Stimuli-Responsive Morphological Transformations in Solvated Macromolecular Nano-Assemblies		47.049	CHE-1905270	58,161	58,161
Collaborative Research: Isotopologue Synthesis and Use for Elucidating Important Chemical Mechanisms of Organic Condensation Reactions in Atmospheric Particles		47.049	CHE-2003359	119,741	—
Donor-acceptor energy transfer involving classical and quantum light in the presence of photonic and plasmonic structures		47.049	CHE-2055565	132,447	—
Spatial Organization of Ions in Supramolecular Nanostructures		47.049	CHE-2102662	340,564	—
Quantum control of nanochemistry		47.049	CHE-2108612	99,002	—
CAS-MNP: Molecular Probing Surface Reactivity Dynamics of Native versus Photo-Oxidized Microplastics and Nanoplastics in Environmental Aqueous Media		47.049	CHE-2109097	15,243	—
EAGER: ADAPT: Optimizing chemical reaction networks with AI		47.049	CHE-2141385	167,592	—
CAREER: Investigating Strong Electron-Phonon Interactions in Semiconducting Crystals Using Reciprocal-Space Quantum-Classical Modeling		47.049	CHE-2145433	48,171	—
Electrostatics and Structure at Electrode:Electrolyte Interfaces from Nonlinear Optics		47.049	CHE-2153191	192,774	—
Photogenerated Multi-Spin Systems as Qubits for Quantum Information Science		47.049	CHE-2154627-001	240,510	—
Catalytic Synthesis for Saturated Heterocycles		47.049	CHE-2154820	176,146	—
CCI Phase I: NSF Center for Chemoenzymatic Synthesis		47.049	CHE-2221346	398,084	153,618
Atom-Efficient Heteroatom Transformations Mediated by f-Element and d(0) Catalysts		47.049	CHE-2247666	1,660	—
Nanoscale Coronas: Surface Chemistry and Reactivity on Particle Scaffolds		47.049	CHE-2305039	8,234	—
Ink-based additive manufacturing of high-entropy alloys from oxide and hydride powders		47.049	DMR 2004769	127,699	—
MRSEC: Center for Multifunctional Materials		47.049	DMR-1720139-007	2,569,086	77,487
DMREF: Collaborative Research: Synthesis, Characterization, and Modeling of Complex Amorphous Semiconductors for Future Device Applications		47.049	DMR-1729016	(10,351)	—
DMREF: Collaborative Research: Synthesis, Characterization, and Modeling of Complex Amorphous Semiconductors for Future Device Applications		47.049	DMR-1729016	104,365	104,365
DMREF: Collaborative Research: Accelerating Thermoelectric Materials Discovery via Dopability Predictions		47.049	DMR-1729487-001	68,979	—
CAREER: Understanding the Role of Structure on Ionic/Electronic Properties in Polymeric Mixed Conductors		47.049	DMR-1751308-004	56,015	—
JUAMI (Joint Undertaking for Africa Materials Institute)		47.049	DMR-1756245	919	—
Collaborative Research: Predictive theory, synthesis and characterization of a new type of transparent conductor without doping		47.049	DMR-1806912	685	—
EAGER: Enabling Quantum Leap: Driven Non-Equilibrium Room Temperature Quantum States		47.049	DMR-1838507	(509)	(509)
Engineering New Anisotropic Superfluid Phases of 3He		47.049	DMR-1903053-003	66,718	—
Symmetry Breaking in Non-Hermitian Plasmonic Lattices		47.049	DMR-1904385-001	63,145	—
Solid-State Oxides and Oxide-Fluorides		47.049	DMR-1904701 003	193,021	—
Manipulation of Hole-pinned Vortices: Classical and Quantum		47.049	DMR-1905742-003	88,650	—
Total Tomography of Nonplanar Heterostructures for Quantum Information Processing		47.049	DMR-1905768	16,779	—
Bioengineering Single Crystal Growth		47.049	DMR-1905982-002	148,133	—
Optical Spin Orientation and Transport in Layered Mono- and Di-chalcogenide Semiconductors		47.049	DMR-1905986	68,636	—
GOAL: "Collaborative Research: An Experimental and Theoretical Study of the Microstructural and Electrochemical Stability of Solid Oxide Cells"		47.049	DMR-1912530/002	126,817	—
GOAL: Investigation of Cyclic Failure in Aluminosilicate Nanocomposites		47.049	DMR-1928702 001	116,762	—
Unconventional Heteroanion Ceramics: 2D Layered Seleno- and Thio-Phosphates		47.049	DMR-1929356	35,283	—
CAREER: Visualizing single-chain conformation and dynamics of bottlebrush polymers in the bulkstate		47.049	DMR-1945249-002 & 003	93,565	—
Collaborative Research: Optical Transitions in Metallic Nanoclusters at High Pressure		47.049	DMR-2002891	35,851	—
Synthesis of Complex and Advanced Chalcogenide Materials		47.049	DMR-2003476	229,501	—
Quantum Coherence Effects on Charge Generation in Organic Semiconductors		47.049	DMR-2003739	76,812	—
Collaborative Research: Impact of a colloidal suspension droplet: Suspension flows at extreme shear rates		47.049	DMR-2004176 002	88,862	—
Probing Fundamental Magneto-Electronic Properties of Two-Dimensional Metal Halides		47.049	DMR-2004420	109,050	—
Ions at aqueous interfaces: X-ray fluorescence and scattering studies		47.049	DMR-2004557-001	113,524	—
Peptide Brush Polymers: Theory and Synthesis for Functional Design		47.049	DMR-2004899	65,560	—
Motile Colloids with Tunable Random Walk: Individual Dynamics and Collective Behavior*		47.049	DMR-2004926	252,802	—
Structure and Function of Heteroanionic Materials		47.049	DMR-2011208 002	138,484	—
Joint Undertaking for an African Materials Institute (JUAMI)		47.049	DMR-2023698	202,760	—
COVID-19: RAPID: Regenerable Antiviral Nanoporous Materials for Protection		47.049	DMR-2029270	(1)	—
Protein Crystallization Programmed with DNA		47.049	DMR-2104353	130,151	—
Collaborative Research: Design and Demonstration of Persistent Spin Textures in Ferroelectric Oxide Thin Film		47.049	DMR-2104397	60,080	—
Role of Organic Matrix Molecules in the Formation of Very High Magnesium Calcite		47.049	DMR-2104759-001	59,806	—
NSF-BSF Influences of cohesion enhancing elements, impurities and hydrogen or deuterium at grain boundaries and heterophase interfaces on embrittlement (ductilization) of steels		47.049	DMR-2105362	107,859	—
Collaborative Research: DMREF: Accelerated Data-Driven Discovery of Ion-Conducting Material		47.049	DMR-2118839	100,203	—
Collaborative Research: DMREF: GOAL: High-Affinity Supramolecular Peptide Materials for Selective Capture and Recovery of Proteins		47.049	DMR-2119686	202,634	—
Characterizing and Exploiting the Remarkable Surface Redox Chemistry of Ceria and Its Derivatives		47.049	DMR-2130831	150,441	—
CAREER: Hybrid membranes as platforms for biomolecule detection, synthesis, and transport		47.049	DMR-2145050-001	132,660	—
Designer Photonic Lattices and Multilayer Structures that support Bound Optical Modes and Electrically-driven Excitation		47.049	DMR-2207215	87,277	—
Collaborative Research: Metal-Organic Nanotubes as Tunable Porous Fibers		47.049	DMR-2207269-001	158,828	—
Collaborative Research: Compositional and Atomic-Scale Ordering Effects on Aqueous Passivation of Binary BCC and FCC Alloys		47.049	DMR-2208865	85,744	—
Quantum Coherent Applications of Superfluid 3He		47.049	DMR-2210112 002	199,291	—
N-Doping of Organic Semiconductor Materials		47.049	DMR-2223922	19,160	—
Probing topological effects in multiterminal Josephson junction devices		47.049	DMR-2303536	52,002	—
Defining Reaction Paths for Chalcogenide Materials Discovery		47.049	DMR-2305731	13,639	—
CAS: Reprocessable Thermosets for High Performance Composites		47.049	DMR-2308601	10,244	—
Northwestern University Materials Research Science and Engineering Center		47.049	DMR-2308691	8,322	—
Hybrid Bonding Polymers		47.049	DMR-2310178	43,550	—
Collaborative Research: Gel rupture under simple and dynamic loading: manipulation of failure mode via patterned heterogeneity in soft materials		47.049	DMR-2311698	9,405	—
K-Stability, Moduli Spaces and Singularities		47.049	DMS 2148266 001	3,729	—
Analysis on Manifolds		47.049	DMS-1502632-005	15,578	—
RTG: Interdisciplinary Training in Quantitative Biological Modeling		47.049	DMS-1547394-004	283,251	—
CAREER: Complexity of Disordered Systems		47.049	DMS-1653552 004	22,232	—
A Sheaf-Theoretic Approach to M5-Brane Geometry		47.049	DMS-1708503	7,513	—

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Midwest Probability Colloquium 2017-2019		47.049	DMS-1744209-001	\$ 7,520	—
Midwest Topology Seminar		47.049	DMS-1747457	4,782	—
Northwestern University Quantitative Biology Center (NUQuB)		47.049	DMS-1764421-004	542,408	—
Moduli of Galois representations and applications		47.049	DMS-1802037-002	15,176	—
Singularities and Smoothness in Geometric Partial Differential Equations		47.049	DMS-1809011	(197)	—
Global Harmonic Analysis		47.049	DMS-1810747-002	28,156	—
Collaborative Research: Factorization Homology, Deformation Theory, and Duality		47.049	DMS-1812057-002	38,823	—
CAREER: An Integrated Inferential Framework for Big Data Research and Education		47.049	DMS-1841569/002	3,739	—
Collaborative Research: Adaptive Gaussian Markov Random Fields for Large-scale Discrete Optimization via Simulation		47.049	DMS-1854562	9,523	—
Problems in combinatorics and number theory via ergodic theoretic methods		47.049	DMS-1901453	18,369	—
Word distributions in groups		47.049	DMS-1902041	76,704	—
The 41st Stochastic Processes and Applications (SPA 2019)		47.049	DMS-1906251	16,329	—
Causeway Postbaccalaureate Program		47.049	DMS-1916410	191,202	—
FRG: Collaborative Research: Geometric Structures in the p-adic Langlands Program		47.049	DMS-1952678 AMD002	42,132	—
Collaborative Research: Variational inference approach to computer model calibration, uncertainty quantification, scalability, and robustness		47.049	DMS-1952897	4,925	—
Inducing and exploiting grid structures for fast, adaptive and accurate estimation		47.049	DMS-1953111	19,392	—
Nonlinear Partial Differential Equations and Geometry		47.049	DMS-2005311	59,809	—
Zero-Order and Stochastic Methods for Large-Scale Optimization		47.049	DMS-2011494	22,782	—
Novel Decomposition and Active-Set Techniques Enabling Scalable Computational Frameworks for Large-Scale Nonlinear Optimization Problems		47.049	DMS-2012410	60,483	—
Collaborative Research: High-Dimensional Decision Making and Inference with Applications to Personalized Medicine		47.049	DMS-2015568 003	19,392	—
CAREER: Rigidity of Group Actions on Manifolds		47.049	DMS-2020013 003	95,865	—
Linear Partial Differential Equations on Singular Spaces		47.049	DMS-2054424	95,716	—
Combinatorial and Algebraic Structures in Dynamics		47.049	DMS-2054643	76,188	—
Cyclotomic Spectra and p-Divisible Groups		47.049	DMS-2102010	125,392	—
Moduli Problems and Applications of Constructible Sheaves		47.049	DMS-2104087-001	108,281	—
Fractal Fourier Extension Estimates		47.049	DMS-2107729	3,516	—
Nonlinear dynamics of colloidal rotors: chaos and order		47.049	DMS-2108502	118,125	—
CAREER: Higher Brauer Groups and Topological Azumaya Algebras		47.049	DMS-2120005	(7,996)	—
RTG: Dynamics: Classical, Modern and Quantum		47.049	DMS-2136217	270,632	—
REU Site: Quantitative Biology REU (QBREU) at Northwestern University		47.049	DMS-2150134	103,342	—
FRG: Collaborative Research: Higher Categorical Structures in Algebraic Geometry		47.049	DMS-2152235	23,193	—
Spin Glasses and Other Models of Disordered Media		47.049	DMS-2154076	48,608	—
Collaborative Research: AMPS: Robust Failure Probability Minimization for Grid Operational Planning with Non-Gaussian Uncertainties		47.049	DMS-2229410	55,042	—
Workshops in Spectral Methods in Algebra, Geometry, and Topology		47.049	DMS-2230159	24,757	—
Dynamics of Lattice and Mean-Field Spin Systems		47.049	DMS-2246780	42,000	—
Quantized Lagrangian Submanifolds of Moduli Spaces and Representation Theory		47.049	DMS-2302624	55,662	—
Singularities of Minimal Hypersurfaces and Lagrangian Mean Curvature Flow		47.049	DMS-2306233	61,537	—
Abelian Varieties, Hecke Orbits, and Specialization		47.049	DMS-2337467	60,480	—
Institute for Data, Econometrics, Algorithms and Learning (IDEAL)		47.049	ECCS-2216970-001	349,764	—
The SuperCDMS at SNOLAB Operations Program		47.049	G002109-7500//2209186	84,878	—
Collaborative Research: A Mechanical Atlas for Embryogenesis at Single-Cell Resolution	185	47.049	MCB-2204237	52,866	—
Collaborative Research: Disciplinary Improvements: Creating a FAIROS Materials Research Coordination Network (MaRCN) in the Materials Research Data Alliance		47.049	OAC-2226417	34,514	—
Photochemical Strategies to Activate Far-Red Fluorescence with Green Light	248	47.049	OS00000274//CHE-1954430	29,715	—
Telecom-Band Rotational Cooling of a Heavy Molecular Ion		47.049	PHY - 1806861 002	67,479	—
Collaborative Research: Axion Resonant InterAction Detection Experiment (ARIADNE) – a renewal proposal		47.049	PHY 2111544	184,826	—
Collaborative Research: The SuperCDMS SNOLAB Experiment		47.049	PHY-1809730-003	20,958	—
Gravitational-Wave Inference from Binary Compact Objects		47.049	PHY-1912648	(1)	—
Collaborative Research: Uncovering how riboswitches exploit out-of-equilibrium RNA folding pathways to make genetic decisions		47.049	PHY-1914567 002	114,853	—
Measuring gravity at the micron-scale with laser-cooled trapped microspheres: a renewal proposal		47.049	PHY-2110524	144,843	—
PM: Electron and Positron Magnetic Moments from a Quantum Cyclotron		47.049	PHY-2110565	180,821	—
Collaborative Research: The SuperCDMS at SNOLAB Science Program		47.049	PHY-2111324 001	77,515	—
Data Acquisition and Analysis for the MUonE Pilot Run		47.049	PHY-2111556-01	174,872	—
PM: Doped Inert Single Crystals for Probing Beyond the Standard Model		47.049	PHY-2207819	38,438	—
Gravitational-Wave Data Analysis and Population Inference		47.049	PHY-2207945	222,720	—
Q-Array Deployment and Science Analysis for the Ricochet Experiment		47.049	PHY-2209585	405,403	31,910
Collaborative Research NSF-ANR: Mechanisms of terminal erythroid enucleation		47.049	PHY-2210369	96,889	—
Universal Aspects of Quantum Entanglement in Higher Dimensional Disordered Quantum Magnets		47.049	PHY-2310706	28,842	—
The CSUF-led partnership for inclusion of underrepresented groups in gravitational-wave astronomy	34	47.049	S-7859_Northwestern//AST-2219109	4,022	—
Student Observing Support for Joseph Michail	20	47.049	SOSPADA-026//AST-1519126	9,931	—
NRAO Student Observing Support for Nycole Wenner in Archival Studies of Star Formation in the Galactic Center Molecular Ring	20	47.049	SOSPADA-027//AST-1519126	4,965	—
CCI Phase I: NSF Center for Quantum Electrodynamics for Selective Transformations (QuEST)	260	47.049	SUB00000131AM1//UR FAO GR531225	124,871	—
Center for Integration of Modern Optoelectronic Materials on Demand (IMOD)	274	47.049	UWSC12982-1//2019444	85,354	—
				17,586,529	425,032
Network Cluster CINET: Critical Interface Network in Intensively Managed Landscapes	237	47.050	101348-18067//EAR-2012850	75,024	—
NSFGEO-NERC: Collaborative Research: Developing a new Lower Cretaceous time scale: Foundation for the next generation of paleoceanographic		47.050	1951835 EAR-002	35,657	—
CAREER: triple-isotope approach to unraveling subsurface food webs		47.050	EAR 2042249	123,234	—
Collaborative Research: Evolution of Subsurface Microbe-Rock-Fluid Systems		47.050	EAR 2120912	75,618	—
Superdeep Diamonds from the Transition Zone and Lower Mantle		47.050	EAR-1853521	67,499	—
Collaborative Research: Dry Rifting In the Albertine-Rhino graben (DRIAR), Uganda		47.050	EAR-2021721-001	59,164	—
Effect of Pore Pressure Rate on Rate and State Frictional Slip In Experiments		47.050	EAR-2120374	63,952	—
NERC-NSFGEO SMARTWATER: Diagnosing controls of pollution hot spots and hot moments and their impact on catchment water quality		47.050	EAR-2331932	580	—
PREVENTS Track 2: Collaborative Research: Defining precursors of ground failure: a multiscale framework for early landslide prediction through geomechanics and remote sensing		47.050	ICER-1854951	154,357	—
GP-IN: Graduate soft skills development through mentoring pre-university students through diverse geoscience		47.050	ICER-2023263	43,134	—
Focused CoPe: Strengthening Resilience of Manoomin, the Sentinel Species of the Great Lakes, with Data-Science Supported Seventh Generation Stewardship		47.050	RISE-2209226	96,509	36,917
				794,728	36,917
Expeditions: Mind in Vitro – Computing with Living Neurons	237	47.070	108555-18951-01//IIS-2123781-002	138,429	—
Computing Innovation Fellows 2021 Project	54	47.070	2021 CIF-Northwestern-10//2127309	129,276	—
Computing Innovation Fellows 2021 Project – Fumeng Yang	54	47.070	2021CIF-Northwestern-45//2127309	130,958	—

NORTHWESTERN UNIVERSITY

Supplementary Schedule of Expenditures of Federal Awards

Year ended August 31, 2023

Cluster title/federal grantor/subagency/project title	Pass-through entity	Assistance listing number	Sponsor award number	Federal expenditures	Subrecipient expenditures
HDR Institute: Institute for Data Driven Dynamical Design	51	47.070	402052_5805-002/2118201	\$ 108,226	—
CRI: CI-SUSTAIN: Racket on Alternative Platforms	144	47.070	502648-780501/CNS-1823244	(632)	—
CAREER: Robot Learning from Motor-Impaired Instructors and Task Partners	165	47.070	81454 Amd 7/IIIS-1552706	65,291	—
AitF: Collaborative Research: Algorithms for Probabilistic Inference in the Real World		47.070	CCF-1637585	(2,058)	—
CAREER: Beyond Worst-Case Analysis: New Approaches in Approximation Algorithms and Machine Learning		47.070	CCF-1652491 004	194,182	—
Collaborative Research: TRIPODS Institute for Optimization and Learning		47.070	CCF-1740735	99,603	—
CAREER: SOISTICe: Software Synthesis with Timing Contracts for Cyber-Physical Systems		47.070	CCF-1834701 002	93,955	—
CAREER: Design and Synthesis of Energy-efficient Time-domain Computing for Intelligent Edge Processing		47.070	CCF-1846424-002	86,622	—
SHF: Small: The Compiler-Architecture Solution to the Data Dependent, Circuit-Level Critical-Paths Variations		47.070	CCF-1908488	184,096	—
CIF: Small: Wireless Massive Access: From Fundamental Limits to Practical Design		47.070	CCF-1910168	40,947	—
HDR TRIPODS: Collaborative Research: Institute for Data, Econometrics, Algorithms and Learning .		47.070	CCF-1934931/001	270,464	—
Collaborative Research: AF: Medium: Design and Analysis of Models and Algorithms for Real-life Problems		47.070	CCF-1955351 003	180,621	—
Collaborative Research: CIF: Small: Convexification-based Decomposition Methods for Large-Scale Inference in Graphical Models		47.070	CCF-2007814	58,347	—
Collaborative Research: CIF: Small: A Unified Framework of Distributional Optimization via Variational Transport		47.070	CCF-2008827	39,363	—
SHF: Small: Development of Differentiable Memory Augmented Neural CPU Architecture for Cognitive Computing		47.070	CCF-2008906	180,180	—
Collaborative Research: PPOSS: Planning: Unifying Software and Hardware to Achieve Performant and Scalable Zero-cost Parallelism in the Heterogeneous Future		47.070	CCF-2028851-002	37,297	—
Collaborative Research: FET: Medium: Neuroplane: Scalable Deep Learning through Gate-tunable MoS2 Crossbars		47.070	CCF-2106964-001 & 002	136,609	—
Collaborative Research: PPOSS: Planning: A Disciplined Approach to Scaling in the Post-Moore's Law Era		47.070	CCF-2118708	70,011	—
Collaborative Research: PPOSS: LARGE: Unifying Software and Hardware to Achieve Performant and Scalable Frictionless Parallelism in the Heterogeneous Future		47.070	CCF-2119069 002	205,204	—
Small: New Directions in Community Detection		47.070	CCF-2154100	76,722	—
SHF: Small: A Chip of "Happiness": Device-to-System Developments of Affective Computing for Human-in-the-loop Computer System		47.070	CCF-2208573	25,952	—
Collaborative Research: CIF: Medium: Learning to Control from Data: from Theory to Practice		47.070	CCF-2211210	10,846	—
AF: Small: Mechanism Design for the Classroom		47.070	CCF-2229162	135,086	—
CAREER: The Rational Programmer, An Investigative Method for Programming Language Pragmatics		47.070	CCF-2237984	29,840	—
Collaborative Research: SHF: Medium: Verifying Deep Neural Networks with Spintronic Probabilistic Computers		47.070	CCF-2311296	11,520	—
Interface-Aware Intelligence for Robot Teleoperation and Autonomy		47.070	CMMI-2208011	221,532	131,476
SCC-IRG Track 1: Strengthening Resilience of Ojibwe Nations Across Generations (STRONG)		47.070	CMMI-2233912	25,492	—
SaTC: CORE: Small: Efficient Logic Encryptions for Hardware IP Protection		47.070	CNS 2113704	121,014	—
CSR: Medium: Collaborative Research: Interweaving the Parallel Software/Hardware Stack		47.070	CNS-1763743 005	73,835	—
NeTS: Small: Incentivizing Internet-Scale Web Mining with Webcoin		47.070	CNS-1810582	206,543	—
CSR: Small: Development of Distributed Neural Processing Electronics for Whole-body Computing and Biomedical Sensor Fusion		47.070	CNS-1816870	97,694	—
Computer Science for All: Researcher Practitioner Partnerships Workshops (CS for All: RPP), Chicago and Los Angeles		47.070	CNS-1821362	532	—
SCC: I4all (interests for all): A smart socio-technical infrastructure to identify, cultivate, and sustain youth STEAM interests in a diverse midsized American city		47.070	CNS-1831685	(24,268)	—
CPS: Synergy: Securing the Timing of Cyber-Physical Systems		47.070	CNS-1839511	(127)	(127)
CAREER: Efficient Query Processing for Private Data Federations		47.070	CNS-1846447 003	94,265	—
CRII: CSR: Systems and Tooling Enabling Adaptive Intermittent Computing		47.070	CNS-1850496-002	(8,056)	—
CNS Core: Small: Collaborative Research: The Interplay of Markets and Security in 5G Shared Spectrum Services		47.070	CNS-1908807	14,809	—
DCL: SaTC: Early-Stage Interdisciplinary Collaboration: Privacy Enhancing Framework to Advance Behavior Models		47.070	CNS-1915847	17,459	—
Envisioning Workshops for Computing in Undergraduate Education		47.070	CNS-1944777	45,635	—
Collaborative Research: MLWINS: ANN for Interference Limited Wireless Networks		47.070	CNS-2003098	71,534	—
Collaborative Research: SaTC: CORE: Medium: Quicksilver: a Write-oriented, Private, Outsourced Database Management System		47.070	CNS-2016240	59,668	—
Collaborative Research: Chameleon: A Large Scale, Reconfigurable Experimental Environment for Cloud Research		47.070	CNS-2027173 002	87,158	—
COVID-19: RAPID: Internet Traffic and Compliance with Government Stay-at-Home Measures		47.070	CNS-2027922	7,456	—
CPS: Medium: Batteryless Sensors Enabling Smart Green Infrastructure		47.070	CNS-2038853	229,948	—
SCC-CIVIC-PG Track B: Strengthening Resilience of Ojibwe Nations across Generations (STRONG): Sovereignty, Food, Water, and Cultural (in)Security		47.070	CNS-2044053	2,944	—
CAREER: Designing for Learning at the Intersection of Sports, Analytics and Physical Computing		47.070	CNS-2047693-001	57,951	—
Collaborative Research: CNS Core: Medium: On the Criticality of the Submarine Cable Network		47.070	CNS-2107392-002	148,834	—
Collaborative Research: CNS Medium: Systems Foundations for Battery-free Body Area Intelligence and Sensing		47.070	CNS-2107400	43,944	—
SCC-PG: Improving healthcare access in marginalized communities through smart connected technologies		47.070	CNS-2125488	103,273	—
CAREER: Enabling Dynamic, Adaptive, and Reliable Battery-free Embedded Computing		47.070	CNS-2145584-001	299	—
RINGS: Accelerating the NextG Protocols Definition to Code Generation with an Automatic and Secure Verification-Compilation Tool-Chain		47.070	CNS-2148177 001	120,023	—
RINGS: Robust and Resilient Wireless Networks using Next Generation Spectrum		47.070	CNS-2148183 002	(1,023)	—
CNS Core: Medium: A Systems and User-based Approach to Floating Point Correctness and Resilience		47.070	CNS-2211315-001	53,374	—
Collaborative Research: CNS Core: Medium: The Privacy Backplane – A Full Stack Approach to Individualized Privacy Controls Throughout the Internet-of-Things		47.070	CNS-2211508	53,367	—
SaTC: CORE: Small: Collaborative: Towards Facilitating Kernel Vulnerability Reproduction by Fusing Crowd and Machine Generated Data		47.070	CNS-2221122	105,449	—
Collaborative Research: SaTC: CORE: Small: Towards Label Enrichment and Replenishment to Harden Learning-based Security Defenses		47.070	CNS-2225225	57,101	—
CAREER: Securing Deep Reinforcement Learning		47.070	CNS-2225234 002	107,406	—
CNS Core: Small: Enabling Streaming Analytics at the Network Edge		47.070	CNS-2226107	48,757	—
FMSG: Distributed Surface Patterning Through a Cohort of Robots		47.070	CNS-2229170	96,438	—
Collaborative Research: CNS Core: Small: Accelerating Serverless Cloud Network Performance.		47.070	CNS-2229454	72,818	—
CAREER: Pushing the Practicality of Secure Multiparty Computation		47.070	CNS-2236819	19,119	—
CHS: Small: Computer-supported Collective Deliberation for the Future of Work		47.070	IIS 2008450	115,814	—
NSF Cyberlearning: Context-Aware Metacognition Practice: Instrumenting Classroom Ecosystems to Help Introductory Computer Science Students Develop Effective Learning Strategies		47.070	IIS 2016900	100,139	—
Collaborative Research: HCC: Medium: TouchBots for Surface Haptics		47.070	IIS 2106191	225,944	—
HDR DSC: Collaborative Research: The Metropolitan Chicago Data Science Corps (MCDSC): Learning from Data to Support Communities		47.070	IIS 2123447-003	146,251	—
CAREER: Understanding and addressing geographic inequalities in location-aware technologies		47.070	IIS-1707296-003	34,174	—
EXP: Readily Available Learning Experiences: Turning the Entire Web into Scaffolded Examples to Bridge Conceptual Knowledge Gaps for Novice Web Developers		47.070	IIS-1735977	(10)	—
CHS: Small: Collaborative Research: Structured Data Peer Production: Addressing Challenges and Leveraging Opportunities		47.070	IIS-1815507/001	13,199	—
RI: Small: A Unified Compositional Model for Explainable Video-based Human Activity Parsing		47.070	IIS-1815561	83,269	—
Making Minecraft Multimodal: A Naturalistic Platform for Collaborative Learning and Creating		47.070	IIS-1822865-002	2,542	—
Collaborative Research: NCS-FO: Discovering dynamics in massive-scale neural datasets using machine learning		47.070	IIS-1835345	3,507	—
BIGDATA: IA: Collaborative Research: Asynchronous Distributed Machine Learning Framework for Multi-Site Collaborative Big Brain Data Mining		47.070	IIS-1837999	9,379	—
CAREER: Computational Journalism: Integrating Algorithms and People in the Production of News Information		47.070	IIS-1845460-006	164,823	—
CHS: Medium: Next Generation Content Production Tools for People with Vision Impairments		47.070	IIS-1901456-005	175,107	27,674
CHS: Medium: Collaborative Research: Empirically Validated Perceptual Tasks for Data Visualization		47.070	IIS-1901485	104,408	—
CHS: Small: Collaborative Research: Representing and Learning Visualization Design Knowledge		47.070	IIS-1907941	150,187	—
CHS: Small: Collaborative Research: Modeling the Ecological Dynamics of Online Organizations		47.070	IIS-1910202-002	53,354	—
CAREER: Enhancing Critical Reflection on Data by Integrating Users' Expectations in Visualization Interaction		47.070	IIS-1930642 /005	140,561	—
CAREER: Transforming Online Scholarly Communication with Networked Crowd Computation		47.070	IIS-1943506 003	37,319	—
Collaborative Research: RI: Medium: Living Architectures: From Army Ants to Self-Assembling Robot Swarms		47.070	IIS-1956019	22,034	—

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 Supplementary Schedule of Expenditures of Federal Awards
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Cluster title/federal grantor/subagency/project title	Pass-through entity	Assistance listing number	Sponsor award number	Federal expenditures	Subrecipient expenditures
RI: Small: Extracting and Representing Commonsense Knowledge Using Language Models		47.070	IIS-2006851	\$ 118,597	—
RI: Small: Visual Reasoning and Self-questioning for Explainable Visual Question Answering		47.070	IIS-2007613	180,427	—
Collaborative Research: NRI: FND: Flying Swarm for Safe Human Interaction in Unstructured Environments		47.070	IIS-2024615	112,831	—
CAREER: Towards Intelligent Learning Environments that Support the Practice of Programming		47.070	IIS-2045809	40,933	—
Collaborative Research: RI: Medium: Thermal Computational Imaging		47.070	IIS-2106786	56,308	—
Collaborative Research: HCC: Medium: Intelligent support for non-experts to navigate large information spaces		47.070	IIS-2107334	132,912	—
HCC: Medium: Visual Processing Capacity in Dynamic Data		47.070	IIS-2107490	82,703	—
Supporting Computational Literacy by Designing a Collaborative Platform at the Intersection of Music and Code		47.070	IIS-2119701	304,153	56,052
CHS: Small: Collaborative Research: Validating and Communicating Model-based Approaches for Data Visualization Ability Assessment		47.070	IIS-2120750-000	1,267	—
NCS-FO: The Biology and Technology of Online Planning		47.070	IIS-2123725	407,000	—
CHS: Small: Developing a Probabilistic Grammar of Graphics for Flexible Uncertainty Visualization		47.070	IIS-2126598	131,435	90,922
Collaborative Research:HCC:Small: Science communication in the ecosystem of digital media platforms		47.070	IIS-2133963	70,059	—
Collaborative Research: HCC: Designing Technologies for Marginalized Communities		47.070	IIS-2210844	6,776	—
HCC: Medium: Improving model-driven reasoning in data analysis by facilitating multiverse analyses		47.070	IIS-2211939	99,159	—
NRI: Shape-Based Remote Manipulation		47.070	IIS-2221571	84,770	—
CyberTraining: CIU: The LSST Data Science Fellowship Program		47.070	OAC-1829740	94,677	—
Collaborative Research: Framework: Data: HDR: Nanocomposites to Metamaterials: A Knowledge Graph Framework		47.070	OAC-1835782	175,130	—
Collaborative Research: Frameworks: Multiphase Fluid-Structure Interaction Software Infrastructure to Enable Applications in Medicine, Biology, and Engineering		47.070	OAC-1931372	40,808	—
Mid-scale RI-1 (M1:IP):SAGE: A Software-Defined Sensor Network		47.070	OAC-1935984 12	3,146,397	382,016
Multi-scale Modeling of Accretion and Jets in Active Galactic Nuclei		47.070	OAC-2031997	2,715	—
S&AS: INT: Autonomous Multi-Robot Visual Monitoring for Urban, Agricultural, and Natural Resource Management	221	47.070	S-001096//IIS-1724341	83,081	—
Expeditions: DISCOVER: Design and Integration of Superconducting Computation for Ventures beyond Exascale Realization	263	47.070	SCON-00003341 Amnd 1//CCF-2124453	35,573	—
Frameworks: Bayesian Analysis for Nuclei in Diverse Theories	151	47.070	UT21727 Amnd 2//OAC-2004601	580	—
				12,159,446	688,013
Quantifying the Prevalence and Phenotypic Consequences of Transcriptional Irreversibility in Bacteria	271	47.074	7GMO 230921 PO 0000002785//2206974	148,388	—
Collaborative Research: Hyaluronan, NRF2 and Protracted Female Fertility in Long-lived Naked Mole-Rats	56	47.074	91778-20440//IOS-2005919	12,462	—
REU Site: Synthetic Biology (SynBREU)		47.074	DBI-1757973	27,734	—
CSBR: Living Stocks – Enhancement of the Caenorhabditis Natural Diversity Resource		47.074	DBI-1930382	(34,615)	—
Collaborative Research: IIBR Instrumentation: The Nanosizer – A new tool for the preparation of arbitrary bioactive surfaces		47.074	DBI-2032180-002	183,823	—
Capacity: Biological Collections: Enhancement of the Caenorhabditis Natural Diversity Resource		47.074	DBI-2224885-001	69,696	—
EAGER: Integrating host-associated microbes into trait-based community ecology frameworks		47.074	DEB-1938302-001	17,838	—
Integrative Wildlife Nutrition: From Molecules and Microbes to Macro-Ecology		47.074	DEB-2217317	248,966	131,848
National Institute for Theory and Mathematics in Biology		47.074	DMS-2235451	135	—
Collaborative Research: MTM 1: Decoding the genomic rules of denitrification in bacterial communities		47.074	EF-2025521	32,955	—
URoL:EN: Towards a unified theory of regulatory functions and networks across biological and social systems		47.074	EF-2133863	122,721	—
Mechanisms of sensory control of developmental rate		47.074	IOS- 1755244	157,330	—
Reticulospinal Execution of Innate Decision-Making		47.074	IOS-1456830	(7,081)	—
The Vibrissotactile Natural Scene		47.074	IOS-1558068	(6,924)	—
CAREER: Discovery of the molecular mechanisms underlying microevolution of phenotypic plasticity in a developmental trait		47.074	IOS-1751035-003	126,367	—
CAREER: Mapping the proteomic landscape of neural systems.		47.074	IOS-1846234-004	46,261	—
Collaborative Research: EAGER: Customized cell biosensors for interrogating cancer cell physiology		47.074	MCB-1745753	(5,491)	—
Biophysical Studies of Metalloenzymes		47.074	MCB-1908587	114,010	—
Novel determinants of prokaryotic copper homeostasis		47.074	MCB-1938715	192,526	—
CAREER: Uncovering new rules of multicellular life using synthetic microbial communities		47.074	MCB-2239567	68,545	—
BI: New Roots for Restoration: Integrating plant traits, communities, and the soil ecosystem to advance restoration of natural and agricultural ecosystems	41	47.074	NU.SP0067132//2120153	61,507	—
NeuroNex: Communication, Coordination, and Control of Neuromechanical Systems (C3NS)	38	47.074	RES515698 // DBI-2015317	295,945	—
				1,873,098	131,848
Unpacking Compound Treatments in Email Audit Experiments, with an Application to Racial Discrimination in Access to Justice	176	47.075	00002905//SES-2217522	27,440	—
Diversity and Networking in Law School: Are Law Students from Diverse Backgrounds Disadvantaged?	218	47.075	2022-1652//SES-2147011 Amd 1	8,339	—
Doctoral Dissertation Research: Active assignment of quantifier scope guides language processing		47.075	BCS 2116989	1,707	—
The Development of Relational Processing in Infancy		47.075	BCS-1729720	(2,192)	—
Surviving the Terminal Classic Maya Collapse: Settlement and Household Archaeology at Aventura, Belize		47.075	BCS-1732129	35,168	—
NCS-FO: Collaborative Research: Understanding the neural basis for sensorimotor control loops using whisker-based robotic hardware platforms		47.075	BCS-1734981	32	—
Doctoral Dissertation Research: Ritual, Network Formation, and Governance among Displaced Communities		47.075	BCS-1851195	2,646	—
LEARNING, CREATIVE PROBLEM-SOLVING, REM SLEEP, AND AWARENESS OF DREAMING.		47.075	BCS-1921678-002	11,310	—
CAREER: Stereotypes of Teens and Adolescent Neuropsychological Development		47.075	BCS-1944644-002	80,290	—
Memory and context effects on representations of variation in phrasal intonation		47.075	BCS-1944773	65,666	—
Doctoral Dissertation Improvement Award: Urban Longevity and Social Inequality		47.075	BCS-1946385	7,239	—
Collaborative Research: The Chicagoland Language Project		47.075	BCS-2017716	65,123	—
COVID-19: RAPID: Generating knowledge with next phase serological testing for SARS-CoV-2		47.075	BCS-2035114	(1,821)	—
Collaborative Research: Using AI-enabled Smart Blocks to Understand and Support Spatial Reasoning and Learning		47.075	BCS-2040421	61,668	—
Doctoral Dissertation Research: The influence of the social environment on the infant skin microbiome		47.075	BCS-2041600	20,152	—
NSF-BSF: Linking theta with offline memory consolidation: A bridge from wake to sleep		47.075	BCS-2048681	251,410	97,159
From sensation to symptom: The social shaping of functional illness experience		47.075	BCS-2051512 AMD 2	82,693	—
Doctoral Dissertation Research: Role of Prior Knowledge in Consolidation of Novel Phonotactic Patterns for Speech Production		47.075	BCS-2116802	(1,099)	—
Doctoral Dissertation Research: High school choice and the social meanings of NCS reversal in Chicago		47.075	BCS-2116957	1,509	—
Doctoral Dissertation Research: The effects of experience and attitudes on heritage bilinguals' language processing		47.075	BCS-2141430	12,350	—
Collaborative Research: An archaeological examination of the cultural and ecological consequences of colonialism		47.075	BCS-2150876	6,467	—
Doctoral Dissertation Research: Intonational Cues in Emotional Contexts		47.075	BCS-2215338	6,695	—
Doctoral Dissertation Research: Food Security Under Colonial Rule at Transconquest Purun Llaqta del Maino, Peru		47.075	BCS-2219566	12,777	—
Doctoral Dissertation Research: Community Building with Local Mortuary Ceramics in Long-Distance Economies: A Compositional Study on Ancient Aksum (50-400 AD)		47.075	BCS-2227814	3,704	—
Collaborative Research: International Migration and Fertility: Towards a Multidimensional Understanding		47.075	SES 1918274	3,285	—
Tribal Constitutions: Constructing Power by Developing Structures of Self-Governance		47.075	SES 2044007	134,366	—
The Network Structure of Police Misconduct		47.075	SES 2049513-003	69,178	—
CAREER: Bridging the STEM Skills and Employment Gap for the Future of Work		47.075	SES 2239538 002	28,393	—
Fiduciary Duty, Financial Regulation, and the Market for Retirement Products		47.075	SES-1824463	49,366	—
Applications of Dynamic Information Design		47.075	SES-1851883	48,469	—
Collaborative Research: Evidence in Economic Models		47.075	SES-1919494	(8,360)	—

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Collaborative Research: Transparency and the Rule of Law: A Field Experiment in Ukraine		47.075	SES-1921294/002	\$ 27,876	—
Workshop: Human technology partnerships and the changing nature of work		47.075	SES-1940668 Amd 2	33,668	—
Monotone Methods in Reputations: Behavioral Predictions and Reputation Sustainability		47.075	SES-1947021	134,241	—
Collaborative Research: Time-Sharing Experiments for the Social Sciences (TESS): Proposal for Renewed Support, 2020-2023		47.075	SES-2017581-005	387,102	241,723
Understanding the Long-Run Effects of School Desegregation on Political and Social Preferences		47.075	SES-2018869	36,052	—
Collaborative Research: Social Norms, Trust and the Inter-generational Flow of Innovations in a Developing Country		47.075	SES-2019086	(7,777)	—
COVID-19: RAPID: Quantifying the Downstream Effects of COVID-19 Online Misinformation on Risk Perceptions, Decision-making, Policy Preferences, and Preventive Health Behaviors		47.075	SES-2031705	11,192	—
Doctoral Dissertation Research in Economics: The Heterogeneous Effects of Student Loans		47.075	SES-2049909	24,000	—
COVID-19: Surveying the Effect of COVID-19 on Trust		47.075	SES-2051194	31,516	—
COVID-19: The Next Normal for Teaming: Transitioning Out of COVID-19		47.075	SES-2052366	133,893	—
COVID-19: Collaborative Research: U.S. institutions after COVID-19: Trust, accountability, and public perceptions		47.075	SES-2116465	40,214	—
A Large-Scale Analysis of Mergers and Merger Simulations		47.075	SES-2116934	96,556	—
Career: Information, Algorithms, and Learning		47.075	SES-2145352	115,714	—
Collaborative Research: New Techniques for High-Dimensional and Incomplete Network Data		47.075	SES-2149422	68,846	—
HNDS-R – Collaborative Research: An Integrated Analysis of the COVID-19 Crisis on Labor Market Outcomes and Mortality		47.075	SES-2242472	26,880	—
Private Disclosures in Competing Mechanisms		47.075	SES-2315652	50,400	—
Safe Bets and Risky Propositions: Leveraging Rich Data to Understand Scientific Diversity, Impact, and Potential of Teams		47.075	SMA-1856090	152,431	—
Production, Migration, & Differentiation: Analyzing the Co-Evolution of Careers & Knowledge Production		47.075	SMA-1934313	120,949	—
SCISIPBIO: A data-science approach to evaluating the likelihood of fraud and error in published studies		47.075	SMA-1956338	(15)	—
Collaborative Research: Identifying Reproducible Research Using Human-in-the-loop Machine Learning		47.075	SMA-2022466	(144)	—
COVID-19: RAPID: Impact of the Covid-19 Pandemic on the Biomedical Research Workforce: Productivity and Progress in Academia		47.075	SMA-2035112 AMD 001	13,471	—
				<u>2,581,035</u>	<u>338,882</u>
Retrieval Practice Scaffolded Argumentation to Facilitate Problem Solving on Structured and Semi-Structured Tasks in Introductory Undergraduate Physics	161	47.076	10002112-005/DUE-2111138 001	27,831	—
Teachers and Students Synergistic Learning Through Youth Participatory Science	236	47.076	16774-03/DRL 1720856	15,036	—
Collaborative Research: Data in Space and Time: Supporting learners in understanding and analyzing spatiotemporal data	55	47.076	378.23.02/DUE-2201154	23,654	—
AGEP National Research Conference 2020: Sustaining, Institutionalizing and Scaling AGEP Alliance Models and Initiatives	26	47.076	4500002984/HRD-1841978	2,524	—
Collaborative Research: NSF INCLUDES Alliance: An Alliance to Develop an Inclusive and Diverse National Faculty for Broadening Success of Underrepresented 2-Year and 4-Year STEM Students	21	47.076	Agmt 5/16/19/HRD-1834518	65,471	—
Fostering AI Literacy through Embodied Interaction and Creativity across Informal Learning Spaces	85	47.076	AWD-003891-G 1/2214463	61,628	—
REU Site: Synthetic Biology at Northwestern: From Molecules to Society (SynBREU2.0)		47.076	DBI-2150269-001	152,065	—
Graduate Research Fellowship Program (GRFP)		47.076	DGE – 1842165-003	17,333	—
NRT-URoL: Synthesizing Biology Across Scales – A Convergent Synthetic Biology Training Program		47.076	DGE 2021900	592,002	—
Graduate Research Fellowship Program (GRFP)		47.076	DGE-2234667 AMD 1	4,463,876	—
Collaborative Research: Professional Learning to Support Teacher Customizations of 3D Science Curriculum Materials for Equitable Student Sensemaking		47.076	DRL 2101377 001	233,599	—
Synthesizing Research on Spatial Taxonomies		47.076	DRL 2135743	24,268	—
Collaborative Research: Adapting and Implementing a Geospatial High School Course in Career and Technical Education Clusters in Urban Settings		47.076	DRL-1759360	27,011	—
Collaborative Research: Next Generation Science Standards (NGSS) and Designing School System Educational Infrastructure to support Elementary School Science Instruction		47.076	DRL-1761057-002	259,603	—
Methods for assessing replication		47.076	DRL-1841075	221,152	—
“CT-ifying” the High-School Science Curriculum to Broaden Participation in Computational Science		47.076	DRL-1842374-001	191,325	—
Building theories of scientific phenomena: Comparing and Integrating aggregate pattern-based and agent-based computational approaches		47.076	DRL-1842375	175,714	33,273
Collaborative Research: Strategies: Building a Learning Ecology to Increase STEM Participation Among Middle School Girls		47.076	DRL-1850543	(1,010)	—
Collaborative Research: Making Space for Story-Based Tinkering to Scaffold Early Informal Engineering Learning		47.076	DRL-1906808	74,009	—
Collaborative Research: Investigating a Nested Mentoring Model Designed to Support STEM Skill and Identity Development for Middle School Youth, Scientist		47.076	DRL-1906971-004	137,423	28,976
Collaborative Research: Modern Meta-Analysis Research Institute		47.076	DRL-1937633	30,342	—
Improving Evaluations of R&D in STEM Education		47.076	DRL-1937719	156,223	—
An investigation of the impact of culture and experience on reasoning about complex ecological phenomena among students from diverse backgrounds		47.076	DRL-1946478	168,475	—
Computational Thinking and Physical Computing in Physical Education		47.076	DRL-2031467-001	453,162	—
Collaborative Research: Mastery in Out-of-School-Time (MOST): Documenting STEM Learning to Expand Educational Pathways		47.076	DRL-2115326	282,087	—
Collaborative Research: Leveraging the Power of Reflection ...		47.076	DRL-2115905	92,738	—
Collaborative Research: Intergenerational Learning, Deliberation, and Decision Making For Changing Lands and Waters		47.076	DRL-2115963	228,441	—
Collaborative Research: Learning in Places: PK-5+ Field Based Science Education Across Schools, Families, and Communities		47.076	DRL-2201253	260,493	80,402
Developing Methods for Neurally-Informed Curriculum Design Based on Long-term Outcomes from a Spatial STEM Classroom		47.076	DRL-2201307	26,768	—
Collaborative research: Analogy Training to Promote Science Learning		47.076	DRL-2201894 001	153,337	—
NSF-BSF-NCS-FO: Enhancing speech and deep learning research through holistic acoustic analysis		47.076	DRL-2219843	108,924	—
Collaborative Research: IUSE: EHR – Inclusive Learning and Teaching in Undergraduate STEM Instruction		47.076	DUE-1821684/003	228,552	23,238
Collaborative Research: AGEP Transformation Alliance: CIRTL AGEP – Improved Academic Climate for STEM Dissertators and Postdocs to Increase Interest in Faculty Careers		47.076	HRD-1647146-005	4,392	—
CAREER: Investigation of Undergraduate Learning Contexts Considering Ethical, Racial, and Disciplinary Identities of Students in Engineering and Computer Science		47.076	HRD-1855494-002	110,405	—
Ice Worlds: A Giant Screen Film and Outreach Project	88	47.076	IWNU1//DRL-2116070	65,731	—
Barry University Engaged STEM Scholars (ESS) Program	22	47.076	NSF-1930076 ESS-Sub 1//DUE-1930076	7,813	—
Facilitating Teacher Learning with Video Clips of Instruction in Science	78	47.076	R000002772//2000833 AMND NO. 1	566	—
CREST Partnership Supplement	200	47.076	S23-0901-Nu(505519)//1614745	4,280	—
Sound Travels: Research in Service to Practice	197	47.076	Terc Project #12961//2215101	29,904	—
Learning in Places: Field Based Science in Early Childhood Education	274	47.076	UWSC11018 Amd. #3//DRL-1720578 AM 004	(899)	—
Improving the STEM preparation of K-5 preservice teachers through a project-based, interdisciplinary approach	274	47.076	UWSC13096/DUE-2111261	66,200	—
				<u>9,242,448</u>	<u>165,889</u>
Seasonality of Abrupt Climate Change over Greenland: Direct Tests for the Younger Dryas and 8.2 ka event using Paleolimnology		47.078	OPP-2002515	130,522	—
Collaborative Research: Climate Change and Human Adaptation in Arctic-like Environments across the Pleistocene-Holocene Transition		47.078	OPP-2305723-001	17,089	—
				<u>147,611</u>	<u>—</u>
Collaborative Research: NSF-BSF: WoU-MMA: Crossing the Chasm: From Compact Object Mergers to Cosmic Fireworks		47.079	AST-2107839	66,225	—
PIRE: Computationally-Based Imaging of Structure in Materials (CuBISM)		47.079	OISE-1743748	412,428	—
				<u>478,653</u>	<u>—</u>
MRI: Development of Multi-Material Printing and Multi-Modal Sensing Capabilities for Directed Energy Deposition		47.083	CMMI-2216298	66,068	—
A1: Systemic Content Analysis of Litigation Events (SCALES) Open Knowledge Network to Enable Transparency and Access to Court Records		47.083	ITE-2033604 003	1,223,315	183,215
Collaborative Research: GCR: Accelerated Discovery of Synthetic Biological Materials		47.083	QIA-2219149	55,570	—
				<u>1,344,953</u>	<u>183,215</u>

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A National Network for Critical Technology Assessment: A First-Year Pilot	37	47.084	1123649-464363//2241237	\$ 150,000	—
Machine learning powered simulation of additive manufacturing for real-time design and process optimization	75	47.084	AGMT 11/23/22//TI-2151667	11,488	—
NSF Convergence Accelerator Track H: Mobility Independence through Accelerated Wheelchair Intelligence		47.084	ITE-2236354	246,132	—
				407,620	—
Total National Science Foundation				58,174,941	3,484,686
U.S. Agency for International Development:					
MOMENTUM 2C – ACCEL	89	98.001	115423.5116109//7200AA20CA00003	85,636	—
Comparing HIV Mucosal Targets in US and Kenyan Populations	105	98.001	7503// AID-OAA-A-16-00032	239,696	—
COVID-19: Impact of COVID-19 on Food Security	117	98.001	A00-1012-S002//7200AA18LA00003//AID-OAA-L-14-00006	23,283	—
Rule of Law Activity in Georgia	68	98.001	G-1977-22-100-3047-20//72011422CA00001	41,117	—
Total U.S. Agency for International Development				389,732	—
U.S. Intelligence Community					
Office of the Director of National Intelligence:					
Tailoring NIR/IR-Light Absorbing Conjugated Polymers for Mechanically and Environmentally Robust Electrochromic Devices	149	12.RD	Marks AGMT 9/21/22	6,787	—
Total U.S. Intelligence Community				6,787	—
Total Research and Development				678,446,269	104,068,730
Student Financial Assistance:					
Department of Education:					
Federal SEOG 2022-2023		84.007	P007A221246	2,186,241	—
Federal Work-Study Administrative Cost Allowance FY22		84.033		288,239	—
Federal Work-Study 2021-2022		84.033	P033A21146	602,975	—
Federal Work-Study 2022-2023		84.033	P033A221246	2,667,925	—
Federal Work-Study 2023-2024		84.033	P033A231246	27,071	—
				3,586,210	—
Federal Perkins Loans – Outstanding as of 9/1/22		84.038		8,171,877	—
Federal Pell Grant 2021-2022		84.063	P063P211371	(887)	—
Federal Pell Grant 2022-2023		84.063	P063P221371	9,403,383	—
				9,402,496	—
Federal Direct Loan Program 2021-2022		84.268	P268K221371	14,448	—
Federal Direct Loan Program 2022-2023		84.268	P268K231371	193,582,362	—
Federal Direct Loan Program 2023-2024		84.268	P268K241371	5,266,079	—
				198,862,889	—
Health Professionals Student and Primary Care – Outstanding as of 9/1/22		93.342		133,783	—
Total Department of Education				222,343,496	—
Total Student Financial Assistance				222,343,496	—
N/A:					
Corporation for National and Community Service:					
Jumpstart Northwestern	115	94.006	27102302022	74,797	—
Total Corporation for National and Community Service				74,797	—
Department of Education:					
COVID-19: Student Aid Portion for Public and Nonprofit Institutions-Northwestern University		84.425E	P425E205897	(198,000)	—
Total Department of Education				(198,000)	—
Department of Health and Human Services:					
Administration for Community Living:					
Age Friendly Chicago – Alzheimer's Disease Program Initiative	42	93.470	Invoice 2/26/21	28,661	—
Centers for Disease Control and Prevention:					
State Unintentional Drug Overdose Reporting 2023	100	93.136	33382002K	1,249,072	94,776
Advancing Surveillance of Violent Deaths Using the National Violent Death Reporting System (NVDRS)		93.136	5 NU17CE010141-02-00	456,201	—
Collecting Violent Death Information Using National Violent Death Reporting System (NVDRS): Illinois		93.136	6 NU17CE010031-02-02	11,870	8,728
Overdose Data to Action, Strategy 2: Statewide Unintentional Drug Overdose Reporting System	100	93.136	AGMT 23282003J-A1//NU17CE924980	128,487	30,433
				1,845,630	133,937
Surveillance of antimicrobial-resistant Gram negative bacteria and fungi in a Pakistan health care system		93.318	5 NU3HCK000007-03-00	456,479	270,643
CDPH Wastewater Surveillance 2-Year Demonstration Project	236	93.323	18840//6 NU0CK000556-02-03	125,254	—
Implementation of Core Elements of Antimicrobial Stewardship in Outpatient Settings	100	93.323	32680009K-1	132,287	—
COVID-19: Project No. 90: Evaluation of Shelter-Based Services Teams	43	93.323	6 NU0CK000556-02-03 // TOR# 51549-41-TSK-00009 – P	14,455	—
				271,996	—
CSTE Injury Data Science	57	93.421	7618//5NU38OT000297	(3,238)	—
COVID-19: COVID-19 Electronic Health Data Initiative	195	93.421	Agmt# 03/07/21//NU38OT000316-03-02	3,595	—
				357	—
Improving the Health of Illinoisans Through Chronic Disease Prevention (ENRICH)	100	93.426	33286008K//5NU58DP006511-05-00	48,308	—
Illinois Cancer Alliance to Reduce mortality and Enhance Screening (CARES)	226	93.800	AWD101193 (SUB00000357)//5NU58DP006764-03-00-amd2	16,092	—
Center for the Evaluation of the Chicago HIV Services Portfolio	43	93.940	51549 TOR 666//NU62PS924560-01-00	192,717	24,587

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Integrated HIV Surveillance and Demonstration 2022	43	93.940	98537//NU62PS5924560	\$ 422,449	358,000
Evaluation of Chicago's Community HIV Services Portfolio	43	93.940	Agreement No. 51549 TOR 668	87,676	6,704
				<u>702,842</u>	<u>389,291</u>
Working together to reduce disparities and improve outcomes for all birthing people and newborns across Illinois		93.946	1 NU58DP007250-02-00	231,237	84,378
Illinois Perinatal Quality Collaborative Working Together for Healthier Moms and Babies in Illinois		93.946	5 NU58DP006360-05-00	206,090	115,777
COVID-19: ILPQC CDC (FY) 2021 COVID-19 Supplemental funds		93.946	5 NU58DP006360-05-00	65,243	30,901
CDC Supplement: ILPQC MNO Initiative additional support for provider education and safe discharge planning		93.946	6NU58DP006360-03-01	11,387	6,668
				<u>513,957</u>	<u>237,724</u>
Centers for Medicare & Medicaid Services: Medicaid 1115 SUD Waiver Evaluation Project (Federal Portion)	292	93.RD	18-489-NU-2//BMS220000011	28,649	—
Health Resources and Services Administration: I PROMOTE ILLINOIS (Innovations to ImPROve Maternal Outcomes in Illinois)	236	93.110	17747//5U7AMC33720-03-00 AMD 02	37,644	15,405
ACOG Alliance for Innovation on Maternal Health ("AIM")	9	93.110	Agmt 02/06/2020//UC4MC28042	8,411	—
				<u>46,055</u>	<u>15,405</u>
Evaluation of HIV Services Portfolio	43	93.686	51549 TOR 666//6UT8HA33950-02-01	14,985	—
Quality Management of HIV Prevention Services in Chicago	43	93.686	TO 700 HSRA//5 UT8HA33950-03-00	32,313	—
				<u>47,298</u>	<u>—</u>
Home Visiting Research and Development Platform	114	93.870	2005590860//UD5MC30792	63,199	—
Mothers and Babies Training and Technical Assistance	99	93.870	FCSBV04131	47,980	—
				<u>111,179</u>	<u>—</u>
Evaluation of HIV Services Portfolio	43	93.914	51549 TOR 666 // H89HA00008	87,559	—
Quality Management of HIV Prevention Services in Chicago	43	93.914	51549 TOR 700//H89HA00008	318,050	60,610
				<u>405,609</u>	<u>60,610</u>
Illinois Perinatal Quality Collaborative (ILPQC) Title V Federal	100	93.994	36380001 K	283,556	180,147
National Institutes of Health: Zenodo and the Generalist Repository Ecosystem Initiative (GREI)		93.RD	30T2DB000013-01S1	97,593	—
Office of the Assistant Secretary for Health: Increasing Minority Participation and Awareness in Clinical Trials+ (IMPACT+)	122	93.137	8130-300-2551-50 Amnd 2//1CPIMP211305	27,687	—
The Deep South Lupus Health Equity Project (DS-LHEP)	213	93.137	A21-0567-S001-A01-1//5CPIMP211309-02-00	2,019	—
Training to Increase Minority Enrollment in Lupus Clinical Trials with Community Engagement (TIMELY)	10	93.137	Agmt 10-11-2022//5CPIMP211307-02-00	10,382	—
				<u>40,088</u>	<u>—</u>
Substance Abuse and Mental Health Services: Addiction Technology Transfer Center of New England	31	93.243	00002166//6UR1TI080209-05S1	80,977	—
Center for Child Trauma Assessment, Services and Interventions		93.243	5U79SM080018-05	3,923	—
				<u>84,900</u>	<u>—</u>
Total Department of Health and Human Services				<u>4,906,046</u>	<u>1,287,757</u>
Department of Homeland Security: Federal Emergency Management Agency (FEMA) Public Assistance Grant Agreement	101	97.036	4489DR-IL//031-U5JYM-00	1,280,096	—
Total Department of Homeland Security				<u>1,280,096</u>	<u>—</u>
Department of State: Mandela Washington Fellowship for Young African Leaders – Leadership Institute	106	19.009	FY22-YALI-BE-NWU-08//S-ECAGD-21-CA-3082	2,119	—
Total Department of State				<u>2,119</u>	<u>—</u>
Department of the Treasury: Training and Technical Support to ICJIA Violence Prevention & Intervention Grantees	98	21.027	#822037//SLFRP4406	526,418	—
COVID-19: Surveillance of Pathogens in Sewage in Oklahoma City in 2022	256	21.027	2022-63 // Agr signed 03/01/2022	14,662	—
Total Department of the Treasury				<u>541,080</u>	<u>—</u>
National Aeronautics and Space Administration: NASA Langley Research Center	15	43.RD	RFQ T3-0687-FY22: T1-21-01685 Independent Technical Assessment of NASA and External Quantum Sensing Capability	30,423	—
Total National Aeronautics and Space Administration				<u>30,423</u>	<u>—</u>
National Foundation of the Arts and Humanities: National Endowment for the Arts: A Site of Struggle: Making Meaning of Anti-Black Violence in American Art and Visual Culture		45.024	1865835-44-21	41,902	—
Dario Robleto: The Aorta of an Archivist		45.024	1895248-44-22	30,000	—
				<u>71,902</u>	<u>—</u>
National Endowment for the Humanities: Augmenting Polarized Light Microscopy with Computational Imaging and Deep Learning for Cultural Heritage		45.149	PR-284405-22	20,681	—
Constructing African Medical Heritage: Legacies of Empire and the Geopolitics of Culture, 1890-1990		45.161	RZ-271304-20	30,804	—
The People Who Created "America's City" (New York 1770-1800)		45.164	MD-290203-23	8,072	—
Total National Foundation of the Arts and Humanities				<u>131,459</u>	<u>—</u>

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U.S. Agency for International Development:					
Agency for International Development:					
Promoting Rule of Law in Georgia	68	98.001	AID-114-A-15-00004	\$ 4	—
Between Failure and Redemption: A Convening of Scholars on the Future of the Ethiopian Social Contract	64	98.RD	8001 FAA-2022-ETH064	50,000	—
Total U.S. Agency for International Development				50,004	—
Total N/A				50,004	—
CCDF Cluster:					
Department of Health and Human Services:					
Administration for Children and Families:					
Competition or Cooperation? The Effect of School-Based Prekindergarten Roll-Out during COVID-19 on CCDF-Funded and Head Start Programs in Chicago		93.575	90YE0273-01-00	97,064	—
Total Department of Health and Human Services				97,064	—
Total CCDF Cluster				97,064	—
Health Center Program Cluster:					
Department of Health and Human Services:					
Health Resources and Services Administration:					
AllianceChicago Research: Health Services Research Scientist	7	93.527	Agmt 2-27-2023//1H2QCS33120-01-00	46,805	—
Optimizing Virtual Care for Underserved Populations	74	93.527	Q8VCS45437-01-00-NU//6 Q8VCS45437-01-01	109,338	—
Total Department of Health and Human Services				156,143	—
Total Health Center Program Cluster				156,143	—
Highway Planning and Construction Cluster:					
Department of Transportation:					
Illinois, a Leader in Mobility 4.0 and Beyond	237	20.205	087795-18408//1775200501	22,391	—
Advancing Air Mobility in Illinois	237	20.205	087795-18586 Mod No. 01//1775200501	103,346	—
Total Department of Transportation				125,737	—
Total Highway Planning and Construction Cluster				125,737	—
Grand Total				\$ 908,109,936	105,356,487

See accompanying notes to schedule of expenditures of federal awards.

NORTHWESTERN UNIVERSITY

Supplementary Schedule of Expenditures of Federal Awards

Legend for Pass-Through Award Prime Recipients

Year ended August 31, 2023

Sponsor full name	Pass-through ID Number
Adaptive Health, Inc.	1
Advanced Technology International	2
Aerojet Rocketdyne, Inc.	3
Albert Einstein College of Medicine	4
Alliance for Clinical Trials in Oncology	5
Alliance for Sustainable Energy, LLC, National Renewable Energy Laboratory	6
AllianceChicago	7
Altarum Institute	8
American College of Obstetricians and Gynecologists	9
American College of Rheumatology	10
American Foundry Society Inc.	11
American Institutes for Research	12
American Lung Association	13
Amphix Bio, Inc.	14
Analytical Mechanics Associates, Inc.	15
Angiotensin Therapeutics, Inc.	16
Ann & Robert H. Lurie Children's Hospital	17
Aplexis, Inc.	18
Arizona State University	19
Associated Universities, Inc., National Radio Astronomy Observatory	20
Association of Public and Land-grant Universities	21
Barry University	22
Baylor College of Medicine	23
Benaroya Research Institute at Virginia	24
Boston Medical Center	25
Boston University	26
Brigham and Women's Hospital	27
BrightOutcome Inc.	28
Broad Institute, Inc.	29
Brookhaven Science Associates, LLC, Brookhaven National Laboratory	30
Brown University	31
Buck Institute for Research on Aging	32
California Institute of Technology	33
California State University, Fullerton	34
CanCure LLC	35
Cardialen, Inc.	36
Carnegie Mellon University	37
Case Western Reserve University	38
Cedars-Sinai Medical Center	39
Cerner Government Services, Inc.	40
Chicago Botanic Garden	41
Chicago Department of Family and Support Services	42
Chicago Department of Public Health	43
Children's Hospital of Philadelphia	44
Children's Research Institute	45
Cincinnati Children's Hospital Medical Center	46
CJE SeniorLife	47
Clarix Imaging Corporation	48
Cleveland Clinic Lerner College of Medicine of Case Western Reserve University	49
Cleveland State University	50
Colorado School of Mines	51
Colorado State University	52
Columbia University	53
Computing Research Association, Inc.	54
Concord Consortium	55
Cornell University	56

NORTHWESTERN UNIVERSITY

Supplementary Schedule of Expenditures of Federal Awards

Legend for Pass-Through Award Prime Recipients

Year ended August 31, 2023

Sponsor full name	Pass-through ID Number
Council of State and Territorial Epidemiologists	57
Critical Path Institute	58
Dana-Farber Cancer Institute	59
Dartmouth College	60
Defined Biosciences, Inc.	61
Delaware State University	62
DePaul University	63
Dexis Interactive Incorporated	64
Drexel University	65
Duke University	66
Durametrix LLC	67
East-West Management Institute Inc.	68
ECOG-ACRIN Medical Research Foundation, Inc.	69
Elorac, Inc.	70
Emory University	71
Envisagenics, Inc.	72
Epicore Biosystems, Inc.	73
Erie Family Health Center	74
ExLattice, Inc.	75
Fermi Research Alliance, LLC, Fermi National Acceleratory Laboratory	76
Florida International University	77
Florida State University	78
Fred Hutchinson Cancer Research Center	79
General Electric Company	80
General Motors Holdings LLC	81
George Mason University	82
George Washington University	83
Georgetown University	84
Georgia Institute of Technology	85
Georgia State University	86
Great Lakes Hemophilia Foundation	87
GSF Ice World, LLC	88
Harvard University	89
Hastings Center Inc.	90
Health Research, Incorporated	91
Hektoen Institute for Medical Research	92
Helios-NRG, LLC	93
Hennepin Healthcare Research Institute	94
Henry M. Jackson Foundation for the Advancement of Military Medicine	95
Icahn School of Medicine at Mount Sinai	96
ICON Clinical Research, LLC	97
Illinois Criminal Justice Information Authority	98
Illinois Department of Human Services	99
Illinois Department of Public Health	100
Illinois Emergency Management Agency	101
ImmunoChem Therapeutics, LLC	102
Indiana University	103
Inspiration At Work Inc	104
International AIDS Vaccine Initiative	105
International Research & Exchanges Board	106
Iowa State University	107
Iowa State University, Ames Laboratory	108
J. Craig Venter Institute	109
Jackson Laboratory	110
Jackson State University	111
Jaeb Center for Health Research	112
Joan and Sanford I. Weill Medical College of Cornell University	113

NORTHWESTERN UNIVERSITY

Supplementary Schedule of Expenditures of Federal Awards

Legend for Pass-Through Award Prime Recipients

Year ended August 31, 2023

Sponsor full name	Pass-through ID Number
Johns Hopkins University	114
Jumpstart for Young Children, Inc.	115
Kaiser Foundation Research Institute	116
Kansas State University	117
Kent County Memorial Hospital	118
Lehigh University	119
Liv Labs, Inc.	120
Louisiana State University Health Sciences Center Shreveport	121
Lupus Foundation of America, Inc.	122
Marquette University	123
Massachusetts General Hospital	124
Massachusetts Institute of Technology	125
Mayo Clinic	126
Mayo Clinic Jacksonville	127
Medical College of Wisconsin	128
Medical Science & Computing, LLC	129
Medical University of South Carolina	130
Metis Foundation (TX)	131
MFNS Tech, Inc.	132
Michelin North America, Inc.	133
Michigan State University	134
Midwestern University	135
Monell Chemical Senses Center	136
Nadi LLC	137
National Institute of Aerospace	138
National Technology and Engineering Solutions of Sandia, LLC	139
Neurodon LLC	140
NeuroKine Therapeutics, LLC	141
New York University School of Medicine	142
NexTech Materials, Ltd.	143
Northeastern University	144
Northern Arizona University	145
Northern California Institute for Research and Education	146
NorthShore University HealthSystem	147
Nour, LLC	148
Oak Ridge Institute for Science and Education	149
Ohio State University	150
Ohio University	151
Oregon Health & Science University	152
Oregon Research Institute	153
Pacific Northwest National Laboratory	154
Partnership to End Addiction	155
Pennsylvania State University	156
Pennsylvania State University Applied Research Laboratory	157
Photonwares Corporation	158
Princeton University	159
Public Health Institute	160
Purdue University	161
QuesTek Innovations LLC	162
Radiation Monitoring Devices, Inc.	163
RAND Corporation	164
Rehabilitation Institute of Chicago	165

NORTHWESTERN UNIVERSITY

Supplementary Schedule of Expenditures of Federal Awards

Legend for Pass-Through Award Prime Recipients

Year ended August 31, 2023

Sponsor full name	Pass-through ID Number
Research Corporation	166
Research Foundation for Mental Hygiene, Inc.	167
Research Institute at Nationwide Children's Hospital	168
Research Triangle Institute	169
Rhythm Therapeutics, Inc.	170
Rice University	171
RNET Technologies, Inc.	172
Rockefeller University	173
Rosalind Franklin University of Medicine and Science	174
Rush University Medical Center	175
Rutgers University, the State University of New Jersey	176
San Diego Biomedical Research Institute	177
San Diego State University Foundation	178
Sanford Burnham Prebys Medical Discovery Institute	179
Scripps Research Institute	180
Seattle Children's Hospital	181
Shepherd Center Inc.	182
Smithsonian Astrophysical Observatory	183
Social & Scientific Systems, Inc.	184
Southern Methodist University	185
Space Telescope Science Institute	186
Stanford University	187
Stanford University, SLAC National Accelerator Laboratory	188
State University of New York at Buffalo	189
State University of New York at Stony Brook	190
Stealth Software Technologies, Inc.	191
Stevens Institute of Technology	192
Sustainable Manufacturing Innovation Alliance Corp.	193
Sutter Bay Hospitals	194
Task Force for Global Health, Inc.	195
Temple University	196
TERC, Inc.	197
Texas A&M Engineering Experiment Station	198
Texas A&M University	199
Texas A&M University Kingsville	200
Texas Biomedical Research Institute	201
Thomas Jefferson University	202
Triad National Security, LLC, Los Alamos National Laboratory	203
Triton Systems, Inc.	204
Tufts Medical Center, Inc.	205
Tufts University	206
Tulane University	207
UChicago Argonne, LLC, Argonne National Laboratory	208
UES, Inc.	209
UI Labs	210
University Health Network (Toronto)	211

NORTHWESTERN UNIVERSITY

Supplementary Schedule of Expenditures of Federal Awards

Legend for Pass-Through Award Prime Recipients

Year ended August 31, 2023

Sponsor full name	Pass-through ID Number
University of Abuja	212
University of Alabama	213
University of Alabama at Birmingham	214
University of Arizona	215
University of Botswana	216
University of California, Davis	217
University of California, Irvine	218
University of California, Lawrence Berkeley National Laboratory	219
University of California, Los Angeles	220
University of California, Riverside	221
University of California, San Diego	222
University of California, San Francisco	223
University of California, Santa Barbara	224
University of Central Florida	225
University of Chicago	226
University of Cincinnati	227
University of Colorado	228
University of Colorado Denver	229
University of Connecticut	230
University of Connecticut Health Center	231
University of Delaware	232
University of Florida	233
University of Georgia	234
University of Ibadan	235
University of Illinois at Chicago	236
University of Illinois at Urbana-Champaign	237
University of Iowa	238
University of Jos	239
University of Kansas Medical Center Research Institute, Inc.	240
University of Kentucky	241
University of Lagos	242
University of Louisiana at Lafayette	243
University of Maryland, Baltimore	244
University of Maryland, College Park	245
University of Massachusetts Amherst	246
University of Massachusetts Medical School	247
University of Miami	248
University of Michigan	249
University of Minnesota	250
University of Nebraska at Omaha	251
University of Nebraska-Lincoln	252
University of North Carolina at Chapel Hill	253
University of North Texas Health Science Center at Fort Worth	254
University of Notre Dame	255

NORTHWESTERN UNIVERSITY

Supplementary Schedule of Expenditures of Federal Awards

Legend for Pass-Through Award Prime Recipients

Year ended August 31, 2023

Sponsor full name	Pass-through ID Number
University of Oklahoma	256
University of Oregon	257
University of Pennsylvania	258
University of Pittsburgh	259
University of Rochester	260
University of South Carolina	261
University of South Florida – Tampa	262
University of Southern California	263
University of Tennessee	264
University of Tennessee Health Science Center	265
University of Texas at Arlington	266
University of Texas at Austin	267
University of Texas at Dallas	268
University of Texas Health Science Center at Houston	269
University of Texas M. D. Anderson Cancer Center	270
University of Texas Southwestern Medical Center at Dallas	271
University of Utah	272
University of Virginia	273
University of Washington	274
University of Wisconsin-Madison	275
University of Wisconsin-Milwaukee	276
UT-Battelle, LLC, Oak Ridge National Laboratory	277
Van Andel Research Institute	278
Vanderbilt University	279
Vanderbilt University Medical Center	280
Vibrent Health	281
Villanova University	282
Virginia Commonwealth University	283
Virginia Department for Aging and Rehabilitative Services	284
Virscio, Inc.	285
Volexion, Inc.	286
Wake Forest University Health Sciences	287
Washington University in St. Louis	288
Water Research Foundation	289
Wayne State University	290
Wearifi, Inc.	291
West Virginia University	292
WestEd	293
Wisconsin Department of Transportation	294
Women & Infants Hospital of Rhode Island	295
Yale University	296

NORTHWESTERN UNIVERSITY

Notes to Supplementary Schedule of Expenditures of Federal Awards

Year ended August 31, 2023

(1) Organization and Scope of Operations

Northwestern University (the University) is a not-for-profit 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. The U.S. Department of Health and Human Services has been designated as the University's cognizant agency.

(2) Summary of Significant Accounting Policies

Basis of Accounting – The accompanying supplementary 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, 2023. Since the Schedule presents only a selected portion of the operations of the University, it is not intended to, and does not, present the consolidated financial position, changes in net assets, or cash flows 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 Assistance Listing (AL) numbers and pass-through numbers are provided on the Schedule when available.

Indirect Costs – The University has negotiated indirect cost rates with the U.S. Department of Health and Human Services. The University does not use the 10% de minimis indirect cost rate described in 2 CFR 200.414 of the Uniform Guidance.

Expenditure and Revenue Recognition – The Schedule presents the expenditures of individual programs on the accrual basis of accounting. All program outlays, including accrued expenditures and capital outlays, are reported as expenditures. Related revenues (which are not presented in the Schedule or herein) are recognized up to award amounts for consolidated 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 expenditures for 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 for each federal award, where applicable.

NORTHWESTERN UNIVERSITY

Notes to Supplementary Schedule of Expenditures of Federal Awards

Year ended August 31, 2023

(3) Student Financial Assistance 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, 2023, are summarized as follows:

Federal Perkins Loan Program (ALN 84.038)	\$	—
Federal Direct Student Loans (ALN 84.268)		198,862,889
HPSL Primary Care Loans (ALN 93.342)		<u>—</u>
Total Federal Student Loan Programs	\$	<u>198,862,889</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 (ALN 84.038) and HPSL (ALN 93.342) programs were \$4,897,752 and \$133,259, respectively, at August 31, 2023. The University incurred \$288,239 in administrative expenses under the Federal Work Study program, and \$0 under the Federal Supplemental Educational Opportunity Grant and Perkins programs for the year ended August 31, 2023.



KPMG LLP
Aon Center
Suite 5500
200 E. Randolph Street
Chicago, IL 60601-6436

Independent Auditors' Report 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

The Board of Trustees
Northwestern University:

We have audited, in accordance with the 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 University's consolidated statement of financial position as of August 31, 2023, the related consolidated statements of activities and cash flows for the year then ended, and the related notes to the consolidated financial statements, and have issued our report thereon dated December 15, 2023.

Report on Internal Control Over Financial Reporting

In planning and performing our audit of the consolidated financial statements, we considered the University's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the consolidated 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 or significant deficiencies may exist that were not identified.

Report on Compliance and Other Matters

As part of obtaining reasonable assurance about whether the University's consolidated 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 financial statements. 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.

KPMG LLP

Chicago, Illinois
December 15, 2023



KPMG LLP
Aon Center
Suite 5500
200 E. Randolph Street
Chicago, IL 60601-6436

Independent Auditors' Report on Compliance for Each Major Federal Program; Report on Internal Control Over Compliance; and Report on Supplementary Schedule of Expenditures of Federal Awards Required by the Uniform Guidance

The Board of Trustees
Northwestern University:

Report on Compliance for Each Major Federal Program

Opinion on Each Major Federal Program

We have audited Northwestern University's (the University) compliance with the types of compliance requirements identified as subject to audit 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, 2023. The University's major federal programs are identified in the summary of auditors' results section of the accompanying schedule of findings and questioned costs.

In our opinion, the University complied, in all material respects, with the 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, 2023.

Basis for Opinion on Each Major Federal Program

We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America (GAAS); 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). Our responsibilities under those standards and the Uniform Guidance are further described in the Auditors' Responsibilities for the Audit of Compliance section of our report.

We are required to be independent of the University and to meet our other ethical responsibilities, in accordance with relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion on compliance for each major federal program. Our audit does not provide a legal determination of the University's compliance with the compliance requirements referred to above.

Responsibilities of Management for Compliance

Management is responsible for compliance with the requirements referred to above and for the design, implementation, and maintenance of effective internal control over compliance with the requirements of laws, statutes, regulations, rules and provisions of contracts or grant agreements applicable to the University's federal programs.

Auditors' Responsibilities for the Audit of Compliance

Our objectives are to obtain reasonable assurance about whether material noncompliance with the compliance requirements referred to above occurred, whether due to fraud or error, and express an opinion on the University's compliance based on our audit. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS,



Government Auditing Standards, and the Uniform Guidance will always detect material noncompliance when it exists. The risk of not detecting material noncompliance resulting from fraud is higher than for that resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Noncompliance with the compliance requirements referred to above is considered material if there is a substantial likelihood that, individually or in the aggregate, it would influence the judgment made by a reasonable user of the report on compliance about the University's compliance with the requirements of each major federal program as a whole.

In performing an audit in accordance with GAAS, *Government Auditing Standards*, and the Uniform Guidance, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material noncompliance, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the University's compliance with the compliance requirements referred to above and performing such other procedures as we considered necessary in the circumstances.
- Obtain an understanding of the University's internal control over compliance relevant to the audit in order to design audit procedures that are appropriate in the circumstances 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 the University's internal control over compliance. Accordingly, no such opinion is expressed.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and any significant deficiencies and material weaknesses in internal control over compliance that we identified during the audit.

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 2023-001. Our opinion on each major federal program is not modified with respect to these matters.

Government Auditing Standards requires the auditor to perform limited procedures on the University's response to the noncompliance findings identified in our compliance audit described in the accompanying schedule of findings and questioned costs. The University is also responsible for preparing a corrective action plan to address each audit finding included in our auditors' report. The University's response and corrective action plan were not subjected to the other auditing procedures applied in the audit of compliance and, accordingly, we express no opinion on the response or the corrective action plan.

Report on Internal Control Over Compliance

Our consideration of internal control over compliance was for the limited purpose described in the Auditors' Responsibilities for the Audit of Compliance section above and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies in internal control over compliance and therefore, material weaknesses or significant deficiencies may exist that were not identified. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, as discussed below, we did identify a certain deficiency in internal control over compliance that we consider to be a significant deficiency.



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 a 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. We consider the deficiency in internal control over compliance described in the accompanying schedule of findings and questioned costs as item 2023-001, to be a significant deficiency.

Our audit was not designed for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, no such opinion is expressed.

Government Auditing Standards requires the auditor to perform limited procedures on the University's response to the internal control over compliance findings identified in our audit described in the accompanying schedule of findings and questioned costs. The University is also responsible for preparing a corrective action plan to address each audit finding included in our auditors' report. The University's response and corrective action plan were not subjected to the other auditing procedures applied in the audit of compliance and, accordingly, we express no opinion on the response or the corrective action plan.

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.

Report on Supplementary Schedule of Expenditures of Federal Awards Required by the Uniform Guidance

We have audited the consolidated financial statements of the University as of and for the year ended August 31, 2023, and have issued our report thereon dated December 15, 2023, which contained an unmodified opinion on those consolidated financial statements. Our audit was conducted performed for the purpose of forming an opinion on the consolidated financial statements as a whole. The accompanying supplementary schedule of expenditures of federal awards is presented for purposes of additional analysis as required by the 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 GAAS. In our opinion, the supplementary schedule of expenditures of federal awards is fairly stated, in all material respects, in relation to the consolidated financial statements as a whole.

KPMG LLP

Chicago, Illinois
April 9, 2024

NORTHWESTERN UNIVERSITY
Schedule of Findings and Questioned Costs
Year ended August 31, 2023

(1) Summary of Auditors' Results

- (a) Type of report issued on whether the consolidated financial statements were prepared in accordance with U.S. generally accepted accounting principles: Unmodified
- (b) Internal control deficiencies over financial reporting disclosed by the audit of the consolidated financial statements:
 - Material weaknesses: No
 - Significant deficiencies: None reported
- (c) Noncompliance material to the consolidated financial statements: No
- (d) Internal control deficiencies over major program disclosed by the audit:
 - Material weaknesses: No
 - Significant deficiencies: Yes, Finding 2023-001
- (e) Type of report issued on compliance for major program: Unmodified
- (f) Audit findings that are required to be reported in accordance with 2 CFR 200.516(a): No
- (g) Major program:
 - Student Financial Assistance Cluster – Various ALNs
 - Disaster Grants – Public Assistance (Presidentially Declared Disasters) – 97.036
- (h) Dollar threshold used to distinguish between Type A and Type B programs: \$3,000,000
- (i) Auditee qualified as a low-risk auditee: Yes

(2) Findings Relating to the Consolidated Financial Statements Reported in Accordance with *Government Auditing Standards*

None

NORTHWESTERN UNIVERSITY

Schedule of Findings and Questioned Costs

Year ended August 31, 2023

(3) Findings and Questioned Costs Relating to Federal Awards

Finding 2023-001 Inaccurate Enrollment Reporting

Federal Agency: U.S. Department of Education (USDE)

Program Name: Student Financial Assistance Cluster

ALN # and Program

Expenditures: 84.063 (\$9,402,496)
84.268 (\$198,862,889)

Federal Award Numbers: P063P211371, P063P221371
P268K221371, P268K231371, P268K241371

Federal Award Year: September 1, 2022 to August 31, 2023

Questioned Costs: None

Compliance Requirement: Enrollment Reporting

Criteria

According to 34 CFR Sections 690.83(b)(2) and 685.309, under the Pell grant and Federal Direct loan (FDL) programs, institutions must complete and return the Enrollment Reporting Roster File via the National Student Loan Data System (NSLDS) within 15 days of receipt. Institutions must review, update, and verify student enrollment statuses, program information, and effective dates that appear on the Enrollment Reporting Roster File. Unless an institution expects to submit its next updated enrollment report to the USDE within the next 60 days, an institution must notify NSLDS within 30 days after the date that the institution discovers that (1) a Direct loan was made to or on behalf of a student who was enrolled or accepted for enrollment at the institution, and the student has ceased to be enrolled on at least a half-time basis or failed to enroll on at least a half-time basis for the period for which the loan was intended; or (2) a student who is enrolled at the institution and who received a loan under Title IV has changed his or her permanent address.

In addition, 2 CFR 200.303 requires nonfederal entities to, among other things, establish and maintain effective internal control over the Federal award that provides reasonable assurance that the non-Federal entity is managing the Federal award in compliance with Federal statutes, regulations, and the terms and conditions of the Federal award. Effective internal controls should include establishing procedures to ensure student campus and program-level enrollment status changes are accurately reported to the NSLDS.

Condition Found

The University did not accurately report student enrollment status change at both the campus-level and program-level to the NSLDS.

NORTHWESTERN UNIVERSITY
Schedule of Findings and Questioned Costs
Year ended August 31, 2023

USDE uses enrollment data reported by the University to determine: (1) eligibility for interest subsidies, (2) loan repayment start dates, and (3) in-school loan deferments. The enrollment information is also used by USDE to measure program completion data to evaluate the effectiveness of financial aid programs.

During our testing of 25 borrowers under the FDL program and/or Pell Grant recipients that had a reduction or increase in attendance levels, graduated, withdrew, dropped out, or enrolled but never attended during the fiscal year, we noted the status change for one graduated student was reported incorrectly to the NSLDS as a Withdrawal (W) status rather than Graduated (G) status. Upon further review, management evaluated and identified an additional 38 graduates who had the same reporting errors.

We further noted management review controls implemented by the University were not designed at a level of precision to ensure University enrollment and student data submitted to NSLDS was accurate.

The University disbursed FDL loans to 1,411 students during the required reporting period from March 1, 2023 through the year ended August 31, 2023 for which enrollment reporting requirements applied.

Cause

In discussing these conditions with University officials, they stated University records maintained students' statuses within a certain business program as active after graduating from the program inaccurately in anticipation of potential future enrollment in classes.

Possible Asserted Effect

Inaccurate submission of student enrollment status and student information affects the determinations that lenders and servicers of student loans make related to in-school deferments, grace periods, and repayment schedules.

Repeat Finding

This is not a repeat finding.

Statistical Sampling

The sample was not intended to be, and was not, a statistically valid sample.

Recommendation

We recommend the University review its procedures to ensure accurate reporting of student information and enrollment status information to the NSLDS.

Views of University Officials

The University agrees with this finding. The University will revisit management review controls and procedures to ensure a level of precision for submitting accurate graduate student data to the NSLDS.

**Federal Award Findings and Questions Costs
Corrective Action Plan**
Year Ended August 31, 2023

Finding No. 2023-001: Inaccurate Enrollment Reporting

CFDA Numbers: Various

Program: Student Financial Assistance Cluster

Corrective Action: Students will be required to request special permission to re-enroll, thus ensuring that their graduation is reported before any additional enrollment or withdrawal. Additionally, a thorough assessment of the management review process will be performed to identify areas that will help ensure the accurate submission of data to the NSLDS. We anticipate revised processes in the Spring of 2024.

Contact Person: Jaci Casazza

Expected Implementation: April 30, 2024