

University of Pennsylvania

Philadelphia, Pennsylvania

**Reports on Federal Awards in
Accordance with OMB Circular A-133**

June 30, 2015

Federal Entity Identification

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University of Pennsylvania
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June 30, 2015

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I. Financial



Independent Auditor's Report

To the Trustees of the University of Pennsylvania:

Report on the Consolidated Financial Statements

We have audited the accompanying consolidated financial statements of the University of Pennsylvania (the "University"), which comprise the consolidated statements of financial position as of June 30, 2015 and 2014, and the related consolidated statements of activities and of cash flows for the years then ended and the related notes.

Management's Responsibility for the Consolidated Financial Statements

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

Auditor's Responsibility

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

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

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of the University of Pennsylvania as of June 30, 2015 and 2014, and the results of their operations and their cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.



Other Matters

Other Information

Our audit was conducted for the purpose of forming an opinion on the consolidated financial statements as a whole. The accompanying schedules of expenditures of federal awards for the year ended June 30, 2015 is presented for purposes of additional analysis as required by the Office of Management and Budget Circular A-133, *Audits of States, Local Governments, and Non-Profit Organizations* and is not a required part of the consolidated financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the consolidated financial statements. The information has been subjected to the auditing procedures applied in the audit of the consolidated financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the consolidated financial statements or to the consolidated financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedule of expenditures of federal awards is fairly stated, in all material respects, in relation to the consolidated financial statements as a whole.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated October 2, 2015 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 for the year ended June 30, 2015. The purpose of that report is 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 internal control over financial reporting or 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.

PricewaterhouseCoopers LLP

October 2, 2015

Consolidated Statements of Financial Position

University of Pennsylvania
(in thousands)

	June 30, 2015	June 30, 2014
Assets		
Cash and cash equivalents	\$ 933,984	\$ 1,116,472
Accounts receivable, net of allowances of \$13,480 and \$15,856	312,577	298,512
Patient receivables, net of allowances of \$178,299 and \$177,599	464,309	401,490
Contributions receivable, net	271,574	328,522
Loans receivable, net of allowances of \$3,892 and \$3,656	97,047	94,078
Other assets	200,927	181,646
Investments, at fair value	11,565,722	10,800,334
Plant, net of depreciation	5,154,095	4,781,561
Total assets	\$ 19,000,235	\$ 18,002,615
Liabilities		
Accounts payable	\$ 188,870	\$ 186,556
Accrued expenses and other liabilities	1,429,762	1,425,904
Deferred income	170,099	165,699
Deposits, advances, and agency funds	116,133	122,098
Federal student loan advances	80,349	79,938
Liabilities associated with investments	207,158	183,211
Accrued retirement benefits	1,127,085	881,787
Debt obligations	2,189,759	1,985,585
Total liabilities	5,509,215	5,030,778
Net assets		
Unrestricted	7,153,207	6,869,201
Temporarily restricted	3,026,715	2,960,272
Permanently restricted	3,311,098	3,142,364
	13,491,020	12,971,837
Total liabilities and net assets	\$ 19,000,235	\$ 18,002,615

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated Statements of Activities

University of Pennsylvania
for the years ended June 30, 2015 and 2014
(in thousands)

	2015	2014
<u>Unrestricted</u>		
Revenue and other support:		
Tuition and fees, net	\$ 845,313	\$ 817,285
Commonwealth appropriations	31,514	31,617
Sponsored programs	909,869	881,298
Contributions and donor support	193,417	175,580
Investment income	402,059	377,122
Net patient service revenue	4,044,499	3,705,148
Sales and services of auxiliary enterprises	119,196	112,446
Other income	501,673	445,190
Independent operations	72,457	64,836
	7,119,997	6,610,522
Expenses:		
Compensation and benefits	3,892,829	3,670,471
Depreciation and amortization	366,290	343,506
Interest on indebtedness	73,092	75,123
Other operating expenses	2,390,904	2,259,698
	6,723,115	6,348,798
Increase in net assets from operations	396,882	261,724
Nonoperating revenue, net gains, reclassifications and other:		
Gain on investments, net	285,137	614,487
Investment income, net of amounts classified as operating revenue	(98,594)	(80,486)
Pension, OPEB and other, net	(339,626)	(39,856)
Contributions and donor support for capital related activities	40,207	180,206
Total nonoperating revenue, net gains, reclassifications and other	(112,876)	674,351
Increase in unrestricted net assets	284,006	936,075
<u>Temporarily Restricted</u>		
Contributions	91,440	149,856
Gain on investments, net	316,822	710,697
Investment income	32,238	28,198
Net assets released from restrictions	(374,057)	(362,477)
Increase in temporarily restricted net assets	66,443	526,274
<u>Permanently Restricted</u>		
Contributions	151,909	170,042
Gain on investments, net	16,111	44,589
Investment income	714	731
Increase in permanently restricted net assets	168,734	215,362
Increase in net assets from nonoperating and restricted revenue, net gains, reclassifications and other	122,301	1,415,987
Increase in total net assets	519,183	1,677,711
Net assets, beginning of year	12,971,837	11,294,126
Net assets, end of year	\$ 13,491,020	\$ 12,971,837

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated Statements of Cash Flows

University of Pennsylvania
for the years ended June 30, 2015 and 2014
(in thousands)

	2015	2014
Cash flows from operating activities:		
Increase in net assets	\$ 519,183	\$ 1,677,711
Adjustment to reconcile increase in net assets to net cash provided by operating activities:		
Depreciation and amortization	366,290	343,506
Provision for bad debts	236,210	247,502
Gain on investments, net	(618,070)	(1,369,773)
Loss on disposal of plant, property and equipment	57,392	8,638
Donated equipment	(939)	(4,503)
Proceeds from split-interest agreements designated for operations	22,530	22,500
Receipt of contributed securities	(67,154)	(78,201)
Proceeds from contributed securities	28,159	25,099
Proceeds from contributions received designated for the acquisition of long-lived assets and long-term investment	(169,937)	(320,245)
Pension, OPEB and other, net	286,515	39,856
Changes in operating assets and liabilities:		
Patient, accounts and loans receivable	(316,832)	(324,081)
Contributions receivable	58,091	10,379
Other assets	(33,545)	1,961
Accounts payable, accrued expenses and accrued retirement benefits	98,060	45,135
Deposits, advances and agency funds	(5,867)	(831)
Deferred income	4,400	(3,951)
Net cash provided by operating activities	464,486	320,702
Cash flows from investing activities:		
Purchase of investments	(10,443,898)	(9,021,417)
Proceeds from sale of investments	10,293,702	9,009,628
Purchase of plant, property and equipment	(793,332)	(575,857)
Cash acquired in Chester County Health System (TCCHHS) membership substitution	-	15,397
Net cash used by investing activities	(943,528)	(572,249)
Cash flows from financing activities:		
Proceeds from contributions received designated for the acquisition of long-lived assets and long-term investment	171,052	161,260
Proceeds from contributed securities received designated for the acquisition of long-lived assets and long-term investment	36,974	43,031
Federal student loan advances	411	898
Repayment of long-term debt	(61,883)	(178,540)
Proceeds from issuances of long-term debt	150,000	100,000
Net cash provided by financing activities	296,554	126,649
Net decrease in cash and cash equivalents	(182,488)	(124,898)
Cash and cash equivalents, beginning of year	1,116,472	1,241,370
Cash and cash equivalents, end of year	\$ 933,984	\$ 1,116,472
Supplemental disclosure of cash flow information:		
Cash paid for interest, net of amounts capitalized	\$ 78,483	\$ 78,899
Contributed securities received	67,154	78,201
Accrued plant, property and equipment acquisitions	111,737	165,233
Assets contributed under split-interest agreements	5,024	2,914
Assets acquired in TCCHHS membership substitution	-	275,183
Liabilities assumed in TCCHHS membership substitution	-	118,883
Contribution received in TCCHHS membership substitution	-	156,300

The accompanying notes are an integral part of these consolidated financial statements.

1. Significant Accounting Policies

Organization

The University Of Pennsylvania (the University), located in Philadelphia, Pennsylvania, is an independent, nonsectarian, not-for-profit institution of higher learning founded in 1740. The University Academic Component (Academic Component) provides educational services, primarily for students at the undergraduate, graduate, professional and postdoctoral levels and performs research, training and other services under grants, contracts and similar agreements with sponsoring organizations, primarily departments and agencies of the United States Government. The University also operates an integrated health care delivery system, the University of Pennsylvania Health System (UPHS). The University is a tax-exempt organization under Section 501(c) (3) of the Internal Revenue Code.

Basis of Presentation

The consolidated financial statements have been prepared on the accrual basis of accounting and include the accounts of the University and its subsidiaries, over which the University has a controlling financial interest or exercises control. All material transactions between the University and its subsidiaries are eliminated in consolidation. Investments in subsidiaries over which the University has the ability to exercise significant influence are reported using the equity method of accounting. Other investments in subsidiaries are reported using the cost method of accounting.

The net assets of the University are classified and reported as follows:

Unrestricted - Net assets that are not subject to donor-imposed restrictions.

Temporarily restricted - Net assets that are subject to legal or donor-imposed restrictions that will be met by actions of the University and/or the passage of time. These net assets include gifts donated for specific purposes and appreciation on permanent endowment, which is restricted by Pennsylvania law on the amounts that may be expended in a given year.

Permanently restricted – The original value of donor restricted net assets, the use of which is limited to investment and can only be appropriated for expenditure by the University in accordance with the Pennsylvania Uniform Principal and Income Act (Pennsylvania Act).

Expenses are reported as a decrease in unrestricted net assets. Gains and losses on investments are reported as increases or decreases in unrestricted net assets unless their use is restricted by explicit donor stipulation or by law. Donor-restricted resources intended for the acquisition or construction of long-lived assets are initially reported as temporarily restricted net assets and released from restrictions from temporarily restricted net assets to unrestricted net assets when the asset is placed in service.

Consolidated Notes to Financial Statements

Expirations of temporary restrictions on contributions and investment income are reported as net assets released from restrictions from temporarily restricted net assets. The corresponding amounts are included in the reported unrestricted Consolidated Statements of Activities as follows (in thousands):

Temporarily Restricted

	2015	2014
Net assets released from restrictions	\$ (374,057)	\$ (362,477)

Unrestricted

	2015	2014
Contributions and donor support	\$ 114,707	\$ 102,813
Investment income	219,143	209,766
Contributions and donor support for capital related activities	40,207	49,898
Net assets released from restrictions	\$ 374,057	\$ 362,477

Gains or losses associated with investment activities are included in net gains (losses) on investments. Gains or losses associated with all other activities, such as property, plant and equipment sales, debt retirements and pension and postretirement plan actuarial valuation adjustments are reported in Pension, Other post-retirement employee benefits (OPEB) and other, net.

Certain reclassifications have been made to previously reported amounts in the Consolidated Notes to Financial Statements to conform to the current presentation.

The University monitors for material subsequent events that may require adjustment to or disclosure in the consolidated financial statements through October 2, 2015, the date the consolidated financial statements were available to be issued.

Fair Value

The University values certain financial and non-financial assets and liabilities by applying the Financial Accounting Standards Board (FASB) pronouncement on *Fair Value Measurements*. The pronouncement defines fair value and establishes a framework for measuring fair value that includes a hierarchy that categorizes and prioritizes the sources used to measure and disclose fair value. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (an exit price). The hierarchy is broken down into three levels based on inputs that market participants would use in valuing the asset or liability developed based on market data obtained from sources independent of the University as follows:

Level 1: Unadjusted quoted market prices in active markets for identical assets or liabilities.

Level 2: Unadjusted quoted prices in active markets for similar assets or liabilities, unadjusted quoted prices for identical or similar assets or liabilities in markets that are not active, or inputs other than quoted prices that are observable.

Level 3: Unobservable inputs for the asset or liability.

Inputs broadly refer to the assumptions that market participants use to make valuation decisions, including assumptions about risk. Inputs may include price information, volatility statistics, specific and broad credit data, liquidity statistics and other factors. The University is required by the pronouncement to maximize the use of observable inputs (Levels 1 and 2) and minimize the use of unobservable inputs (Level 3). The University considers observable data to be that market data which is readily available, regularly distributed or updated, reliable and verifiable, not proprietary and provided by independent sources that are actively involved in the relevant market. The categorization of a financial instrument within the hierarchy is based upon the pricing transparency of the instrument and does not necessarily correspond to the University's perceived risk of that instrument.

Consolidated Notes to Financial Statements

Assets and liabilities are disclosed in the Consolidated Notes to Financial Statements within the hierarchy based on the lowest (or least observable) input that is significant to the measurement. The University's assessment of the significance of an input requires judgment, which may affect the valuation and categorization within the fair value hierarchy. The fair value of assets and liabilities using Level 3 inputs are generally determined by using pricing models or discounted cash flow methods, which all require significant management judgment or estimation.

As a practical expedient, the University is permitted under the pronouncement to estimate the fair value of an investment in an investment company at the measurement date using the reported net asset value (NAV). Adjustment is required if the University expects to sell the investment at a value other than NAV or if the NAV is not calculated in accordance with US generally accepted accounting principles (US GAAP). The University holds investments in its portfolio which are generally valued based on the most current NAV. This amount represents fair value of these investments at June 30, 2015 and 2014.

The University performs additional procedures including due diligence reviews on its investments in investment companies and other procedures with respect to the capital account or NAV provided to ensure conformity with US GAAP. The University has assessed factors including, but not limited to, managers' compliance with the *Fair Value Measurement* standard, price transparency and valuation procedures in place.

Cash and Cash Equivalents

Cash equivalents include short-term, highly liquid investments and are carried at cost which approximates fair value. Unrestricted short-term investments available for current operations with maturities of three months or less when purchased are classified as cash equivalents.

Loans Receivable

Student loans receivable, a component of Loans Receivable, are reported at their net realizable value. Such loans include donor-restricted and federally-sponsored student loans with mandated interest rates and repayment terms. Determination of the fair value of Student loans receivable is not practicable.

The University records an allowance for doubtful accounts related to Student loans receivable as follows (in thousands):

	2015		2014	
	Receivable Balance	Related Allowance	Receivable Balance	Related Allowance
Federally-sponsored student loans	\$ 72,313		\$ 71,218	
Other student loans	17,376	\$ 3,675	16,844	\$ 3,452
Total	\$ 89,689	\$ 3,675	\$ 88,062	\$ 3,452

Consolidated Notes to Financial Statements

Changes in the allowance for doubtful accounts related to Student loans receivable as of June 30, 2015 and 2014 are as follows (in thousands):

	2015	2014
July 1	\$ 3,452	\$ 3,250
Add: Provisions	285	244
Less: Recoveries	(62)	(42)
June 30	\$ 3,675	\$ 3,452

The University regularly assesses the adequacy of the allowance for doubtful accounts related to Student loans receivable by performing ongoing evaluations of the student loan portfolio, including such factors as the differing economic risks associated with each loan program, the financial condition of specific borrowers, the economic environment in which the borrowers operate, the level of delinquent loans, the value of any collateral and, where applicable, the existence of any guarantees or indemnifications. The University also performs a detailed review of the aging of the Student loan receivable balances and of the default rate by loan program in comparison to prior years. The level of the allowance is adjusted based on the results of this analysis. The University considers the allowance recorded at June 30, 2015 to be reasonable and adequate to absorb potential credit losses inherent in the student loan portfolio.

The federally-sponsored student loans receivable represents amounts due from current and former students under various Federal Government funded loan programs, including Perkins and other health professional programs offered to graduate and undergraduate students. Loans disbursed under these programs are able to be assigned to the Federal Government upon default by the borrower, and therefore, no related allowance is considered necessary. Funding received under these programs is ultimately refundable to the Federal Government in the event the University no longer participates and accordingly is reported as a liability in Federal student loan advances in the Consolidated Statements of Position.

Investments, at Fair Value

The University's Associated Investments Fund (AIF) is invested in accordance with the investment policies set out by an Investment Board which has been appointed by the Trustees. The Office of Investments is responsible for the day-to-day management of the portfolio including identifying, selecting and monitoring a variety of external investment managers to implement the strategic asset allocation set forth by the Investment Board. The University's investment portfolio may include marketable and not readily marketable securities that it intends to hold for an indefinite period of time. Changes in the fair value of investments are reported in Gains or losses on investment in the Consolidated Statements of Activities. The following is a summary of the investments held in the AIF by asset allocation as well as investment risk:

Short-Term

Short-term investments include cash equivalents and fixed income investments with maturities of less than one year. Short-term investments are valued using observable market data and are categorized as Level 1 based on quoted market prices in active markets. The majority of these short-term investments are held in a US Treasury money market account.

Equity

Equity investments consist of direct holdings of public securities in managed accounts as well as exchange traded funds, mutual funds, commingled funds and limited partnerships. The securities held in managed accounts, along with mutual funds and exchange traded funds are generally valued based on quoted market prices in active markets obtained from exchange or dealer markets for identical assets, and are accordingly categorized as Level 1. Commingled funds and limited partnerships are valued at NAV.

Consolidated Notes to Financial Statements

Debt

Debt investments consist of direct holdings of securities in managed accounts and limited partnerships. Securities such as US Treasuries, held in managed accounts, are valued based on quoted market prices in active markets and are categorized as Level 1. Securities such as corporate bonds, high yield bonds and bank loans, also held in managed accounts, are valued based on quoted market prices or dealer or broker quotations and are categorized as Level 2 or in the cases where they trade infrequently as Level 3. Limited partnership interests are valued at NAV.

Absolute Return

Absolute return investments are made up of allocations to partnerships. The fund managers invest in a variety of securities, based on the strategy of the fund, which may or may not be quoted in an active market. Illiquid investments, if any, are generally designated as a side pocket by hedge fund managers and may be valued based on an appraised value, discounted cash flow, industry comparables or some other method. Limited partnership interests are valued at NAV.

Private Equity

Investments in private equity are in the form of close-ended limited partnership interests. The fund managers primarily invest in private investments for which there is no readily determinable market value. The fund manager may value the underlying private investments based on an appraised value, discounted cash flow, industry comparables or some other method. These limited partnership investments are valued at NAV.

Real Estate

Investments in real estate are primarily in the form of close-ended limited partnership interests. The fund managers primarily invest in private investments for which there is no readily determinable market value. The fund manager may value the underlying private investments based on an appraised value, discounted cash flow, industry comparables or some other method. These limited partnership investments are valued at NAV. Real estate investments also include an open-ended real estate investment trust valued at NAV.

Natural Resources

Investments in natural resources are made up of limited partnership interests, securities in managed accounts and a commingled fund. The limited partnership fund managers primarily invest in private investments for which there is no readily determinable market value. The fund manager may value the underlying private investments based on an appraised value, discounted cash flow, industry comparables or some other method. These limited partnership investments are valued at NAV. The University directly holds the securities held in the managed accounts through a custodial relationship. The securities held in the managed accounts are generally valued based on quoted market prices in active markets obtained from exchange or dealer markets for identical assets, and are accordingly categorized as Level 1. The commingled fund is valued at NAV.

Derivatives

The University, in the normal course of business, utilizes derivative financial instruments in connection with its investment activity. Derivatives utilized by the University include futures, options, swaps and forward currency contracts and are reflected at fair value following the definition of Level 1 and 2 assets and liabilities as previously described. Investments in derivative contracts are subject to foreign exchange and equity price risks that can result in a loss of all or part of an investment. In addition, the University is also subject to additional counterparty risk should its counterparties fail to meet the terms of their contracts.

Investment Risks

The University's investing activities expose it to a variety of risks, including market, credit and liquidity risks and attempts to identify, measure and monitor risk through various mechanisms including risk management strategies and credit policies.

Market risk is the potential for changes in the fair value of the University's investment portfolio. Commonly used categories of market risk include currency risk (exposure to exchange rate differences between functional currency relative to other foreign currencies), interest rate risk (changes to prevailing interest rates or changes in expectations of futures rates) and price risk (changes in market value other than those related to currency or interest rate risk, including the use of NAV provided).

Credit risk is the risk that one party to a financial investment will cause a financial loss for the other party by failing to discharge an obligation (counterparty risk).

Liquidity risk is the risk that the University will not be able to meet its obligations associated with financial liabilities.

Endowment

The University's endowment consists of 5,718 donor-restricted permanent or term endowment funds and 863 unrestricted endowment funds established by management for a variety of purposes. The University reports all endowment investments at fair value. The majority of the endowment funds of the University have been pooled in the University's AIF, which is invested in equities, bonds, hedge funds, natural resources, private equity and real estate limited partnerships. The endowment funds not pooled in the AIF are primarily invested in equities and bonds.

The Commonwealth of Pennsylvania has not adopted the Uniform Management of Institutional Funds Act (UMIFA) or the Uniform Prudent Management of Institutional Funds Act (UPMIFA). Rather, the Pennsylvania Act governs the investment, use and management of the University's endowment funds.

The Pennsylvania Act does not require the preservation of the fair value of a donor's original gift as of the gift date of a donor-restricted endowment fund, absent explicit donor stipulations to the contrary. However, based on its interpretation of the Pennsylvania Act and relevant accounting literature, the University classifies as permanently restricted net assets for reporting purposes: (i) the original value of gifts donated to the permanent endowment; (ii) the original value of subsequent gifts to the permanent endowment; and (iii) accumulations to the permanent endowment made in accordance with the direction of the applicable donor gift instrument at the time the accumulation is added to the fund. The remaining portion of the donor-restricted endowment fund that is not classified in permanently restricted net assets is classified as temporarily restricted net assets until those amounts are appropriated for expenditure by the University. The Pennsylvania Act allows a nonprofit to elect to appropriate for expenditure between 2% and 7% of the endowment fair value, determined at least annually and averaged over a period of three or more preceding years.

In accordance with the Pennsylvania Act, the University has elected to adopt and follow an investment policy seeking a total return for the investments held by the AIF, whether the return is derived from appreciation of capital or earnings and distributions with respect to capital or both. The endowment spending policy which the Board of Trustees has elected to govern the expenditure of funds invested in the AIF is designed to manage annual spending levels and is independent of the cash yield and appreciation of investments for the year. For Fiscal Year 2015, the spending rule target payout was based on the sum of: (i) 70% of the prior fiscal year distribution adjusted by an inflation factor; and (ii) 30% of the prior fiscal year-end fair value of the AIF, lagged one year, multiplied by 6.5% for financial aid funds and 4.7% for all other funds.

Consolidated Notes to Financial Statements

Effective for Fiscal Year 2016, the University revised its spending rate to cap spendable income on financial aid endowments at a 5.9% growth rate over the Fiscal Year 2015 and hold spendable income on non-financial aid endowments at 4.7%.

Plant

Plant, including equipment, is reported net of related depreciation. Donated Plant is reported based on estimated fair value at the date of acquisition. Capital leases are categorized as buildings or equipment and are reflected at the lower of the net present value of the minimum lease payments or the fair value of the leased asset at the inception of the lease. All other Plant, including land, is reported at cost. Depreciation is computed on the straight-line method over the estimated useful lives of the assets, ranging from 5 to 50 years for buildings and improvements and 4 to 20 years for equipment or the shorter of the lease term or estimated useful life of the asset for capital lease assets. Rare books and other collectibles are not capitalized. Contributions of rare books and other collectibles are not recorded for financial statement presentation, while purchases are recorded as Other operating expenses on the Consolidated Statement of Activities in the period acquired.

Split-Interest Agreements

The University's split-interest agreements with donors consist primarily of irrevocable charitable remainder trusts, charitable gift annuities, pooled income funds, perpetual trusts and charitable lead trusts. Assets are invested and payments are made to donors and/or other beneficiaries in accordance with the respective agreements.

The University recognizes assets contributed to charitable remainder trusts, charitable gift annuities and pooled income funds, where it serves as trustee, at fair value, recognizes a liability to the beneficiaries based on the present value of the estimated future payments to beneficiaries to be made over the estimated remaining life of those beneficiaries using current market rates at the date of the contribution, and recognizes the difference as contribution revenue. Subsequently, the trust assets, invested in equity and debt securities, are measured at fair value at quoted market prices, and are categorized as Level 1, with the changes reported as an adjustment to Investments, at fair value on the Consolidated Statements of Position and Gains or losses on investment on the Consolidated Statements of Activities. Liabilities to beneficiaries are revalued based on current market rates, and are categorized as Level 2, with the changes reported as an adjustment to Liabilities associated with investments on the Consolidated Statements of Position and Gains or losses on investments on the Consolidated Statements of Activities.

Charitable remainder trust assets, where the University does not serve as trustee, are initially valued using the current fair value of the underlying assets, using observable market inputs based on its beneficial interest in the trust, discounted to a single present value using current market rates at the date of the contribution. The initially contributed assets are categorized as Level 3, and reported as Investments, at fair value on the Consolidated Statements of Position and as Gains or losses on investment on the Consolidated Statements of Activities. Subsequent valuation follows this same approach with changes in fair value reported as an adjustment to Investments, at fair value on the Consolidated Statements of Position and Gains or losses on investment on the Consolidated Statements of Activities. The primary unobservable input used in the fair value measurement of the Charitable remainder trust assets is the discount rate. Significant fluctuation in the discount rates utilized in this calculation could result in a material change in fair value.

Perpetual trust assets are initially valued at the current fair value of the underlying assets using observable market inputs based on its beneficial interest in the trust. The initially contributed assets are categorized as Level 3 and are reported as Investments, at fair value on the Consolidated Statements of Position and as Contribution revenue on the Consolidated Statements of Activities. Subsequent valuation follows this same approach with changes in fair value reported as an adjustment to Investments, at fair value on the Consolidated Statements of Position and Gains or losses on investment on the Consolidated Statements of Activities. The primary unobservable inputs used in the fair value measurement of the perpetual trust assets are the underlying securities held by the trust. Significant fluctuation in the market value of these underlying securities could result in a material change in fair value.

Charitable lead trust assets contributed prior to July 1, 2010 were initially valued based on estimated future payments discounted to a single present value using current market rates at the date of the contribution, matched to the payment period of the agreement. Effective July 1, 2010, the University elected to fair value new charitable lead trust assets contributed under the FASB Fair Value Option standard to more appropriately approximate the value that would be received if the right to these future payments could be sold. The University values these assets by discounting future cash flows using current market rates at the measurement date, matched to the payment period of the agreement. The initially contributed assets are categorized as Level 3, and reported as Investments, at fair value on the Consolidated Statements of Position and as Contribution revenue on the Consolidated Statements of Activities. Subsequent valuation follows this same approach with changes in fair value reported as an adjustment to Investments, at fair value on the Consolidated Statements of Position and Gains or losses on investment on the Consolidated Statements of Activities. The primary unobservable input used in the fair value measurement of the Charitable lead trust assets is the discount rate. Significant fluctuation in the discount rates utilized in this calculation could result in a material change in fair value.

Income Taxes

The University is a tax exempt organization under Section 501 (c) (3) of the Internal Revenue Code. Most of its activities and income are related to its exempt purposes and are exempt from federal and state income taxes. None of its activities and income is subject to Pennsylvania income tax. Unrelated activities and income including certain sales of healthcare related products and services and certain sales of computer hardware and software are subject to federal “Unrelated Business Income Tax.” Investments in certain partnerships are subject to state (other than Pennsylvania), where applicable, and federal “Unrelated Business Income Tax.”

The University evaluates its tax position based on the FASB standard on Accounting for Uncertainty in Income Taxes, which requires the use of a two-step approach for recognizing and measuring tax benefits taken or expected to be taken in an unrelated business activity tax return and disclosures regarding uncertainties in tax positions. The first step is recognition: the University determines whether it is more likely than not that a tax position will be sustained upon examination, including resolution of any related appeals or litigation processes, based on the technical merits of the position. In evaluating whether a tax position has met the more-likely-than-not recognition threshold, the University presumes that the position will be examined by the appropriate taxing authority that has full knowledge of all relevant information. The second step is measurement: a tax position that meets the more-likely-than-not threshold is measured to determine the amount of benefit to recognize in the financial statements. The tax position is measured at the largest amount of benefit that is greater than 50 percent likely of being realized upon ultimate settlement. Difference between tax positions taken in a tax return and amounts recognized in the financial statements will generally result in an increase in a liability for income taxes payable or a reduction of an income tax refund receivable.

Income tax expense, including any related penalties and interest, for operating activities are reported in the same functional expense category as the activity. Income tax expense, including any related penalties and interest, for investing activities are reported with the associated investment activity in investment income or investment gains and losses.

Tuition and Fees

The University maintains a policy of offering qualified undergraduate applicants admission to the University without regard to financial circumstance. This policy provides financial aid to eligible students in the form of direct grants and employment during the academic year. The University maintains an all-grant aid program whereby any qualified undergraduate student with demonstrated financial need receives an all-grant aid package which includes only grants and a work-study award. Students may still borrow at their discretion to supplement their aid packages. Tuition and fees have been reduced by certain grants and scholarships in the amount of \$306,831,000 in 2015 and \$294,621,000 in 2014.

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Sponsored Programs

The University receives grant and contract revenue from governmental and private sources. In 2015 and 2014, grant and contract revenue earned from governmental sources totaled \$705,987,000 and \$724,989,000, respectively, of which revenue earned under the American Recovery and Reinvestment Act (ARRA) totaled \$3,460,000 and \$9,773,000. The University recognizes revenue associated with the direct and the applicable indirect costs of sponsored programs as the related costs are incurred. The University negotiates its federal indirect rate with its cognizant federal agency. Indirect costs recovered on federally-sponsored programs are generally based on predetermined reimbursement rates which are stated as a percentage and distributed based on the modified total direct costs incurred. Indirect costs recovered on all other grants and contracts are based on rates negotiated with the respective sponsors. Funds received for sponsored research activity are subject to audit. Based upon information currently available, management believes that any liability resulting from such audits will not materially affect the financial position or operations of the University.

Contributions

Unrestricted Contributions and donor support includes net assets released as a result of corresponding expenditures which met donor imposed restrictions. Contributions, including unconditional promises to donate, cash and other assets, are recognized as revenue in the period received and are reported as increases in the appropriate net asset category based on donor restrictions. Contributions designated for the acquisition of long-lived assets and long-term investment are reported in Nonoperating revenue, net gains, reclassifications and other. Unconditional pledges received prior to July 1, 2010 are recognized at their estimated net present value using current market rates, at the date of the pledge, ranging from 3.97% to 5.82%, net of an allowance for uncollectible amounts, and are classified in the appropriate net asset category.

Effective July 1, 2010, the University elected to fair value new unconditional pledges received under the FASB Fair Value Option standard to more appropriately approximate the value that would be received if the right to these future payments could be sold. The University values these assets by discounting future cash flows using current market rates at the measurement date, ranging from 1.32% to 3.49%, matched to the payment period of the agreement, and accordingly categorizes these assets as Level 3. The primary unobservable input used in the fair value measurement of the University's Contributions receivable is the discount rate. Significant fluctuation in the discount rates utilized in this calculation could result in a material change.

Net Patient Service Revenue

Net patient service revenue is derived primarily from UPHS patient services and is accounted for at established rates on the accrual basis in the period the service is provided. Patient service revenue is net of charity care and community services. Certain revenue received from third-party payors is subject to audit and retroactive adjustment. Any changes in estimates under these contracts are recorded in operations currently.

Allocation of Certain Expenses

The Functional Classification of Expenditures disclosure allocates operation and maintenance of plant and depreciation to functional classifications based on square footage. Interest expense is allocated to the functional classifications of the activity that directly benefited from the proceeds of the debt.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Significant estimates made by management include the valuation of alternative investments, the estimated net realizable value of patient and contributions receivables and the actuarially

determined pension and other postretirement benefits, malpractice and self-insurance reserves. Actual results could differ from those estimates.

Recent Authoritative Pronouncements

In April 2015, the FASB issued a standard on Simplifying the Presentation of Debt Issuance Costs. This standard requires all costs incurred to issue debt to be presented in the balance sheet as a direct deduction from the carrying value of the associated debt liability. The standard is effective for fiscal years beginning after December 15, 2015. University management is evaluating the impact this will have on the consolidated financial statements beginning in Fiscal Year 2017.

In May 2014, the FASB issued a standard on Revenue from Contracts with Customers. This standard implements a single framework for recognition of all revenue earned from customers. This framework ensures that entities appropriately reflect the consideration to which they expect to be entitled in exchange for goods and services by allocating transaction price to identified performance obligations and recognizing revenue as performance obligations are satisfied. Qualitative and quantitative disclosures are required to enable users of financial statements to understand the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers. The standard is effective for fiscal years beginning after December 15, 2017. University management is evaluating the impact this will have on the consolidated financial statements beginning in Fiscal Year 2019.

2. University of Pennsylvania Health System - Summarized financial information

The Trustees of the University of Pennsylvania formed Penn Medicine, the governance structure which oversees the activities of UPHS and the University of Pennsylvania Perelman School of Medicine. The governing body operates, oversees and coordinates the academic, research and clinical missions of Penn Medicine.

UPHS is comprised of the Clinical Practices of the University of Pennsylvania, Clinical Care Associates (CCA), Hospital of the University of Pennsylvania, Penn Presbyterian Medical Center, Pennsylvania Hospital of the University of Pennsylvania Health System, Wissahickon Hospice of the University of Pennsylvania Health System, Franklin Casualty Insurance Company, a wholly owned Risk Retention Group, and Quaker Insurance Company Ltd., a wholly owned offshore captive insurance company, (collectively referred to as RRG/Captive). In September 2013, through a membership substitution, The Chester County Hospital and Health System (TCHHS) became part of UPHS.

Effective September 1, 2013, UPHS has agreed to become the corporate member of TCHHS, a non-profit health system located in West Chester, PA, under the terms of a membership substitution transaction. UPHS acquired \$275,183,000 of total assets, consisting primarily of property, plant and equipment, and assumed \$118,883,000 of total liabilities consisting primarily of long-term debt obligations. Net assets of \$156,300,000 were recorded as a non-operating Contribution on the Consolidated Statements of Activities in the respective net asset classes, of which \$12,254,000 was temporarily restricted and \$13,738,000 was permanently restricted.

Throughout the year, certain transactions are conducted between UPHS and the University. The effect of these transactions (primarily billings for allocations of common costs, physicians' salaries and benefits, certain purchased services and support for the Perelman School of Medicine) is included in the summarized financial information of UPHS. The University owed UPHS \$7,081,000 and \$1,008,000 at June 30, 2015 and June 30, 2014, respectively. This represents normal current inter-entity activity which is eliminated in the consolidated financial statements.

Nonoperating, net includes transfers to the University of \$113,279,000 and \$110,926,000 in 2015 and 2014, respectively, to further the research and educational activities of the Perelman School of Medicine and \$34,516,000 and \$2,601,000 in 2015 and 2014, respectively, for other activities. In addition, UPHS recognized operating expenses of \$20,676,000 and \$21,411,000 in 2015 and 2014, respectively, to support academic operating activities in the clinical

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departments of the Perelman School of Medicine. These transfers are eliminated in the consolidated financial statements.

The Health Information Technology for Economic and Clinical Health Act provision within ARRA allowed for incentives of \$19 billion to hospitals who implement and meaningfully use EHR technology by 2014. In accordance with FASB's standard on *Gain Contingencies*, when all contingencies have been met and the funds have been received, UPHS recognizes these incentives as Other revenue. UPHS received \$13,266,000 and \$15,432,000 as of June 30, 2015 and 2014, respectively.

Net Patient Service Revenue

Net patient service revenue, net of contractual allowances and discounts, excluding bad debt, is as follows for the year ending June 30, 2015 (in thousands):

	Third Party Payors	Self-Pay	Total All Payors
Net Patient Service Revenue	\$ 4,069,179	\$ 214,167	\$ 4,283,346

Net patient service revenue for the years ending June 30, 2015 and 2014 is derived from the following payors:

	2015	2014
Medicare (including Managed Medicare)	28%	26%
Medicaid (including Managed Medicaid)	12%	14%
Managed Care	32%	33%
Independence Blue Cross	19%	17%
Commercial	4%	4%
Self Pay	5%	6%
	100%	100%

The provision for bad debt is based on management's assessment of expected net collections considering economic conditions, historical experience, trends in health care coverage and other collection indicators. UPHS provides care to patients who do not have health insurance or meet the criteria to qualify for its charity care policy. UPHS pursues collection of these amounts, however certain amounts are deemed to be uncollectible. These amounts are classified in the Provision for bad debt in the UPHS summarized financial information. Periodically throughout the year, management assesses the adequacy of the allowance for uncollectible accounts based upon historical write-off experience by payor category, including not covered by insurance, and history of cash collections. The results of this review are then used to make any modifications to the provision for bad debt to establish an appropriate allowance for uncollectible accounts. No significant modifications were made for Fiscal Years 2015 or 2014. After satisfaction of amounts due from insurance and reasonable efforts to collect from patients have been exhausted, UPHS follows established guidelines for placing certain past-due patient balances with collection agencies, subject to terms of certain restrictions on collection efforts as determined by UPHS. Account receivables are written off after collection efforts have been followed in accordance with UPHS' policy. UPHS' provision for bad debts totaled \$231,955,000 and \$239,649,000 for 2015 and 2014, respectively, which is reported as a reduction to Net patient service revenue in the UPHS summarized financial information.

Third-Party Payors

During 2012, UPHS and Independence Blue Cross (IBC) reached agreement on terms of a four-year agreement effective July 1, 2012. Payments made for inpatient services provided to IBC traditional and managed care subscribers are effected on a per case rate basis for most services. Payment for outpatient services is principally based upon negotiated fee schedules. Hospital and physician rates also provide for annual inflationary increases. In addition, incentives are paid for high performance with regard to clinical outcomes and patient quality.

During 2010, UPHS and Aetna reached agreement on terms of a new five-year agreement. The terms of the agreement provide payments for inpatient hospital services on a per case rate basis. Payments for outpatient services continue to be predominantly based upon negotiated fee schedules. Effective August 1, 2015, a new five-year agreement was reached with terms similar to the previous agreement.

UPHS also has reimbursement agreements with certain commercial insurance carriers, health maintenance organizations and preferred provider organizations. The basis for reimbursement under these agreements includes prospectively determined rates per discharge, discounts from established charges, and prospectively determined per diem rates.

Final adjustments to revenue, resulting from settlements with third-party payors, are recorded in the year in which they are settled. The 2015 and 2014 net patient service revenue was increased by \$28,021,000 and \$1,197,000, respectively, as a result of final settlements and the revision or removal of allowances previously estimated that were no longer necessary.

Charity Care

UPHS provides services to patients, who meet certain criteria under its charity care policy, without charge or at amounts less than UPHS' established rates. Because UPHS does not pursue collections, such amounts have been excluded from Net Patient service revenue.

In accordance with the FASB standard on *Measuring Charity Care for Disclosure*, UPHS estimates the costs of providing charity care services based on data derived from a combination of UPHS' cost accounting system and the ratio of costs to charges. Of the Total expenses reported by UPHS below, an estimated \$7,077,000 and \$10,680,000 were incurred as a result of providing services to charity patients for the years ended June 30, 2015 and 2014, respectively.

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Summarized financial information for UPHS as of and for the years ended June 30, 2015 and 2014, prior to eliminations for transactions between UPHS and other entities of the University, is as follows (in thousands):

	2015	2014
Net patient service revenue	\$ 4,283,346	\$ 3,951,103
Provision for bad debt	(231,955)	(239,649)
Net patient service revenue less bad debts	4,051,391	3,711,454
Other revenue	274,262	227,772
Total expenses	(3,980,490)	(3,647,836)
Excess of revenue over expenses from operations	345,163	291,390
Nonoperating, net	(188,797)	271,327
Increase in net assets	\$ 156,366	\$ 562,717
Total current assets	\$ 1,062,050	\$ 1,200,386
Assets whose use is limited (including board designated funds of \$1,223,513 and \$1,147,562 and trustee held funds of \$7,686 and \$8,546 for 2015 and 2014, respectively)	1,904,286	1,818,089
Plant, net of depreciation	2,187,607	1,852,090
Investments and other assets	820,253	619,870
Total assets	\$ 5,974,196	\$ 5,490,435
Total current liabilities	\$ 634,653	\$ 619,555
Long-term debt, net of current portion	1,121,910	917,425
Other liabilities	1,458,010	1,350,198
Total liabilities	3,214,573	2,887,178
Net assets		
Unrestricted	2,211,529	2,057,377
Temporarily restricted	382,287	380,837
Permanently restricted	165,807	165,043
Total net assets	2,759,623	2,603,257
Total liabilities and net assets	\$ 5,974,196	\$ 5,490,435

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Effective August 1, 2015, UPHS and Lancaster General Hospital ('LGH') entered into an affiliation agreement whereby UPHS became the sole corporate member of LGH. LGH operates three hospitals in South Central Pennsylvania, including Lancaster General Hospital, a 533-bed general acute care hospital, Women & Babies Hospital, a 98-bed facility specializing in women's health and maternity services, and Lancaster Rehabilitation Hospital, a 59-bed rehabilitation hospital, as well as 14 outpatient centers, three urgent care sites, and a physician practice network with nearly 200 primary care and specialty practices at 40 practice sites.

No consideration was exchanged for the net assets contributed. UPHS will record non-operating contribution income in fiscal year 2016 reflecting the fair value of the contributed net assets of LGH on August 1, 2015. The book value of the net assets as of June 30, 2015 were \$1,076,932,000 unrestricted, \$11,270,000 temporarily restricted and \$12,716,000 permanently restricted. As of October 2, 2015, the fair value of the contributed net assets of LGH had not been finalized. A summary of selected unrestricted financial results of LGH for the years ended June 30, 2015 and 2014 is as follows (unaudited and in thousands):

	2015	2014
Total Operating Revenue	\$ 1,037,876	\$ 969,194
Total Operating Expense	985,630	922,511
Excess of revenue over expenses from operations	52,246	46,683
Non-operating Gain	24,969	101,296
Excess of revenue over expenses	\$ 77,215	\$ 147,979

A summary of selected balance sheet data at book value is as follows (unaudited and in thousands):

	June 30, 2015	June 30, 2014
Total Assets	\$ 1,770,902	\$ 1,621,968
Total Liabilities	\$ 669,984	\$ 562,499

Historical information was used for presentation of the data above. The data presented above does not reflect the impact, if any, of aligning accounting policies or other transaction related costs or impacts.

3. Accounts Receivable

The major components of receivables, net of reserve for doubtful accounts of \$13,480,000 and \$15,856,000 at June 30, 2015 and 2014, respectively, are as follows (in thousands):

	2015	2014
Sponsored research	\$ 141,507	\$ 115,251
Malpractice	80,951	99,106
Student	17,579	16,266
Trade	36,508	33,895
Investment income	6,011	5,845
Other	30,021	28,149
Total Accounts receivable	\$ 312,577	\$ 298,512

Consolidated Notes to Financial Statements

4. Contributions Receivable

A summary of contributions receivable is as follows at June 30, 2015 and 2014 (in thousands):

	2015	2014
Unconditional promises expected to be collected in:		
Less than one year	\$ 151,446	\$ 161,293
One year to five years	144,036	191,781
Over five years	23,827	35,399
	319,309	388,473
Less: Discount	(15,806)	(24,987)
Less: Allowance for doubtful amounts	(31,929)	(34,964)
Total Contributions receivable, net	\$ 271,574	\$ 328,522

At June 30, 2015 and 2014, the University has outstanding unrecorded conditional promises to give, including non-legally binding bequests, of \$292,691,000 and \$213,487,000, respectively. When they become unconditional promises to give or are received in cash, they will be recorded and generally will be restricted for operations, endowment and capital projects as stipulated by the donors.

5. Other Assets

The major components of other assets at June 30, 2015 and 2014, respectively, are as follows (in thousands):

	2015	2014
Goodwill	\$ 24,888	\$ 24,888
Inventory	34,086	33,624
Prepaid expenses	68,715	65,941
Deferred financing fees	13,030	12,302
Interest in partnerships	22,382	21,080
Other	37,826	23,811
Total Other assets	\$ 200,927	\$ 181,646

Goodwill of \$24,888,000 at June 30, 2015 and 2014, respectively, associated with the statutory merger of the Presbyterian Medical Center of Philadelphia into UPHS, is reviewed for impairment on an annual basis by comparing the reporting unit's carrying value to its fair value calculated using a discounted cash flow approach, which incorporates market participant data, or sooner if indicators of impairment arise. There were no goodwill impairments during Fiscal Year 2015.

6. Investments, at Fair Value

For Fiscal Year ending June 30, 2015, the University has adopted the standard on *Fair Value Measurement and Disclosure Requirements in Certain Entities That Calculated Net Asset Value (NAV) per Share*. As a result of the adoption, investments reported at net asset value per share, as a practical expedient, are no longer included within levels 1, 2, or 3 in the fair value hierarchy. Application is retrospective and, therefore, prior period financial data has been restated to conform to current year presentation.

Consolidated Notes to Financial Statements

A summary of investments, including the AIF, measured at fair value in accordance with the *Fair Value Measurements* standard, as of June 30, 2015 and June 30, 2014 is as follows (in thousands):

Assets	Level 1	Level 2	Level 3	Investments at NAV	2015
Short-term	\$ 793,370				\$ 793,370
Equity:					
US equities	949,346			\$ 893,408	1,842,754
International equities	395,287			666,056	1,061,343
Emerging market equities	152,088	\$ 4,964		905,680	1,062,732
Total Equity	1,496,721	4,964		2,465,144	3,966,829
Debt:					
US treasuries	1,179,144			121,535	1,300,679
Corporate bonds		35,851			35,851
High yield				921	921
Total Debt	1,179,144	35,851		122,456	1,337,451
Split-interest agreements	74,639		\$ 416,382		491,021
Absolute return				2,850,658	2,850,658
Real estate		60	44,767	482,372	527,199
Private equity			9,635	1,132,606	1,142,241
Natural resources	282,678			132,862	415,540
Derivative instruments	2,972	16,387			19,359
Other		19,800	2,254		22,054
Total assets	\$ 3,829,524	\$ 77,062	\$ 473,038	\$ 7,186,098	\$ 11,565,722

Assets	Level 1	Level 2	Level 3	Investments at NAV	2014
Short-term	\$ 801,019				\$ 801,019
Equity:					
US equities	1,158,554	\$ 1,120		\$ 763,773	1,923,447
International equities	442,956			837,200	1,280,156
Emerging market equities	113,801	31,136		738,802	883,739
Total Equity	1,715,311	32,256		2,339,775	4,087,342
Debt:					
US treasuries	1,258,771				1,258,771
Corporate bonds		40,763			40,763
High yield				1,225	1,225
Total Debt	1,258,771	40,763		1,225	1,300,759
Split-interest agreements	77,198		\$ 431,677		508,875
Absolute return				2,446,745	2,446,745
Real estate		59		455,383	455,442
Private equity			8,773	845,444	854,217
Natural resources	73,680			265,698	339,378
Derivative instruments	776	4,048			4,824
Other			1,733		1,733
Total assets	\$ 3,926,755	\$ 77,126	\$ 442,183	\$ 6,354,270	\$ 10,800,334

Consolidated Notes to Financial Statements

A summary of Liabilities associated with investments as of June 30, 2015 and 2014 is as follows (in thousands):

Liabilities	Level 1	Level 2	Level 3	Investments at NAV	2015
Securities sold, not yet purchased	\$ 113,897	\$ 9,756			\$ 123,653
Derivative instruments	1,956	7,617			9,573
Split-interest agreements		44,799			44,799
Other	9,203	19,930			29,133
Total liabilities	\$ 125,056	\$ 82,102	\$ -	\$ -	\$ 207,158

Liabilities	Level 1	Level 2	Level 3	Investments at NAV	2014
Securities sold, not yet purchased	\$ 128,697	\$ 10,642			\$ 139,339
Derivative instruments	54	4,367			4,421
Split-interest agreements		36,607			36,607
Other	2,844				2,844
Total liabilities	\$ 131,595	\$ 51,616	\$ -	\$ -	\$ 183,211

Included in Short-term investments is \$2,033,000 and \$3,053,000 of amounts held by trustees under indenture and escrow agreements at June 30, 2015 and 2014, respectively.

At June 30, 2015 and 2014, Short-term investments include \$49,039,000 and \$86,485,000, respectively, of outstanding receivables from trading activities. At June 30, 2015 and 2014, Short-term investments include \$36,928,000 and \$65,813,000, respectively, of outstanding payables from trading activities.

As of June 30, 2015 and 2014 there were no transfers between Level 1 and 2.

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The University has made investments in various long-lived partnerships and, in other cases, has entered into contractual agreements that may limit its ability to initiate redemptions due to notice periods, lock-ups and gates. The University has also made commitments to various limited partnerships. The University expects these funds to be called over the next 5 years. The total amount of unfunded commitments is \$2,098,126,000 which represents 21.5% of the AIF value as of June 30, 2015. Details on the fair value, remaining estimated life, outstanding commitments, current redemption terms and restrictions by strategy and type of investment are provided below (in thousands):

Strategy	Fair Value June 30, 2015	Fair Value June 30, 2014	Remaining Life	Outstanding Commitments	Redemption Terms	Redemption Restrictions
Short-term	\$ 793,370	\$ 801,019	N/A	\$ -	Daily	None
Equity						
Managed accounts	1,108,414	1,277,980	N/A	-	Daily, monthly and semi-annually	None
Mutual funds	-	188,029	N/A	-	Daily	None
Exchange traded funds	-	39,541	N/A	-	Daily	None
Commingled funds	949,036	998,822	N/A	15,400	Weekly to annually with varying notice periods	Lock-up provisions ranging from 0 to 5 years
Partnerships	1,909,379	1,582,970	N/A	116,506	Quarterly to annually with varying notice periods	Lock-up provisions ranging from 0 to 5 years. Excludes \$27 million in one fund with no redemptions permitted and \$10 million of sidepocket investments
Total Equity	3,966,829	4,087,342		131,906		
Debt						
Managed accounts	1,206,012	1,299,534	N/A	-	Daily	None
Partnership	131,439	1,225	N/A	-	Daily to annually with varying notice periods	\$900,000 of side pocket investments
Total Debt	1,337,451	1,300,759				
Absolute return	2,850,658	2,446,745	N/A	367,056	Quarterly, annually, and 2 years with varying notice periods. Excludes 18 limited partnerships with no redemptions permitted. Distributions received as underlying investments are liquidated	Lock-up provisions ranging from 0 to 2 years with some earlier redemptions permitted subject to redemption fee. Excludes \$379 million in 18 limited partnerships with no redemptions permitted and \$107 million of side pocket investments
Real estate	527,199	455,442	1 to 16 years	489,844	Redemptions not permitted. Distributions received as underlying investments are liquidated. Excludes 1 fund with quarterly liquidity on 90 day notice period	N/A
Private equity	1,142,241	854,217	1 to 14 years	899,077	Redemptions not permitted. Distributions received as underlying investments are liquidated	N/A
Natural resources						
Managed account	282,678	73,680	N/A	-	Daily and quarterly	Lock-up provisions range from 0 to 2 years
Commingled fund	-	76,033	N/A	-	Daily	None
Partnerships	132,862	189,665	1 to 16 years	210,243	Redemptions not permitted. Distributions received as underlying investments are liquidated	N/A
Total Natural resources	415,540	339,378		210,243		
Totals	\$ 11,033,288	\$ 10,284,902		\$ 2,098,126		

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Included in Level 1 Split-interest agreement investments above are readily marketable assets invested by the University separately from the AIF where the University serves as trustee with an aggregate fair value of \$74,639,000 and \$77,198,000 at June 30, 2015 and 2014, respectively. Level 3 Split-interest agreement investments are managed and invested outside of the University by external trustees.

Invested in the AIF with an aggregate fair value of \$150,173,000 and \$144,559,000 at June 30, 2015 and 2014, respectively, is a perpetual trust managed by an external trustee who has delegated investment decisions to the University. The University invests the assets of this trust in accordance with its Endowment Policy.

Included in Split-interest agreements are amounts held to meet legally mandated annuity reserves of \$30,100,000 and \$31,171,000 as of June 30, 2015 and 2014, respectively, as required by the laws of the following states where certain individual donors reside: California, New Jersey and New York.

A summary of Level 3 assets included in Split-interest agreements, where the University is not trustee, measured at fair value, as of June 30, 2015 and 2014 is as follows (in thousands):

	2015	2014
Charitable remainder trusts	\$ 10,966	\$ 6,974
Charitable lead trusts	129,445	148,208
Perpetual trusts	275,971	276,495
Total	\$ 416,382	\$ 431,677

Changes to the reported amounts of Split-interest agreements measured at fair value using unobservable (Level 3) inputs as of June 30, 2015 and 2014 are as follows (in thousands):

	Charitable Remainder Trusts	Charitable Lead Trusts	Perpetual Trusts	Total
June 30, 2014	\$ 6,974	\$ 148,208	\$ 276,495	\$ 431,677
Net realized gains			815	815
Net unrealized (losses)/ gains	(56)	2,750	(1,163)	1,531
Acquisitions	4,048	1,017		5,065
Liquidations		(22,530)	(176)	(22,706)
June 30, 2015	\$ 10,966	\$ 129,445	\$ 275,971	\$ 416,382

	Charitable Remainder Trusts	Charitable Lead Trusts	Perpetual Trusts	Total
June 30, 2013	\$ 6,089	\$ 171,224	\$ 237,399	\$ 414,712
Net realized gains			10,384	10,384
Net unrealized gains/(losses)	116	(516)	11,414	11,014
Acquisitions	769		17,622	18,391
Liquidations		(22,500)	(324)	(22,824)
June 30, 2014	\$ 6,974	\$ 148,208	\$ 276,495	\$ 431,677

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The following tables set forth the fair value, related gain (loss) and notional amount of the University's derivative instruments by contract type as of June 30, 2015 and 2014 (in thousands):

2015				
	Notional Amount	Gross Derivative Assets	Gross Derivative Liabilities	Derivative Gains (Losses)
Foreign currency contracts	\$ 68,059	\$ 570	\$ 1,717	\$ 18,904
Futures contracts	(48)	205	56	2,807
Options contracts	451	5,371	1,956	(3,080)
Swaps	153,853	13,213	5,844	8,646
Total	\$ 222,315	\$ 19,359	\$ 9,573	\$ 27,277

2014				
	Notional Amount	Gross Derivative Assets	Gross Derivative Liabilities	Derivative Gains (Losses)
Foreign currency contracts	\$ 151,370	\$ 908	\$ 1,290	\$ 12,028
Futures contracts				1,601
Options contracts	7,880	985	353	(867)
Swaps	32,527	2,931	2,778	(295)
Total	\$ 191,777	\$ 4,824	\$ 4,421	\$ 12,467

The notional amount is representative of the volume and activity of the respective derivative type during the years ended June 30, 2015 and 2014.

Gross derivatives assets and liabilities are shown in Investments, at fair value and Accrued expenses and other liabilities on the Consolidated Statements of Financial Position, respectively. Derivative gains (losses) are shown in Gain on investments, net on the Consolidated Statements of Activities.

A summary of the University's total investment return for the years ended June 30, 2015 and 2014 as reported in the Consolidated Statements of Activities is presented below (in thousands):

	2015	2014
AIF investment income	\$ 66,830	\$ 84,206
AIF realized and unrealized gains	628,322	1,315,855
Return on AIF	695,152	1,400,061
Other investment income and gains	40,192	85,511
Total Return on investments	\$ 735,344	\$ 1,485,572

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7. Endowment

The composition and changes to the amount of the University's endowment at June 30, 2015 is as follows (in thousands):

	Unrestricted	Temporarily Restricted	Permanently Restricted	Total
Donor-restricted endowment funds		\$ 2,442,269	\$ 3,278,680	\$ 5,720,949
Quasi-endowment funds	\$ 4,412,620			4,412,620
June 30, 2015	\$ 4,412,620	\$ 2,442,269	\$ 3,278,680	\$ 10,133,569

	Quasi Unrestricted	Temporarily Restricted	Permanently Restricted	Total
Net assets, June 30, 2014	\$ 4,159,362	\$ 2,312,089	\$ 3,110,884	\$ 9,582,335
Investment return:				
Investment income, net of expenses	14,128	18,762	324	33,214
Other income	2,331		40	2,371
Gains, realized and unrealized	285,062	335,749	6,783	627,594
Total investment return	301,521	354,511	7,147	663,179
New gifts	10,955	2,409	152,029	165,393
Allocation of endowment assets for expenditure	(336,543)			(336,543)
Other investment allocation	(5,631)			(5,631)
Transfers to create board designated funds	68,802			68,802
Other transfers	(14,212)	1,626	8,620	(3,966)
Released from restriction	228,366	(228,366)		
Net assets, June 30, 2015	\$ 4,412,620	\$ 2,442,269	\$ 3,278,680	\$ 10,133,569

The composition and changes to the amount of the University's endowment as of June 30, 2014 are as follows (in thousands):

	Unrestricted	Temporarily Restricted	Permanently Restricted	Total
Donor-restricted endowment funds		\$ 2,312,089	\$ 3,110,884	\$ 5,422,973
Quasi-endowment funds	\$ 4,159,362			4,159,362
June 30, 2014	\$ 4,159,362	\$ 2,312,089	\$ 3,110,884	\$ 9,582,335

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	Quasi	Donor Restricted		
	Unrestricted	Temporarily	Permanently	Total
Net assets, June 30, 2013	\$ 3,457,955	\$ 1,816,718	\$ 2,899,492	\$ 8,174,165
Investment return:				
Investment income, net of expenses	20,506	21,948	455	42,909
Gains, realized and unrealized	594,021	713,090	29,357	1,336,468
Total investment return	614,527	735,038	29,812	1,379,377
 New gifts	24,302	4,681	156,599	185,582
Allocation of endowment assets for expenditure	(305,990)			(305,990)
Other investment allocation	(1,430)			(1,430)
Transfers to create board designated funds	164,454			164,454
Other transfers	(2,678)	(39,163)	9,870	(31,971)
T CCHHS membership substitution		3,037	15,111	18,148
Released from restriction	208,222	(208,222)		
Net assets, June 30, 2014	\$ 4,159,362	\$ 2,312,089	\$ 3,110,884	\$ 9,582,335

The fair value of certain permanently restricted endowment funds is less than the original donated value by \$79,000 and \$182,000 as of June 30, 2015 and 2014, respectively, and is reflected as a reduction of Temporarily restricted assets.

8. Plant, net of depreciation

The components of plant at June 30, 2015 and 2014 are as follows (in thousands):

	2015	2014
Land and land improvements	\$ 290,951	\$ 249,231
Buildings and fixed equipment	6,843,301	6,295,973
Moveable equipment and other	1,711,059	1,594,993
Construction-in-progress	476,926	518,071
	9,322,237	8,658,268
Less: Accumulated depreciation	(4,168,142)	(3,876,707)
Plant, net of depreciation	\$ 5,154,095	\$ 4,781,561

During Fiscal Year 2015, the University elected to revise its policy to no longer capitalize rare books and other collectibles and to write-off such assets previously capitalized. As a result, rare books and other collectibles aggregate \$0 at June 30, 2015 and \$50,530,000 at June 30, 2014.

Plant, net of depreciation, included \$3,209,000 of land and \$8,146,000 of completed facilities at June 30, 2013 which served as collateral for a debt obligation. This debt obligation was settled during Fiscal Year 2014.

The University recorded \$365,204,000 and \$342,451,000 of depreciation expense for the years ended June 30, 2015 and 2014, respectively.

The University capitalized \$9,777,000 and \$7,630,000 of interest costs for the years ended June 30, 2015 and 2014, respectively, in accordance with the FASB standard on *Capitalization of Interest*.

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9. Conditional Asset Retirement Obligations

The University's conditional asset retirement obligations primarily relate to asbestos contained in buildings and underground steam distribution piping. Conditional asset retirement obligations, included within Accrued expenses and other liabilities in the Consolidated Statements of Financial Position are as follows (in thousands):

	2015	2014
July 1	\$ 23,968	\$ 22,789
Less: Payments	(1,216)	(1,369)
Add: Additions		1,878
Add: Accretion	717	670
June 30	\$ 23,469	\$ 23,968

10. Split-Interest Agreements

Changes in the value of assets, liabilities and net assets pursuant to split-interest agreements as of June 30, 2015 and 2014 are as follows (in thousands):

2015	Assets	Liabilities	Net Assets
June 30, 2014	\$ 508,875	\$ (36,607)	\$ 472,268
New contributions	10,254	(6,377)	3,877
Investment income	1,527	(1,310)	217
Realized and unrealized gain, net	2,240		2,240
Payments and settlements	(31,875)	9,606	(22,269)
Actuarial adjustment		(10,111)	(10,111)
Net change	(17,854)	(8,192)	(26,046)
June 30, 2015	\$ 491,021	\$ (44,799)	\$ 446,222
2014	Assets	Liabilities	Net Assets
June 30, 2013	\$ 484,658	\$ (38,756)	\$ 445,902
New contributions	23,396	(2,797)	20,599
Investment income	1,688	(1,023)	665
Realized and unrealized gain, net	31,340		31,340
Payments and settlements	(32,207)	7,692	(24,515)
Actuarial adjustment		(1,723)	(1,723)
Net change	24,217	2,149	26,366
June 30, 2014	\$ 508,875	\$ (36,607)	\$ 472,268

11. Medical Professional Liability Claims

The University is insured for medical professional liability claims through the combination of the Medical Care Availability and Reduction of Error Fund (Mcare, formerly, the Medical Professional Liability Catastrophe Loss Fund of the Commonwealth of Pennsylvania -- CAT Fund), various commercial insurance companies and a risk retention program.

Mcare levies health care provider surcharges, as a percentage of the Pennsylvania Joint Underwriters Association rates for basic coverage, to pay claims and pay administrative expenses of Mcare participants. These surcharges are recognized as expenses in the period incurred. Mcare operates on a pay-as-you-go basis and no provision has been made for any future Mcare assessments in the accompanying financial statements as the University's portion of the unfunded Mcare liability cannot be estimated.

In accordance with the FASB standard on *Presentation of Insurance Claims and Related Insurance Recoveries*, anticipated insurance recoveries and estimated liabilities for medical malpractice claims or similar contingent liabilities are presented separately on the Consolidated Statement of Financial Position in Accounts Receivable, net of allowances and Accrued expenses and other liabilities, respectively. The University accrues for estimated risks arising from both asserted and unasserted medical professional liability claims. The estimate of the gross liability and corresponding receivable for unasserted claims arising from unreported incidents is based on analysis of historical claims data by an independent actuary, which is recorded utilizing a 2.25% as a discount rate as of June 30, 2015 and 2014. The gross liability recorded under this program is \$636,552,000 and \$626,482,000 at June 30, 2015 and 2014, respectively, with a corresponding receivable of \$80,951,000 and \$99,106,000 at June 30, 2015 and 2014, respectively.

12. Contingencies, Guarantees and Commitments

The University has guaranteed certain obligations as follows (in thousands):

	2015		2014	
	Amount Guaranteed	Recognized Liability	Amount Guaranteed	Recognized Liability
Mortgage Loans	\$ 1,610		\$ 3,856	
Student Loans	66,857	\$ 6,173	61,101	\$ 6,164
Other	1,494	248	3,667	277
	<u>\$ 69,961</u>	<u>\$ 6,421</u>	<u>\$ 68,624</u>	<u>\$ 6,441</u>

To encourage home ownership and home improvement in the University's geographic area and beyond, certain University and affiliate employee mortgage loans are guaranteed. Under this program, the University guarantees the employee's first mortgage amount that is in excess of 80% loan-to-value, up to 105% loan-to-value. The maximum amount that will be guaranteed on any single loan is limited to \$250,000. For all loans guaranteed upon default by the borrower, the University may be required to pay any loss incurred following the lender's foreclosure process or the University may be required to purchase the loan. If the University purchases the loan, it will work with the borrower to make the loan current or it may foreclose and recover a portion of any loan from the sale of the mortgaged property. Of the amount guaranteed, \$921,000 and \$2,912,000 at June 30, 2015 and 2014, respectively, was estimated to be recoverable from subsequent sale of underlying assets the University would acquire if it performed under the guarantees. The University does not anticipate that any significant net payments will result from these guarantees. FASB standard *Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others* does not require a guarantee liability to be recognized for employee mortgages.

The University offers various loan programs for students and families to pay tuition, fees and other costs. Certain loans issued by private lending institutions are guaranteed by the University. Upon default by the borrower, the University is required to pay all or a portion of the outstanding loan balance. The University recognizes a liability for the greater of

the fair value of the guarantee or defaults in the portfolio of guaranteed loans per FASB's standard on *Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others*. The amount of the liability recognized for which the fair value of the guarantee exceeds defaults in the portfolio of guaranteed loans is \$3,402,000 and \$3,112,000 at June 30, 2015 and 2014, respectively. The remaining balance of the liability recognized represents defaults in the portfolio which exceed the estimated fair value of the guarantee. These recognized liabilities reflect effective default reserve rates of 30.9% and 32.7% at June 30, 2015 and 2014, respectively.

The Other category principally includes guarantees of indebtedness for certain businesses in the University's geographic area whose activities benefit employees, students and the community. Of the amount guaranteed, \$0 at June 30, 2015 and \$2,031,000 at June 30, 2014, was estimated to be recoverable from subsequent sale of underlying assets the University would acquire if it performed under the guarantees and from other partners in the businesses. The University does not anticipate that any significant net payments will result from these guarantees. The recognized liability reflects the fair value of guarantees issued after December 31, 2002.

Various lawsuits, claims and other contingent liabilities arise in the ordinary course of the University's education and health care activities. Based upon information currently available, management believes that any liability resulting there from will not materially affect the financial position or operations of the University.

The University is currently involved in various projects that have resulted in capital and property acquisition commitments from the University. As of June 30, 2015, approximately \$270,971,000 has been committed by the University.

13. Pension and Other Postretirement Benefit Costs

Retirement benefits are principally provided to employees through contributory defined contribution plans. The Academic Component's policy with respect to its contribution is to provide up to 9% of eligible employees' salaries, while the UPHS contribution can be up to 6.5%. The University's contributions to these plans amounted to \$125,812,000 and \$119,386,000 as of June 30, 2015 and 2014, respectively.

TCCHHS has a number of affiliates with either 403(b) or 401(k) defined contribution savings plans. All affiliates share the same employer discretionary matching process; each affiliate will match 50% of an employee's contribution (subject to the IRS annual contribution limit) up to a total of 4% of the employee's salary in a given year. Total contributions to the plans were \$1,978,000 as of June 30, 2015 and \$1,406,000 from September 1, 2013 through June 30, 2014.

TCCHHS also has a defined contribution profit sharing plan covering all eligible employees, as defined. TCCHHS may choose to contribute a discretionary amount to the plan each year. No amount was funded as of June 30, 2015 or from September 1, 2013 through June 30, 2014.

CCA and certain other UPHS entities have a non-contributory defined contribution retirement plan covering all eligible employees, which was frozen to new entrants effective July 1, 2010. Employees enrolled in this plan were moved into the new UPHS defined contribution plan effective January 1, 2011. CCA also has a non-qualified supplemental retirement plan to provide retirement benefits to a select group of physician employees. Contributions to this plan are based upon the annual compensation of the eligible employees. Retirement plan expense for this plan was \$665,000 and \$672,000 as of June 30, 2015 and 2014, respectively.

UPHS has a non-contributory defined contribution plan and a non-contributory defined benefit plan which were frozen to new entrants effective July 1, 2010.

The Academic Component has a non-contributory defined benefit pension plan which was frozen to new full-time

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entrants effective July 1, 2000.

Benefits under the defined benefit plans generally are based on the employee's years of service and compensation during the years preceding retirement. Contributions to the defined benefit plans are made in amounts necessary to at least satisfy the minimum required contributions as specified in the Internal Revenue Service Code and related regulations.

The funded status of the plans is measured as the difference between the plan assets at fair value and the projected benefit obligation (PBO) or accumulated postretirement benefit obligation (APBO). The difference between actual amounts and estimates based on actuarial assumptions are recognized as Pension, OPEB and other, net in the Consolidated Statements of Activities in the period in which they occur.

Net Periodic Cost

The components of net periodic benefit cost for pension benefits and other postretirement benefits are as follows (in thousands):

	Pension Benefits		Other Postretirement Benefits	
Net Periodic Cost	2015	2014	2015	2014
Service cost	\$ 64,537	\$ 58,737	\$ 27,334	\$ 24,349
Interest cost	83,907	81,187	33,711	34,192
Expected return on plan assets	(114,248)	(98,184)	(25,987)	(21,967)
Amortization of:				
Net prior service cost		210	27	27
Net losses	23,104	21,630	7,261	7,233
Net periodic benefit cost	\$ 57,300	\$ 63,580	\$ 42,346	\$ 43,834

Obligation and Funded Status

The following shows changes in the benefit obligation, plan assets and funded status. Benefit obligation balances presented below reflect the projected benefit obligation for pension plans and accumulated postretirement benefit obligation for other postretirement benefits plans (in thousands):

	Pension Benefits		Other Postretirement Benefits	
Change in Benefit Obligation	2015	2014	2015	2014
Benefit obligation at beginning of year	\$ 1,889,105	\$ 1,646,120	\$ 771,183	\$ 705,139
Service cost	64,537	58,737	27,334	24,349
Interest cost	83,907	81,187	33,711	34,192
Plan participants' contributions	158	156	6,055	5,460
Retiree drug subsidy			163	235
Net actuarial loss due to				
plan experience	112,223	143,397	71,631	24,555
Benefits paid from fund	(47,803)	(40,492)	(18,437)	(15,066)
Benefits paid outside of fund			(8,805)	(7,681)
Benefit obligation at end of year	\$ 2,102,127	\$ 1,889,105	\$ 882,835	\$ 771,183
Accumulated benefit obligation	\$ 1,807,474	\$ 1,615,682	\$ 882,835	\$ 771,183

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	Pension Benefits		Other Postretirement Benefits	
Change in Plan Assets	2015	2014	2015	2014
Fair value of plan assets at beginning of year	\$ 1,443,378	\$ 1,237,854	\$ 341,584	\$ 290,698
University contributions	62,286	64,801	27,800	22,800
Benefits paid by University			8,215	7,051
Plan participants' contributions	158	156	6,055	5,460
Benefits paid from fund	(47,803)	(40,492)	(18,437)	(15,066)
Benefits paid outside of fund			(8,805)	(7,681)
Retiree drug subsidy			163	235
Actual return on assets	38,180	181,059	13,376	38,087
Fair value of plan assets at end of year	\$ 1,496,199	\$ 1,443,378	\$ 369,951	\$ 341,584

	Pension Benefits		Other Postretirement Benefits	
Funded Status	2015	2014	2015	2014
Projected benefit obligation / accumulated postretirement benefit obligation	\$ (2,102,127)	\$ (1,889,105)	\$ (882,835)	\$ (771,183)
Plan assets at fair value	1,496,199	1,443,378	369,951	341,584
Funded status at end of year	\$ (605,928)	\$ (445,727)	\$ (512,884)	\$ (429,599)

Net Amounts Recognized in the Consolidated Statements of Financial Position (in thousands)

	Pension Benefits		Other Postretirement Benefits	
Unrestricted Net Assets	2015	2014	2015	2014
Net actuarial loss	\$ 618,231	\$ 453,044	\$ 256,019	\$ 179,037
Net prior service cost			(147)	(117)
Total	\$ 618,231	\$ 453,044	\$ 255,872	\$ 178,920
Adjustment to unrestricted net assets	\$ 165,187	\$ 38,681	\$ 76,952	\$ 1,175

The University recorded year-end actuarial valuation adjustments to its pension and other postretirement benefits plans of a \$242,139,000 loss and a \$39,856,000 loss for the years ended June 30, 2015 and 2014 respectively, in Pension, OPEB and other, net on the Consolidated Statements of Activities.

The estimated amount that will be amortized from Unrestricted Net Assets into net periodic benefit cost in 2016 is as follows:

	Pension Benefits	Other Postretirement Benefits
Amortization of prior service cost	-	\$ 27
Amortization of net losses	\$ 36,458	11,702

Aggregate underfunded plans (Accrued retirement benefits) are reported as follows:

	Pension Benefits		Other Postretirement Benefits	
	2015	2014	2015	2014
Accrued retirement benefits	\$ (605,928)	\$ (445,727)	\$ (512,884)	\$ (429,599)
Funded status at end of year	\$ (605,928)	\$ (445,727)	\$ (512,884)	\$ (429,599)

Reported Accrued retirement benefits includes \$8,273,000 and \$6,461,000 for faculty early retirement programs at June 30, 2015 and 2014, respectively.

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	Pension Benefits		Other Postretirement Benefits	
Information for Plans with PBO/APBO in Excess of Plan Assets	2015	2014	2015	2014
Projected benefit obligation / accumulated postretirement benefit obligation	\$ 2,102,127	\$ 1,889,105	\$ 882,835	\$ 771,183
Accumulated benefit obligation / accumulated postretirement benefit obligation	1,807,474	1,615,682	882,835	771,183
Fair value of plan assets	1,496,199	1,443,378	369,951	341,584

Actuarial Assumptions

The expected long-term rate of return on plan assets is management's best estimate of the average investment return expected to be received on the assets invested in the plan over the benefit period. The expected long-term rate of return on plan assets has been established by considering historical and future expected returns of the asset classes invested in by the pension trust, and the allocation strategy currently in place among those classes.

	Pension Benefits		Other Postretirement Benefits	
Weighted-Average Assumptions Used to Determine Benefit Obligations at Year End	2015	2014	2015	2014
Discount rate	4.50%	4.50%	4.45%	4.41%
Salary increase	3.92%	3.97%	N/A	N/A
Weighted-Average Assumptions Used to Determine Net Periodic Benefit Cost				
Discount rate	4.50%	5.00%	4.44%	4.93%
Expected long-term return on plan assets	7.93%	7.92%	7.50%	7.50%
Salary increase	3.92%	4.00%	N/A	N/A
Assumed Health Care Cost Trend Rates				
Initial trend rate	N/A	N/A	6.72%	6.19%
Ultimate trend rate	N/A	N/A	4.70%	4.84%
Fiscal year end that ultimate trend rate is reached	N/A	N/A	2023	2021

Assumed health care cost trend rates have a significant effect on the amounts reported for the other postretirement benefits. A one-percentage-point change in assumed health care trend rates would have the following effects on other postretirement benefits (in thousands):

	1-Percentage Point Increase		1-Percentage Point Decrease	
	2015	2014	2015	2014
Effect on total of service and interest cost	14,832	12,115	(11,253)	(9,318)
Effect on accumulated postretirement benefit obligation	161,082	130,042	(126,432)	(103,502)

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Plan Assets

The principal investment objectives for the pension and other postretirement benefits plans are: to ensure the availability of funds to pay pension benefits as they become due under a broad range of future economic scenarios; to maximize long-term investment returns with an acceptable level of risk based on the pension obligations; and to invest the pension trust in a diversified manner.

The University's Office of Investments is responsible for the day-to-day management of the investments of the pension and other postretirement benefits. The investments are made in accordance with policies set out by the Investment Board which has been appointed by the Trustees. The pension and other postretirement benefit investments are similar in nature to those investments discussed in Note 1 – Investments, at Fair Value. However, the actual allocations to specific investments within each asset class may vary due to certain restrictions imposed by investment managers and ERISA regulations.

Derivatives

The University enters into forward foreign currency contracts for the purchase or sale of a specific foreign currency at a fixed price on a future date as a hedge or cross hedge against either specific non-US dollar denominated transactions or portfolio positions. Forward foreign currency contracts are categorized as Level 2.

As of June 30, 2015 and 2014, the University had forward currency contracts in the plan assets with a notional exposure of \$17,946,000 and \$23,705,000, respectively. The notional amount is representative of the volume and activity of the respective derivative type during the years ended June 30, 2015 and 2014.

Investment Risk

The University's investing activities expose it to a variety of risks, including market, credit and liquidity risks and attempts to identify, measure and monitor risk through various mechanisms including risk management strategies and credit policies.

Market risk is the potential for changes in the fair value of the University's investment portfolio. Commonly used categories of market risk include currency risk (exposure to exchange rate differences between functional currency relative to other foreign currencies), interest rate risk (changes to prevailing interest rates or changes in expectations of futures rates) and price risk (changes in market value other than those related to currency or interest rate risk, including the use of NAV provided).

Credit risk is the risk that one party to a financial investment will cause a financial loss for the other party by failing to discharge an obligation (counterparty risk). Liquidity risk is the risk that the University will not be able to meet its obligations associated with financial liabilities. The University has various limited partnerships and, in other cases, has entered into contractual agreements that may limit its ability to initiate redemptions due to notice periods, lock-ups and gates.

Unfunded Commitments

As of June 30, 2015, the University has unfunded commitments to limited partnerships totaling \$171,192,000, which are expected to be called over the next 5 years.

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A summary of plan assets, measured at fair value in accordance with the *Employers' Disclosures about Pensions and Other Postretirement Benefits* standard, as of June 30, 2015 and 2014 is as follows (in thousands):

Pension Benefits:

Assets	Level 1	Level 2	Level 3	Investments at NAV	2015
Short-term	\$ 96,443				\$ 96,443
Equity:					
US equities	198,709			\$ 85,391	284,100
International equities	28,092			240,225	268,317
Emerging market equities	32,254			109,478	141,732
Debt:					
US treasuries	157,061				157,061
Corporate bonds		\$ 6,507		43,371	49,878
Absolute return				382,305	382,305
Real estate				17,732	17,732
Private equity				8,441	8,441
Natural resources	88,890			1,480	90,370
Derivative instruments:					
Forward currency contracts		8			8
Total assets	\$ 601,449	\$ 6,515	\$ -	\$ 888,423	\$ 1,496,387

Liabilities	Level 1	Level 2	Level 3	Investments at NAV	2015
Derivative instruments		\$ 188			\$ 188
Total liabilities	\$ -	\$ 188	\$ -	\$ -	\$ 188

Assets	Level 1	Level 2	Level 3	Investments at NAV	2014
Short-term	\$ 85,331				\$ 85,331
Equity:					
US equities	342,569			\$ 57,927	400,496
International equities	34,862			243,709	278,571
Emerging market equities	34,283			89,908	124,191
Debt:					
US treasuries	135,644				135,644
Corporate bonds		\$ 9,170		48,391	57,561
High yield				11,475	11,475
Absolute return				330,204	330,204
Real estate				13,982	13,982
Private equity				4,284	4,284
Natural resources				1,786	1,786
Total assets	\$ 632,689	\$ 9,170	\$ -	\$ 801,666	\$ 1,443,525

Liabilities	Level 1	Level 2	Level 3	Investments at NAV	2014
Derivative instruments		\$ 147			\$ 147
Total liabilities	\$ -	\$ 147	\$ -	\$ -	\$ 147

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Other Postretirement Benefits:

Assets	Level 1	Level 2	Level 3	Investments at NAV	2015
Short-term	\$ 29,452				\$ 29,452
Equity:					
US equities	59,314			\$ 13,560	72,874
International equities	7,736			79,551	87,287
Emerging market equities	4,319			28,017	32,336
Debt:					
US treasuries	31,715				31,715
Corporate bonds		\$ 1,821		9,476	11,297
Absolute return				75,655	75,655
Private equity				172	172
Natural resources	28,945			269	29,214
Derivative instruments:					
Forward currency contracts		4			4
Total	\$ 161,481	\$ 1,825	\$ -	\$ 206,700	\$ 370,006

Liabilities	Level 1	Level 2	Level 3	Investments at NAV	2015
Derivative instruments		\$ 55			\$ 55
Total	\$ -	\$ 55	\$ -	\$ -	\$ 55

Assets	Level 1	Level 2	Level 3	Investments at NAV	2014
Short-term	\$ 24,065				\$ 24,065
Equity:					
US equities	91,498			\$ 7,054	98,552
International equities	10,028			76,573	86,601
Emerging market equities	4,786			13,990	18,776
Debt:					
US treasuries	68,158				68,158
Corporate bonds		\$ 14,784			14,784
High yield bonds				2,875	2,875
Absolute return				27,818	27,818
Total	\$ 198,535	\$ 14,784	\$ -	\$ 128,310	\$ 341,629

Liabilities	Level 1	Level 2	Level 3	Investments at NAV	2014
Derivative instruments		\$ 45			\$ 45
Total	\$ -	\$ 45	\$ -	\$ -	\$ 45

Transfers between leveled assets are based on the actual date of the event which caused the transfer. As of June 30, 2015 and 2014 there were no transfers between Level 1 and 2.

Consolidated Notes to Financial Statements

Allocation of Plan Assets	Pension Benefits			Other Postretirement Benefits		
	Target	2015	2014	Target	2015	2014
Short-term		6.4%	5.9%		8.0%	7.0%
Equity:						
US equities	18.6%	19.0%	27.7%	15.0%	19.7%	28.9%
International equities	18.6%	17.9%	19.3%	20.0%	23.6%	25.4%
Emerging markets equities	10.0%	9.5%	8.6%	10.0%	8.7%	5.5%
Debt:						
US treasuries	17.7%	10.5%	9.4%	20.0%	8.6%	20.0%
Corporate bonds		3.3%	4.0%		3.0%	4.3%
High yield			0.8%			0.8%
Absolute return	29.0%	25.6%	22.9%	30.0%	20.5%	8.1%
Real estate	2.0%	1.2%	1.0%	5.0%		
Private equity	1.0%	0.6%	0.3%		7.9%	
Natural resources	3.1%	6.0%	0.1%			
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

The average quality of debt investments at June 30, 2015 was Aaa/AA+ with an effective duration of 17.34 years.

Cash Flows & Estimated Future Benefit Payments (in thousands)

University contributions for the year ending:	Pension Benefits		Other Postretirement Benefits	
June 30, 2014	\$	64,801	\$	29,851
June 30, 2015		62,286		36,015
June 30, 2016		80,280		30,683
Benefits paid from outside of the fund for the year ending:				
June 30, 2014		N/A	\$	7,681
June 30, 2015		N/A		8,805
June 30, 2016		N/A		9,237
Plan participants' contributions for the year ending:				
June 30, 2014	\$	156	\$	5,460
June 30, 2015		158		6,055
June 30, 2016		160		6,442

Consolidated Notes to Financial Statements

Benefits Payments in Total (in thousands)

		Other Postretirement	Impact of
		Benefits before Medicare	Medicare Part D
Actual benefit payments for the year ending:	Pension Benefits	Part D Subsidy	Subsidy
June 30, 2014	\$ 40,492	\$ 22,747	\$ 235
June 30, 2015	47,803	27,242	163
Expected benefit payments for the year ending:			
June 30, 2016	\$ 53,391	\$ 25,756	\$ 306
June 30, 2017	58,031	27,521	327
June 30, 2018	63,812	29,781	349
June 30, 2019	69,525	31,854	370
June 30, 2020	76,147	34,043	388
June 30, 2021 to June 30, 2025	494,276	205,665	2,141

Consolidated Notes to Financial Statements

14. Debt Obligations

Debt obligations at June 30, 2015 and 2014 are as follows (in thousands):

	Final Maturity	Interest Rate at June 30, 2015	2015	2014
Academic Component:				
Fixed rate debt obligations:				
The Trustees of the University of Pennsylvania				
Series 2012 Taxable Bonds	09/2112	4.674%	\$ 300,000	\$ 300,000
Pennsylvania Higher Educational Facilities Authority (PHEFA)				
Series A of 2015 revenue bonds	10/2045	2.50% - 5.50%	205,670	
Unamortized premium			21,938	
Series B of 2015 revenue bonds	10/2035	3.00% - 5.00%	165,150	
Unamortized premium			30,036	
Series C of 2015 revenue bonds	10/2035	3.677%	8,020	
Series A of 2011 revenue bonds	09/2041	4.00% - 5.00%	131,805	150,000
Unamortized premium			710	851
Series of 2010 revenue bonds	09/2033	4.00% - 5.00%	50,045	71,410
Unamortized premium			3,061	4,648
Series B of 2009 revenue bonds	09/2032	4.00% - 5.00%	20,075	35,990
Unamortized premium			433	821
Series C of 2009 revenue bonds	09/2019	5.000%	15,105	28,755
Unamortized premium			494	1,156
Series A of 2009 revenue bonds				204,750
Unamortized premium				11,874
Series C of 2005 revenue bonds	07/2015	4.00% - 5.00%	5,255	119,600
Unamortized premium			52	2,717
Series A of 2005 revenue bonds	09/2015	5.000%	3,920	12,805
Unamortized premium			63	372
Series B of 2005 revenue bonds	09/2015	5.250%	8,495	16,555
Other loans	05/2031	3.000%	775	812
Total Fixed rate debt obligations:			971,102	963,116
Variable rate debt obligations:				
PHEFA				
Series of 1990 revenue bonds	12/2020	0.30%	6,500	6,500
Washington County Authority				
Series of 2004	07/2034	0.04%	55,500	56,500
Total Variable rate debt obligations			62,000	63,000
Total Academic Component debt obligations			\$ 1,033,102	\$ 1,026,116

Consolidated Notes to Financial Statements

	Final Maturity	Interest Rate at June 30, 2015	2015	2014
UPHS:				
Fixed rate debt obligations:				
PHEFA				
Series A of 2015 revenue bonds	08/2045	3.00% - 5.00%	\$ 357,565	
Unamortized premium			40,101	
Series A of 2012 revenue bonds	08/2032	3.00% - 5.00%	136,950	\$ 136,950
Unamortized premium			10,891	11,546
Series A of 2011 revenue bonds	08/2042	4.75% - 5.875%	150,000	150,000
Unamortized discount			(917)	(972)
Series A of 2009 revenue bonds	08/2024	3.00% - 5.25%	74,370	77,645
Unamortized premium			851	1,006
Series B of 2008 revenue bonds	08/2018	5.50%	52,000	149,230
Unamortized discount			(481)	(1,562)
Series A of 2005 revenue bonds	08/2015	5.00%	19,680	152,570
Unamortized premium				2,942
Series B of 2005 revenue bonds	08/2015	3.75% - 5.00%	8,185	33,030
Unamortized premium				302
Build to suit lease			123,038	47,598
Mortgages	04/2022	4.875% - 6.25%	8,714	16,774
Total Fixed rate debt obligations:			980,947	777,059
Variable rate debt obligations:				
PHEFA				
Series A of 2014 revenue bonds	06/2045	0.49%	100,000	100,000
Series A of 2008 revenue bonds	01/2038	0.07%	75,710	81,210
Pennsylvania economic development financing authority				
Series C of 1994 revenue bonds	09/2014	0.17%		1,200
Total Variable rate debt obligations			175,710	182,410
Total UPHS debt obligations			1,156,657	959,469
Total University debt obligations			\$ 2,189,759	\$ 1,985,585

The fair value of the University's existing debt obligations was \$2,211,566,000 and \$2,091,089,000 at June 30, 2015 and 2014, respectively. The University determines the fair value of its existing fixed rate debt obligations based on trade data, broker/dealer quotes and other observable market data. The carrying amounts of its variable rate debt obligations approximate fair value because the obligations are currently callable at a price equal to the carrying amounts. The University considers this to be a Level 2 measurement.

Consolidated Notes to Financial Statements

Contractual maturities of debt obligations and build-to-suit lease payments are as follows (in thousands):

Fiscal Year	Bond and Other Loan Obligations	Build-to- Suit Lease Payments	Total
2016	\$ 54,355	\$ 10,023	\$ 64,378
2017	48,871	10,257	59,128
2018	49,495	10,496	59,991
2019	103,432	10,742	114,174
2020	50,160	10,992	61,152
Thereafter	1,653,176	180,176	1,833,352
Total Principal	\$ 1,959,489	\$ 232,686	\$ 2,192,175
Unamortized net premium	107,232		107,232
Build-to-suit lease related interest		(109,648)	(109,648)
Total Debt	\$ 2,066,721	\$ 123,038	\$ 2,189,759

Academic Component

The University has variable rate debt in the amount of \$62,000,000 which is subject to optional tender by the holders upon seven days' notice. These bonds are reflected in the table above based on original scheduled maturities. In the event that the University receives notice of any optional tender on its variable rate demand bonds, the purchase price will be repaid from the remarketing of the bonds. However, in the event that the entire remarketing effort were to fail, the University would have the general obligation to purchase the bonds and the 2016 principal payments in the debt obligations maturity table above would increase from \$19,608,000 to \$81,608,000. On June 10, 2011, the University entered into a five year agreement with a financial institution, whereby the institution has agreed to provide a line of credit in the amount of \$100,000,000 in order to supplement the University's liquidity relating to its variable rate demand bonds and for other general purposes of the University. The University pays a fee annually on the unused amount of the line of credit. As of June 30, 2015, there have been no draws under the agreement.

On April 16, 2015, PHEFA issued Series A of 2015 refunding revenue bonds (PHEFA 2015A bonds) with an aggregate principal amount of \$205,670,000. The proceeds were used to fund an escrow which will be used to refund \$199,605,000 from the PHEFA Series A of 2009 revenue bonds (refunded PHEFA 2009A bonds). The refunded PHEFA 2009A bonds were legally defeased, and as such, are no longer included among the University's reported liabilities. Interest on the PHEFA 2015A bonds is fixed with coupons ranging between 2.50% and 5.50%. The PHEFA 2015A bonds have serial maturities which are due in amounts ranging from \$4,685,000 in 2016 to \$7,550,000 in 2036 and one term maturity in the amount of \$89,260,000 maturing in 2045, which will be subject to mandatory sinking fund redemption. The bonds are subject to optional redemption by the University on or after October 1, 2020 for the term bond or October 1, 2025 for the serial bonds at a price equal to 100% of the principal amount plus accrued interest.

On April 16, 2015, PHEFA issued Series B of 2015 refunding revenue bonds (PHEFA 2015B bonds) with an aggregate principal amount of \$165,150,000. The proceeds were used to fund an escrow which will be used to refund \$181,780,000 from the PHEFA Series A of 2005 revenue bonds, PHEFA Series C of 2005 revenue bonds, PHEFA Series B of 2009 revenue bonds, PHEFA Series C of 2009 revenue bonds, PHEFA Series 2010 revenue bonds and PHEFA Series A of 2011 revenue bonds. These refunded amounts were legally defeased, and as such, are no longer included among the University's reported liabilities. Interest on the PHEFA 2015B bonds is fixed with coupons ranging between 3.00% and 5.00%. The PHEFA 2015B bonds have serial maturities which are due in amounts ranging from \$1,355,000 in 2016 to \$18,965,000 in 2025, with a final maturity in 2035 and one term maturity in the amount of \$28,595,000 maturing in 2038, which will be subject to mandatory sinking fund redemption. The serial bonds and the

Consolidated Notes to Financial Statements

term bond are subject to optional redemption by the University on or after October 1, 2025 at a price equal to 100% of the principal amount plus accrued interest.

On April 16, 2015, PHEFA issued Series C of 2015 refunding revenue bonds (PHEFA 2015C bonds) with an aggregate principal amount of \$8,020,000. The proceeds were used to fund an escrow which will be used to refund \$5,145,000 from the refunded PHEFA 2009A bonds and fund the issuance cost of the PHEFA 2015A and PHEFA 2015B bonds. The refunded PHEFA 2009A bonds were legally defeased, and as such, are no longer included among the University's reported liabilities. Interest on the PHEFA 2015C bonds is fixed with coupon of 3.677%. The PHEFA 2015C bonds have a single maturity in 2035 and are subject to optional redemption by the University prior to maturity at the price equal to the greater of 100% of the principal of the redeemed bonds or the present value of the remaining scheduled payments of the principal amount plus accrued interest discounted at the Treasury Rate plus 20 basis points.

As a result of the legal defeasance of debt associated with the issuance of PHEFA 2015A, 2015B and 2015C bonds, the University reported a loss on early extinguishment of debt in Pension, OPEB and other, net on the Consolidated Statements of Activities in the amount of \$26,418,000 for the year ended June 30, 2015.

The University has letters of credit with various financial institutions to secure certain self-insured liabilities in the amount of \$3,907,000 at June 30, 2015 and 2014. These letters of credit have evergreen provisions for automatic renewal. There have been no draws under these letters of credit.

UPHS

Pennsylvania Higher Educational Facilities Authority Revenue Bonds

UPHS Series A of 2015 were issued May 19, 2015, of which \$134.4 million was used to redeem UPHS Series A and B of 2005 bonds and \$114.5 million was used to redeem UPHS Series B of 2008 bonds. This portion of the refinancing has been reflected as a non-cash transaction in the Statement of Cash Flows. In addition to the refundings, the bonds provided \$150,000,000 of funds to reimburse UPHS for expenses already paid in relation to various projects and capital expenditures. The bonds mature in varying annual amounts from \$1,690,000 to \$38,135,000 through 2045 and have stated interest rates that range from 3.00% to 5.00%. The bonds maturing on and after August 15, 2026 are subject to optional redemption by the University, the obligated group agent, on or after August 15, 2025 at a redemption price of 100% plus accrued interest. UPHS Series A of 2005 Bonds were issued on February 16, 2005 for the purpose of legally defeasing the non-current maturities of the Health Services Series A of 1996 Bonds. The bonds were partially defeased by the UPHS Series A Bonds of 2015 and have a final maturity of \$19,680,000 on August 15, 2015. The bond has stated interest rate of 5.00%.

UPHS Series B of 2005 Bonds were issued on February 16, 2005 for the purpose of funding various UPHS capital expenditures. The bonds were partially defeased by the UPHS Series A Bonds of 2015 and have a final maturity of \$8,185,000 on August 15, 2015. The bonds have stated interest rates of 3.75% and 5.00%.

UPHS Series B of 2008 Bonds were issued on November 12, 2008 for the purpose of redeeming the UPHS Series C of 2005 and UPHS Series D of 2005. The bonds were partially defeased by the UPHS Series A Bonds of 2015 and have a final maturity of \$52,000,000 on August 15, 2018. The bond has stated interest rate of 5.50%.

As a result of the legal defeasance of debt associated with the issuance of Series A Bonds of 2015, UPHS reported a loss on early extinguishment of debt in Pension, OPEB and other, net on the Consolidated Statements of Activities in the amount of \$17,958,000 for the year ended June 30, 2015.

UPHS Series A of 2014 Bonds in the amount of \$100,000,000 were issued on June 12, 2014 for the purpose of funding various UPHS capital expenditures. The bonds mature in varying amounts from \$1,430,000 to \$27,120,000 with a final maturity of \$27,120,000 in 2045. The interest rate on the bonds is reset monthly through a remarketing process. The

holder of the bonds will have the option to put the Bonds on June 12, 2021, as described in a Continuing Covenant Agreement between UPHS and TD Bank. The bonds are subject to optional redemption by the University, the obligated group agent, at any time.

The PHEFA Revenue Bonds are secured by master notes issued under the UPHS Master Trust Indenture (MTI). The MTI and related agreements contain certain restrictive covenants which limit the issuance of additional indebtedness, and among other things, require UPHS to meet an annual debt service coverage requirement of “income available for debt service” (excess of revenue over expenses plus depreciation, amortization, interest expense and extraordinary items) at an amount equal to 110% of the annual debt service requirements. If the coverage requirement for a particular year is not met, within six months of the close of that fiscal year UPHS must retain the services of a consultant to make recommendations to improve the coverage requirement. UPHS must also implement the recommendations of the consultant to the extent that they can be feasibly implemented. UPHS will not be considered to be in default of the provisions of the MTI so long as UPHS has sufficient cash flow to pay total operating expenses and to pay debt service for the fiscal year. In both 2015 and 2014, UPHS met its debt service coverage requirement under the MTI. Additionally, UPHS has pledged its gross revenues to secure its obligation under the MTI.

UPHS has various mortgage payables with monthly installments ranging from \$85,000 to \$4,125,000, including interest. The mortgages have interest rates between 4.875% and 6.25%. The mortgages will fully amortize on or before April 1, 2022 and are collateralized by land and buildings of approximately \$20,000,000.

UPHS entered into a three year agreement with a financial institution on April 30, 2013, subsequently amended on July 13, 2013, whereby the institution has agreed to provide a line of credit in the amount of \$100,000,000 in order to supplement liquidity for general purposes of the health system. UPHS paid an upfront facility fee and a fee on the unused amount of the line of credit. As of June 30, 2015, there are no draws under the agreement.

UPHS has variable rate debt in the amount of \$75,710,000 (PHEFA 2008A Revenue Bonds) which is subject to optional tender by the holders upon seven days notice. These bonds are reflected in the table above based on original scheduled maturities. These bonds are secured by a letter of credit, which expires April 2018, in the amount of \$77,141,000 as of June 30, 2015. As of June 30, 2015, there have been no draws under this agreement.

Interest Rate Swap Agreements

The University and UPHS enter into interest rate swap agreements to synthetically modify the interest rate terms of its long term debt portfolio. These agreements are not entered into for trading or speculative purposes. Fair value of these agreements is determined by obtaining quotes from Goldman Sachs Mitsui Marine Derivative Products, L.P. (GSMMDP) and Merrill Lynch, respectively, which are based on the income approach, using observable market data to discount future net payment streams and accordingly considers this to be a Level 2 measurement. The quotes provided also represent the amount the University and UPHS would accept or be required to pay to transfer the agreement to GSMMDP and Merrill Lynch, respectively, or exit price as defined by the Fair Value Measurements standard. The University and UPHS also take into account the risk of nonperformance.

Consolidated Notes to Financial Statements

The following table summarizes the terms of the University's and UPHS's interest rate swap agreements:

	University	UPHS	UPHS	UPHS
	Goldman Sachs Mitsui Marine Derivative Products, L.P.	Merrill Lynch Capital Services / Bank of America	Merrill Lynch Capital Services / Bank of America	Merrill Lynch Capital Services / Bank of America
Notional Amounts	\$ 101,950,000	\$ 25,065,000	\$ 25,065,000	\$ 75,710,000
Trade Date	11/6/2007	7/15/2009	1/7/2010	10/24/2007
Maturity Date	7/1/2034	8/15/2023	8/15/2023	1/1/2038
Rates:				
Receive	67% of 1-Month LIBOR	3.184%	2.902%	67% of 1-Month LIBOR
Pay	3.573%	SIFMA index	SIFMA index	3.755%
Default Optional Termination @ Market Value	Default by University	Default by UPHS	Default by UPHS	Default by UPHS
Optional Termination @ Market Value	University only	UPHS only	UPHS only	UPHS only
Collateral Liability Thresholds:				
AAA/Aaa	\$25M	Infinite	Infinite	Infinite
AA(+/-) / Aa(1,2,3)	\$25M - \$15M	\$40M	\$40M	\$40M
A(+/-) / A(1,2,3)	\$10M - \$5M	\$20M	\$20M	\$20M
BBB+ / Baaa1	\$2M	\$10M	\$10M	\$10M
BBB / Baa2	\$1M	N/A	N/A	N/A
Collateral Posted	\$ 3,000,000	\$ -	\$ -	\$ -

The following tables summarize the fair value of the interest rate swap agreements, not designated as hedging instruments, as of June 30, 2015 and 2014, and the effect of the interest rate swap agreements on the Consolidated Statements of Activities, both realized and unrealized, for the years ended June 30, 2015 and 2014 (in thousands):

Statements of Position

Line Item	2015	2014
Asset interest rate swaps		
UPHS Other assets	\$ 4,608	\$ 4,582
Total Asset interest rate swaps	\$ 4,608	\$ 4,582
Liability interest rate swaps		
Academic Component Accrued expenses and other liabilities	\$ 22,924	\$ 20,830
UPHS Accrued expenses and other liabilities	5,349	7,046
Total Liability interest rate swaps	\$ 28,273	\$ 27,876

Statements of Activities

Line Item	2015	2014
Academic Component Gains or losses on investments	\$ (5,623)	\$ (4,277)
UPHS Gains or losses on investments	365	(454)
Total	\$ (5,258)	\$ (4,731)

15. Energy Hedges

The University enters International Swaps and Derivatives Association agreements (ISDA agreements) to stabilize expected electricity costs over the long term.

The University determines the fair value of these agreements by obtaining quotes from an energy consultant generated by market transactions involving identical or comparable assets by using published New York Mercantile Exchange (NYMEX). The University has categorized the hedges as Level 2.

The agreements also contain provisions that would require the University to post collateral in the amount by which the fair value of the agreement liability exceeds certain thresholds, which are based on the University's credit rating.

The following table summarizes the terms of the University's energy hedges:

Electricity Counterparties	
Notional Amounts	\$ 9,498,000
Trade Date	6/2012 - 6/2015
Maturity Date	7/2015 - 8/2017
Megawatt hours (Mwhs)	224,965
Collateral Liability Thresholds	\$20M - \$25M
Collateral Posted	\$ -

The following tables summarize the fair value of the University's ISDA agreements as of June 30, 2015 and 2014, and the effect of these agreements on the Consolidated Statements of Activities for the years ended June 30, 2015 and 2014 (in thousands):

Statements of Position			
	Line Item	2015	2014
Asset position	Other assets	\$ -	\$ 2,130
Liability position	Accrued expenses and other liabilities	\$ 531	\$ -
Statements of Activities			
	Line Item	2015	2014
Unrealized (Loss) Gain	Gains or losses on investment	\$ (2,661)	\$ 6,063
Realized (Loss) Gain	Other operating expenses	\$ (1,203)	\$ 3,439

Consolidated Notes to Financial Statements

16. Net Assets

The major components of net assets at June 30, 2015 and 2014 are as follows (in thousands):

2015	Unrestricted	Temporarily restricted	Permanently restricted	Total
General operating	\$ 2,683,568	\$ 256,176		\$ 2,939,744
Sponsored programs	47,200			47,200
Capital		178,642		178,642
Student loans	9,819		\$ 17,304	27,123
Planned giving agreements		149,628	15,114	164,742
Endowment	4,412,620	2,442,269	3,278,680	10,133,569
Total	\$ 7,153,207	\$ 3,026,715	\$ 3,311,098	\$ 13,491,020

2014	Unrestricted	Temporarily restricted	Permanently restricted	Total
General operating	\$ 2,677,503	\$ 271,243		\$ 2,948,746
Sponsored programs	22,396			22,396
Capital		201,790		201,790
Student loans	9,940		\$ 17,169	27,109
Planned giving agreements		175,150	14,311	189,461
Endowment	4,159,362	2,312,089	3,110,884	9,582,335
Total	\$ 6,869,201	\$ 2,960,272	\$ 3,142,364	\$ 12,971,837

17. Operating Leases

The University leases research labs, office space and equipment under operating leases expiring through March 2036. Rental expense for the years ended June 30, 2015 and 2014 totaling \$78,730,000 and \$71,829,000, respectively, is included in the accompanying Consolidated Statements of Activities.

At June 30, 2015, future minimum lease payments under existing operating leases were as follows (in thousands):

2016	\$ 75,876
2017	69,980
2018	60,748
2019	47,571
2020	42,148
Thereafter	305,159
Total Minimum lease payments	<u>\$ 601,482</u>

18. Functional Classification of Expenditures

Expenses incurred were for (in thousands):

	Compensation and benefits	Depreciation and amortization	Interest on indebtedness	Other operating expense	June 30, 2015	June 30, 2014
Instruction	\$ 750,273	\$ 56,590	\$ 5,043	\$ 369,784	\$ 1,181,690	\$ 1,159,168
Research	388,988	43,163	24,978	279,484	736,613	722,970
Hospital and physician practices	2,295,300	175,388	35,792	1,464,389	3,970,869	3,634,265
Auxiliary enterprises	30,883	27,968	5,766	75,186	139,803	137,105
Other educational activities	121,191	11,378	323	63,536	196,428	187,995
Student services	46,627		16	31,797	78,440	77,802
Academic support	35,670	30,077	285	12,959	78,991	78,211
Management and general	216,392	17,727	345	39,184	273,648	287,234
Independent operations	7,505	3,999	544	54,585	66,633	64,048
Total	\$ 3,892,829	\$ 366,290	\$ 73,092	\$ 2,390,904	\$ 6,723,115	\$ 6,348,798

Schedule of Expenditures of Federal Awards

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
Research and Development and Research Training Cluster						
DEPARTMENT OF AGRICULTURE						
USDA Swine Enteric Coronavirus Disease Cooperative Agreement	10.025	COMMONWEALTH OF PENNSYLVANIA	PO 4300438005		24,968	24,968
	SubTotal 10.025				24,968	24,968
PENV Formula CIP Grant FY 2014	10.207		2014-36100-05148	33,885		33,885
PENV Formula CIP Grant FY 2015	10.207		2015-36100-05148	2,042		2,042
	SubTotal 10.207			35,927		35,927
Solving Problems in Sustainable Agriculture and Food Safety: Helping Future Agricultural Professionals Learn to Solve Complicated Multi-Disciplinary P	10.217	IOWA STATE UNIVERSITY	416-23-08A		-2,647	-2,647
	SubTotal 10.217				-2,647	-2,647
What drives disparities in food purchases? An examination of differentials in price sensitivity, nutritional preferences, and retail access across the socioeconomic spectru	10.250		58-4000-2-0084	4,602		4,602
	SubTotal 10.250			4,602		4,602
A Spatial Analysis of Food Store Choice and Implications for Diet	10.253	UNIVERSITY OF KENTUCKY	30481-10944-14-163		19,794	19,794
	SubTotal 10.253				19,794	19,794
Advancing Measurement and Modeling of Healthy Food and Activity Landscapes	10.310		2010-85215-20659	159,297		159,297
Allelic variation of Salmonella colonization factors	10.310		2013-67015-21285	169,816		169,816
Equine lamellar organotypic culture system: A tool for laminitis research and regenerative medicine	10.310		2012-67012-19994	8,438		8,438
Improving honey bee queen quality using in vitro artificial selection and sociogenomics	10.310		2014-67013-21725	118,712		118,712
Increasing Economic and Environmental Sustainability of Small and Medium Sized Dairy Farm	10.310		2010-85211-20466	90,521		90,521
Role of fish immunoglobulin IgT in skin and gill mucosal immune and protective response	10.310		2013-67015-21225	339,255		339,255
	SubTotal 10.310			886,039		886,039
Complex Effects of Land Use on Watersheds of the Delaware River Basin	10		09-JV-11242306-117	3,665		3,665
Eastern North Philadelphia Food for All Program	10	WOMEN'S COMMUNITY REVITALIZATION PROJECT	N/A		1,518	1,518
Effects of Environmental Changes and Land-use history on Carbon Stock and Vegetation Dynamics in the Delaware River Basin	10		14-JV-11242306-083	35,717		35,717
Evaluating Nutrient Cycling in the Urban Environment: A Collaborative Research Approach	10		14-JV-11242308-138	2,521		2,521
Evaluation of the Impact of SNAP-Ed Programs	10	FOOD TRUST	FOOD TRUST		47,499	47,499
Maintenance of Membership Laboratory Requirements	10		14-9419-0163-CA	55,000		55,000
Notifiable Avian Influenza (NAI) in Pennsylvania	10	COMMONWEALTH OF PENNSYLVANIA	ME #44112704		163,675	163,675
	SubTotal 10			96,903	212,692	309,595
DEPARTMENT OF AGRICULTURE Total				1,023,471	254,807	1,278,278
DEPARTMENT OF COMMERCE						
Advanced Regional and Decadal Predictions of Coastal Inundation for the U.S. Atlantic and Gulf Coasts.	11.431		NA11OAR4310101	283,861		283,861
Investigating the Evolution of Ocean Ventilation and Its Impact on Natural and Anthropogenic Carbon Uptake in a Warming Ocean	11.431	PRINCETON UNIVERSITY	NA10OAR4310092		-59	-59
	SubTotal 11.431			283,861	-59	283,802
Complex and Frustrated Magnetic Structures	11.609		70NANB13H152	34,320		34,320
	SubTotal 11.609			34,320		34,320
DEPARTMENT OF COMMERCE Total				318,181	-59	318,122
DEPARTMENT OF DEFENSE						
Advanced Biological and Neurobehavioral Data Acquisition System for Fatigue Mitigation	12.300		N00014-13-1-0689	6,243		6,243
ANTIDOTE: Adaptive Networks for Threat and Intrusion Detection or Termination	12.300	UNIVERSITY OF SOUTHERN CALIFORNIA	138804		351,203	351,203
Automation in Cryptology	12.300	STANFORD UNIVERSITY	60106443-107484-B		88,658	88,658
Coupling of Metabolic and Mechanical Function in Cell Physiology	12.300		N00014-14-1-0538	319,664		319,664
DECENTRALIZED REASONING IN REDUCED INFORMATION SPACES	12.300	CARNEGIE MELLON UNIVERSITY	1141207-236233		173,940	173,940
Dynamic Camouflage in Benthic and Pelagic Cephalopods: An Interdisciplinary Approach to Crypsis Based on Color, Reflection and Bioluminescence	12.300	DUKE UNIVERSITY	13-ONR-1042		101,582	101,582
Finite-Temperature Molecular Dynamics and First Principle Modeling of Oxide Solid Solutions	12.300		N00014-12-1-1033	195,974		195,974
HUNT: HETEROGENEOUS UNMANNED NETWORKED TEAMS	12.300		N00014-08-1-0696	502,057		502,057
Inference And Dynamics On Networks	12.300		N00014-14-1-0823	61,729		61,729
Interactive Transfer of Continual Lifelong Learning	12.300	BRYN MAWR COLLEGE	2-44101		165,953	165,953
Nanocrystal Superlattice Thermal Interface Materials	12.300		N00014-12-1-0314	90,538		90,538
New Paradigms for Scalable Online Decentralized Optimization	12.300		N00014-12-1-0997	377,933		377,933
NEXT GENERATION NETWORK SCIENCE	12.300		N00014-08-1-0747	83,442		83,442
Phenotypic and Genotypic Markers of Performance Vulnerability to Sleep Loss	12.300		N00014-11-1-0361	503,535		503,535
PROBIOLOGICAL HYBRID DEFENSE (PHD): A new approach to automated reasoning and its application to cyberdefense	12.300		N00014-15-1-2006	26,192		26,192
Protocols and Policies in Security and Networking	12.300		N00014-11-1-0555	31,016		31,016
SMART ADAPTIVE RELIABLE TEAMS FOR PERSISTENT SURVEILLANCE (SMARTS)	12.300	MASSACHUSETTS INSTITUTE OF TECHNOLOGY	5710002644		236,731	236,731
Topological Representations and Algorithms for Robot Swarms	12.300		N00014-14-1-0510	112,912		112,912
Understanding the Photovoltaic Efficiency of Organometallic Perovskites	12.300		N00014-14-1-0761	213,292		213,292
Utilizing Synthetic Biology to Create Programmable Micro-Bio-Robots	12.300	BOSTON UNIVERSITY	4500000554		277,158	277,158
Vertical Charge Ordering Transistors Enabled by Structurally Coupled Heterointerfaces	12.300	DREXEL UNIVERSITY	204101-3668		71,372	71,372
Large-Area, 3D Optical Metamaterials with Tunability and Low Loss	12.300		N00014-10-1-0942	1,200,942		1,200,942
Shipboard Autonomous Firefighting Robot (SAFFiR)	12.300		450066-19314		96,101	96,101
IRONCLAD C/C++: Enforcing Memory Safety to Prevent Low-Level Security Vulnerabilities	12.300		N00014-11-1-0596	-2,233		-2,233
Neural and Psychophysical Visual Motion Models for UGV Perception and Navigation	12.300		N000014-11-1-0744	330,113		330,113
Beyond Labels: Generalized Supervision for Structured Learning	12.300		N00014-10-1-0746	160,151		160,151
Mission-Oriented Resilient Cloud Program (MRC)	12.300	BAE SYSTEMS	776780		347,354	347,354
Networks Opposing Botnets (NoBot) PHASE II	12.300		N00014-12-1-0757	599,963		599,963
Terrorist Alliances: Causes, Dynamics and Consequences	12.300	UNIVERSITY OF MICHIGAN	3002402464		27,001	27,001
SPARCS: Synthesis of Platform-Weve Attache-Resilient Control Systems	12.300		FA8760-12-2-0247	1,088,172		1,088,172
Theory and Virtualization Platform for Compositional Real-Time Systems	12.300		N00014-13-1-0802	274,705		274,705

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
Perception-Based, Reactive, Temporal-Logic Planning for Autonomous Deck Operations	12.300		N00014-13-1-0778	210,051		210,051
Lifelong Transfer Learning for Heterogenous Teams of Agents in Sequential Decision Processes	12.300	WASHINGTON STATE UNIVERSITY	122700_G003315		203,528	203,528
	SubTotal 12.300			6,386,391	2,140,581	8,526,972
(NF130052) Zebrafish as a Model to Study NF1-Associated Learning Deficits	12.420		W81XWH-14-1-0076	64,782		64,782
(OC110673) A New Paradigm for Simultaneous Immunomodulation of the Tumor Microenvironment and Direct Ovarian Cancer Cell Eradication Using B7-H4-Based Targeted Nanoparticles	12.420		W81XWH-12-1-0602	188,731		188,731
A Brief Intervention to Reduce Suicide Risk in Military Service Members and Veterans	12.420	HENRY M. JACKSON FOUNDATION	2010 / PO #680804		43,393	43,393
A Flexible Biomimetic Nanoparticle Platform for Targeted Imaging and Drug Treatment of Prostate Tumors	12.420		W81XWH-10-1-0604	28,543		28,543
AFIRM: IND-Enabling Nonclinical Efficacy Studies for Functional Repair of Major Nerve Trauma	12.420	RUTGERS UNIVERSITY	4671 / PO #S1688010		-14,156	-14,156
Antibody Targeting of the ALK Oncogene in Neuroblastoma	12.420		W81XWH-12-1-0343	212,011		212,011
AR110189: Examination of the mGluR-mTOR Pathway for the Identification of Potential Therapeutic Targets to Treat Fragile X Syndrome	12.420		W81XWH-12-1-0596	161,356		161,356
AR120166 - Tailored Behavioral Intervention for Insomnia in Children with Autism Spectrum Disorders	12.420		W81XWH-13-1-0185 - CLIN 0001	27,550		27,550
B cell activation and tolerance mediated by B cell receptor, Toll like receptor, and survival signal cross talk in SLE pathogenesis	12.420		W81XWH-14-1-0305	370,078		370,078
BC111503P1 Regulation of Metastasis and DNA Damage Resistance Pathways by Transposable Elements	12.420		W81XWH-12-1-0181	18,414		18,414
BC112718P1 Promotion of Tumor Initiating Cells in Primary and Recurrent Breast Tumors	12.420		W81XWH-12-1-0177	1,231		1,231
BC123126: Identification of variants in breast cancer susceptibility genes and determination of functional and clinical significance of novel mutations	12.420		W81XWH-13-1-0338	73,030		73,030
BC123187: Organotropic Metastatic Secretomes and Exosomes in Breast Cancer	12.420		W81XWH-13-1-0426	114,716		114,716
Breast Tumor Targeting, Imaging and Treatment Using a Synthetic Lipoprotein Vehicle Containing Iron Oxide and Paclitaxel with Improved Biokinetics	12.420		W81WH-10-1-0320	-11,193		-11,193
CA110449: Listeria vaccines for pancreatic cancer	12.420		W81XWH-12-1-0411	48,290		48,290
CBT FOR NIGHTMARES IN OEF/OIF VETERANS	12.420	PHILADELPHIA RESEARCH AND EDUCATION FOUNDATION	PT-074364-A		-2,020	-2,020
Characterization of a novel recurrent noncoding genomic alteration in breast cancer	12.420		W81XWH-15-1-0041	8,554		8,554
Chemokine receptor signatures in allogeneic stem-cell transplantation	12.420		W81XWH-13-1-0204	139,903		139,903
Cooperativity between Oncogenic PKC epsilon and Pten Loss in Prostate Cancer Progression	12.420		W81XWH-14-1-053530	158,015		158,015
c-Rel, a Novel Drug Target for Treating Multiple Sclerosis	12.420		W81XWH-11-1-0479	-19,692		-19,692
Defining the pathophysiological role of tau in experimental TBI	12.420		W81XWH-14-1-0275	174,390		174,390
Development and Translation of a Tissue-Engineered Disc in a Preclinical Rodent Model	12.420		W81XWH-10-1-0948	8,749		8,749
Development and Translation of a Tissue-Engineered Disc in a Preclinical Rodent Model	12.420		W81XWH-10-1-0949	-2,278		-2,278
DEVELOPMENT OF A MULTILEAF COLLIMATOR FOR PROTON RADIOTHERAPY PHASE 4 - PROTON THERAPY DOSE CHARACTERIZATION AND VERIFICATION	12.420		W81XWH-07-2-0121	-434,783		-434,783
Development of a Novel Translational Model of Vibration Injury to the Spine to Study Acute Injury in Vivo	12.420		W81XWH-10-2-0140	623,068		623,068
Development of Orally Bioavailable Therapeutics by the Chloroplast Expression System to Counter Muscle Degeneration, Weakness, and Fibrosis in DME	12.420		W81XWH-14-1-0256	172,620		172,620
Discovery of host factors and pathways utilized in hantaviral infection	12.420		W81XWH-14-1-0204	222,058		222,058
FLT-PET/CT as a biomarker of therapeutic response in pemtrexed therapy for non-small cell lung cancer	12.420		W81XWH-14-1-0197	143,998		143,998
Full Proposal- Stage 2: Maintaining Hydration of Dogs in Working Environments	12.420		W81XWH-13-1-0038	108,643		108,643
IMAGE BASED BIOMARKER OF BREAST CANCER RISK: ANALYSIS OF RISK DISPARITY AMONG MINORITY POPULATIONS	12.420	DELAWARE STATE UNIVERSITY	09-004MH		32,388	32,388
Implementation of Prolonged Exposure in the Army: Is Consultation Necessary for Effective Dissemination	12.420		W81XWH-12-2-0116	1,734,699		1,734,699
Infected Fractures: Treatment and Mitigation of Biofilm Formation	12.420		W81XWH-10-2-0156	354,181		354,181
Interfamilial Violence Following Mental Illness in Returning Army Service Members	12.420	CHILDREN'S HOSPITAL OF PHILADELPHIA	27235-321090315/PO #960177RSUB		3,802	3,802
LC130824 Ultra-sensitive, genetically encoded contrast agents for lung cancer diagnosis	12.420		W81XWH-14-1-0424	87,740		87,740
Macrophages as a Therapeutic Target in Tumor Dormancy and Breast Cancer Recurrence	12.420		W81XWH-13-1-0375	190,386		190,386
Magnetic Resonance Characterization of Axonal Response to Spinal Cord Injury	12.420		W81XWH-10-1-0714	89,680		89,680
Mechanisms and Treatment of Oligometastases	12.420		W81XWH-09-1-0339	589,067		589,067
PC120820: tRNA as a Novel Target for Prostate Cancer Therapy	12.420		W81XWH-13-1-0446	123,333		123,333
Positioning Vascularized Composite Allotransplantation in the Spectrum of Transplantation	12.420	CHILDREN'S HOSPITAL OF PHILADELPHIA	321113 / PO #960955RSUB		81,248	81,248
PR120935P1: Enhancing the Efficacy of Targeted Radiotherapy for Neuroblastoma	12.420		W81XWH-13-1-0406	208,968		208,968
Preventing risky drinking in veterans treated with prescription opioids	12.420		W81XWH-14-1-0060	642,067		642,067
PROTON THERAPY DOSE CHARACTERIZATION AND VERIFICATION	12.420		W81XWH-09-2-0174	761,925		761,925
PT110785: Tau Accumulation in TBI: Mechanisms and Treatment	12.420		W81XWH-13-1-0052	454,162		454,162
Rapid in vivo validation of tumor suppressor gene function in prostate cancer progression	12.420		W81XWH-15-1-0085	24,537		24,537
Regulation of Metastasis and DNA Damage Resistance Pathways by Transposable Elements	12.420		W81XWH-12-1-0180	121,929		121,929
Repair of Major Nerve Trauma Using Tissue-Engineered Nerve Grafts: IND-Enabling Nonclinical Efficacy Studies in Swine	12.420	RUTGERS UNIVERSITY	Sub # 5299 AFIRM		444,300	444,300
Role of Autophagy in Dormant Tumor Cell Survival and Recurrence	12.420		W81XWH-14-1-0404	220,306		220,306
Role of Tap73 in prostate cancer proliferation	12.420		W81XWH-13-1-0100	25,547		25,547
SENSORY DYSFUNCTION IN EARLY PARKINSON'S DISEASE	12.420		W81XWH-09-1-0467	-1,506		-1,506
Targeting anti-viral and NOTCH3 pathways to inhibit stroma-mediated treatment resistance	12.420		W81XWH-14-1-0450	147,998		147,998
THE STRONG STAR MULTIDISCIPLINARY PTSD RESEARCH CONSORTIUM	12.420		W81XWH-08-2-0111	537,397		537,397
Tumor Microenviroment Inflammation and Obesity in Advanced Prostate Cancer	12.420	THOMAS JEFFERSON UNIVERSITY	080-27000-X14501		38,950	38,950
Validation of APF as a Urinary Biomarker for Interstitial Cystitis	12.420	COMMONWEALTH MEDICAL COLLEGE	SUB TO W81XWH-13-1-0454		11,235	11,235
Vasopressin Supplementation During the Resuscitation of Hemorrhagic Shock	12.420	NATIONAL TRAUMA INSTITUTE	NTI-TRA-09-062		21,800	21,800
Web-PE: Internet-Delivered Prolonged Exposure Therapy for PTSD	12.420		W91XWH-14-1-0008	379,969		379,969
YY1 Control of AID-Dependent Lymphomagenesis	12.420		W81XWH-14-1-0171	226,477		226,477
Zebrafish Model of NF1 for Structure-Function Analysis, Mechanisms of Glial Tumorigenesis and Chemical Biology	12.420	DANA-FARBER CANCER INSTITUTE	3076501		131,272	131,272
Critical Pathways in Residual Neoplastic Disease	12.420		W81-XWH-11-1-0683	11		11
DM120237-A Randomized, Controlled, Ascending Dose Clinical Trial of a Bismuth-Thiol (BT) Topical Anti-Infective Drug for Treatment of Post-Surgical Orthopedic Infections	12.420		W81XWH-12-2-0100	200,954		200,954
Detection of Early Lung Cancer Among Military Personnel (DECAMP)	12.420	BOSTON UNIVERSITY	9500300580		55,964	55,964
	SubTotal 12.420			9,720,611	848,176	10,568,787
Biaxial Test System for Biomechanical Testing in Trauma Research and Bioengineering Education	12.431		W911NF-13-1-0260	42,260		42,260
Blast Induced Threshold for Neuronal Networks (BITNeT)	12.431		W911NF-10-1-0526	1,253,489		1,253,489
Compositional Framework for Complex Real-Time Systems on Multicore Platforms	12.431		W911NF-11-1-0403	-2,469		-2,469
DASHER: Dynamically Adaptive Swarm of Heterogeneous Robots	12.431		W911NF-13-1-0350	72,641		72,641
Developing a Better Canine Warrior: Performance Assessment, Associated Phenotypes and Genome-wide Association Mapping for Superior Intelligence in Military Working Dogs	12.431		W911NF-14-1-0574	83,011		83,011
Dynamic Network Neuroscience: Probing Adaptation of Large-Scale Neural Circuits	12.431		W911NF-14-1-0679	139,578		139,578
Electrochemical Impedance Spectrometer with an Environmental Chamber for Rapid Screening of New Precise Copolymer	12.431		W911NF-14-1-0466	112,511		112,511
Flexoelectricity in PZT Nanoribbons and Biomembranes	12.431		W911NF-11-1-0494	87,468		87,468
Granularity and Jamming: A new approach to understanding and predicting near-threshold sediment transport	12.431		W911NF-13-1-0458	109,544		109,544
Identifying the Neural Substrates of Emotional Arousal: Towards a Path to Stress Resistance	12.431	CHILDREN'S HOSPITAL OF PHILADELPHIA	321104 / PO #961079RSUB		118,379	118,379
Identifying the Neural Substrates of Emotional Arousal: Towards a Path to Stress Resistance	12.431		321104-01-02 / 950826RSUB		13,967	13,967
Identifying the Neural Substrates of Emotional Arousal: Towards a Path to Stress Resistance	12.431		321104-Y2-4/PO #960194RSUB		252,061	252,061
Identifying the Neural Substrates of Emotional Arousal: Towards a Path to Stress Resistance	12.431		321104-Y3-01/PO #960186RSUB		296,438	296,438
Inferring Microbial Fitness Landscapes	12.431		W911NF-12-1-0552	95,146		95,146
Near and Far-Field Interfaces to DNA-Guided Nanostructures from RF to Lightwave: Exploiting the Spectrum	12.431	UNIVERSITY OF CALIFORNIA-IRVINE	2010-2511		111,547	111,547

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
Rapid Screening of New Precise Copolymers: Morphology and Ionic Conductivity	12.431		W911NF-13-1-0363	67,225		67,225
Research Area 4.4 Multi-Agent Network Control: Collective Motion and Swarms of Artificial Swimmers at Low Reynolds Number	12.431		W911NF-11-1-0488	75,516		75,516
SUBTITLE: SITUATION UNDERSTANDING BOT THROUGH LANGUAGE AND ENVIRONMENT	12.431		W911NF-07-1-0216	38,599		38,599
The spatiotemporal resolution of cognitive signals revealed through high-density uCoG mapping	12.431		W911NF-14-1-0173	69,233		69,233
Understanding and Development of Sub-Wavelength Nanowire Optical Waveguides for Photonics and Sensors	12.431		W911NF-09-1-0477 P0005	33,323		33,323
Evolution of Cultural Norms and Dynamics of Socio-Political Change	12.431		W911NF-12-1-0509	1,211,125		1,211,125
	SubTotal 12.431			3,488,200	792,392	4,280,592
(MURI-10) Science of Cyber Security: Modeling, Composition and Measurement	12.800	STANFORD UNIVERSITY	29183000-51677-A		136,513	136,513
(YIP) A Unified Algebraic and Logic-Based Framework Towards Safe Routing Implementations	12.800		FA9550-12-1-0327	215,960		215,960
Bayesian Tracking Within a Feedback Sensing Environment	12.800	UNIVERSITY OF WASHINGTON	745882		16,604	16,604
Electron and Energy Transfer Dynamics in Homogeneous and Inhomogeneous Environments	12.800		FA9550-13-1-0157	204,810		204,810
Experiments and Analysis Investigating Online Collection of Meaningful Information By Autonomous Sensorimotor Agents	12.800		FA2386-12-1-3008	467,765		467,765
Fundamental Studies of Endothermic Reforming Reactions on Acid Catalysts	12.800		FA9550-14-1-0302	118,737		118,737
INFORMATION DYNAMICS AS THE FOUNDATION FOR NETWORK MANAGEMENT	12.800	PRINCETON UNIVERSITY	MOD 3 UNDER SUBAWARD #00001714		48,051	48,051
NANOCATALYSTS FOR PROPULSION APPLICATIONS	12.800	YALE UNIVERSITY	C08L10030		-672	-672
Neural Bases of Persuasion and Social Influence in the U.S. and the Middle East	12.800	UNIVERSITY OF CALIFORNIA-LOS ANGELES	0875 G SA495		188,546	188,546
Nonadiabatic Molecular Dynamics For Electron and Energy Transfer	12.800		FA9550-11-0092	0		0
Third-Party Retaliation and the Psychology of Deterrence: Mapping the Psychological Mechanisms that Regulate Retaliation on Behalf of Others	12.800	UNIVERSITY OF MIAMI	66919P		215,283	215,283
Topological Privacy	12.800	CARNEGIE MELLON UNIVERSITY	1150127-320589		62,237	62,237
UNDERSTANDING COGNITIVE DECISION MAKING VIA NEAREST NEIGHBOR ALGORITHMS IN MACHINE LEARNING	12.800		FA9550-15-1-0002	75,000		75,000
Metamaterial-Based One-Way Cavities, One-Way Terminals and One-Way Loops	12.800		FA9550-10-1-0408	191,402		191,402
CHASE: Control of Heterogeneous Autonomous Sensors for Situational Awareness	12.800		FA9550-10-1-0567	1,407,986		1,407,986
Quantum Metaphotonics and Metamaterials: From Single Emitters to Strongly Correlated Systems	12.800	BROWN UNIVERSITY	00000555PO #P280816		140,677	140,677
Formal Synthesis of Software-Based Control Protocols for Fractionated, Composable Autonomous Systems	12.800	CALIFORNIA INSTITUTE OF TECHNOLOGY	102-1093654		250,844	250,844
Geometry and Topology of Complex Networks	12.800		FA9550-13-1-0097	323,642		323,642
	SubTotal 12.800			3,005,302	1,058,083	4,063,385
Local-Global Principles and Field Invariants	12.901		H98230-14-1-0145	57,918		57,918
	SubTotal 12.901			57,918		57,918
Biochronicity: Time, Evolution, Networks and Function	12.910	DUKE UNIVERSITY	12-DARPA-1068		937,577	937,577
Data Resources Aladdin Video Evaluations	12.910		2014-14042400005 CLIN 0001	554,683		554,683
Exploiting Quantitative Universals for Unsupervised Acquisition of Language Structure (EQUUALS)	12.910		HR0011-15-2-0023	29,164		29,164
Exploring the Optimal Forecasting Frontier: How much room is there to improve subjective forecasting accuracy? (Year 3 and 4)	12.910	UNIVERSITY OF CALIFORNIA- BERKELEY	00007645		3,334,455	3,334,455
FITT: Development of a Low Voltage, Low Power Transistor Based on Topological Surface States	12.910	PRINCETON UNIVERSITY	00001941		23,227	23,227
Memory Enhancement with Modeling, Electrophysiology, and Stimulation (MEMES)	12.910		N66001-14-4032	6,334,165		6,334,165
Neural mechanisms of influence, deterrence and message propagation	12.910		D14AP00048	227,297		227,297
Rapid Ab Isolation and Delivery by Recombinant AAV Technology (RAID-RAT)	12.910		W911NF-13-2-0036	4,880,726		4,880,726
ReORIENT: Resources for Operationally Relevant Information Extraction from Non-Explicit Text	12.910		FA8750-13-2-0045	2,245,286		2,245,286
TACTICAL HAZARDOUS OPERATIONS ROBOT (THOR)	12.910	UNIVERSITY OF CALIFORNIA-LOS ANGELES	0205 G SB098		3,368	3,368
(DARPA) CoDoN: Categorification of Data Over Networks	12.910		FA9550-12-1-0416	439,663		439,663
	SubTotal 12.910			14,710,984	4,298,627	19,009,611
AM3 Autonomous Multifunctional Mobile Microsystems	12	BAE SYSTEMS	316106		1,939,686	1,939,686
Artificial Intelligence and Robotics for Distributed Autonomous Systems (AIRDAS)	12	UNITED TECHNOLOGIES RESEARCH CENTER	1213281		18,558	18,558
Clean-Slate Design of Resilient, Adaptive Secure Hosts (CRASH)	12	BAE SYSTEMS	739528		453,951	453,951
DARPA Computer Science Study Panel FY08 Phase 3 'Crowdsourcing Translation'	12	JOHNS HOPKINS UNIVERSITY	2001788339		121,503	121,503
DARPA: Machine Reading	12	SCIENCE APPLICATIONS INTERNATIONAL CORPORATION	4400165821		-28	-28
Development of Orally Bioavailable Therapeutics by the Chloroplast Expression System Counter Muscle Degeneration, Weakness, and Fibrosis in DMD	12	UNIVERSITY OF FLORIDA	Advance Account		63,378	63,378
Distinguishing Brain States and Resolving State Transitions	12	DCS CORPORATION	APX02-0006 - TASK ORDER 001		295,007	295,007
Effects of Traumatic Brain Injury (TBI) and Post Traumatic Stress Disorder (PTSD) on Alzheimer's Disease (AD) in Veterans Using Imaging and Biomarkers in the AD Neu	12	NORTHERN CALIFORNIA INSTITUTE FOR RESEARCH AND EDUCATION	1686		36,031	36,031
Effects of traumatic brain injury and posttraumatic stress disorders on Alzheimer's disease AD in Veterans with mild cognitive impairment MCI using the Alzheimer's Dis	12	NORTHERN CALIFORNIA INSTITUTE FOR RESEARCH AND EDUCATION	1820		21,518	21,518
Focused Center on Materials , Structures and Devices	12	MASSACHUSETTS INSTITUTE OF TECHNOLOGY	5710002716		73	73
HETEROGENEOUSLY INTEGRATED OPTICAL SYNTHESIZER (HIOS)	12	UNIVERSITY OF CALIFORNIA- BERKELEY	Advance Account		24,171	24,171
Immediate and Persistent E-DNA Protection Against Dengue	12		W31P4Q-13-1-0003	2,910,615		2,910,615
JPA Michael Grandner Year 1	12	PHILADELPHIA RESEARCH AND EDUCATION FOUNDATION	IPA MICHAEL GRANDNER		29,700	29,700
Knowledge Representation in Neural Systems Program	12	HRL LABORATORIES	13006-XXXX		354,163	354,163
Large-scale Paraphrasing for Natural Language Understanding	12	JOHNS HOPKINS UNIVERSITY	2001801140 / FA8750-13-2-0017		143,527	143,527
Linguistic Resources for Multilingual, Genre-Independent Language Technologies (BOLT)	12		HR0011-11-C-0145	6,960,491		6,960,491
Management of Suicidal-Related Events During Deployment	12	RESEARCH FOUNDATION FOR MENTAL HYGIENE, INC.	PO #110520		112,115	112,115
New Antibiotics Targeting the Bioenergetics of Category A and B Bacteria	12		HDTRA1-10-C-0043	61,823		61,823
OPTIMIZING DELIVERY OF MINDFULNESS-BASED MILITARY TRAINING IN ARMY INFANTRY UNITS	12		W81XWH-09-C-0072	-128,111		-128,111
Outcomes Following Severe Distal Tibia, Ankle and/or Foot Trauma: Comparison of Limb Salvage vs. Transfemoral Amputation Protocol (OUTLET Study	12	JOHNS HOPKINS UNIVERSITY	OUTLET		14,999	14,999
Phase I, Open-Label, Study to Evaluate the Safety, Tolerability, and Immunogenicity of INO-4212 and its Components, INO-4201, Given with or without INO-9012, Admin	12	INOVIO PHARMACEUTICALS, INC.	EBOV-001		4,494	4,494
Phase II: VECTOR - AAV Expressed Chemical Threat Protector	12		HDTRA1-15-C-0023	344,127		344,127
Robotic Perception, Intelligence, and Dexterous Manipulation & Unique Mobility	12	GENERAL DYNAMICS ROBOTIC SYSTEMS	PO #2013-01025		1,446,420	1,446,420
Scalable and Highly Sensitive Transistors Using 2-D Materials	12	GRAPHENE FRONTIERS	SUB TO S-875-191-005		1,045	1,045
Sleep, Mental Disorders and TBI in Deployed Military Members	12	UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES	HT9404-13-1-TS09, N13-P14		13,118	13,118
Software Tool for Complex Biomarker Discovery Phase II	12	TOPGEAR AUTOMATION, INC.	W81XWH-11-C-0041		70,969	70,969
STTR AF14-AT06: Correct-by-Construction Synthesis for Multi-vehicle Autonomy Mission	12	GALOIS, INC.	SUB TO F14A-T06-0018		32,887	32,887
Supplemental Perioperative Oxygen to Reduce Surgical Site Infection After High Energy Fracture Surgery	12	JOHNS HOPKINS UNIVERSITY	OXYGEN		0	0
SURFACE COAGULATION STUDY	12	HENRY M. JACKSON FOUNDATION	818633		143,866	143,866
TerraSwarm Research Center (TSRC)	12	UNIVERSITY OF CALIFORNIA- BERKELEY	00008165/PO#BB00144165		854,152	854,152
The Center for Micro/Nano Scaling-Induced Physics (MiNaSIP)	12	NORTHROP GRUMMAN CORPORATION	PO #8200145279		32	32
The Natural History of the Progression of Atrophy Secondary to Stargardt Disease: A Prospective Longitudinal Observational Study (ProgSTAR)	12	FOUNDATION FIGHTING BLINDNESS	NNSP-CL-0313-0069-UP3NN-N34		23,284	23,284
The Natural History of the Progression of Atrophy Secondary to Stargardt Disease: A Retrospective Longitudinal Observational Study	12	FOUNDATION FIGHTING BLINDNESS	NNSP-CL-0413-0077-UPENN.NER		3,804	3,804
Understanding the Atomic Scale Mechanism that controls the attainment of ultralow friction and wear in carbon based materials	12		FA2386-14-1-4071	60,180		60,180
VIPERTOIN Language/Dialect Collection I	12		H98230-10-D-0041	900,961		900,961
Selectable Anonymity For Enabling SAFER Telecommunications (SAFEST)	12		N66001-11-C-4020	265,812		265,812
Rich Representations with Exposed Semantics for Deep Visual Reasoning 	12	CARNEGIE MELLON UNIVERSITY	1141221-258509		222,570	222,570

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
UPenn Sub-Proposal to BAE SYSTEMS in Response to DARPA PERFECT	12	BAE SYSTEMS	822298		249,138	249,138
StateSim For Use Within A Model Predictive Control Framework (MPCF)	12		N41756-13-C-3048	351,822		351,822
SubTotal 12				11,727,720	6,694,131	18,421,851
DEPARTMENT OF DEFENSE Total				49,097,126	15,831,990	64,929,116
					118,654	118,654
DEPARTMENT OF INTERIOR						
SILUS Spatial Integration Laboratory for Urban Systems, 2011-2016	15.808		G11AC20285	75,269		75,269
SubTotal 15.808				75,269		75,269
Celebrating the NPS Centennial through the Investigation, Analysis, and Treatment of the Facade of Mission San Jose de Tumucacori, TUMA	15.945		P14AC00965	26,551		26,551
Cultural Landscape Inventory National Capital Region- Civil War Defenses II of Washington DC-UPL	15.945		P14AC01144	42,909		42,909
Historic Preservation Graduate Internship INHP, Phase II	15.945		P14AC00147	72,545		72,545
Historic Preservation Graduate Internship, Independence National Historical Park, NPS	15.945		P13AC00095	-49,796		-49,796
Jackson Lake Lodge Historic Structures Report	15.945		P14AC01158	34,517		34,517
Phase II Condition Survey & Assessment - Lodge, Cabins, Misc Structures	15.945		Advance Account	36,960		36,960
SubTotal 15.945				163,686		163,686
Condition Assessment and Treatment Evaluation of the Support Boulder Beneath Holly Tower	15		H1200090005	3,575		3,575
Cultural Landscape Inventory - Civil War Defenses of Washington	15		H1200090005/ORDER #P12AC10929	25,432		25,432
Development of a Comprehensive Hazard to Loss Modeling Framework for the Residential Damage Associated with Inland Flooding from North Atlantic Tropical Cyclone	15	UNIVERSITY OF IOWA	W000645062		413	413
Linguistic Resources for Robust Automatic Transcription of Speech (RATS)	15		D10PC20016	22,001		22,001
SubTotal 15				51,008	413	51,421
DEPARTMENT OF INTERIOR Total				289,963	413	290,376
DEPARTMENT OF JUSTICE						
Highly Parallel Analysis of Complex Genetic Mixtures	16.560	STANFORD UNIVERSITY	60501677-111213		38,644	38,644
Measuring Success in Focused Deterrence through an Effective Researcher-Practitioner Partnership	16.560	TEMPLE UNIVERSITY	310207-UPENN		4,254	4,254
Space-time study of youth and school violence	16.560		2014-CK-BX-0008	84,890		84,890
SubTotal 16.560				84,890	42,898	127,788
Understanding the Impact of Long-Acting Opioid Blockers on the Health and Offending of Parolees: A Pilot Experimental Evaluation	16.593	PENNSYLVANIA DEPARTMENT OF CORRECTIONS	PO #4300456075		8,158	8,158
SubTotal 16.593					8,158	8,158
The Effects of Summer Jobs on Youth Violence	16.726	UNIVERSITY OF CHICAGO	FP052923		59,173	59,173
SubTotal 16.726					59,173	59,173
Forecasting Recidivism Under VPI for the State of Maryland	16	MARYLAND STATE	BJNT-2010-0007		10,152	10,152
SubTotal 16					10,152	10,152
DEPARTMENT OF JUSTICE Total				84,890	120,381	205,271
DEPARTMENT OF LABOR						
The Effects of Summer Jobs on Justice-Involved Youth	17	SUMMIT	N/A		22,005	22,005
SubTotal 17					22,005	22,005
DEPARTMENT OF LABOR Total					22,005	22,005
U.S. DEPARTMENT OF STATE						
Annual U.S.-India Think Tank Summit May 2015: Powering India's Think Tank Community into the 21st Century	19.040		S-IN650-14-GR-058	92,853		92,853
SubTotal 19.040				92,853		92,853
The Internet Policy Observatory: A Monitoring and Civil Society Capacity-Building Project	19		S-LMAQM-13-GR-1052	322,462		322,462
SubTotal 19				322,462		322,462
U.S. DEPARTMENT OF STATE Total				415,315		415,315
DEPARTMENT OF TRANSPROTATION						
Establishment and Support of the Air Transportation Center of Excellence for Alternative Jet Fuels and Environment - 2013	20.109		13-C-AJFE-UPENN-01	5,000		5,000
Pilot study on aircraft noise and sleep disturbance	20.109		13-C-AJFE-UPENN	121,241		121,241
Project 25B: Noise Exposure Response - Sleep Disturbance (Phase III)	20.109		10-C-NE-UPENN-004	47,910		47,910
SubTotal 20.109				174,151		174,151
Dwight David Eisenhower 2014 Grad Fellowship Program	20		DTFH6414G00009	28,149		28,149
The Dwight David Eisenhower Transportation Fellowship Program 2013 Eisenhower Graduate Fellowship	20		N/A	34,761		34,761
T-SET: Technologies for Safe and Efficient Transportation	20	CARNEGIE MELLON UNIVERSITY	1080311-341328		22,235	22,235
T-SET: Technologies for Safe and Efficient Transportation	20	CARNEGIE MELLON UNIVERSITY	1080266-283594		840,755	840,755
SubTotal 20				62,910	862,990	925,900
DEPARTMENT OF TRANSPROTATION Total				237,061	862,990	1,100,051
DEPARTMENT OF TREASURY						
Federal Reserve Financial Literacy Project (FLP- Year 2)	21		N/A	4,000		4,000
SubTotal 21				4,000		4,000
DEPARTMENT OF TREASURY Total				4,000		4,000
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION						
Team Leader - Radiation Effects Team	43.000	NATIONAL SPACE BIOMEDICAL RESEARCH INSTITUTE	RE02701/PO #4600605		5,738	5,738

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
Team Leader - Radiation Effects Team	43.000		RE02701/PO #4600605766		23,223	23,223
	SubTotal 43.000				28,961	28,961
A Balloon-borne Doppler Spectrometer For Discovering Earth-like Planets Orbiting Low-Mass Stars	43.001		NNX13AI79G	284,182		284,182
Acute Radiation Biological Effects Resulting from Exposure to Galactic Cosmic Rays and Protons from Solar Particle Events	43.001	NATIONAL SPACE BIOMEDICAL RESEARCH INSTITUTE	RE01801		-21,735	-21,735
Balloon-borne Large Aperture Submillimeter Telescope - BLAST	43.001		NNX13AE50G	900,440		900,440
Cognition on HI-SEAS	43.001	UNIVERSITY OF HAWAII	MA150006		10,940	10,940
CREW QUARTERS STUDY: TECHNICAL SUPPORT FOR DEVELOPMENT AND IMPLEMENTATION OF OPERATIONAL GROUND TESTING PROTOCOLS	43.001		NNX09AE24G	23,860		23,860
Discerning the details of the cosmic dark sector	43.001	CORNELL UNIVERSITY	71105-10295		95,033	95,033
Exploring the Connection Between Galactic Magnetic Fields and Star Formation with the Balloon-borne Large Aperture Submillimeter Telescope - BLAST	43.001		NNX12AL58H	29,113		29,113
Flood Regimes and Carbon Cycling in Anthropogenic Landscapes of the Bolivian Amazon	43.001		NNX13AQ07G	63,259		63,259
Interactions In the Dark Sector Of Cosmology	43.001	CORNELL UNIVERSITY	62266-9666		40,324	40,324
Probing Hydrogen and Helium Reionization.	43.001		NNX12AC97G	84,262		84,262
Seasonal, interannual and interdecadal variability in global phytoplankton community size structure derived from ocean color remote sensing and IPCC-class ecosystem	43.001		NNX13AC92G	242,669		242,669
X-Raying the Stellar Wind and Atmosphere of Vela-1	43.001	SMITHSONIAN ASTROPHYSICAL OBSERVATORY	GO3-14044X		10,928	10,928
Combining galaxies, balos, and mass for cosmological tests	43.001		NNX11AI25G	149,765		149,765
Reliving the Past: Experimental Evolution of Major Transitions in the History of Life	43.001	UNIVERSITY OF MONTANA	PG15-26850-04		50,202	50,202
	SubTotal 43.001			1,777,550	185,692	1,963,242
HERO Twin Astronaut Study Consortium (TASC) Project: Cognition on monozygotic twin on Earth	43.003		NNX14AH27G	42,189		42,189
	SubTotal 43.003			42,189		42,189
Biomarkers as predictors of resiliency and susceptibility to stress in space flight	43.007		NNX14AN49G	133,022		133,022
FOAM: Foam Optics and Mechanics (The Melting of Optic Foams)	43.007		NNX14AM99G	83,604		83,604
Low Volume Fraction Entropically Driven Colloidal Assembly (Phase 2)	43.007		NNX13AL27G	115,698		115,698
	SubTotal 43.007			332,324		332,324
Studying the Interstellar Meduim of Galaxies During the Epoch of Reionization Via Intensity Mapping	43.008		NNX11AQ63H	4,156		4,156
	SubTotal 43.008			4,156		4,156
Development of millimeter imaging technologies	43.009		NNX11AN19H	64,955		64,955
	SubTotal 43.009			64,955		64,955
2MASSDSX: A HOMOGENEOUS CATALOG OF GALAXIES FROM THE NIR TO THE NUV	43		NNX09AD02G	29,990		29,990
Characterization of evolutionarily ancient structures on haloarchaeal cell surfaces	43		NNX10AR84G	97,081		97,081
Cognitive performance and crew cohesion during confinement in NASA's Human Research Program Human Exploration Research Analog (HERA)	43		NNX14AH98G	109,729		109,729
Constraining Dark Energy and Modified Gravity with Euclid	43		1515793	61,034		61,034
Global Properties Are Not Enough: Probing the Local Environments of Type Ia Supernovae	43	SPACE TELESCOPE SCIENCE INSTITUTE	HST-GO-12969.03-A		18,012	18,012
Individualized Real-Time Neurocognitive Assessment Toolkit for Space Flight Fatigue	43	NATIONAL SPACE BIOMEDICAL RESEARCH INSTITUTE	NBPF02501		478,361	478,361
Kinetic Inductance Detectors for Far-Infrared Spectroscopy	43		NNX13AL68H	56,568		56,568
Monocular SLAM for Smart SPHERES	43		NNX14AM10H	48,561		48,561
Neurostructural, cognitive, and physiologic changes during a 1-year Antarctic winter-over mission	43		NNX14AM81G	247,585		247,585
PVT SELFTEST ON ISS	43		NNX08AY09G	110,666		110,666
Research Sponsored Agreement: Constraining Dark Energy and Modified Gravity with Euclid	43		1479009	65,585		65,585
The highest redshift strongly lensed dusty star forming galaxies	43		1473607	240		240
Developing Kinetic Inductance Detectors for the Balloon-bourne Large Aperture SubmillimeterTelescope ?BLAST	43		NNX14AN63H	51,457		51,457
	SubTotal 43			878,496	496,373	1,374,869
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION Total				3,099,670	711,026	3,810,696
NATIONAL ENDOWMENT						
Completing the Royal Inscriptions of the Neo-Assyrian Period (RINAP): Assyrian Imperial Sources from Apex to Annihilation (668-609 BCE)	45.149		PW-228092-15	1,189		1,189
Preserving and Providing Access to the Official Inscriptions of the Kings of Assyria, 744 to 609 B.C.	45.149		PW-51004-12	-1,204		-1,204
	SubTotal 45.149			-15		-15
Bilinguals in Late Mesopotamian Scholarship	45.169		HG-50029-11	8,584		8,584
	SubTotal 45.169			8,584		8,584
Kashaya (kju) Database and Dictionary	45.075		PD-50019-12	5,245		5,245
	SubTotal 45.075			5,245		5,245
NATIONAL ENDOWMENT Total				13,814		13,814
NATIONAL SCIENCE FOUNDATION						
2014 Cellular and Molecular Bioengineering (CMBE) Conference	47.041		CBET-1358349	2,250		2,250
A wireless sensor-brain interface to restore finger sensation	47.041		CBET-1404041	140,993		140,993
Analysis of Moving Unfolding Fronts in Long Protein Molecules	47.041		CMMI-1066787	50,721		50,721
Autonomous Robotic Rotorcraft for Exploration, Surveillance and Transportation (ARREST)	47.041		IIP-1113830	370,048		370,048
Bio-enabled Nanosensors with Fully Programmable Ligand Detector	47.041		IIP-1312202	334,314		334,314
CAREER: Domain boundary phenomena and composition fluctuations in heterogeneous lipid membrane mixture:	47.041		CBET-1053857	84,553		84,553
CAREER: Entropic elasticity of fluctuating filaments and networks	47.041		CMMI-0953548	32,021		32,021
CAREER: LOCOMOTION OF SMALL ORGANISMS IN COMPLEX FLUIDS	47.041		CBET-0954084	35,973		35,973
CAREER: Molecular Imaging of Cancer Research and Education Program	47.041		CBET-0953583	142,132		142,132
Collaborative Proposal: Large-Scale Patterning of Germanium Quantum Dots by Stress Transfer	47.041		CMMI-1068841	54,917		54,917
Collaborative Research: Efficient Rare Cell Capturing in Microfluidic Devices via Multiscale Surface Design	47.041		CBET-1263940	111,862		111,862
Collaborative Research: GOALI: Acrylic Resins Product and Process Design through Combined Use of Quantum Chemical Calculations and Spectroscopic Methods	47.041		CBET-1159736	57,814		57,814
Collaborative Research: GOALI: Synergistic Improvement of Process Safety and Product Quality Using Process Database	47.041		CBET-1066475	2,304		2,304
Collaborative Research: IUCRC for Robots and Sensors for the Human Well-being	47.041		IIP-1439681	26,072		26,072
Collaborative Research: Optimal Design and Operation of Dye Sensitized Solar Cells Using an Integrated Strategy Involving First-Principles Modeling, Synthesis, and Characterization	47.041		CBET-1234993	23,045		23,045
Collaborative Research: Temperature-Dependence of Atomic-Scale Friction	47.041		CMMI-1401164	156,409		156,409
Collaborative Research: Ultrafast Carrier Dynamics in Semiconductor Nanocrystal Solar Cells	47.041		CBET-1335821	2,963		2,963

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
Deciphering and Controlling the Signalling Processes in Bacterial Multicellular Systems and Bacteria-Host Interactions: EFRI-MIK3	47.041	SYRACUSE UNIV	SP-24889-1-02935-S02		75,327	75,327
Directed Assembly by Capillarity	47.041		CBET-1066284	25,130		25,130
EAGER: Spatiotemporal Regulation of Receptor-Initiated Intracellular Complexes of Signaling Proteins	47.041		CBET-1450751	80,565		80,565
EFRI-ODISSEI: Cutting and Pasting - Kirigami in Architecture, Technology, and Science	47.041		EFRI-1331583	605,318		605,318
EFRI-SEED: Energy Minimization via Multi-Scaler Architectures: From Cell Contractility to Sensing Materials to Adaptive Building Skin	47.041		EFRI-1038215	227,735		227,735
Engineering phases and kinetics for processing DNA-linked particle materials	47.041		CBET-1133386	3,933		3,933
Engineering Proteins for Reabsorption in the Renal Proximal Tubule	47.041		CBET-1264807	76,064		76,064
Ethics Education for Integrated Product Design	47.041		EEC-1033014	52,774		52,774
Excavating the Roman Peasant	47.041		BCS-1063447	-25,124		-25,124
From Reconstituted Actin Networks to 3D Multi-cellular Microtissues: Multi-scale Models and Experiments on Contractility in Active Cytoskeletal Network	47.041		CMMI-1312392	126,429		126,429
GOALI/Collaborative Research: Deciphering the Mechanisms of Wear to Enable High Performance Tip-Based Nanomaufacturing	47.041		CMMI-1200019	140,274		140,274
GOALI: REAL TIME, NANOSCALE IMAGING OF ELECTROCHEMISTRY AND ELECTROPLATING IN LIQUID MEDIA	47.041		CMMI-1129722	30,339		30,339
GOALI: Structure and Electronic Properties of Grain Boundaries in Earth Abundant Cu2ZnSnSxSe4-x (CZTS) Thin Film Solar Cells	47.041		CBET-1235870	67,948		67,948
I/UCRC: Collaborative Research: Autonomous Perception and Manipulation in Search and Rescue	47.041		IIP-1432960	12,043		12,043
In-Situ, Real Time Transmission Electron Microscope Imaging of Colloidal Crystal Formation	47.041		CBET-1066573	93,952		93,952
Investigating the Unsteady Rheology and Evolving Microstructure of Suspensions of Swimming Microorganism	47.041		CBET-1437482	4,966		4,966
Measurement of 2-D Receptor-Ligand Binding Kinetics Under Flow	47.041	JOHNS HOPKINS UNIVERSITY	2001549311		27,737	27,737
Mechanisms of Decoupling Graphene from Strong-Binding Substrates by Intercalation	47.041		CMMI-1308396	275,382		275,382
Molecular Modeling of Wetting and Dewetting Transitions on Nanotextured Surfaces	47.041		1511437	17,738		17,738
Multiscale Modeling of the Nanocarrier-Cell Adhesion Interface in Targeted Drug Delivery	47.041		CBET-1236514	143,392		143,392
Nonlinear Homogenization of Porous Anisotropic Materials: Applications to Plastic and Magnetic Shape-Memory Alloy	47.041		CMMI-1332965	68,051		68,051
Nuclear Rigidity scales with Tissue Elasticity and directs Cell Fate	47.041		CMMI-1200834	134,727		134,727
Optogenetic Tools for Minimally Invasive Therapies	47.041		CBET-1264975	138,954		138,954
Particle/Protein Interaction and Migration via Anisotropic Membrane Deformation	47.041		CBET-1133267	28,464		28,464
Pattern - Changing Instabilities and Giant Magnetostriction in Periodic Magnetoelastic Composites	47.041		CMMI-1068769	52,429		52,429
PFI-BIC Affordable and Mobile Assistive Robots for Elderly Care	47.041		IIP-1430216	184,196		184,196
SAFETY, SECURITY, RESCUE AND FIRST RESPONSE	47.041		IIP-0742304	5,010		5,010
SNM: Scalable Manufacturing of Nanostructured Membranes for Fracking Wastewater Treatment	47.041		CBET-1449337	135,317		135,317
SUNFEST - Summer Undergraduate Research in Sensor Technologies	47.041		EEC-1359107	164,299		164,299
Toward Artificial Enzyme Analogues for Cellulose Hydrolysis Using High-throughput Screening	47.041		CBET-1033017	4,461		4,461
Viscoelastic Fluids in Parallel Shear Flows at low Re: Instabilities, Bifurcations & Single Molecule Experiments	47.041		CBET1336171	83,875		83,875
CDI-TYPE II: Collaborative Research: Cyber-Amplified Bioinspiration in Robotics	47.041		ECCS-1028237	308,940		308,940
CPS: MEDIUM: Collaborative Research: Co-Design of Multimodal CPS Architectures and Adaptive Controllers	47.041		ECCS-1135630	103,180		103,180
Engineering All-Inorganic Quantum Dot Heterojunction Photovoltaics Through Surface Chemical Manipulations	47.041		CBET-1236406	166,043		166,043
DMREF: Collaborative Research: High-throughput discovery, development, and demonstration of material systems to enable low-power NEMS-based computation	47.041		CMMI-1334241	347,055		347,055
Realizing non-close-packed colloidal crystals using directional-bonding superparticles	47.041		CBET-1403237	107,163		107,163
Structured Composite Materials with Variable Adhesion Properties	47.041		CMMI-1435745	30,146		30,146
MRI: Acquisition of a Laser Direct Write System for Research, Education and Trainingat the Micro- and Nanoscale Electronics, Photonics, Mechanics and Bioengineering	47.041		ECCS-1429289	497,263		497,263
SubTotal 47.041				6,146,822	103,064	6,249,886
Collaborative Research: Integration of Implantable MEMS Sensors and Computational Modeling to Assess Mechanical Regulation of Bone Regeneration	47.041		CMMI-1362652	30		30
Nanantenna Optomechanics: Forces, Devices, and Sensors	47.041		ECCS-1408139	113,098		113,098
Understanding Continuum Models of Elasto-Plastic Deformations via Multiscale Analyses	47.041		CMMI-1401537	80,276		80,276
SubTotal 47.041				193,404		193,404
ACTPol	47.049	PRINCETON UNIVERSITY	00001883		456,497	456,497
Advanced ACTPol	47.049	PRINCETON UNIVERSITY	SUB0000032		12,235	12,235
Advanced Techniques for Loading Metals into Liquid Scintillators	47.049	UNIVERSITY OF WASHINGTON	745930		25,234	25,234
Advances for Bayesian Model Selection and Inference	47.049		DMS-1406563	83,730		83,730
Algebraic Geometry in String Theory	47.049		DMS-1304962	123,199		123,199
Anabelian Geometry and Field Arithmetic II	47.049		DMS-1101397	2,978		2,978
Bioinspired Synthesis of Complex Molecular Systems	47.049		DMR-1066116	63,876		63,876
CAREER: GEOMETRY AND TOPOLOGY OF HYPERBOLIC MANIFOLDS	47.049		DMS-0904355	-23		-23
CAREER: Mechanics of Ultra-Strength Nanomaterials: Revealing Deformation Mechanisms	47.049		DMR-1056293	135,961		135,961
CAREER: Nonparametric Eigenanalysis of High Dimensional Data	47.049		DMS-1352060	75,915		75,915
CAREER: PROBING THE EARLY FOLDING DYNAMICS AND FOLDING ENERGY LANDSCAPE	47.049		CHE00-94077	-40,007		-40,007
CAREER: Thiomides as Minimalist Chromophores to Monitor Protein Dynamics	47.049		CHE-1150351	74,529		74,529
CAREER: Understanding Electrostatic Interactions in Non-Polar Media for Generation of Nanostructured Thin Films	47.049		DMR-1055594	135,898		135,898
CENTER OF EXCELLENCE FOR MATERIALS RESEARCH AND INNOVATION (CEMRI)	47.049		DMR-1120901	3,905,998		3,905,998
Changing the Paradigm: Chelation Control with Silyloxy and Halo Carbonyl Compounds	47.049		CHE-1152488	1,815		1,815
Collaborative Research: Inference for Linear Model Parameters in Model-Free Populations	47.049		DMS-1310795	163,914		163,914
Collaborative Research: AGNES: Algebraic Geometry NorthEastern Series	47.049		DMS-1361706	27,657		27,657
Collaborative Research: Computational Framework for Non-asymptotic Homogenization with Applications to Metamaterial	47.049		DMS-1216970	50,578		50,578
Collaborative Research: Computational Problems in Heterogeneous Nanomaterials	47.049		DMS-1306179	4,147		4,147
Collaborative Research: De novo Protein Constructs for Photosynthetic Energy Transduction	47.049		CHE-1412496	81,687		81,687
Collaborative Research: Modeling and Simulation of Graphene Growth	47.049		DMS-1216801	31,494		31,494
Collaborative Research: Optimal Statistics for Redshifted 21 cm Observations of the Reionization Epoch.	47.049		AST-1109156	66,364		66,364
Collaborative Research: Precision Array for Probing the Epoch of Reionization (PAPER)	47.049	UNIVERSITY OF VIRGINIA	GA10911-139068		224,539	224,539
Collaborative Research: The Dark Energy Survey Data Management Operations	47.049		AST-1138729	50,570		50,570
DMREF-Programmable peptide-based hybrid materials	47.049		DMR-1234161	118,534		118,534
EAGER: Elucidation of the Electronic Structure and Model Complexes of the Natural, Cerium-Dependent XoxF-Methanol Dehydrogenase Enzyme: Launching the Bio	47.049		CHE-1449246	90,346		90,346
Enhanced moduli, Hodge theory, and quantization	47.049		DMS-1302242	76,673		76,673
Euler characteristics, quadratic invariants, arithmetic groups and lifting problems	47.049		DMS-1100355	-1		-1
Expanding the Chemistry of Cerium and Uranium in their Highest Oxidation States: Electronic Structure, Redox and Organometallic	47.049		1362854	141,757		141,757
FRG: Collaborative Research: Lifting problems and Galois theory	47.049		DMS-1265290	287,347		287,347
FRG: Collaborative Research: Modeling and Computation of Crystalline Nanostructures	47.049		DMS-1312814	0		0
Fundamental Investigation of Charge Transport and Memory Switching in Amorphized Phase-Change Nanowire	47.049		DMR-1002164	0		0
Geometry Festival	47.049		DMS-1010788	32,212		32,212
Group Action and Curvature	47.049		DMS-1112913	6,105		6,105
HERA: Illuminating our Early Universe	47.049	UNIVERSITY OF CALIFORNIA- BERKELEY	00008650		36,685	36,685
High Resolution Observations of the Synyaev-Zel-dovich Effect in Clusters of Galaxies at 90 GHz Using the GBT	47.049		AST-1309032	158,338		158,338

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
Inversion of the Broken-Ray Radon Transform and Applications	47.049		DMS-1115616	0		0
Jamming transitions and kinetic phenomena	47.049		DMR-1305199	106,212		106,212
Material World Network: Dynamics in Polymer Nanocomposites Containing Hard, Soft and Mobile Nanoparticle:	47.049		DMR-1210379	58,118		58,118
Material World Network: Understanding and Exploiting Mixed-Mode Ultra-Fast Optical-Electrical Behavior in Nanoscale Phase Change Material:	47.049		DMR-1210503	101,377		101,377
Materials World Network: Mechanics and Durability of Diamond-Like Nanocomposites (MADDiLiN): An International Collaboration to Understand Tribo-Mechanical	47.049		DMR-1107642	74,738		74,738
Materials World Network: Tailoring Electrocatalytic Materials by Controlled Surface Exsollutor	47.049		DMR-1210388	138,112		138,112
Measuring Weak Gravitational Lensing with the Dark Energy Survey	47.049		AST-1311924	71,149		71,149
Metal 7Ligand Multiple Bonds and Their Role in Alkane Metathesis, Dehydrogenation and Group-Transfer Chemistry	47.049		CHE-1413945	152,346		152,346
Module categories in geometry and topology	47.049		DMS-1007113	1,919		1,919
Moduli of Abelian Varieties	47.049		DMS-1200271	104,212		104,212
MRI: Acquisition of Autosampling Stopped-Flow Spectrometer for in vitro Kinetic Characterization of Biomolecule Binding and Enzymatic Activit	47.049		CHE-1337449	-47,250		-47,250
Nanometalllicity in Si-based Amorphous Thin Films	47.049		DMR-1104530	5,732		5,732
NANOROD ASSEMBLY IN POLYMER MATRICES	47.049		DMR-0907493	178,361		178,361
NEB: Meta-Capacitance and Spatially Periodic Electronic Excitation Devices (MC-SPEEDs)	47.049	DREXEL UNIVERSITY	235743-3668		121,292	121,292
Neural population coding in the brain	47.049		PHY-1058202	58,029		58,029
New Hodge theoretic invariants in geometry and physics	47.049		DMS-1001693	0		0
Non-Convex Homogenization and Applications to (Ferromagnetic) Shape-Memory Polycrystal:	47.049		DMS-1108847	131,931		131,931
Nonlinear PDE with gradient constraints: Regularity, Eigenvlue problems, and Infinity ground states	47.049		DMS-1301628	53,306		53,306
Nonlocal Density Functional Theory of Molecules and Solids	47.049		CHE-1261918	85,411		85,411
Novel coupling reactions	47.049		1464744	47,726		47,726
Novel Dynamics in Complex Fluids: From Phonons to the Drying Process	47.049		DMR-1205463	89,112		89,112
Novel Polyfluoroalkylated Building Blocks	47.049		CHE-1362841	81,080		81,080
NSEC ON MOLECULAR FUNCTION AT THE NANO/BIO INTERFACE	47.049		DMR-0832802	1,696,425		1,696,425
Oxidative Methods for C-C, C-N, and C-O Bond Formation	47.049		CHE-1213230	165,821		165,821
Participant Support for attendants to the program Mathematics of Machine Learning (Barcelona)	47.049		DMS-1342739	-2,317		-2,317
Polarization Mediated Atomic Interactions: water and Pt on BaTiO3 (100)	47.049		DMR-1206563	109,489		109,489
Precise Acid Copolymers and Ionomers: Morphology, Dynamics and Mechanical Properties	47.049		DMR-1103858	201,274		201,274
Programmable pattern transformation of reconfigurable polymer membranes	47.049		DMR-1410253	105,358		105,358
Quantum Chemistry for Predicting and Quantifying Photoinduced Nonadiabatic Dynamics	47.049		CHE-1150851	131,540		131,540
Radon transforms: geometric combinatorics, regularity, and applications	47.049		DMS-1361697	102,829		102,829
Random Matrix Theory and High Dimensional Statistics	47.049		DMS-1208982	49,579		49,579
Reactive Metal-Ligand Multiple Bonds and Their Use in C-H Activation, Alkane Dehydrogenation and Coupling Processes	47.049		1464659	3,865		3,865
RESEARCH EXPERIENCE FOR UNDERGRADUATES (REU) SITE	47.049		DMR-1062638	1,250		1,250
RESEARCH EXPERIENCE FOR UNDERGRADUATES (REU) SITE	47.049		DMR-1359351	72,493		72,493
Responsive vesicles from recombinant oleosin	47.049		DMR-1309556	146,742		146,742
Self-assembly and motility far from equilibrium	47.049		DMR-1104637	137,243		137,243
Spectroscopy and Dynamics of Reaction Intermediates	47.049		CHE-1362835	161,338		161,338
String Math Conferences 2014	47.049		DMS-1401390	36,000		36,000
Student Observing Support for Alex Young	47.049	NATIONAL RADIO ASTRONOMY OBSERVATORY	AST-0836064		5,101	5,101
Summer 2014 QuarkNet at Penn	47.049	UNIVERSITY OF NOTRE DAME	SUB TO PHY-1219444		13,430	13,430
The Combinatorics of Symmetric Functions	47.049		DMS-1200296	32,454		32,454
The Fundamental Physics of the Invisible and the Very Early Universe	47.049		PHY-1145525	82,105		82,105
The Geometry of Probability Generating Functions	47.049		DMS-1209117	59,250		59,250
The String Vacuum Project (SVP)	47.049	UNIVERSITY OF ARIZONA	Y561468		26,290	26,290
Theory and Methods for Estimation of Nonsmooth Functionals and Detection of Simultaneous Signals	47.049		DMS-1403708	205,564		205,564
Time-resolved studies of orbital angular momentum	47.049		DMR-1206270	100,901		100,901
Topics in Fluid dynamics with free boundaries, and Kinetic theory	47.049		DMS-1500916	31,633		31,633
Topological and Geometrical Problems in Soft Matter, Due 10/1/12	47.049		DMR-1262047	69,137		69,137
UNIVERSITY OF PENNSYLVANIA RTG IN MATHEMATICAL PHYSICS	47.049		DMS-0636606	16,454		16,454
Vibrational Spectroscopy and Dynamics of Reaction Intermediates	47.049		CHE-1112016	8,922		8,922
The Particle Physics and Cosmology of Supersymmetry and String Theory	47.049		PHY-1001296	10,904		10,904
Analysis of non-linear partial differential equations in Kinetic theory and related fields	47.049		DMS-1200747	120,203		120,203
Degenerate Diffusions on Manifolds with Corners	47.049		DMS-1205851	112,105		112,105
Designing the Electronic Properties of PbSe Nanowires for Optoelectronic Devices	47.049		DMR-1309053	49,531		49,531
FRG: Collaborative Research: Chern classes in Iwasawa Theory	47.049		DMS-1360767	56,128		56,128
	SubTotal 47.049			11,517,432	921,303	12,438,735
Field-theoretic simulations with excluded volume correlations	47.049		DMR-1410246	76,384		76,384
Sub-picosecond Stress-Induced Conductivity Transitions, Mechanical Transitions and Ferroelectric Transitions	47.049		DMR-1409114	26,769		26,769
	SubTotal 47.049			103,153		103,153
"Collaborative Research: The Effects of Hydrodynamic nd Granular Controls on Bed Load Flux Intermittency- Application to Steep Mountain Stream:	47.050		EAR-1224943	25,915		25,915
COLLABORATIVE RESEARCH: Central Anatolian Tectonics (CD-CAT): Surface to mantle dynamics during collision to escape	47.050		EAR-1109703	98,874		98,874
Collaborative Research: Converging on a Physical Basis for Rate and State Friction through Nano-to-Macro-Scale Friction and Adhesion Experiments on Geological Mater	47.050		EAR-1141142	24,062		24,062
Collaborative Research: Converging on a Physical Basis for Rate and State Friction through Nano-to-Macro-Scale Friction and Adhesion Experiments on Geological Mater	47.050		EAR-1464714	30,049		30,049
Collaborative Research: The legacy of transience: Understanding dynamic landscape adjustment following mountain uplift in two CZO field area:	47.050		EAR-1349261	25,640		25,640
EaSM-3: Integration of Decision-Making with Predictive Capacity for Decadal Climate Impact:	47.050		AGS-1419504	11,592		11,592
Goldsby NSF-ANS, Collaborative Proposal: Carbonation of Serpentine in the San Andreas Fault: How Fluid-rock Interactions Impact Aseismic Creep	47.050		EAR-1502472	23,467		23,467
INSPIRE Track 1: Earthcasting Fluvial Systems: Physical, Ecological and Biogeochemical Dynamic:	47.050	NORTHWESTERN UNIVERSITY	SP0024578-PROJ0006673		78,407	78,407
Luquillo CZO: The Role of Hot Spots and Hot Moments in Tropical Landscape Evolution and Functioning of the Critical Zone	47.050	UNIV NEW HAMPSHIRE	14-064		288,154	288,154
Early History of Horned and Duck-billed Dinosaurs: Discoveries in Gansu, China	47.050		EAR-1024671	39,617		39,617
WSC-Category 2 Collaborative: Robust decision-making for South Florida water resources by ecosystem service valuation, hydro-economic optimization and conflict resol	47.050		EAR-1204780	210,284		210,284
	SubTotal 47.050			489,500	366,561	856,061
AF: Small: Optimization Algorithm for Multi-Armed Bandit Problems	47.07		CCF-1117216	93,564		93,564
CSR: Small: Resource Management for Real-Time Cloud Computing	47.07		CNS-1117185	89,760		89,760
NeTS-Small: Collaborative Research: Inter-provider dynamics in Neutral and Non-Neutral Networks	47.07		CNS-1115547	76,903		76,903
RAPID: Aerial Robots for Remote Autonomous Exploration and Mapping	47.07		CNS-1138110	-225		-225
TC: MEDIUM: Putting Differential Privacy To Work	47.07		CNS-1065060	247,035		247,035
Economic Foundations of Digital Privacy	47.07		CCF-1101389	194,085		194,085
AF: SMALL: Cut, Flow, and Matching Problems in Graphs	47.07		CCF-1116961	161,608		161,608

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
SubTotal 47.07				862,730		862,730
AF: Small: An integrated approach to characterizing conformational changes of large proteins	47.070	RICE UNIVERSITY	R3E981			44,816
AF: Small: Theory and Applications of Untrusted Quantum Devices	47.070	UNIVERSITY OF MICHIGAN	3002985767			4,908
BIGDATA: F: DKA: Spectral Analysis and Control of Evolving Large-Scale Networks	47.070		IIS-1447470	9,927	4,908	9,927
CAREER: GEOMETRIC SHAPE DEFORMATION WITH APPLICATIONS IN MEDICINE	47.070		IIS-1350330	96,620		96,620
CAREER: TOWARDS A UNIFIED DECLARATIVE PLATFORM FOR COMPOSABLE VERIFIABLE NETWORKS	47.070			30,034		30,034
CIF: Small: Rich Type Inference for Functional Programming	47.070		CCF-1319880	56,828		56,828
COLLABORATIVE RESEARCH: CT-M: PRIVACY, COMPLIANCE AND INFORMATION RISK IN COMPLEX ORGANIZATIONAL PROCESSES	47.070		CNS-0830949	26,087		26,087
Collaborative Research: Planning grant: E2textiles: Ethno Electronic Textile Designs for Broadening Participation in Computing for American Indian Youth, Teachers, and	47.070		CNS-1150150	7,915		7,915
Collaborative Research: Printable Robots: An Expedition in Computing for Compiling Functional Physical Machines	47.070		CCF-1138847	559,540		559,540
CPS: Frontier: Collaborative Research: BioCPS for Engineering Living Cells	47.070		CNS-1446592	4,695		4,695
CPS: Synergy: Collaborative Research: Autonomy Protocols: From Human Behavioral Modeling to Correct-by-Construction, Scalable Contro	47.070		CNS-1446479	24,735		24,735
CPS: Synergy: Collaborative Research: High-level perception and control for autonomous reconfigurable modular robot	47.070		CNS-1329620	179,085		179,085
CPS: Synergy: Collaborative Research: Safety-Feature Modeling and Adaptive Resource Managemenet for Mixed-Critically Cyber-Physical System	47.070		CNS-1329984	159,056		159,056
CPS: Synergy: Collaborative Research: Trustworthy Composition of Dynamic App-Centric Architectures for Medical Applicator	47.070		CNS-1239324	5,034		5,034
CPS:Medium: Quantitative Analysis and Design of Control Networks	47.070		CNS-0931239	75,883		75,883
EAGER: Simplification as Machine Translation	47.070		IIS-1430651	60,052		60,052
FIA: Collaborative Research: NEBULA: A Future Internet That Supports Trustworthy Cloud Computing	47.070		CNS-1040672	146,290		146,290
FROM STATISTICAL TO WORST-CASE LEARNING: A UNIFIED FRAMEWORK	47.070		CCF-1116928	69,334		69,334
HCC: Small: Modular Tactile Feedback for Whole-Body Motion Guidance	47.070		IIS-0915560	6,316		6,316
III: Medium: Collaborative Research: Citing Structured and Evolving Data	47.070		IIS-1302212	163,705		163,705
III-COR-MEDIUM: PROVIDING PROVENANCE THROUGH WORKFLOWS AND DATABASE TRANSFORMATIONS	47.070		IIS-0803524	42,550		42,550
METAGRAMMATICAL KNOWLEDGE FOR CRAMMARS AND CORPORA	47.070		IIS-0414409	-9,762		-9,762
MRI-Consortium Development: Heterogeneous, Autonomic Wireless Sensor/Actuator Networks for Scalable Cyber-Physical System	47.070	PURDUE UNIVERSITY	4101-64763		10,156	10,156
NRI: Collaborative: "Shall I Touch This?": Navigating the Look and Feel of Complex Surfaces	47.070		IIS-1426787	68,016		68,016
NRI: Collaborative: Robotics 2.0 for Disaster Response and Relief Operations	47.070		IIS-1426840	1,046		1,046
REU Site: Perception, Planning, Mobility, and Interaction for Next Generation Robotics	47.070		CNS-1156366	107,729		107,729
RI: Medium: New Tools and Methods for Very-Large-Scale Phonetics Research	47.070		IIS-0964556	1,491		1,491
RI: Small: Collaborative Research: Research Leading to Comprehensive Guidelines for Annotating Discourse Relations	47.070		IIS-1422186	16,777		16,777
SHB: EXP: Collaborative Research: Heterogeneous Large-Scale Telemedicine for Cardiology Patients	47.070		IIS-1231547	202,607		202,607
SHF: AfterBurner: Efficient Performance Scaling via Post-Retirement Processing	47.070		CCF-1017184	35,927		35,927
SHF: LARGE: COLLABORATIVE RESEARCH: TRELLYS: COMMUNITY-BASED DESIGN AND IMPLEMENTATION OF A DEPENDENTLY TYPED	47.070		CCF-0910786	-512		-512
SHF: Medium: Collaborative Research: Ultra-Responsive Architectures for Mobile Platforms	47.070		CCF-1161681	7,807		7,807
SHF: Small: Nonstandard Computational Models of Linear Logic	47.070		CCF-1421193	80,073		80,073
SHF-MED: FORMAL ANALYSIS OF CONCURRENT SOFTWARE ON RELAXED MEMORY MODELS	47.070		CCF-0905464	54,362		54,362
TC: SMALL: COLLABORATIVE RESEARCH: Mathematics of Infection Diffusion in Wireless Networks	47.070		CNS-0915697	14,313		14,313
TC: Small: Collaborative Research: Towards a Formal Framework for Analyzing and Implementing Secure Routing Protocol	47.070		CNS-1117052	26,431		26,431
TC:Medium: Collaborative Research: Tracking Adversarial Behavior in Distributed Systems with Secure Networked Provenance	47.070		CNS-1065130	36,652		36,652
Towards a formal theory of wireless networking	47.070		CCF-0952867	194,045		194,045
TWC: Medium: Collaborative Resarch: Active Security	47.070		CNS-1406225	114,541		114,541
TWC: Medium: Micro-Policies: A Framework for Tag-based Security Monitors	47.070		CNS-1513854	166		166
XPS: CLCCA: Improving Parallel Program Reliability Through Novel Approaches to Precise Data Race Detection	47.070		CCF-1337174	242,161		242,161
CAREER: Capturing Content and Linguistic Quality in Automatic Extractive and Abstractive Summarization	47.070		IIS-0953445	190,397		190,397
SHF: Small: Algebraic Foundations for Collaborative Data Sharing- 	47.070		CCF-1017212	135,407		135,407
CIF: SMALL: Distributed statistical inference of dynamic systems with sensor networks- 	47.070		CCF-1017454	206		206
CPS:Large: Assuring the Safety, Security and Reliability of Medical Device Cyber Physical System	47.070		CNS-1035715	826,026		826,026
CAREER: EVIDENCE IN FEDERATED DISTRIBUTED SYSTEMS	47.070		CNS-1054229	82,104		82,104
CCF: MEDIUM: Validating Program Transformations in a Mechanized LLVM	47.070		CCF-1065166	207,227		207,227
TC: SMALL: WATCHDOG: Hardware-Assisted Prevention of All Use-After-Free Security Vulnerabilities	47.070		CNS-1116682	15,613		15,613
SHF: SMALL: Generic Programming With Dependent Types	47.070		CCF-1116620	61,756		61,756
NETS: Small: Exploring the Challenges of Network Migration - An IPv6 Case Study and its Consequences	47.070		CNS-1116039	85,977		85,977
Collaborative Research: Expeditions in Computer Augmented Program Engineering (ExCAPE): Harnessing Synthesis for Software Design	47.070		CCF-1138996	1,145,018		1,145,018
CCF-SHF: Beyond Algebraic Data Types: Combinatorial Species and Mathematically-structured Programming	47.070		CCF-1218002	17,205		17,205
CIF-SMALL: Circles of Trust: An Axiomatic Construction of Clustering in Asymmetric Networks	47.070		CCRF-1217963	57,513		57,513
NETS: Small: Collaborative Research: Playing the Devil's Advocate: The Profit Perspective in Secondary Spectrum Markets(w MICHIGAN	47.070		CNS-1217730	139,283		139,283
NETS: Small: Routing Design and Analysis with Incomplete Information	47.070		CNS-1218066	71,915		71,915
III: Small: Foundation and Implementation of Provisioning Views	47.070		IIS-1217798	146,633		146,633
CPS: Synergy: Collaborative Research: Multiple-Level Predictive Control of Mobile Cyber Physical Systems with Correlated Context	47.070		CNS-1239152	107,536		107,536
CPS: SYNERGY: COLLABORATIVE RESEARCH: ARCHITECTURAL AND ALGORITHMIC SOLUTIONS FOR LARGE SCALE PEV INTEGRATION INTO	47.070		CNS-1312390	129,133		129,133
CAREER: THE ALGORITHMIC FOUNDATIONS OF DATA PRIVACY	47.070		CNS-1253345	67,266		67,266
CAREER: Foundations for Modeling and Verification of Medical Cyber-Physical Systems	47.070		CNS-1253842	59,692		59,692
TWC: MEDIUM: COLLABORATIVE RESEARCH: BLACK-BOX EVALUATION OF CRYPTOGRAPHIC ENTROPY AT SCALE	47.070		CNS-1408734	107,809		107,809
SubTotal 47.070				6,571,272	59,880	6,631,152
NRI-Large: Collaborative Research: Human-robot Coordinated Manipulation and Transportation of Large Objects	47.070		IIS-1328805	131,566		131,566
SHF: Small: Random Testing for Language Design	47.070		CCF-1421243	68,291		68,291
NRI: Small: Collaborative Research: Active Sensing for Robotic Cameramer	47.070		IIS-1317947	338,247		338,247
NETS: MEDIUM: COLLABORATIVE RESEARCH: OPTIMAL COMMUNICATION FOR FASTER SENSOR NETWORK COORDINATION	47.070		CNS-1302222	156,525		156,525
SubTotal 47.070				694,629		694,629
A Novel Anchoring Mechanism for Prokaryotic Surface Proteins	47.074		MCB-1413158	81,723		81,723
Adaptation, Learning And Decision Making In Biological Networks	47.074		EF-0928048	69,434		69,434
C. elegans Lipocalin function in Growth Factor Signaling	47.074		IOS-1257879	228,772		228,772
CAREER: Effects of emotion on hippocampal representations and memory retrieval	47.074		IOS-1256941	108,316		108,316
CAREER: Developing novel social systems-level approaches with a new ant model to study the genetic, behavioral, and evolutionary basis of social trait	47.074		IOS-1452520	28,785		28,785
CAREER: Global analysis of RNA-dependent RNA Polymerase function	47.074		MCB-1053846	206,802		206,802
Collaborative Research: Thermal controls on ecosystem metabolism and function: scaling from leaves to canopies to region:	47.074		EF-1241873	80,434		80,434
Confined protein hydration & dynamics	47.074		MCB-1158038	199,224		199,224
Establishment of an Epigenomics of Plants International Consortium (EPIC)	47.074		IOS-0925071	78,149		78,149
Evolution of Vegetative Phase Change in the Acaciaeae	47.074		IOS-1256979	37,697		37,697

Federal Grant/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
Examining the role of the endomebrane in transcription factor movement	47.074		MCB-1243945	113,437		113,437
Global analysis of RNA-protein interactions in plants	47.074		MCB-1243947	251,681		251,681
LTREB:Experimental tests of alternative states on rocky intertidal shores	47.074		DEB-1020480	62,845		62,845
Mechanisms of Interaction between Sleep and the Innate Immune Response in Drosophila	47.074		IOS-1025627	14,568		14,568
MICROETCHING OF THE HUMAN BRAIN	47.074		IOS-1443767	77,763		77,763
New tools for genetic analysis in Arabidopsis thaliana	47.074		MCB-1243754	113,781		113,781
Paying the piper: how two fish species adjust calcium cycling for different mating calls	47.074		IOS-1145981	140,580		140,580
Polycomb Response Elements (PREs) and Polycomb recruitment in plants	47.074		MCB1243757	274,628		274,628
Protein folding: mechanism and principles	47.074		MCB-1409137	223,034		223,034
Protein hydrogen exchange: mechanism and interpretation	47.074		MCB-1020649	1,326		1,326
Quantitative Mass Spectrometry Analysis of Histone Codes in Saccharomyces cerevisiae	47.074		MCB-1262672	258,258		258,258
Regulation of Flower Initiation and Development	47.074		IOS-1257111	82,426		82,426
Signaling mechanisms that regulate attractive axon guidance at the CNS midline	47.074		IOS-1355181	342,923		342,923
Structural, functional, and evolutionary analysis of long non-coding RNAs in control of stress response and the epigenome in diverse plant species	47.074		Advance Account	2,068		2,068
The Evolution of Incentives and Social Structure Under Imperfect Information	47.074	PRINCETON UNIVERSITY	00002158		37,863	37,863
The host signal landscape recognized by Agrobacterium tumefaciens	47.074		IOS-1121019	216,011		216,011
	SubTotal 47.074			3,294,665	37,863	3,332,528
CAREER: Unraveling homeostatic mechanisms in gene expression regulation: Integrating research and scientific communication	47.074		MCB-1350601	75,785		75,785
Collaborative Research: Ecological consequences of the effects of a zoonotic pathogen on its reservoir host	47.074		DEB-1354184	81,123		81,123
	SubTotal 47.074			156,908		156,908
Adaptation to diet in Africa and its impact on the gut microbiome and genomic variation	47.075		BCS-1317217	151,982		151,982
Affordable Care Act and the Labor Market	47.075		1459353	79,200		79,200
Analysis of decades of Flood Insurance Purchases Under the National Flood insurance Program	47.075		SES-1062039	-1,397		-1,397
CAREER: Life history transitions among the Toba on northern Argentina	47.075		BCS-0952264	-891		-891
CAREER: Operations Management with Strategic Consumer Behavior	47.075		SES-1264731	113,041		113,041
CAREER: DECISION-INDUCED BIASES IN VISUAL PERCEPTS	47.075		BCS-1350786	71,772		71,772
Cartel Birth, Death, and Detection	47.075		SES-1148129	94,838		94,838
Causal Inference In Observational Studies	47.075		SES-1260782	164,386		164,386
Collaborative Research: A syntactically annotated corpus of Appalachian English	47.075		BCS-1151630	15,020		15,020
Collaborative Research: Dynamic Rational Inattention: Theory and Applications	47.075		1461469	23,681		23,681
Collaborative Research: Mapping and Control of Large-Scale Neural Dynamics	47.075		BCS-1430087	43,183		43,183
Collaborative Research: Monetary DSGE Models at the Zero Lower Bound: Policy Analysis and Econometric Inference	47.075		SES-1424843	18,409		18,409
Collaborative Research: Monetary DSGE Models: Advances in Theoretical Modelling and Econometric Analysis	47.075		SES-1061725	46,259		46,259
Collaborative Research: Public and Private Debt Crises: Theory and Policy Implication	47.075		SES-1325122	1,037		1,037
Collaborative Research: The Next Generation of the Penn World Trade	47.075		SES-1061908	29,709		29,709
Costs and Benefits of Biparental Care in Monogamous Owl Monkeys	47.075		BCS-1232349	-401		-401
DMUJ: Center on Climate Decision Making	47.075	CARNEGIE MELLON UNIVERSITY	112138-256805		516	516
Doctoral Dissertation Improvement Grant: Ceramic Entanglements at the Urartian Periphery	47.075		BCS-1420111	7,385		7,385
Doctoral Dissertation Improvement Grant: Minaspatá Archaeological Project: War Colonialism in the Lucra Basin, Cuzco, Peru	47.075		BCS-1322877	3,296		3,296
Doctoral Dissertation Research: Can't Say I Didn't Try': Social Class and undergraduate Academic Achievement	47.075		SES-1334610	4,542		4,542
Doctoral Dissertation Research: Designing Collaboration Networks to Optimize Collective Problem Solving	47.075		1519026	1,360		1,360
Doctoral Dissertation Research: Gender "done" and "undone"? How men and women experience unemployment differently and why this matter	47.075		1538951	3,432		3,432
Doctoral Dissertation Research: Public School Selection Processes, Educational Inequality and the Meaning of Rejection.	47.075		SES-1303603	6,586		6,586
Doctoral Dissertation Research: When Cruelly Meets Compassion: An Ethnographic Analysis of the Constitutional Right to Healthcare in a Pennsylvania Prison	47.075		BCS-1356549	9,253		9,253
Early Epipaleolithic in the Western Highlands of Jordan	47.075		BCS-0917660	9,102		9,102
ECONOMICS OF AIR TRAVEL: NETWORK EFFECTS, CONGESTION & SCHEDULING DELAYS	47.075		SES02-14410	-12,587		-12,587
Estimating a Coordination Game in the Classroom: Evaluating the Role of Student and Teacher Performance Incentive	47.075		SES-1227364	181,896		181,896
Information Technology and Democratic Representation: Evidence from Ugandas Parliamentary Call System	47.075	COLUMBIA UNIVERSITY	1(GG009655)		57,105	57,105
Inhibition, Social Relationships, and Early Adulthood Outcomes in China and Canada	47.075		BCS-1225620	83,110		83,110
Integration Of Urban And Rural Population	47.075		BCS-1430404	68,126		68,126
Language Preservation 2.0: Crowdsourcing Oral Language Documentation using Mobile Devices	47.075		BCS-1160639	21,770		21,770
Macroeconomics of Labor Market Sorting	47.075		SES-1357903	66,095		66,095
Marking the boundaries of punishment: Retribution directed at innocents, animals, and collective	47.075		SES-1228231	194		194
Modelling the US Market for Higher Education: Theory and Estimation	47.075	CARNEGIE MELLON UNIVERSITY	1122062-327557		56,211	56,211
New Excavations at La Ferassie (France)	47.075		BCS-1219301	39,438		39,438
Presuppositions in Online Language Comprehension	47.075		BCS-1349009	46,876		46,876
Prosodic Systems in New Guinea: Integrating computational and typological approaches to linguistic analysis	47.075		BCS-0951651	26,130		26,130
Quantitative Theories of Learning, Memory, and Prediction	47.075		BCS-1441502	3,009		3,009
Research on the Economics of Discrimination and Affirmative Action: New Empirical Methods, Theory and Applications	47.075		SES-1122902	49,270		49,270
Retrieved Context Models of Episodic Memory	47.075		BCS-1058886	10,428		10,428
Spatial Intelligence and Learning Center (SILC)	47.075	TEMPLE UNIVERSITY	330161-18110-7341		247,435	247,435
Standard Research Grant: Probing Public Understanding and Acceptance of Evolution	47.075		SES-1455425	46,274		46,274
Testing and improving methods for efficient annotation through the construction of a large parsed corpus	47.075		BCS-1147499	115,879		115,879
The Effects of Raw Material Variability and Heat Treatment on Flake Production and Use: A Controlled Experiment	47.075		BCS-1153192	3,755		3,755
The ICC and Africa: Uncovering Affect in the Pursuit of Justice	47.075		BCS-1347863	-1,867		-1,867
The influence of higher education on local phonology	47.075		BCS-1251437	147,506		147,506
The neural mechanisms underlying visual target and task switching	47.075		BCS-1265480	104,094		104,094
Topics in Matching	47.075		SES-1260753	156,091		156,091
Transactions and Economic Relationships	47.075		SES-0961540	0		0
Using Neural Activity to Predict Political Behavior in Response to Persuasive Messages	47.075		SMA-1360732	113,838		113,838
Collaborative Research: BCC: Developing a Research Community and Capacity for the Study of Cultural Heritage in Conflict	47.075		SMA-1439474	119,967		119,967
	SubTotal 47.075			2,284,076	361,267	2,645,343
AMP V	47.076	DREXEL UNIVERSITY	235920		43,489	43,489
ARIEL - AUGMENTED REALITY FOR INTERPRETIVE AND EXPERIENTIAL LEARNING	47.076	FRANKLIN INSTITUTE	FRANKLIN INSTITUTE/DRL-0741659		-63	-63
CAP Towards Inclusive Design in K-12 Serious Gaming: Examining Intersections of Gender, Race and Culture in Digital Games for Learning	47.076		IIS-1450877	52,886		52,886
CAREER: Characterizing the First Billion Years of Galaxy Evolution with 21 cm Tomography	47.076		AST-1455151	3,867		3,867
Collaborative Research: Assessing Teachers' Pedagogical Design Capacity and Mathematics Curriculum Use	47.076		DRL-0918141	20,589		20,589
Collaborative Research: Learning About New Demands in Schools: Considering Algebra Policy Environments (LANDSCAPE)	47.076		DRL-1108828	59,667		59,667

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
Collaborative Research: Golfing in a Hurricane: Instability in Education Systems, Randomized Controlled Trials, and Children's Achievemem	47.076		DRL-1337237	128,233		128,233
DRK12-BioGraph: Graphical Programming for Constructing Complex Systems Understanding in Biology	47.076	MASSACHUSETTS INSTITUTE OF TECHNOLOGY	5710002833		88,483	88,483
Graduate Research Fellowship Program	47.076		DGE-1321851	3,181,988		3,181,988
Greater Philadelphia Region Louis Stokes Alliance for Minority Participation-Philadelphia AMP Initiative (Senior Level Alliance	47.076	DREXEL UNIVERSITY	235568-3115-UP		913	913
HOW DOES INDUCTION AND CONTINUING PROFESSIONAL DEVELOPMENT AFFECT BEGINNING MIDDLE SCHOOL MATH TEACHERS' INSTRUCTION	47.076	VANDERBILT UNIVERSITY	17936-S1		-500	-500
IGERT: Complex Scene Perception	47.076		DGE-0966142	419,642		419,642
INSPIRE Track 2: Discovery and Development of Optimized Photonic Systems for High Volume, Low Surface Area Solar Energy Harvesting: Learning from Giant Clam	47.076		IOS-1343159	351,982		351,982
Intersections - Game On! Philadelphia	47.076	NATIONAL WRITING PROJECT	92-PA06-B-NSF2014		10,733	10,733
REESE: Adaptive Sequencing and Perceptual Learning Technologies in Mathematics and Science	47.076	UNIVERSITY OF CALIFORNIA-LOS ANGELES	0875 G PC027		118,286	118,286
The Penn I-Corps Site - Integrating Company Formation and Experiential Education	47.076		IIP-1450467	700		700
Transforming STEM Competitions into Collaboratives: Developing eCrafting Collabs for Learning with Electronic Textiles	47.076		DRL-1238172	150,758		150,758
Trends in the Determinants of Gender Segregation Across STEM Majors, 1976-2006	47.076	UNIVERSITY OF CALIFORNIA-LOS ANGELES	0070 G PD208		22,879	22,879
Using Research-Based Formative Assessment to Improve Mathematics Teaching and Learning	47.076		DRL-1316527	1,086,637		1,086,637
SubTotal	47.076			5,456,949	284,220	5,741,169
Collaborative Research: Activation of high-elevation alluvial fans in the Transantarctic Mountains - a proxy for Plio-Pleistocene warmth along East Antarctic ice margin	47.078		ANT-1043554	19,576		19,576
SubTotal	47.078			19,576		19,576
International: Student Exchange for Research on Nano/Biotechnology	47.079		OISE-1130994	23,987		23,987
PIRE: ECOLOGICAL AND EVOLUTIONARY EFFECTS OF CLIMATE CHANGE AND ANTHROPOGENIC INFLUENCES IN MONGOLIA	47.079		OISE-0729786	40,437		40,437
PIRE: Materials for Renewable Energy Nature's Way	47.079	CASE WESTERN RESERVE UNIVERSITY	OISE-1243313 / RES507490		108,525	108,525
Proposal to host the first "International Workshop on the Role of Higher Education: Fostering P-20+ Community Engagement through Knowledge Production, Human	47.079		OISE-1219996	12,434		12,434
SubTotal	47.079			76,858	108,525	185,383
CDI-Type II: Collaborative Research: Preparing the Next Generation of Computational Thinkers: Transforming Learning and Education Through Cooperation in Decentrali	47.080		CDI-1027736	125,027		125,027
SI2-SSI: The Language Application Grid: A Framework for Repid Adaptation and Reuse	47.080	BRANDEIS UNIVERSITY	4-02069		26,363	26,363
CDI-Type II: Perception of Scene Layout by Machines and Visually Impaired Users	47.080		OIA-1028009	-115		-115
SubTotal	47.080			124,912	26,363	151,275
CAREER: Free Surface Mobility and its Role in the Formation of Exceptionally Stable Glasses	47.081		DMR-1350044	101,031		101,031
CAREER: Hierarchical self-assembly of photonic devices from patchy colloids: deciphering the reflectin-photonic alphabe	47.081		DMR-1351935	98,296		98,296
SubTotal	47.081			199,327		199,327
ARRA - CAREER: A Fundamental Investigation of the Mechanics of Micro-Transfer Printing Processes for Manufacturing Multifunctional Microsystems	47.082	UNIVERSITY OF WISCONSIN - MADISON	357K641		26,218	26,218
ARRA - GEOMETRY OF SMOOTH METRIC MEASURE SPACES AND RICCI FLOW	47.082		DMS-0905527	-1,333		-1,333
ARRA - MRI-R2: Development of Common Platform for Unifying Humanoids Research	47.082	DREXEL UNIVERSITY	235660		45,555	45,555
ARRA - PENN-UPR Partnership for Research and Education in Materials	47.082	UNIVERSITY OF PUERTO RICO	DMR-0934195		127,004	127,004
ARRA - Urban Teaching Fellowships for STEM Professionals	47.082		DUE-0934618	187,099		187,099
ARRA - CZO: Luquillo Critical Zone Observatory	47.082		EAR-0722476	-25,916		-25,916
SubTotal	47.082			159,850	198,777	358,627
Attracting, Retaining and Advancing Women in Undergraduate Computing	47	STEVENS INSTITUTE OF TECHNOLOGY	SUB TO 1303198		4,508	4,508
CDS&E: Collaborative Research: Data-Driven Predictive Modeling of Flows Containing Aggregating Particles	47		CBET-1404826	80,877		80,877
Topics in the Theory of Elastic Networks and Soft-Matter Physics.	47		DMR-1104707	84,506		84,506
Design for a Megaton-Scale Water Cerenkov Detector for the Deep Underground Science and Engineering Lat	47	UNIVERSITY OF CALIFORNIA, DAVIS	sub09000769-UPENN		27,133	27,133
SubTotal	47			165,383	31,641	197,024
NATIONAL SCIENCE FOUNDATION Total				38,517,446	2,499,364	41,016,910
DEPARTMENT OF VETERAN AFFAIRS						
Barriers to Implementation of Addiction and Depressive Services in PACT	64		IPA - FRASSO/KELLOM/ADEJARE	20,136		20,136
Bioactive Injectable Implants for Functional Intervertebral Disc Regeneration	64		IPA AGREEMENT	122,940		122,940
Cartilage Repair with Stem-Cell Laden Hyaluronic Acid Hyrogels	64		A7875-5	138,752		138,752
Cartilage Repair with Synovial Joint Precursors	64		IPA - Henning	7,260		7,260
Cartilage response to compression injury: A platform for therapeutics discovery	64		IPA AGREEMENT	16,630		16,630
CESATE - IPA	64		IPA - TYRONE THOMAS	14,328		14,328
Chronic Neurodegenerative and Neurophysiological Sequela of Closed-Head TBI	64		PO #642D36047	134,825		134,825
Complicated Family Reintegration in OEF/OIF Veterans	64		IIR 08-308	-2		-2
Default options in advance directives for veterans with serious illnesses: An RCT	64		IPA NICOLE GABLER	2,286		2,286
Development of a Multidimensional Pain Measure for Persons with Dementia (PIM-D)	64		IPA	107,049		107,049
Disc Degeneration in the Lumbar Spine of a Small Animal Model	64		PROJECT A7010R	22,637		22,637
DMU IPA - Christopher Petro	64		IPA CHRISTOPHER PETRO	29,834		29,834
DMU IPA - Ming Li	64		IPA AGREEMENT	18,744		18,744
Engineered Multi-Functional Nanofibrous Meniscus Implants	64		IPA- Burdick/Schaer	22,270		22,270
Feasibility Study of Interventions Designed to Enhance HUD-VASH Service - IPA for Herd/Ivery/Thomas/Van Horn/Zimmerman/Li/Petr	64		PO #642-C26320	35,942		35,942
Genetic Response in the Adaptation Supraspinatus Tendon and Muscle to Load	64		IPA JULIANNE H POTOCEK	13,933		13,933
HUD-VASH Evaluation and Exit Study	64		VA244-12-C-0217	45,185		45,185
Insomnia during Recovery: is CBT-I efficacious and is Insomnia a Modifiable Risk Factor for Relapse?	64		IPA AGREEMENT	4,779		4,779
Insulin Therapy and the Risk of Colorectal Adenoma in Type 2 Diabetes Mellitus	64		IPA - W. HWANG	8,240		8,240
Integrated Cognitive Behavior Therapy to Improve Outcomes in Schizophrenia	64		IPA URICK SARAH	55,105		55,105
Integrated Cognitive Behavioral Therapy to Improve Outcomes in Schizophrenia	64		IPA AGREEMENT	60,990		60,990
Integrated Cognitive Behavioral Therapy to Improve Outcomes in Schizophrenia	64		IPA PAUL M. GRANT	3,003		3,003
Integrated Cognitive Behavioral Therapy to Improve Outcomes in Schizophrenia	64		IPA WASHINGTON AKBESHA	41,580		41,580
Integrated vs. Sequential Treatment for Co-Morbid PTSD/Addiction Among OEF/OIF Veterans	64		IPA - CHRISTOPHER PETRO	12,830		12,830
Integrated vs. Sequential Treatment for Co-Morbid PTSD/Addiction Among OEF/OIF Veterans	64		IPA - KEVIN LYNCH	4,888		4,888
Intensive Training in Cognitive Behavioral Therapy for the Homeless Population	64		IPA / PO #642-C46260	66,144		66,144
Intensive Training in Cognitive Behavioral Therapy for the Homeless Population	64		IPA KELLY LYNN GREEN	17,160		17,160
IPA	64		IPA	6,674		6,674
IPA	64		IPA - ERIK JORGENSEN	61,366		61,366
IPA	64		IPA - TYLER MELVIN	7,446		7,446
IPA	64		IPA - DANIELA KOROM-DJAKOVIC	5,419		5,419

University of Pennsylvania
Schedule of Expenditures
For the year ended June 30, 2015

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
IPA	64		IPA - DEVIN COHEN	29,059		29,059
IPA	64		IPA - EDNA B. FOA	51,240		51,240
IPA	64		IPA - ELENE TURZO	124,479		124,479
IPA	64		IPA - EMILY DOWD	-1,811		-1,811
IPA	64		IPA - EMILY R. STRITTMATTER	6,741		6,741
IPA	64		IPA - ERICA GOLDBERG	57,103		57,103
IPA	64		IPA - EUGENIA MAMIKONYAN	29,126		29,126
IPA	64		IPA - JAMES FINDLEY	1,408		1,408
IPA	64		IPA - JENNIFER GREENE	39,621		39,621
IPA	64		IPA - KATIA DUEY	5,913		5,913
IPA	64		IPA - KRISTY TALLEY	56,991		56,991
IPA	64		IPA - MARY VALIGA	72,556		72,556
IPA	64		IPA - SAM KUNA	97,820		97,820
IPA	64		IPA - TAMARA BONEY	88,680		88,680
IPA	64		IPA - TIFFANY HUSEMAN	56,831		56,831
IPA	64		VA IPA Agreement for Keisuke Ojiro	4,689		4,689
IPA - Barbara Cannon and Anna Kalota	64		IPA - KALOTA/CANNON	126,452		126,452
IPA - CHERP	64		IPA - JUDY SHEA	14,301		14,301
IPA - Christopher Petro	64		IPA PETRO CHRISTOPHER	3,993		3,993
IPA - Christopher Wirtalla	64		IPA - CHRISTOPHER WIRTALLA	10,023		10,023
IPA - David Yusko	64		IPA - Yusko	38,502		38,502
IPA - Deborah Van Horn	64		IPA	33,713		33,713
IPA - Heather Johnson	64		CHERP	88,374		88,374
IPA - Laurie Downing	64		IPA - Biddle	11,116		11,116
IPA - Lisa Dragani	64		PO #642-C36282	90,143		90,143
IPA - Sarah Moorar	64		IPA - SARAH MOOAR	44,778		44,778
IPA - Suzanne DiFillippo	64		PO #642C16077	121,411		121,411
IPA - Yolanda Williams	64		IPA YOLANDA WILLIAMS	71,445		71,445
IPA Agreement	64		IPA - KIRSTEN ROGERS	15,601		15,601
IPA Agreement	64		IPA - RUSSO/MAGUIRE	135,534		135,534
IPA Agreement	64		IPA - SHIRLEY LEONG	91,093		91,093
IPA Agreement between UPenn and Department of Veterans Affairs for Jonathan Rajkumar FY14	64		IPA-RAJKUMAR	15,416		15,416
IPA Agreement Elizabeth Harders	64		IPA ELIZABETH HARDERS	5,775		5,775
IPA Agreements for Mary Valiga, Masahiro Kikuchi, James Keith, Xiaowang Qu, Jang Park	64		PO #642D36032	64,810		64,810
IPA Aliya Collier	64		IPA ALIYA COLLIER	16,500		16,500
IPA Benjamin Offenber	64		IPA AGREEMENT	1,236		1,236
IPA Christina Nash	64		IPA CHRISTINA NASH	8,619		8,619
IPA Diana Imbert	64			52,005		52,005
IPA for Alexis Zebrowski	64		IPA ALEXIS ZEBROWSKI	22,880		22,880
IPA FOR HENRY GLICK	64		IPA	11,475		11,475
IPA for Judy Shea	64		IPA JUDY SHEA	54,075		54,075
IPA for Mary Pelak	64		IPA	1,961		1,961
IPA Henry Glick	64		IPA AGREEMENT - DR. GLICK	19,208		19,208
IPA James Findley -Chakravorty Project	64		IPA JAMES CURTIS FINDLEY	7,440		7,440
IPA Judy Shea	64		IPA - JUDY SHEA	660		660
IPA Judy Shea	64		IPA AGREEMENT - JUDITH SHEA	25,583		25,583
IPA Judy Shea	64		IPA JUDY SHEA	11,370		11,370
IPA Kirsten Rodgers	64		IPA AGREEMENT - DR. RODGERS	7,380		7,380
IPA Richard Sorelle	64		IPA RICHARD SORELLE	40,925		40,925
IPA Sakhena Hin	64		IPA AGREEMENT	8,430		8,430
IPA Shimrit Keddem	64		IPA AGREEMENT	76,560		76,560
IPA Tyler Melvin	64		IPA TYLER MELVIN	1,152		1,152
JPA - Greene	64	PHILADELPHIA RESEARCH AND EDUCATION FOUNDATION	JPA - JENNIFER GREENE		26,711	26,711
JPA Assignment Agreement for David Goldberg, MD	64		IPA DAVID S GOLDBERG	17,600		17,600
Mechanisms of Cortico-Limbic Network Dysfunction Underlying PTSD after TBI	64		IPA MICHAEL R GROVOLA	8,056		8,056
Mental Illness Research, Education and Clinical Center	64		IPA AGREEMENT	34,401		34,401
Perioperative Post-Prostatectomy Incontinence Home Telehealth Program	64		IPA - THOMAS BAVARIA	53,088		53,088
Pilot Study of Managed Problem Solving Extension to Retention in HIV	64		IPA-Jacqueline O'Duor ADV ACCT	18,085		18,085
Telehealth FY 13	64		IPA - JAMES FINDLEY	39,030		39,030
TERE1 Modulation of Mitochondrial Signaling in Renal Cell Cancer	64		IPA - WILLIAM FREDERICKS	10,000		10,000
The Role of Local NSAID Administration and Inflammation on Tendon Healing	64		00979-R	188,941		188,941
The Role of TNF-Alpha in Cutaneous Integrity	64		IPA AGREEMENT - SHARMA	103,571		103,571
The Role of TNF-Alpha in Cutaneous Integrity	64		IPA MING-LIN LIU	99,000		99,000
Timed-Release of Local Anesthetic from Sol Gels for Post-Op Pain Control	64		PROJECT B6205R	58,403		58,403
Tissue-Engineered Constructs for Treatment of Intervertebral Disc Degeneration	64		IPA AGREEMENT	13,627		13,627
VA BLRD Merit Award with F. Spinale USC	64		IPA JASON A BURDICK	12,405		12,405
VA Comprehensive End-of-Life Care's PROMISE Center	64		IPA	444,753		444,753
VA IPA - Juan Yi	64		IPA YUAN JI	10,448		10,448
VA IPA Agreement for Danielle Frame McComb	64		IPA FRAME-MCCOMB DANIELLE	12,900		12,900
VA IPA Agreement for Yonghai Li	64		IPA LI YONGHAI	58,916		58,916
VA IPA FY15 Aldis Kurmis	64		IPA AGREEMENT - 642-C46735	11,680		11,680
VA IPA FY15 Dennis Culhane	64		IPA AGREEMENT - 642-C46735	131,599		131,599
VA IPA FY15 Elizabeth Flatley	64		IPA - 642-C46744	50,307		50,307
VA IPA FY15 Jonathan Rajkumar	64		IPA - 642-C46744	19,620		19,620
VA IPA FY15 Meagan Cusack	64		IPA - 642-C56119	50,895		50,895
VA IPA FY15 Nora Hunt-Johnson	64		IPA AGREEMENT - 642-C46735	73,925		73,925
VA IPA FY15 Toorjo Ghose	64		IPA - 642-C56119	14,226		14,226
VA IPA FY15 Yin-Ling Wong	64		642-C46735IPA WONG YIN-LING (IRENE)	14,365		14,365
VA Merit Award	64		H LI/V ABRAHAM	109,834		109,834
VA National Center on Homelessness Among Veterans - FY14	64		VA244-14-C-0093/PO #642-C40122	31,711		31,711
Survey of Patient Experiences of Care (SHEP) Key Informant Interviews	64		IPA ADEJARE	15,768		15,768

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
SubTotal 64				4,885,912	26,711	4,912,623
DEPARTMENT OF VETERAN AFFAIRS Total				4,885,912	26,711	4,912,623
DEPARTMENT OF VETERANS AFFAIRS						
Defining and Targeting Quiescent Cells within Head and Neck Squamous Cell Carcinoma	64		IPA - DR. BELDEN	30,950		30,950
Inpatient Psychiatric Safety at the VA (2)	64		N/A	8,904		8,904
SubTotal 64				39,854		39,854
DEPARTMENT OF VETERANS AFFAIRS Total				39,854		39,854
ENVIROMENTAL PROTECTION AGENCY						
An Integrated Strategy to Improve Green Infrastructure Approaches in Philadelphia	66.509	TEMPLE UNIVERSITY	310214-UPENN		10,000	10,000
ENABLING CITIZENS AND OWNERS TO INVEST IN GREEN INFRASTRUCTURE IN PHILADELPHIA	66.509		83555401	256,048		256,048
SubTotal 66.509				256,048	10,000	266,048
ENVIROMENTAL PROTECTION AGENCY Total				256,048	10,000	266,048
DEPARTMENT OF ENERGY						
A Physicochemical Method for Separating Rare Earths: Addressing an Impending Shortfall	81.049		DE-SC0006518	167,943		167,943
Anharmonic and Thermal Effects Associated with Jammed Solids	81.049		DE-FG02-05ER46199	35,296		35,296
ARRA - RATIONAL DESIGN OF INNOVATIVE CATALYTIC TECHNOLOGIES FOR BIOMASS DERIVATIVE UTILIZATION	81.049	UNIVERSITY OF DELAWARE	21118		46,993	46,993
ATOMISTIC AND MESOSCOPIC STUDY OF PLASTIC DEFORMATION OF ALLOYS OF BODY-CENTERED-CUBIC TRANSITION METALS AND MAGNETIC	81.049		DE-FG02-98ER45702	186,911		186,911
Center for the Computational Design of Functional Layered Materials	81.049	TEMPLE UNIVERSITY	254998		162,478	162,478
CONDUCTION MECHANISMS AND STRUCTURE OF IONOMERIC SINGLE-ION CONDUCTORS	81.049	PENNSYLVANIA STATE UNIVERSITY	3529-UP-DOE-6409		323	323
Designing Smart, Responsive Communicating Microcapsules from Polymersome	81.049		DE-SC0007063	82,212		82,212
Development of Smart, Responsive Communicating and Motile Microcapsules	81.049		DE-SC0007063	76,392		76,392
Electric-Loading Enhanced Kinetics in Oxide Ceramics: Pore Migration, Sintering and Grain Growth	81.049		DE-SC0007064	274,533		274,533
Electronic and Piezoelectric Phenomena in Nanostructures	81.049		DE-FG02-84ER45118 - MOD 032	76,057		76,057
Exploiting the flexibility and the polarization of ferroelectric perovskite surfaces to achieve efficient photochemistry and enantiospecificity	81.049		UNDER DE-FG02-07ER15920	147,695		147,695
First-principles investigations of fundamental physics and new materials for optoelectronic application	81.049			241,971		241,971
FROM FUNDAMENTAL UNDERSTANDING TO PREDICTING NEW NANOMATERIALS FOR HIGH CAPACITY HYDROGEN STORAGE	81.049		DE-FG-02-08ER46522-A000	9,818		9,818
High Energy Physics Research at the University of Pennsylvania	81.049		DE-SC0007901	623,635		623,635
High Energy Physics Research at the University of Pennsylvania	81.049		SE-SC0007901	2,595,266		2,595,266
Local Properties at Nanosized Interfaces and Defects	81.049		DE-FG02-00ER45813	4,521		4,521
Membrane-Attached Electron Carriers in Photosynthesis and Respiration	81.049		DE-FG02-91ER20052	77,470		77,470
Membrane-Attached Electron Carriers in Photosynthesis and Respiration	81.049		DE-FG02-91ER20052/019	130,053		130,053
Modular Designed Protein Constructions for Solar Generated H2 from Water	81.049		DE-FG02-05ER46223	-18,774		-18,774
Modulating Thermal Transport Phenomena in Nanostructures via Elastic Strain at Extreme Limits of Strength	81.049		DE-SC0008135	149,890		149,890
Multi-Disciplinary Research and Training Program in Breast Cancer Molecular Imaging and Targeted Radiochemistry	81.049		DE-SC0012476	287,964		287,964
Novel Concept in PET Imaging	81.049	RADIATION MONITORING DEVICES, INC.	CI2722		40,858	40,858
Oxide-Metal Interactions Studied on Core-Shell Catalysts	81.049		DE-SC0009440	184,428		184,428
Photosynthetic Antenna Research Center (PARC)	81.049	WASHINGTON UNIVERSITY IN ST. LOUIS	WU-HT-10-10/PO #2911072A		13,115	13,115
Photosynthetic Antenna Research Center (PARC)	81.049		WU-HT-10-10-MOD-6		131,425	131,425
Rational Design Of Innovative Catalytic Technologies For Biomass Derivative Utilization	81.049	UNIVERSITY OF DELAWARE	37849		214,419	214,419
Structure and Electronic Properties of Dirac Materials	81.049		DE-FG02-84ER45118	13,634		13,634
Sudbury Neutrino Observatory	81.049		Advance Account	43,289		43,289
Sudbury Neutrino Observatory	81.049		DE-FG02-88ER40479 MOD 043	587,320		587,320
Supernova Cosmology with the Dark Energy Survey	81.049		DE-SC0009890	71,127		71,127
Surface Science Studies of Nano-crystalline Metal Oxide and Metal-Metal Oxide Core-Shell Catalysts	81.049		DE-FG02-04ER15605	120,585		120,585
Synthesis and Exploratory Catalysis of 3D Metals: Group-Transfer Reactions, and the Activation and Functionalization of Small Molecules Including Greenhouse Gases	81.049		DE-SC0012486	128,963		128,963
University of Pennsylvania Theoretical Program	81.049		DE-SC0013528	177,596		177,596
SISGR: Bi-continuous Multi-component Nanocrystal Superlattices for Solar Energy Converter	81.049		DE-SC0002158	658,180		658,180
INTERMOLECULAR INTERACTIONS OF HYDROXYL RADICALS ON REACTIVE POTENTIAL ENERGY SURFACES	81.049		DE-FG02-87ER13792 - MOD 030	35,546		35,546
SPECTROSCOPY AND DYNAMICS OF REACTION INTERMEDIATES IN COMBUSTION CHEMISTRY	81.049		DE-FG02-87ER13792	106,128		106,128
SubTotal 81.049				7,275,649	609,611	7,885,260
Energy Efficient Buildings Hub (EEB Hub) GPIC/HUB Task #2 Realtime Knowledge Repository on Practice & Performance GPIC/HUB Task #3 Economic Policy and Be	81.086	PENNSYLVANIA STATE UNIVERSITY	4338-UP-DOE-4261		1,072,256	1,072,256
SubTotal 81.086					1,072,256	1,072,256
Cost-effective Manufacturing and Morphological Stabilization of Nanostructured Cathodes for Commercial SOFCs	81.089		DE-FE0023317	133,602		133,602
SubTotal 81.089				133,602		133,602
Electric Power Generation by a Vertical-Axis Turbine Driven by an Anchored Vortex and Sustained by the Air Layer over Solar-Heated Ground: Development and Demon	81.135	GEORGIA INSTITUTE OF TECHNOLOGY	RD735-G3		152,826	152,826
Synthetic Crop for Direct Drop in Biofuel Production Through Photorespiration Intermediates and Engineering Terpenoid Pathways	81.135	TEXAS A&M AGRILIFE RESEARCH	06-S130675		296,494	296,494
SubTotal 81.135					449,320	449,320
Dark Energy Survey Data Management and Lensing Pipeline	81	FERMI NATIONAL ACCELERATOR LABORATORY	PO #609555		-3,032	-3,032
DESC at University of Pennsylvania	81	STANFORD LINEAR ACCELERATOR CENTER	116079		181,708	181,708
Design and Fabrication of an Electronics for the 35 Tonne Prototype	81	BROOKHAVEN NATIONAL LABORATORY	264851		66,593	66,593
Design of Social and Economic Incentives and Information Campaigns to Promote Solar Technology Diffusion Through Data-Driven Behavior Modeling	81	SANDIA NATIONAL LABORATORY	PO #135052		246,965	246,965
Fast-Tract: Conductive Diamond Probes for Scanning Electrochemical Microscopy	81	ADVANCED DIAMOND TECHNOLOGIES, INC.	SBIR DE-SC-0009624		1,826	1,826
LSST Statement of Work - University of Pennsylvania	81	STANFORD LINEAR ACCELERATOR CENTER	123857		160,903	160,903
Multi-scale observation and modeling of IP3/Ca signaling	81	LOS ALAMOS NATIONAL LABORATORY	278443		362,298	362,298
Nanocrystal Additives for Advanced Lubricants	81	PIXELLIGENT TECHNOLOGIES	DE-SC0009222-UPENN		133,062	133,062
RESEARCH FOR ATLAS EXPERIMENT	81	BROOKHAVEN NATIONAL LABORATORY	80472		449,552	449,552
Research on the Front End Electronics and Electronics System Engineering for the Large Synoptic Survey Telescope (LSST) Camera Project	81	STANFORD LINEAR ACCELERATOR CENTER	101288		-2,174	-2,174
The Liquid Argon Construction	81	BROOKHAVEN NATIONAL LABORATORY	243102		124,941	124,941
U.S. ATLAS Fellows Program - Rustem Ospanov	81	BROOKHAVEN NATIONAL LABORATORY	250407		19,662	19,662
ENERGY FRONTIER RESEARCH CENTERS	81	LOS ALAMOS NATIONAL LABORATORY	XEJ-5-42261-01		23,929	23,929
SubTotal 81					1,766,233	1,766,233
DEPARTMENT OF ENERGY Total				7,409,251	3,897,420	11,306,671

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
DEPARTMENT OF EDUCATION						
Title VI FLAS Fellowship Funding 2014-2018	84.015		P015B140144	205,000		205,000
	SubTotal 84.015			205,000		205,000
From Apartheid to Reconciliation: Perspectives on the History and Cultural Diversity of South Africa	84.021		P021A140031	77,501		77,501
	SubTotal 84.021			77,501		77,501
Fulbright-Hays Doctoral Dissertation Research Abroad Fellowship Program	84.022		P022A140004	14,009		14,009
Fulbright-Hays Doctoral Dissertation Research Abroad Program	84.022		P022A130003 - ACTION 1	59,821		59,821
	SubTotal 84.022			73,830		73,830
84.170b JACOB JAVITS FELLOWSHIP	84.170		P170B100020	5,000		5,000
	SubTotal 84.170			5,000		5,000
Partner for Prevention (P4P): A whole School Approach to Peer Aggression and Bullying	84.305	CHILDREN'S HOSPITAL OF PHILADELPHIA	327251 / PO #960869RSUB		9,597	9,597
Perceptual Learning Technology in Mathematics Education: Efficacy and Replication	84.305	UNIVERSITY OF CALIFORNIA-LOS ANGELES	0875 G PE032/4-444040-PK-21313		480,255	480,255
Raising G.P.A.: Partnering to Support Grit, Perseverance, and Achievement in Baltimore City Middle Schools	84.305	STRATEGIC EDUCATION RESEARCH PARTNERSHIP (SERP)	R305H140121		63,194	63,194
THE DEVELOPMENT AND VALIDATION OF THE VANDERBILT ASSESSMENT OF LEADERSHIP IN EDUCATION	84.305		R305A080370	-44		-44
The School District of Philadelphia-Penn Graduate School of Education Researcher-Practitioner Partnership in Education Research	84.305		R305H140097	115,727		115,727
	SubTotal 84.305			115,683	553,046	668,729
The 21ST Century Center for Research and Development in Cognition and Science Instruction	84.305A	21ST CENTURY PARTNERSHIP FOR STEM EDUCATION	21PSTEM		0	0
	SubTotal 84.305A				0	0
UNIVERSITY OF PENNSYLVANIA PRE-DOCTORAL TRAINING PROGRAM IN INTERDISCIPLINARY METHODS FOR FIELD-BASED RESEARCH IN EDUCATION	84.305B		R305B090015	665,922		665,922
	SubTotal 84.305B			665,922		665,922
Philadelphia Teacher Residency Program	84.367	DREXEL UNIVERSITY	239965		87,593	87,593
	SubTotal 84.367				87,593	87,593
ARRA - Reading Recovery: Scaling Up What Works	84.396	OHIO STATE UNIVERSITY	60029186		1,182,079	1,182,079
	SubTotal 84.396				1,182,079	1,182,079
Validating the SunBay Middle School Digital Mathematics Program	84.411	SRI INTERNATIONAL	141-000013		287,155	287,155
	SubTotal 84.411				287,155	287,155
Actionable Intelligence for Social Policy: Data Use and Strategic Planning Consultant Proposal for Hawaii	84	RESEARCH CORPORATION OF THE UNIVERSITY OF HAWAII	PO #ZI0064597		249,638	249,638
Extending the Cultural and Linguistic Validity of the Adjustment Scales for Preschool Intervention (ASPI) for Low-Income, Latino Children	84	UNIVERSITY OF MIAMI	SUB TO R305A100233		13,319	13,319
PLN Math & Literacy Professional Development	84	CAMDEN CITY SCHOOL DISTRICT	PO 442807		-70	-70
Regional Education Laboratories ? Mid-Atlantic Region	84	ICF INCORPORATED	11AS00024		112,917	112,917
	SubTotal 84				375,804	375,804
DEPARTMENT OF EDUCATION Total				1,142,936	2,485,677	3,628,613
ENVIROMENTAL PROTECTION AGENCY						
Global Change from the Ground Up: Soil Microbial Diversity in a Climate and Land-use Change Experiment	86.514		FP-91762401-0	15,925		15,925
	SubTotal 86.514			15,925		15,925
ENVIROMENTAL PROTECTION AGENCY Total				15,925		15,925
UNITED STATES INSTITUTE OF PEACE						
Mobile Interaction in Rwanda: Increasing Reach, Testing Use	91		USIP-084-13F	35,300		35,300
	SubTotal 91			35,300		35,300
UNITED STATES INSTITUTE OF PEACE Total				35,300		35,300
DEPARTMENT OF HEALTH AND HUMAN SERVICES						
Botswana-UPenn Partnership technical assistance plan for HIV complications, HIV-TB co-infection and cervical cancer screening	93.067		1-U2G-PS-001949-01	2,087,355		2,087,355
Program Area B: TB/HIV	93.067		1-U2GGH-001498-01	5,312		5,312
	SubTotal 93.067			2,092,667		2,092,667
Centers for Autism and Developmental Disabilities Research & Epidemiology (CADDRE): Study to Explore Early Development (SEED) Phase I	93.073		1-U01-DD-000752-01	1,131,017		1,131,017
	SubTotal 93.073			1,131,017		1,131,017
Brain and behavioral effects of graphic cigarette warning labels	93.077		1-R01-DA-036028-01	572,467		572,467
Evaluating New Nicotine Standards for Cigarettes - Project 1	93.077	UNIVERSITY OF PITTSBURGH	0035455 (122748-5)		71,197	71,197
OSU Center of Excellence in Regulatory Tobacco Science (OSU-CERTS)(Project 4)	93.077	OHIO STATE UNIVERSITY	60042253 / PO #RF01356877		40,509	40,509
UPENN TCORS: Tobacco Product Messaging in a Complex Communication Environment	93.077		1-P50-CA-179546-01	3,397,913		3,397,913
Using Eye Tracking to Understand and Improve Graphic Warning Label Effectiveness	93.077		1-R01-CA-180929-01	478,074		478,074
Yale Tobacco Center of Regulatory Science: Economics, Experiments and PATH Data: Creating Knowledge for Tobacco Regulation (Project #4)	93.077	YALE UNIVERSITY	M14A11741 (A09436)		0	0
	SubTotal 93.077			4,448,454	111,706	4,560,160
Responsible Fatherhood Research Network	93.086	TEMPLE UNIVERSITY	360985-UPENN		19,057	19,057
	SubTotal 93.086				19,057	19,057
Animal and Animal Food Diagnostic Sample Analysis in Support of FDA Vet-LRN Activities and Investigation:	93.103		1-U18-FD-004625-01	11,203		11,203
Companion Animal and Animal Food Diagnostic Sample Analysis in Support of FDA Vet-LIRN Activities and Investigation:	93.103		1-U18-FD-005164-01	15,257		15,257
Concurrent Pilot Studies in Giant Cell Arteritis (GCA) and Takayasu's Arteritis (TAK) to Examine the Safety, Efficacy and Immunologic Effects of Abatacept (CTLA4-Ig)	93.103	CLEVELAND CLINIC LERNER COLLEGE OF MEDICINE	280SUB		30,699	30,699
Evaluation of Salmonella in Symptomatic and Asymptomatic Pets: Study for the Vet-LRN Program	93.103		1-U18-FD-004301-01	4,289		4,289

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
HeartMap Dynamic AED Registry	93.103	UNIVERSITY OF WASHINGTON	755623		51,379	51,379
Iontophoretic delivery of dexamethasone for anterior scleritis, IND 107,846	93.103		1-R01-FD-003910-01	-1,301		-1,301
Method validation and comparison for the detection of mycotoxins in novel animal feeds and tissues	93.103		1-U18-FD-005009-01	56,067		56,067
PHASE I/II RANDOMIZED TRIAL OF ADOPTIVE LYMPHOCYTE TRANSFER IN OVARIAN CANCER	93.103		1-R01-FD-003520-01	174,598		174,598
Resiquimod Gel Therapy for Cutaneous T-Cell Lymphoma	93.103		1-R01-FD-004092-01A1	48,363		48,363
Plasma Exchange and Glucocorticoids for Treatment of ANCA-Associated Vasculitis	93.103		4-R01-FD-003516-05	182,467		182,467
SubTotal 93.103				490,943	82,078	573,021
Autism Intervention Research Network On Behavioral Health	93.110	UNIVERSITY OF CALIFORNIA-LOS ANGELES	2000 G PG206		169,916	169,916
Evaluating maternal and neonatal outcomes: A comparison of 2 models of obstetric care delivery	93.110		1-R40-MC-17164-01-00	-3,974		-3,974
Hemophilia Treatment Centers	93.110	CHILDREN'S HOSPITAL OF PHILADELPHIA	320961-06-01		39,472	39,472
SubTotal 93.110				-3,974	209,388	205,414
African Odyssey: An Integrative Genomics Analysis of Complex Physiologic Traits	93.113		1-DP1-OD-006445-01	20,216		20,216
Center of Excellence in Environmental Toxicology	93.113		2-P30-ES-013508-10	378,675		378,675
Developing Cloud-based tools for Big Neural Data	93.113		1-K01-ES-025436-01	130,933		130,933
Effects of fetal bisphenol A exposure on mouse epigenome	93.113		1-K99-ES-022244-01	48,787		48,787
Epigenomic Impact of Diet and Toxicant Exposure in Alzheimer's Disease Etiology	93.113	UNIVERSITY OF PITTSBURGH	R21-ES021243		9,874	9,874
GENETIC ANALYSIS OF MATERNAL FACTORS IN EMBRYONIC DEVELOPMENT	93.113		1-R01-ES-011248-01	-2,863		-2,863
Gulf Coast Health Alliance: Health Risks Related to the Macondo Spill (GC HARMS)	93.113	UNIVERSITY OF TEXAS MEDICAL BRANCH	13-090 / PO #UOSPC-0000001089		39,005	39,005
Gulf Coast Health Alliance: Health Risks Related to the Macondo Spill (GC-HARMS)	93.113	UNIVERSITY OF TEXAS MEDICAL BRANCH	11-089/PO #UOSPC-0000000632		227,548	227,548
Imaging genomics bases of pediatric executive functioning	93.113		1-K01-ES-025432-01	99,668		99,668
Lead exposure, externalizing behavior, and neurobiological mediating factors	93.113		1-R01-ES-018858-01	159,956		159,956
Mechanisms that mediate the link between lead exposure and child behavior problem	93.113		1-K02-ES-019878-01 REVISED	109,885		109,885
Prenatal Environmental Exposures and Reproductive Hormone Concentrations (PERCH)	93.113	SEATTLE CHILDREN'S HOSPITAL RESEARCH INSTITUTE	SUB TO IR21ES023883-01		18,947	18,947
Selective inhibitors of ubiquitin E3 ligase to treat high cholesterol	93.113	PROGENRA, INC.	RES025600A		55,890	55,890
Sleep and Health in the Social Environment	93.113		1-R21-ES-022931-01A1	198,938		198,938
Statistical Methods in Genetic Epidemiology Research	93.113		1-R01-ES-016626-01	114,849		114,849
Steer and trees summer research programs	93.113		1-R25-ES-021649-01A1	53,139		53,139
THE COMMUNITY HEALTH ASSESSMENT OF RISKS ASSOCIATED WITH THE MACONDO SPILL	93.113	UNIVERSITY OF TEXAS MEDICAL BRANCH	13-085/PO #UOSPC-0000001088		18,927	18,927
Transgenerational effects of endocrine disruptors: epigenetics and physiology	93.113		1-R01-ES-023284-01	465,401		465,401
Translational Research Training Program in Environmental Health Sciences	93.113		1-T32-ES-019851-01A1	367,777		367,777
SubTotal 93.113				2,145,361	370,191	2,515,552
Occupational Medicine Residency at the University of Pennsylvania	93.117		1-D33-HP-25770-01-00	427,149		427,149
SubTotal 93.117				427,149		427,149
A quiescent G0-like cell state as a barrier to eradication oral cancer stem cells	93.121		1-R21-DE-024396-01	122,120		122,120
A. actinomycetemcomitans Cdt induces pro-inflammatory innate immune response	93.121		1-R01-DE-023071-01A1	359,027		359,027
Anatomical atlas and transgenic toolkit for late skull formation in zebrafish	93.121		1-U01-DE-024434-01	657,858		657,858
Bacteria and Lymphocyte Suppression in Periodontitis	93.121		2-R01-DE-006014-29A1	414,377		414,377
Center to Address Disparities in Children's Oral Health	93.121	UNIVERSITY OF CALIFORNIA - SAN FRANCISCO	7390SC		37,226	37,226
CFM Longitudinal Outcomes in Children Pre-Kindergarten (CLOCK)	93.121	CHILDREN'S HOSPITAL OF PHILADELPHIA	8233450814		18,082	18,082
Clinical Registry of Dental Outcomes in Head and Neck Cancer Patients	93.121	CAROLINAS HEALTH CARE SYSTEM	SUB TO U01DE022939-01		252,539	252,539
Contribution of G0-like Cells to Maintenance of the Oral Cancer Stem Cell Pool	93.121		1-F32-DE-024685-01	44,765		44,765
Del-1: Molecular and Cellular Targets in Periodontitis	93.121		1-R01-DE-024716-01	283,584		283,584
Dendritic Cells and Periodontal Disease	93.121		1-R01-DE-021921-01A1	557,621		557,621
Dental outcomes in Fibrous Dysplasia/McCune Albright Syndrome	93.121		1-R56-DE-022932-01A1	59,223		59,223
Diabetes-enhanced Experimental Periodontitis	93.121		2-R01-DE-017732-07A1	138,942		138,942
Effects of saliva on herpes simplex virus infection of oral cells	93.121		1-R21-DE-022137-01A1	83,481		83,481
Epigenetics, dysbiosis and inflammation in epithelial cells	93.121		1-R01-DE-024160-01A1	114,573		114,573
Evaluation of a Novel Anti-Caries Approach to Modulate Virulence of S. mutans	93.121		7-R01-DE-018023-06	-116		-116
Genetics of Caries	93.121	UNIVERSITY OF PITTSBURGH	0032380 (121896-1)		-1,418	-1,418
GINGIVA DERIVED MSCS: ROLE IN IMMUNOMODULATION AND TISSUE REGENERATION	93.121		7-R01-DE-019932-05	195,698		195,698
Intracellular trafficking of Bisphosphonates in bone mesenchymal Stem Cells	93.121		1-R21-DE-022826-01	58,032		58,032
Lysosomal maturation during periodontal infections	93.121		1-R01-DE-022465-01A1	346,589		346,589
Mechanisms for Impaired Diabetic Oral Wound Healing	93.121		7-R01-DE-019108-02	193,932		193,932
Molecular Basis for Caries Inhibiting Effects of Cranberry Flavonoids	93.121		7-R01-DE-016139-08	372,805		372,805
MOLECULAR BIOLOGY OF VIRULENCE IN PERIODONTAL DISEASE	93.121		2-R01-DE-009517-21A1	345,390		345,390
Novel mechanisms and 'complement-ary' therapy in periodontiti	93.121		1-R01-DE-021685-01A1	437,437		437,437
Oral immunity and adjuvant receptors	93.121		7-R01-DE-017138-08	464,309		464,309
OSTEOGENIC AND IMMUNOMODULATORY PROPERTIES OF DECIDUOUS TOOTH STEM CELLS	93.121		7-R01-DE-017449-08	189,836		189,836
P. gingivalis as a keystone pathogen	93.121		2-R01-DE-015254-12A1	571,450		571,450
Quality of Life in Children with Cleft	93.121	CHILDREN'S HOSPITAL OF PHILADELPHIA	8230930815		6,004	6,004
Regulation of embryonic patterning and adult stem cells of oral appendages	93.121		1-R01-DE-024570-01	270,639		270,639
Regulation of Wnt signaling in tooth development and regeneration	93.121		1-R56-DE-023100-01A1	316,111		316,111
Role of dyskerin in oral epithelial homeostasis	93.121		1-K08-DE-021428-01A1	147,852		147,852
Roles of Epithelial Splicing Regulatory Proteins in craniofacial development	93.121		1-R56-DE-024749-01	261,574		261,574
Screen for mutations affecting skull and suture formation in zebrafish	93.121		1-R01-DE-022955-01A1	414,351		414,351
Study of Actinobacillus Actinomycetemcomitans Virulence	93.121		2-R01-DE-012593-09	13,737		13,737
Targeting mesenchymal-like cells in oral cancer to overcome cetuximab resistance	93.121		1-K08-DE-022842-01	124,817		124,817
THE RANKL AXIS IN THE OSTEOIMMUNE SYSTEM	93.121		1-R01-DE019381-01	4,649		4,649
SubTotal 93.121				7,564,663	312,433	7,877,096
Nurse Anesthetist Traineeship Program (NAT)	93.124		1-A22-HP-271350100	22,272		22,272
SubTotal 93.124				22,272		22,272
UC Berkeley Prevention Research Center	93.135	UNIVERSITY OF CALIFORNIA - SAN FRANCISCO	7568sc		9,998	9,998
University of Pennsylvania Prevention Research Center	93.135		1-U48-DP-005053-01	882,818		882,818
SubTotal 93.135				882,818	9,998	892,816

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
The Penn Violence and Injury Control Research Center	93.136		1-R49-CE-002474-01	190,017		190,017
	SubTotal 93.136			190,017		190,017
Asbestos fate, exposure, remediation, and adverse health effects	93.143		1-P42-ES-023720-01	2,447,937		2,447,937
	SubTotal 93.143			2,447,937		2,447,937
GERIATRIC TRAINING PROGRAM FOR PHYSICIANS, DENTISTS, AND BEHAVIORAL AND MENTAL HEALTH PROFESSIONS	93.156		2-D01-HP-08798-04-00	798,280		798,280
	SubTotal 93.156			798,280		798,280
Center of Excellence for Diversity in Health Education and Research	93.157		1 D34HP24459-01-00	669,689		669,689
	SubTotal 93.157			669,689		669,689
Advanced Techniques for Single Cell Transcriptomics	93.172		1-R25-HG-007515-01	21,096		21,096
Advancing Collaborative Genetic Research: Ethical and Policy Challenges	93.172	CASE WESTERN RESERVE UNIVERSITY	RES508669		12,761	12,761
Applying Genomic Sequencing in Pediatrics	93.172	CHILDREN'S HOSPITAL OF PHILADELPHIA	960033RUSB		255,897	255,897
BEYOND STIGMA: INTERPRETING GENETIC DIFFERENCE	93.172		1-R01-HG-002189-01	-9,418		-9,418
Comprehensive determination of the human proteins that define the splicing code	93.172		1-R21-HG-006892-01	136,467		136,467
Computational Tools for Mining Large Amounts of ChIP and Gene Expression Data	93.172	JOHNS HOPKINS UNIVERSITY	SUB to R01HG006282-01A1		25,904	25,904
Developing Statistical Methods for Disease Gene Discovery	93.172	VANDERBILT UNIVERSITY	VUMC34975-R R01-HG-004517-01A1		496	496
DNA sequencing using single-layer graphene nanoribbons with nanopores.	93.172		1-R21-HG-006313-01	258,815		258,815
Genomic Medicine Pilot Demonstration Projects Coordinating Center	93.172		1-U01-HG-007266-01	457,059		457,059
High-bandwidth DNA sequencing using graphene nanoribbon-nanopore devices	93.172		1-R21-HG-007856-01	137,607		137,607
Imputation and Association Analysis of Rare Variants in Admixed Populations	93.172	UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL	5-32731		37,233	37,233
Integrated, Multiplexed High-Frequency Electronic Analysis of DNA in Nanopores	93.172	COLUMBIA UNIVERSITY	1 (GG009283)/PO #G03078		67,886	67,886
Integrative Variation Detection, Annotation and Analysis for High-Throughput Sequence Data	93.172	UNIVERSITY OF SOUTHERN CALIFORNIA	H51483		27,891	27,891
iPS-derived hepatocytes for interrogation of lipid phenotypes associated with G	93.172		1-U01-HG-006398-01	2,381,846		2,381,846
PENN CENTER FOR ELSI RESEARCH IN EMERGING GENETIC TECHNOLOGIES IN HEALTH CARE	93.172		1-P50-HG-004487-01	16,189		16,189
Population Genomics of Geographically and Ethnically Diverse Africans	93.172		1-F32-HG-006648-01	27,667		27,667
Returning Individual Genetic Results to Participants in Cohort Studies	93.172		7-R01-HG-005083-04	31,261		31,261
Statistical Methods for Gene Mapping Studies in Admixed Populations	93.172		1-R01-HG-005854-01	183,320		183,320
Statistical Models and Analysis of Complex Genomic Variation in Clonal Mixtures	93.172		2-R01-HG-006137-04	163,614		163,614
Telomere Characterization of Normal and Cancer Cells Using Next Generation Sequencing Reads	93.172		1-F31-HG-006395-01	8,557		8,557
The impact of uncertainty in genome-wide testing for Autism Spectrum Disorder	93.172		1-R21-HG-006560-01	53,698		53,698
The Use of Whole-Exome Sequencing to Guide the Care of Cancer Patients (Project 3)	93.172	DANA-FARBER CANCER INSTITUTE	1198202		13,292	13,292
Training grant in computational biology	93.172		2T32HG000046-16	18,365	13,292	18,365
TRAINING GRANT IN COMPUTATIONAL GENOMICS	93.172		2-T32-HG-000046-11	192,923		192,923
	SubTotal 93.172			4,079,066	441,360	4,520,426
A Novel Regulated Nanohydrogel Delivery System for Targeted Inner Ear Application	93.173		1-R01-DC-014464-01	63,267		63,267
Advanced methods for lesion-symptom mapping in aphasia	93.173		1-R21-DC-011074-01	25,632		25,632
Allele specific expression of TAS2R38 in human taste and nasal tissue	93.173		1-R21-DC-013886-01A1	30,228		30,228
Behavioral and neural correlates of auditory-object integration and segregation	93.173		1-R21-DC-011659-01A1	-9,985		-9,985
Chronic Rhinosinusitis and genetics of bitter taste receptors	93.173		1-R01-DC-013588-01A1	409,184		409,184
Circuit mechanisms of sound processing and detection in the auditory pathway	93.173		1-R01-DC-014479-01	3,824		3,824
Conferences for Advances and Perspectives in Auditory Neurophysiology (APAN)	93.173		2-R13-DC-010549-06	13,384		13,384
Cortical Mechanisms of Auditory-Vocal Interaction	93.173		1-K08-DC-014299-01	87,360		87,360
Figurative Language in Aphasic and Health Participants	93.173		1-R01-DC-012511-01A1	319,382		319,382
FUNCTIONAL ORGANIZATION OF THE SONG MOTOR CONTROL SYSTEM	93.173		2-R01-DC-006102-06A1	-6,606		-6,606
Genomic architecture of Shh dependent cochlear morphogenesis	93.173		2-R01-DC-006254-11A1	444,105		444,105
LINGUISTIC AND NONLINGUISTIC FUNCTIONS OF FRONTAL CORTEX	93.173		2-R01-DC-009209-11	299,594		299,594
LINGUISTIC AND NONLINGUISTIC FUNCTIONS OF FRONTAL CORTEX	93.173		9-R01-DC-009209-06A1	543		543
Modulation of Odorant Receptor Function	93.173	DUKE UNIVERSITY	2032340		99,972	99,972
Modulation of Olfactory Cilia	93.173		1-R01-DC-011554-01A1	189,194		189,194
Multi-scale study of auditory scene analysis in the ventral auditory pathway	93.173		1-R01-DC-013961-01A1	244,477		244,477
Olfactory Coding in Mammals	93.173		2-R01-DC-006213-06	236,044		236,044
Psycholinguistic Analysis of Aphasic Syndromes	93.173	MOSS REHABILITATION RESEARCH INSTITUTE	SUB TO 2-R01-DC000191-30		291,198	291,198
Regulation of Olfactory Cilia Structure and Function	93.173		1-F31-DC-013945-01A1	38,568		38,568
Representations of communication signals in the auditory cortex	93.173		7-R01-DC-009224-03	-809		-809
Representations of sound processing in the auditory cortex	93.173		2-R01-DC-009224-07A1	358,557		358,557
Role of CALHM1 ion channel in taste transduction	93.173		1-R01-DC-012538-01A1	376,330		376,330
Role of CALHM3 in ATP-release channel gating and taste perception	93.173		1-R03-DC-014328-01	56,124		56,124
Semantic Memory and Language Learning in Alzheimer's Disease and Semantic Dementi	93.173	TEMPLE UNIVERSITY	254692-UPENN		190,550	190,550
Structure and Function of Myosin VI	93.173		2-R01-DC-009100-11	476,020		476,020
STRUCTURES AND FUNCTION OF MYOSIN VI	93.173		9-R01-DC-009100-06	-2,060		-2,060
Targeting of Sensory Axons in the Olfactory Bulb	93.173		1-R01-DC-012854-01A1	465,295		465,295
The role of cortical interneurons in auditory processing and learning	93.173		1-R03-DC-013660-01	194,868		194,868
Theory-driven treatment of language and cognitive processes in aphasia	93.173	TEMPLE UNIVERSITY	253763-UPENN		57,205	57,205
TMS as a Biomarker of Plasticity in Aphasia Recovery	93.173		1-R01-DC-012780-01A1	484,252		484,252
Neural correlates of hearing in noise	93.173		1-R03DC-012431-01	163,789		163,789
Objective evaluation of conductive olfactory losses and nasal obstruction symptoms	93.173	MONELL CHEMICAL SENSES CENTER	SUB TO 1-R01-DC013626		21,840	21,840
	SubTotal 93.173			4,960,561	660,765	5,621,326
National Research Service Award	93.186		2-T32HP10026-18-00	338,824		338,824
	SubTotal 93.186			338,824		338,824
ELUCIDATING THE PLACEBO EFFECTS OF ACUPUNCTURE: HOT FLASHES AS A CLINICAL MODEL	93.213		1-K23-AT-004112-01A2	-1,003		-1,003
LIFESTYLE MODIFICATION AND BLOOD PRESSURE STUDY (LIMBS)	93.213		1-R01-AT-004921-01A1	3,193		3,193
Long-Term Chamomile Therapy of Generalized Anxiety Disorder	93.213		1-R01-AT-005074-02	366,885		366,885
Mechanisms of Mindfulness: Effects on Sleep Quality, Stress Physiology & CVD Risk	93.213		7-R00-AT-004945-06	3,580		3,580
NOVEL SYNTHETIC SDG TO TREAT TRAUMA-INDUCED INFLAMMATION	93.213		1-R21-AT-008291-01A1	83,765		83,765
Pragmatic Trials in Maintenance Hemodialysis	93.213		1-UH2-AT-007797-01	1,435,907		1,435,907

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
Rhodiola rosea Therapy of Major Depressive Disorder	93.213		1-R21-AT-005230-01A1	525		525
	SubTotal 93.213			1,892,852		1,892,852
24th-26th Annual Health Economics Conferences	93.226	BOSTON UNIVERSITY	1-R13-HS-022511-01		2,733	2,733
A comparison of cognitive and dynamic therapy for MDD in community settings	93.226		1-R01-HS-018440-01	205,842		205,842
A Pediatric Quality Measurement Center and Testing Laboratory	93.226	CHILDREN'S HOSPITAL OF PHILADELPHIA	320920-01-04 / PO #951120RSUB		57,118	57,118
Career Development in Patient Centered Outcomes Research	93.226		1-K12-HS-021706-01	399,283		399,283
CHOICE: Coalition of Hospices Organized to Investigate Comparative Effectiveness	93.226		1-R21-HS-021780-01	47,305		47,305
Clinical Prediction of Hepatotoxicity & Comparative Hepatic Safety of Medications	93.226		1-R01-HS-018372-01A1	527,694		527,694
Colorectal cancer risk after colonoscopy in elderly diabetes patient and mer	93.226		1-R01-HS-018501-01	-1,369		-1,369
Comparative Effectiveness of Adjunctive Devices For the Previous	93.226		1-R01-HS-018437-01A2	-6,565		-6,565
Comparative Effectiveness of Alternative Levels of Stroke	93.226		1-R01-HS-018540-01	125,272		125,272
Comparative effectiveness of home care environments for diverse elders' outcomes	93.226		1-K99-HS-022406-01	123,938		123,938
Comparative Effectiveness of Interventions for Depression in the Community	93.226		1-K02-HS-022124-01	153,347		153,347
Differential Effects of Managed Care Models and Competition in Medicaid	93.226		1-R36-HS-022797-01	4,786		4,786
Family Evaluation of Hospice Care	93.226	BROWN UNIVERSITY	358		528	528
Impact of Medicare Part D in Dual Eligibles with Schizophrenia	93.226		1-R01-HS-018389-01A1	27,930		27,930
Impact of Obstetric Unit Closures on Pregnancy Outcomes	93.226	CHILDREN'S HOSPITAL OF PHILADELPHIA	320906 / 951043RSUB		21,730	21,730
Improving Consumer Response to Nursing Home Quality Information: An Evaluation of Composite Measures	93.226		1-R21-HS-021861-01	283,313		283,313
Improving Nursing Home Compare for Dually Eligible Consumers	93.226	UNIVERSITY OF CHICAGO	FP052256-B		13,740	13,740
Improving the Framework for Healthcare Public Reporting	93.226	CHILDREN'S HOSPITAL OF PHILADELPHIA	320984 / PO #860573RSUB		129,443	129,443
Longitudinal Comparative Effectiveness & Safety of Biologics in Autoimmunity	93.226	UNIVERSITY OF ALABAMA AT BIRMINGHAM	000358264-002		54,952	54,952
Market and Organization Impact on Medical Technology Diffusion: Outcomes and Value	93.226		1-R01-HS-023615-01	86,337		86,337
MEASURING AND MITIGATING PATIENT SAFETY THREATS DUE TO STRAINS ON ICU CAPACITY	93.226		1-K08-HS-018406-01	21,739		21,739
Medical Decision Making: Innovation in the Era of Health Care Reform	93.226		1-R13-HS-022517701A1	33,683		33,683
Medical Failure-to-Rescue	93.226	CHILDREN'S HOSPITAL OF PHILADELPHIA	321060		18,744	18,744
Multi-Drug Resistant Urinary Tract Infections in Ambulatory Settings	93.226		1-R18-HS-020002-01	2,005		2,005
Optimization modeling and comparative effectiveness of regionalized stroke care	93.226		1-R01-HS-018362-01A1	145,560		145,560
Participatory design of mHealth strategies to support collaborative care in perinatal depression	93.226		1-K18-HS-022441-01	178,184		178,184
Participatory design of patient-centered depression and diabetes care	93.226		1-K18-HS-023445-01	86,466		86,466
THE COMPARATIVE EFFECTIVENESS OF TIME-ADJUSTED TRAUMA CENTER CARE ON MORTALITY	93.226		1-K08-HS-017960-01	-3,238		-3,238
The geography of acute care	93.226		1-R01-HS-023614-01	46,508		46,508
the SPIN Trial (stories to promote information through narrative): A RCT testing	93.226	AMERICAN COLLEGE OF EMERGENCY PHYSICIANS	SUB TO 1-R18-HS021956		62,637	62,637
	SubTotal 93.226			2,488,020	361,625	2,849,645
97-1470: DIVERSION VS JAIL SERVICES FOR PERSONS WITH SMI AND SA	93.230		1-U1G-SM-052139-01	-2,338		-2,338
	SubTotal 93.230			-2,338		-2,338
A Structural & Functional Study of the Upper Airway in Adolescent Girls with PCOS	93.233	ALBERT EINSTEIN COLLEGE OF MEDICINE OF YESHIVA UNIVERSITY	9-526-5365		-27,141	-27,141
Cardiovascular and Metabolic Risk Factors Associated with Short Sleep Duration	93.233		1-K23-HL-110216-01A1	166,687		166,687
Endophenotypes of Sleep Apnea and Role of Obesity	93.233		1-P01-HL-094307-01	82,600		82,600
Genetic Approaches to Sleep/Wake and Response to Sleep Loss in Mice	93.233		1-R01-HL-111725-01A1	306,453		306,453
Intermittent Hypoxia: Mechanisms of Hypersomnolence	93.233		2-R01-HL-079588-05	238,928		238,928
Metabolic regulation of wakefulness	93.233		1-R01-HL-123331-01A1	193,256		193,256
Neural basis for differential vulnerability to sleep deprivation	93.233		1-R01-HL-102119-01A1	428,445		428,445
Neurometabolic Assessment of Obstructive Sleep Apnea by MRI	93.233		1-R01-HL-122754-01A1	144,513		144,513
Premotor control of upper airway and REM sleep atonia	93.233		2-R01-HL-047600-16A1	1,438		1,438
REM mechanisms in neocortical development	93.233		1-R01-HL-114161-01A1	50,088		50,088
Shift Work Sleep Loss: Locus Coeruleus Neuron Senescence and Degeneration	93.233		1-R01-HL-124576-01	356,388		356,388
Upper airway control during disrupted and misaligned sleep	93.233		1-R01-HL-116508-01A1	418,881		418,881
Upper Airway Nerve Injury in Apnea: BIP-CHOP-SIRT1 Crosstalk	93.233		1-R01-HL-096037-01A1	-3,413		-3,413
Use of telemedicine to promote sleep medicine education in healthcare training	93.233		1-R25-HL-120874-01	187,036		187,036
	SubTotal 93.233			2,571,300	-27,141	2,544,159
1/2 - PREVENTION OF RELAPSE & RECURRENCE OF BIPOLAR DEPRESSION	93.242		1-R01-MH-080097-01A2	288,245		288,245
1/2 Efficacy of Computer-Assisted Cognitive Behavior Therapy for Depression	93.242		1-R01-MH-082794-01A2	328,914		328,914
1/2-Brain-Behavior and Genetic Studies of the 22q11DS	93.242		1-U01-MH-087626	1,602,225		1,602,225
1/3-A Neurobehavioral Family Study of Schizophrenia	93.242		2-R01-MH-042191-24A1	23,649		23,649
1/5 International Consortium on Brain and Behavior in 22q11.2 Deletion Syndrome	93.242		1-U01-MH-101719-01	789,059		789,059
2/2-- Attaining and Maintaining Wellness in OCD	93.242		2-R01-MH-045404-20	354,444		354,444
2/2 Brain, Behavior and Genetic Studies of the 22q11 Deletion Studies	93.242	CHILDREN'S HOSPITAL OF PHILADELPHIA	320898 / PO # 960964RSUB		108,603	108,603
2/2 Brain, Behavior and Genetic Studies of the 22q11 Deletion Studies	93.242		320898-01-03 / PO #951176RSU		113,413	113,413
2/3 Networks from multidimensional data for schizophrenia and related disorders	93.242		1-R01-MH-097273-01	112,454		112,454
3/3: Pedigree-Based Whole Genome Sequencing of Affective and Psychotic Disorders	93.242		1-U01-MH-105634-01	18,343		18,343
3/3-Sequencing Autism Spectrum Disorder Extended Pedigrees	93.242		1-R01-MH-094382-01A1	151,643		151,643
3/5-Genetics of Transcriptional Endophenotypes for Schizophrenia	93.242		1-R01-MH-093383-01A1	81,687		81,687
A Neurobehavioral Family Study of Schizophrenia	93.242		2-R01-MH-042191-19A1	-1,919		-1,919
Activity as an endophenotype for genetic studies	93.242		1-R21-MH-103963-01A1	90,021		90,021
Adherence and Empowerment: Service Participation and Meaningful Outcomes	93.242	ILLINOIS INST TECH	SA379-0825-6157		30,326	30,326
Adherence to Antidepressant Medication and Hypertension Treatment	93.242		1-R34-MH-085880-01A1	118,239		118,239
An Implantable Semiannual Antipsychotic Delivery System	93.242		2-R01-MH-074672-03A1	87,744		87,744
Anti-HIV Neuroimmunomodulatory Therapy with Neurokinin-1 (NK1R) Antagonists	93.242	CHILDREN'S HOSPITAL OF PHILADELPHIA	950480RSUB		176,871	176,871
Anti-HIV Neuroimmunomodulatory Therapy with Neurokinin-1 (NK1-R) Antagonists	93.242	CHILDREN'S HOSPITAL OF PHILADELPHIA	950481RSUB		19,687	19,687
Associative Processes in Episodic Memory	93.242		2-R01-MH-055687-16A1	438,469		438,469
Attachment Based Family Therapy for Suicidal Adolescents	93.242	DREXEL UNIVERSITY	232589_PENN		7,408	7,408
Autoimmunity against novel antigens in neuropsychiatric dysfunction	93.242		1-R01-MH-094741-01	295,221		295,221
BAR proteins linking membrane and cytoskeleton dynamics	93.242		1-R01-MH-087950-01A1	152,798		152,798
Buprenorphine for Depression and Anxiety	93.242		1-R01-MH-092412-01A1	329,546		329,546
Cell-type Specific Epigenomics in the Brain	93.242		1-R21-MH-102679-01	229,087		229,087
Cis-Regulatory Epigenome Mappings in Schizophrenia	93.242	ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI	0255-7231-4609		31,376	31,376
Clinical algorithm for identifying adult autism	93.242		1-R34-MH-100356-01	276,065		276,065

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
Clinical Research Scholars Program in Psychiatry	93.242		2-R25-MH-060490-11	-30,100		-30,100
Coding and processing of error signals in inferior olivary-cerebellar networks	93.242		1-R01-MH-093727-01	374,613		374,613
Cognitive Therapy for Suicidal Older Men	93.242		1-R01-MH-086572-01A2	638,949		638,949
Community-Based HIV Education Research Program for Diverse Racial & Ethnic Groups: Exploring Effects of 1st Sexual Intercourse on Mental Health & HIV Risk	93.242	YALE UNIVERSITY	M14A11849 (A08021)		5,260	5,260
Computational quantification of emotion in faces and voice for neuropsychiatry	93.242		2-R01-MH-073174-05A1	283,138		283,138
Corticotropin-Releasing factor-serotonergic interactions	93.242	CHILDREN'S HOSPITAL OF PHILADELPHIA	ACTIVITY #20493		138,792	138,792
Defining the Epigenetic Architecture Associated with Early-life Stress	93.242		1-R01-MH-091850-01	418,669		418,669
Developing CBT-informed thespian training curricula for CHR youths	93.242		1-R34-MH-105248-01	107,646		107,646
Developmental Trajectories of Negative Symptoms in Schizophrenia	93.242		1-P50-MH-096891-01	2,446,590		2,446,590
Do brain differences influence HIV risk behavior? A study of young urban women	93.242		1-R21-MH-097583-01	7,579		7,579
Downmodulating Monocyte/Macrophage Activation for HAND	93.242		2-R01-MH-061139-11A1	593,632		593,632
Early gestation as a sensitive period to stress in sex-dependent neurodevelopment	93.242		1-R01-MH-091258-01	206,559		206,559
Early pregnancy stress programming of offspring emotionality	93.242		1-R01-MH-087597-01A1	238,188		238,188
Effects of extinction on cellular activity in the dorsal and ventral hippocampus	93.242		1-F31-MH-105161-01A1	9,550		9,550
Efficacy and Effectiveness of Multi-Behavior Interventions Relevant to HIV	93.242		1-R01-MH-094241-01A1	23,399		23,399
Electrophysiology of Human Spatial Cognition	93.242		2-R01-MH-061975-12A1	347,423		347,423
Epigenetic Mechanisms of Memory Storage	93.242		1-R01-MH-087463-01A1	174,811		174,811
Evaluating the Effects of Autism Insurance Mandates	93.242		1-R01-MH-096848-01A1	552,092		552,092
Genetic analysis of simple learning behaviors	93.242		1-R01-MH-092257-01	59,657		59,657
Genomic Analysis of Bipolar Disorder in a Genetic Isolate	93.242		1-R01-MH-093415-01A1	624,233		624,233
Genomics of Schizophrenia in the South African Xhosa	93.242	COLUMBIA UNIVERSITY	1(GG008292)/PO #G03931		117,680	117,680
Heme Oxygenase-1 as a novel therapeutic target in HIV-mediated neurodegeneration	93.242		1-F30-MH-102120-01A1	33,006		33,006
Higher Order Chromatin and Genetic Risk for Schizophrenia	93.242	ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI	0255-8051-4609		4,798	4,798
Implementation of Federal Mental Health Policy	93.242	JOHNS HOPKINS UNIVERSITY	N/A		21,895	21,895
Implementing care for depression and diabetes	93.242		1-R21-MH-094940-01A1	168,252		168,252
Implementing DRISHTI: Reducing HIV Risk Among High Risk Women with Depressor	93.242		1-R21-MH-100935-01	177,365		177,365
In utero programming of the dopamine system: behavior, neuroanatomy & epigenetic	93.242		1-R01-MH-087978-01A1	143,161		143,161
Individual, age-dependent differences in ACC-mediated adaptive decision making	93.242		1-R01-MH-098899-01	668,291		668,291
Intrauterine inflammation affects offspring cognitive function	93.242		1-R21-MH-100828-01	147,255		147,255
Investigating the Payer Role in the Implementation of EBP in the Public Sector	93.242		1-F32-MH-103960-01A1	31,783		31,783
Linking Synaptic and Cognitive Defects in a Model of Neuropsychiatric Disease	93.242		NH	191,127		191,127
Maternal stress and the vaginal microbiome: impacts on brain developmen	93.242		1-R21-MH-104184-01	176,001		176,001
Mechanisms of Comorbidity and Specificity for Generalized Anxiety and Depression	93.242		1-R01-MH-094425-01A1	382,177		382,177
Mechanisms of Neuroinflammation in HAND	93.242	JOHNS HOPKINS UNIVERSITY	2001680041		26,875	26,875
Mental Health Biostatistics Training Grant	93.242		2-T32-MH-065218-11	91,120		91,120
MENTAL HEALTH BIOSTATISTICS TRAINING PROGRAM	93.242		2-T32-MH-065218-06 REVISED	-33,455		-33,455
Modifiable Risk and Protective Factors for Suicidal Behaviors in the US Army (Army STARRS)	93.242	HENRY M. JACKSON FOUNDATION	2262 / POW 755757		114,848	114,848
Molecular identification of genes critical for vertebrate startle modulation	93.242		1-R21-MH-103545-01	251,880		251,880
Molecular Physiology of Mammalian InsP3 Receptors	93.242		2-R01-MH-059937-11	158,004		158,004
Neural mechanisms of reinforcement learning in the human substantia nigra	93.242		1-F32-MH-102030-01A1	14,167		14,167
Neurocognitive variability in schizophrenia and youth at-risk for psychosis	93.242		1-K01-MH-102609-01A1	159,317		159,317
Non- neuronal regulators of sleep	93.242	WASHINGTON STATE UNIVERSITY	123565 G003432		42,890	42,890
Non-Neuronal Regulators of Sleep	93.242		1-R01-MH-099544-01A1	146,306		146,306
Novel Computational Methods for Higher Order Diffusion MRI in Autism	93.242		1-R01-MH-092862-01	482,993		482,993
Olfactory Evoked Potentials and Developmental Neuropathology in Schizophrenia	93.242		2-R01-MH-059852-11A1	591,174		591,174
OLFACTORY FUNCTION IN SCHIZOPHRENIA: A LIFESPAN ANALYSIS	93.242		2-R01-MH-063381-06A1	42,644		42,644
Olfactory Neuroimaging Markers of Heightened Developmental Risk for Schizophrenia	93.242		1-R01-MH-099156-01	613,019		613,019
Oligodendrocyte damage and dysfunction in HIV associated neurocognitive disorder	93.242		1-R01-MH-098742-01	503,623		503,623
Oxidative Stress, Immune Activation, and Therapeutic Targeting in HIV/HAND	93.242		1-R01-MH-104134-01	267,119		267,119
Partners in Schools: A Program for Parents and Teachers of Children with Autism	93.242		1-F32-MH-101994-01	25,515		25,515
Pathways of HIV Neurodegeneration and Dimethyl Fumarate (DMF/MMF) Neuroprotection	93.242		1-R01-MH-095671-01	565,582		565,582
Patient Safety in Inpatient Psychiatry	93.242		1-R01-MH-086722-01A2	364,759		364,759
Penn mental health AIDS research center	93.242		1-P30-MH-097488-01A1	1,699,105		1,699,105
Perfusion MRI for Multi-Site Studies for Brain Function	93.242	BETH ISRAEL MEDICAL CENTER	01027167		235,237	235,237
Person Centered Care Planning & Service Engagement	93.242	NEW YORK UNIVERSITY	F7437-01		54,287	54,287
PHARMACOGENETICS AND HIV TREATMENT OUTCOMES	93.242		1-R01-MH-080701-01A2	48,206		48,206
Pharmacogenomics of Mood Stabilizer Response in Bipolar Disorder	93.242	UNIVERSITY OF CALIFORNIA-SAN DIEGO	PO #10314028 - SUB		26,430	26,430
Policy to implementation: Evidence-based practice in community mental health	93.242		1-K23-MH-099179-01	198,215		198,215
Prepubertal Stress, Windows of Risk & Sex Bias for Affective Disturbance	93.242		1-P50-MH-099910-01	1,159,584		1,159,584
Psychotherapy and Combined Interventions for Acute Bipolar II Depression	93.242	UNIVERSITY OF PITTSBURGH	0008250 / 116005-1		6,995	6,995
PTSD and Pregnancy: Psychophysiology, Response to Treatment & Pregnancy Outcome	93.242		1-K23-MH-102360-01A1	126,308		126,308
Quantifiable Markers of ASD Via Multivariate MEG-DTI Combination	93.242			135,039		135,039
Quantitative Behavioral and Imaging Phenotypes of Amotivation in Schizophrenia	93.242		1-R01-MH-101111-01	413,118		413,118
RCT of TeachTown in Autism Support Classrooms: Innovation and Exnovation	93.242		1-R01-MH-106175-01A1	44,969		44,969
'REALITY CHECK' IN TRANSIT: Evaluation of a serial drama for Black Youth	93.242		1-R34-MH-094207-01A1	29,363		29,363
Recovering from Serious Mental Illness: Learning and Utilizing WRAP's Framework	93.242		1-F31-MH-105190-01A1	5,730		5,730
Recovery-Oriented Practices in Community Mental Health Centers: A National Study of Adherence and Participator	93.242	YALE UNIVERSITY	M151A11969 (A10040)		67,858	67,858
Regulation of Hippocampal Neurogenesis by Antidepressants	93.242		1-R01-MH-086599-01A1	55,232		55,232
Regulation of neurogenesis and behavior by GSK-3	93.242		1-R56-MH-100923-01	-24		-24
Repetitive Transcranial Magnetic Stimulation (rTMS) in Pregnant Women with MDD	93.242		1-K23-MH-092399-01	183,294		183,294
Research Training for Prevention of Suicide and Psychosis: A Public Health Model	93.242		1 T32 MH082745-01A2	215,840		215,840
Retrotransposons in Schizophrenia	93.242		1-R21-MH-101065-01	236,431		236,431
RNA-RNA binding protein complexes in neurons and SIV encephalitis	93.242		1-R21-MH-106441-01A1	33,060		33,060
Role of HDAC6 in a murine model of affective disorder and antidepressant action	93.242		1-R01-MH-087581-01A1	293,419		293,419
SCHIZOPHRENIA: A NEUROPSYCHIATRIC PERSPECTIVE	93.242		2-T32-MH-019112-24	207,862		207,862
Services to enhance social functioning in adults with autism spectrum disorder	93.242		1-R34-MH-104407-01	192,598		192,598
Sex differences in opioid regulation of the rat locus coeruleus in rats	93.242		1-F31-MH105211-01	37,856		37,856
Single-cell comparative genomics of the neuron	93.242		1-R01-MH-088849-01	-5		-5
Social and Circadian Rhythms, Reward Sensitivity, and Risk for Bipolar Disorder	93.242	TEMPLE UNIVERSITY	5R01-MH102310		63,627	63,627
SOUTH AFRICAN ADOLESCENT HEALTH PROMOTION	93.242		2-R01-MH-065867-06A1	49,102		49,102
Src mediates molecular alterations leading to NMDAR hypofunction in schizophrenia	93.242		2-R01-MH-075916-05A1	29,289		29,289

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
Staff and School Factors Affecting Implementation of ASD Interventions in Schools	93.242	CHILDREN'S HOSPITAL OF PHILADELPHIA UNIVERSITY OF ROCHESTER PENNSYLVANIA STATE UNIVERSITY	1-K01-MH-100199-01A1	99,359		99,359
Stress and Inflammation in the Pathophysiology of Late-Life Depression	93.242		1-R01-MH-098260-01A1	284,911		284,911
Study of fiber anatomy in mouse brain development via MRI/DTI	93.242		2-R01-MH-070365-05A2	390,091		390,091
Studying epigenetic pathways in brain function and social behavior using ants	93.242		1-DP2-MH-107055-01	357,557		357,557
Team Functioning in School Mental Health Teams Implementing CBT	93.242		1F32MH103955-01	51,394		51,394
Testing the Hyperspecificity Hypothesis: A Neural Theory of Autisr	93.242		320967 / PO #60439RSUB		0	0
The Depression/Hypertension COACH Study	93.242		PO #416223-G		3,754	3,754
The Effects of State and Federal Insurance Policies on Quality of Care for Autism	93.242		UPA MH097298		35,297	35,297
The genetics of endophenotypes and schizophrenia	93.242		2-R01-MH-065578-06A2	129,572		129,572
The Impact of Sleep Deprivation on Translation	93.242		1-R21-MH-102703-01A1	115,276		115,276
The influence of arousal state on coordinated neural dynamics	93.242		1-R21-MH-107001-01	16,256		16,256
The mechanisms of cognitive and dynamic therapy in community settings	93.242		1-R01-MH-092363-01	250,061		250,061
The Molecular Mechanisms of Cortical Interneuron Fate Determination	93.242		1-F30-MH-105045-01A1	41,588		41,588
THE NEUROBIOLOGY OF STIMULUS ENCODING IN SCHIZOPHRENIA	93.242		1-P50-MH-064045-01	-1,838		-1,838
The Role of HIF-1 in Neurogenic and Behavior Responses to Antidepressants.	93.242		1-R21-MH-099648-01	83,040		83,040
The role of mTOR signaling in the cognitive impact of sleep deprivation	93.242		1-F32-MH-099730-01A1	59,129		59,129
The role of pregnancy associated plasma protein-a in habituation learning	93.242		1-R03-MH-102680-01	104,260		104,260
Tools to conditionally regulate intracellular signaling pathways in vivc	93.242		1-R01-MH-086415-01	484,258		484,258
Training program in behavioral/cognitive neuroscience	93.242		2-T32-MH-017168-31	222,165		222,165
Using new technologies to develop facilitator capacity for HIV prevention	93.242	UNIVERSITY OF MICHIGAN DREXEL UNIVERSITY	3003093128		56,728	56,728
Weight History, Brain Activation to Food Cues and Eating Disorder Progression	93.242		232616		238,658	238,658
Actions of CRF on 5-HT Pathways in Mood Regulation	93.242		2-R01-MH-073030-06	445,581		445,581
Molecular Mechanisms of the Stress Response	93.242		1-R01-MH-100319-01A1	493,065		493,065
SubTotal	93.242			28,224,063	1,749,593	29,973,656
A Plan for Achieving Leadership in the Fields of Geriatric Psychiatry and Interdisciplinary Education	93.250		1 K01HP20497-01-00	74,480		74,480
Effective Inter-Professional Aging Education	93.250		1-K01-HP-20493-01-00	-380		-380
Transitions of Care for Seniors	93.250		1-K01-KP-20495-01-00	75,201		75,201
SubTotal	93.250			149,301		149,301
OCCUPATIONAL MEDICINE RESIDENCY TRAINING GRANT	93.262		2-T01-OH-008628-05	3,799		3,799
Training in Occupational Medicine	93.262		2-T03-OH-008628-11	120,163		120,163
SubTotal	93.262			123,962		123,962
Medical Education Partnership Initiative	93.266	UNIVERSITY OF BOTSWANA	555958		335,306	335,306
SubTotal	93.266				335,306	335,306
Novel Approaches to Alcoholism Pharmacotherapy and Risk	93.271		7-K24-AA-013736-09	83,150		83,150
STUDIES OF SPACE-TIME ACTIVITY PATTERNS AND FEAR IN URBAN LANDSCAPE	93.271		1-K02-AA-017974-01A1	20,407		20,407
SubTotal	93.271			103,557		103,557
17th Int. Workshop on the Enzymology and Molecular Biology of Carbonyl Metabolism	93.273		1-R13-AA-023149-01	9,632		9,632
2/2 Pharmacogenetic Treatment for Alcoholism	93.273		1-R01-AA-021164-01	223,827		223,827
A randomized trial of urban vacant lot stabilization and substance abuse outcomes	93.273		1-R01-AA-020331-01A1	512,430		512,430
ALCOHOL AND CELLULAR IMMUNITY IN HEPATITIS C VIRUS INFECTION	93.273		1-R01-AA-012849-01	-16,237		-16,237
ALCOHOL AND INJURY IN ADOLESCENTS, THEIR FAMILIES, AND THEIR NEIGHBORHOODS	93.273		1-R01-AA-016187-01A2	9,297		9,297
An RCT of Brief Intervention for Problem Drinking and Partner Violence	93.273		1-R01-AA-018705-01A1	206,127		206,127
CENTER ON ADAPTIVE TREATMENTS FOR ALCOHOLISM	93.273		1-P01-AA-016821-01A1	24,141		24,141
Component Analysis of Motivational Interviewing	93.273	RESEARCH FOUNDATION FOR MENTAL HYGIENE, INC.	PO #107484		-7,062	-7,062
CYP2E1 Mediated Mitochondrial Injury and Cell Damage in Alcohol Liver Disease	93.273		1-R01-AA-022986-01A1	149,319		149,319
Effectiveness of Topiramate: Characterizing Individual Differences	93.273		1-K23-AA-023894-01	8,915		8,915
Epigenomics of Human Health and Disease	93.273	UNIVERSITY OF CALIFORNIA-LOS ANGELES YALE UNIVERSITY YALE UNIVERSITY	1350G SC715		35,419	35,419
Genetics of Alcohol Dependence in African-Americans	93.273		M11A11121 (A07754)		80,842	80,842
Genetics of Alcohol Dependence in American Populations	93.273		M11A11134 (A07470)		171,875	171,875
Impact of enhancements to smartphone-based continuing care for alcohol dependence	93.273		1-R01-AA-022595-01A1	422,025		422,025
Pharmacogenetic Analysis of Topiramate Treatment of AUD	93.273		1-R01-AA-023192-01	426,478		426,478
PHARMACOGENETIC RESPONSE TO NALTREXONE FOR ALCOHOL DEPEN	93.273		1-R01-AA-017164-01A1	-4,155		-4,155
SPATIAL AND TEMPORAL ASPECTS OF CAMP/PKA SIGNALING UNDERLYING INFORMATION	93.273	GEORGE MASON UNIVERSITY	E2015652		-1,674	-1,674
The pathogenesis of insulin resistance in alcoholic liver disease	93.273		1-K08-AA-021424-01A1	199,796		199,796
SubTotal	93.273			2,171,595	279,400	2,450,995
2/2 Multicenter trial of combined pharmacotherapy to treat cocaine dependence	93.279		1-U01-DA-033368-01A1	1,034,152		1,034,152
A Pilot Implementation Project of Methadone and Suboxone for Injecting Drug Users	93.279		1-R01-DA-033671-01	310,512		310,512
A Placebo Controlled Trial of Varenicline for Smoking among those with HIV/AIDS	93.279		1-R01-DA-033681-01	462,096		462,096
Adaptive Treatment Models for the Management of Drug Use Disorders	93.279		1-K24-DA-029062-01	40,708		40,708
Adherence to HIV Therapy in Heroin Addicts: Oral vs Extended Release Naltrexone	93.279		1-R01-DA-026336-01A1	32,115		32,115
Alpha 5 nAChR is a risk factor within the dopamine system for nicotine addiction	93.279		1-R01-DA-036572-01	509,145		509,145
AMPA receptor trafficking and cocaine reinstatement	93.279		1-K99-DA-033372-01A1	127,254		127,254
AN EFFECTIVENESS TRIAL OF MAINTENANCE THERAPY FOR NICOTINE DEPENDENCE	93.279		1-R01-DA-025078-01A1	3,077		3,077
Analysis of Count Data with Structural Zeros: CTN0018 and CTN0019	93.279	UNIVERSITY OF ROCHESTER UNIVERSITY OF SOUTHERN CALIFORNIA DARTMOUTH COLLEGE	5-23829 / PO #414833-G		17,479	17,479
Anhedonia as a Risk Factor and Consequence of Substance Use	93.279		35609807		39,637	39,637
Behavioral Treatment of Adolescent Marijuana Use	93.279		1347		23,842	23,842
Causal Inferences for treatment moderators on Zero-Inflated outcomes of HIV risk	93.279		1-R01-DA-036557-01A1	65,293		65,293
Center for the Development of Novel Medications for Cocaine Dependence	93.279		1-U54-DA-039002-01	541,142		541,142
Characterizing a cue-vulnerable pharmaco-responsive endophenotype in smokers	93.279		1-R01-DA-029845-01A1	214,308		214,308
Clinical and Genetic Characteristics of Opioid Addiction in Chronic Pain	93.279		1-R01-DA-032776-01	527,266		527,266
Cocaine Addiction and Retrotransposons	93.279		1-R21-DA-035607-01	121,450		121,450
Cognitive Training for Nicotine Dependence	93.279		1-R01-DA-030819-01	510,019		510,019
D1 DOPAMINE RECEPTOR SIGNALING AND COCAINE REINSTATEMENT	93.279		7-R01-DA-022339-02	-373		-373
Deep Sequencing Studies for Cannabis and Stimulant Dependence	93.279	UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL	5-30997		61,226	61,226
Delaware Valley Node of the Clinical Trials Network	93.279		2-U10-DA-013043-11	1,224,424		1,224,424

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
Delivering Psychosocial Treatment to Substance Abusers via Mobile Technologies	93.279	NATIONAL DEVELOPMENT AND RESEARCH INSTITUTES, INC.	sub to R01 DA029630 Project # 631		6,283	6,283
Development of a5* nAChR positive allosteric modulators for tobacco dependence	93.279	ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI	0255-6811-4609		578,203	578,203
Development of a5*nAChR Positive Allosteric Modulators for Tobacco Dependence	93.279	SCRIPPS RESEARCH INSTITUTE	PO #5-20250		-127,152	-127,152
Dissection of the Organizational Differences Between Paw and Trunk Pain Circuits	93.279		1-F31-NS-092297-01	1,910		1,910
Early onset vs. pre-existing vulnerabilities in adolescent drug use	93.279		1-R01-DA-033996-01	250,729		250,729
Economic Evaluation of Drug Abuse Treatment and HIV Prevention Services for Pregn	93.279		7-R01-DA-025555-05	547,328		547,328
Economic Evaluation of Medication-Assisted Substance Abuse Treatment	93.279	CORNELL UNIVERSITY	R01-DA035808		62,303	62,303
Effects of Repetitive Smoking Imagery on Cue-Induced Craving and Smoking Behavior	93.279		1-R21-DA-035360-01A1	174,949		174,949
Efficacy of Drug-HIV counseling among IDU at Methadone clinics in Jakarta	93.279		1-R01-DA-026344-01A1	-10		-10
Epigenetics and Incubation of Craving	93.279		1-K01-DA-030445-01	93,399		93,399
Evaluating New Nicotine Standards for Cigarettes - Project 2	93.279	UNIVERSITY OF MINNESOTA	P004140307		325,479	325,479
Expanding Treatment for Opioid Dependence Among the Privately Insured	93.279	YALE UNIVERSITY	A07696 (M11A11035)		13,496	13,496
Functional Characterization of OPRM1 A118G in Nicotine Dependence	93.279		1-R21-DA-027066-01	-2,712		-2,712
GABA B agonists revisited: Brain, behavioral and genetic effects in smokers	93.279		1-R01-DA-030394-01A1	447,978		447,978
Genetics of Opioid Dependence	93.279	YALE UNIVERSITY	M14A11735 (A09415)		72,691	72,691
Imaging data re-analysis for cocaine addiction	93.279		1-R56-DA-036556-01A1	158,969		158,969
Individual differences in the substitutability of physical activity for smoking	93.279		1-R21-DA-029751-01A1	35,510		35,510
Innovative Approaches for Cocaine Pharmacotherapy	93.279		2-P50-DA-012756-11	164,922		164,922
Integrated Treatment of OEF/OIF Veterans with PTSD and Substance Use Disorders	93.279	MEDICAL UNIVERSITY OF SOUTH CAROLINA	MUSC10-058		4,435	4,435
Long-Acting HIV Therapy for Injection Drug Users	93.279	DREXEL UNIVERSITY	SUB TO 1-R01-DA-029663-01A1		54,605	54,605
Multimodal Imaging of Progesterone/Neurosteroid Effects in Nicotine Addiction	93.279		1-R01-DA-037289-01A1	51,474		51,474
Neural Correlates of Risk Taking in Smokers before and after Smoking Abstinence	93.279		1-R21-DA-032022-01A1	74,475		74,475
Neural mechanisms underlying changes in preference	93.279		1-R01-DA-029149-01A1	238,783		238,783
Neuroendocrine Contribution to Behavior & Cognition in the Female Lifespan	93.279		1-K24-DA-030301-01	165,408		165,408
Neuroimaging study of HIV-prevention public service announcements	93.279		1-R03-DA-035683-01	107,280		107,280
Nicotine Addiction: Learning, Neural & Genetic Process	93.279	TEMPLE UNIVERSITY	360665		13,728	13,728
NK Cell Activation and Function in HIV-1 Exposed Uninfected IV Drug Users	93.279	WISTAR INSTITUTE	24371-03-324		45,405	45,405
Opioid Relaps & HIV Risk: 48 vs. 24 weeks of ER injectable Naltrexone	93.279		1-R01-DA-033670-01	377,516		377,516
Parents' Translational Research Center	93.279	TREATMENT RESEARCH INSTITUTE	027841-CURTIS		21,965	21,965
PET Radiotracers for Imaging the Dopamine D3 Receptor	93.279		7-R01-DA-029840-04	341,033		341,033
Pharmacogenetics of Nicotine Addiction and Treatment	93.279		2-U01-DA-020830-06	1,495,958		1,495,958
Pharmacogenetics of Opioid Agonist Therapy	93.279		-1R21-DA-036808-01	180,324		180,324
PHARMACOTHERAPY IMPACT ON COCAINE AND ALCOHOL-DERIVED REINFORCEMENT	93.279		1-K01-DA-025073-01A1	10,947		10,947
Predicting AOD Relapse and Treatment Completion from Social Media Use	93.279		7-R01-DA-039457-02	99,361		99,361
Promoting engagement in Care for Triply Diagnosed Persons	93.279		1-R01-DA-036503-01A1	734,464		734,464
Psychostimulant-induced craving and toxicity	93.279		2-K02-DA-018678-07	128,304		128,304
Repurposing cholinesterase inhibitors for smoking cessation	93.279		1-K23-DA-035295-01	176,560		176,560
Smoking's role in positive affect & reward regulation in depression-prone smokers	93.279		1-R21-DA-031946-01	1,473		1,473
T32 Translational Addiction Research Fellowship Program	93.279		2-T32-DA-028874-03A1	292,458		292,458
The HIV-1 and HCV Transmission Bottleneck in Chinese Injection Drug Users	93.279		1-R01-DA-037244-01	203,413		203,413
The Logics for HIV Risk among Street-Based Heroin Injectors	93.279		2-R01-DA-010164-13	353,945		353,945
The role of central GLP-1 receptors in animal models of cocaine addiction	93.279		1-R01-DA-037897-01A1	63,374		63,374
The role of the delta-opioid receptor gene, OPRD1, in opioid addiction treatment	93.279		1-K01-DA-036751-01A1	135,622		135,622
Transgenerational effects of drug-exposure: epigenetic and behavioral impact	93.279		1-R01-DA-033646-01	554,014		554,014
TREATMENT OF SMOKING AMONG INDIVIDUALS WITH PTSD	93.279		1-R01-DA-023507-01A2	73,116		73,116
TREATMENT STUDY USING DEPOT NALTREXONE/(1/6)PHILADELPHIA COORD/DATA MGMT SITE	93.279		1-R01-DA-024553-01A1	28,466		28,466
Yoga Intervention for Substance Use and ART Adherence in Community Reentry	93.279		1-F31-DA-038429-01	38,743		38,743
Transgenerational inheritance of a cocaine resistance phenotype	93.279		1-R01-DA-033641-01	382,004		382,004
Varenicline for the treatment of cocaine dependence: Phase II	93.279		1-U01-DA-032629-01A1	635,588		635,588
mPFC, n, accumbens and reinstatement of cocaine seeking	93.279		2-R01-DA-015214-12A1	244,858		244,858
Acute nicotine decreases alcohol-induced dopamine response & increases drinking	93.279		2-R01-DA-009411-16A1	428,215		428,215
SubTotal	93.279			15,212,736	1,213,625	16,426,361
Evaluating Patient Retention in HIV Care	93.281		1-K23-MH-097647-01A1	1,258		1,258
How the large-scale organization of gene expression relates to behavior in mice	93.281		7-K08-MH-080228-02	51,096		51,096
Multimodal Neuroimaging of Prosody in Schizophrenia and Developmental Disorders	93.281		1-K01-MH-094689-01	170,528		170,528
Neuroimaging of Dimensional Reward Dysfunction in Adolescence	93.281		1-K23-MH-098130-01	205,464		205,464
Neuroprotective/Neurodevelopmental Effects - Antipsychotics in Adolescent Psychoses	93.281	CHILDREN'S HOSPITAL OF PHILADELPHIA	325805-01-01		15,137	15,137
SubTotal	93.281			428,346	15,137	443,483
SCHIZOPHRENIA: A NEUROPSYCHIATRIC PERSPECTIVE	93.282		5-T32-MH-019112-20	878		878
Top-down control of serotonergic circuits in depressive-like behaviors	93.282		1-F31-MH-097386-01A1	17,661		17,661
TRAINING PROGRAM IN BEHAVIORAL /COGNITIVE NEUROSCIENCE	93.282		5-T32-MH-017168-27	33		33
Training Program in Neuropsychopharmacology	93.282		2-T32-MH-014654-34	346,755		346,755
SubTotal	93.282			365,327		365,327
A Cross-Sectional Analysis of Cardiovascular Disease in the Hemophilia Population	93.283	AMERICAN THROMBOSIS AND HEMOSTASIS NETWORK	ATHN2011002-HTC9-1		80	80
Community Counts: Public Health Surveillance for Bleeding Disorders	93.283	CHILDREN'S HOSPITAL OF PHILADELPHIA	950875RSUB		21,209	21,209
Prevention Epicenters sVAP Collaborative Continuation: Wake Up and Breathe	93.283	HARVARD PILGRIM HEALTH CARE	sub to 3U54CK000172-03SI		-1,549	-1,549
Southeastern Pennsylvania Adult and Pediatric Prevention Epicenter Network	93.283		1-U54-CK-000163-01	335,578		335,578
SubTotal	93.283			335,578	19,740	355,318
A TIME-OF-FLIGHT PET SCANNER FOR DEDICATED BREAST IMAGING	93.286		1-R01-EB-009056-01A2	109,245		109,245
Acousto-Optic Thergnostic Approach for Chronic Wound Management	93.286	DREXEL UNIVERSITY	232453		6,565	6,565
Adaptive Large-Scale Framework for Automatic Biomedical Image Segmentation	93.286		1-R01-EB-017255-01A1	418,079		418,079
An Inducible System for Gene Delivery	93.286		1-R21-EB-018064-01A1	2,242		2,242
Avoiding clearance to maximize dose: Shape, Flexibility, and a "Marker of Self"	93.286		2-R01-EB-007049-05	208,405		208,405
Bioconjugate technique for site-specific attachment of IgG onto nanoparticles	93.286		1-R21-EB-018863-01A1	158,339		158,339
BIOMECHANICAL ENGINEERING OF FIBROUS LOAD-BEARING TISSUE	93.286		2-R01-EB-002425-05A2	3,123		3,123
Bridging multiple scales in modeling targeted drug nanocarrier delivery	93.286		1-U01-EB-016027-01A1	580,341		580,341
Carbon Nanopipe-Based Automated Cell Injection System	93.286		1-R21-EB-016343-01A1	155,911		155,911

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
Cerenkov Specific Contrast Agents	93.286	WASHINGTON UNIVERSITY IN ST. LOUIS	1-R01-EB-018645-01	318,135	2,351	318,135
Comprehensive Assessment of Pulmonary Disorders Using Polarized 13C Technology	93.286		1-R01-EB-010208-01	813,875		813,875
Computer analysis of brain vascular lesions in MRLevaluating longitudinal change	93.286		1-R01-EB-009234-01A1	101,986		101,986
Continued Development and Maintenance of ITK-SNAP 3D Image Segmentation Software	93.286		1-R01-EB-014346-01	581,242		581,242
Cross-Scale Interactions Between Mineral and Collagen for Tendon-Bone Attachment	93.286		1-U01-EB016422-01A1			2,351
Dendritic upconverting nanoparticles for multiphoton imaging and sensing	93.286		1-R01-EB-018464-01A1	234,930		234,930
Detector Concepts for Time-of-Flight PET	93.286		1-R21-EB-016205-01A1	198,764		198,764
ENGINEERING DEVELOPMENTAL MICROENVIRONMENTS: CARTILAGE FORMATION AND MATURATION	93.286		1-R01-EB-008722-01A1	-5,340		-5,340
ENGINEERING DEVELOPMENTAL MICROENVIRONMENTS: CARTILAGE FORMATION AND MATURATION	93.286		2-R01-EB008722-05A1	303,353		303,353
ENGINEERING MULTICELLULAR TISSUE STRUCTURE, FUNCTION, AND VASCULARIZATION	93.286		1-R01-EB-008396-01A1	-896		-896
Folate targeted intraoperative cancer imaging to guide pulmonary resection	93.286		1-R03-EB-017828-01A1	76,311		76,311
FOURIER-BASED METHODS FOR IMAGE RECONSTRUCTION IN PET	93.286		2-R01-EB-002131-05A2	107,624		107,624
Gold-Loaded Polymeric Micelles	93.286		1-R21-EB-013754-01A1	38,363		38,363
Imaging B Cells with Gd-Labeled Dendrimer Nanoclusters	93.286		1-R01-EB-012065-01	255,306		255,306
Multi-scale biomechanics of engineered and native fibrous load-bearing tissue	93.286		sub to 2-R01-EB-002425-01A1		206,151	206,151
Multiscale Modeling of Facet Capsule Mechanobiology	93.286		UNIVERSITY OF MINNESOTA		230,119	230,119
MULTI-SPECTRAL PARALLEL-PLATE DIFFUSE OPTICAL BREAST TOMOGRAPHY	93.286		A003160902			
Non-Contrast 4-D Dynamic MRA in Arteriovenous Malformation	93.286		2-R01-EB-002109-12	-222		-222
Optical Barriers to Improve Performance of a Continuous Detector for Clinical PET	93.286	UNIVERSITY OF CALIFORNIA-LOS ANGELES	RO1-EB04922		55,897	55,897
Pathological consequences of altered tissue mechanics in fibrosis	93.286		1-R21-EB-017966-01	211,047		211,047
Producing Large Quantities of Polarized Xenon with DNP Method	93.286		1-R01-EB-017753-01A1	370,321		370,321
Research Track Radiology Residency	93.286		1-R01-EB-015767-01A1	520,584		520,584
Super-Resolution PET Using Stepping of a Deliberately Misaligned Bed	93.286		2-T32-EB-004311-06	176,247		176,247
Targeted Microcarrier Design and Optimization	93.286		1-R21-EB-017416-01	220,381		220,381
Theranostic Nanoparticles to Enhance Morpholino Delivery to the Liver for Suppres	93.286		2-R01-EB-006818-05A1	542,545		542,545
TRAINING PROGRAM IN BIOMEDICAL IMAGING AND INFORMATIONAL SCIENCES	93.286		4-R00-EB-012165-03	193,097		193,097
TRAINING PROGRAM IN BIOMEDICAL IMAGING AND INFORMATIONAL SCIENCES	93.286		1-T32-EB-009384-01	-14,439		-14,439
Ultra-high resolution BOLD fMRI of medial temporal lobe at 7 Tesla	93.286		2-T32-EB-009384-06	211,545		211,545
	93.286		1-R03-EB-016923-01A1	56,468		56,468
SubTotal	93.286			7,146,912	501,083	7,647,995
Comprehensive Center of Excellence in Health Disparities	93.307	CHILDREN'S HOSPITAL OF PHILADELPHIA	1-P60-MD-006900-01	1,546,844		1,546,844
Health Promotion for Positives: A Randomized Trial with HIV Positive Black Men	93.307		1-R01-MD-006232-01A1	264,482		264,482
Reducing Risk of HIV/STD Infection Among African American Men	93.307		1-R01-MD-004075-01	105,840		105,840
Studying Socioeconomic Disparities in Cancer Survival with Tapered Matching	93.307		ACTIVITY #321042		85,268	85,268
West Philadelphia Consortium to Address Disparities - Phase 3	93.307		2-R24-MD-001594-09	391,214		391,214
SubTotal	93.307			2,308,380	85,268	2,393,648
A Comprehensive Spatial Picture of Transcription in the Nucleus	93.310	BANNER HEALTH	1-DP2-OD-008514-01	717,601		717,601
A Randomized Controlled Trial of Incentives for Habit Formation	93.310		1-R01-AC-043844-01	475,300		475,300
Alzheimer's Prevention Initiative APOE4 Trial	93.310		UFIAG046150		58,639	58,639
Broad Spectrum Molecular Therapy for Blinding Retina Disorders	93.310		1-DP1-OD-008267-01	761,998		761,998
Can neuroscience dramatically improve our ability to design health communication	93.310		7-DP2-DA-035156-02	393,368		393,368
Combating Bacterial Drug Resistance by Targeting the Enzymes of Evolution	93.310	EMORY UNIVERSITY	1-DP2-GM-105444-01	215,812		215,812
Comparative Efficacy, Acceptance and Effectiveness of Health Incentive Structures	93.310		1-R01-CA-159932-01	308,702		308,702
Contrast-Enhanced and Image-Guided Surgery of Lung Cancer	93.310		S701566		209,934	209,934
DIET, GENETIC FACTORS AND THE GUT MICROBIOME IN CROHN'S	93.310		1-UH2-DK-083981-01	-40,105		-40,105
Gene-engineered adoptive T cell immunotherapy of BBM	93.310		7-DP2-CA-174502-02	641,047		641,047
GREATER-PHILADELPHIA-SOUTHERN NEW JERSEY NEUROLOGICAL EMERGENCIES TREATMENT: RAMPART TRIAL	93.310	UNIVERSITY OF MICHIGAN	3000691507-RPT		6,645	6,645
Identification and validation of cell specific eQTLs by Bayesian modeling	93.310		1-R01-MH-101822-01	636,213		636,213
Molecular Regulation of Brown Adipose Cell Fate in Somitic Stem Cells	93.310		1-DP2-OD-007288-01	567,519		567,519
Novel Methodology for Quantitative High-throughput Cancer Epigenetics	93.310		DP2-OD-007447	502,700		502,700
Nuclear pre-mRNA analysis of single cells in brain slice	93.310		1-R33-MH-106637-01	294,968		294,968
OPTOELECTRONIC NANOWIRE PROBES FOR INVESTIGATION OF INTRA-CELLULAR PROCESSES	93.310		1-DP2-OD-007251-01	1,052,750		1,052,750
R90 TRAINING THE GLOBAL-READY SCHOLAR	93.310		5-RL9-CA-133838-02	597		597
Random shRNA Selection	93.310		1-R01-GM-090304-01	13,937		13,937
Regulation of host-commensal relationships in human health and disease	93.310		1-DP5-OD-012116-01	32,978		32,978
Role of Single Cell mRNA Variation in Systems Associated Electrically Excitable Cells	93.310		1-U01-MH-098953-01	2,838,101		2,838,101
T90 TRAINING THE GLOBAL READY SCHOLAR (9 OF10) TL1	93.310		1-TL1-CA-133837-01	-3,735		-3,735
The Hydroxylprolylproteome	93.310		1-R01-GM-090301-01	67,194		67,194
Transformative personalized vascular disrupting cancer immunotherapy	93.310		1-R01-CA-156695-01	303,112		303,112
Understanding the Cognitive Impact of Early Life Epilepsy	93.310		7-DP-10D-003347-06	-4,039		-4,039
Development of a Universal Influenza Seasonal Vaccine	93.310		1-R01-AI-092843-01	287,827		287,827
Validation and development of single nucleotide variant RNA FISH in single cells in culture and tissue	93.310		1-R33-EB-019767-01	165,750		165,750
SubTotal	93.310			10,229,595	275,218	10,504,813
Modeling oxidative stress and DNA damage using GI organotypic culture systems	93.350		5-U18-TR-000536-02	140,096		140,096
SubTotal	93.350			140,096		140,096
A 9.4T Magnet for real-time metabolic studies	93.351	TULANE UNIVERSITY	1S10OD016332-01	524,249		524,249
Acquisition of Janus Varispan + Modular Dispensing Tool (MDT) Workstation	93.351		1-S10-OD-020090-01	281,107		281,107
Generation of rhesus macaques susceptible to HIV-1 infection using CRISPRs	93.351		sub to P51-OD-011104		125,000	125,000
Integrated photoacoustic and ultrasound imaging with the Vevo LAZR	93.351		1-S10-OD-016310-01A1	594,000		594,000
Resources for Education and Action for Community Health in Ambler (REACH Ambler)	93.351		1-R25-OD-010521-01	376,667		376,667
Scanning Electron Microscope	93.351	CHILDREN'S HOSPITAL OF PHILADELPHIA	1-S10-OD-018041	359,516		359,516
Short-term Training: students in health professional schools	93.351		2-T35-OD-010919-16	122,023		122,023
Spatial and Temporal Induction of Calcineurin in the Urinary Bladder	93.351		3209720713/PO #960425RSUB		1,408	1,408
Referral Ctr-Animal models of human genetic disease	93.351		2-P40-OD-010939-29	685,936		685,936
SubTotal	93.351			2,943,498	126,408	3,069,906
Mechanisms of Haemophilus Influenzae Pathogenesis in the Lung	93.355	UNIVERSITY OF MISSISSIPPI MEDICAL CENTER	66103650115-UP		90,568	90,568
SubTotal	93.355				90,568	90,568

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
Mouse models for esophageal Cox-2 oxidative stress and DNA damage	93.357		1-K26-OD0-12097-01A1	150,906		150,906
	SubTotal 93.357			150,906		150,906
Advanced Education Nursing Traineeship (AENT) Program	93.358		1 A10HP27179-01-00	331,008		331,008
	SubTotal 93.358			331,008		331,008
Developing Geriatric Resource Nurse-Led Interprofessional Collaborative Practice	93.359		6-UD7H026041-01-03	498,689		498,689
	SubTotal 93.359			498,689		498,689
A Longitudinal Study of Adherence to Medication in Black Men with Hypertension	93.361		1-R01-NR-013491-01A1	432,232		432,232
ADVANCED TRAINING IN NURSING OUTCOMES RESEARCH	93.361		2-T32-NR-007104-11	5,403		5,403
ADVANCED TRAINING IN NURSING OUTCOMES RESEARCH	93.361		2-T32-NR-007104-16	468,952		468,952
ADVANCED TRAINING IN NURSING OUTCOMES RESEARCH	93.361		3-T32-NR-007104-14S1	1,209		1,209
An Objective Snoring Index and Its Association with Carotid Atherosclerosis	93.361		1-K99-NR-013177-01	311,858		311,858
Decision Support: Optimizing Post Acute Referrals and Effect on Patient Outcomes	93.361		2-R01-NR-007674-04A2	464,866		464,866
Decoding the microbial bioburden of diabetic foot ulcers: A metagenomic approach	93.361		1-R01-NR-015639-01	30,667		30,667
Defining risk for iatrogenic withdrawal syndrome in critically ill childrer	93.361		1-F31-NR-015172-01	37,311		37,311
Does chronotype modify the relationship between sleep and BMI in adolescents?	93.361		1-F31-NR-014603-01A1	31,423		31,423
Experiences of Black Trauma Patients: Why are there disparate racial outcomes?	93.361		1-F31-NR-013599-01	23,364		23,364
Individualized Care for at Risk Older Adults	93.361		2-T32-NR-009356-06A1	221,551		221,551
Injury in Latina Women after Sexual Assault: Moving Toward Health Care Equity	93.361		1-R01-NR-011589-01	72,513		72,513
Mechanisms of a Symptom Cluster: Dyspnea, Fatigue and Sleep Disturbance in Chronic Illness	93.361		1-K23-NR-014885-01	108,987		108,987
Mechanisms of Sleepiness Symptoms in Sleep Apnea and Cardiovascular Disease	93.361		1-K99-NR-014675-01	96,342		96,342
Neurobehavioral effects of partial sleep deprivation	93.361		2-R01-NR-004281-14	294,929		294,929
Nursing Impact on Care Outcomes for Chronically Ill and Minority Patients	93.361		2-R01-NR-004513-12A2	0		0
Panel Study of Effects of Changes in Nursing on Patient Outcomes	93.361		1-R01-NR-014855-01	1,170,404		1,170,404
Profiling the Heterogeneous Response of Exercise therapy in HF patients	93.361		1-F31-NR-014086-01	8,951		8,951
Promoting Teen Health: A Web-based Intervention to Prevent Risky Driving	93.361		1-K99-NR-013548-01	21,480		21,480
Promoting Teen Health: A Web-based Intervention to Prevent Risky Driving	93.361		4-R00-NR-013548-03	166,253		166,253
Psychological Effects of Injuries in Urban Black Men: A Disparate Health Issue	93.361		1-R01-NR-013503-01	495,212		495,212
Real-Time Data Capture of the Experiences of Blacks in Cancer Clinical Trials	93.361		5-F31-NR-013847-02	30,726		30,726
Re-hospitalization predictors in telehomecare older adults with heart failure	93.361		1-F31-NR-014403-01	12,851		12,851
RESEARCH ON VULNERABLE WOMEN, CHILDREN AND FAMILIES	93.361		2-T32-NR-007100-11A1	3,124		3,124
RESEARCH ON VULNERABLE WOMEN, CHILDREN AND FAMILIES	93.361		2-T32-NR-007100-16	492,656		492,656
RESEARCH ON VULNERABLE WOMEN, CHILDREN AND FAMILIES	93.361		3-532-NR-007100-14S1	5,524		5,524
Selective Exposure in HIV Prevention	93.361		7-R01-NR-008325-10	13,555		13,555
Sodium-restricted diets and symptoms in end stage renal disease: An RCT	93.361		1-K23-NR-015058-01	99,579		99,579
Technology Application to Enhance Discharge Referral Decision Support	93.361	RIGHTCARE SOLUTIONS	SUB TO 2R44NR013609		34,673	34,673
Testing a Latino Web-based Parent-adolescent Sexual communication Interventior	93.361	UNIVERSITY OF MICHIGAN	R01-NR-013505		57,499	57,499
The Impact of Hospice Preferred Practices on Patient Outcomes and Hospice Costs	93.361	MOUNT SINAI MEDICAL CENTER	0255-5681-4609		10,512	10,512
Translational Telehealth Home Care: REACH	93.361	CHILDREN'S HOSPITAL OF PHILADELPHIA	951260RSUB		240,811	240,811
Translating Unique Learning for Incontinence Prevention: The TULIP Project	93.361	UNIVERSITY OF MICHIGAN	3001740447		176,066	176,066
Revealing the Role of the Cervico-Vaginal Microbiome in Spontaneous Preterm Birth	93.361		1-R01-NR-014784-01	533,254		533,254
	SubTotal 93.361			5,655,176	519,561	6,174,737
ULTRAFAST OPTICAL PROCESSES LABORATORY	93.371		2-P41-RR-001348-26	-6		-6
	SubTotal 93.371			-6		-6
ABCA1-Mediated Biogenesis of Nascent HDL Particles	93.387	CHILDREN'S HOSPITAL OF PHILADELPHIA	3258150314/PO #961087RSUB		-320	-320
Efficacy of Pomalidomide in HHT-related bleeding	93.387	CLEVELAND CLINIC FOUNDATION	541-SUB		19,166	19,166
Surgery to Prevent Post Infarction Ventricular Remodeling	93.387		2-R01-HL-063954-14A1	116,584		116,584
	SubTotal 93.387			116,584	18,846	135,430
A Resource for Magnetic Resonance and Optical Imaging	93.389		2P41-RR-002305-26	1,612,054		1,612,054
Humanized mice to study mast cell function	93.389		1-R21-OD-017843-01A1	132,374		132,374
Institutional Clinical and Translational Science Award	93.389		2-UL1-RR-024133-06	9,698,906		9,698,906
Integrative mouse pathobiology: GI epithelial biology and genetic	93.389		1-K26-RR-032714-01	110,401		110,401
Neuralynx for Translational Research	93.389		1-S10-RR-031724-01	12,633		12,633
Neurointensive Care and Assessment Facility	93.389		1-G20-RR-029785-01A1	500,000		500,000
REFERRAL CENTER - ANIMAL MODELS OF HUMAN GENETIC DISEASE	93.389		2-P40-RR-002512-24A1	-18,913		-18,913
Translational Research and Laboratory Animal Medicine Education for Veterinarians	93.389		5-R25-OD-010986-03	57,694		57,694
	SubTotal 93.389			12,105,149		12,105,149
Aldo-Keto Reductases and PAH Metabolism/Activation	93.393		2-R01-CA-039504-23	256,039		256,039
Assembly compartment formation and nuclear alterations mediated by HCMV	93.393		1-R01-CA-157846-01A1	379,382		379,382
Behavioral Activation and Varenicline for Smoking Cessation in Depressed Smokers	93.393	NORTHWESTERN UNIVERSITY	Sub to 1-R01-CA-184211-01A1		146,333	146,333
Biomarkers of Toxic Response to Low Nicotine Cigarette Smoke	93.393		4-R01-CA-130961-03	1,024		1,024
Breast Cancer Family Registry Cohort	93.393	FOX CHASE CANCER CENTER	FCCE22458-01 PO # SQ1331114		13,596	13,596
C MYC Targets in the Pathogenesis of Human Cancers	93.393		7-R01-CA-057341-21	254,604		254,604
Chromatin structure maintenance and cancer	93.393		1-R01-CA-148768-01	98,177		98,177
COLLABORATIVE HUMAN TISSUE NETWORK EASTERN DIVISION	93.393		1-UM1-CA-183711-01	1,121,841		1,121,841
Commonly Used Medications and Risk of Colorectal Cancer Recurrence	93.393		2015124711		10,718	10,718
Communicating genetic test results by telephone: A randomized trial	93.393	GROUP HEALTH RESEARCH INSTITUTE	1-R01-CA-160847-01A1	627,218		627,218
Communicating Smoking Risks Through Graphic Warning Labels	93.393		1-R01-CA-157824-01A1	333,253		333,253
COMMUNITY-BASED NAVIGATOR PROGRAM FOR CANCER CONTROL IN AFRICAN AMERICANS	93.393		1-R01-CA-132656-01	47,393		47,393
Constructing Recommender Systems for Effective Health Messages: Smoking Cessatio	93.393		1-R01-CA-160226-01	172,378		172,378
Cytomegalovirus-mediated modification of host cell metabolism	93.393		1-R01-CA-157679-01	297,788		297,788
Development of Breast Cancer Risk Model Based on Metabolomics	93.393	UNIVERSITY OF VIRGINIA	GC12173-141865		31,197	31,197
Development of Novel Fast GPU Monte Carlo and Active Photonic Simulation Software	93.393	SIMPHOTEK, INC.	sub to R43-CA-183236		29,999	29,999
Early Events in KSHV Infection of Primary B-cells	93.393		1-P01-CA-174439-01A1	1,484,437		1,484,437

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
Effectiveness of Screening Colonoscopy in Reducing Deaths from Colorectal Cancer	93.393		7-U01-CA-151736-04	1,098,948		1,098,948
Effects of ATR-CHK1 inhibition on genome stability and cancer progression	93.393		1-R01-CA-189743-01A1	112,835		112,835
Effects of Common Polymorphisms in Immune Sensors in Tumor Immunosurveillance	93.393	WISTAR INSTITUTE	24861-02-365		34,245	34,245
Efficient Design and Analytic Strategies for Enhancing the Power of Detecting G X E Effects	93.393	UNIVERSITY OF MICHIGAN	3002494144		97,779	97,779
Epigenetic regulation by tumor suppressor p53	93.393		2R01CA078831-16	134,306		134,306
Extended Duration Varenicline for Smoking Among Cancer Patients: A Clinical Trial	93.393		1-R01-CA-165001-01A1	633,934		633,934
Genetic Epidemiology of Melanoma (GenoMel)	93.393	MOFFITT CANCER CTR	10-17751-99-01-G1		120,589	120,589
Genetic Predictors of AML Treatment Response	93.393	CHILDREN'S HOSPITAL OF PHILADELPHIA	320879-01-04 / PO #950781RSUB		17,493	17,493
Genetic Susceptibility and Biomarkers of Platinum-related Toxicities	93.393	UNIVERSITY OF ROCHESTER	PO #416005-G		13,067	13,067
HUMAN ALDO-KETO REDUCTASES AND NUCLEAR RECEPTOR ACTION	93.393		2-R01-CA-090744-06A1	-1,020		-1,020
Identifying and validating novel susceptibility genes for breast cancer	93.393	MAYO CLINIC ROCHESTER	PO #63562056		218,683	218,683
IMAGING AND MODIFYING HYPOXIA IN HEAD AND NECK SQUAMOUS	93.393		1-R01-CA-129349-01A1	115,683		115,683
Implementing survivorship care plans: Metrics to foster research and fidelity	93.393		1-R21-CA-169950-01A1	88,568		88,568
Influencing cervical cancer prevention and detection online through social media	93.393	UNIVERSITY OF CALIFORNIA - SAN FRANCISCO	8361sc		131,620	131,620
Interaction of anti-angiogenic and cytotoxic therapies in colorectal cancer	93.393		1-R01-CA-139003-03	200,825		200,825
Investigating the association between the somatic and inherited genetics of pheochromocytoma/paraganglioma	93.393		1-R21-CA-185953-01	129,012		129,012
LEGACY: A Cohort of Youth in Families from the Breast Cancer Family Registry	93.393	FOX CHASE CANCER CENTER	FMCC 15054-02/PO #SQ1313322		259,093	259,093
Linking cancer cell metabolic reprogramming to the DNA repair mechanism	93.393		1-R21-CA-194973-01	34,016		34,016
Lung Cancer Screening: A Debate of Practice, Policy, and Science	93.393		1-R13-CA-189538-01	6,939		6,939
Macrophage COX-2 as a target in breast cancer chemoprevention	93.393		1R03-CA-171661-01A1	80,511		80,511
Mechanism of Brd4-mediated papillomavirus host interactions	93.393		1-R01-CA-142723-01	152,430		152,430
Menin-mediated epigenetic tumor suppression	93.393		1-R01-CA-178856-01A1	306,281		306,281
Merkel cell polyomavirus infection, DNA damage response and cancer	93.393		1-R01-CA-187718-01A1	138,654		138,654
Mesothelioma Inhibition by Secoisolaricresinol Diglucoside (SDG)	93.393		1-R03-CA-180548-01	75,722		75,722
MRI Background Parenchymal Enhancement as a Risk Factor for Breast Cancer	93.393	MEMORIAL SLOAN-KETTERING CANCER CENTER	BD517003		96,982	96,982
MRI Background Parenchymal Enhancement as a Risk Factor for Breast Cancer	93.393		BD517005		12,322	12,322
MYC--Transcription and Apoptosis	93.393		R01-CA-051497	401,096		401,096
Online Social Networks for Dissemination of Smoking Cessation Interventions	93.393	AMERICAN LEGACY FOUNDATION	7006 - PENN		-1	-1
PCAF/GCN5 Acetylation on p53 Transactivation	93.393		7-R01-CA-078831-11	-166		-166
Placebo-controlled trial of bupropion for smoking cessation in pregnant women	93.393		1-R01-CA-184315-01	402,635		402,635
Post GWA Studies in Testicular Germ Cell Tumors	93.393		1-U01-CA-164947-01	1,648,150		1,648,150
PQ3-A: Neural Predictors of Receptivity to Health Communication and Behavior ch	93.393		1-R01-CA-180015-01	556,419		556,419
RACIAL DIFFERENCES IN BRCA 1/2 TESTING: PATIENTS OR PROVIDERS?	93.393		1-R01-CA-133004-01A1	149,590		149,590
RCT FOR SMOKING CESSATION IN 10 MEDICAL SCHOOLS	93.393	UNIVERSITY OF MASSACHUSETTS	6114216/RFS900202		-8,113	-8,113
Regulation of a DNA damage response network in glioblastoma	93.393		1-R01-CA-172651-01A1	350,319		350,319
Restoring HIV-1 Specific T cell Immunity	93.393		1-R01-CA-147795-01A1	263,665		263,665
Retention in Cancer Clinical Trials: Modeling Patients' Risk Benefit Assessments	93.393		1-R01-CA-196131-01A1	114,666		114,666
Retraining Neurocognitive Mechanisms of Cancer Risk Behavior (PQ4)	93.393		1-R01-CA-170297-01	659,908		659,908
Returning genetic research panel results for breast cancer susceptibility	93.393		1-R01-CA-190871-01	207,057		207,057
Risk and penetrance of mutations from breast cancer testing panels	93.393	MAYO CLINIC ROCHESTER	63846738		56,887	56,887
Role of acetyl-CoA in linking cancer cell metabolism and epigenetics	93.393		1-R01-CA-174761-01A1	290,196		290,196
Roles of Chromatin Modification in BRCA1 Dependent DNA Repair	93.393		1-R01-CA-174904-01	306,668		306,668
SECOISOLARICRESINOL DIGLUCOSIDE (SDG) PROTECTION IN RADIATION PHEUMONOPATHY	93.393		1-R01-CA-133470-01A1	6,868		6,868
Statistical Methods for Cancer Absolute Risk Prediction	93.393		1-R01-CA-164305-01A1	218,607		218,607
Statistical Methods for Estimation of Benefits & Harms of Repeat Cancer Screening	93.393		7-R03-CA-182986-02	40,165		40,165
The epigenetic mechanism of long non-coding RNA in cancer	93.393		1-R01-CA-190415-01	10,516		10,516
The Genetic Basis of Neuroblastoma Tumorigenesis (GWAS)	93.393	CHILDREN'S HOSPITAL OF PHILADELPHIA	FP1442_SUB02_01/PO #960672RSUB		31,399	31,399
THE PROTECTIVE EFFECTS OF PHYSICAL ACTIVITY ON ADOLESCENT SMOKING PROGRESSION	93.393		1-R01-CA-126958-01A1	168,367		168,367
The RAP80-BRCC36 Deubiquitinating Complex in DNA Repair	93.393		1-R01-CA-138835-01A1	226,612		226,612
The RAP80-BRCC36 Deubiquitinating Complex in DNA Repair	93.393		2-R01-CA-138835-06A1	62,907		62,907
The role of Fyn and Srcas in UVB-induced cutaneous neoplasia	93.393		1-R01-CA-165836-01A1	382,686		382,686
The role of microRNA, mir-30d, in the initiation and progression of cancer	93.393		1-R01-CA-142776-01A1	132,525		132,525
Tobacco Control in a Rapidly Changing Media Environment	93.393	UNIVERSITY OF ILLINOIS	SUB TO 1U01CA154254		60,138	60,138
Transdisciplinary Research in Cancer of the Lung (TRICL)	93.393	DARTMOUTH COLLEGE	1324		-9,247	-9,247
Tumor antigen-specific T-cells and hepatocellular carcinoma	93.393		1-R01-CA-166111-01A1	257,553		257,553
Use of Genetically Engineered T Cells Targeting Tumor Stroma to Treat Lung Cancer	93.393		R01-CA-172921-01A1	293,405		293,405
Virtual Cancer Genetic Services: Telemedicine Delivery In Community Clinics	93.393		1-R21-CA-164121-01A1	26,244		26,244
	SubTotal 93.393			15,557,836	1,364,779	16,922,615
(PDQ5)Integrated Genetic and Epigenetic Prognostication for Acute Myeloid Leukemia	93.394		1-R21-CA-185365-01	117,050		117,050
A micro Hall chip for circulating microvesicle based cancer monitoring	93.394		1-R21-CA-182336-01A1	182,296		182,296
Advanced Development of TIES - Enhancing Access to Tissue for Cancer Research	93.394	UNIVERSITY OF PITTSBURGH	0035722 (123867-1)		100,575	100,575
Advanced MRI methods for detecting pseudo-progression of glioblastomas	93.394		1-R21-CA-170284-01A1	320,284		320,284
Breast tomosynthesis texture-based segmentation for volumetric density estimation	93.394		1-R21-CA-155906-01A1	45,012		45,012
Carbohydrate Antigenic Biomarkers for Epithelial Cancers	93.394		7-U01-CA-168925-03	230,526		230,526
Carbohydrate Antigenic Biomarkers for Epithelial Cancers	93.394	SANFORD-BURNHAM MEDICAL RESEARCH INSTITUTE	SUB TO 1-U01-CA168925-01		-2,201	-2,201
CD164 as a Novel Biomarker for Malignant CD4 T Cells in Cutaneous T Cell Lymphoma	93.394		1-R21-CA-178424-01	209,752		209,752
Effect of Breast Density on Screening Recall with Digital Breast Tomosynthesis	93.394		1-R01-CA-161749-01A1	272,324		272,324
Enabling Technologies for Ultra-High Sensitivity PET Scanners (PQ13)	93.394	UNIVERSITY OF CALIFORNIA, DAVIS	201121765-02		126,720	126,720
Glycomics Laboratory for the Early Detection of Epithelial Ovarian Cancer	93.394	UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES	41563-UPENN/PO #G140108005		-11,525	-11,525
Harmonized PET Reconstructions for Cancer Clinical Trials	93.394	UNIVERSITY OF IOWA	W000420845/PO #1001078460		270,225	270,225
Highly Paramagnetic, Biodegradable Nanoclusters for Imaging Prostate Cancer	93.394		1-R01-CA-157766-01	260,531		260,531
High-throughput immunoglobulin gene sequencing as a peripheral blood minimal residual disease assay to predict post-transplant relapse risk in multiple myeloma	93.394		1-R21-CA-195221-01	18,498		18,498
HLTF gene silencing: a novel determinant of sensitivity to autophagy inhibitor	93.394		1-R01-CA-169134-01A1	399,997		399,997
Imaging Mitochondrial Redox States In Vivo by Hyperpolarized MR	93.394		1-R01-CA-155348-01	364,566		364,566
IWDM-2014: The 12th International Workshop on Breast Imaging	93.394		1-R13-CA-189531-01	5,000		5,000
KSHV genome modification in KS tissue	93.394		1-R01-CA-177423-01	88,970		88,970
Linking Tumor Chemo Resistance to TLR Variants that Mediate Damage Chain Reactor	93.394	SRI INTERNATIONAL	138-000022		6,706	6,706
Nanomedicine Center for Nucleoprotein Machines	93.394	RICE UNIVERSITY	sub to Rice		143,037	143,037
Novel PET imaging agents for understanding glutamine addiction in cancer	93.394		1-R01-CA-164490-01	911,021		911,021
Peripheral Blood Gene Expression for the Diagnosis of Indeterminate Lung Nodules	93.394		1-R21-CA-156087-01A1	1,718		1,718

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
QUANTITATIVE DIAGNOSIS OF BREAST CANCER WITH ULTRASOUND	93.394		1-R01-CA-130946-01-A1	22,343		22,343
RF-SRC: A Unified Data Tool	93.394	UNIVERSITY OF MIAMI	66972K / PO #M175680		32,106	32,106
San Antonio Center for Biomarkers of Risk for Prostate Cancer	93.394	UNIVERSITY OF TEXAS	130202 / PO #RGC0000000376		31,410	31,410
SOFTWARE TO FACILITATE MULTIMODE, MULTISCALE FUSED DATA FOR PATHOLOGY AND RADIOLO	93.394		4-R01-CA-136535-03	183,464		183,464
Systemic Chemotherapy of Melanoma: NMR Studies of Lonidamine & N-Mustard Activity	93.394		2-R01-CA-129544-03A1	554,754		554,754
Time-of-Flight PET for Improved Whole-Body Imaging	93.394		2-R01-CA-113941-05	71,110		71,110
Time-of-Flight PET for Improved Whole-Body Imaging	93.394		2-R01-CA-113941-10	33,115		33,115
Tumor-targeted Polymersomes to image and Treat Ovarian Cancer	93.394		1-R01-CA-175480-01A1	362,976		362,976
Virtual Clinical Trials: Simulation of Digital Breast Tomosynthesis Screening	93.394		1-R01-CA-154444-01	520,559		520,559
SubTotal 93.394				5,175,866	697,053	5,872,919
(PQA2) Mammalian Regeneration, High Fat Diets, and Breast Cancer: A Common Link'	93.395	LANKENAU INSTITUTE FOR MEDICAL RESEARCH	06297-0791		172,412	172,412
A Facile Method for Producing Bispecific Antibodies from Full-Length IgG	93.395		1-R21-CA-187657-01	162,298		162,298
A Phase 2 Study of MK-3475 for the Treatment of Relapsed/Refractory Mycosis Fungoides/Sézary Syndrome (CITN-10)	93.395	HUTCHINSON (FRED) CANCER RESEARCH CENTER	0000816686		35,611	35,611
A Universal Approach to Personalized Adoptive T cell Therapy of Cancer	93.395		1-R01-CA-168900-01	350,356		350,356
Accountability and the Role of the Principal Investigator in Multicenter Trials	93.395		7-R01-CA-152110-04	366,569		366,569
ACRIN Subaward 1669	93.395	AMERICAN COLLEGE OF RADIOLOGY	ACRIN 1669		19,213	19,213
Anticancer Agents: Structure and Synthesis	93.395		2-R01-CA-019033-33	4,535		4,535
Antitumor Agents: Structure and Synthesis	93.395		2-R01-CA-019033-37A1	22,228		22,228
Autophagy inhibition to sensitize colon cancer to anti-angiogenic therapy	93.395		1-R01-CA-158377-01	228,706		228,706
Biological mechanisms Involved with PDT in the Treatment of MPM	93.395		2-P01-CA-087971-11A1	841,046		841,046
CD19 Directed CAR Therapy	93.395		1-R01-CA-165206-01	383,023		383,023
COG: NCTN Scientific Leadership Work Order (Joffe)	93.395	CHILDREN'S HOSPITAL OF PHILADELPHIA	9500080215-04C		29,185	29,185
Combined CD40 activation and CTLA4 blockade in melanoma	93.395		1-R01-CA-158186-01	255,954		255,954
Early Clinical Testing for Melanin Targeting Radio-Therapeutic Agent in Melanoma	93.395	MOLECULAR INSIGHT PHARMACEUTICALS, INC.	SUB TO 1-R44-CA141936-01		-37,973	-37,973
ECOG-ACRIN NCORP Research Base - CCCR	93.395	ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	1UG1CA189828-01-UPA3	17,367		17,367
ECOG-ACRIN NCORP Research Base - CT	93.395	ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	1UG1CA189828-01-UPA1	41,682		41,682
ECOG-ACRIN Operations Center	93.395	ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	ECOG-ACRIN	36,645		36,645
ECOG-ACRIN Operations Center	93.395		Luger ECOG	62,258		62,258
ECOG-ACRIN Operations Center	93.395		Sub to U10-CA-180820	18,402		18,402
ECOG-ACRIN Operations Center	93.395		SUB TO U10CA180820-01 UPA3	7,105		7,105
ECOG-ACRIN Operations Center	93.395		U10CA180820-01-UPA1	185,909		185,909
ECOG-ACRIN Operations Center	93.395		U10CA180820-01-UPA2	189,475		189,475
ECOG-ACRIN Operations Center	93.395		U10CA180820-01-UPA8	10,000		10,000
ECON-ACRIN NICORP Research Base	93.395	ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	1-UG-ICA-189828-01-UPA2	16,240		16,240
Effects of Photodynamic Therapy on Tumor Oxygenation and Blood Flow	93.395		2-R01-CA-085831-11A1	245,428		245,428
Estrogen Deprivation and Aromatase Inhibitor associated Arthralgia	93.395		1-R01-CA-15823-01	516,069		516,069
FRONTIER SCIENCE AND TECHNOLOGY/CGOP OUTREACH	93.395	FRONTIER SCIENCE & TECHNOLOGY RESEARCH FDN	ECOG PURCHASE SERVICE AGREEMENT		111,429	111,429
GENOTYPE AND PHENOTYPE PREDICTORS IN THERAPY RESPONSE IN RENAL CELL CARCINOMA	93.395		1-R01-CA-135509-01A1	97,409		97,409
Group Phone-based Weight Control Among Rural Breast Cancer Survivors	93.395	UNIVERSITY OF KANSAS	QB85503		6,430	6,430
Gynecologic Oncology Group	93.395	GYNECOLOGIC ONCOLOGY GROUP	27469-025		-372,267	-372,267
HIFs and VEGF in Sarcoma Progression, Metastasis, and Radiation Response	93.395		1-R01-CA-158301-01	507,531		507,531
Human Melanoma - Etiology, Progression and Therapy	93.395	WISTAR INSTITUTE	24623-05-314; MARMORSTEIN		293,167	293,167
Image-guided treatment planning for pleural Photodynamic Therapy	93.395		1-R01-CA-154562-01A1	312,596		312,596
Imaging & Radiation Oncology Core - Philadelphia Imaging Core Lab Director	93.395	AMERICAN COLLEGE OF RADIOLOGY	1616		103,622	103,622
Immuno/immuno-Gene Therapies for Thoracic Malignancies	93.395		2-P01-CA-066726-15A1	876,316		876,316
Immunobiology and Immunotherapy of Pancreatic Cancer	93.395		1-R01-CA-169123-01	375,892		375,892
IMMUNOTHERAPY WITH CAR T CELLS	93.395		2-R01-CA-120409-06	280,353		280,353
Improving radiation response by targeting O2 metabolism via the PI3K/mTOR pathway	93.395		1-R01-CA-182747-01A1	13,439		13,439
Inhibition of heteromeric crbB kinases	93.395		1-R01-CA-149425-01A1	379,357		379,357
Internet Studies to Enhance Long Term Survivorship after Hematologic Malignancy	93.395	HUTCHINSON (FRED) CANCER RESEARCH CENTER	0000729827		14,916	14,916
Intimacy-Enhancing Couples' Intervention for Localized Prostate Cancer	93.395	RUTGERS UNIVERSITY	Sub to NIH w/ Rutgers Univ ADV ACCT		190,460	190,460
Models to Predict Prognosis and Benefit from Adjuvant Therapy in Renal Cell Carcinoma	93.395	YALE UNIVERSITY	M12A11106 (A08276)		32,520	32,520
NRG Oncology Network Group Operations Center	93.395	NRG ONCOLOGY	UoIP-YR 1		13,998	13,998
OXYGEN AND PHOTOSENSITIZER LEVELS IN PHOTODYNAMIC THERAP	93.395		1-R01-CA-129554-01-A2	128,472		128,472
Proton Radiation Therapy Research	93.395	MASSACHUSETTS GENERAL HOSPITAL	208896		16,500	16,500
Psychological Interventions for Gynecologic Cancer Patients	93.395	UNIVERSITY OF MEDICINE AND DENTISTRY OF NJ	1573-1 / PO #P0525144		73,141	73,141
Radiation and Receptor Targeted RadioTheranostic Nanoparticles for Glioblastoma	93.395		1-R01-CA-181429-01A1	287,109		287,109
Single Arm Salvage Therapy With Pegylated Interferon Alfa-2a For Patients With High Risk Polycythemia Vera Or High Risk Essential Thrombocythemia Who Are Either	93.395	MOUNT SINAI MEDICAL CENTER	0254-7375-4605		956	956
Structural Biology of AML (CBFA2) and AML1-ETO	93.395	UNIVERSITY OF VIRGINIA	GC11991-137249		85,212	85,212
Targeted Therapies in Melanoma	93.395	WISTAR INSTITUTE	24021-06-321; PROJECT 3		-1	-1
Targeted Therapies in Melanoma	93.395		24921-06-314; GEORGE		207,561	207,561
Targeted Therapies in Melanoma	93.395		24921-07-314; MARMORSTEIN		242,573	242,573
Targeted Therapies in Melanoma	93.395		24921-11-314; Xu		106,443	106,443
Targeted Therapies in Melanoma	93.395		24921-13-314; NATHANSON		-2,294	-2,294
Targeted Therapies in Melanoma	93.395		2-P01-CA114046		494,974	494,974
The COURAGE Trial: Colon Recurrence and Aerobic Exercise: A Feasibility Study	93.395		1-R21-CA-182767-01A1	177,816		177,816
The role of the stromal cell surface protease FAP in pancreatic cancer	93.395		7-R21-CA-169741-02	200,499		200,499
The transition of the NCI Clinical Trials Cooperative Group Program to the National Clinical Trials Network	93.395	FRONTIER SCIENCE & TECHNOLOGY RESEARCH FDN	EISO39DM-00		13,205	13,205
The transition of the NCI Clinical Trials Cooperative Group Program to the National Clinical Trials Network	93.395		HNPO39L-00		13,195	13,195
The transition of the NCI Clinical Trials Cooperative Group Program to the National Clinical Trials Network	93.395		MRCO39MR-00		13,250	13,250
TOLL RECEPTOR LIGAND THERAPY OF CUTANEOUS T-CELL LYMPHOMA	93.395		1-R01-CA-122569-01A2	963		963
Using 18F-EF5 PET to measure hypoxia modulation by Nelfinavir in larynx cancer	93.395		1-R01-CA-174976-01A1	381,250		381,250
UT MD Anderson Cancer Center CCOP Research Base	93.395	UNIVERSITY OF TEXAS	00001458 / PO #3000258764		188,845	188,845
Mechanism of Activity of Lonidamine	93.395		1-R01-CA-172820-01A1	715,283		715,283
SubTotal 93.395				8,110,497	2,651,366	10,761,863
(PQA2) Mammalian Regeneration, High Fat Diets, and Breast Caner: A Common Link'	93.396	WISTAR INSTITUTE	24821-02-312		54,340	54,340
Analysis of Active and Inactive EGFR Conformations	93.396		2-R01-CA-112552-06A1	185,916		185,916
ANALYSIS OF TUMOR DYNAMICS IN PROGRESSION AND METASTASIS	93.396		1-U01-CA-105490-01	-48,439		-48,439
Androgen Receptor Action in Castration Resistant Prostate Cancer-Core C	93.396	BETH ISRAEL MEDICAL CENTER	01026711		264,238	264,238

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
APOPTOSIS CONTROL BY PROAPOPTOTIC BCL-2 FAMILY MEMBERS	93.396		1-R01-CA-099179-01&01(REV)	-4,860		-4,860
Calcineurin-NFAT regulates endothelial activation in pre-metastatic sites	93.396		2-R01-CA-118374-07A1	58,881		58,881
CANCER CELL ADAPTATION TO METABOLIC STRESS	93.396		2-P01-CA-104838-06	320,762		320,762
CANCER CELL ADAPTATION TO METABOLIC STRESS	93.396		2-P01-CA-104838-11	704,977		704,977
CXCL13: a mediator of prostate cancer progression	93.396		1-R01-CA-189765-01A1	81,733		81,733
Deregulation of MSI RNA-binding proteins promotes intestinal tumorigenesis	93.396		1-R01-CA-168654-01	505,276		505,276
ErbB receptor signaling via small G-proteins in breast cancer	93.396		1-R01-CA-139120-01A1	36,703		36,703
Establishing therapeutic efficacy and uncovering mechanisms of tumor suppressor	93.396		4-R00-CA-158581-03	227,127		227,127
Fibroblast Activation Protein in the Tumor Microenvironment in Lung Cancer	93.396		7-R01-CA-141144-05	242,226		242,226
HAT Inhibition to Impair Foxp3+ Treg Function and Boost Anti-Tumor Immunity	93.396	CHILDREN'S HOSPITAL OF PHILADELPHIA	320922-01-01 / PO #951078RSUB		31,344	31,344
HDAC INHIBITORS AND CTCL	93.396	WISTAR INSTITUTE	24181-02-336		-540	-540
Human Melanoma - Etiology, Progression and Therapy	93.396	WISTAR INSTITUTE	24621-02-314; XU		37,992	37,992
Human Melanoma - Etiology, Progression and Therapy	93.396		24621-03-314; GIMOTTY		51,246	51,246
Human Melanoma - Etiology, Progression and Therapy	93.396		24621-06-314		49,663	49,663
In Vivo Oncogene-induced Tumorigenesis and Escape	93.396		2-R01-CA-098371-06	134,469		134,469
Inflammation and the esophageal tumor microenvrironmen	93.396		1-U01-CA-143056-01	193,293		193,293
Interferon Responses in Myeloid Leukemia	93.396		1-R01-CA-142425-01A2	238,479		238,479
MECHANISMS OF BREAST CANCER PROGRESSION	93.396		2-U01-CA105490-06	409,473		409,473
MECHANISMS OF ESOPHAGEAL CARCINOGENESIS	93.396		2-P01-CA-098101-01A1	44,296		44,296
MECHANISMS OF ESOPHAGEAL CARCINOGENESIS	93.396		2-P01-CA-098101-11	1,214,687		1,214,687
Methods for genomic data with graphical structures	93.396		2-R01-CA-127334-05	207,532		207,532
Minimal Residual Disease and Mechanisms of Breast Cancer Recurrence	93.396		1-R01-CA143296-01A1	206,258		206,258
Molecular Mechanisms of the Hypoxic Response	93.396		9-R01-CA-153347-06A2	164,839		164,839
Negative Regulation of VEGF-Mediated Angiogenesis	93.396		7-R01-CA-118374-02	18,959		18,959
Nuclear Accumulation of Cyclin D1 and Oncogenesis	93.396		2-R01-CA-093237-11	260		260
Oncogenic Notch Signaling - Project 2	93.396	BRIGHAM AND WOMEN'S HOSPITAL	P01-CA-119070		261,729	261,729
p53 and tumor cell metabolism	93.396		1R01CA182675-01A1	243,890		243,890
p53-Mediated Tumor Immune Surveillance	93.396		1-R01-CA-193602-01A1	33,395		33,395
Prostate Carcinogenesis and PKC Signaling	93.396		2-R01-CA-089202-11	391,197		391,197
RAG-induced DNA damage: mechanisms and responses	93.396		7-R01-CA-104588-08	99,003		99,003
Rap1Gap and Tumor Progression	93.396		1-R01-CA-127986-01A2	85,741		85,741
Receptor mediated breast cancer therapy	93.396		2-R01-CA-089481-09A2	253,889		253,889
Regulation of cell homeostasis by fbx4	93.396		1-R01-CA-133154-01A2	334		334
Regulation of hematopoietic stem cell and progenitor cell proliferation by Runx1	93.396		1-R01-CA-149976-01A1	324,395		324,395
REGULATION OF LYMPHOCYTE SURVIVAL	93.396		1-R01-CA-092660-01	-4,860		-4,860
Role of eIF2a phosphorylation and ER stress in hypoxia tolerance and tumor growth	93.396		2-R01-CA-094214-10	305,850		305,850
Role of HOS in Cell Transformation and Apoptosis	93.396		5-R01-CA-092900-14	295,666		295,666
Role of Malic Enzymes in Tumorigenesis	93.396		1-R21-CA-177048-01A1	100,775		100,775
Role of Mitochondrial Respiratory Stress Signaling in Cancer Progression	93.396		2-R01-CA-022762-29A1	2,628		2,628
Role of p53 family proteins in glucose metabolism	93.396		1-R01-CA-184867-01	243,879		243,879
Role of SNF1 Kinase HUNK in breast cancer progression	93.396		1-R01-CA-127917-01A1	102,593		102,593
Signaling mechanisms of RTKs with membrane-proximal fibronectin type III domain:	93.396		1-R03-CA-187021-01	35,781		35,781
Specificity of the Ubiquitin System in Lymphoid Malignancies	93.396		4-R00-CA-166181-02	208,700		208,700
Stem Cells, Differentiation and Therapeutic Resistance in AML	93.396		1-R01-CA-149566-01A1	538,474		538,474
Survival and Recurrence of Dormant Cancer Cells	93.396		1-R01-CA-148774-01A1	265,053		265,053
The interaction between tRNA and cytochrome c in apoptosis of cancer cells	93.396		1-R21-CA-178581-01A1	126,497		126,497
The Unfolded Protein Response in Cancer	93.396		1-P01-CA-165997-01A1	1,223,266		1,223,266
Understanding Wnt5a regulation of protein depalmitoylation during cell migration	93.396		1-R01-CA-181633-01A1	350,579		350,579
Signaling Modulators in Epidermal Carcinogenesis	93.396		1-R01-CA-163566-01	290,079		290,079
Genetically Encoded Probes of RNA Localization	93.396	UNIVERSITY OF SOUTHERN CALIFORNIA	57916791		14,774	14,774
	SubTotal 93.396			10,659,651	764,786	11,424,437
Abramson Cancer Center core support grant	93.397		2-P30-CA-016520-35	8,041,284		8,041,284
Advancing T Cell Therapy for Ovarian Cancer - Project 5	93.397	FOX CHASE CANCER CENTER	SUB TO P50-CA083638		-9,791	-9,791
Botswana-UPenn: Research Consortium of HPV-Related Cervical Cancer in HIV Patient	93.397		1-U54-CA-190158-01	158,295		158,295
Combination Activated T-Cell and Vaccine Therapy in Myelom:	93.397	UNIVERSITY OF TEXAS	PO #35959-2000/29859/98018081		183,678	183,678
Combined mTOR and Autophagy Inhibition with Chemotherapy in Multiple Myelom:	93.397	UNIVERSITY OF TEXAS	11111240/98018100		26,312	26,312
FCCC-Penn SPORE in Ovarian Cancer, Project 4	93.397	FOX CHASE CANCER CENTER	FCCC #17107-15/PO #SQ1405805		22,802	22,802
Hypofractionated radiotherapy as a vaccine for patients with metastatic Melanom:	93.397	WISTAR INSTITUTE	24961-12-314; Maity		61,452	61,452
M.D. Anderson Cancer Center SPORE in Multiple Myeloma, Developmental Resesarch Program 2012	93.397	UNIVERSITY OF TEXAS	12104488/00918081/54441		7,732	7,732
Penn Center for Innovation in Personalized Breast Screening	93.397		1-U54-CA-163313-01	1,702,299		1,702,299
Penn TREC Survivor Center	93.397		1-U54-CA-155850-01	1,636,739		1,636,739
SPORE in Ovarian Cancer	93.397	FOX CHASE CANCER CENTER	FCCC #17107-11 / PO #201008605		69,236	69,236
SPORE in Ovarian Cancer	93.397		FCCC #17107-11 / PO #201008606		47,585	47,585
SPORE in Ovarian Cancer	93.397		FCCC 17107-12		192,991	192,991
SPORE in Ovarian Cancer	93.397		sub to 2-P50-CA-083638-11		3,168	3,168
SPORE in Skin Cancer	93.397	WISTAR INSTITUTE	24961-02-314		139,020	139,020
SPORE in Skin Cancer	93.397		24961-04-314		99,900	99,900
SPORE in Skin Cancer	93.397		24961-05-314		126,642	126,642
SPORE in Skin Cancer	93.397		24961-10-314		172,767	172,767
SPORE in Skin Cancer	93.397		SPORE		15,949	15,949
Stem Cells and the Origins of Barrett's Esophagus	93.397	COLUMBIA UNIVERSITY	1 (ACCT #5-30761)		247,158	247,158
Weight loss-induced microbiome and adipokine changes in Barrett's Esophagus	93.397	COLUMBIA UNIVERSITY	4(GG0006360-15)		132,000	132,000
Optimizing Colonoscopy & Fecal Immunochemical Tests for Community-Based Screening	93.397	KAISER PERMANENTE	115-9064-05		173,426	173,426
	SubTotal 93.397			11,538,617	1,712,027	13,250,644
A cell-based liquid biopsy approach for early pancreatic cancer detection	93.398		1-F32-CA-196120-01	11,521		11,521
A novel hematopoietic stem cell population	93.398		1-F31-CA-180604-01	43,109		43,109
Biochemical regulation and genomic targeting of TET-catalyzed cytosine oxidator	93.398		1-F30-CA-196097-01	7,880		7,880
CANCER BIOSTATISTICS TRAINING GRANT	93.398		2-T32-CA-093283-06A1	2,360		2,360
Cancer Center Research Training Program	93.398		2-T32-CA-009615-21	340,276		340,276

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
Cancer Clinical Epidemiology Training Grant	93.398		2-T32-CA-009679-21	368,122		368,122
CD40 Pathway in Pancreatic Adenocarcinoma	93.398		1-K08-CA-138907-01A2	151,725		151,725
CELLULAR / MOLECULAR BIOLOGICS IN CLINICAL CANCER RESEARCH	93.398		2-K12-CA-076931-11	21,383		21,383
Cellular mechanisms of transcriptional regulation near DNA double-strand breaks	93.398		1-F30-CA-177190-01	3,746		3,746
Cellular molecular biologics in clinical cancer research	93.398		2-K12-CA-076931-16A1	493,558		493,558
Complications of Jaw Osteoradionecrosis in Cancer Management	93.398		1-K22-CA-169089-01	223,552		223,552
Designer antigen receptors to re-direct T cells to the NY-ESO-a tumor antigen	93.398		1-K08-CA-166039-01	123,283		123,283
Effectiveness of Radiotherapy for Prostate Cancer	93.398		1-K07-CA-163616-01A1	173,431		173,431
Elucidating the role and regulation of epithelial plasticity in metastasis	93.398		1-F31-CA177163-01A1	40,702		40,702
Exploiting mTORC1-driven cancer cell vulnerabilities	93.398		1F32CA177108-01A1	56,113		56,113
Genomic Landscape of Pancreatic Cancer Metastasis	93.398		1F32CA192761-01	17,296		17,296
HIF-2alpha mediated mitophagy and lipogenesis in clear cell renal cell carcinoma	93.398		1-F30-CA-177106-01	31,907		31,907
Immunobiology of normal and neoplastic lymphocytes	93.398		2-T32-CA-009140-36	647,427		647,427
IMPROVING CURRENT THERAPIES FOR MYELOMA	93.398		1-K23-CA-130074-01A1	78,782		78,782
Lymphocyte trafficking blockade in allogeneic stem-cell transplantation	93.398		1-K23-CA-178202-01	142,560		142,560
Molecular basis for JARID1B Demethylase Activity	93.398		1-F32-CA180504-01A1	53,539		53,539
Molecular Basis for Small Molecule STAT3 Inhibition	93.398		7-F32-CA-180298-02	45,553		45,553
mTOR Inhibition as a Therapeutic Strategy for Acute Myeloid Leukemia	93.398		1-K23-CA-141054-01A1	165,259		165,259
Mutant p53 has gain-of-function mechanisms to mediate tumor invasion	93.398		1-F30-CA-174133-01	27,403		27,403
Ndfip2 limits Th17 pathogenicity to attenuate colitis-associated colon cancer	93.398		1-F31-CA-180300-01	28,315		28,315
Near-Infrared Fluorescent Choline Kinase Inhibitors for Cancer Imaging and Therapy	93.398		1-F31-CA-180328-01	26,689		26,689
Oncogene-induced cytoplasmic and nuclear events leading to replication stress	93.398		1-F31-CA-186412-01	41,405		41,405
Oncogenic Disruption of Circadian Rhythm and Chronotherapy	93.398		1F32CA180370-01A1	52,052		52,052
P21-activated kinase 1 and 2 as therapeutic targets of the NF1 microenvironment	93.398		1-F31-CA-177182-01	4,694		4,694
Postdoctoral Training Grant	93.398		1-F32-CA-162847-01	9,514		9,514
Pro- and anti-phagocytic signals on pancreatic cancer regulate tumor macrophages	93.398		1-F30-CA-196124-01	5,730		5,730
Recombination-based mechanisms for repair of damaged DNA replication templates	93.398		1-F31-CA189800-01	38,420		38,420
Role of Akt-regulated acetyl-CoA metabolism in altering the cancer cell epigenome	93.398		1-F31-CA-189744-01A1	6,231		6,231
Role of Integrin Alpha v in Human Epidermis and Squamous Cell Carcinoma	93.398		1-F31-CA-186446-01	42,713		42,713
Role of Macrophages in Tumor Dormancy and Recurrence	93.398		1-F31-CA-171580-01	7,328		7,328
Role of MicroRNA-124 in Counteracting Glioblastoma Adaptation to Cellular Stress	93.398		1-F31-CA-174211-01	16,195		16,195
Role of MLL1 and MLL1 leukemogenic fusions in maintaining transcriptional memory	93.398		1-F30-CA-189553-01	41,812		41,812
Role of Non-Core RAG1 in DSB Repair, Cell Survival, and Cell Cycle Progression	93.398		1-F31-CA-177086-01	37,172		37,172
Role of Notch 1 signaling in esophageal carcinogenesis	93.398		1-F32-CA-174146-01	57,117		57,117
Sensitization of cancers to ATR inhibition via elevated Aurora A-PLK1 activity	93.398		1-F32-CA-171911-01A1	50,248		50,248
Social Determinants of Breast Cancer Survivorship	93.398		1-K01-CA-184288-01	141,417		141,417
Stroma-mediated mechanisms of breast cancer treatment resistance	93.398		1-F31-CA-189707-01	41,526		41,526
SUMMER UNDERGRADUATE PROGRAM TO EDUCATE RADIATION SCIENTISTS (SUPERS)	93.398		2-R25-CA-140116-06	11,531		11,531
SUMMER UNDERGRADUATE PROGRAM TO EDUCATE RADIATION SCIENTISTS (SUPERS)	93.398		5-R25-CA-140116-03	234,293		234,293
Targeting SRC Signaling Pathways to Promote Cell Cycle Arrest in Ovarian Cancer	93.398		K08-CA-151892	154,569		154,569
The CENP-A Complex and Centromere Identity	93.398		1-F30-CA-186430-01	41,667		41,667
The molecular basis for how acetyl-coenzyme A links metabolism to gene expression	93.398		1-F31-CA-189559-01	38,798		38,798
The Requirement for Trib2 in the Maintenance of Acute Myeloid Leukemia	93.398		1-F31-CA-165813-01	5,223		5,223
The Role of ATF4 in Promoting c-Myc Induced Lymphomagenesis	93.398		1-F31-CA-183569-01	41,319		41,319
The Role of p120ctn in Pancreatic Ductal Morphogenesis and Adenocarcinoma	93.398		1-F30-CA-018601-01	30,992		30,992
THERAPEUTIC APPROACHES THAT TARGET CANCER CELL METABOLISM	93.398		1-K23-CA-120862-01A2	21,858		21,858
TIP60-chromatin interactions at DNA double-strand breaks	93.398		1-F30-CA-196115-01	6,030		6,030
Total Synthesis and Biological Evaluation of Rhizopodin and Related Analogs	93.398		1-F32-CA-171736-01	-2,070		-2,070
Training Community Nurses and Administrators to Implement Cancer Clinical Trials	93.398	MOUNT SINAI MEDICAL CENTER	0253-6571-4609		93,322	93,322
Training In Tumor Virology	93.398		2-T32-CA-115299-06	330,953		330,953
Training program in cancer pharmacology	93.398		2-R25-CA-101871-06A1	65,283		65,283
Transcriptional Coregulation in Pancreatic Adenocarcinoma Progression	93.398		1-F30-CA-177123-01	33,447		33,447
Trib1 in NF-kappaB Signaling: Insights into MALTI Regulation and Leukemia	93.398		1-F31-CA-189661-01	37,406		37,406
Tumor suppressive functions of the urea cycle in renal cell carcinoma	93.398		1F32CA192758-01	18,742		18,742
Understanding Glutaminase Alternative Splicing in Cancer Metabolism	93.398		1-F32-CA-174148-01A1	56,951		56,951
Augmenting Chimeric Antibody Receptor Directed T cell Therapy for Cancer	93.398		1-K08-CA-163941-01	143,329		143,329
Cyclin D3 and DNA double strand breaks: genome stability and lymphomagenesis	93.398		1-F31-CA-177092-01	43,209		43,209
SubTotal	93.398			5,232,595	93,322	5,325,917
CENTER FOR INTERDISCIPLINARY RESEARCH ON NICOTINE ADDICT	93.399		1-P50-CA-143187-01	546,489		546,489
Genetic Determinants of Barrett's Esophagus and Esophageal Adenocarcinoma	93.399	CASE WESTERN RESERVE UNIVERSITY	RES506508		17,312	17,312
PENN'S CENTER OF EXCELLENCE IN CANCER COMMUNICATION RESEARCH	93.399		2-P20-CA-095856-06	93,441		93,441
SubTotal	93.399			639,930	17,312	657,242
Expanding Public Health Experiential Learning in Pre-doctoral Dental Education	93.403		D85HP20034-01-00	476,914		476,914
SubTotal	93.403			476,914		476,914
Regulation of neurogenesis and behavior by GSK-3	93.424		1-R01-MH-100923-01A1	471,499		471,499
SubTotal	93.424			471,499		471,499
Affordable Care Act: Primary Care Residency Expansion	93.510		1-T89-HP-21071-01-00	669,531		669,531
SubTotal	93.510			669,531		669,531
Expanding Enrollment in NP and NMW Programs	93.513		1-T57-HP-20598-01-00	117,840		117,840
SubTotal	93.513			117,840		117,840
Medicaid Incentives for Prevention of Chronic Disease in New York State	93.536	NEW YORK STATE	C-027854		71,551	71,551
SubTotal	93.536				71,551	71,551
Health Care Innovation Challenge	93.610		1-C1C-MS-331009-01-00	1,865,297		1,865,297
Health Care Innovation Challenge	93.610		1C1CMS331016-01-00	1,213,120		1,213,120

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
	SubTotal 93.610			3,078,417		3,078,417
ARRA - A Randomized Trial of Behavioral Economic Interventions to Reduce CVD Risk	93.701		1-RC4-AG-039114-01	1,540,661		1,540,661
ARRA - Comprehensive biomarker study to capitalize on existing GWAS in 10K South Asians	93.701		1-RC2-HL-101834-01	-10,140		-10,140
ARRA - Engineering hematopoietic progenitors for efficient migration to the thymus	93.701		1-RC1-HL-099758-01	-108		-108
	SubTotal 93.701			1,530,413		1,530,413
Mental and Behavioral Health Training for Social Work (aka P.E.A.R.L.S.) Program in Mental Health Education Assessment, Recovery, and Leadership for Social Worker	93.732		1 M01HP25197-01-00	148,848		148,848
	SubTotal 93.732			148,848		148,848
CHIPRA Quality Demonstration	93.767	CHILDREN'S HOSPITAL OF PHILADELPHIA	9239000215		13,149	13,149
	SubTotal 93.767				13,149	13,149
Training Program in Cardiovascular Biology and Medicine	93.827		2-T32-HL-007843-16	529,003		529,003
	SubTotal 93.827			529,003		529,003
A Novel Approach for the Design Simulation of Valvular Replacement Biomaterials	93.837	UNIVERSITY OF TEXAS AT AUSTIN	UTA12-000569		263,897	263,897
A novel treatment for obese depressed patients at risk for cardiovascular disease	93.837		1-K23-HL-109235-01	163,280		163,280
A trial to determine the effect of psoriasis treatment on cardiometabolic disease	93.837		1-R01-HL-111293-01	786,382		786,382
Aldosterone Targeted Neurohormonal Combined with Natriuresis Therapy - HF (ATHENA-HF)	93.837	DUKE UNIVERSITY	SUB TO U10HL084904		3,406	3,406
Alpha-Defensins in perioperative thrombosis	93.837		1-R56-HL-123912-01	284,816		284,816
An Intervention to Improve ICD Deactivation Conversations	93.837	MOUNT SINAI MEDICAL CENTER	0255-3111-4609		37,990	37,990
Analysis and Characterization of Trauma-Induced Coagulopathy	93.837	UNIVERSITY OF VERMONT	SUB51510 U OF PENN		310,030	310,030
ANALYSIS OF A NOVEL HOMEBOX GENE IN CV DEVELOPMENT	93.837		2-R01-HL-071546-05A1	-1,205		-1,205
ANALYSIS OF A NOVEL HOMEBOX GENE IN CV DEVELOPMENT	93.837		2-R01-HL-071546-10	411,051		411,051
ApoC-III: Structure-Function and Regulation of Triglyceride Metabolism	93.837		1-F30-HL-124967-01	40,670		40,670
apoE, arterial biomechanics, and cardiovascular disease	93.837		1-R01-HL-119346-01A1	337,949		337,949
Aromatase Inhibitors in Pulmonary Vascular Complications of Liver Disease	93.837		1-K24-HL-103844-01A1	159,989		159,989
Bone Marrow Transplant Clinical Network	93.837		2-U10-HL-069286-11	162,043		162,043
CALCIUM RELEASE UNITS IN SKELETAL AND CARDIAC MUSCLE	93.837		4-R37-HL-048093-15	106		106
Cardiac Surgical Techniques to Treat Ventricular and Aortic Remodeling	93.837		2-UM1-HL-088957-06	368,276		368,276
Cardiology and Pulmonary Clinical Research Training Program	93.837		2-T32-HL-007891-16	587,740		587,740
Cardiovascular Inflammation Reduction Trial (CIRT): A randomized, double-blind, placebo-controlled, event-driven of weekly low-dose methotrexate (LDM) in the	93.837	BRIGHAM AND WOMEN'S HOSPITAL	CIRT - UNDER U01HL101422 #1		35,354	35,354
Chronic Hypertension and Pregnancy (CHAP)	93.837	UNIVERSITY OF ALABAMA AT BIRMINGHAM	sub to U01-HL-120338		25,517	25,517
Clinical and Genetic Predictors of Unstable Warfarin Response	93.837		1-F30-HL-115992-01	28,496		28,496
Community VOICES (3); Community VOICES on Informed Consent in Emergency Situation	93.837	MOUNT SINAI MEDICAL CENTER	0255-9033-4609		58,078	58,078
Comparative effectiveness of process and outcomes incentives for lipid management	93.837		1-R01-HL-118195-01A1	261,623		261,623
Determinants of Midlife & Longitudinal Change in Cognitive Function: CARDIA Study	93.837	KAISER PERMANENTE	RNG200103-PENN		14,920	14,920
Development of a High-Performance Clinical Cardiac SPECT/TCT System	93.837	RUSH-PRESBYTERIAN-ST. LUKE'S MEDICAL CENTER	SUB TO IRO1HL108119-01A1		231,010	231,010
Discovery and Validation of Novel Loci Associated with HDL Function	93.837		1-R01-HL-111398-01	592,709		592,709
DNA VIRUS AS VECTORS FOR CARDIOVASCULAR DISEASES	93.837		2-P01-HL-059407-11	284,874		284,874
Early Detection of Heart Failure Via the Electronic Health Record in Primary Care	93.837	CALIFORNIA PACIFIC MEDICAL CENTER RESEARCH INSTITUTE	280201001-S163/PO #120418		21,113	21,113
Echocardiography to Predict Recurrent IMR After Surgical Mitral Valve Replacement	93.837		1-R01-HL-103723-01A1	392,452		392,452
ECM compliance and cell cycle control	93.837		1-R01-HL-094491-01A1	-333		-333
Effect of Low Dose Methotrexate on Endothelial Function and Inflammation in HIV A5314	93.837	BRIGHAM AND WOMEN'S HOSPITAL	5-R01-HL-117713-02/109135/A5314		10,118	10,118
EFFECTS OF NIACIN ON LP(A), OXIDIZED LDL, AND INFLAMMATION IN THE AIM-HIGH TRIAL	93.837		1-R01-HL-086864-01A2	179,324		179,324
Elucidation of Tissue-Specific Transcriptomic Profiles in Cardiometabolic Disease	93.837		1-R01-HL-113147-01	516,997		516,997
Enabling Medical Research Growth in Emergency Medicine (EMERGE)	93.837		1-K12-HL-109009-01	758,327		758,327
ENDOGENOUS CARDIAC REPAIR IN HUMANS	93.837		1-R01-HL-089847-01A2	190		190
Engineered Stem Cell Microenvironments Controlled Vasculogenesis	93.837	JOHNS HOPKINS UNIVERSITY	2001253216		128,078	128,078
Exercise and Stem Cell Engraftment in the Heart Following Myocardial Infarction	93.837		1-R21-HL-113777-01A1	122,644		122,644
Exercise and Vascular Function in Chronic Kidney Disease	93.837	UNIVERSITY OF DELAWARE	R01-HL-1135104		18,947	18,947
Expansion of cardiac and hematopoietic progenitors by Wnt and Notch	93.837		1-U01-HL-100405-01	1,079,881		1,079,881
Fifteenth Annual Conference on Arteriosclerosis, Thrombosis and Vascular Biology	93.837		2-R13-HL-084893-09	15,000		15,000
Fully Automated 4D Echocardiographic Mitral Valve Analysis for Surgical Repair	93.837		1-F32-HL-119010-01	49,812		49,812
Functional Impact of GLP-1 for Heart Failure Treatment (FIGHT)	93.837	DUKE UNIVERSITY	193603		59,977	59,977
G Protein-Coupled Receptor Regulation in Airway Myocytes	93.837	THOMAS JEFFERSON UNIVERSITY	080-18007-S11201		30,221	30,221
Genetic Variation in the ANGPT-TIE Pathway and Risk for Acute Lung Injury	93.837		1-K23-HL-102254-01	130,351		130,351
Genetics of lipoprotein metabolism and CVD in CKD	93.837		1-R01-HL-092209-01A2	175,592		175,592
GENOMICS OF MYOCARDIAL TRANSCRIPTION FACTORS IN CARDIAC	93.837		1-R01-HL-088577-01	209,422		209,422
Glycomics of Heart and Lung Disease in the Genomic Era	93.837		1-U01-HL-108636-01	509,952		509,952
HDL metabolism: Influence of extracellular lipases	93.837		4-R37-HL-055323-18	480,341		480,341
HEG-CCM SIGNALING IN CARDIOVASCULAR DEVELOPMENT AND DISEASE	93.837		1-R01-HL-094326-01	38,998		38,998
HEG-CCM SIGNALING IN CARDIOVASCULAR DEVELOPMENT AND DISEASE	93.837		2-R01-HL-094326-06	173,641		173,641
Heterogeneity of the Bone Marrow Plasma Cell Pool	93.837		1-F30-HL-112628-01A1	27,424		27,424
High Altitude Adaptation: A Model for Chronic Hypoxia	93.837		1-R21-HL-120751-01	195,767		195,767
Implementation of Cardiopulmonary Resuscitation Training for At-Risk Families	93.837		1-R18-HL-107217-01	509,249		509,249
Improved stent design through hemodynamics and vascular biology	93.837		1-K25-HL-107617-01A1	128,678		128,678
Improving the diagnosis of heparin-induced thrombocytopenia	93.837		1-K23-HL-112903-01	129,319		129,319
IMPROVING THE MANAGEMENT OF OBESITY IN PRIMARY CARE PRACTICE	93.837		1-U01-HL-087072-01	-53		-53
Inflammation promoting respiratory tract infection	93.837		1-F30-HL-119030-01	30,807		30,807
Integrative Genomics Approaches to Model the Genetic Architecture of Asthma	93.837		7-R00-HL-105663-04	153,477		153,477
Integrative genomics of human heart failure	93.837		1-R01-HL-105993-01A1	1,791,126		1,791,126
Interrogation of Novel Pathways Regulating VLDL Production and Plasma Lipids	93.837		1-R01-HL-109489-01	487,485		487,485
Investigating the role of Hopx in cardiac progenitor proliferation	93.837		1-K08-HL-119553-01	140,104		140,104
Klotho and the Pathogenesis of Cardiovascular Disease	93.837	JOHNS HOPKINS UNIVERSITY	2001676026		32,140	32,140
Localized Targeting of Matrix Proteases Following Myocardial Infarction	93.837	UNIVERSITY OF SOUTH CAROLINA	13-2022 / PO #51636		133,699	133,699
Long Pentraxin-3 genomics and outcomes after lung transplantation	93.837		1-K23-HL-121406-01A1	102,879		102,879
Lung Transplant donor: prediction, evaluation, and mechanism	93.837		1-K23-HL-116656-01	288,260		288,260
Mentored Patient Oriented Research in Cardiometabolic Disease	93.837		1-K24-HL-107643-01	268,791		268,791
Mentored Patient Oriented Research in Lung Transplantation	93.837		1-K24-HL-115354-01	133,244		133,244

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
Methods for High-Dimensional Data in HIV/CVD Research	93.837	MOUNT HOLYOKE COLLEGE	HIV/CVD(Mt. Holyoke)		26,454	26,454
Methods for High-Dimensional Data in HIV/CVD Research	93.837	UNIVERSITY OF MASSACHUSETTS	11 006466 B00		34,634	34,634
Mid-Atlantic Heart Failure Network	93.837		1-U10-HL-110338-01	306,681		306,681
Mitochondrial-Nuclear Interactions and CVD Susceptibility	93.837	UNIVERSITY OF ALABAMA AT BIRMINGHAM	00393678-003		35,678	35,678
Mitral Saddle Shape Preservation Improves Valvuloplasty	93.837		2-R01-HL-073021-05A2	113,882		113,882
Molecular mechanisms linking the CXCL12 pathway to atherosclerosis	93.837		1-R01-HL-122843-01A1	161,818		161,818
Molecular mechanisms of CCM signaling	93.837		1-R01-HL-102138-01	611,974		611,974
MRI Assessment of Vascular Reactivity	93.837		1-R01-HL-109545-01	570,872		570,872
Multidisciplinary training in cardiovascular biology	93.837		2-T32-HL-007954-11A1	587,224		587,224
Multi-Institutional Training in Genetic/Genomic Approaches to Sleep Disorders	93.837		1-T32-HL-110952-01A1	138,568		138,568
Multimarker Risk Prediction in Cancer Therapy Cardiotoxicity	93.837		1-R01-HL-118018-01A1	510,080		510,080
Multiscale modeling and empirical study of a mechanism limiting blood clot growth	93.837	UNIVERSITY OF NOTRE DAME	202403		161,368	161,368
Mutations in Smooth Muscle Contractile Proteins: Pathways to Vascular Diseases	93.837	UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT HOUSTON	0009085A		419,085	419,085
Myocardin Related Transcription Factor Function in the Vasculature	93.837		1-R01-HL-102968-01	23,523		23,523
Neurological and Cognitive Effects of Hyperoxia After Cardiac Arrest	93.837	COOPER MEDICAL CNTR	311500191PENN		111,524	111,524
NHLBI Progenitor Cell Biology Consortium Administrative Coordinating Center	93.837	UNIVERSITY OF MARYLAND	8382 / PO #SR00002870		125,348	125,348
Nitrate's Effect on Activity Tolerance in Heart Failure with Preserved Ejection Fraction: NEAT-HfPEF	93.837	DUKE UNIVERSITY	HFN-NEAT-NT052		1,833	1,833
Notch signaling in cardiovascular morphogenesis	93.837		1-R01-HL-095634-01A1	-5,859		-5,859
Novel Methods for the Conduct of Clinical Trials	93.837		1-R01-HL-115041-01	553,529		553,529
Nuclear magnetic Tirho relaxation in acute and chronic myocardial infarction	93.837		1-K99-HL-108157-01A1	-5,831		-5,831
Nuclear Magnetic Tirho Relaxation in Acute and Chronic Myocardial Infarctions	93.837		4-R00-HL-108157-03	278,230		278,230
Optimizing heart and brain cooling during cardiac arrest	93.837		2-R01-HL-067630-06	519,874		519,874
Oral Iron Repletion Effects ON Oxygen UpTake in Heart Failure: IRONOUT-HF	93.837	DUKE UNIVERSITY	200464		1,995	1,995
Pediatric Heart Transplantation: Transitioning to Adult Care	93.837	CHILDREN'S MEMORIAL HOSPITAL	901477-PENN		7,280	7,280
Personalization of Therapeutic Efficacy and Risk	93.837		1-U54-HL-117798-01	4,024,240		4,024,240
PGC-1 Co-activators in muscle angiogenesis & ischemia	93.837		7-R01-HL-094499-06	140,541		140,541
Precinical Cardiac Imaging Package for Clinical SPECT Systems	93.837		1-R01-HL-111883-01A1	568,893		568,893
PREDICTORS OF THERAPEUTIC RESPONSIVENESS TO LESTAUTRINIB IN MYELOFIBROSIS	93.837		1-K23-HL-093366-01A1	41,511		41,511
Pregnancy as a Window to Future Cardiovascular Health	93.837		1-U10-HL-119993-01	64,954		64,954
Profilin-1 phosphorylation in neovascularization	93.837		4-R00-HL-103792-04	254,399		254,399
Profilin-1 phosphorylation in neovascularization	93.837		7K99HL103792-02	11,710		11,710
Pulmonary Hypertension Breakthrough Initiative	93.837	UNIVERSITY OF COLORADO	sub to R24-HL-123767		263,464	263,464
Quantitative Force Measurements to Optimize Valve Repair for Ischemic MR	93.837		1-R01-HL-113216-01A1	535,672		535,672
Regulation of cardiac power output in health and disease	93.837		1-K99-HL-123623-01	76,456		76,456
RESEARCH CAREER TRAINING IN VASCULAR MEDICINE	93.837		1-K12-HL-083772-01A1	194,977		194,977
Reversal of Direct FXa Inhibitors Using Zymogen-Like Variants of FXa	93.837		1-F30-HL-120487-01	27,995		27,995
Role of CCBE1 in lymphatic vascular development and growth	93.837		1-R01-HL-111553-01A1	335,880		335,880
Semaphorin3d and Anomalous Pulmonary Venous Return	93.837		1-R01-HL-118768-01A1	353,639		353,639
Signal Transduction in Atherosclerosis	93.837		2-P01-HL-062250-11A1	-27,149		-27,149
Sorafenib in Hepatopulmonary Syndrome	93.837		1-UM1-HL-116886-01A1	1,134,781		1,134,781
ST Research Education Program to Increase Diversity in Health Related Research	93.837		2-R25-HL-084665-06	148,311		148,311
Stiffness, Cadherins, and Integrins in Mechanochemical Signaling	93.837		1-R01-HL-115553-01A1	518,536		518,536
Strategies for Transcatheter Mitral Valve Replacement	93.837		1-R01-HL-115323-01A1	819,431		819,431
Stretch-Dependent X-ROS Signaling: Implications for Cardiomyopathy	93.837		4-R00-HL-114879-03	232,646		232,646
SURGERY TO PREVENT POSTINFARCTION VENTRICULAR REMODELING	93.837		2-R01-HL-063954-05	-49		-49
SURGERY TO PREVENT POSTINFARCTION VENTRICULAR REMODELING	93.837		2-R01-HL-063954-10	87,921		87,921
SURGICAL ABLATION VERSUS NO SURGICAL ABLATION FOR PATIENTS WITH PERSISTENT OR LONGSTANDING PERSISTENT ATRIAL	93.837	MOUNT SINAI MEDICAL CENTER	0255-3101-4609		26,747	26,747
Surrogate measures of endothelial dysfunction with integrated MRI	93.837		1-K25-HL-111422-01	141,463		141,463
TARGETING CARRIERS WITH CONTROLLED GEOMETRY TO ENDOTHELIUM	93.837		1-R01-HL-087036-01A2	0		0
Targeting NF-kB in Atherosclerosis	93.837		1-R01-HL-096642-01A2	190,789		190,789
The Contribution of Melanocyte-like Cells to Atrial Function and Development	93.837		1-R01-HL-105734-01A1	93,042		93,042
THE RISK OF MYOCARDIAL INFRACTION IN PATIENTS WITH PSORIASIS	93.837		1-R01-HL-089744-01A2	245,283		245,283
The Role of Neuregulin in Human Cardiac Remodeling and Heart Failure	93.837		1-K23-HL095661-01A1	128,660		128,660
Training in Critical Care Health Policy Research	93.837		1-T32-HL-098054-01A1	379,413		379,413
Training in Critical Care Health Policy Research	93.837		2-T32-HL-098054-096A1	23,710		23,710
Training in Sleep and Sleep Disorders	93.837		2-T32-HL-007953-11A1	448,702		448,702
Training Program in Respiratory Neurobiology and Sleep	93.837		2-T32-HL-007713-21	399,292		399,292
Transcriptional Control of Cardiac Conduction System Function by T-Box Genes	93.837	UNIVERSITY OF CHICAGO	FP049442		12,365	12,365
Translational Studies of ADAMTS7 a Novel GWAS Locus for Coronary Atherosclerosis	93.837		1-R01-HL-111694-01A1	816,724		816,724
Twitter and Cardiovascular Health	93.837		1-R01-HL-122457-01A1	203,948		203,948
Understanding the Drivers of Hospital Performance for In-Hospital Cardiac Arrest	93.837		1-K23-HL-109083-01	165,206		165,206
Understanding the sleep apnea/insomnia interaction: a CPAP/sham-CPAP trial	93.837		1-R34-HL-109462-01A1	264,676		264,676
Use of Real Time MRI for Evaluation of Regional Myocardial Function	93.837		1F31HL120580-01A1	45,151		45,151
WORK HOUR REGULATION FOR PHYSICIAN TRAINEES: EDUCATIONAL AND CLINICAL OUTCOMES	93.837		1-R01-HL-094593-01	13,800		13,800
Control of lymphatic vessel growth and development by platelets	93.837		1-R01-HL-103432-01	42,078		42,078
The Microcirculation in Claudication and Exercise Rehabilitation	93.837		2-R01-HL-075649-06A2	696,438		696,438
Determining Optimum Medical Therapy for ITP	93.837	CORNELL UNIVERSITY	12040498-2 / PO #4100193331		14,812	14,812
Mindfulness-Based Stress Reduction for High Blood Pressure: A Two-SiteRCT	93.837	KENT STATE UNIVERSITY	403013-UPENN		137,782	137,782
SubTotal 93.837				31,896,182	2,794,864	34,691,046
A New Approach for the Assessment of Pulmonary Inflammation	93.838		1-R01-HL-124986-01A1	40,326		40,326
A novel platform to assess gene function in human airway basal cells	93.838	DUKE UNIVERSITY	Sub to S-U01-HL-110967-04		103,455	103,455
A novel role for the adapter molecule NHERF1 in regulating asthma and allergic responses	93.838		1-K99-HL-121073-01	119,624		119,624
A Patient Advocate to improve real-world asthma management for inner city adults	93.838		1-R18-HL-116285-01	689,184		689,184
A Randomized Phase II Trial of CMV Prevention in Acute Lung Injury	93.838	HUTCHINSON (FRED) CANCER RESEARCH CENTER	0000693347		12,918	12,918
ABO Glycosyltransferases in Sepsis Associated Acute Respiratory Distress Syndrome	93.838		1F32HL122075-01	46,216		46,216
Biosynthesis and Trafficking of Surfactant Protein C In Health and Disease	93.838		1-R01-HL-119436-01	405,229		405,229
CELLULAR AND MOLECULAR BIOLOGY OF LUNG SURFACTANT	93.838		2-P01-HL-019737-31A1	-63		-63
CLINICAL RISK FACTORS FOR PRIMARY GRAFT DYSFUNCTION	93.838		1-R01-HL-087115-01A1	-3,536		-3,536
CLINICAL RISK FACTORS FOR PRIMARY GRAFT DYSFUNCTION	93.838		2-R01-HL-087115-06A1	415,326		415,326
Cor Pulmonale Parvus in Severe COPD	93.838	COLUMBIA UNIVERSITY	Sub to 2-R01-HL-093081-05		19,686	19,686

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
Data Coordinating Center for the Prematurity and Respiratory Outcomes Program	93.838		1-U01-HL-101794-01	1,659,671		1,659,671
Development & Control of Pulmonary Alveolar Stability	93.838	UNIVERSITY OF CALIFORNIA - SAN FRANCISCO	8042sc		19,657	19,657
ENDOTHELIAL GENERATION OF ROS IN LUNG ISCHEMIA	93.838		2-R01-HL-075587-05A1	-5,278		-5,278
Epigenetic regulation of lung progenitor repair and regeneration	93.838		1-U01-HL-110942-01	712,480		712,480
Estrogen signaling in portopulmonary hypertension	93.838		1-R01-HL-113988-01	808,085		808,085
Forkhead Repressors and Lung Development	93.838		2-R01-HL-071589-10	460,674		460,674
Foxp3+ Treg Cells and Primary Graft Dysfunction in Clinical Lung Transplant Recipients	93.838	CHILDREN'S HOSPITAL OF PHILADELPHIA	320960 / PO #960222RSUB		43,651	43,651
Genetic Investigation of pulmonary lymphatic development and function	93.838		1-R01-HL-120872-01A1	176,661		176,661
GENETICS OF PRIMARY GRAFT DYSFUNCTION	93.838		1-R01-HL-081619-01A2	-142		-142
GRADS Clinical Center: Studies in Sarcoidosis and Microbiomics Research	93.838		1-U01-HL-112712-01	119,899		119,899
HALF-PINT: Heart and Lung Failure - Pediatric Insulin Titration Trial - CCC	93.838	CHILDREN'S HOSPITAL BOSTON	74159 / PO #0000414068		38,322	38,322
Human Respiratory Tract Microbiome in Health, HIV Infection and HIV Lung Disease	93.838		1-U01-HL-098957-01	515,649		515,649
IMAGING REGIONAL PHYSIOLOGIC PARAMETERS OF LUNG FUNCTION	93.838		2-R01-HL-077241-05	0		0
Lung HRV: G-protein coupled signaling interactions in asthma	93.838	UNIVERSITY OF SOUTH FLORIDA	6101-1034-00-A		16,000	16,000
Lung Transplant Microbiome and Chronic Allograft Dysfunction	93.838		1-R01-HL-113252-01A1	484,003		484,003
MAPGen Penn Center (G to G) Collaborating Auxiliary	93.838	UNIVERSITY OF SOUTHERN CALIFORNIA	USC MapGen		55,739	55,739
Mechanisms of Lung Homeostasis by F box Proteins	93.838	UNIVERSITY OF PITTSBURGH	0038410(124605-1)		19,461	19,461
Methods to improve the detection of treatment effects in ARDS clinical trials	93.838		1-F31-HL-127947-01	6,901		6,901
Molecular Imaging of the Lung Using Hyperpolarized Carbon-13 Compounds	93.838		1-R01-HL-116342-01	292,744		292,744
mTOR coordinates cell metabolism, growth and survival in pulmonary hypertensior	93.838	UNIVERSITY OF PITTSBURGH	0037735 (123597-1)		27,884	27,884
Novel Molecular Mechanisms Promote GPCR-Induced Bronchodilation in Asthma	93.838		1-P01-HL-114471-01A1	2,195,350		2,195,350
Obesity, Inflammation, and Lung Injury after Lung Transplantation	93.838	COLUMBIA UNIVERSITY	4(GG007576)		175,119	175,119
Pathology of Asthma	93.838	CLEVELAND CLINIC FOUNDATION	Cleveland Clinic		15,632	15,632
Peroxiredoxin 6 as an anti-oxidant enzyme	93.838		1-R01-HL-102016-01	302,113		302,113
QUANTITATIVE STRUCTURAL AND FUNCTIONAL IMAGING OF THE LUNG	93.838		1-R01-HL-089064-01A1	284,860		284,860
Regulation of Airway Morphogenesis and Differentiation by Wnt Signaling	93.838		2-R01-HL-087825-06A1	457,494		457,494
RGS: A Molecular Switch Regulating Irreversible ASM Growth/Contraction in Asthma	93.838		1-R01-HL-097796-01	14,701		14,701
Role of anti-Col (V) immunity in primary graft dysfunction	93.838		1-R01-HL-096845-01A1	136,893		136,893
Role of folliculin (FLCN) in lung cell survival	93.838		1-R01-HL-110551-01A1	364,823		364,823
Role of Peroxiredoxin 6 in the Repair of Peroxidized Cell Membranes	93.838		2-R01-HL-102016-05A1	85,437		85,437
Role of Prdx6 in the activation of NADPH oxidase	93.838		1-R01-HL-105509-01	640,643		640,643
Role of RAGE in Transfusion Mediated Acute Lung Injury	93.838		1-K08-HL-098362-01	106,339		106,339
Sarcoidosis and AIAT Genomics & Informatics Center	93.838	UNIVERSITY OF PITTSBURGH	9008508(123014-4)		165,160	165,160
SEDATION MANAGEMENT IN PEDIATRIC PATIENTS WITH ACUTE RESPIRATORY FAILURE	93.838		1-U01-HL-086622-01A1	59,021		59,021
Sleep Disordered Breathing and Sleep Architecture in Obesity and Type 2 Diabetes	93.838	TEMPLE UNIVERSITY	360882-04770-02		24,617	24,617
Subclinical Interstitial Lung Disease in MESA	93.838	COLUMBIA UNIVERSITY	2 (ACCT 45-30084)		16,953	16,953
The Role of Future Orientation and Decision Regret in Health Care Decision Making	93.838		1-F32-HL-124771-01	30,546		30,546
The Role of Hedgehog Signaling in Pulmonary Vascular Development and Remodeling	93.838		-1K08-HL-121146-01A1	95,870		95,870
The role of lysophosphatidic acid signaling in lung ischemia/reperfusion injury	93.838		1 F32HL127972-01	6,687		6,687
The role of physician experience in outcomes of patients with acute respiratory failure	93.838		1-K08-HL-116771-01A1	114,282		114,282
TRAINING IN LUNG, CELL, AND MOLECULAR BIOLOGY	93.838		2-T32-HL-007748-16 REVISED	120,688		120,688
Training in Pulmonary Immunology	93.838		2-T32-HL-007586-26	228,088		228,088
TSC signaling and pulmonary LAM	93.838		1-R01-HL-114085-01	454,975		454,975
Lung Repair and Regeneration Consortium Administrative (Project)	93.838	DUKE UNIVERSITY	203-9480		51,299	51,299
Probing the physics of chronic lung disease using microphysiological biomimicry	93.838		1-DP2-HL-127720-01	224,428		224,428
	SubTotal 93.838			12,866,891	805,553	13,672,444
Alpha-Defensins in perioperative thrombosis	93.839		1-R01-HL-123912-01A1	19,413		19,413
ALPHA-GLOBIN EXPRESSION: POST-TRANSCRIPTIONAL MECHANISMS	93.839		4-R37-HL-065449-10	-105		-105
Biochemistry of Leukemia Virus Core Binding Factor	93.839		2R01HL091724-20A1	676,899		676,899
Blood Systems Biology	93.839		1-R01-HL-103419-01	754,530		754,530
Combined HIF deficiency in inflammation-associated colorectal tumorigenesis	93.839		2-R01-HL-066310-14A1	500,514		500,514
Comparative Effectiveness of Enoxaparin vs. Dalteparin for Thromboprophylaxis After Trauma	93.839		1-F32-HL-124914-01	52,564		52,564
CYTOSKELETAL PLIABILITY WITHIN CELLS UNDER STRESS: RBCS AND MARROW-DERIVED SCs	93.839		2-R01-HL-062352-09A1	-3,174		-3,174
Easy-to-read informed consent for HCT Clinical Trial	93.839	MEDICAL COLLEGE OF WISCONSIN	SUB U10-HL069294-02		9,588	9,588
Ectopic Runx1 expression in non-hemogenic endothelium induces blood formation	93.839		1-F31-HL-120615-01	39,852		39,852
Genetic and Environmental Determinants of Warfarin Response	93.839	UNIVERSITY OF ALABAMA AT BIRMINGHAM	000308405-005		1,185	1,185
HEMATOLOGY CLINICAL RESEARCH TRAINING PROGRAM	93.839		2-T32-HL-007439-31	76,328		76,328
HEMATOLOGY CLINICAL RESEARCH TRAINING PROGRAM	93.839		2-T32-HL-007439-36	461,026		461,026
Lnk Regulatory Functions in Hematopoietic Stem Cells	93.839	CHILDREN'S HOSPITAL OF PHILADELPHIA	Sub to R01 HL095675		9,678	9,678
MANAGEMENT PRACTICES AND THE RISK OF INFECTIONS FOLLOWING CARDIAC SURGERY	93.839	MOUNT SINAI MEDICAL CENTER	0255-3102-4605		283	283
Migration of Hematopoietic Progenitors to the Thymus	93.839		1-R01-HL-110741-01	303,292		303,292
Nanoscience of 'Self' - Reductionist Approaches to hCD47 Inhibition of Phagocytes	93.839		1-R01-HL-124106-01	365,748		365,748
Novel Therapeutics for Acquired Thrombotic Thrombocytopenic Purpura	93.839	CHILDREN'S HOSPITAL OF PHILADELPHIA	320999 / PO #960696RSUB		14,014	14,014
Oral immune modulatory therapy using antigens bioencapsulated in plant cells	93.839		7-R01-HL-107904-03	387,477		387,477
Oral Therapy for Hemophilia A	93.839	UNIVERSITY OF FLORIDA	UF13086/00090658		160,037	160,037
Pathogeneiss and management of heparin-induced trombocytopeni	93.839	THOMAS JEFFERSON UNIVERSITY	080-18060-Z64601		147,462	147,462
Pathogenesis and Management of Heparin-Induced Thrombocytopenia	93.839	CHILDREN'S HOSPITAL OF PHILADELPHIA	330183-01-01/PO #960543RSUB		548,045	548,045
Pathogenesis and Management of Heparin-Induced Thrombocytopenia	93.839		330183-02-01/PO #960541RSUB		17,802	17,802
Pathogenesis and Management of Heparin-Induced Thrombocytopenia	93.839		330183-03-01/PO #960544RSUB		138,544	138,544
Platelet granule formation and function in health and disease	93.839	CHILDREN'S HOSPITAL OF PHILADELPHIA	321034		12,738	12,738
Platelet signals and their interface with external environment	93.839		1-P01-HL-120846-01A1	1,446,264		1,446,264
Post-Transcriptional controls in Mammalian Erythroid Differentiation	93.839		2-R01-HL-065449-15A1	242,669		242,669
PREDICTION OF WARFARIN DOSING USING CLINICAL AND GENETIC FACTORS	93.839		2-R01-HL-066176-06A1	108,443		108,443
Prevention and Management of Perioperative Pulmonary Embolism	93.839		1-R01-HL-116916-01	437,075		437,075
Project 1: Mechano-Dynamics of the Transition to Firm Adhesion and Motility in Neutrophils	93.839	UNIVERSITY OF ROCHESTER	415341-G		301,857	301,857
Proximal signaling complexes in NK cell effector function and development	93.839		1-R01-HL-107589-01	351,595		351,595
Regulating Hematopoietic Stem Cell Homeostasis through GSK-3	93.839		1-R01-HL-110806-01	495,415		495,415
Regulation of Platelet and Endothelial Cell Function	93.839		2-P01-HL-040387-26A1	2,092,583		2,092,583
Regulation of the early events of platelet activation	93.839		1-R01-HL-093123-01A1	335,803		335,803
Spatial regulation of platelet activation by Podooplanin-Clec2 signaling	93.839		1-R01-HL-121650-01A1	92,406		92,406

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
STRUCTURAL ORIGIN OF FIBRIN CLOT MECHANICAL PROPERTIES	93.839		1-R01-HL-090774-01A2	-2,127		-2,127
STRUCTURAL ORIGIN OF FIBRIN CLOT MECHANICAL PROPERTIES	93.839		2-R56-HL-090774-05A1	239,749		239,749
STRUCTURE/FUNCTION OF CBFbeta	93.839		7-R01-HL-089969-11A1	1,083		1,083
Subcellular mechanisms of platelet activation	93.839		1-R01-HL-119070-01	208		208
The role of pleckstrin & pleckstrin-2 in platelet biology.	93.839		2-R01-HL-083392-05	1,898		1,898
The role of the T cell receptor in regulatory T cell homeostasis and expansion	93.839		1-R01-HL-111501-01	332,614		332,614
Training grant in hemostasis and thrombosis	93.839		2-T32-HL-007971-11	462,452		462,452
TRANSFUSION MEDICINE RESEARCH TRAINING PROGRAM	93.839		2-T32-HL-007775-16	-90		-90
TRANSFUSION MEDICINE RESEARCH TRAINING PROGRAM	93.839		2-T32-HL-007775-21	138,337		138,337
TRANSFUSION/HEMOSTASIS CLINICAL RESEARCH NETWORK	93.839		5-U01-HL-072346-07	13,283		13,283
Mentored career development in clinical research in non-malignant hematology & transfusion medicine.	93.839		2-K12-HL-087064-06	290,041		290,041
Drug delivery by carrier erythrocytes	93.839		1-R01-HL-121134-01	678,240		678,240
Small Molecule Antagonists of PF4 for the treatment and prevention of HIT	93.839	FOX CHASE CHEMICAL DIVERSITY CENTER	Sub to 1-R41-HL-123126-01		43,115	43,115
SubTotal 93.839				11,392,305	1,404,348	12,796,653
A Clinical Trial for the Surgical Treatment of Elderly Distal Radius Fractures	93.846	UNIVERSITY OF MICHIGAN	R01AR062066		384	384
Adaption and Validation of PROMIS for use in Vasculitis	93.846		1-R01-AR-064153-01	316,217		316,217
Ahr and Osteoporosis	93.846	MOUNT SINAI MEDICAL CENTER	0255-7261-4609		266,852	266,852
Behavioral & Social Science Research on Understanding and Reducing Health Dispar	93.846		1-R01-AR-059615-01	320,299		320,299
Bone structure and strength recovery and the role of PTHrP post lactation	93.846		1-R03-AR-065145-01A1	83,619		83,619
BONE WATER AND MINERALIZATION MEASURED BY NUCLEAR MAGNETIC RESONANCE	93.846		1-R01-AR-050068-01	-185		-185
BONE WATER AND MINERALIZATION MEASURED BY NUCLEAR MAGNETIC RESONANCE	93.846		2-R01-AR-050068-05	76,790		76,790
CCRT and its ligands in Osteoarthritis	93.846		1-R21-AR-067916-01	31,721		31,721
Challenging Treatment Paradigms for Achilles Tendon Ruptures in an Animal Model	93.846		1-R01-AR-064216-01A1	350,773		350,773
Characterization of Myostatin and GDF-11	93.846	JOHNS HOPKINS UNIVERSITY	2001043562		-941	-941
CHARACTERIZATION OF NEURAL CREST STEM CELLS IN HUMAN HAIR FOLLICLES.	93.846		1-R01-AR-054593-01A2	103,466		103,466
Cloning and genetics of human pemphigus autoantibodies	93.846		2-R01-AR-052672-06	312,166		312,166
Computational Biomechanics for Prediction of Osteoporotic Vertebral Fracture Risk	93.846		1-K25-AR-060283-01	92,948		92,948
CORE CENTER	93.846		1-P30-AR-057217-01	45,587		45,587
Core Center for Musculoskeletal Disorders	93.846		2-P30-AR-050950-06	643,574		643,574
Defining Common Mechanisms of Autoimmunity in Pemphigus Vulgaris	93.846		1-F31-AR066456-01A1	24,586		24,586
DERMATOLOGY RESEARCH TRAINING GRANT	93.846		2-T32-AR007465-26	-9,378		-9,378
DERMATOLOGY RESEARCH TRAINING GRANT	93.846		2-T32-AR-007465-31	488,170		488,170
Diabetic Fracture Healing	93.846		1-R01-AR-060055-01A1	297,751		297,751
Disc Mechanics and Altered Loading in Degeneration	93.846	UNIVERSITY OF DELAWARE	27360			
Disruption of Osmoregulation Promotes Degenerative Disc Disease	93.846	THOMAS JEFFERSON UNIVERSITY	080-23000-S13301		107,666	107,666
DYNAMIC FIBROUS SCAFFOLDS FOR ENGINEERING DENSE CONNECTIVE TISSUES	93.846		1-R01-AR-056624-01A1	17,584	27,835	27,835
Dynamic Fibrous Scaffolds for Repairing Dense Connective Tissues	93.846		2-R01-AR-056624-06	256,168		256,168
Effect of Chronic Proton Pump Inhibitor Therapy on Bone Mineral Density and Bone	93.846		1-R01-AR-057102-01A1	608,845		608,845
EGFR signaling in growth plate development	93.846		1-R03-AR-060991-01A1	76,331		76,331
Exp regulated programs of alternative splicing in skin development and function	93.846		1-R01-AR-066741-01A1	35,374		35,374
Exp regulated programs of alternative splicing in skin development and function	93.846		1-R56-AR-066741-01	223,152		223,152
EXPERIMENTAL INDUCTION OF SLE BY ALTERED IA	93.846		2-R01-AR-034156-22A1	-96		-96
Failed Regeneration in the Muscular Dystrophies	93.846		2-U54-AR-052646-06	1,302,717		1,302,717
FILAGGRIN MUTATIONS AND THE PROGNOSIS OF ATOPIC DERMATITIS	93.846		1-R01-AR-056755-01	61,214		61,214
Fixation using Alternative Implants for the Treatment of Hip Fractures (FAITH)	93.846	UNIVERSITY OF MINNESOTA	N000188527		7,567	7,567
Glucocorticoid use and osteonecrosis in chronic pediatric inflammatory diseases	93.846		1-F32-AR-066461-01A1	54,590		54,590
Hair follicle neogenesis in response to wounding	93.846		2-R01-AR-055309-06A1	381,492		381,492
HDAC functions in skin development, renewal and disease	93.846		1-R01-AR-063146-01A1	326,201		326,201
Identification of Early Psoriatic Arthritis	93.846		1-K23-AR-063764-01A1	135,161		135,161
Injury Response in Normal and EDS Tendons: Regulatory Roles of Collagen V	93.846		1-R01-AR-065995-01	218,375		218,375
Intrinsic and extrinsic regulation of epidermal stem cells	93.846		1-R01-AR-066755-01	346,791		346,791
Magnetic Resonance Imaging and Biomarkers for Muscular Dystrophy	93.846	UNIVERSITY OF FLORIDA	UF10089		126,338	126,338
Mechanics and Performance of Traceable UHMWPE Implants	93.846	DREXEL UNIVERSITY	11012367		12,707	12,707
Mechanisms of Joint Damage Following Tendon Injury	93.846		1-R01-AR-056658-01A2	130,243		130,243
Mechanisms of Vertebral Bone Disease in Mucopolysaccharidosis VII	93.846		1-R03-AR-065142-01A1	77,528		77,528
Mechanisms Underlying Myostatin Regulation and Activity	93.846	JOHNS HOPKINS UNIVERSITY	2001045371		16,297	16,297
Migration of Skin Antibody Secreting Cells	93.846		1-F32-AR-062451-01A1	851		851
Modulation of Muscle Regeneration by Growth Factors	93.846		1-R01-AR-057363-01A1	25,781		25,781
Molecular Genetics of Progressive Osseous Heteroplasia	93.846		2-R01-AR-046831-09A1	317,836		317,836
Molecular regulation of osteoclast maturation	93.846		1-R01-AR-067726-01	78,295		78,295
Mouse Models for SLRP Roles in Tendon Aging and Impaired Healing in Aging	93.846		1-R01-AR-068057-01A1	21,292		21,292
MRI of Proximal Femur Microarchitecture as a Biomarker of Bone Quality	93.846	NEW YORK UNIVERSITY	14-A1-00-001693		36,831	36,831
NIAMS: CORT	93.846	BOSTON UNIVERSITY	4500001681		1,508	1,508
NOCICEPTIVE MECHANISMS IN WHIPLASH INJURY	93.846		1-R01-AR056288-01A1	90,274		90,274
Noninvasive Measurement of Intervertebral Disc Mechanics and MR Elastography	93.846	UNIVERSITY OF DELAWARE	27361		0	0
Notochordal Cell Derived Therapies for Painful Disc Degeneration	93.846	ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI	1 R01 AR064157-01A1		13,997	13,997
Osteoporosis treatment response assessed by micromechanical modeling of MRI data	93.846		2-R01-AR-055647-05	425,626		425,626
Pain and Stress Management for Fibromyalgia RCT	93.846	UNIVERSITY OF MICHIGAN	3001818099		29,179	29,179
Psoriasis and the risk of diabetes	93.846		1-K24-AR-064310-01	220,057		220,057
Racial Disparity in the Utilization of Joint Replacement for Osteoarthritis	93.846		2-K24-AR-055259-07	52,538		52,538
Racial Disparity in the Utilization of Joint Replacement for Osteoarthritis	93.846		7-K24-AR-055259-04	2,393		2,393
Regulation of T cell egress from inflamed skin	93.846		1-R01-AR-056730-01A1	2,482		2,482
Regulatory Mechanisms in Osteoclasts	93.846		1-R01-AR-055903-01A1	59,631		59,631
Relationships Between Autoimmune IgG1 and IgG4 Repertoires in Pemphigus Vulgaris	93.846		1-F30-AR065870-01	30,548		30,548
Role of autoantibody isotype in pemphigus pathogenesis	93.846		1-R01-AR-057001-01A2	230,110		230,110
Role of CCBE1 in lymphangiogenesis	93.846		1-K08-AR-061659-01	95,450		95,450
Role of local strain in osteogenic response to vibration therapy in humans	93.846		1-R03-AR-064577-01	69,028		69,028
Roles of Decorin and Biglycan in Cartilage Nanomechanics and Osteoarthritis	93.846	DREXEL UNIVERSITY	1-R21-AR-066824-01A1		1,245	1,245
Skin microbiome interactions with complement	93.846		1-R01-AR-066663-01A1	125,189		125,189
Stimulation of Tendon Repair by Retinoid Nuclear Receptor Agonists	93.846	CHILDREN'S HOSPITAL OF PHILADELPHIA	3210090615/PO #960855RSUB		14,403	14,403

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Structure and Function of Human Pemphigus Autoantibodies	93.846	UNIVERSITY OF FLORIDA	1-R56-AR-064220-01A1	366,908		366,908
The Cellular and Molecular Basis of FOP Lesions	93.846		2-R01-AR-041916-12	255,474		255,474
The Characteristics of Self-recognizing CD4 T Cells in Rheumatoid Arthritis	93.846		7-K08-AR-059760-05	125,039		125,039
The Microbiome of Impaired Wound Healing	93.846		4-R00-AR-060873-02	160,834		160,834
The Relationship Between Genomic Variants and MRI/MRS Markers in DMD	93.846		UF13216 / 00108122		-1,753	-1,753
The Toll-like receptor pathway in Meniscal Injury and Osteoarthritis	93.846		7-K08-AR-057859-04	121,840		121,840
Training in Muscle Biology and Muscle Disease	93.846		2-T32-AR-053461-06	199,946		199,946
Training in Musculoskeletal Research	93.846		2-T32-AR-007132-37	180,345		180,345
Training Program/Rheumatic Diseases	93.846		2-T32-AR-007442-26A1	331,805		331,805
Treatment of Dermatomyositis with ajulemic acid, a non-psychoactive cannabinoic	93.846		1-R21-AR-066286-01	5,056		5,056
Uncovering the Molecular Basis of Malignant Hyperthermia	93.846	UNIVERSITY OF CALIFORNIA, DAVIS	201223252-02		104,412	104,412
Understanding Appendage Regeneration in Mice	93.846		7-K08-AR-066661-01	35,640		35,640
Vasculitis Clinical Research Consortium	93.846		2-U54-AR-057319-12	775,945		775,945
Vasculitis Clinical Research Consortium	93.846		7-U54-AR-057319-09	367,106		367,106
WNT Signals in Skin and Hair Development and Hair Growth	93.846		2-R37-AR-047709-11	236,531		236,531
Synergistic Molecule Delivery Using Hydrogels for BoneTissue Repair	93.846		1-F32-AR-063598-01A1	51,234		51,234
R-Spondin-2 modulates Wnt signaling to increase bone mass	93.846		1-F31-AR-065858-01	3,746		3,746
Integrative Analysis of Genomic Risk Factors in Juvenile Idiopathic Arthritis	93.846		1-F30-AR-066486-01	39,125		39,125
	SubTotal 93.846			12,533,729	764,527	13,298,256
A Multi-Center Group to Study Acute Liver Failure	93.847	UNIVERSITY OF TEXAS GEORGE WASHINGTON UNIVERSITY	2-U01-DK058369-11/GMO-111130		158,924	158,924
A Multi-Center Tamsulosin for Ureteral Stones in the Emergency Department	93.847		12-M84R		-2,367	-2,367
A population-based cohort to study outcomes in end-stage liver disease patients	93.847		1-K08-DK-098272-01A1	174,616		174,616
A Randomized Trial of Incentives and Peer Mentors to Improve Diabetic Outcomes	93.847		1-R01-DK-087874-01	240,772		240,772
A vascularized 3D biomimetic for islet function and physiology	93.847		1-UC4-DK-104196-01	663,404		663,404
Acceptance-Based Behavioral Treatment for Obesity: Maintenance and Mechanisms	93.847	DREXEL UNIVERSITY	232538		60	60
Access to liver transplantation for patients with primary sclerosing cholangitis	93.847		1-F32-DK-089694-01	-630		-630
Acute Adipose Inflammation as a Contributor to Acute Kidney Injury After Trauma	93.847		1-K23-DK-097307-01	172,844		172,844
Adolescent Bariatrics: Controlled Longitudinal Study of Psychosocial Development	93.847	CINCINNATI CHILDREN'S HOSPITAL MEDICAL CENTER	104330 / PO #3100144313		0	0
Adult to Adult Living Donor Liver Transplantation Cohort Study(A2ALL)(U01)	93.847		2-U01-DK-062494-08	82,458		82,458
Age, functional status, and survival benefit from kidney transplantation	93.847		1-R01-DK-090388-01A1	236,686		236,686
Algorithms to identify non-coding mutational burden and disease-relevant pathways	93.847		1-R01-DK-101478-02	210,135		210,135
Amylin-mediated control of energy balance in the mesolimbic reward system	93.847		1-R01-DK-103804-01	120,084		120,084
An integrative approach to construct a regulatory network effected by TDZs	93.847		1-R21-DK-098769-01	189,418		189,418
ATF5 in the developing pancreas and survival functions in the mature beta cell	93.847		1-F32-DK103454-01	51,876		51,876
Atypical antipsychotics:effects on hepatic glucose and lipid metabolism in human	93.847		7-R01-DK-084383-05	-22		-22
Beta Cell Regeneration by an Epigenetic Pathway	93.847		1-R01-DK-097555-01A1	391,891		391,891
Biochemistry and genetics of iron transport in mitochondria and related processes	93.847		4-R37-DK-053953-16	365,175		365,175
Biology of the Orphan Receptor Rev-Erb Alpha	93.847	UNIVERSITY OF TEXAS UNIVERSITY OF WASHINGTON	2-R01-DK-045586-19	450,152		450,152
Biophysical Properties of Renal Glomeruli and Podocytes	93.847		GMOJ40908 / RGC0000000436		12,916	12,916
Blood Pressure in Advanced Chronic Kidney Disease	93.847		754860		8,834	8,834
Catalytic Independent Functions of Histone Deacetylase 3 in Metabolism	93.847		1-F32-DK-102284-01	54,271		54,271
Cellular models of microvillus inclusion disease	93.847		1-R21-DK-096463-01	12,212		12,212
Center for digestive and liver diseases	93.847		2-P30-DK-050306-16	990,313		990,313
Changes in neural response to eating after bariatric surgery: MRI results	93.847		1-R01-DK085615-01	394,951		394,951
Chronic Kidney Disease (CKD) Biomarkers Consortium Data Coordinating Center	93.847		1-U01-DK-103225-01	191,955		191,955
Clinical epidemiology training in gastroenterology	93.847		2-T32-DK-007740-16	292,106		292,106
Clinical Islet Transplantation: Data Coordinating Center Limited Competition: Continuation of Clinical Islet Transplantation (CIT) Consortium (U01) B-Lymphocyte	93.847		W000556998/ PO #1001122467		108,174	108,174
Clinical Research Training in Kidney Disease	93.847	NORTHERN CALIFORNIA INSTITUTE FOR RESEARCH AND EDUCATION UNIVERSITY OF IOWA	2-T32-DK-007785-11	52,880		52,880
Cognitive Decline in Chronic Renal Insufficiency	93.847		YAF1637-02 / 081782		46,471	46,471
Continuation of Clinical Islet Transplantation Consortium: Data Coordinating Center	93.847		PO #1001235745/W000521064		9,801	9,801
CONTINUATION OF THE CHRONIC RENAL INSUFFICIENCY COHORT (CRIC) STUDY	93.847		2-U01-DK-060990-08	-1,768		-1,768
CONTINUATION OF THE CHRONIC RENAL INSUFFICIENCY COHORT (CRIC) STUDY	93.847		2-U01-DK-060990-13	3,120,008		3,120,008
Control of Brown Adipose Physiology Via Genomic Recruitment of Histone Deacetylase 3	93.847		1-F30-DK-104513-01	42,111		42,111
Coordinating Center for Beta Cell Biology Consortium aka "EPConDB Group" aka "Bioinformatics"	93.847		VUMC-33758		310,030	310,030
Cyclin D1/CDK4 Complex in Hepatocyte Proliferation	93.847		07267-2		34,457	34,457
Data Coordinating Center for Hemodialysis Pilot Studies Consortium	93.847		1-U01-DK-099919-01	669,322		669,322
Determinants of Hemodialysis AV Fistula Maturation	93.847		7-U01-DK-082232-05	44,752		44,752
Determination of myeloid cell subpopulations during intestinal cell invasion	93.847	GEORGIA REGENTS UNIVERSITY	1-F32-DK-101166-01A1	63,022		63,022
Determining the function of Trim58 in terminal erythropoiesis	93.847		1-F30-DK-102291-01	43,341		43,341
Diabetes, Endocrine and Metabolic Disease	93.847		2-T32-DK-007314-31	274,263		274,263
DiaComp Pilot and Feasibility Study The Epigenome Maps of Human Diabetic Kidney Disease	93.847		25732-29		60,570	60,570
Dietary Patterns and the Course of Inflammatory Bowel Disease	93.847		2-K24-DK-078228-06	156,902		156,902
Do Patient Safety Events Account for Adverse Outcomes in CKD?	93.847		SR00002162		15,594	15,594
Does a New Supermarket Improve the Diet and Food Environment of Residents	93.847		Sub to NIH ADV ACCT		22,305	22,305
Does geographic access to care impact pediatric ESRD outcomes?	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA		25,038	25,038
Drug-Drug Interactions Involving Antidiabetic Agents	93.847		1-R01-DK-102694-01	454,965		454,965
Dynamic Hydrogels for Probing Hepatic Stellate Cell Behavior During Fibrosis	93.847		1-F32-DK103463-01	49,674		49,674
Eating Phenotypes for Childhood Obesity in the Context of Familial Obesity Risk	93.847	UNIVERSITY OF CALIFORNIA - SAN FRANCISCO CHILDREN'S HOSPITAL OF PHILADELPHIA UNIVERSITY OF MINNESOTA CASE WESTERN RESERVE UNIVERSITY	1-R01-DK-101480-01A1	212,411		212,411
Enhancing appreciation of the clinical significance of acute kidney injury	93.847		8233sc		16,185	16,185
EP-BETA: Endodermal Progenitor-Derived Beta C	93.847		FP14249_SUB01_01/PO #960610RSUB		24,398	24,398
Epidemiology and Pathophysiology of Elevated Nighttime Blood Pressure in CKD	93.847		N003151601		1,663	1,663
Epidemiology of Diabetes Interventions and Complications (EDIC)	93.847		RES507516		156,314	156,314
Epigenetic Landscape of Chronic Kidney Disease	93.847		2-R01-DK-087635-06	354,754		354,754
Epigenetic regulation of intestinal homeostasis	93.847		1-K08-DK-093784-01	1,175		1,175
Epigenetic Rejuvenation of Human Beta-Cells	93.847		1-UC4-DK-104119-01	696,591		696,591
Epigenetic Strategies for the In Vitro Generation of Replacement Beta Cells	93.847		PO #10313247 - SUB		22,491	22,491
Epigenetics Landscape of Chronic Kidney Disease	93.847		7-R01-DK-087635-04	41,495		41,495
Epigenomic Profiling of Normal and Diabetic Pancreatic Beta-Cells	93.847	UNIVERSITY OF CALIFORNIA-SAN DIEGO	1-R01-DK-088383-01	5,734		5,734
Epigenomic regulation of metabolism in muscle by circadian clock and environmen	93.847		1-K99-DK-099443-01	8,514		8,514
Epigenomics of the regenerating and aging beta-cell.	93.847		1-U01-DK-089529-01	6,650		6,650

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
ESRP Regulated Alternative Splicing in EMT/MET and Kidney Development	93.847		1-F32-DK-098917-01	53,258		53,258
Evaluation of Entero-Insular (Incretin) Axis in Cystic Fibrosis	93.847	CHILDREN'S HOSPITAL OF PHILADELPHIA	320981 / PO #960506RSUB		242,509	242,509
FGF-23 and Cardiovascular Disease in CKD	93.847	NORTHWESTERN UNIVERSITY	60036902 UP		216,182	216,182
FGF-23 and clinical outcomes in ADPKD patients	93.847	NORTHWESTERN UNIVERSITY	60037057 UP		14,937	14,937
Formation of endocrine pancreas progenitors	93.847		1-U01-DK-089540-01	672,436		672,436
Fractalkine in adipose inflammation and insulin resistance	93.847		1-R01-DK-090505-01A1	432,065		432,065
Fuel Metabolism and Insulin Secretion in KATP-Hyperinsulinism Human Islets	93.847	CHILDREN'S HOSPITAL OF PHILADELPHIA	321019 / PO #960980RSUB		40,914	40,914
Fuel Metabolism and Insulin Secretion in KATP-Hyperinsulinism Human Islets	93.847		321019 / PO #960981RSUB		49,200	49,200
Function and Specificity of Thiazolidinedione Induced eRNAs	93.847		1-F32-DK-098839-01	37,701		37,701
Gender and hormonal influences on liver fibrosis after transplant for hepatitis C	93.847		1-K23-DK-090209-01A1	188,418		188,418
Gene Therapy for Mucopolysaccharidosis	93.847		2-R01-DK054481-18A1	502,726		502,726
Genetic Control of Pancreatic Endocrine Cell Development	93.847	VANDERBILT UNIVERSITY	VUMC 37462		45,696	45,696
Global programs of ESRP-regulated splicing in renal development and function	93.847		1-R56-DK-097257-01	0		0
Glucagon-like peptide-1 in brainstem integration of energy balance control	93.847		1-F32-DK-097954-01A1	8,933		8,933
Glucose Counterregulation in Long Standing Type 1 Diabetes	93.847		1-R01-DK-091331-01	350,700		350,700
Health Disparities in Chronic Kidney Disease	93.847	UNIVERSITY OF ILLINOIS	2011-06727-01-00		9,871	9,871
Health Literacy in Hispanics with Chronic Kidney Disease	93.847	UNIVERSITY OF ILLINOIS	2012-00004-01-00		14,306	14,306
Hearing Impairment in Long-Term Type 1 Diabetes	93.847	CASE WESTERN RESERVE UNIVERSITY	RES508603		22,005	22,005
HEMATOPOIESIS TRAINING GRANT	93.847		2-T32-DK-007780-11	66,622		66,622
HEMATOPOIESIS TRAINING GRANT	93.847		2-T32-DK-007780-16	216,607		216,607
Hispanic Chronic Renal Insufficiency Cohort (CRIC) Study	93.847	UNIVERSITY OF ILLINOIS	489983 E3922		206,796	206,796
Histone/Protein Deacetylase Inhibitors Minimize Renal Ischemia-Reperfusion Injury	93.847		1-K08-DK-092282-01	139,995		139,995
Human Hematopoietic Stem Cell Center of Excellence	93.847	CHILDREN'S HOSPITAL OF PHILADELPHIA	320901-01-04 / PO #950999RSUB		167,146	167,146
Human Hematopoietic Stem Cell Center of Excellence	93.847		320905-01-02 / PO #950997RSUB		207,493	207,493
Human Hematopoietic Stem Cell Center of Excellence	93.847		320905-07-01/PO #951186RSUB		85,413	85,413
IMAGING AGENTS FOR BETA CELL MASS OF PANCREAS	93.847		1-R01-DK-081342-01A2	126,581		126,581
IMMUNE REGULATION AND CO-STIMULATION IN TREATMENT OUTCOME OF CHRONIC HEPATITIS B	93.847		5-U01-DK-082866-06	322,183		322,183
IMPROVING THE EFFECTIVENESS OF OBESITY MANAGEMENT	93.847		2-K24-DK-065018-06	83,282		83,282
Innovative Genetic Approaches for Hepatic Repopulation	93.847		1-R01-DK-102667-01A1	115,988		115,988
Insulin regulation of glucose metabolism independent of hepatic Akt	93.847		1-F32-DK-101175-01	47,690		47,690
Integration of Feeding and Glucose Metabolism by the Circadian Gene Network	93.847	NORTHWESTERN UNIVERSITY	60028766 UP		48,992	48,992
Integrative metabolic adaptions to environmental and nutritional challenges	93.847		2-P01-DK-049210-16A1	1,986,119		1,986,119
Integrative Nutrigenomic and Metabolomic Analyses of Africans with Variable Diets	93.847		1-R01-DK-104339-1	112,000		112,000
Investigating the role of Pdx1 in coordinating translational regulation in pancreatic beta cells	93.847		1-F30-DK-105758-01	7,500		7,500
Is there a digital divide in chronic kidney disease (CKD)	93.847	DUKE UNIVERSITY	Sub to 1-K23-DK-099385-01A1		10,034	10,034
Islet Dysregulation in infants with Congenital Hyperinsulinism	93.847	CHILDREN'S HOSPITAL OF PHILADELPHIA	Sub to CHOP (NIH)		65,273	65,273
Isolation, Identification and Characterization of a Toxin Causing Biliary Atresia	93.847		1-R01-DK-092111-01A1	504,859		504,859
Limited Competition of the MAPP Research Network Data Coordinating Core (U01)	93.847		2-U01-DK-082316-06	474,980		474,980
Link of beta cell proliferation and type 2 diabetes to epigenetic regulation	93.847		1-R01-DK-085121-01A1	165,600		165,600
LOOK AHEAD: ACTION FOR HEALTH IN DIABETES	93.847		2-U01-DK-057135-08	0		0
Look AHEAD: Action for Health in Diabetes	93.847		2-U01-DK-057135-15	695,682		695,682
MAPP Research Network	93.847		2-U01-DK-082316-07	916,273		916,273
Mechanisms by which IUGR Leads to Diabetes	93.847		2-R01-DK-055704-09A2	160,817		160,817
Mechanisms by which Obesity in Pregnancy Leads to Obesity in Offspring	93.847		1-R01-DK078761-01A2	204,782		204,782
MECHANISMS OF BILE DUCT MORPHOGENESIS	93.847		1-R01-DK-083355-01	69,364		69,364
Mediators & Prognostic Value of Muscle Mass & Function in Chronic Kidney Disease	93.847	YALE UNIVERSITY	M15A12103(A10152		7,998	7,998
Metabolic defects in mice with adipocyte-specific deletion of Akt2	93.847		1-F30-DK-100123-01	26,602		26,602
Methotrexate Response in Treatment of UC - MERIT-UC	93.847	UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL	5-31690		601	601
Methotrexate Response In Treatment of UC-Merit	93.847	UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL	5-31695		163,889	163,889
Microvascular disease, statins, ACE-inhibitors and post-operative SBO	93.847		1-K08-DK-095951-01	132,266		132,266
MIND the Kidneys	93.847	STANFORD UNIVERSITY	60120672-51126-B		98,897	98,897
MIND the Kidneys	93.847		60233474-51126-G		14,320	14,320
Models for Optimal Liver Transplant Outcomes	93.847	STANFORD UNIVERSITY	60896108-116817		78,943	78,943
Modifiable and Biochemical Predictors and Consequences of Acute Kidney Injury	93.847		1-K01-DK-092353-01	147,568		147,568
Molecular basis of atypical antipsychotic drugs-induced weight gain	93.847		1-R01-DK-084336-01A1	244,491		244,491
MOLECULAR THERAPY FOR CF AND GENETIC DISEASES	93.847		2-P30-DK-047757-16	813,979		813,979
Molecular Therapy for Cystic Fibrosis	93.847		2-P30-DK-047757-21	99,719		99,719
Myoic Participates in Podocyte Junction Formation Through Interaction with Nephi	93.847		1-R01-DK-087956-01	150,715		150,715
Nephrotic Syndrome Rare Disease Clinical Research Network	93.847	UNIVERSITY OF MICHIGAN	3001310646		-1	-1
Nephrotic Syndrome Rare Disease Clinical Research Network	93.847		PO #3001321364		22,036	22,036
Nephrotic Syndrome Rare Disease Clinical Research Network II	93.847	UNIVERSITY OF MICHIGAN	3003289619		28,033	28,033
Net Acid Excretion and Morbidity in CKD	93.847	DUKE UNIVERSITY	3020704		6,054	6,054
Neural hierarchy in the modulation of ingestive behavior	93.847		2-R01-DK-021397-36A1	515,411		515,411
Neural mechanism of glucagon-like-peptide-1 receptor-mediated nausea /malaise	93.847		1-R03-DK-093874-01	214		214
Neuroendocrinology of energy balance control: role of glucagon-like-peptide-1	93.847		1-K01-DK-085435-01	-85		-85
Neurogenic bladder dysfunctions in neurological disorders	93.847		1-P20-DK-097819-01	75,166		75,166
Neuronal Protein Tyrosine Phosphatases in Metabolism	93.847		1-R01-DK-082417-01A1	32,321		32,321
Neuronal Protein Tyrosine Phosphatases in Metabolism	93.847		2-R01-DK-082417-06A1	239,463		239,463
Noninvasive subharmonic aided pressure estimation of portal hypertension	93.847	THOMAS JEFFERSON UNIVERSITY	080-30000-S09201		69,596	69,596
Non-Neoplastic Replication to Expand Functional Beta-Cell Mass (NORM)	93.847	VANDERBILT UNIVERSITY	VUMC 38846		31,996	31,996
Novel Biomarker Validation and Dosing Algorithms for Anemia Management in ESRD	93.847	UNIVERSITY OF LOUISVILLE	OICB111041z03		35,038	35,038
Novel Kidney Injury Tools in Deceased Organ Donation to Predict Graft Outcome	93.847	YALE UNIVERSITY	M13A11472 (A08744)		78,725	78,725
Novel Paradigm to Understand Diabetic Complications	93.847	UNIVERSITY OF CALIFORNIA-SAN DIEGO	PO# 10321145 - SUB		23,146	23,146
Novel Sources of Transplantable Beta-Cell Replacements	93.847	OREGON HEALTH SCIENCES UNIVERSITY	APEDI0535 UPA		6,594	6,594
Nuclear hormone receptors in adipocyte differentiation	93.847		2-R01-DK-049780-18	377,160		377,160
Obesity, renin-angiotensin-aldosterone blockade, and chronic kidney disease	93.847		1-F32-DK-103484-01	92,709		92,709
Pathophysiological role of Prorenin in CKD	93.847	UNIVERSITY OF UTAH	10030258-00		72,187	72,187
Patient Oriented Research in Kidney Disease	93.847	UNIVERSITY OF CALIFORNIA - SAN FRANCISCO	7521SC		5,284	5,284
Performance of Vitamin D - Binding Protein (DBP) ELISA by Genotype: Validation Using Mass Spectrometry	93.847	STANFORD UNIVERSITY	Sub to K24 NIH Award ADV ACCT		12,267	12,267
Prenatal Conditions and the Pathway to Obesity and Diabetes in Children	93.847	UNIVERSITY OF OKLAHOMA	RS20100590-06		16,000	16,000
Prospective renal insufficiency cohort evaluation: PRICE	93.847		2-U01-DK-060984-13	733,046		733,046

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
Pulse wave velocity in chronic kidney diseases	93.847		2-R01-DK-067390-06A1	243,598		243,598
Randomized study of daytime vs. delayed eating: Effect on weight and metabolism	93.847		1-R21-DK-100787-01	141,888		141,888
Redox sensitive factors that regulate tissue architecture in the intestine	93.847		2-R56-DK-054942-10	-28,889		-28,889
Regulation and function of the MEG3 locus in human beta-cells	93.847		2-R01-DK-088383-05	711,026		711,026
Regulation of brown and beige adipocyte development through Ebf2	93.847		1-R01-DK-103008-01	310,978		310,978
Regulation of differentiation in esophageal epithelia	93.847		2-R01-DK-066984-06A1	221,136		221,136
Regulation of esophageal gene expression and function by KLF5 and p53	93.847		1-R01-DK-101294-01	380,455		380,455
Regulation of Host Nitrogen Balance by the Gut Microbiome	93.847		1-R01-DK-089472-01	27,094		27,094
Regulation of T cell differentiation during enteric viral infection	93.847		1-K08-DK-097301-01	163,146		163,146
Regulatory cascades in gastrointestinal proliferation	93.847		2-R37-DK-053839-15	413,654		413,654
RENAL AND UROLOGIC BIOSTATISTICS TRAINING GRANT	93.847		2-T32-DK-060455-06A1	-13,983		-13,983
Renal Research Training Program	93.847		2-T32-DK-007006-37	421,203		421,203
Renin-Angiotensin-Aldosterone System and Cardiac Arrhythmias In People with Chronic Kidney Disease	93.847		1-K23-DK-089118-01	50,296		50,296
RISK AND RISK PREFERENCES FOR SURGERY AND MEDICAL THERAP	93.847		1-K08-DK-084347-01	2,546		2,546
Role of EGFR signaling in bone formation and the anabolic actions of PTH	93.847		1-R01-DK-095803-01A1	406,563		406,563
Role of IMP-1 and let-7 miRNAs in normal intestinal growth and colorectal cancer	93.847		1-F32-DK-093207-01	-1,945		-1,945
Role of LIN28B in the regulation of intestinal epithelial growth	93.847		11-K01-DK-093885-01A1	9,894		9,894
Role of the Notch Pathway in Kidney Injury	93.847		2-R01-DK-076077-06	409,465		409,465
Role of tissue resident eosinophils in promoting intestinal immunity	93.847		1-F30-DK-094708-01	10,512		10,512
Selective and Future Ignorability in Causal Inference	93.847		1-R01-DK-090385-01	249,849		249,849
Skeletal development and the hematopoietic niche	93.847		1-R01-DK-088334-01A1	312,815		312,815
Slit Diaphragm and Actin Dynamics	93.847		2-R01-DK-080751-07	459,348		459,348
Stem Cell Mobilization and Diabetic Skin Ulcers	93.847	UNIVERSITY OF MARYLAND	8875		313,652	313,652
suPAR in Diabetic Complications: Establishing a suPAR Overexpressing Mouse Model	93.847	GEORGIA HEALTH SCIENCES UNIVERSITY	25034-20		-592	-592
Targeting NAD Metabolism to Improve Glucose Homeostasis in Obesity and Aging	93.847		1-R01-DK-098656-01A1	567,536		567,536
TGF-beta, matrix, and myofibroblasts in hepatic fibrosis	93.847		2-R01-DK-058123-11A1	309,902		309,902
The Impact of Healthy Food Marketing Strategies In Supermarkets	93.847		1-R01-DK-101629-01A1	134,318		134,318
The intestinal stem cell niche	93.847		1-U01-DK-085551-01	113,341		113,341
The LIN28b-Let7 axis in intestinal epithelial biology	93.847		2-R01-DK-056645-14A1	195,901		195,901
The LIN28b-Let7 axis in intestinal epithelial biology	93.847		2-R56-DK-056645-14	102,047		102,047
The Prxr-1 transcription factor in pancreatic ductal biology	93.847		2-R01-DK-060694-11	168,583		168,583
The regulation of adipocyte lipolysis by insulin	93.847		1-R01-DK-093959-01	98,798		98,798
The role of FoxI1 in the differentiation of hepatocytes and cholangiocytes	93.847		1-F32-DK-104592-01	29,256		29,256
The role of IMP1 mRNA binding protein in intestinal epithelial biology	93.847		1-K01-DK-100485-01A1	100,046		100,046
The role of microenvironment in esophageal epithelial homeostasis	93.847		1-K99-DK-094977-01A1	66,870		66,870
The role of Prdm16 in maintaining small intestinal crypt integrity	93.847		1-F32-DK-105743-01	4,094		4,094
The role of the Akt/PKB signaling in insulin action	93.847		5-R01-DK-056886-12	252,728		252,728
The role of the tyrosine kinase tyk2 in regulation of obesity	93.847	VIRGINIA COMMONWEALTH UNIVERSITY	PD303498-SC105185		14,686	14,686
THE ROLE OF TISSUE-SPECIFIC GENE REGULATORY NETWORKS IN METABOLIC DISEASE	93.847		1-F32-DK-095526-01	8,630		8,630
THYROID HORMONE RECEPTORS - REGULATION AND FUNCTION	93.847		2-R37-DK-043806-18	-13,646		-13,646
THYROID HORMONE RECEPTORS - REGULATION AND FUNCTION	93.847		4-R37-DK-043806-23	597,035		597,035
Toll-like receptor signaling in the esophageal epithelium	93.847	CHILDREN'S HOSPITAL OF PHILADELPHIA	PO 4961190-RSUB		118,745	118,745
Training Program in Gastrointestinal Sciences	93.847		2-T32-DK-007066-36	446,400		446,400
Transcriptional and epigenomic control of adipose tissue development and function	93.847		1-R01-DK-098542-01	344,618		344,618
Transcriptional control of pancreatic development	93.847		2-R01-DK-055342-11	-6,194		-6,194
Transcriptional coregulators in pancreas development	93.847		2-R01-DK-068157-06	221,141		221,141
Translating human PPARγ binding regions to gene regulation and metabolic disease	93.847		1-K08-DK-094968-01	134,102		134,102
Undergraduate Training in Gastrointestinal Sciences	93.847		2-R25-DK066028-06	5,790		5,790
Undergraduate Training in Gastrointestinal Sciences	93.847		2-R25-DK-066028-11	105,061		105,061
Understanding Success Factors for African Americans in Weight Loss Programs	93.847		1-R21-DK-089422-01	-2,700		-2,700
Underutilization of Home Hemodialysis	93.847		1-F32-DK101156-01	62,222		62,222
University of Pennsylvania Diabetes Research Center	93.847		2-P30-DK-019525-36	1,441,692		1,441,692
Uric Acid and Risk of Chronic Kidney Disease Progression	93.847		1-F32-DK-098914-01A	1,195		1,195
Validation of Novel CKD Biomarkers in CRIC	93.847	UNIVERSITY OF CALIFORNIA - SAN FRANCISCO	5972sc		445,545	445,545
Visceral adiposity and fitness among CRIC participants	93.847	CLEVELAND CLINIC	Sub to 1-R01-DK-101500-01A1		41,246	41,246
Visceral Adiposity and Physical Fitness in CKD	93.847	CLEVELAND CLINIC FOUNDATION	536-SUB		22,095	22,095
Vitamin D catabolism in chronic kidney disease	93.847	UNIVERSITY OF WASHINGTON	Sub to 1-R01-DK-099199-01A1		62,515	62,515
Action for Health in Diabetes Brain Magnetic Resonance Imaging Ancillary Study	93.847	WAKE FOREST UNIVERSITY	WFUHS 10475		185,565	185,565
Neuroendocrinology of energy balance control	93.847		1-R01-DK-096139-01A1	350,310		350,310
Primary Outcomes in Glomerulonephritis Study (PROGRESS)	93.847		1-UM1-DK-100846-01	848,696		848,696
Gender Disparities and Vascular Function in Chronic Kidney Disease Outcomes	93.847	UNIVERSITY OF ILLINOIS	SUB TO 1-K23-DK-094829-01A1		11,555	11,555
SubTotal 93.847				35,513,790	4,465,240	39,979,030
97-107: RFA/SILVIO O. CONTE DIGESTIVE DISEASES RESEARCH CORE CENTERS DK-96-006	93.848		1-P30-DK-050306-01A1 PRIME	-16,304		-16,304
Colonoscopy Force Monitor Study	93.848	ARTANN LABORATORIES	sub to 5R44 DK068936-05		38,296	38,296
DIETARY INTAKE AND EATING BEHAVIOR IN ADOLESCENTS WHO UNDERGO BARIATRIC SURGERY	93.848		1-R01-DK-080738-01-01REVISED	18,663		18,663
SubTotal 93.848				2,359	38,296	40,655
CROSS-SENSITIZATION IN THE PELVIS AND NEUROGENIC BLADDER	93.849		7-R01-DK-077699-02	2,295		2,295
MOLECULAR PREDICTORS OF PROGRESSIVE RENAL FAILURE IN THE CHRONIC RENAL INSUFFICIENCY COHORT	93.849	UNIVERSITY OF MICHIGAN	3001066273		0	0
SubTotal 93.849				2,295	0	2,295
A Collaborative Center for the PD Neuroprotection Trial	93.853		2-U10-NS-044451-11	45,083		45,083
A critical period of sleep required for normal brain development	93.853		1-K08-NS-090461-01	120,223		120,223
A Longitudinal Multi-Modal Neuroimaging Investigation of Functional Recovery After Diffuse Traumatic Brain Injury	93.853	MOSS REHABILITATION RESEARCH INSTITUTE	SUB TO 1-R01-NS065980-01A2		135,376	135,376
A Novel Method for Glutamate Imaging	93.853		1-R01-NS-087516-01	274,009		274,009
Achieving Success for Women & Academic Medicine: A Randomized Multi-level Trial	93.853		1-R01-NS-069793-01 REVISED	33,211		33,211
Alpha synuclein oligomer toxicity and the pathogenic interaction with dopamine	93.853		1-F31-NS-087779-01A1	23,724		23,724
Antihypertensive Treatment of Acute Cerebral Hemorrhage (Atach II)	93.853	UNIVERSITY OF MINNESOTA	N936909 subto 1-U01-NS-062091-01A1		770	770
Ataxin-2 as a genetic risk factor for ALS: New insights into neurodegeneration	93.853		1-R01-NS-073660-01A1	350,209		350,209
Autoimmune Mechanisms in a Novel Aire-Deficient Model of Peripheral Neuropathy	93.853	UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL	5-33303		18,214	18,214

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
Bidirectional Brain Computer Interface for the Restoration of Grip	93.853	MASSACHUSETTS GENERAL HOSPITAL	220901		-182	-182
Brain HIV-1 Isolates/Envelopes: CD4 Dependence, Fusogenicity and Neurotoxicity	93.853	DREXEL UNIVERSITY	232397		1,992	1,992
Brain Injury Training Grant	93.853		2-T32-NS-043126-11	222,799		222,799
CELL BIOLOGY AND DYSFUNCTION IN POLYGLUTAMINE DISEASES	93.853		1-R01-NS-042625-01	-15,410		-15,410
Cellular and molecular control of sleep during the immune response in Drosophila	93.853		1-R21-NS-078582-01	150,456		150,456
Circuit Contributions of Adult and Seizure-Induced Neurogenesis in the Dentate Gyrus	93.853		1-F31-NS-080403-01A1	31,328		31,328
Controlling neural circuits with single-cell resolution in behaving animals	93.853		1-R01-NS-084835-01	355,102		355,102
Cortical Synaptic Balance and Gamma-band Activity After Traumatic Brain Injury	93.853		1-F31-NS-083243-01A1	39,964		39,964
Cycling in a circadian circuit	93.853		2-R37-NS-048471-10	105,703		105,703
Cycling of circadian rhythm proteins	93.853		2-R01-NS-048471-06A1	175,005		175,005
Detection and Mechanisms of Mild Traumatic Brain Injury	93.853		1-R01-NS-092398-01	20,584		20,584
Detection of Cerebral Ischemia With a Noninvasive Neurometabolic Optical Monitor	93.853		1-R01-NS-082309-01A1	481,420		481,420
Developmental endothelial locus-1 (Del-1) is a hemostatic factor in thrombotic stroke	93.853		1-R21-NS-091793-01	41,464		41,464
Dictyostatin and related prodrgus as candidates for tauopathy treatment	93.853		1-R21-NS-087059-01A1	310,086		310,086
DIFFUSE OPTICS FOR ACUTE STROKE MANAGEMENT	93.853		1-R01-NS-060653-01A1	-11,813		-11,813
DIFFUSE OPTICS FOR ACUTE STROKE MANAGEMENT	93.853		2-R01-NS-060653-06	353,835		353,835
Dissecting the role of disease-associated variants in the regulation of TMEM106B	93.853		1-F31-NS-090892-01	24,469		24,469
Disseminated AAV Vector Transport in the Brain Via Neuronal Pathways	93.853	CHILDREN'S HOSPITAL OF PHILADELPHIA	20479-10-01 / PO #951200RSUB		105,740	105,740
Early Life Seizures Disrupt Critical Period Plasticity	93.853		1-R01-NS-080565-01A1	326,026		326,026
Effects of Apparent Body Size on Motor Function	93.853		1-R21-NS-089084-01A1	28,406		28,406
Effects of HIV- and ARV-Induced Oxidative Stress on Neuroglial Cells	93.853		1-F31-NS-079192-01A1	22,211		22,211
Endoplasmic reticulum quality control of mutant HexA enzyme in Tay-Sachs disease	93.853		1-F31-NS-084666-01	10,941		10,941
Epigenetic Changes associated with Neurodegenerative Diseases	93.853		1-R01-NS-078283-01	815,850		815,850
Epigenetic mechanisms of TDP43-mediated neurodegeneration	93.853		1-F32-NS-084667-01	53,533		53,533
Epigenetics In Neurodegenerative Disease: Targeting Histone Modifications in ALS	93.853		1-K22-NS-091314-01	21,050		21,050
Examining the role of neuronal injury in concussion-related cognitive dysfunction	93.853		1-F32-NS-083284-01A1	56,159		56,159
Expansion of intracranial hemorrhage by tPA after traumatic brain injury	93.853		1-R21-NS-080014-01A1	74,055		74,055
Extracellular Matrix Signaling in Axon Outgrowth and Regeneration	93.853		1-F31-NS-076197-01	5,664		5,664
Feasibility of Direct Quantitative Magnetic Resonance Imaging of Myelin	93.853		1-R21-NS-082953-01A1	145,805		145,805
Fibrin Structures and Lung Injury	93.853	CHILDREN'S HOSPITAL OF PHILADELPHIA	320926 / 951148RSUB		31,991	31,991
Fibrin Structures and Lung Injury	93.853		320926 / 951196RSUB		94,984	94,984
FTD factor TMEM106B alters endolysosomal function and programin pathways	93.853		1-F31-NS-086428-01	16,055		16,055
Functional Brain Networks: A Novel Approach to Address Clinical Challenges in Parkinson's Disease	93.853	THE FEINSTEIN INSTITUTE FOR MEDICAL RESEARCH	50506UPENN / PO #GRT286170		48,084	48,084
Futility Study of Deferoxamine Mesylate in Intracerebral Hemorrhage (HI-DEF,	93.853	BETH ISRAEL MEDICAL CENTER	Sub to U01-NS-074425-01		275	275
GENE TRANSFER TO AND EXPRESSION IN NEURONS IN VIVO	93.853		2-R01-NS-029390-17A1	9,865		9,865
Greater Philadelphia-Southern New Jersey NETT Network	93.853		2-U10-NS-058960-06	342,971		342,971
GREATER-PHILADELPHIA-SOUTHERN NEW JERSEY NETT: PROTECT	93.853	UNIVERSITY OF MICHIGAN	3001300019-PIII		199,821	199,821
Identification neurons controlling sleep/wake in the nematode C. elegans	93.853		1-R21-NS-091500-01	39,635		39,635
Identification of Endophenotypes in the Behavioral-Variant of Frontotemporal Deme	93.853		1-K23-NS-088341-01	144,182		144,182
Identification, Development and Function of Rapidly Adapting Mechanoreceptors	93.853		4-R00-NS-069799-02	-2,414		-2,414
Inherited neuropathies consortium	93.853	UNIVERSITY OF IOWA	sub to U54-NS-065712		97,037	97,037
Inherited Neuropathies Consortium (RDCRC)	93.853	UNIVERSITY OF IOWA	W000381518/PO #1001056740		12,502	12,502
Interplay of the microbiome and the brain in neurodegenerative disease	93.853		1-R21-NS-088370-01	270,978		270,978
Intrathecal cyclodextrin therapy of feline Niemann-Pick type C disease	93.853		1-R01-NS-073661-01	296,411		296,411
Light-enabled identification of the neural substrates for alkylphenol anesthesia	93.853		1-F31-NS-080519-01	24,151		24,151
Long Term Study of Deep Brain Stimulation for Parkinson's Disease: A Longitudinal Study Follow-Up	93.853	CHICAGO ASSOCIATION FOR RESEARCH AND EDUCATION IN SCIENCE	CSP #468F		841	841
Mechanisms and modifiers of hnRNP A1 and hnRNP A2 misfolding and toxicity	93.853		1-F31-NS-087676-01A1	29,045		29,045
Mechanisms linking insulin resistance to brain structure, pathology, and function	93.853	RUSH UNIVERSITY	sub to 1-R01-NS-084965-01A1		302,851	302,851
Mechanisms of AMPA receptor-mediated activity-dependent development	93.853		5-F31-NS-077726-02	27,672		27,672
Mechanisms of autophagosome biogenesis and maturation in primary neurons	93.853		1-K99-NS-082619-01	59,558		59,558
Mechanisms of Caspr2 antibodies	93.853		1-K08-NS-075142-01A1	168,888		168,888
Mechanisms of Remodeling Circuit Connectivity After Traumatic Brain Injury	93.853		1-R01-NS-088176-01A1	173		173
Mechanisms of Remodeling Circuit Connectivity After Traumatic Brain Injury	93.853		1-R56-NS-088176-01	287,594		287,594
Mechanisms of Sema-1a dependent midline crossing in the Drosophila CNS	93.853		1-F31-NS-086340-01	42,157		42,157
MECHANISMS OF SLIT-ROUNDAABOUT MEDIATED AXON REPULSION	93.853		2-R01-NS-046333-06A1	8,859		8,859
Mechanistic analysis of axonal transport defects in neurodegenerative disease	93.853		2-R01-NS-060698-06A1	478,667		478,667
MENTORING AND RESEARCH IN TRANSLATIONAL NEUROIMAGING	93.853		1-K24-NS-058386-01A1	4,427		4,427
Metabolic Approaches to Friedreich Ataxia	93.853	CHILDREN'S HOSPITAL OF PHILADELPHIA	R21-NS087343		118,029	118,029
MILD TRAUMATIC BRAIN INJURY AND DIFFUSE AXONAL INJURY	93.853		1-P01-NS-056202-01A2 REVISED	55,626		55,626
Mitochondrial dynamics in astrocytic processes after transient ischemia	93.853		1-F31-NS-086255-01A1	41,839		41,839
Molecular Mechanisms Controlling Somatosensory Neuron Development	93.853		1-F31-NS-086168-01A1	42,681		42,681
Molecular mechanisms in controlling development of touch-sensing neurons	93.853		1-R01-NS-083702-01	406,016		406,016
Molecular, cellular and physiological mechanisms of the mammalian circadian clock	93.853		2-R01-NS-054794-06	535,851		535,851
MOTOR CIRCUIT MODULATION AND ITS REGULATION	93.853		2-R37-NS-029436-19	294,597		294,597
Murine coronavirus neurovirulence: role of type I interferon response	93.853		1-R01-NS-081008-01	432,493		432,493
Neural Basis of Generalized Quantifiers	93.853		2-R01-NS-044266-06A1	492,822		492,822
Neural representations of location and facing directions in the human brain	93.853		1-F31-NS-074729-01A1	3,635		3,635
Neurologic Clinical Epidemiology Training Grant	93.853		2-T32-NS-061779-06	200,589		200,589
Neuronal Circuit Mechanisms	93.853	CHILDREN'S HOSPITAL OF PHILADELPHIA	20459 / PO #960209RSUB		34,566	34,566
Neuropeptidergic regulation of sleep in C. elegans	93.853		1-R01-NS-088432-01A1	93,102		93,102
Neuroscience Neuroimaging Center	93.853		2-P30-NS-045839-11A1	794,289		794,289
NeuSTART II Study	93.853	COLUMBIA UNIVERSITY	6 (GG006906-11)		2,413	2,413
Nicotinic & dopaminergic mechanisms regulating in vivo plasticity	93.853		7-R01-NS-021229-29	501,275		501,275
Novel Therapies for Globoid Cell Leukodystrophy	93.853	WASHINGTON UNIVERSITY IN ST. LOUIS	WU-15-77		36,798	36,798
NTS neurons integrate leptin and satiation signals to influence reward signaling	93.853		1-F31-NS-084633-01A1	49,241		49,241
Optical study of secretion in mammalian nerve terminals	93.853		2-R01-NS-040966-08A1	491,466		491,466
Optogenetic approaches to neuromuscular synapse elimination	93.853		1-R21-NS-076899-01A1	12,905		12,905
Oxidative lipid stress in the brain	93.853		1-R01-NS-074178-01A1	372,862		372,862
Paraneoplastic Disorders of the CNS: Autoantigen Profiling	93.853		9-R01-NS-077851-05A2	245,267		245,267
Parkinson Disease Disparities and Outcomes	93.853		7-K23-NS-081087-02	180,277		180,277
Parkinson's Disease and Dementia	93.853		2-P50-NS-053488-06	1,873,949		1,873,949

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
Pathogenic Mechanisms of Reduced Transport Initiation in Perry Syndrome	93.853		1-F30-NS-092227-01	2,885		2,885
Pharmacotherapy to Counteract Parathion-Induced NMI Dysfunction	93.853	UNIVERSITY OF MASSACHUSETTS	1-U01-NS083452-01		225,019	225,019
Preclinical Cyclosporin A Therapy Trials for Pediatric TBI	93.853		1-U01-NS-069545-01A1	193,678		193,678
Predicting brain tumor progression via multiparametric image analysis and modelin	93.853		2-R01-NS-042645-11A1	402,600		402,600
Propagation of Lewy pathology in Parkinsons disease	93.853		1-R01-NS-088322-01A1	41,503		41,503
RECANALIZATION THERAPIES AND MARKERS OF STROKE OUTCOME (SPOTRIAS, STOP-IT)	93.853	UNIVERSITY OF CINCINNATI	SUB TO 2-P50-NS-044283-06		6,720	6,720
Regulation of Neuronal Excitability by Extracellular Calcium	93.853		1-R01-NS-074257-01	187,878		187,878
REGULATION OF SLEEP-LIKE BEHAVIOR IN C. ELEGANS	93.853		1-R01-NS-064030-01A1	123,933		123,933
RESEARCH TRAINING PROGRAM IN DISEASE-ORIENTED NEUROSCIENCE	93.853		1-R25-NS-065745-01	15,820		15,820
RESEARCH TRAINING PROGRAM IN DISEASE-ORIENTED NEUROSCIENCE	93.853		2-R25-NS-065745-06	74,162		74,162
Robo receptor signaling and regulation during axon guidance in Drosophila	93.853		2-R01-NS-046333-10A1	25,919		25,919
Role of DNA Damage in the Early Steps of HSV Infection and Latency in Neurons	93.853	CHILDREN'S HOSPITAL OF PHILADELPHIA	321012 / PO #690927RSUB		152,039	152,039
Schwann cell morphology and function in peripheral nerve regeneration	93.853		1-F31-NS-089250-01	42,713		42,713
Semi-synthetic a-Synuclein for Tracking Aggregation and Cell-to-Cell Transmission	93.853		1-R01-NS-081033-01	305,668		305,668
Sodium Leak Channels and Regulation by Neurotransmitters	93.853		2-R01-NS-055293-06A1	332,627		332,627
STATISTICAL ATLASES OF BRAIN TUMOR MRI: DO IMAGING PHENOTYPES PREDICT PROGRESSION?	93.853		2-R01-NS-042645-06A2	28,358		28,358
Statistical Methods for Large and Complex Databases of Ultra-High-Dimensional	93.853		1-R01-NS-085211-01	422,424		422,424
Studies using purified acetylcholine receptors	93.853		2-R01-NS-011323-35A2	-55,956		-55,956
SYSTEMIC MOLECULAR THERAPY FOR MUSCULAR DYSTROPHY	93.853		2-R01-NS-042874-06A2	267,222		267,222
TBI: Uncovering Mechanisms of AD-like pathology	93.853		2-R01-NS-038104-10A1	298,515		298,515
The Epilepsy Bioinformatics Study (EpiBioS)	93.853	UNIVERSITY OF CALIFORNIA-LOS ANGELES	1580 G QE281		53,440	53,440
The Epileptogenic Effect of Perinatal Hypoxia	93.853		2-R56-NS-031718-02A1	320,479		320,479
The Genetic Regulation and Disease Function of the Frontotemporal Dementia Protein TMEM106B	93.853		1-R01-NS-082265-01	302,478		302,478
THE INTERNATIONAL EPILEPSY ELECTROPHYSIOLOGY DATABASE	93.853		1-U24-NS-063930-01A1	810,451		810,451
The NKCC1 inhibitor bumetanide as a novel therapy in TSC	93.853		1-R21-NS-080268-01A1	37,952		37,952
The Philadelphia Regional Stroke Trials Network Coordinating Center (PRSTNCC)	93.853		1-U10-NS-086474-01	386,020		386,020
The Role of Connexin32 in the Pathogenesis of CMTX	93.853		2-R01-NS-055284-05A1	390,172		390,172
The Synaptic Protein Economy in HIV/AIDS and Aging	93.853	UNIVERSITY OF TEXAS AT GALVESTON	10-082		44,740	44,740
TRAINING IN NEUROVIROLOGY	93.853		2-T32-NS-007180-07A1	18,026		18,026
TRAINING IN NEUROVIROLOGY	93.853		2-T32-NS-007180-32	229,192		229,192
Transcriptional control of sonic hedgehog signaling	93.853		2-R01-NS-039421-10A2	211,803		211,803
Transcriptional control of sonic hedgehog signaling	93.853		2-R01-NS-039421-15	143,770		143,770
Transcriptional mechanisms coordinating midline and motor axon guidance	93.853		2-R01-NS-054739-05A1	326,792		326,792
Unbiased Approaches to Novel Biomarker Discovery in Parkinson's Disease	93.853		1-U01-NS-082134-01	302,066		302,066
Understanding the Conceptual-Motor Interface	93.853	MOSS REHABILITATION RESEARCH INSTITUTE	SUB TO 1-R01-NS065049-01A2		20,694	20,694
Understanding the Pathogenic Mechanisms of Rett Syndrome	93.853		1-R01-NS-081054-01A1	355,555		355,555
ROLE OF CELL CYCLE PROTEINS IN HIV ENCEPHALITIS	93.853		2-R01-NS-041202-09A1	106,179		106,179
Targeted Modulation of the Death Receptor as a Therapeutic Strategy for Glioma	93.853		1-K08-NS-076548-01	187,824		187,824
SubTotal	93.853			20,899,515	1,744,754	22,644,269
(Project) Synergies among inhibitory receptors in tolerance cancer and antiviral immunity	93.855	UNIVERSITY OF PITTSBURGH	sub to P01-AI-108545		194	194
A FAST Assay to Quantify HIV Reservoirs	93.855		1-R01-AI-120011-01	231		231
A FOXP3 complex that controls human regulatory T cell function	93.855	BENAROYA RESEARCH INSTITUTE	1-R56-AI-112323-01		98,525	98,525
A haploid cell-based screen for the discovery of Andes Virus entry factors	93.855		1-F32-AI-106333-01	4,174		4,174
A murine model for human factor H R1210C mutation-related diseases	93.855		1-R21-AI-105455-01	158,325		158,325
A novel approach for assessing dynamic events in the human complement system	93.855		1-R21-AI-097805-01A1	136,871		136,871
A novel virus-derived adjuvant	93.855		2-R01-AI-083284-06	349,000		349,000
A novel virus-derived adjuvant	93.855		7-R01-AI-083284-03	3,605		3,605
A strategy for point-of-care molecular detection of parasitic helminth infections	93.855		1-R21-AI-112713-01	185,740		185,740
Acetate metabolism in human cytomegalovirus infection	93.855		1-R21-AI-105679-01	150,519		150,519
AIDS Clinical Trial Group (ACTG)	93.855	BRIGHAM AND WOMEN'S HOSPITAL	108402		10,301	10,301
AIDS Clinical Trial Group (ACTG) - Committee Membership Support	93.855	BRIGHAM AND WOMEN'S HOSPITAL	108085		5,099	5,099
AIDS Clinical Trial Group Network	93.855	BRIGHAM AND WOMEN'S HOSPITAL	110305		29,216	29,216
AIDS Clinical Trials Group (ACTG) - EOY - Anti TB Agents	93.855	BRIGHAM AND WOMEN'S HOSPITAL	2UM1AI068636		188,232	188,232
AIDS Clinical Trials Group (ACTG) - Protocol Chair Support	93.855	BRIGHAM AND WOMEN'S HOSPITAL	110236		6,961	6,961
AIDS Clinical Trials Group; Protocol Funds (Cost Reimbursement)	93.855	BRIGHAM AND WOMEN'S HOSPITAL	SUB TO UM1 AI068636/111674		178,912	178,912
Allelic variants of Salmonella fimbrial adhesins	93.855		1-R21-AI-098041-01A1	82,985		82,985
An ex vivo model to predict outcomes and probe mechanism of anti-reservoir agents	93.855		1-R21-AI-116216-01	162,262		162,262
Analysis of gene regulation of Vibrio cholerae during infection	93.855		2-R56-AI-072479-06A1	85,845		85,845
Annual Woods Hole Immunoparasitology (WHIP) Meeting	93.855		1-R13-A-1117974-01	5,000		5,000
Anti IL-5 and Churg Strauss Syndrome: a double blind, placebo controlled study	93.855	NATIONAL JEWISH HEALTH	1-U01-AI-097073-01A1		19,912	19,912
Antiatherogenic effects of neutrophil alpha defensins	93.855		1-R21-AI-102177-01	95,835		95,835
Antibacterial Resistance Leadership Group or ALRG (Project)	93.855	DUKE UNIVERSITY	203-9727		30,556	30,556
Anti-CD19 chimeric antigen receptor-modified T cell therapy for islet transplan	93.855	UNIVERSITY OF WISCONSIN - MADISON	5-U01-AI-102456-02		-80,628	-80,628
ARLG - EIS - Tamma	93.855	DUKE CLINICAL RESEARCH INSTITUTE	Sub to UM1AI104681		14,696	14,696
Autoimmune Encephalomyelitis And Regulatory T Cells	93.855		1-R01-AI-099216-01A1	307,858		307,858
A- WISH - Gradual Withdrawal of Immune System Suppressing Drugs in Patients Receiving a Liver Transplan	93.855	BENAROYA RESEARCH INSTITUTE	1-UM-1AI-109565-01		63,577	63,577
Biology of decay accelerating factor	93.855		2-R01-AI-044970-11	272,628		272,628
Blocking immune evasion as a novel immunotherapy for recurrent HSV-2 infection	93.855		1-R21-AI-105959-01	215,817		215,817
Carbapenem-Resistant Klebsiella Pneumoniae in Long-Term Acute Care Hospitals	93.855		1-K01-AI-103028-01A1	114,858		114,858
CD4+ T and B Cell Mechanisms of Influenza Vaccine	93.855	CASE WESTERN RESERVE UNIVERSITY	RES508678		189,766	189,766
CD8+ T cell effector transcriptional programming in SIV infection	93.855		1-R56-AI-106481-01	532,960		532,960
Cellular and transcriptional control of exhausted CD8 T cells lineage dynamics	93.855		1-R01-AI-105343-01A1	412,905		412,905
CENTER FOR AIDS RESEARCH	93.855		2-P30-AI-045008-11	95,246		95,246
CENTER FOR AIDS RESEARCH	93.855		2-P30-AI-045008-16	2,579,836		2,579,836
Center for HIV/AIDS Vaccine Immunology and Immunogen Discovery	93.855	DUKE UNIVERSITY	2034081		116,806	116,806
Chromosome translocation in pre B cells: the role of an alternate DNA structure	93.855		1-R21-AI-097825-01	87,777		87,777
Class II Processing and Presentation During Secondary Responses to Influenza	93.855	THOMAS JEFFERSON UNIVERSITY	080-03000-S16401		15,845	15,845
Cloning, characterization and in vivo testing of mucosally transmitted SIV	93.855		7-R21-AI-087383-03	341,711		341,711
COMBINATION IMMUNOTHERAPY WITH GENE MODIFIED CD4 AND CD8 CELLS AND STEM CELLS	93.855		1-U19-AI-082628-01	451,322		451,322
Complement and allergic asthma	93.855		1-R21-AI-103965-01A1	175,192		175,192

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
Complement in inflammatory diseases: mechanisms & therapeutic modulation	93.855		2-P01-AI-068730-06	1,811,934		1,811,934
Concept Working Group	93.855	HUTCHINSON (FRED) CANCER RESEARCH CENTER	0000799951			38,350
Consortium for AIDS Vaccine Research in Nonhuman Primates - CORE D: Virology Core	93.855	BETH ISRAEL MEDICAL CENTER	01025093-CORED		38,350	81,468
Control and manipulation of HIV-specific CD8 T-cell effector responses	93.855		1-F32-AI-100495-01A1	57,917		57,917
Control of B Cell Development by YY1	93.855		1-R01-AI-079002-01A2	369,942		369,942
Control of coronavirus pathogenesis by antagonism of RNase L	93.855		1-R21-AI-114920-01A1	83		83
Control of plasma cell longevity by the IRE1 pathway	93.855		1-R21-AI-115710-01	85,229		85,229
Control of Viral Pathogenesis by Regulation of 2-5A Levels	93.855		1-R01-AI-104887-01	503,636		503,636
Coronavirus Antagonism of the OAS-RNase L Pathway	93.855		1-F32-AI-114143-01A1	28,645		28,645
CTOT-11 Novel Therapies to Improve Renal and Cardiac Allograft Outcomes	93.855	BRIGHAM AND WOMEN'S HOSPITAL	PS #105087 / CTOT-11		68,610	68,610
Cytokine regulation of anti-helminth immunity	93.855		1-R01-AI-097333-01A1	24,479		24,479
DARE: Delaney AIDS Research Enterprise to find a cure	93.855	UNIVERSITY OF CALIFORNIA - SAN FRANCISCO	8419sc		169,570	169,570
Defining the determinants on the alphavirus receptor NRAMP required for virus binding and entry	93.855		1-R21-AI-103441-01	85,733		85,733
Defining the MHC Class II Antigen Presenting Cell Requirements for Protective B Cell Immunity to Influenza	93.855	GEORGIA REGENTS UNIVERSITY	U01-AI083005		47,496	47,496
Defining the role of microRNAs in CD8 T cell exhaustion	93.855		1-R21-AI-117718-01	29,835		29,835
Design and Mechanistic Studies of Mimics of Antimicrobial Peptides	93.855	UNIVERSITY OF CALIFORNIA - SAN FRANCISCO			31,864	31,864
Determination of Exhaled Biomarkers for Low-Cost Diagnosis and Monitoring of TB	93.855		1-R21-AI-105611-01A1	120,010		120,010
Development of small molecule therapeutics against RNA viruses	93.855	FOX CHASE CHEMICAL DIVERSITY CENTER	1R41AI113952-UPENN		3,080	3,080
Development of Small Molecule Therapeutics Against Smallpox and Other Poxviruses	93.855	FOX CHASE CHEMICAL DIVERSITY CENTER	SUB TO 1R44AI115759-01		247,280	247,280
Discovery of a Novel Immune Response to the 5' Leader of HIV-1	93.855		1-F30-AI-112426-01	40,170		40,170
Disrupting Vector-Borne Disease Transmission in Complex Urban Environments	93.855		1-R01-AI-101229-01A1	470,033		470,033
Dissecting the alphavirus entry receptor NRAMP	93.855		1-R01-AI-095500-01A1	353,772		353,772
Diversity of CD4+ Th subsets in TB immunity: Impact of HIV infection	93.855	UNIVERSITY OF CAPE TOWN	Sub to R21-AI-115977		3,407	3,407
Donor Organ-Specific Exosome Platform for Monitoring Transplant Organ Rejection	93.855		1-R21-AI-111010-01	166,689		166,689
Dynamics of TB and MDR TB transmission in areas with high HIV prevalence	93.855		1-R01-AI-097045-01	517,704		517,704
Early Detection of Congenital Chagas Disease	93.855	JOHNS HOPKINS UNIVERSITY	SUB TO R01-AI-087776		0	0
Early Events in Pneumococcal Colonization	93.855		1-R01-AI-105168-01A1	189,824		189,824
EARLY T LINEAGE PROGENITORS	93.855		2-R01-AI-059621-06A1	73,108		73,108
EARLY T LINEAGE PROGENITORS	93.855		2-R56-AI-059621-11	351,919		351,919
Effects of aging on the T follicular helper response to influenza vaccine	93.855		1-K08-AI-114852-01	55,245		55,245
Elucidating the Chemistry and Biology of Nucleic Acid Cytidine Deaminases in HIV	93.855		7-K08-AI-089242-02	114,129		114,129
Engineering T cells to Provide Durable Control of HIV-1 Replication	93.855		1-U19-AI-117950-01	86,663		86,663
Evaluating the Impact of Cocaine Use and HIV Infection in Arterial Wall Inflammation by FDG-PET/CT Imaging	93.855	BRIGHAM AND WOMEN'S HOSPITAL	110080		241,048	241,048
Evolution of Cryptococcus Neoformans Strains from Patients with HIV/AIDS	93.855	DUKE UNIVERSITY	203-1433		91,879	91,879
Favored sites for HIV cDNA integration in the human genome	93.855		2-R01-AI-052845-12	558,560		558,560
Foxo1-Dependent Programme in the Control of Regulatory T Cell Function	93.855	MEMORIAL SLOAN-KETTERING CANCER CENTER	BD516327		21,813	21,813
Foxp transcription factors in regulatory T cell development and homeostasis	93.855		1-R56-AI-108786-01	187,577		187,577
Fully-Integrated, Non-Instrumented Device for Molecular Diagnostics	93.855		1-K25-AI-099160-01A1	123,635		123,635
FUNCTIONAL BIOLOGY OF IL-25 DURING HELMINTH INFECTION	93.855		1-R01-AI-074878-01A1	44,502		44,502
Gene Therapy for Canine X-linked SCID	93.855		4-R01-AI-043745-13	184,240		184,240
Gene Transfer for SCID-X1 Using Self-Inactivating Gammaretroviral Vector	93.855	CHILDREN'S HOSPITAL BOSTON	0000369947		195,930	195,930
Global Innate Immune Responses to HIV-1 Infection	93.855	SALK INSTITUTE	PO #P040250		35,578	35,578
GP340 AND SYNDECAN INHIBITION BASED MICROBICIDE FOR HIV	93.855		1-R21-AI-082701-01	386,421		386,421
G-Protein Coupled Receptor Kinase-2 on IgE Signaling in Mast Cells	93.855		1-R21-AI-094896-01	140,717		140,717
Great Ape Reservoirs of Human Malaria	93.855		1-R01-AI-091595-01A	564,883		564,883
Great Ape Reservoirs of Human Malaria	93.855		2-R01-AI-091595-04A1	152,018		152,018
Harnessing inflammasome activation to enhance efficacy of Salmonella vaccine	93.855		1-R21-AI-117365-01	62,491		62,491
Harnessing type 1 IFN-stimulated antiviral mechanisms for HIV vaccine design	93.855		1-R01-AI-111789-01	170,509		170,509
HIV cure studies: risk, risk perceptions, and ethics	93.855	HARVARD MEDICAL SCHOOL	152785.5079901.0007		5,808	5,808
Host-Oriented Therapeutics Targeting Filovirus Budding	93.855		4-R33-AI-102104-01	444,889		444,889
Host-parasite interactions during toxoplasmosis	93.855		1-R21-AI-104998-01	140,070		140,070
HSV-2 immune evasion as a virulence factor	93.855		1-R01-AI-104854-01A1	409,937		409,937
Human MALT Cells in Airway Mucosal Immune Responses to Intracellular Infections: Pilot Project #1 Innate Lymphoid Cell Regulation of Adaptive Immunity and	93.855	OREGON HEALTH SCIENCES UNIVERSITY	9006B62-UPENN_CL_SONNENBERG		49,608	49,608
Human mast cell-specific Mas-related Gene-X2 (MrgX2) in Anaphylaxis and Asthma	93.855		1-R21-AI-108585-01A1	120,162		120,162
HVTN Protocol Funding	93.855	HUTCHINSON (FRED) CANCER RESEARCH CENTER	HVTN Protocol Funding		976,932	976,932
Identification of a naturally occurring model for EBV-associated lymphomagenesis	93.855		1-R21-AI-092071-01A1	83,085		83,085
IL-12 as an Immunopotentiator in Leishmaniasis	93.855		2-R01-AI-035914-14A	84		84
IL-27 and Treg cells	93.855		1-R01-AI-110201-01	636,703		636,703
Immune Activation and Isoniazid Metabolism in HIV TB	93.855		1-R21-AI-104441-01	183,111		183,111
IMMUNE CHEMISTRY AND THERAPEUTIC FEATURES OF FOXP3	93.855		1-P01-AI-073489-01A1	1,224		1,224
IMMUNE SYSTEM DEVELOPMENT AND REGULATION	93.855		2-T32-AI-055428-06A1	-940		-940
IMMUNE SYSTEM DEVELOPMENT AND REGULATION	93.855		2-T32-AI-055428-11A1	121,714		121,714
Immune Tolerance Network	93.855	BENAROYA RESEARCH INSTITUTE	1-UM-1AI109565-01		20,805	20,805
IMMUNOLOGY AND OUTCOMES AFTER HAART IN HIV/TB COINFECTION	93.855		1-R01-AI-080337-01A1	67,653		67,653
Immuno-regulation of GI nematode infection	93.855		2-R01-AI-061570-06	16,706		16,706
Immunoregulatory Activities of HSV gD Binding to its Entry Receptors	93.855		1-R56-AI-097171-01A1	-4,563		-4,563
Infectious Diseases Clinical Epidemiology Training Program	93.855		2-T32-AI-055435-11A1	205,754		205,754
INFECTIOUS DISEASES EPIDEMIOLOGY TRAINING GRANT	93.855		2-T32-AI-055435-06A1	59,650		59,650
INITIATION OF IMMUNE RESPONSE IN CHRONIC LEISHMANIASIS	93.855		1-R01-AI-076257-01A2	-3,110		-3,110
Innate Immune Regulation of Intracellular Pathways Involved in Filovirus Budding	93.855		1-R21-AI-103785-01A1	205,708		205,708
Innate lymphoid cell regulation of metabolic homeostasis	93.855		1-F30-AI-112023-01	32,368		32,368
INSULIN-LIKE SIGNALING IN PARASITIC NEMATODE DEVELOPMENT	93.855		2-R01-AI-050668-09A1	450,351		450,351
Integrated Multi-scale Adhesive Dynamics Modeling of T-lymphocyte Homing	93.855		2-R01-AI-082292-03A1	334,808		334,808
Interaction between microbiota and dendritic cells in mucosal tolerance	93.855		1-R21-AI-108627-01A1	236,221		236,221
Interactions of Ebola virus glycoproteins with host cells	93.855		1-R01-AI-081913-01A1	214,156		214,156
Intergenic CIS Regulatory Elements in the Controls of IL-2 and IL-21	93.855	CHILDREN'S HOSPITAL OF PHILADELPHIA	321024 / PO #961111RSUB		5,687	5,687
KSHV-encoded Small Peptides	93.855		1-R21-AI-104473-01A1	146,497		146,497
Long-Acting, Self-Administered HIV Therapy with the CCR5 Antibody PRO14C	93.855	DREXEL UNIVERSITY	220538-UPENN		10,569	10,569
Long-lived CD19-positive plasma cells	93.855		1-R01-AI-097590-01A1	356,355		356,355
MASSIVELY PARALLEL ANALYSIS OF INTEGRATION IN THERAPEUTIC GENE TRANSFER	93.855		1-R01-AI-082020-01	-7,264		-7,264
MASSIVELY PARALLEL ANALYSIS OF INTEGRATION IN THERAPEUTIC GENE TRANSFER	93.855		2R01AI082020-05A1	326,522		326,522

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
Mechanisms and Immunological Consequences of Host-Virus Interactions	93.855	HARVARD MEDICAL SCHOOL	152384-5077707-0006		172,891	172,891
Mechanisms and Treatment of Chronic, Latent Human Strongyloidiasis	93.855		1-R21-AI-105856-01	260,128		260,128
Mechanisms of Immune Failure in Chronic Infection: Hepatitis C as a Key Paradigm, Project 2	93.855	MASSACHUSETTS GENERAL HOSPITAL	214829		-5,069	-5,069
Mechanisms of Immune Failure in Chronic Infection: Hepatitis C as a Key Paradigm, Technology Development Project	93.855	MASSACHUSETTS GENERAL HOSPITAL	216809		-8,951	-8,951
Mechanisms of Inflammasome Inhibition by Salmonella	93.855		1-R21-AI-105346-01	80,333		80,333
MECHANISMS OF LYMPHOID LINEAGE COMMITMENT	93.855		2-R01-AI-052861-06A2	21,069		21,069
Mechanisms of Neuronal Spread of Neurotropic Mouse Hepatitis Virus	93.855		1-K08-AI-098503-01A1	141,461		141,461
Mechanisms of pneumococcal persistence during carriage.	93.855		2-R01-AI-038446-16	391,192		391,192
Mechanisms of social-stress enhanced allergic airway response in a mouse model	93.855		1-R01-AI-072197-01A1	82,575		82,575
Mechanistic studies of BlyS-mediated modulation in HIV-1 Env-specific antibody responses	93.855		1-R01-AI-118691-01	94,510		94,510
MENTORING AND PATIENT-ORIENTED RESEARCH IN ANTIMICROBIAL RESISTANCE	93.855		1-K24-AI-080942-01	20,757		20,757
Microbial pathogenesis and genomics	93.855		2-T32-AI-060516-06	243,395		243,395
Modeling and Correcting Human SCID Using Patient-Derived iPS Cells	93.855	CHILDREN'S HOSPITAL BOSTON	88725 / PO #0000477740		57,033	57,033
MODIFIED HIV EVNS FOR STRUCTURE FUNCTION & VACCINE STUDIES	93.855		4-R37-AI-045378-11	229,059		229,059
Modulation of Inflammasome Activation by Yersinia	93.855		1-R01-AI-103062-01	426,379		426,379
MOLECULAR BIOLOGY OF CORONAVIRUS INDUCED DEMYELINATION	93.855		2-R01-AI-060021-19A1	146,712		146,712
Molecular Epidemiology and Natural History of SIVcpz	93.855		7-R01-AI-058715-09	346,975		346,975
MOLECULAR GENETIC TOOLS FOR PARASITIC HELMINTHS	93.855		1-R01-AI-082548-01	996		996
Myeloid-lineage cells and immunopathology in Leishmania braziliensis	93.855		1-U01-AI-088650-01	692,871		692,871
Natural helper cells in allergic airway inflammation	93.855		1-R21-AI-098428-01A1	0		0
Natural SIV Reservoirs and Human Zoonotic Risk	93.855		4-R37-AI-050529-12	718,856		718,856
Natural Th17 cells in allergic airway disease	93.855		1-R21-AI-105046-01	160,519		160,519
Non-CD4 tropic SIV: Enhancing CD4 T-cell help in antiviral immune responses	93.855		1-R01-AI-112456-01	742,259		742,259
Notch Regulation of Hematopoietic Cell Fates	93.855		2-R01-AI-047833-11A1	407,033		407,033
Novel Mechanisms of Calcium Signaling in B Lymphocytes	93.855		2-R01-AI-060921-06A1	243,825		243,825
Novel SIVsmm Strains for Analysis of Mucosal Transmission and Vaccine Protection	93.855		7-P01-AI-088564-03	1,937,981		1,937,981
Optimizing HIV Env immunogens for T and B cell vaccine responses	93.855		1-R01-AI-090788-01	313,926		313,926
Origins of serum IgA antibodies	93.855		1-R01-AI-113543-01	261,687		261,687
Parasitology: Modern Approaches	93.855		5T32AI007532-17	225,746		225,746
Pathogenesis and therapy of dense deposit disease in a mouse model	93.855		2-R01-AI-085596-05A1	267,311		267,311
Pathogenesis of murine coronavirus induced hepatitis	93.855		1-R56-AI-095285-01	6,299		6,299
Pathogenic determinants of the SIV envelope transmembrane cytoplasmic domain	93.855		2-R01-AI-074362-04	1,082,158		1,082,158
PD-1 FUNCTION, SIGNALING AND REGULATION DURING VIRAL INFECTION	93.855	EMORY UNIVERSITY	5-42430-G02 / 5-56528		-11,347	-11,347
Penile transmission and neutralization of pathogenic SIVsmm	93.855		7-R01-AI-094604-02	708,593		708,593
PHASE II: KL4 SURFACTANT TO MITIGATE RADIATION INDUCED LUNG INJURY	93.855	DISCOVERY LABS	SUB TO 2-R44-AI-102308-03		294,732	294,732
Philadelphia HIV Therapeutics and Prevention Clinical Trials Unit	93.855		2-UM1-AI-069534-08	1,162,754		1,162,754
Phylogeographic dynamics of a vector and pathogen in a natural environment	93.855		1-R01-AI-097137-01	479,858		479,858
Point of Care Device for Molecular Detection of HIV	93.855	AC DIAGNOSTICS, INC.	SUB TO NIH-STTR-1 R41AI104418-01A1		107,412	107,412
Probing mechanisms of reduced HIV reservoirs in an interferon-α clinical trial	93.855		1-R21-AI-106557-01A1	231,668		231,668
Program for Resistance, Immunology, Surveillance & Modeling of Malaria in Uganda (PRISM)	93.855	UNIVERSITY OF CALIFORNIA - SAN FRANCISCO	7835sc		144,745	144,745
Rapid and highly sensitive influenza detection with RNA FISH	93.855		1-F30-AI-114475-01A1	27,997		27,997
Rapid Immune Restoration and Lung Injury in HIV/TB	93.855		1-R01-AI-120821-01	26,512		26,512
Reconstructing Berlin: Role of co-receptor modified cells in HIV and SIV infection	93.855		1-R01-AI-104400-01	1,258,521		1,258,521
Regulation and function of innate lymphoid cells during influenza virus infection	93.855		1-R01-AI-102942-01	28,748		28,748
REGULATION OF IMMUNITY AND INFLAMMATION BY T1PE2	93.855		1-R01-AI-077533-01A1	287,206		287,206
Regulation of protective immunity following enteric viral infection	93.855		1-U01-AI-095608-01	4,298		4,298
Regulation of protective immunity following enteric viral infection	93.855	CORNELL UNIVERSITY	sub to U01AI095608		122,335	122,335
Regulation of the early immune response to toxoplasma gondii	93.855		2-R01-AI-042334-10A1	-790		-790
Regulatory Networks Involved in Mycobacterium Tuberculosis Persistence	93.855	JOHNS HOPKINS UNIVERSITY	2000870799		40	40
Resident memory T cells in leishmaniasis	93.855		1-R21-AI-110869-01	226,412		226,412
RESTARRT - Immunosuppression with Antithymocyte Globulin, Rituximab, Tacrolimus, Mycophenolate Mofetil and Sirolimus, Followed by Immunosuppression	93.855	BENAROYA RESEARCH INSTITUTE	1-UM1-AI-109565-01		7,624	7,624
Restriction of HIV-1 Transmission by Type 1 Interferons	93.855		1-R01-AI-114266-01	527,736		527,736
Reversal of Immune Failure with Viral Antigen Removal in Chronic HCV Infection, Core A	93.855	MASSACHUSETTS GENERAL HOSPITAL	sub to U-19-AI-082630 Core		25,789	25,789
Reversal of Immune Failure with Viral Antigen Removal in Chronic HCV Infection, Project 2	93.855	MASSACHUSETTS GENERAL HOSPITAL	224470		195,034	195,034
Reversal of Immune Failure with Viral Antigen Removal in Chronic HCV Infection, Project 3	93.855	MASSACHUSETTS GENERAL HOSPITAL	224471		128,501	128,501
Role of APOBEC3 in vivo Restriction of Retrovirus Infection	93.855		1-R01-AI-085015-01A1	187,449		187,449
Role of APOBEC3 in vivo Restriction of Retrovirus Infection	93.855		2-R01-AI-085015-06A1	9,426		9,426
Role of Caspase-8 in Yersinia virulence and host defense	93.855		1-R21-AI-109267-01	215,915		215,915
Role of Macrophage Migration Inhibitory Factor (MIF) in Pneumococcal Pathogenesis	93.855		1-K08-AI-097223-01	25,817		25,817
Role of Notch signaling in the Differentiation and Function of Inflammatory DCs	93.855		1-R21-AI-099651-01A1	99,452		99,452
Role of schistosome ABC transporters in modulation of host immune responses	93.855		1-R21-AI-106268-01	183,681		183,681
Shaping antiviral immunity by the inflammatory, regulatory and tissue environment	93.855		7-U19-AI-083022-02	231,588		231,588
Signals Affecting Homeostasis and Tolerance in Memory T Cells	93.855		1-R01-AI-085160-01	212,992		212,992
Single molecule FRET study of viral programmed ribosomal frameshifting	93.855		1-F30-AI114187-01	44,384		44,384
Sofosbuvir and ledipasvir in HIV/HCV coinfectd pre or post liver transplant	93.855	UNIVERSITY OF CALIFORNIA - SAN FRANCISCO	8659sc		7,538	7,538
Structural analysis of the third component of complement	93.855		2-R01-AI-030040-16	410,591		410,591
Studies of Herpes Simplex Virus Glycoproteins	93.855		4-R37-AI-018289-29	342,991		342,991
Studies of Natural SIV Infection of Sooty Mangabeys	93.855	EMORY UNIVERSITY	S648454		94,250	94,250
Study of the structure, function and regulation of gB, the fusion protein of HSV	93.855		2-R56-AI-076231-16	8,436		8,436
Super-Enhancer Structure Defines a Signature of Inflammatory Bowel Disease (IBD)	93.855		1-K22-AI-112570-01	11,167		11,167
Synthetic DNA & Novel Env Vaccine for HIV	93.855		1-U19-AI-109646-01A1	172,313		172,313
T cell functionality and control of HIV infection	93.855		2-R01-AI-070666-06A1	696,584		696,584
Targeting Akt in Autoimmune Lymphoproliferative Syndrome	93.855	CHILDREN'S HOSPITAL OF PHILADELPHIA	FP12002_SUB01_01/PO #951210RSUB		6,324	6,324
Targeting Blys/Baff in Non-Human Primate Islet Transplantation	93.855		1-U01-AI-102430-01	734,627		734,627
Targeting the Persistent HIV-1 Viral Reservoir Using Engineered T cells	93.855		1-R21-AI-104280-01	196,444		196,444
Testing the role of BATF as a pioneer transcription factor in effector T cells	93.855	DANA-FARBER CANCER INSTITUTE	sub to R01-AI-115712-01		15,906	15,906
TH17 Autoimmunity to Type V Collagen in Heart and Lung Transplant	93.855	INDIANA UNIVERSITY	IN-4685530-UP		32,351	32,351
The Development and Function of CD8+ innate-like lymphocytes	93.855		1-K08-AI-101008-01	121,060		121,060
The District of Columbia Developmental Center for AIDS Research (DC D-CFAR)	93.855	GEORGE WASHINGTON UNIVERSITY	11-M64		0	0
The REL gene and human autoimmune diseases	93.855		1-R21-AI-113220-01A1	41,007		41,007
The role of autophagy in innate anti-viral immunity in Drosophila	93.855		2-R01-AI0-74951-06A1	538,078		538,078

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
The Role of Myeloid Lineage Cells in Leishmaniasis	93.855	WISTAR INSTITUTE	1-F32-AI-114080-01	52,313		52,313
The Role of the Immune Response in Controlling the Size of the HIV Reservoir.	93.855		1-R21-AI-096993-01	0		0
THERAPEUTICS THAT TARGET PROCESSIVITY COMPLEX PROTEINS OF POX AND OTHER VIRUSES	93.855		1-U01-AI-082211-01	50,170		50,170
Thiol-based switches in Vibrio cholerae pathogenesis	93.855		1-R21-AI-109316-01A1	206,427		206,427
Towards Eradication: Reducing Proviral HIV DNA with Interferon-α/Inf; Immunotherapy	93.855		24971-06-324		11,672	11,672
Towards Eradication: Reducing Proviral HIV DNA with Interferon-α Immunotherapy	93.855		24971-04-324		249,308	249,308
Towards eradication: Reducing proviral HIV DNA with interferon-α immunotherapy	93.855		Sub to 1-U01-AI-110434-01		62,937	62,937
TRAF6 and the Fate of CD8 T Cells	93.855		2-R01-AI-064909-06A1	435,315		435,315
Training in Emerging Infectious Diseases	93.855		2-T32-AI-055400-11	185,998		185,998
Training in HIV Pathogenesis	93.855		2-T32-AI-007632-11	509,840		509,840
Training in Virology	93.855	FAMILY HEALTH INTERNATIONAL	2-T32-AI-007324-21A1	203,509		203,509
Transmitted/Founder HCV clones as targets for treatment and eradication.	93.855		1-R21-AI-106000-01	233,462		233,462
Treatment as Prevention for injection drug users: A pilot study for a network-based randomized prevention tria	93.855		FCO 790/ID 0080.0224		25,129	25,129
TRIM2, a novel host factor that restricts New World Arenavirus infection	93.855		1R21-AI-112696-01	144,321		144,321
Uncovering the Regulatory Role of gH/gL in HSV Fusion	93.855		2-R01-AI-056045-06	428,855		428,855
Understanding the role of IL-22 in cutaneous leishmaniasis	93.855		1-F31-AI-114227-01	38,465		38,465
UNIVERSITY OF PENNSYLVANIA CENTER FOR AIDS RESEARCH:	93.855		2-P30-AI-045008-06	-1,870		-1,870
Urinary Infections due to Escherichia Coli with Reduced Quinolone Susceptibility	93.855		1-R21-AI-103497-01A1	145,275		145,275
Vibrio Cholerae-Host Interaction at the Intestinal Interface	93.855		1-R01-AI-080654-01A2	388,862		388,862
Viral and Immune Dynamics of Rebound Viremia after VRC01 Administration	93.855		1-R21-AI-118431-01	77,026		77,026
VMD-PhD training in infectious disease-related research	93.855	GEORGIA HEALTH SCIENCES UNIVERSITY	2-T32-AI-070077-06	165,546		165,546
CHARACTERIZATION OF THE LA CROSSE VIRUS GLYCOPROTEIN FUS	93.855		1-R01-AI-074626-01A2	0		0
Regulation and Function of Innate Lymphoid Cells in the Gut	93.855		1-R01-AI-095466-01	30,259		30,259
Autoimmune encephalomyelitis and c-Rei	93.855		2-R01-AI-050059-08A1	337,196		337,196
Schistosome TRP ion channels as potential drug targets	93.855		1-R21-AI-100505-01A1	67,080		67,080
Equipment Application: "Cryostat" Role of Respiratory Innate Like Lymphocytes/Nuocytes During Diverse Viral Infection	93.855		23069-32		105,727	105,727
Immune-based detection of rifampicin-resistance in HIV/TB	93.855		1-R21-AI-108436-01	193,470		193,470
Protective and Pathologic Roles for CD8+ T cells in Leishmaniasis	93.855		1-R01-AI-106842-01A1	372,262		372,262
Complement dysregulation and atypical hemolytic uremic syndrome	93.855		1-R01-AI-117410-01	163,908		163,908
	SubTotal 93.855			43,325,821	5,076,663	48,402,484
Improving the Clinical Utility of Biophysical Dosimetry	93.856	DARTMOUTH COLLEGE	sub to U19-AI-091173		50,002	50,002
The Eukaryotic Pathogen Bioinformatics Resource Center (EuPathDB) (CORE)	93.856		HHSN272201400030C	2,702,258		2,702,258
	SubTotal 93.856			2,702,258	50,002	2,752,260
A Novel Mechanistic Paradigm for Cross-Coupling	93.859	STANFORD UNIVERSITY	1-R01-GM-113878-01	28,890		28,890
Adaptation in 6 Dimensions	93.859		60078513-52304-A		211,554	211,554
Analysis Tools and Software for Second Generation Sequencing Data	93.859		Sub to NIH R01 ADV ACCT		5,139	5,139
Arylation of Weakly Acidic sp ³ Hybridized C-H's	93.859		1-R01-GM-104349-01	422,289		422,289
BACTERIAL CYTOCHROME BC1: STRUCTURE, FUNCTION, BIOGENESIS	93.859		2-R01-GM-038237-23A1	232,073		232,073
Basis for Distinct Functions of ATP-Dependent Chromatin Remodeling Complexes	93.859		7-R01-GM-084983-04	-1		-1
Biogenesis of Voltage-Gated K+ Channels	93.859		2-R01-GM-052302-17	770,415		770,415
Bipartite regulation of cellular osmosensing in C. elegans	93.859		1-R01-GM-105655-01A1	-14,164		-14,164
BMP morphogen gradient spatiotemporal modulation by metalloprotease activity	93.859		1-F31-GM-113362-01	18,275		18,275
Catalysts Designed for Asymmetric Organic Reactions	93.859		1-R01-GM-087605-01A1	0		0
Cell biology of meiotic drive in mammals	93.859	DUKE UNIVERSITY	1-R01-GM-107086-01	372,575		372,575
Centromere Identity and Function	93.859		2-R01-GM-082989-06	273,261		273,261
Charge-Transfer Dynamics Relevant to Protein-Mediated Energy Transduction	93.859		12-NIH-1016		107,254	107,254
Chromatin Regulatory Mechanisms in Eukaryotic Gametogenesis	93.859		2-R01-GM-055360-14A1	290,048		290,048
Clinical Pharmacoepidemiology Training Grant	93.859		2-T32-GM-075766-06	319,851		319,851
Competition and morphogenesis in tip cell-mediated branching of tubular networks	93.859		1-R01-GM-089782-01A1	342,946		342,946
Computational genome-wide RNA profiling using next-generation sequencing	93.859		1-R01-GM-099962-01A1	253,690		253,690
Costimulatory Ligand Mobility Effects on T Cell Activation	93.859		321004 / PO #960802RSUB		53,207	53,207
Coupling kinetochore microtubule dynamics to chromosome motion	93.859		1-R01-GM-098389-01A1	257,375		257,375
Cytoskeletal Effects on Mitochondrial Dynamics Through the ER-Bound Formin INF2	93.859		1261		98,051	98,051
Cytoskeletal Mechanisms of Endocytosis	93.859	DARTMOUTH COLLEGE	1-R01-GM-095977-01A1	350,310		350,310
Cytoskeletal Motors and Scaffolds in Membrane Dynamics and Motility	93.859		2-P01-GM-087253-11	1,374,269		1,374,269
Defining the structural and mechanistic basis of a prion disaggregase	93.859		1-R01-GM-099836-01A1	253,885		253,885
Development of an HTS assay for γSas2/hMOF histone acetyltransferase inhibitors	93.859		7-R01-GM-098910-04	24,363		24,363
Developmental Control of Enhancer Function	93.859		1-R01-GM-082841-01A2	9,476		9,476
DNA Double Strand Break Chromatin Alterations and Genome Integrity	93.859		1-R01-GM-101149-01A1	378,364		378,364
Dorsal-Ventral Pattern Formation in the Zebrafish Embryo	93.859		2-R01-GM-056326-14	435,255		435,255
Dynamics & energetics of p38α kinase regulation by ligands	93.859		1-R01-GM-100910-01A1	342,918		342,918
Effects of Translational Pausing Elements on the Rhythm of Protein Synthesis	93.859		1-F32-GM110955-01A1	48,324		48,324
EGFR in a sticky situation: probing structural transitions in dimerized receptors	93.859		1-F32-GM-109688-01	54,267		54,267
Electrophysiology of nuclear membrane InsP3 receptor	93.859	CHILDREN'S HOSPITAL OF PHILADELPHIA	2-R01-GM-056328-13	355,042		355,042
Fluctuations and Entropy in the Energetics and Function of Protein Complexes	93.859		1-R01-GM-102447-01	371,467		371,467
Foldons, folding, and function	93.859		2-R01-GM-031847-27A1	57,983		57,983
Fostering Diversity in Biostatistics Workshop	93.859		2-R13-GM-075338-05	10,734		10,734
Functional characterization of piRNPs	93.859		2-R01-GM-072777-06A1	208,829		208,829
Functional characterization of piRNPs	93.859		2-R01-GM-072777-10	135,310		135,310
FUNCTIONS OF EPITHELIAL SPLICING REGULATORY PROTEINS AND THEIR ROLE IN THE EMT	93.859		9-R01-GM-088809-06A2	22,543		22,543
Functions of TEX11 and its associated proteins in mice and humans	93.859		2-R01-GM-076327-05	321,966		321,966
Genetic analysis of a developmental clock in Arabidopsis thaliana	93.859		2-R01-GM-051893-16	419,234		419,234
Graduate training in systems and integrative biology	93.859		2-T32-GM-007517-35	484,838		484,838
GWAS Using Integrated CNV and SNP Information	93.859	DARTMOUTH COLLEGE	1-R01-GM-088566-01A1	142,248		142,248
Host-Microbial Interactions in the Gut Oxygen Equilibrium	93.859		1-R01-GM-103591-01	473,899		473,899
In Vivo Translational Analysis in Neurons	93.859		1-R01-GM-110005-01	141,500		141,500
Integrative Genomics of Body Size and Metabolism in Ethnically Diverse Africans	93.859		1-R01-GM-113657-01	203,766		203,766
Interaction of Inhaled Anesthetics with Macromolecules	93.859		2-P01-GM-055876-14A1	1,477,819		1,477,819
Investigating KA1 domain-mediated regulation of MARK/PAR1 kinases	93.859		1-F32-GM-115098-01	8,468		8,468

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
Large Serine Recombinase Mechanisms	93.859		1-R01-GM-108751-01	222,422		222,422
Light-activated oligonucleotides for biological applications	93.859		2-R01-GM-083030-06A1	403,067		403,067
Mechanism of K+ Channels	93.859		2-R01-GM-055560-14A1	372,655		372,655
Mechanism of U1 snRNPs suppression of premature cleavage & polyadenylation	93.859		1-R01-GM-112923-01	128,606		128,606
Mechanisms and consequences of CELF2 regulation in T cell development	93.859		1-R01-GM-103383-01	323,852		323,852
Mechanisms for reduced macrophage motility after pro-inflammatory activator	93.859		1-F32-GM-110961-01A1	12,327		12,327
Mechanisms governing context-dependent Wnt activity in C. elegans embryogenesis	93.859		1-K99-GM-111825-01	52,426		52,426
Mechanisms integrating lineage history with fate specification in C. elegans	93.859		1-R01-GM-105676-01A1	359,721		359,721
Mechanisms of Anesthesia Mediated Neurotoxicity	93.859		2-R01-GM-084979-06A1	68,050		68,050
Mechanisms of Curvature Sensing and Generation by Peripheral Membrane Proteins	93.859		1-R01-GM-097552-01A1	174,682		174,682
Mechanisms of Cytokinesis in Yeast	93.859		1-R01-GM-087365-01A2	37,254		37,254
Mechanisms of Signal-Induced Alternative Splicing: CD45	93.859		2-R01-GM-067719-10	404,777		404,777
Mechanisms of signal-responsive alternative splicing in T-cell activator	93.859		1-F31-GM-103255-01	34,333		34,333
Mechanisms of spindle formation	93.859		1-R01-GM-102215-01	309,341		309,341
MEDICAL GENETICS RESEARCH TRAINING GRANT	93.859		2-T32-GM-008638-11	463		463
Medical Scientist Training Program	93.859		2T32GM007170-39	1,952,705		1,952,705
Mitochondria-cytoplasm interactions for cytosolic Fe-S cluster assembly	93.859	UNIVERSITY OF MEDICINE AND DENTISTRY OF NJ	8159		136,203	136,203
Molecular analysis of methylated p53	93.859	UNIVERSITY OF COLORADO	SUB TO 3 R01-GM101664		7,055	7,055
Molecular and Architectural Mechanisms of Reprogramming to Pluripotency	93.859	UNIVERSITY OF CALIFORNIA-LOS ANGELES	1445 G PB337		583,316	583,316
Molecular function of myosin-I	93.859		2-R01-GM-057247-14	263,166		263,166
MOLECULAR MOTORS IN CELL BIOLOGY	93.859		1-P01-GM-087253-06	14,453		14,453
Molecular Regulation of Exocytosis	93.859		1-R01-GM-111128-01	326,006		326,006
Myosin Va and VI Cargo Transport: In Vitro Model Systems	93.859	UNIVERSITY OF VERMONT	25126 U of Penn		27,455	27,455
Natural Engineering of Multi-Electron Biological Oxidation & Reduction	93.859		2-R01-GM-041048-22	171,657		171,657
NEURONAL BASIS UNDERLYING VOLATILE ANESTHETIC INDUCED HYPNOSIS	93.859		1-R01-GM-088156-01A1	144,143		144,143
Non-Parametric Bayesian Methods for Causal Inference	93.859		1-R01-GM-112327-01	101,716		101,716
Novel Organoboron Chemistry Utilizing Tetrahydroxydiborane	93.859		2-R01-GM-081376-05	292,426		292,426
Novel Substrates of the TCR Kinase	93.859		4-R37-GM-053256-18	494,411		494,411
Optoanesthesia	93.859		1-R01-GM-107117-01A1	224,243		224,243
Organotrifluoroborates in Selective Organic Synthesis	93.859		2-R01-GM-035249-24A2	3,636		3,636
PREDOCTORAL TRAINING GRANT IN PHARMACOLOGY	93.859		2-T32-GM008076-25	-378		-378
PREDOCTORAL TRAINING GRANT IN PHARMACOLOGY	93.859		2-T32-GM-008076-30	392,586		392,586
PREDOCTORAL TRAINING PROGRAM IN GENETICS	93.859		2-T32-GM-008216-23	-553		-553
PREDOCTORAL TRAINING PROGRAM IN GENETICS	93.859		2-T32-GM-008216-28	348,103		348,103
Primordially conserved principles governing mucosal immune responses to pathogens and microbiot	93.859		2-R01-GM-085207-05	122,771		122,771
Protein structure and function by hydrogen exchange mass spectrometry analysis	93.859		2-R01-GM031847	365,986		365,986
Proton pumping mechanism in complex I	93.859		1-R01-GM-097409-01A1	337,839		337,839
PtdIns 4-Kinase Regulation of Protein Sorting in the Golgi Apparatus	93.859	YALE UNIVERSITY	M12A11267 (A08617)		23,205	23,205
Ras signaling and tubulogenesis in the C. elegans excretory (renal) system	93.859		2-R01-GM-058540-01A1	352,408		352,408
Regulation and Function of Intermediate Filaments in Cell Mechanics	93.859	NORTHWESTERN UNIVERSITY	60029186UP		255,157	255,157
Regulation of actin during cell migration	93.859		1-R01-GM-108744-01	293,024		293,024
Regulation of Calcium-Activated Potassium Channels By Lipid Messengers	93.859		1-R01-GM-057654-14	429,626		429,626
Regulation of cell division by mitotic kinases	93.859		1-R01-GM-083988-01	-2,660		-2,660
Regulation of cell division by mitotic kinases	93.859		2-R01-GM-083988-06A1	386,856		386,856
Regulation of chromosome synapsis in mice	93.859		1-R01-GM-089893-01	14,908		14,908
Regulation of meiotic recombination in mice	93.859		2-R01-GM-089893-05	360,623		360,623
Regulation of noncoding RNA biogenesis and function	93.859		4-R00-GM-104166-02	268,495		268,495
Role of Mitochondria-Targeted CYP2D6 in Chemical Toxicity	93.859		2-R01-GM-034883-27A1	83,084		83,084
Role of the Esrp's in pluripotent stem cell biology	93.859		1-F32-GM-109630-01A1	50,865		50,865
Semi-parametric joint models for longitudinal and time to event data	93.859		1-R01-GM-104470-01	259,869		259,869
Sensitivity enhancement in solution NMR through dynamic nuclear polarization	93.859		1-R21-GM-07829-01	230,190		230,190
Sequences Controlling H19 Gene Imprinting	93.859		2-R37-GM-051279-18	354,925		354,925
Signaling by growth factor receptors with intracellular pseudokinase domains	93.859		1-R01-GM-099891-01	366,542		366,542
Single Molecule Dynamics of mRNA Translation	93.859		2-R01-GM-080376-05A1	378,705		378,705
Specific Contribution of a New IG Isotype (IGT) in Teleost Fish Immune Responses	93.859		1-R01-GM-085207-01A2	106,076		106,076
Spectroscopic Study of Protein Folding Dynamics	93.859		2-R01-GM-065978-10	165,028		165,028
Statistical Methods for Next-Generation Sequence Data	93.859		1-R01-GM-097505-01A1	427,781		427,781
Statistical Methods for Transcriptome Profiling Using RNA Sequencing	93.859		1-R01-GM-108600-01A1	205,134		205,134
Stem Cell Renewal and Differentiation in Spermatogenesis	93.859		2-R01-GM060804-13	327,925		327,925
Structural Approaches for Understanding Opioid and P?-Receptor Interactions	93.859		1-K08-GM-093115-01	13,431		13,431
Structural Basis of Actin Cytoskeleton Dynamics	93.859		2-R01-GM-073791-06	-22,933		-22,933
Structural Basis of Actin Cytoskeleton Dynamics	93.859		2-R01-GM-073791-10	378,509		378,509
Structural Biochemistry of PARP-1	93.859	THOMAS JEFFERSON UNIVERSITY	080-02000-S01201		79,561	79,561
Structural biology & molecular biophysics training program	93.859		2-T32-GM-008275-26	340,117		340,117
STRUCTURAL BIOLOGY TRAINING PROGRAM	93.859		2-T32-GM-008275-21	786		786
StructuralL Dynamics of Actomyosin Motility	93.859		2-R01-GM-086352-32	384,236		384,236
Structure and Function of Biosynthetic Enzymes	93.859		2-R01-GM-056838-13	81,640		81,640
Structure and Function of Biosynthetic Enzymes	93.859		2-R01-GM-056838-17	215,052		215,052
Structure and Function of Metalloenzymes	93.859		2-R01-GM-049758-20A1	318,916		318,916
Structure and Function of Protein Acetyltransferases	93.859		7-R01-GM-060293-15	291,197		291,197
Structure determination by vibrational spectroscopy	93.859		2-R01-GM-076201-04	125,007		125,007
Structure determination by vibrational spectroscopy	93.859		2-R01-GM-076201-08A1	37,503		37,503
STRUCTURE/FUNCTION OF EPOXIDE HYDROLASE	93.859		1-R01-GM-063106-01A2	-60,940		-60,940
Structure-based antagonism of HIV-1 envelope function in cell entry	93.859	DREXEL UNIVERSITY	2-P01-GM-056550-17A1		325,485	325,485
Structure-Based Design of Xe-129 NMR Biosensors for Multiplexed Cancer Detection	93.859		1-R01-GM-097478-01A1	257,137		257,137
Synthesis of Bioactive Natural Products	93.859		2-R01-GM-029028-28A1	323,578		323,578
The Impact of Vasopressin on Mitochondrial Dysfunction in Hemorrhagic Shock	93.859		1-K08-GM-097614-01	112,776		112,776
The Interaction of Cytoplasmic Dynein and Dynactin	93.859		2-R01-GM-048661-18	-8,208		-8,208
The Interaction of Cytoplasmic Dynein and Dynactin	93.859		2-R01-GM-048661-22	351,751		351,751
The Role of the Exocyst in Cell Migration	93.859		2-R01-GM-085146-05	358,442		358,442
The role of YY1 in constitutive and inducible DNA loop formation	93.859		1-R01-GM-111384-01	173,999		173,999

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
TRAINING PROGRAM IN CELL AND MOLECULAR BIOLOGY	93.859		2-T32-GM-007229-33	1,553		1,553
TRAINING PROGRAM IN CELL AND MOLECULAR BIOLOGY	93.859		2-T32-GM-007229-38A1	450,651		450,651
Trans-Acting Factors Causing Cell-Specific Gene Control	93.859		4-R37-GM-036477-28	561,933		561,933
ULTRAST FAST OPTICAL PROCESSES LABORATORY	93.859		9-P41-GM-104605-31	965,253		965,253
Ultrafast Processes In Proteins And Other Assemblies	93.859		2-R01-GM-012592-46A1	217,716		217,716
UNDERSTANDING PROTEIN RADICALS	93.859		1-R01-GM-079190-01A2	-1,301		-1,301
UNDERSTANDING PROTEIN RADICALS	93.859		2-R01-GM-079190-06A1	99,216		99,216
Understanding the Role of Combinatorial Histone PTM Patterns	93.859		1-R01-GM-110174-01	128,375		128,375
Understanding Wnt signaling through Ror and Ryk family receptor tyrosine kinase	93.859		1-R01-GM-107435-01	478,476		478,476
University of Pennsylvania Postdoctoral Opportunities in Research and Teaching	93.859		2-K12-GM-081259-06	916,082		916,082
UPenn Post Baccalaureate Research Education Program	93.859		2-R25-GM-071745-10	258,682		258,682
UPenn Postbaccalaureate Research Education Program	93.859		2-R25-GM-071745-06	101,653		101,653
Using micropost arrays to measure traction forces during dendritic cell motility	93.859		1-R01-GM-104287-01A1	330,503		330,503
Water soluble variants of the human mu opioid receptor	93.859		1-R01-GM-111421-01	182,075		182,075
FUNCTION OF HISTONE MACROH2A IN CHROMATIN	93.859		2-R01-GM-049351-14A2	0		0
Complement Inhibition as Sepsis Therapy	93.859	OKLAHOMA MEDICAL RESEARCH FOUNDATION	SUB TO 1-R01-GM-097747-01/PO #PG290		54,322	54,322
Regulation of Bacterial Two-Component Signaling by Small Membrane Protein	93.859		2-R01-GM-080279-05A1	266,763		266,763
Examining the role of Cbk1/NDR kinase in regulating mRNA localization	93.859		1-R01-GM-097327-01A1	320,703		320,703
Molecular Mechanisms of Protein Arginylation	93.859		1-R01-GM-104003-01A1	400,296		400,296
Engagement of heterotrimeric G proteins by Sonic hedgehog	93.859		2-R01-GM-080396-05A1	471,089		471,089
	SubTotal 93.859			35,014,610	1,966,964	36,981,574
Investigating the regulation of Aurora B levels at the centromere	93.859		1-F32-GM-108360-01A1	46,774		46,774
	SubTotal 93.859			46,774		46,774
ADENINE NUCLEOTIDE METABOLISM AND SIGNALING IN MAMMALIAN	93.864		1-R01-HD-057144-01A1	-86		-86
Age and molecular mechanisms contributing to aneuploidy in oocyte	93.864		1-R01-HD-058730-01A1	45,377		45,377
IMPACT OF POOR HEALTH AND AIDS ON SMALL BUSINESSES IN SOUTH AFRICA	93.864		1-R01-HD-051468-01A1	0		0
Midcareer Investigator Award in Patient Oriented Research	93.864		1-K24-HD-060687-01A1	118,647		118,647
Parental Trust and Racial Disparities in the Care of Premature Infants	93.864	CHILDREN'S HOSPITAL OF PHILADELPHIA	950814RSUB		10,000	10,000
Barbershop-Based HIV/STD Risk Reduction for African American Young Men	93.864		1-R01-HD-061061-01	418,946		418,946
	SubTotal 93.864			582,884	10,000	592,884
A National Training Program in Reproductive Medicine	93.865		2-T32-HD-040135-11	323,507		323,507
A new player in placental dysfunction: mir210	93.865		1-R21-HD-076271-01A1	196,442		196,442
A Program to Promote Diversity Within the American Society of Andrology	93.865	AMERICAN SOCIETY OF ANDROLOGY	SUB TO 1-R25-DK096957-01		18,913	18,913
ACTIVATION OF HUMAN PLACENTAL HORMONAL EXPRESSION	93.865		2-R01-HD-046737-06A1	259,628		259,628
Adult genome-wide phenotypic analysis of molecularly defined mutant gene	93.865		1-R01-HD-069321-01	673,216		673,216
Ambulatory Care Access and Quality	93.865		1-R01-HD-074756-01A1	329,940		329,940
Axonal pathway selection in the zebrafish embryo	93.865		2-R01-HD-037975-11A1	36,011		36,011
Behavioral effects of teen exposure to multiple risk behaviors in Media	93.865		1-R21-HD-079615-01A1	31,784		31,784
Causes and Interventions for Childhood Obesity: Innovative Systems Analysis	93.865	UNIVERSITY OF BUFFALO	R894313		0	0
Choroid Plexus-Directed Gene Therapy for Alpha-Mannosidosis	93.865	CHILDREN'S HOSPITAL OF PHILADELPHIA	FP00015905_A1_SUB_01		65,940	65,940
Clinical Center for NICHD/Neonatal Research Network	93.865		1-U10-HD-068244-01	394,306		394,306
Comparative Effectiveness of Pregnancy Failure Management Regimens (Pre-Fai-R	93.865		1-R01-HD-071920-01A1	586,832		586,832
Contributions of infant learning to language acquisition	93.865		2-R01-HD-049681-06A1	296,320		296,320
Cooperative Multicenter Reproductive Medicine Network	93.865		2-U10-HD-027049-21	332,977		332,977
Creating an Infection-Free Intraosseus Transcutaneous Amputation Prosthesis	93.865	THOMAS JEFFERSON UNIVERSITY	0802300-R96501		28,904	28,904
Developing and Pilot Testing a Mobile Phone-Based HIV/STI Prevention Intervention	93.865		1-R01-HD-072825-01A1	281,322		281,322
Development of a serum biosignature for ectopic pregnancy	93.865		1-R01-HD-076279-01A1	459,388		459,388
DO AMPUTEES BENEFIT FROM COMPREHENSIVE REHABILITATION SE	93.865		2-R01-HD-042588-05A2	70,246		70,246
Early Child Development Programs: Effective Interventions for Human Development	93.865		1-R01-HD-065436-01A1	460,985		460,985
Early Childhood Development for the Poor: Impacting at Scale	93.865	YALE UNIVERSITY	C14A11661 (A08990)		4,287	4,287
Eliciting Maternal Knowledge about the Technology of Skill Formator	93.865		1-R01-HD-073221-01A1	605,515		605,515
Epigenetic landscapes of embryonic lymphoid progenitors and HSCs	93.865		1-R21-HD-081054-01A1	10,880		10,880
Functional circuit disorders of sensory cortex in ASD and RTT	93.865		1-R01-HD-062577-01A1	-98		-98
Functions of MOV10L1 in piRNA biogenesis and germ cell development	93.865		1-R01-HD-069592-01A1	289,949		289,949
Gene expression in the preimplantation mouse embryo	93.865		2-R01-HD-022681-26A1	301,826		301,826
Gene Therapy for Urea Cycle Disorders	93.865		2-P01-HD-057247-05	1,274,025		1,274,025
Generating SEVI disaggregases to prevent HIV infection	93.865		1-R21-HD074510-01	4,590		4,590
Genetic analysis of male gonadal development	93.865		1-R01-HD-065600-01	388,082		388,082
Genome Wide Association Study for Childhood Obesity; Genome Wide Association Study of Bone Mineral Accretion during Childhood	93.865	CHILDREN'S HOSPITAL OF PHILADELPHIA	320670112		50,394	50,394
Graduate Training in Demography	93.865		2-T32-HD-007242-31	265,471		265,471
Growth Recovery, Schooling and Cognitive Achievement: Evidence From Four Cohorts	93.865	BOSTON UNIVERSITY	4500001167		48,780	48,780
Hormonal Imprinting Predetermines Developmental Expression of Cytochrome P450s	93.865		1-R01-HD-061285-01A1	287,554		287,554
Immediate Fit Using Innovative Technology, Transtibial Prosthesis	93.865	IFIT PROSTHETICS	SUB TO 2-R42-HD069067-02		31,810	31,810
Immigration and Fertility in the U.S.	93.865		1-R01-HD-075560-01A1	32,261		32,261
Improving participation in vector control campaigns through behavioral economic	93.865		1-R01-HD-075869-01A1	393,366		393,366
Improving the Quality of In-Hospital Pediatric Resuscitation	93.865	CHILDREN'S HOSPITAL OF PHILADELPHIA	950929RSUB		15,142	15,142
Intellectual and Developmental Disabilities Research Center	93.865	CHILDREN'S HOSPITAL OF PHILADELPHIA	203660 / 950908RSUB		69,580	69,580
Johns Hopkins Center on Systems-Oriented Pediatric Obesity Research and Training	93.865	JOHNS HOPKINS UNIVERSITY	SUB TO 1U54HD070725-01		0	0
LCR activation of the human growth hormone gene	93.865		2-R01-HD-025147-20A2	273,378		273,378
Longitudinal study of adolescents, neighborhoods, and drinking	93.865	PREVENTION RESEARCH CENTER	Sub to 1-R01-HD-078415-01A1		17,408	17,408
Magnetoencephalographic Studies of Lexical Processing and Abstraction in Autism	93.865		1-R01-HD-073258-01	359,040		359,040
microRNA regulation of spermatogonial stem cell self-renewal and differentiation	93.865		1-R01-HD-071012-01	63,227		63,227
Mobility, selectivity, and the migrant mortality advantage	93.865		1-R01-HD-079475-01A1	30,210		30,210
MRI Data Sharing Supplement	93.865	CHILDREN'S HOSPITAL OF PHILADELPHIA	3209740814-S1/PO #961037RSUB		47,622	47,622
MRI-Based Method for Quantifying CMRO2 in Humans	93.865		1-R21-HD-069390-01A1	91,000		91,000
Neural Predictors of Risky Driving and Susceptibility to Peer Influences in Adolescence	93.865		1-R21-HD-073549-01A1	142,827		142,827
Newborn Iron Deficiency	93.865	UNIVERSITY OF MINNESOTA	N002524701		33,612	33,612
NICHD Neonatal Research Network (NRN) Capitation Funding	93.865	RESEARCH TRIANGLE INSTITUTE	MOU sub to U10HD68244-1202		278,668	278,668

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
Optimizing Management of the Second Stage of Labor: Multicenter Randomized Trial	93.865	WASHINGTON UNIVERSITY IN ST. LOUIS	WU-15-54		267,956	267,956
Ovarian Reserve After Cancer: Longitudinal Effects (The ORACLE Study)	93.865		1-R01-HD062797-01	486,367		486,367
Pelvic Floor Disorders Network Clinical Sites (U10)	93.865		1-U10-HD-069010-01		334,876	334,876
Penn Center for Study of Epigenetics in Reproduction	93.865		1-U54-HD-068157-01	1,545,416		1,545,416
Placental morphology and serum biomarkers to predict adverse pregnancy outcom	93.865		1-R03-HD-069742-01A1		13,011	13,011
Population Research Center Grant	93.865		2-R24-HD044964-11	389,997		389,997
Preterm Birth in Nulliparous Women: An Understudied Population at Great Risk	93.865		1-U10-HD063048-01	162,019		162,019
Reproductive Epidemiology Training Grant	93.865		2-T32-HD-007440-16	359,322		359,322
Reproductive Scientist Development Program	93.865	UNIVERSITY OF CALIFORNIA - SAN FRANCISCO	5805SC		-236	-236
Reproductive Scientist Development Program (K12) - Scholar[NIH: 1 of 3]	93.865	WASHINGTON UNIVERSITY IN ST. LOUIS	WU-14-90		-3,133	-3,133
Sedation Strategy and Cognitive Outcome after Critical Illness in Early Childhood	93.865	SEATTLE CHILDREN'S HOSPITAL RESEARCH INSTITUTE	UNDER R01HD074757		174,534	174,534
SES, CHILDHOOD EXPERIENCE, AND THE NEURAL BASES OF LEARNING	93.865		1-R01-HD-055689-01A1	-5,534		-5,534
Spontaneous Code Switching	93.865		1-R21-HD-078072-01A1	16,647		16,647
Sustained Aeration of Infant Lungs (SAIL)	93.865	CHILDREN'S HOSPITAL OF PHILADELPHIA	3210050618 / PO #961074RSUB		622,209	622,209
Systems Analysis of BMP Regulation in Developing Zebrafish Embryos	93.865	PURDUE UNIVERSITY	4102-57125		130,909	130,909
Targeting School Climate and Children's Behavioral Health in Urban Schools	93.865	CHILDREN'S HOSPITAL OF PHILADELPHIA	FP11592_A1_SUB02_01/PO #960632RSUB		0	0
Targeting the piRNA pathway and meiotic recombination for male contraceptior	93.865		1-U01-HD-084007-01	368		368
The CFAR Social & Behavioral Science Research Network National Scientific Meeting	93.865		1-R13-HD-074468-01	62,834		62,834
The Development of On-Line Sentence Processing in Children	93.865		2-R01-HD-037507-15	364,206		364,206
The Fetal Adrenal Gland as a Predictor of Spontaneous Preterm Birth	93.865	COLUMBIA UNIVERSITY	2 (ACCT #5-30279)/PO #G02789		2,591	2,591
The Function of MOV10L1 in piRNA Biogenesis	93.865		1-F31-HD081892-01	42,639		42,639
The role of TLR signaling in fetal brain injury from prenatal inflammatio	93.865		1-R01HD-076032-01A1	385,777		385,777
Traumatic Bridging Vein Failure in Infants	93.865		1-R21-HD-078842-01A1	171,980		171,980
Vaccination Status of Children Exempted from School-Entry Immunization Mandate:	93.865		1-R03-HD-080732-01	66,897		66,897
The Penn Center for Career Development in Women's Health Research	93.865		2-K12-HD-001265-11	358,059		358,059
	SubTotal 93.865			14,300,888	1,905,890	16,206,778
A Randomized Trial of Financial Incentives for Maintenance of Weight Loss	93.866		1-R01-AG-045045-01	403,003		403,003
Advancing Research on Improving Medical Decision Making Among Aging Populations	93.866		1-R13-AG-041623-01	365		365
Age, Hearing Loss, and Sentence Comprehension: Neural Correlates	93.866		1-R01-AG-038490-01A1	457,369		457,369
Aging, gender and arterial stiffness in atherosclerosis	93.866		1-R01-AG-047373-01	424,756		424,756
Alzheimer's Disease Genetics Consortium	93.866		1-U01-AG-032984-01	2,570,662		2,570,662
Alzheimer's Disease Genetics Consortium	93.866		2-U01-AG-032984-06	331		331
ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE	93.866	UNIVERSITY OF CALIFORNIA-SAN DIEGO	AG024904		28,802	28,802
Alzheimer's Prevention Initiative APOE4 Trial	93.866	BANNER HEALTH	0435-02-42372		70,629	70,629
Alzheimer's Disease Core Center	93.866		2-P30-AG-010124-21	1,371,992		1,371,992
An MRI-Based Method for Measuring Bone Mineral and Matrix Densities in Humans	93.866		1-F31-AG-042289-01	1,836		1,836
Anemia Trial of the T-Trial	93.866	DUKE CLINICAL RESEARCH INSTITUTE	2039905		43,273	43,273
Anti-Amyloid in Asymptomatic Alzheimers Disease, Ethics Sub Study	93.866	UNIVERSITY OF CALIFORNIA-SAN DIEGO	39177054		122,554	122,554
Anti--Amyloid Treatment in Asymptomatic Alzheimer's Disease (A4 Study)-NIH	93.866	UNIVERSITY OF CALIFORNIA-SAN DIEGO	2-U19-AG-010483-22		61,135	61,135
Anti-Amyloid Treatment in Asymptomatic Alzheimer's Disease (Study A4)-Lillj	93.866	UNIVERSITY OF CALIFORNIA-SAN DIEGO	46177790		35,634	35,634
APOBEC3-mediated damage of host genomic DNA in vivo	93.866		1-R21-AG-047114-01A1	54,283		54,283
Brain-Penetrant Thromboxane Receptor Antagonists for Alzheimer's Disease Therapy	93.866		1-R01-AG-034140-01A2	392,339		392,339
Causal role of PFC in perceptual and cognitive auditory processing and age-related plasticity	93.866	UNIVERSITY OF CALIFORNIA, DAVIS	201402652-01		1,322	1,322
Cell-Intrinsic and Extrinsic Factors in Stem Cell Aging	93.866		1-F31-AG-044995-01A1	26,123		26,123
Center on the Demography of Aging	93.866		2-P30-AG-012836-16	72,454		72,454
Center on the Demography of Aging	93.866		2P30AG012836-21	301,920		301,920
ChR2 delivery to the neuroretina to circumvent age-related neurodegeneratio	93.866		1-F30-AG-044078-01A1	27,463		27,463
Citalopram Decreases CSF Aβ: A Randomized Dose Finding Trial	93.866		7-R01-AG-041502-03	341,812		341,812
Clinical Importance of Drug-Drug Interactions	93.866		2-R01-AG-025152-06	417,113		417,113
Clinical, Imaging, and Pathological studies in the Oldest Old: The 90+ Study	93.866	UNIVERSITY OF CALIFORNIA-IRVINE	Sub to 2-R01-AG-021055-11 REVISED		65,907	65,907
Communicating with African Americans at the End of Life: a Church-based Model	93.866		1-R21-AG-044677-01A1	146,179		146,179
Computational neuroanatomy of aging and AD via pattern analysis	93.866		2-R01-AG-014971-10A1	343,066		343,066
Connecting inflammation and senescence in the T follicular helper response to vaccine	93.866		1F32AG047773-01	25,804		25,804
Consortium for Alzheimers Sequence Analysis (CASA)	93.866		1-UF1-AG-047133-01	2,233,448		2,233,448
Data and Safety Monitoring Board	93.866	UNIVERSITY OF CALIFORNIA-SAN DIEGO	47180199		36,633	36,633
Default palliative care consultation for seriously ill hospitalized patients	93.866		1-UH2-AG-050311-01	159,428		159,428
Discovery of Novel Proteomic Targets for Treatment of Alzheimer's Disease	93.866	EMORY UNIVERSITY	T233735		32,000	32,000
Early, detection of Alzheimer's (MCI Stage): Analysis of plasma cell-free miRNAi	93.866	DIAMIR, LLC	Sub to 2-R44-AG-044860-02		4,509	4,509
Effect of Genetic, Individual & Neighborhood Factors on Telomere Length	93.866		1-F31-AG-039986-01	22,007		22,007
Effects of Multi-Modal Exercise Intervention Post Hip Fracture	93.866	UNIVERSITY OF MARYLAND	SR00002503		17,678	17,678
EFFICACY OF AN SSRI FOR MENOPAUSAL SYMPTOMS IN PERIMENOPAUSAL WOMEN	93.866		1-U01-AG-032656-01	-47,666		-47,666
Elucidating AD genotype-phenotype relationships using genetics of human IPS cells	93.866	UNIVERSITY OF CALIFORNIA-SAN DIEGO	55748937		18,976	18,976
Epigenetics of Aging and Age-Associated Diseases	93.866		2-P01-AG-031862-06A1	1,439,308		1,439,308
Epigenetics of Aging and Age-Associated Diseases	93.866		7-P01-AG-031862-02	114		114
Ethical Issues in Dementia Research Involving Surrogates and Study Partners	93.866	JOHNS HOPKINS UNIVERSITY	2001440333		78,741	78,741
Evaluating Pay for Performance and its Design: Evidence from Nursing Homes	93.866		1-R01-AG-034182-01A1	114,730		114,730
Exceptional Survival: Trajectories to Functional Aging (CHS All Stars)	93.866	UNIVERSITY OF PITTSBURGH	0012200 (119695-4)		27,327	27,327
Four Repeat Tauopathy Neuroimaging Initiative	93.866	UNIVERSITY OF CALIFORNIA - SAN FRANCISCO	6482sc		30,921	30,921
Frontotemporal Dementias: Genotypes and Phenotypes	93.866		2-P01-AG-017586-11	2,002,100		2,002,100
Genetic Architecture of Memory and Executive Functioning in Alzheimer's Disease	93.866	UNIVERSITY OF WASHINGTON	763366		16,381	16,381
Genome Wide Analysis of LXR Binding-Metabolic and Epigenetic Regulation in AD	93.866	UNIVERSITY OF PITTSBURGH	0017484 (122314-1)		114,932	114,932
Ghrelin and Strength Training in Frail Elderly	93.866		1-R21-AG-040488-01A1	5,785		5,785
Group Learning Achieves Decrease Incidents of Lower Urinary Symptoms (GLADIOLUS)	93.866	BEAUMONT HOSPITAL, ROYAL OAK CAMPUS	PO #100-2940836		241,699	241,699
HANDLS SCAN SUBSTUDY: RACE, SOCIOECONOMIC STATUS AND THE BRAIN	93.866	UNIVERSITY OF MARYLAND	0000007283		155,392	155,392
Health and Retirement Study (Years 23-28)	93.866	UNIVERSITY OF MICHIGAN	3002222932		99,292	99,292
High Priority Research Network on the Determinants of Life Course Outcome	93.866	UNIVERSITY OF CHICAGO	FP056559		11,851	11,851
Hospital Care Environment, Neighborhood, and Racial Disparities in Elder Outcomes	93.866		1-R01-AG-041099-01	191,844		191,844
Internal Ethics Committee	93.866	UNIVERSITY OF CALIFORNIA-SAN DIEGO	37458739		28,621	28,621
Long Life Family Study	93.866	BOSTON MEDICAL CENTER	5-U01-AG-023755-08		26,341	26,341
Longitudinal Evaluation of Familial Frontotemporal Dementia Subjects (LEFFTDS)	93.866	MAYO CLINIC ROCHESTER	PO #63788299		237,960	237,960

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
Mechanisms of Health Disparities in Parkinsonism	93.866		1-K23-AG-034236-01A1	114,435		114,435
Metabolic Networks and Pathways in Alzheimers Disease	93.866	DUKE UNIVERSITY MEDICAL CENTER	2034217		53,540	53,540
Midcareer Investigator Award in Patient-Oriented Research in Aging	93.866		1-K24-AG-042765-01A1	187,752		187,752
Midcareer Mentoring Award for Patient-Oriented Research in Aging	93.866		1-K24-AG-047908-01	193,679		193,679
Mild Cognitive Impairment and Obstructive Sleep Apnea	93.866	GEORGE MASON UNIVERSITY	E2023761		34,849	34,849
Modeling Splicing in normal tissues and neurodegenerative disease	93.866		1-R01-AG-046544-01A1	259,496		259,496
Molecular Mechanisms of Rapamycin's effects on Health and longevity.	93.866		1-R01-AG-043483-01	387,588		387,588
MRI-Based Assessment of Structural and Mechanical Implications of Osteoporosis	93.866		1-R01-AG-038693-01A1	371,618		371,618
Multimodal Biomarkers in Frontotemporal Lobar Degeneration	93.866		1-R01-AG-043503-01A1	122,160		122,160
National Alzheimer's Coordinating Center (NACC)	93.866	UNIVERSITY OF WASHINGTON	752714/PROJECT #2013-07		2,557	2,557
National Alzheimer's Coordinating Center (NACC)	93.866		762205		65,745	65,745
Novel Imaging Biomarkers for Treatment Evaluation in Neurodegenerative Disorder	93.866		1-R01-AG-037376-01	330,445		330,445
Optimized Arterial Spin Labeling MRI in Mild Cognitive Impairment	93.866		1-R01-AG-040271-01A1	477,585		477,585
Orally-absorbed, small molecule microtubule-stabilizers for tauopathy treatment	93.866		1-R01-AG-044332-01	530,031		530,031
OSTEOPOROSIS AND OSTEObLAST DIFFERENTIATION IN MOUSE MODELS OF ACCELERATED AGING	93.866		1-R01-AG-028873-01A1	14,297		14,297
PENN CMU ROYBAL CENTER ON BEHAVIORAL ECONOMICS AND HEALTH	93.866		1-P30-AG-034546-01	48,097		48,097
Penn Roybal Center in Behavioral Economics and Health	93.866		2-P30-AG-034546-06	270,317		270,317
Phase II study to evaluate the impact on biomarkers of Resveratrol treatment in patients with mild to moderate Alzheimer's Disease	93.866	UNIVERSITY OF CALIFORNIA-SAN DIEGO	22-UPENN-RES		41,140	41,140
Photo-initiated Disassembly of Fibrils: Application to Amyloids and Hydrogels	93.866		1-F31-AG-046010-01A1	36,282		36,282
Prediction of Severity in Alzheimer's Disease	93.866	DUKE UNIVERSITY	14-CU-1082		3,994	3,994
Probing the Folding Mechanism of Intrinsically Disordered Proteins: the pKID/KIX complex	93.866		1-F31-AG-039253-01A1	4,340		4,340
Probing TRAP150/GSK3-mediated regulation of the aging-related protein PSF	93.866		1-F31-AG-047022-01A1	42,244		42,244
Processing Speed Training to Preserve Driving and Function Competencies in MCI	93.866	UNIVERSITY OF ALABAMA AT BIRMINGHAM	000504619-001		72,483	72,483
Prospective Assessment of The Etiology of Insomnia in Middle Aged & Elder Adults	93.866		1-R01-AG-041783-03	536,885		536,885
Quantitative Early Structural and Functional Imaging Markers of AD	93.866		NIH ADV ACCT	59,590		59,590
REGULATION OF GENE EXPRESSION IN FRONTOTEMPORAL DEMENTIA: A GENOME-WIDE APPROACH	93.866		1-K08-AG-033101-01	-510		-510
Reversing Impact of Childhood Adversity on MDD & Cognitive Decline in Menopause	93.866		1-R01-AG-048839-01	221,608		221,608
Role of Notch signaling in fracture healing as a function of aging	93.866		1-R03-AG-040670-01	3,192		3,192
Sirtuin regulation of aging human primary adipose tissue	93.866		1-K08-AG-042496-01A1	136,742		136,742
Sleep/Wake Fragmentation with Age: Molecular Mechanisms	93.866		2-P01-AG-017628-11	1,560,235		1,560,235
Staging Activity Limitation	93.866		1-R01-AG-040105-01A1	297,773		297,773
SUBCLINICAL THYROID DYSFUNCTION IN THE ELDERLY	93.866		1-R01-AG-032317-01A1	1,474		1,474
Targeted Proteomics of Resilient Cognition in Aging	93.866		1-R01-AG-039478-01	437,692		437,692
Targeting Wave Reflections in Heart Failure with Preserved Ejection Fraction	93.866		1-R21-AG-043802-01	238,405		238,405
TDP-43 Proteinopathies in ALS-Dementia	93.866		1-P01-AG-032953-01A1	1,076,134		1,076,134
Telomere maintenance by werner syndrome family protein:	93.866		2-R01-AG-021521-06A1	4,412		4,412
Testosterone Trial	93.866		1-U01-AG-030644-01A1	1,990,417		1,990,417
The Alzheimer's Disease Neuroimaging Initiative 2 Biomarker Core	93.866	NORTHERN CALIFORNIA INSTITUTE FOR RESEARCH AND EDUCATION	1576 sub to U01AG024904-07		436,218	436,218
The Bone Trial of the Testosterone Trial	93.866		1-R01-AG-037679-01A1	714,494		714,494
The Contribution of Obesity to International Differences in Longevity	93.866		1-R01-AG-040212-01	275,364		275,364
THE ECONOMICS AND PSYCHOLOGY OF SELF-CONTROL	93.866		1-K01-AG-033182-01A1	1,075		1,075
The Economics of Health, Wealth, and Well-Being Pilot: Save More Later and Particularly after Your Next Birthday: The Effect of Procrastination on Retirement Saving	93.866	NATIONAL BUREAU OF ECONOMIC RESEARCH, INC.	P01-AG-005842		59,940	59,940
The Effect of Exercise on Frailty in C. elegans	93.866		1-R03-AG-042690-01A1	75,907		75,907
The Frontotemporal Lobar Degeneration Neuroimaging Initiative	93.866	UNIVERSITY OF CALIFORNIA - SAN FRANCISCO	5833sc		0	0
The NIA Genetics of Alzheimer's Disease Data Storage Site	93.866		1-U24-AG-041689-01	1,041,701		1,041,701
The role of ATR in preventing age-related diseases	93.866		2-R01-AG-027376-06	389,699		389,699
The role of Leptin in Alzheimer's disease	93.866		1-K08-AG-039510-01	122,829		122,829
The unfolded protein response and neurodegenerative tauopathies	93.866		1-F31-AG-043254-01	30,117		30,117
Training in age related neurodegenerative diseases	93.866		2-T32-AG-000255-16	520,856		520,856
Understanding Variations in Hip Fracture Outcomes across the Continuum of Care	93.866		1-K08-AG-043548-01	152,891		152,891
Young-Onset Dementia in Colombia	93.866		1-R21-AG-046499-01	63,374		63,374
	SubTotal 93,866			26,842,690	2,378,976	29,221,666
A PILOT STUDY OF LASER PHOTOCOAGULATION FOR DIABETIC MACULAR EDEMA DRCR 1A	93.867	JAEB CENTER FOR HEALTH RESEARCH	EY 14231		59,383	59,383
Achromatopsia - Disease Mechanisms and Cone-Directed Gene Therapy	93.867	MICHIGAN STATE UNIVERSITY	RC10377UP		27,765	27,765
Aqueous Humor Outflow Control and Intraocular Pressure	93.867		2-R01-EY-013624-08	121,968		121,968
Central Processing of Visual Information	93.867	CORNELL UNIVERSITY	11050796		30,726	30,726
Clinical trials of gene therapy for Leber congenital amaurosis	93.867		2-U10-EY-017280-06	450,318		450,318
Color Constancy	93.867		2-R01-EY-010016-18A1	241,520		241,520
Competitive Renewal for Multicenter Uveitis Steroid Treatment (MUST) Trial	93.867	JOHNS HOPKINS UNIVERSITY	SUB TO 2-U10-EY014660-06		29,748	29,748
Complications of Immunosuppression for Eye Diseases	93.867		2-R01-EY-014943-07	769,366		769,366
COMPUTER ANALYSIS OF OPTIC DISC IMAGES IN GLAUCOMA	93.867		1-R01-EY-017299-01A1	43,540		43,540
CONSOLIDATION MECHANISMS IN THE DEVELOPING VISUAL CORTEX	93.867		1-R01-EY-019022-01	-3,554		-3,554
Coordinating Center for the Comparison of AMD Treatments Trial	93.867		2-U10-EY-017823-05	390,253		390,253
Cortical Structure and Function in Blindness and following Restored Vision	93.867		1-R01-EY-020516-01A1	354,356		354,356
Degradative Processes in RPE-photoreceptor renewal	93.867		2-R01-EY-010420-17A1	412,807		412,807
Follow-up Study: Comparison of AMD Treatments Trials (CATT)	93.867		1-U10-EY-023530-01	1,892,546		1,892,546
Genetic Analysis of Axonal Regeneration	93.867		1-R01-EY-024861-01	477,390		477,390
Genetic Epidemiology of Age-Related Macular Degeneration in the Older Order Amish	93.867		1-R01-EY-023164-01	1,497,003		1,497,003
Genetic Epidemiology of Refractive Error	93.867		1-R01-EY-020483-01	386,517		386,517
How vesicles send information to retinal ganglion cells	93.867		2-R01-EY-013333-12A1	332,049		332,049
Integrative Data Analysis for Refractive Error	93.867		1-R01-EY-024233-01	122,366		122,366
Mechanism of SIRT1 activator mediated neuroprotection of retinal ganglion cells	93.867		1-R01-EY-019014-01A2	325,609		325,609
Mechanisms of learning a visual discrimination	93.867		2-R01-EY-015260-06A1	266,055		266,055
Mechanisms of learning a visual discrimination	93.867		2-R01-EY-015260-11	128,386		128,386
Membrane complement regulators in RPE degeneration and retinal injury	93.867		1-R01-EY-023709-01	580,448		580,448
Models for Therapy of Hereditary Retinal Degeneration	93.867		2-R01-EY-006855-29	262,036		262,036
Models of Hereditary Retinal Degeneration	93.867		7-R01-EY-006855-27	261,565		261,565
More Complete Assessment of DNA Variation in Age-Related Macular Degeneration	93.867	UNIVERSITY OF MICHIGAN	3002502378		104,847	104,847
Multicenter Uveitis Steroid Treatment (MUST) Trial - Chairman's Grant	93.867	MOUNT SINAI MEDICAL CENTER	0255-1775-4609		72,756	72,756
MUST ME CHAIR SECTION	93.867	ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI	0255-7711-4609		17,121	17,121

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
Nanomedicine Center for Nucleoprotein Machines	93.867	GEORGIA INSTITUTE OF TECHNOLOGY	R7747- G13		259,647	259,647
Nanomedicine Development Center for Mechanobiology (Continuation Application ? Part 2)	93.867	NEW YORK UNIVERSITY	10-01737; PROJECT #00903		17,770	17,770
NDC for the Optical Control of Biological Function	93.867	UNIVERSITY OF CALIFORNIA- BERKELEY	00007510/PO #2000038320		449,805	449,805
Neural mechanisms for landmark-based navigation	93.867		1-R01-EY-022350-01A1	241,618		241,618
Neural processing in the ventral visual pathway during object search	93.867		1-R01-EY-020851-01	392,604		392,604
NEURO-OPHTHALMOLOGY RESEARCH DISEASE INVESTIGATOR CONSORTIUM (NORDIC-IIHTT) NETWORK	93.867	ST LUKE'S ROOSEVELT HOSPITAL	SUB TO U10-EY017281-01A1		2,006	2,006
Novel Adeno-Associated Viral Therapy for Wet Age-Related Macular Degeneration	93.867	REGENX, LLC	SUB TO I-R34-EY022821-01		-21,779	-21,779
Object Concepts	93.867		1-R01-EY-021717-01	525,465		525,465
Ocular Complications of AIDS-SOCA	93.867	JOHNS HOPKINS UNIVERSITY	2000533816		-575	-575
Optimizing Gene Therapies in Large Animal Models of Retinal Degeneration	93.867		1-F32-EY-023891-01A1	52,467		52,467
Oxidative Damage and Cone Cell Death in RP	93.867	JOHNS HOPKINS UNIVERSITY	2001536680		27,995	27,995
P-30 Core grant for vision research	93.867		2-P30-EY-001583-36	714,789		714,789
PENN Vision Clinical Scientist Program	93.867		2-K12-EY-015398-06	815,718		815,718
PGC-1 coactivators in photoreceptor development and survival	93.867		7-R01-EY-023682-02	273,858		273,858
Photo switchable channel blockers for treatment of blindness	93.867	UNIVERSITY OF WASHINGTON	762671		276,604	276,604
Photograph Reading Center for the Comparison of AMD Treatments Trial	93.867		2-U01-EY-017826-05	-27,596		-27,596
Postnatal Growth and Retinopathy of Prematurity (G-ROP) Studies	93.867	CHILDREN'S HOSPITAL OF PHILADELPHIA	3209850813 / PO #960522RSUB		105,431	105,431
Primary Open Angle African-American Glaucoma Genetics (POAAGG)	93.867		1-R01-EY-023557-01	1,878,509		1,878,509
Purines and the Health of Retinal Ganglion Cells	93.867		2-R01-EY-015537-08A1	305,528		305,528
REGULATION OF LYSOSOMAL PH IN RPE CELLS	93.867		2-R01-EY-013434-11A1	227,284		227,284
RESEARCH ON NORMAL AND ABNORMAL MECHANISMS OF VISION	93.867		2-T32-EY-007035-31	30,985		30,985
RESEARCH ON NORMAL AND ABNORMAL MECHANISMS OF VISION	93.867		2-T32-EY-007035-36	151,752		151,752
Retinal circadian rhythms and refractive development	93.867		1-R01-EY-022342-01A1	347,992		347,992
Retinal Circuitry for Robust Direction Selectivity	93.867	OREGON HEALTH SCIENCES UNIVERSITY	1001748_UP		202,813	202,813
Retinal circuits for local synaptic processing	93.867		1-R01-EY023766-01A1	142,777		142,777
Retinal circuits for precise signaling	93.867		2-R01-EY-016607-21A1	112,220		112,220
Retinal iron transport in health and disease	93.867		2-R01-EY-015240-09	547,156		547,156
Role of basal ganglia in reward-biased visual decisions	93.867		1-R01-EY-022411-01A1	368,030		368,030
SCORE2 Comparative Trial (SCT)	93.867	PENNSYLVANIA STATE UNIVERSITY	UPA023533		1,112	1,112
Secondary Data Analysis of the Data from Comparison of AMD Treatments Trials	93.867		1-R21-EY-023689-01	249,360		249,360
Synaptic organization of simple cell receptive fields	93.867		1-R01-EY-020765-01A1	376,895		376,895
Telemedicine Approaches to Evaluating Acute-Phase ROP_eROP	93.867	CHILDREN'S HOSPITAL OF PHILADELPHIA	320886-01-01 / PO #950800RSUB		252,301	252,301
Telemedicine Approaches to Evaluating Acute-Phase ROP_eROF	93.867	CHILDREN'S HOSPITAL OF PHILADELPHIA	320886-01-02 / PO #950802RSUB		157,652	157,652
The Dry Eye Evaluation And Management (DREAM) Study: Coordinating Center	93.867		1-U10-EY-022879-01	1,205,078		1,205,078
Therapeutic Approaches for ABCA4-Associated Disorders	93.867		2 (ACCT, #5-30209)		259,578	259,578
Training in Ophthalmic Statistical Genetics and Bioinformatics	93.867	COLUMBIA UNIVERSITY	1-T32-EY-021451-01	75,864		75,864
Translational Gene Therapy for Rhodopsin Autosomal Dominant Retinitis Pigmentosa	93.867		1-R24-EY-022012-01	1,365,353		1,365,353
Translational Research for Retinal Degeneration Therapies	93.867		2-R01-EY-017549-06	635,929		635,929
Vision in Preschoolers - Hyperopia in Children (VIP-HIP)	93.867	OHIO STATE UNIVERSITY	60025489 / PO #RF01249423		99,557	99,557
VISION RESEARCH CENTER - CORE GRANT	93.867		2-P30-EY-001583-26	-21,800		-21,800
VISUAL CYCLE IN HUMAN PHOTORECEPTOR AND RPE DISEASE	93.867		2-R01-EY-0013203-08	0		0
Complement in AMD: Mechanisms and Therapeutic Intervention	93.867		1-R01-EY-020633-01A1	273,506		273,506
Adaptation and multivoxel codes in high-level visual cortex	93.867		1-R21-EY-022751-01A1	204,309		204,309
SubTotal 93.867				20,778,194	2,432,263	23,210,457
Population Health and Primary Care: Integrating Public Health into Medical Education	93.884		1 T85HP24468-01-00	289,268		289,268
SubTotal 93.884				289,268		289,268
Home-Based Mirror Therapy for Treating Hemiparesis in Stroke Patients	93.885	MOSS REHABILITATION RESEARCH INSTITUTE	SUB TO R01-HD068565		41,919	41,919
SRSC I-Virus Biology Hahn	93.885	DUKE UNIVERSITY	2031969		892,493	892,493
SubTotal 93.885					934,412	934,412
Center of Excellence in Enviromental Toxicology	93.894		2-P30-ES-013508-05	1,494,995		1,494,995
SubTotal 93.894				1,494,995		1,494,995
Remodeling Potential of the Mitral Valve Following Surgical Repair	93.937	UNIVERSITY OF TEXAS AT AUSTIN	UTA13-000980		663,990	663,990
SubTotal 93.937					663,990	663,990
Genome Persistence of KSHV	93.939		1-R01-CA-171979-01A1	187,412		187,412
SubTotal 93.939				187,412		187,412
HIV/STI prevention among Black adolescents with mental illnesses	93.941		1-U01-PS-003304-01	272,590		272,590
SubTotal 93.941				272,590		272,590
Practice Change in Geriatric Care	93.969		1-UB4-HP-19214-01-00	473,788		473,788
SubTotal 93.969				473,788		473,788
Building Local Capacities in Ethics Training and IRB Review in Guatemala	93.989		1-R25-TW-009738-01	188,728		188,728
Chronic Disease Clinical Epidemiology Training in Guatemala and Pert	93.989		1-D43-TW-008317-01A1	174,596		174,596
HIV Clinical Research Training for Botswana	93.989		1-D43-TW-009781-01	155,654		155,654
Injury and trauma research training for Guatemala	93.989		1-D43-TW-008972-01	44,521		44,521
Mexican migration and the economic recession: Effects on health and well-being	93.989		1-R03-TW-008704-01	31,086		31,086
Neurobehavioral Assessment/High-Risk Behavior Among HIV-Positive Adolescents	93.989		1-R21-TW-009262-01	6,970		6,970
SubTotal 93.989				601,555		601,555
SPORE in Skin Cancer	93.397	WISTAR INSTITUTE			222,884	222,884
SubTotal 97.036					222,884	222,884
GTRP Preclinical Vector Production Core Laboratory - Renewal	(blank)		HHSN268201200041C	6,205		6,205
SubTotal (blank)				6,205		6,205

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
A Phase I Open Label Safety Study To Evaluate The Pharmacokinetic Profile And Tolerance Of Mibefradil Dose Finding In Subjects With Recurrent High-Grade Glioma	93	JOHNS HOPKINS UNIVERSITY	ABTC 1101		31,267	31,267
A RANDOMIZED CLINICAL TRIAL OF GENOTYPE-GUIDED DOSING OF WARFARIN THERAPY	93		HHSN268200800003C	76,871		76,871
A Trial of Single Autologous Transplant with or without Consolidation Therapy versus Tandem Autologous Transplant with Lenalidomide Maintenance for Patients with M	93	BLOOD AND MARROW TRANSPLANTATION CLINICAL TRIALS NETWORK	Protocol Rider #0702		5,505	5,505
ACRIN Committee or Subcommittee Chair Agreement	93	AMERICAN COLLEGE OF RADIOLOGY IMAGING NETWORK (ACRIN)	CA80098		-30,983	-30,983
Action to Control Cardiovascular Risk in Diabetes (ACCORD) - Memory in Diabetes (MIND) MRI Follow-Up Study	93	WAKE FOREST UNIVERSITY	WFUHS 30012		166,478	166,478
AIDS Clinical Trials Group Network - A5315 Protocol Funding	93	BRIGHAM AND WOMEN'S HOSPITAL	SUB TO 2UM1A1068636-08/110215		-3,808	-3,808
AIDS Clinical Trials Group; Protocol Funds	93	BRIGHAM AND WOMEN'S HOSPITAL	sub to U01A1068636fund 110215		271,633	271,633
Analysis of integration sites during WAS gene therapy	93	CHILDREN'S HOSPITAL BOSTON	RSTFD0000576497		3,520	3,520
Analytic Methods for Using Laboratory Test Results in Active Database Surveillance	93	HHSF22301012T-0008			91,391	91,391
ARRA - NIAID INFLUENZA RESEARCH COLLABORATION (NIRC)	93	SOCIAL & SCIENTIFIC SYSTEMS, INC.	CRB-DCR01-S-09-00322 / IRC002		78,907	78,907
BIOINFORMATICS RESOURCE CENTER FOR INFECTIOUS DISEASES	93		HHSN272200900038C	1,473,440		1,473,440
BIOINFORMATICS RESOURCE CENTERS FOR BIODEFENSE AND EMERGING/RE-EMERGING INFECTIOUS DISEASES	93		HHSN266200400037C	-3,396		-3,396
C.R.E.S.T. (CAROTID REVASCULARIZATION ENDARTERECTOMY VX. STENT TRIAL)	93	RUTGERS UNIVERSITY	SUB TO R01-NS38384		20,654	20,654
CARDIA Brain MRI SUB-Study white matter trac	93		HHSN311201400281P		8,000	8,000
Cellular and synaptic physiology during the progression to nicotine abuse	93		7-R01-DA-009411-15	-1,009		-1,009
Chimeric IgG/A Tumor Immunotherapy	93	PLANET BIOTECHNOLOGY	SUB TO IR43CA171417-01A1		34,693	34,693
Clinical Evaluation of Nestorone/Estradiol-Releasing Vaginal Ring Female Contraception	93		HHSN275201100041U TASK ORDER 6		4,967	4,967
Clinical Evaluation of Novel Products for Female Contraception (Main Study)	93		HHSN275201300020I		37,148	37,148
Contraceptive Clinical Trials Network - Female Sites	93		HHSN275201300020I	481,327		481,327
COOPERATIVE MULTICENTER REPRODUCTIVE NETWORK - Pregnancy Registry	93	YALE UNIVERSITY	Pregnancy Registry		75	75
CT DOSE Collaboration	93	UNIVERSITY OF CALIFORNIA - SAN FRANCISCO	849nc		39,296	39,296
Detection and Analysis of Adverse Events related to Regulated Products in Automated Healthcare Data. Efforts to Develop the Sentinel Initiative (Year 6 Infrastructure	93	HARVARD PILGRIM HEALTH CARE	HHSF22301016T-0002		73,928	73,928
Detection and Analysis of Adverse Events related to Regulated Products in Automated Healthcare Data: Efforts to Develop the Sentinel Initiative/Mini-Sentinel Y4 Infrastr	93	HARVARD PILGRIM HEALTH CARE	HHSF22301009T-0006		7,649	7,649
Development and Demonstrations of a Surgical Unit-Based Safety Program (SUSP) to Reduce Surgical Site Infections (SSI) and Other Surgical Complication	93	JOHNS HOPKINS UNIVERSITY	PO #2001586468 STUDY 1		329,282	329,282
Development of a Novel Adjuvant for Vaccine Sparring	93	NEW YORK BLOOD CENTER	SUB TO IR01-A1105431-01		478,990	478,990
Development of an Angiogenic T Cell Assay for Personalized Cytomics in Cardiovascular Disease	93	CYTOVAS	CYTOVAS		67,250	67,250
Does a new supermarket improve the diet and food environment of residents?	93	FOOD TRUST	Sub to 1-R01-DK-102324-01		36,779	36,779
ECRI Institute - Penn Medicine AHRQ EPC Proposal	93	ECRI	HHS290201200111		640,049	640,049
Education and Empowerment Intervention for HIV Prevention In and Out of Jail	93	TEMPLE UNIVERSITY	SUB TO 7R01DA027204-04		41,766	41,766
Electronic System for Wireless Monitoring of Patient Medication Adherence	93	DOSECUE, LLC	SUB TO R43NR014071-01		-2,485	-2,485
Equivalence Among Antiepileptic Drug Generic and Brand Products in People with Epilepsy: Chronic-Dose 4-Period Replicate Design (EQUIGEN Chronic-Dose	93	UNIVERSITY OF CINCINNATI	HHSF22301110112A		2,433	2,433
EVAL OF OUTCOMES FOLLOWING MVR IN SEVERE CHRONIC ISCHEMIC MITRAL REGURGITATION	93	MOUNT SINAI MEDICAL CENTER	sub to 7U01 HL088942-02		19,775	19,775
Greater Philadelphia Souther New Jersey NETT Network ATACH II Trial	93	UNIVERSITY OF MICHIGAN	Sub to S-U01-NS-062091-04		12,751	12,751
GTRP Preclinical Vector Production Core Laboratory - Renewal	93		HHSN268201200041C	2,228,075		2,228,075
HCMR - Novel Predictors of Outcome in Hypertrophic Cardiomyopathy	93	UNIVERSITY OF VIRGINIA	SUB TO U01HL117006-01A1		3,759	3,759
Hemophilia Liver Transplantation Observational Study (HOTS)	93	HEMOPHILIA CENTER OF WESTERN PENNSYLVANIA	PRO12060248		5,679	5,679
High Dimensional Cytometric Assay for Clinical Assessment of Vascular Health	93	CYTOVAS	SUB TO IR43HL114147		16,595	16,595
High Specificity HIV-1 Markers Predictive of Neuro-AIDS	93	DREXEL UNIVERSITY	220529		26,032	26,032
Implantable construct for architectural control of re-vascularization of ischemic tissues	93	INNOLIGN BIOMEDICAL, LLC	Sub to NIH STTR Award ADV ACCT		36,505	36,505
IMPROVED DNA VACCINES	93	VGX PHARMACEUTICALS, INC.	HHSN272200800063C		404,986	404,986
Insights into microbial and environmental contributions to leg ulcers in sickle cell disease	93		HHSN302201400147P	800		800
Integrated Islet Distribution Program	93	BECKMAN RESEARCH INSTITUTE OF THE CITY OF HOPE	50578.914951.6560		428,442	428,442
Longitudinal Studies of Coronary Artery Risk Development in Young Adults (CARDIA) - Coordinating Center	93	UNIVERSITY OF ALABAMA AT BIRMINGHAM	000501394-SC007		87,852	87,852
L'VAD Therapy: Exploring the effect of intramyocardial injection of mesenchymal precursor cells on myocardial function	93	Mt Sinani L'VAD			9,497	9,497
Mechanosensing in the bone lacunar-canalicular system	93	UNIVERSITY OF DELAWARE	Sub to UDel		3,192	3,192
Mesothelioma sample procurement for TCGA	93	LEIDOS, INC.	13XS122 ST01		-2,585	-2,585
NCI Community Oncology Research Program (NCORP) Research Bases (UM1)	93	ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	ECOG-ACRIN		41,963	41,963
Nepicastat for Treatment of Cocaine Dependence: A Phase II Study	93		CS#1031	68,337		68,337
New Therapeutics for the Treatment of Acinetobacter Baumannii Infections	93	FOX CHASE CHEMICAL DIVERSITY CENTER	1-R41-AI-108196-01		51,554	51,554
NICHD International and Domestic Pediatric and Maternal HIV Studies Coordinating Center	93	CHILDREN'S HOSPITAL OF PHILADELPHIA	8234501114		63,246	63,246
Novel Approaches to Thromboprophylaxis	93	TARGETED THERAPEUTIC SOLUTIONS	SUB TO IR43HL118840		18,419	18,419
Novel metabolites associated with renal outcomes	93	STANFORD UNIVERSITY	Sub to NIH ADV ACCT		2,695	2,695
NRG Oncology Capitation Fund	93	NRG ONCOLOGY	NRG Oncology Foundation		125,850	125,850
Nulliparous Pregnancy Outcome Study: Monitoring Mothers-to-be (nuMoM2b): capitation	93	RESEARCH TRIANGLE INSTITUTE	SUB TO U10HD063048-01		-394	-394
nuMOM2b Heart Health Study Capitation Funding	93	RESEARCH TRIANGLE INSTITUTE	nuMoM2b-HHS / U10HL1199930215		14,860	14,860
ODSH as a Countermeasure for Radition-Induced Thrombocytopenia	93	CHILDREN'S HOSPITAL OF PHILADELPHIA	7300220817		23,254	23,254
Peer-to-Peer Mentoring Platform for Diabetes Management, Training and Support	93	INQUISITHEALTH	R43-DK101236		4,533	4,533
PFDN Capitation Funding	93	RESEARCH TRIANGLE INSTITUTE	PFDN CAPITATION FUNDING		162,242	162,242
PHASE 2, MULTI-CENTER TRIAL OF AZD8529 FOR SMOKING CESSATION IN FEMALE SMOKERS	93		AZD8529	21,194		21,194
Phase III Randomized Clinical Trial of Proton Therapy vs IMRT for Low or Low-Intermediate Risk Prostate Cancer	93	MASSACHUSETTS GENERAL HOSPITAL	220778		27,359	27,359
Physical Properties of Cancer Cells: Cell Mechanics and Force Generation in Physiologically Realistic Environment	93	LEIDOS, INC.	13XS086		328,939	328,939
Pilot Testing a Natural Mentor Intervention for Older Youth in Foster Care (CARE: Caring Adults R Everywhere)	93	PHILADELPHIA DEPARTMENT OF HUMAN SERVICES	14-20407		71,975	71,975
Piperlongumine as a Novel Radiosensitizer for Lung Cancer	93	NORTH DAKOTA STATE UNIVERSITY	FAR0024666		4,409	4,409
Preparation for the CARDIA Year 30 Brain MRI study	93		HHSN311201400113P	4,179		4,179
Proof of Principle for a Diagnostic Blood Test of Recurrent Seizures	93	COGNIZANCE BIOMARKERS	1-R43-NS-079029-01A1		28,624	28,624
Prospective Routine Observational Monitoring of Mirabegron	93	HARVAD PILGRIM HEALTH CARE	HHSF22302007T-0013		203,306	203,306
Protective Immunity in Special Populations	93	WISTAR INSTITUTE	29902-04-307; WHERRY		184,395	184,395
Protective Immunity in Special Populations	93		29902-10-307; RATCLIFFE		0	0
Protocol 676: A Randomized Phase II Study of VEGF, RAF Kinase, mTOR AND EGF-R Targeted Combination Therapy in Advanced Renal Cell Carcinom	93	AMERICAN COLLEGE OF RADIOLOGY	CA80098		-8,901	-8,901
Protocol-based assessment of thromboembolic events after immunoglobulin administration	93	HARVAD PILGRIM HEALTH CARE	HHSF223200910006T-0003		55,376	55,376
Proton Consortia Workshop	93	MASSACHUSETTS GENERAL HOSPITAL	217756		5,046	5,046
Quantitative Early Structural and Functional Imaging Markers of AD	93		HHSN271201300284P	244,434		244,434
Radiation Therapy Oncology Group	93	AMERICAN COLLEGE OF RADIOLOGY	RTOG #2201		27,135	27,135
Randomized Evaluation of VAD InterVEntion Before Inotropic Therapy (REVIVE-IT)	93	UNIVERSITY OF MICHIGAN	HHSN268201100026C		12,892	12,892
Randomized Trial to Prevent Vascular Events in HIV ? REPRIEVE (A5332)	93	BRIGHAM AND WOMEN'S HOSPITAL	SUB TO U01HL23336/A5332/A5333		320	320
Rate control versus rhythm control for postoperative atrial fibrillation	93	MOUNT SINAI MEDICAL CENTER	SUB TO 5U01HL088942		9,235	9,235
Reducing heart failure re-admissions by enhancing sleep apnea treatment adherence	93	RIGHTCARE SOLUTIONS	SUB TO IR44HL124923		49,069	49,069
Registry of Genetically Triggered Thoracic Aortic Aneurysms and Cardiovascular Conditions (GenTAC)	93	RESEARCH TRIANGLE INSTITUTE	N01 HV68199		152,011	152,011
Reverse ChIP: Sequence-Specific Extraction of DNA-Bound Histones for Analysis of Post-Translational Modification	93	GENERATION BIOTECH	SUB TO IR43CA159883-01A1		76,775	76,775
Risk Evaluation and Education for Alzheimer's Disease (REVEAL IV)	93	BRIGHAM AND WOMEN'S HOSPITAL	106933		174	174
Scientific Program to Support Epidemiologic Investigations of Safety Related Issues of Marketed Drugs, and Evaluations of Risk Management Programs and Tools - Work	93		HHSF223201000007I	291		291

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
Sleep Disordered Breathing Substudy of nuMoM2b	93	RESEARCH TRIANGLE INSTITUTE	4-312-0212512		1,089	1,089
State of PA / DHHS Agreement	93	CHILDREN'S HOSPITAL OF PHILADELPHIA	8233620000 / PO #960821RSUB		261,182	261,182
Statistical Support for Health Services Research at Children's Hospital of Philadelphia	93	CHILDREN'S HOSPITAL OF PHILADELPHIA	728941061X/PO #960693RSUB		-635	-635
Stroke Hyperglycemia Insulin Network Effort (SHINE) Trial	93	UNIVERSITY OF MICHIGAN			43,446	43,446
SURGICAL INTERVENTIONS FOR MODERATE ISCHEMIC MITRAL REGURGITATION	93	MOUNT SINAI MEDICAL CENTER	0255-3104-4605		33,227	33,227
System for Measuring Tissue Oxygenation	93	ADVANCED MEDICAL ELECTRONICS	SUB TO IR43HL127578		8,955	8,955
Systolic Blood Pressure Intervention Trial (SPRINT)	93	CASE WESTERN RESERVE UNIVERSITY	RES508735		65,326	65,326
Systolic Blood Pressure Intervention Trial (SPRINT)	93	WAKE FOREST UNIVERSITY	WFUHS 30158		136,370	136,370
Technology-Enabled Type 1 Diabetes Education and Support (T1DES) System	93	POLARIS HEALTH DIRECTIONS	SUB TO IR41DK097932-01		11,797	11,797
The epidemiology of carbapenem-resistant Klebsiella pneumoniae in long-term acute care hospitals (LTACHs)	93	DUKE CLINICAL RESEARCH INSTITUTE	203-8691		11,577	11,577
The Epilepsy Bioinformatics Study (EpBios) - Administrative Supplementa	93	UNIVERSITY OF CALIFORNIA-LOS ANGELES	1580 G QE281		191,161	191,161
The Impact Vasopressin on Mitochondrial Dysfunction in Hemorrhagic Shock	93	AMERICAN COLLEGE OF SURGEONS	N/A		75,082	75,082
The Population Genetics of Divergence	93	TEMPLE UNIVERSITY	Temple U Sub		6,828	6,828
TISSUE COMPARTMENTALIZATION OF HUMAN LYMPHOCYTES	93	COLUMBIA UNIVERSITY	#3-GG007579-03		9,399	9,399
TISSUE COMPARTMENTALIZATION OF HUMAN LYMPHOCYTES	93		#4-GG007579-03		197,335	197,335
TISSUE COMPARTMENTALIZATION OF HUMAN LYMPHOCYTES	93		#5-GG007579-03		79,218	79,218
Treating type 2 diabetes with menin inhibitors	93	NOVAPEUTICS	R43-DK95654		42,469	42,469
Voxel-based analysis of the brain: CARDIA Brain Study	93		HHSN271201300540P	19,307		19,307
Core Function Activities Task Order	93		HHSN275201100068U TASK ORDER 8	0		0
Global Innate Immune Responses to HIV-1Infection	93	SANFORD-BURNHAM MEDICAL RESEARCH INSTITUTE	55648-12645-UPENN		198,558	198,558
SubTotal 93				4,663,965	6,545,494	11,209,459
DEPARTMENT OF HEALTH AND HUMAN SERVICES Total				469,004,450	49,371,678	518,376,128
SOCIAL SECURITY ADMINISTRATION						
Americans' Willingness to Voluntarily Delay Retirement (MRRC16)	96.007	UNIVERSITY OF MICHIGAN	PO #3002853151UM14-02		27,000	27,000
SubTotal 96.007					27,000	27,000
Prenatal Cytogenetic Diagnosis By Array-Based Copy Number Analyses: Follow-Up	96.865	COLUMBIA UNIVERSITY	3 (GG006961)/PO #G03619		181,222	181,222
SubTotal 96.865					181,222	181,222
SOCIAL SECURITY ADMINISTRATION Total					208,222	208,222
DEPARTMENT OF HOMELAND SECURITY						
Understanding Culture: Assessment of Safety Climate	97.044	DREXEL UNIVERSITY	215024		20,340	20,340
SubTotal 97.044					20,340	20,340
National Center for Risk & Economic Analysis of Terrorism Events (CREATE)	97.061	UNIVERSITY OF SOUTHERN CALIFORNIA	151350		-103	-103
SubTotal 97.061					-103	-103
DEPARTMENT OF HOMELAND SECURITY Total					20,237	20,237
UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT						
Greater Philadelphia Southern New Jersey NETT Trial POINT	98.853	UNIVERSITY OF MICHIGAN	3001413184-PNT/Sub to U01-NS-062835		197,605	197,605
SubTotal 98.853					197,605	197,605
Monitoring & Evaluation Plan for Half the Sky's HTS Transmedia Project	98	SHOW OF FORCE, LLC	AID-OAA-A-12-00078		143,025	143,025
SubTotal 98					143,025	143,025
UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT Total					340,630	340,630
Research and Development and Research Training Cluster Total				575,890,613	76,782,246	652,672,859
Student Financial Aid Cluster						
DEPARTMENT OF EDUCATION						
SEOG - SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT	84.007		P007A143720	2,943,833		2,943,833
SEOG - SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT	84.007		P007A133720	50,475		50,475
SubTotal 84.007				2,994,308		2,994,308
CWSP - Federal Work Study	84.033		P033A133720	138,355		138,355
CWSP - Federal Work Study	84.033		P033A143720	2,938,070		2,938,070
SubTotal 84.033				3,076,425		3,076,425
PELL GRANT	84.063		P063P20122158	-2,081		-2,081
PELL GRANT	84.063		P063P20132158	3,263		3,263
PELL GRANT	84.063		P063P20142158	7,219,782		7,219,782
SubTotal 84.063				7,220,964		7,220,964
TEACH GRANT	84.379		P379T142158	1,338		1,338
TEACH GRANT	84.379		P379T152158	51,912		51,912
SubTotal 84.379				53,250		53,250
DEPARTMENT OF EDUCATION Total				13,344,947		13,344,947
DEPARTMENT OF HEALTH AND HUMAN SERVICES						
Nurse Faculty Loan Program (NFLP)	93.264		1 E01HP25858-01-00	2,250		2,250
SubTotal 93.264				2,250		2,250
Scholarships for Disadvantaged Students (SDS)	93.925		5 T08HP25250-02-00	375,000		375,000
SubTotal 93.925				375,000		375,000
HPSL - DENTISTRY	93.342		1 E11-HP-27287-01-00	36,421		36,421

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
	SubTotal 93.342			36,421		36,421
NSL - BACCALAUREATE NURSING	93.364		1 E4-CHP-27340-01-00	51,213		51,213
	SubTotal 93.364			51,213		51,213
DEPARTMENT OF HEALTH AND HUMAN SERVICES Total				464,884		464,884
Student Financial Aid Cluster Total				13,809,831		13,809,831
ECONOMIC DEVELOPMENT CLUSTER						
DEPARTMENT OF COMMERCE						
OPERATION DISASTER RESILIENCY: BUSINESS ASSISTANCE TO SMALL FIRMS IMPACTED IN 2011 BY FLOODING FROM HURRICANE IRENE AND TR	11.307		01-79-14227	338,090		338,090
	SubTotal 11.307			338,090		338,090
DEPARTMENT OF COMMERCE Total				338,090		338,090
ECONOMIC DEVELOPMENT CLUSTER Total				338,090		338,090
Other Programs						
DEPARTMENT OF HEALTH AND HUMAN SERVICES						
HIV Emergency Relief Projects Grants	93.914	CITY OF PHILADELPHIA	CPB4011		35,471	35,471
HIV Emergency Relief Projects Grants	93.914		CPB5011		32,916	32,916
HIV Emergency Relief Projects Grants	93.914		R4668		223,164	223,164
HIV Emergency Relief Projects Grants	93.914		RM4757		220,098	220,098
HIV Emergency Relief Projects Grants	93.914		RM5757		85,890	85,890
HIV Emergency Relief Projects Grants	93.914		RS5668		81,677	81,677
Ryan White HIV/AIDS Treatment Extension Act of 2009 - Part A for FY2011	93.914	CITY OF PHILADELPHIA	RS4731 / 0920881-02 & -03 / AACO		330,086	330,086
	SubTotal 93.914				1,009,302	1,009,302
DEPARTMENT OF HEALTH AND HUMAN SERVICES Total					1,009,302	1,009,302
Other Programs Total					1,009,302	1,009,302
Non Major Programs						
CCDF CLUSTER						
DEPARTMENT OF HEALTH AND HUMAN SERVICES						
The psychometric quality of the Preschool Child Observation Record: Does it pass the test for use in child care programs'	93.575		90YE0138	5,142		5,142
	SubTotal 93.575			5,142		5,142
DEPARTMENT OF HEALTH AND HUMAN SERVICES Total				5,142		5,142
CCDF CLUSTER Total				5,142		5,142
TRIO Cluster						
DEPARTMENT OF EDUCATION						
Student Support Services	84.042		P042A100716	258,698		258,698
	SubTotal 84.042			258,698		258,698
Talent Search Program	84.044		P044A110225 ACTION 1	272,899		272,899
	SubTotal 84.044			272,899		272,899
84.047M - Upward Bound Math and Science Program	84.047		P047M130476	270,229		270,229
Upward Bound	84.047		P047A131651 ACTION 1	456,252		456,252
Veterans Upward Bound Program	84.047		P047V120006	311,538		311,538
	SubTotal 84.047			1,038,019		1,038,019
Educational Opportunity Center	84.066		P066A120055	253,692		253,692
	SubTotal 84.066			253,692		253,692
DEPARTMENT OF EDUCATION Total				1,823,308		1,823,308
TRIO Cluster Total				1,823,308		1,823,308
Other Programs						
DEPARTMENT OF AGRICULTURE						
Conference Proposal for the Sixth International Workshop on Soil and Sedimentary Organic Matter Stabilization and Destabilization (SOM6)	10.310		2013-67019-21341	21,435		21,435
The Last Food Mile: A Conference on Food Loss and Food Waste in the United States	10.310		2014-68004-21893	49,212		49,212
	SubTotal 10.310			70,647		70,647
UNI School Food Education Program - TRACKS Grant	10.561	PENNSYLVANIA STATE UNIVERSITY	5163-TUP-COP-9151		719,832	719,832
	SubTotal 10.561				719,832	719,832
MORE KIDS IN THE WOODS - Morris Arboretum's Partners in Education initiative	10.664		12-CS-11242300-122	-581		-581
	SubTotal 10.664			-581		-581
Eat. Right. Now. PA Nutrition Education TRACKS Program.	10	PENNSYLVANIA STATE UNIVERSITY	4295-TUP-COP-8692		311,146	311,146
	SubTotal 10				311,146	311,146
DEPARTMENT OF AGRICULTURE Total				70,066	1,030,978	1,101,044
DEPARTMENT OF DEFENSE						
Southeast Pennsylvania Procurement Technical Assistance Program (PTAP)	12.002		SP4800-12-2-1236	-39		-39
Southeast Pennsylvania Procurement Technical Assistance Program (PTAP)	12.002		SP4800-13-2-1336	84,133		84,133
Southeast Pennsylvania Procurement Technical Assistance Program (PTAP)	12.002		SP4800-14-2-1436	225,145		225,145
	SubTotal 12.002			309,239		309,239

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
PKC Epsilon: A Novel Oncogenic Player in Prostate Cancer	12.420		W81XWH-12-1-0009	6,595		6,595
	SubTotal 12.420			6,595		6,595
Conference: Canine Behavior, Cognition, Performance and Genetics	12.431		W911NF-14-1-0187	26,637		26,637
	SubTotal 12.431			26,637		26,637
Reiki for the Management of Neuropathic Pain in Soldiers with Extremity Trauma	12.750	GENEVA FOUNDATION	S-1265-01; HTY9404-12-1-TS11		11,508	11,508
	SubTotal 12.750				11,508	11,508
STARTALK Penn High School Chinese Academy	12.900	NATIONAL FOREIGN LANGUAGE CENTER UNIVERSITY OF MARYLAND	H98230-14-1-0012		76,651	76,651
UPenn 2014 Hindi-Urdu StarTalk Program	12.900	NATIONAL FOREIGN LANGUAGE CENTER UNIVERSITY OF MARYLAND	H98230-1-1-0045		84,754	84,754
UPenn 2015 Hindi-Urdu StarTalk Program	12.900		H98230-15-1-0087	7,602		7,602
	SubTotal 12.900			7,602	161,405	169,007
Master Resilience Training Courses Levels 3 & 4	12		W9124D-14-D-0027	1,234,700		1,234,700
Master Resilience Training for the Army: Option Year 2 beginning April 1, 2012	12		W91WAW-10-D-0018 TASK ORDER #0013	650,980		650,980
	SubTotal 12			1,885,680		1,885,680
DEPARTMENT OF DEFENSE Total				2,235,753	172,913	2,408,666
DEPARTMENT OF INTERIOR						
Independence National Historical Park	15.945		MT-4450-Q-0049	2,315		2,315
	SubTotal 15.945			2,315		2,315
DEPARTMENT OF INTERIOR Total				2,315		2,315
U.S. DEPARTMENT OF STATE						
Fulbright Foreign Language Teaching Assistants Summer Orientation 2014	19.400	INSTITUTE OF INTERNATIONAL EDUCATION	SUB S-ECAGD-13-CA-017		63,901	63,901
Fulbright Foreign Language Teaching Assistants Summer Orientation 2015	19.400	INSTITUTE OF INTERNATIONAL EDUCATION	SUB TO S-ECADG-15-CA-1015		3,112	3,112
	SubTotal 19.400				67,013	67,013
U.S. DEPARTMENT OF STATE Total					67,013	67,013
DEPARTMENT OF TRANSPROTATION						
Trustees of the University of Pennsylvania/LIFE Section 5310 Grant Funding Application	20	COMMONWEALTH OF PENNSYLVANIA	CCA-G-14-15-TRUST-00159		-47,848	-47,848
	SubTotal 20				-47,848	-47,848
DEPARTMENT OF TRANSPROTATION Total					-47,848	-47,848
NATIONAL ENDOWMENT						
By Local	45.024		13-5400-7056	-45		-45
World Cafe Video Engagement	45.024		14-3400-7128	9,407		9,407
	SubTotal 45.024			9,362		9,362
Bates Nursing History Center, Implementing the Recommendations of the Preservation Needs Assessment, Phase I	45.149		PG-52157-14	5,242		5,242
Providing Global Access to Penn's Indic Manuscripts, circa 1527-1930 (bulk 1700-1850)	45.149		PW-51547-14	58,171		58,171
The New Schoenberg Database of Manuscripts: A Research Tool for Tracking the Current and Historic Locations of Manuscripts	45.149		PW-51580-14	75,486		75,486
	SubTotal 45.149			138,899		138,899
DM: From Annotaton to Dissemination	45.169	DREW UNIVERSITY	DU-2014-01		101,080	101,080
	SubTotal 45.169				101,080	101,080
NATIONAL ENDOWMENT Total				148,261	101,080	249,341
SMALL BUSINESS ADMINISTRATION						
Defense Economic Transition Assistance (DETA) Program	59.037		SBAHQ-10-B-0005-0004	5,710		5,710
Pennsylvania Small Business Development Centers	59.037		SBAHQ-14-B-0055	3,957,881		3,957,881
Pennsylvania Small Business Development Centers	59.037		SBAHQ-15-B-0053	575,657		575,657
Portable Assistance Program - Disaster Recovery	59.037		SBAHQ-12-B-0026/0001	0		0
Portable Assistance Program - Pennsylvania's Mon Valley Region	59.037		SBAHQ-14-B-0076	15,412		15,412
Portable Assistance Project: Business Assistance & Education to Promote Entrepreneurial Activity as a Pathway to Recovery from Manufacturing Plant Layoff:	59.037		SBAHQ-12-B-0078	3		3
Transitioning Employees to Entrepreneurs in Motion:Opportunities for Southwestern Pennsylvanians to Pursue Business Ownership in the Changing Economy	59.037		SBAHQ-12-B-0077	-1		-1
Portable Assistance Program - Response to Manufacturing LayoffsStartup Business Training for Transitioning Employees - Laid Off? Take Charge and Start a Business	59.037		SBAHQ-14-B-0075	5,079		5,079
	SubTotal 59.037			4,559,741		4,559,741
Entrepreneurial Development Disaster Assistance	59.064		SBAHQ-13-B-0077	8,903		8,903
Hurricane Sandy Disaster Relief 2013 (Phase Two)	59.064		SBAHQ-13-E-0011	614,520		614,520
	SubTotal 59.064			623,423		623,423
SMALL BUSINESS ADMINISTRATION Total				5,183,164		5,183,164
DEPARTMENT OF VETERAN AFFAIRS						
Inpatient Psychiatric Safety at the VA (3)	64		DEPT OF VETERANS AFFAIRS	1,689		1,689
IPA	64		IPA - ELIZABETH FLATLEY	17,921		17,921
IPA	64		IPA - KELLY ALLISON	28,656		28,656
IPA	64		IPA - RUBEN GUR	21,473		21,473
Remote Veteran Apnea Managmeent Portal (REVAMP)	64		Kuna IPA REVAMP	165,591		165,591
VA IPA for ROBERT SEAN GALLAGHER	64		IPA ROBERT SEAN GALLAGHER	8,067		8,067
	SubTotal 64			243,397		243,397
DEPARTMENT OF VETERAN AFFAIRS Total				243,397		243,397

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
ENVIROMENTAL PROTECTION AGENCY						
Greening the Shale Gas Supply Chain	66.717		X9-963194-01	6,617		6,617
	SubTotal 66.717			6,617		6,617
Region 8 Shale Energy Supply Chain Sustainability Training & Assessments	66		96819401	16,775		16,775
	SubTotal 66			16,775		16,775
ENVIROMENTAL PROTECTION AGENCY Total				23,392		23,392
DEPARTMENT OF ENERGY						
Determination of Strategies to Achieve Quad Energy Savings through Tribology	81	VON BRAUN CENTER FOR SCIENCE AND INNOVATION, INC.	2300-004		17,364	17,364
	SubTotal 81				17,364	17,364
DEPARTMENT OF ENERGY Total					17,364	17,364
DEPARTMENT OF EDUCATION						
Foreign Language and Area Studies	84.015		P015B100019	6,425		6,425
Foreign Language and Area Studies	84.015		P015B100129	17,964		17,964
Foreign Language and Area Studies	84.015		P015B100160-01	4,700		4,700
National Resource Center	84.015		P015A100019	7,023		7,023
National Resource Center	84.015		P015A100129-01	95,801		95,801
National Resource Center	84.015		P015A100160-01	36,914		36,914
Title VI FLAS Fellowship Funding 2014-2018	84.015		P015B140143	281,258		281,258
Title VI FLAS Fellowship Funding 2014-2018	84.015		P015B140137	323,629		323,629
Title VI National Resource Center Funding 2014-2018	84.015		P015A140137	136,510		136,510
Title VI National Resource Center Funding 2014-2018	84.015		P015A140143	73,741		73,741
	SubTotal 84.015			983,965		983,965
National Resource Center	84.015A		P015A100202-01	53,690		53,690
	SubTotal 84.015A			53,690		53,690
Foreign Language and Area Studies	84.015B		P015B100202	300		300
	SubTotal 84.015B			300		300
Standards-based African Language Courses Online (SALCO)	84.017		P017A100057-01	11,928		11,928
	SubTotal 84.017			11,928		11,928
Improving English Language Learners' Academic Writing: Building a Bridge to Success	84.031	SCHOOL DISTRICT OF PHILADELPHIA	905/F14		900	900
Summer Invitational Institute for Teachers of English Language Learners	84.031	SCHOOL DISTRICT OF PHILADELPHIA	905/F14 / SC #567200		14,085	14,085
	SubTotal 84.031				14,985	14,985
GAANN Mechanical Engineering Program in Micro and Nano Manufacturing (MNM)	84.200		P200A120237	135,756		135,756
Quantitative Cellular Engineering	84.200		P200A120246	185,761		185,761
	SubTotal 84.200			321,517		321,517
The Next Big Challenge: Carving Out a Competitive Position for the U.S. in the Global Economy	84.220A		P220A100038	103,558		103,558
	SubTotal 84.220A			103,558		103,558
21st Century Community Learning Center	84.287	COMMONWEALTH OF PENNSYLVANIA	4100058757		120,599	120,599
21st Century Learning Community Centers -- Cohort 7	84.287	PENNSYLVANIA DEPARTMENT OF EDUCATION	4100068078		281,308	281,308
	SubTotal 84.287				401,907	401,907
Penn GSE Postdoctoral Training Program in the Education Sciences	84.305		R305B100013	129,906		129,906
	SubTotal 84.305			129,906		129,906
Improving English Language Learners' Academic Writing: Building a Bridge to Success	84.365	SCHOOL DISTRICT OF PHILADELPHIA	570442		5,222	5,222
Summer ELL Institute for Principals	84.365	SCHOOL DISTRICT OF PHILADELPHIA	567796		7,512	7,512
	SubTotal 84.365				12,734	12,734
National Writing Project High- Need School Grant	84.367	NATIONAL WRITING PROJECT	92-PA06-B-SEED2012		15,385	15,385
Professional Development for 15 Archdiocesan Schools	84.367	SCHOOL DISTRICT OF PHILADELPHIA	765/F14		227	227
Summer Invitational Institute for Advanced Teacher Leadership Development	84.367	NATIONAL WRITING PROJECT	92-PA06-B-SEED2012 AMEND 2A		9,397	9,397
	SubTotal 84.367				25,009	25,009
Aspira Schools Inc. Professional Development	84	ASPIRA, INC. OF PENNSYLVANIA	N/A		4,376	4,376
DRA/Running Records Workshop for K-4 Teachers	84	SCHOOL DISTRICT OF PHILADELPHIA	567974		1,526	1,526
GEAR UP - AVID Partnerships	84	SCHOOL DISTRICT OF PHILADELPHIA	593/F11		36,388	36,388
Maritime Academy Charter School Professional Development	84	MARITIME ACADEMY CHARTER SCHOOL	N/A		5,000	5,000
Penn Treaty Professional Development	84	SCHOOL DISTRICT OF PHILADELPHIA	LCA 568572		15,714	15,714
Philadelphia Bilingual Education Institute, 2014	84	SCHOOL DISTRICT OF PHILADELPHIA	569245		9,589	9,589
PLN 5 Informational Reading and Writing	84	SCHOOL DISTRICT OF PHILADELPHIA	961-569590		13,753	13,753
Professional Development for Parents at Philip Sheridan Elementary School	84	SCHOOL DISTRICT OF PHILADELPHIA	569887		4,434	4,434
Wm. D. Kelley Units of Study Planning and Development	84	SCHOOL DISTRICT OF PHILADELPHIA	568096		17,766	17,766
	SubTotal 84				108,546	108,546
DEPARTMENT OF EDUCATION Total				1,604,864	563,181	2,168,045
DEPARTMENT OF HEALTH AND HUMAN SERVICES						
PA Hospital of Community Services	93.243	CITY OF PHILADELPHIA	0124-0294		102,231	102,231
	SubTotal 93.243				102,231	102,231

Federal Grantot/Program or Cluster Title	CFDA Number	Pass-Through Grantor	Award/Pass-Through Entity Identification Number	Direct	Pass-Through	Expenditure Total
Strengthening Public Health Infrastructure	93.507	CITY OF PHILADELPHIA	1420292		54,700	54,700
	SubTotal 93.507				54,700	54,700
The OPTIMISTIC PROJECT - Optimizing Patient Transfer, Impacting Medical Quality, and Improving Symptoms: Transforming Institutional Car	93.621	INDIANA UNIVERSITY	PO #1244917		28,815	28,815
	SubTotal 93.621				28,815	28,815
PA Hospital of Administrative	93.667	CITY OF PHILADELPHIA	0102-2000		175,225	175,225
	SubTotal 93.667				175,225	175,225
PA Hospital	93.778	CITY OF PHILADELPHIA	0260-0100		148,771	148,771
	SubTotal 93.778				148,771	148,771
DiaComp Summer Student Funding Program	93.847	GEORGIA REGENTS UNIVERSITY	25732-35		4,236	4,236
	SubTotal 93.847				4,236	4,236
National Bioterrorism Hospital Preparedness Program	93.889	COMMONWEALTH OF PENNSYLVANIA	4100062597		20,257	20,257
National Bioterrorism Hospital Preparedness Program	93.889		4100062670		23,960	23,960
National Bioterrorism Hospital Preparedness Program	93.889		4100062724 R1		20,595	20,595
	SubTotal 93.889				64,812	64,812
Growing Together: University Assisted Community School Partnerships using Community Food Systems as a Context for Youth Empowerment	93.910		YEPMP120066-01-00	331,666		331,666
	SubTotal 93.910			331,666		331,666
Ryan White HIV/AIDS Treatment Extension Act of 2009, Part B FY 2011	93.917	CITY OF PHILADELPHIA	1020580-02 / AACO		-441	-441
	SubTotal 93.917				-441	-441
Outpatient HIV Early Intervention	93.918	CITY OF PHILADELPHIA	Part C		100,000	100,000
	SubTotal 93.918				100,000	100,000
Ryan White HIV/AIDS Program Part F Dental Reimbursement Program (DRP)	93.924		I T22HA27513-01-00	5,081		5,081
	SubTotal 93.924			5,081		5,081
PERC-SAMHSA Project	93.958	ADAMS COUNTY, PENNSYLVANIA	N/A		96,034	96,034
	SubTotal 93.958				96,034	96,034
Dartmouth/Penn Research Ethics Training and Program Development for Tanzania	93.989	DARTMOUTH COLLEGE	885		53,229	53,229
	SubTotal 93.989				53,229	53,229
Bureau of Public Health Preparedness	97.036	COMMONWEALTH OF PENNSYLVANIA	4100062680?		33,008	33,008
	SubTotal 97.036				33,008	33,008
Chair Person for Steering Committee	93		HHSN276201200534P	1,869		1,869
Health Policy Assignee Project	93		DHHS IPA	-281		-281
Health Policy Assignee Project	93		IPA - BRENDAN CARR	50,505		50,505
LEND: Leadership Education in Neurodevelopmental and Related Disabilities	93	CHILDREN'S HOSPITAL OF PHILADELPHIA	204510613 / PO #960258RSUB		2,920	2,920
National Network of Libraries of Medicine: Mid-Atlantic Region	93	UNIVERSITY OF PITTSBURGH	0049274-Y4015		4,097	4,097
Neuroscience in Your World: A Partnership for Neuroscience Across the K-12 Spectrum	93	FRANKLIN INSTITUTE	5R25DA033023		82,768	82,768
Outpatient Early Intervention Services with Respect to HIV Disease - Part C	93	DREXEL UNIVERSITY	228084-6101		30,027	30,027
Partnerships to Increase Coverage in Communities - Insuring Shared Prosperity	93	BENEFITS DATA TRUST	benefits data trust		4,991	4,991
Philadelphia Alliance for Child Trauma Services (PACTS)	93	CITY OF PHILADELPHIA	1320657		56,524	56,524
Presidential Commission for the Study of Bioethical Issues	93		12IPA	40,126		40,126
Evaluation of programs to provide services to persons who are homeless with mental and/or substance use disorder	93	RTI INTERNATIONAL	HHSS2832007000021		344,596	344,596
	SubTotal 93			92,219	525,923	618,142
DEPARTMENT OF HEALTH AND HUMAN SERVICES Total				428,966	1,386,543	1,815,509
CORPORATION FOR NATIONAL AND COMMUNITY SERVICE						
VISTA Admin	94.013		12VSAPA008	29,720		29,720
	SubTotal 94.013			29,720		29,720
Next Steps AmeriCorps (revised pd#10044961)	94	COMMONWEALTH OF PENNSYLVANIA	4100067714		126,542	126,542
	SubTotal 94				126,542	126,542
CORPORATION FOR NATIONAL AND COMMUNITY SERVICE Total				29,720	126,542	156,262
SOCIAL SECURITY ADMINISTRATION						
Reinventing Older Communities: Bridging Growth and Opportunity	96		FEDERAL RESERVE OF PHILA	23,211		23,211
	SubTotal 96			23,211		23,211
SOCIAL SECURITY ADMINISTRATION Total				23,211		23,211
UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT						
South Sudan Media Educational Development Project: Strengthening Free and Independent Media in South Sudar	98	INTERNEWS NETWORK, INC.	SG-R-SS1301-4		24,905	24,905
	SubTotal 98				24,905	24,905
UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT Total					24,905	24,905
Other Programs Total						
Total Expenditures on Federal Awards for Fiscal Year Ended FY 2015				9,993,109	3,442,671	13,435,780
				601,860,093	81,234,219	683,094,312

University of Pennsylvania

Notes to Schedule of Expenditures of Federal Awards

June 30, 2015

1. Basis of Presentation

The accompanying Schedule of Expenditures of Federal Awards (the "Schedule") has been prepared to present a summary of those activities of the University of Pennsylvania for the year ended June 30, 2015, which have been financed by the U.S. Government ("Federal awards") and is presented on the accrual basis of accounting. The information in this schedule is presented in accordance with the requirements of OMB Circular A-133, *Audits of States, Local Governments and Non-Profit Organizations*. For purposes of the Schedule, Federal awards include all Federal assistance entered into directly between the University of Pennsylvania and the Federal government and sub-awards from non-Federal organizations made under federally sponsored agreements. Because the Schedule presents only a selected portion of the activities of the University of Pennsylvania, it is not intended to and does not present the financial position or the revenues, expenses or changes in net assets of the University of Pennsylvania. Negative amounts on the schedule represent adjustments in the normal course of business to amounts reported in previous years. Catalog of Federal Domestic Assistance ("CFDA") and pass-through award numbers are present where available.

2. Student Loan Programs

The federal student loan programs listed below are administered directly by the University and balances and transactions relating to these programs are included in the University's basic financial statements. The balance of loans outstanding at June 30, 2015 consists of:

CFDA#		Outstanding Balances as of June 30, 2015	Total Loans Disbursed For the Year Ended June 30, 2015
84.038	Perkins Loan Program	\$65,439,500	\$13,821,489
93.342	Health Professional Loan Programs		
	Dental	\$8,678,763	\$1,517,348
	Medical	\$214,854	\$42,322
	Veterinary	\$2,387,884	\$571,407
93.364	Nursing Student Loan Programs		
	Undergraduate	\$2,197,743	\$538,738
	Graduate	\$538,676	\$214,848
93.925	Loans for Disadvantaged Students		
	Dental	\$2,201	\$2,201
	Medical	\$198,895	\$0
	Total Student Loan Programs	<u>\$79,658,516</u>	<u>\$16,708,353</u>

The above expenditures for each program include disbursements and expenditures such as loans to students and administrative expenses related to the administrative costs of the loan programs. The administrative cost allowance amount for the Federal Perkins Loan Program for the year ended June 30, 2015 is \$734,659.

University of Pennsylvania
Notes to Schedule of Expenditures of Federal Awards
June 30, 2015

Federal Direct Loans (CFDA #84.268)

The University is responsible for the performance of certain administrative duties with respect to the Federal Direct Loan Program. Loans distributed to students of the University under this program during the year ended June 30, 2015 are summarized as follows:

	Amounts Issued 2015
Direct Loans (Subsidized/Unsubsidized)	\$109,070,653
Direct Parent PLUS Loans	\$10,856,786
Direct Graduate PLUS Loans	<u>\$68,196,586</u>
	<u>\$188,124,025</u>

3. Facilities and Administrative Costs

The University receives reimbursement for facilities and administrative costs based on pre-determined rates negotiated with the Department of Health and Human Services ("DHHS"). The pre-determined rates used to recognize facilities and administrative costs during the period ended June 30, 2015 were based on negotiated rates that went into effect July 1, 2012.

4. Subrecipients

The University has issued research subawards to 298 subrecipients totaling approximately \$67.2 million. The University has 17 non-research subcontracts of its federal funds, which have been issued to subrecipients that total approximately \$4.2 million. Refer to the table below for the amount provided to subrecipients under each program title.

Program Title	Federal CFDA Number	Amount Provided to Subrecipients
Research and Development and Research Training Cluster	Various	\$67,226,106
Department of Commerce	11.307	329,107
Defense Logistics Agency	12.002	180,302
Environmental Protection Agency	66.717	9,642
Small Business Administration	59.037	3,369,135
Small Business Administration	59.064	<u>285,096</u>
Total		<u>\$71,399,389</u>

II. Internal Control and Compliance



**Independent Auditor's 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***

To the Trustees of the University of Pennsylvania:

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, the consolidated financial statements of the University of Pennsylvania ("the University"), which comprise the consolidated statements of financial position as of June 30, 2015, and the related statements of activities and of cash flows for the year then ended, and the related notes to the consolidated financial statements, and have issued our report thereon dated October 2, 2015.

Internal Control over Financial Reporting

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

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

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

Compliance and Other Matters

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



Purpose of this Report

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

PricewaterhouseCoopers LLP

October 2, 2015



**Independent Auditor's Report on Compliance with Requirements
That Could Have a Direct and Material Effect on Each Major Program and on
Internal Control over Compliance in Accordance with OMB Circular A-133**

To the Trustees of the University of Pennsylvania:

Report on Compliance for Each Major Federal Program

We have audited the University of Pennsylvania's (the "University") compliance with the types of compliance requirements described in the OMB *Circular A-133 Compliance Supplement* that could have a direct and material effect on each of the University's major federal programs for the year ended June 30, 2015. The University's major federal programs are identified in the summary of auditor's results section of the accompanying schedule of findings and questioned costs.

Management's Responsibility

Management is responsible for compliance with the requirements of laws, regulations, contracts, and grants applicable to its federal programs.

Auditor's Responsibility

Our responsibility is to express an opinion on compliance for each of the University's major federal programs based on our audit of the types of compliance requirements referred to above. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and OMB Circular A-133, *Audits of States, Local Governments, and Non-Profit Organizations*. Those standards and OMB Circular A-133 require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about the University's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances.

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

Opinion on Each Major Federal Program

In our opinion, the University complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended June 30, 2015.

Other Matters

The results of our auditing procedures disclosed instances of noncompliance, which are required to be reported in accordance with OMB Circular A-133 and which are described in the accompanying schedule of findings and questioned costs as items 2015-001, 2015-002, and 2015-004 through 2015-007. Our opinion on each major federal program is not modified with respect to these matters.



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

Report on Internal Control over Compliance

Management of the University is responsible for establishing and maintaining effective internal control over compliance with the types of compliance requirements referred to above. In planning and performing our audit of compliance, we considered the University's internal control over compliance with the types of requirements that could have a direct and material effect on each major federal program to determine the auditing procedures that are appropriate in the circumstances for the purpose of expressing an opinion on compliance for each major federal program, and to test and report on internal control over compliance in accordance with OMB Circular A-133, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly we do not express an opinion on the effectiveness of the University's internal control over compliance.

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

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, we identified a deficiency in internal control, described in the accompanying schedule of findings and questioned costs as item 2015-003, that we consider to be a significant deficiency. The University's response to the internal control over compliance finding identified in our audit is described in the accompanying Management's View and Corrective Action Plan. The University's response was not subjected to the auditing procedures applied in the audit of compliance and, accordingly, we express no opinion on the response.

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 OMB Circular A-133. Accordingly, this report is not suitable for any other purpose.

PricewaterhouseCoopers LLP

January 21, 2016

III. Schedule of Findings and Questioned Costs

University of Pennsylvania
Schedule of Findings and Questioned Costs
June 30, 2015

Section I – Summary of Auditor’s Results

Consolidated Financial Statements

- (i) Type of auditor’s report issued: Unmodified
- (ii) Internal control over financial reporting:
Material weakness(es) identified? yes X no
Significant deficiency(ies) identified that are
not considered to be material weaknesses? yes X none reported
- (iii) Noncompliance material to financial statements
noted? yes X no

Federal Awards

- (iv) Internal control over major programs:
Material weakness(es) identified? yes X no
Significant deficiency(ies) identified that are
not considered to be material weaknesses? X yes none reported
- (v) Type of auditor’s report issued on compliance
for major programs: Unmodified
- (vi) Any audit findings disclosed that are required
to be reported in accordance with
Section .510(a) of OMB Circular A-133? X yes no
- (vii) Identification of major programs:

CFDA Number(s)	Name of Federal Program or Cluster
Various	Research and Development Cluster
Various	Student Financial Aid Cluster
93.914	Ryan White HIV / AIDS Treatment Extension Act of 2009

- (viii) Dollar threshold used to distinguish between
Type A and Type B programs: \$3,000,000
- (ix) Auditee qualified as low-risk auditee? X yes no

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Section II – Financial Statement Findings

None noted.

Section III – Federal Awards Findings and Questioned Costs

Finding 2015-001 Student Loan Notification and Repayment

Grantor: Department of Education
Program: Student Financial Aid Cluster
CFDA#: 84.038
Title: Federal Perkins Loan Program
Award Year: 07/2014-06/2015

Condition

For the Student Financial Aid Cluster, the University is required to provide to a student a written notification of Perkins and Direct Loan disbursements to the student's account, informing the student of the anticipated date and amount of the disbursement. Because the University does not obtain affirmative confirmation of the student's acceptance of the loan, the notice must be sent no earlier than 30 days before and no later than seven days after crediting the student's account. Of 25 student selected for testing, three instances were noted where documentation of Perkins Loan notification could not be provided by the Servicer.

Additionally, the University is required to perform due diligence procedures for students with Federal Perkins Loans, Nursing Student Loans, Health Professions Student Loans, Primary Care Loans, and Loans for Disadvantaged Students whose loan has become delinquent. Of the 25 students selected for due diligence procedures testing, we note one student with a delinquent Perkins Loan for whom due diligence procedures were not performed.

Criteria

In accordance with 34 CFR 668.165(a), "Except in the case of a post-withdrawal disbursement made in accordance with §668.22(a)(5), if an institution credits a student's account at the institution with Direct Loan, FFEL, Federal Perkins Loan, or TEACH Grant Program funds, the institution must notify the student or parent of the anticipated date and amount of the disbursement. The institution must provide the notice no earlier than 30 days before, and no later than seven days after, crediting the student account at the institution, if the institution does not obtain affirmative confirmation from the student under paragraph (a)(6)(i) of this section.

In accordance with 34 CFR 674.42(c) – Contact with the borrower during the initial and post deferment grace periods:

(1)(i) For loans with a nine-month initial grace period (NDSLs made before October 1, 1980 and Federal Perkins loans), the institution shall contact the borrower three times within the initial grace period. (ii) For loans with a six-month initial or post deferment grace period (loans not described in paragraph (b)(1)(i) of this section), the institution shall contact the borrower twice during the grace period.

(2)(i) The institution shall contact the borrower for the first time 90 days after the commencement of any grace period. The institution shall at this time remind the borrower of his or her responsibility to comply with the terms of the loan and shall send the borrower the following information: (A) The total amount remaining outstanding on the loan account, including principal and interest accruing over the remaining life of the loan. (B) The date and amount of the next required payment. (ii) The institution shall contact the borrower the second time 150 days after the commencement of any grace period. The institution shall at this time notify the borrower of the date and amount of the first required payment. (iii) The institution shall contact a borrower with a nine-month initial grace

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period a third time 240 days after the commencement of the grace period, and shall then inform him or her of the date and amount of the first required payment.

Cause

Notification of aid for graduate students was delegated by the central Student Financial Services (SFS) to the respective schools. For these three students, the School of Medicine was unable to provide copies of the aid notifications.

Within the software of the information technology service provider, the University uses manual suspense codes to place a hold on the student's account to ensure no further bills are sent. In this case, the University of Pennsylvania mistakenly put suspense on the student's loan account. The suspense was intended to be placed on the student's tuition account, but was added to the loan account by manual error by keying in the wrong code. Ultimately, Penn did not report the student's repayment status correctly to ACS.

Effect

Regarding the loan notifications exception, the students were not properly notified of the Perkins disbursements as required by the cited criteria above.

Regarding the due diligence exception, the student did not receive due diligence communications as required by the cited criteria above.

Questioned Costs

None

Recommendation

The University should enhance their controls over ensuring that notifications of Perkins loan disbursements are sent in accordance with the criteria cited above.

Additionally, the University should perform a regular review of suspense codes placed on student accounts to ensure that the account accurately reflects the status of the student during the loan repayment process.

Management View's and Corrective Action Plan

Following these findings are management's views and corrective action plan.

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Finding 2015-002 Federal Work Study

Grantor: Department of Education
Program: Student Financial Aid Cluster
CFDA#: 84.033
Title: Federal Work Study
Award Year: 07/2014-06/2015
Award Number: P033A143720

Condition

From a sample of 25 student selected for testing Federal Work Study compliance requirements, two instance were noted in which the University did not maintain records that included a certification by the student's supervisor that each student had worked and earned the amount of Federal Work study being paid. Of these two instances, we also note one instance in which a time record showing the hours the student worked using clock time sequence or total hours worked per day could not be provided.

Criteria

34 CFR 675.19(b) - The institution must also establish and maintain program and fiscal records that include a certification by the student's supervisor, an official of the institution or off-campus agency, that each student has worked and earned the amount being paid. The certification must include or be supported by, for students paid on an hourly basis, a time record showing the hours each student worked in clock time sequence, or the total hours worked per day.

Cause

The exceptions appear to be caused by an oversight from the supervisors to ensure that the reported time was certified and appropriate time records were maintained.

Effect

Such oversights could result in inaccurate Federal Word Study payments.

Questioned Costs

None

Recommendation

The University should enhance the documentation retention process for daily timesheets. Additionally, the University should add a level of review before Federal Work Study funds are disbursed to ensure that proper certification of earned compensation had been obtained.

Management View's and Corrective Action Plan

Following these findings are management's views and corrective action plan.

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Finding 2015-003 Cost Transfers and Allowable Costs

Grantor: Various
Program: Research and Development Cluster
CFDA#: Various
Title: Various
Award Year: 07/2014 – 06/2015
Award Number: Various

Condition

During our testing of 60 direct cost selections, we noted one direct cost expenditure for \$105 related to CFDA number 12.910 charged to award number N66001-14-4032, the Memory Enhancement with Modeling, Electrophysiology, and Stimulation (MEMES) award, instead of the departmental unrestricted account. The Research Coordinator incorrectly approved the expenditure to be charged to the grant fund instead of the departmental fund.

Additionally, while the University has a robust and comprehensive cost transfer policy, the University does not have a standardized process to ensure consistent and complete documentation of the need for a cost transfer and other information required per the policy.

For 60 R&D cost transfer selections, PwC requested the original invoice information, journal entry detail, evidence of Principal Investigator approval, and an original descriptive explanation of how the error occurred and a correlation of the charge to the project to which the transfer was made. Refer to the table below for a summary of the section(s) of the University's cost transfer policy not fulfilled by the support provided for each selection.

Table Legend

- A Transfers must be supported by documentation at the time of transfer which contains a full explanation of how the error occurred.
- B Transfers must be supported by documentation at the time of transfer which contains a correlation of the charge to the project to which the transfer is being made.
- C Cost transfers must be certified by the principal investigator at the time of transfer.
- D Cost transfers must be prepared and submitted within 90 days from the month end in which the transaction appears on the fund. Cost transfers made after this period require ORS approval.
- E Cost transfer is related to an initial P-card allocation. However, there was no explicitly written explanation of the correlation to the project to which the transfer is being made. P-card purchases added onto a grant fund have the same requirements as other cost transfers.

CFDA #	Award Numbers	Transfer Amount	Missing/ Inadequate Type of Support	Documentation Existing for Each Exception Noted
93.866	1-K01-AG-033182-01A1	\$1,495	B	Documentation at time of transfer was "correction to correct grant", which is not sufficient per Penn policy.
93.866	752714/PROJE CT #2013-07	\$1,462	B	Documentation at time of transfer was "Correction of Previous Trans - after review by PI, charges were erroneous to the PO1", which is not sufficient per Penn policy as it does not explain the correlation of the award to which the expense is being transferred.

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10	Food Trust	\$1,000	A	Documentation at time of transfer consisted of an email stating the project had begun and that certain purchases were needed, which does not explain how the error occurred.
47.070	CNS-1138110	\$1,141	B, C	The reason for the error and correlation of the charges to the award being transferred to were discussed orally, and PI approval was obtained orally. Contemporaneous documentation of the transfer satisfying Penn's cost transfer policy requirements does not exist.
10	Food Trust	\$7,086	A	Documentation at time of transfer consisted of an email stating the project had begun and that certain purchases were needed, which does not explain how the error occurred.
93.847	320981 / PO #960506RSUB	\$1,151	A, B	Documentation at time of transfer consisted of an email requesting to transfer funds, lacking explanation of how the error occurred and the correlation to federal award.
93.837	1-R01-CA-149566-01A1	\$1,374	B, C	Documentation at time of transfer was "During Close Out Review, PI noticed incorrect fund was charged", which does not explain the correlation to the award to which the expense is being transferred. PI approval was provided orally at time of transfer but was not documented per Penn's policy.
15.945	MT-4450-Q-0049	\$258	B	Documentation at time of transfer stated "Post Expense to grant fund for close", which does not explain the correlation to the award to which the expense is being transferred.
47.076	DRL-1316527	\$64	B, E	No documentation at time of transfer of correlation of the award to which expense in being transferred was provided.
47.076	DRL-1316527	\$64	B, E	No documentation at time of transfer of correlation of the award to which expense in being transferred was provided.
93.393 93.172	1-U01-CA-164947-01 1-U01-HG-006398-01	\$1,024	B	Documentation at time of transfer stated "to clear Med Gen suspense transactions", which does not explain the correlation to the award to which the expense is being transferred.
93.855	1-R01-AI-110201-01 1-R01-AI-106842-01A1 1-R21-AI-106268-01	\$503	B, E	No documentation at time of transfer of correlation of the award to which expense in being transferred was provided.
45.024	14-3400-7128	\$851	B, D	No documentation at time of transfer of correlation of the award to which expense in being transferred was provided.
93.172	1-U01-HG-006398-01	\$367	B	No documentation at time of transfer of correlation of the award to which expense in being transferred was provided.
47.050 81	EAR-1204780 PO #1350502	\$585	B	No documentation at time of transfer of correlation of the award to which expense in being transferred was provided.
93.395	2-PO1-CA114046	\$179	B	Documentation at time of transfer stated "Moving a Supply Expense to 565502" and email at time of transfer states that fund has been unfrozen and requests a journal to move the expense.

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12.910 93.242	N66001-14-4032 2-R01-MH-055687-16A1	\$170	B, E	No documentation at time of transfer of correlation of the award to which expense in being transferred was provided.
93.395	0000729827	\$292	B, D	No documentation at time of transfer of correlation of the award to which expense in being transferred was provided.
93.847	2-T32-DK-007740-16	\$140	B	Documentation at time of transfer stated "charges hit wrong grant", which is not sufficient per Penn policy.
12	818633	\$375	B	Documentation at time of transfer stated "move highlighted entries to Jackson account"
93.242 12.431	1-R01-MH-087463-01A1 321104-Y3-01/PO #960186RSUB	\$3,387	B	Documentation at time of transfer included email with request to transfer funds but provided no explanation of correlation to award to which the expense is being transferred.

Criteria

OMB Circular A-21, 'Cost Principles for Educational Institutions, Section C, Part 4 Allocable Costs' states that the recipient institution is responsible for ensuring that costs charged to a sponsored agreement are allowable, allocable, and reasonable.

University policy states, "The principal investigator is responsible for ensuring that transfers of cost to sponsored projects, which represent corrections of errors, are made promptly. Transfers must be supported by documentation which contains a full explanation of how the error occurred and a correlation of the charge to the project to which the transfer is being made. Explanations such as "to correct and error" or "to transfer to correct project" are unacceptable. According to the University policy, cost transfers must be prepared and submitted within 90 days of the original transaction. Any cost transfers made after this 90 day period will require Office of Research Services approval.

Cause

In the direct cost testing exception, the University did not identify the incorrect direct cost expenditure within the fiscal year.

For the cost transfer exceptions, because of the lack of a standardized method of documenting cost transfers, the quality of the documentation varied significantly between departments and transfer preparers. In several instances, grant administrators were not diligent in adhering to the University's policy on maintaining complete and adequate documentation for cost transfers at the time of occurrence.

Effect

Award number N66001-14-4032 was overcharged the unallocable direct cost expense. Additionally, for the cost transfers identified above, there was not a clearly documented audit trail at the time of the transfer to support why the cost transfer occurred, thereby increasing the risk that costs could be transferred inappropriately to federal awards and remain undetected. The University is at an increased risk of charging federal grants for costs which are unrelated to the award due to a lack of effective controls over cost transfers.

Questioned Costs

\$105

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Recommendation

We recommend that the University develop a standardized cost transfer documentation form with the elements required per the University's cost transfer policy. We also recommend that the University emphasize to all employees its policies and procedures regarding the documentation requirements and review process for grant expenditures and cost transfers to help ensure that all expenses charged to federal awards are properly documented and reviewed for accuracy. The questioned cost should also be refunded to the applicable award.

Management View's and Corrective Action Plan

Following these findings are management's views and corrective action plan.

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Finding 2015-004 Equipment Management

Grantor: National Institute of Health, United States Department of Agriculture, Department of Commerce

Program: Research and Development Cluster

CFDA#: 93.847, 10.207, 93.855, 93.837, 93.838, 11.550, 93.389

Title: Univ of Pennsylvania Diabetes Endocrinology Res Ctr, USDA Animal Health and Disease Formula Grant, Functional biology of IL-25 during helminth infection, Regulation and function of innate lymphoid cells in the gut, Immuno-regulation of GI nematode infection, Cytokine regulation of anti-helminth immunity, Diffuse Light Imaging of Flow, Oxygen & Brain Metabolism, ABCA3: Biosynthesis, Trafficking, and Cellular Responses in Health and Disease, Genetic Determinants of Hypertensive Heart Disease in CRI, Public Telecommunications Facilities Program - The University of Pennsylvania, Acquisition of a Multiphoton Microscope for Cellular Programming

Award Year: 06/2014-07/2015

Award Number: 5-P30-DK019525-35, 2011-36100-05148, 5-R01-AI074878-05, 5-R01-AI095466-04, 5-R01-AI061570-10, 5-R01-AI097333-03, 5-R01-HL077699-04, 5-R01-HL090732-05, 5-R01-HL091663-05, 42-01-NO9116, 1-S10-RR-027064-01

Condition

The University has a policy around disposals of equipment. During our audit we performed equipment existence, addition, and disposal testing on the Research and Development cluster. Of 25 selections made during our equipment inventory testing, we note the following:

- One piece of equipment, purchased with funds from awards 5-R01-AI074878-05 (93.8055), 5-R01-AI061570-10 (93.855), 5-R01-AI095466-04 (93.855) and 5-R01-AI097333-03 (93.855), was located at another institution as the Principal Investigator left the University of Pennsylvania during 2015 and transferred the asset to that institution along with the related awards, with book value as of year-end of \$630.
- One piece of equipment, partially purchased with funds from award 5-P30-DK019525-35 (93.847), with recorded book value at June 30, 2015 of \$10,273, \$1,125 of which was attributable to the award was unable to be found.
- One piece of equipment, which was fully depreciated as of June 30, 2015, was purchased with funds from award 2011-36100-05148 (10.207) and was incorrectly capitalized into the asset system instead of being expensed, and subsequently retired during the audit.

Additionally, for five of seven disposals tested the required University disposal form either 1) did not contain the required signature from the Office of Research Services, 2) was not dated, or 3) was completed 6 months to two years from the time of the disposal.

Criteria

2 Code of Federal Regulation 215.34 - The recipient's property management standards for equipment acquired with Federal funds and federally-owned equipment shall include the following: equipment records shall be maintained accurately and shall include location and conditions of the equipment and the date the information was reported, ultimate disposition data, including date of disposal and sales price of the method used to determine current fair market value where a recipient compensates the Federal award agency for its share. A physical inventory of equipment shall be taken and the results reconciled with the equipment records at least once every two years. Any difference between quantities determined by the physical inspection and those shown in the accounting records shall be investigated to determine the cause of the difference. A control system shall be in effect to insure adequate safeguards to prevent loss, damage, or theft of the equipment. Any loss, damage, or theft of equipment shall be investigated and fully documented: if the equipment was owned by the Federal Government, the recipient shall promptly notify the Federal awarding agency.

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University Policy 1106.3: Plant Assets - All disposals of equipment with an original cost of over \$5,000 must be approved by the Senior Business Administrator prior to disposal. Additionally, if the assets were originally externally funded in whole or in part, the Office of Research Services must be notified of the disposal before the asset is disposed to determine if there are any external requirements related to the disposal of the equipment. Documentation regarding disposition of externally funded assets must be sent to ORS for approval to ensure compliance with sponsor requirements before the asset may be retired.

Cause

While the University recorded reconciling items as top-side adjustments to the Financial Statements, the adjusting items were not recorded at the individual level within the fixed assets records. Additionally, disposal records were not diligently prepared as well as they should have been.

Effect

Records for equipment purchased with Federal funds were not fully up to date and documentation of disposals was not completed in accordance with University Policy. Federal awards may be due credit from certain disposals or missing assets.

Questioned costs

None.

Recommendation

We recommend that the University reinforce the need for proper management of equipment purchased with Federal funds, including timely recording of transaction and follow up action, as necessary, after inventory procedures are performed. In addition, the need for maintenance of timely disposal supporting documentation must be reinforced. In addition the University should contact the Federal agency that funded the missing piece of equipment for disposition instructions

Management's Views and Corrective Action Plan

Following these findings are management's views and corrective action plan.

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The following findings are additional findings included in our report based upon the results of our audit of the University of Pennsylvania's City of Philadelphia Awards. As these programs include Federal monies, these findings have also been included within this report.

2015-005 Eligibility

Grantor: Pass-through City of Philadelphia, Aids Activity Coordinating Office (AACO)

Program: Ryan White HIV/AIDS

Title: HIV Emergency Relief Project Grants

CFDA: 93.914

Award Year: 2014-2015; 2015-2016

Award Number: RS4668; RS5668

Condition

Health Resources and Services Administration of the Department of Health and Human Services standards require service providers who receive Ryan White funding to screen clients and collect certain documentation to support their determination of eligibility for Ryan White-funded services, including an HIV positive diagnosis, identity, residence, insurance status, and income. These requirements were sent to the University of Pennsylvania by the City of Philadelphia as part of its contract to provide these services. For the AACO Medical grant, of the 40 patient files selected for testing, two files were missing support for proof of income verification.

Criteria

Per the AACO/PA Dept. of Health Ryan White Part A/B – Payer of Last Resort Client Certification Form Instructions, "The certification process must begin for all clients upon initial intake for services and final eligibility is determined once all supporting documentation has been received and verified.

Additionally, per the Universal Monitoring Standards set forth by the Health Resources and Services Administration (HRSA) of the Department of Health and Human Services, the Ryan White HIV/AIDS Program Part A and B Monitoring Standards require service providers who receive Ryan White funding to screen to certify their eligibility for Ryan White-funded services. The guidance states that documentation of eligibility determination is required in client records, as evidenced by copies of documents.

Cause

Due to clerical error, the proper support for insurance and income verification was left out of the medical record file for the selections noted above.

Effect

Documentation is not readily available for funding agencies for the purpose of supporting the provider's determination of patient eligibility or ineligibility, or continued efforts on behalf of the provider to pursue eligibility for other funding sources.

Recommendation

Although the University implemented new processes for medical record completeness during fiscal year 2015, they should continue to ensure proper documentation is retained supporting all eligibility requirements and consider performing periodic file reviews to ensure compliance.

Management's View and Corrective Action Plan

Following this finding is management's views and corrective action plan.

University of Pennsylvania

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Finding 2015-006 Employee Fringe Benefits

Grantor: Pass-through City of Philadelphia, Aids Activity Coordinating Office (AACO)

Program: Ryan White HIV/AIDS

Title: HIV Emergency Relief Project Grants

CFDA: 93.914

Award Year: 2014-2015; 2015-2016

Award Number: RM4757 and RS4668; RM5757 and RS5668

Condition

Per review of the total salary amounts and fringe benefit amounts charged to the AACO Medical awards RS4668, RM4757, RS5668, and RM5757, during Fiscal Year 2015, the engagement team notes that the fringe benefit rates applied to the awards, ranging from 32.6% to 35.3%, were higher than the allowable rate of 32% per the DHHS negotiated fringe benefit rate agreement in effect during FY15. The engagement team noted total questioned costs of \$8,971 equal to the difference between the fringe benefits charged at the 32.6% to 35.3% rates, and the cost of fringe benefits recalculated using the DHHS negotiated fringe benefit rate of 32%.

Criteria

Per CFR §200.403, "Factors affecting allowability of costs", Costs must "(b) Conform to any limitations or exclusions set forth in these principles or in the Federal award as to types or amount of cost items...." The University's rate agreement states the rates approved should be applied to grants, contracts and other agreements with the federal government.

Cause

The University of Pennsylvania Health System (UPHS), a subsidiary of the University, which administers the AACO Medical program, does not have a process in place to ensure the University Employee Fringe Benefits limits are applied to the AACO Medical Award. In submitting their total payroll budget, UPHS used their own 35% fringe rate amount in their calculation when submitting a budget to the City of Philadelphia which was approved.

Effect

The City of Philadelphia was invoiced and paid for an amount of employee benefits above the allowable amount per the University's DHHS negotiated fringe benefit rate in effect during FY15.

Questioned Costs

\$8,971

Recommendation

The AACO Medical program should implement a process to ensure that any rates charged to a federal award meet both the City of Philadelphia and federal program requirements. A reconciliation between the fringe benefits provided and amount allowed under the grant should ensure that any excess fringe benefits given to an employee are not charged to the federal grant.

Management's View and Corrective Action Plan

Following this finding is management's views and corrective action plan.

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2015-007 Period of Availability

Grantor: Pass-through City of Philadelphia, Aids Activity Coordinating Office (AACO)

Program: Ryan White HIV/AIDS

Title: HIV Emergency Relief Project Grants

CFDA: 93.914

Award Year: 2015-2016

Award Number: RM5757

Condition

The AACO Medical awards have a one year duration beginning March 1st of each year. The RM5757 grant is active from 3/1/2015 – 2/29/2016. During testing over the period of availability, we noted that three invoices totaling \$1,367 charged to the award for service dates prior to the start of the 2015-2016 grant and all related to the prior instance of the grant. As these service dates were prior to the start of the current award, they were therefore outside of the period of availability. The University of Pennsylvania Health System (UPHS) received these invoices from two vendors ranging from 1-5 months after the service date. In two instances of the invoices, the bill was for internal services billed within UPHS and those invoices were received after the grant close out process. In one instance, the bill was received after the period of availability but before the grant close out process completed. UPHS must have the invoice in order to request timely reimbursement from the City of Philadelphia.

Criteria

45 CFR 74.28 Period of Availability of Federal Funds: “Where a funding period is specified, a recipient may charge to the award only allowable costs resulting from obligations incurred during the funding period.”

Cause

The grant close out process did not identify expenditures incurred but no invoice received.

Effect

The expenditures charged to the grant did not match the proper grant period allowed by the award. As the awards are closed after the invoice from the vendor arrives, in order to receive reimbursement, UPHS submitted the invoices for reimbursement outside the period of availability, onto the subsequent grant year.

Questioned Costs

\$1,367

Recommendation

The period end close out procedures should be reviewed to ensure a complete list of expenditures is prepared and that costs charged have service dates within the grant period. UPHS should credit the award for the total questioned costs, and follow up on late invoices and evaluate vendors that are unable to submit timely invoices for grant reimbursement.

Management's Views and Corrective Action Plan

Following these findings are management's views and corrective action plan.

University of Pennsylvania

Summary Schedule of Status of Prior Audit Findings and Questioned Costs

June 30, 2015

Finding 2014-001 Financial Reporting

Summary

For the Student Financial Aid cluster, the University submits the FISAP report annually related to its campus-based Federal Student Aid program funds. PwC noted two calculation errors related to the Federal Work Study off-campus earned compensation for public or private non-profit agencies and the number of 2013-14 students who participated in community service employment. The information was reported incorrectly due to manual calculation errors that were not detected.

Status

In response to the finding in the FY14 audit, FWS totals are reviewed by additional accounting staff members prior to submission. SRFS Accounting corrected and resubmitted the FY14 FISAP data in question. As a result of the change in our review process, there were no new findings in this area during the current year audit.

Finding 2014-002 Cost Transfers, 2013-004 Cost Transfers

Summary

The University had a robust and comprehensive cost transfer policy, but did not have a standardized process for documenting the need for a cost transfer and other information required per the policy. For 40 R&D cost transfer selections, PwC noted 11 instances when the cost transfer was either 1) not supported by contemporaneous documentation containing a full explanation of the reason for the transfer, how the error occurred, and a correlation of the charge to the project to which the transfer is being made, in accordance with the University's policy, 2) not supported by evidence of approval for the transfer from the Principal Investigator, 3) erroneously processed twice, and/or 4) processed over 90 days after the month-end of the original transaction date, for which the required approvals were not obtained and required an adjustment that was subsequently processed in Fiscal Year 2015.

Questioned Costs

\$2,649

Status

For CFDA#s 93.273 & 93.279, the erroneous entry for the questioned costs of \$2,567 was corrected in April 2015.

For CFDA# 12.910, the \$82 questioned cost had already been removed from the award prior to the issuance of the prior year audit report.

As a result of this repeat cost transfer finding, the Associate Vice President / Associate Vice Provost for Research held meetings and information sessions with business administrator and research administrator groups in the academic/research units to discuss the results of these audit findings, emphasizing the need for compliant documentation for cost transfers. Additionally, the Office of Research Services has emphasized these issues in various other business meetings with the research community at the University. Furthermore, we directly contacted the administrators who performed the transfers under this finding to re-educate and train them on the appropriate cost transfer documentation and approval requirements.

At the time of issuance of the prior year audit report, a formal internal audit of cost transfers on sponsored projects was already underway. Although that project is not yet complete, due to another finding in this area in the current year audit, the University of Pennsylvania will be revising its cost transfer policy to require the documentation of cost transfers using a mandatory and standardized form. See additional details in the Management View and Corrective Action for the FY15 audit report.

University of Pennsylvania

Summary Schedule of Status of Prior Audit Findings and Questioned Costs

June 30, 2015

Finding 2014-003 Procurement, Suspension and Debarment

Summary

Per The University of Pennsylvania Policy Number 2303 - Use of a Purchasing Card, the purchasing card cannot be used for purchases of restricted commodities and/or purchases from restricted suppliers. Included in the University of Pennsylvania's listing of restricted commodities are animals for use in laboratory research, and hazardous materials (defined as radioactive materials, chemicals and reagents, biological materials, compressed gas, bulk ethyl alcohol and DEA licensed materials, including prescription drugs). During our testing, we noted one instance of the use of a purchasing card for the purchase of \$700 of biological materials. Management represented that authorization was verbally obtained for the one-time use of the purchasing card to purchase biological materials, but was not documented and retained.

Status

We reminded the department to maintain supporting documentation for purchasing card exceptions. There are no new findings in this area.

Finding 2014-004 Reporting

Summary

During testing, PwC noted one capital expenditure transaction with costs in the amount of \$708,418 which were incurred by the University of Pennsylvania, and reimbursed by the pass-through grantor, prior to June 30, 2013. As such, we determined that the amount of \$708,418, related to Fiscal Year 2013, and should have been included in the fiscal year 2013 Schedule of Expenditures of Federal Awards (SEFA).

Status

The Facilities & Real Estate Services department was made aware of the need to record grant-funded capital project expenses in a more timely manner.

University of Pennsylvania

Summary Schedule of Status of Prior Audit Findings and Questioned Costs

June 30, 2015

The following prior year audit findings are additional findings included in our report based upon the results of our audit of the University of Pennsylvania's City of Philadelphia Awards. As these programs include Federal monies, these findings have also been included within this report.

Finding 2014-005 Eligibility

Summary

Health Resources and Services Administration of the Department of Health and Human Services standards require service providers who receive Ryan White funding to screen clients and collect certain documentation to support their determination of eligibility for Ryan White-funded services, including an HIV positive diagnosis, identity, residence, insurance status, and income. These requirements were sent to the University of Pennsylvania by the City of Philadelphia as part of its contract to provide these services. For AACO Dental, we were unable to see the support for proof of residence for 1 out of our 25 samples. For AACO Medical, of the 25 samples selected for testing, we noted 2 instances of missing support for proof of insurance, 1 instance of missing support for proof of residence, and 5 instances of missing support for proof of income verification.

Status

Overall, there has been a marked improvement in the documentation and Ryan White certification processes at all of our AACO program locations. The Pennsylvania Presbyterian Medical Center program was able to secure budget approval from the sponsor for additional resources for certification compliance. This role was implemented for the program during FY15 and contributed to the improvement in compliance and documentation for Ryan White certification at PPMC. Additionally, the AACO program staff at the School of Dental Medicine also improved their process and oversight for Ryan White certification of patients and record retention. While the Hospital of the University of Pennsylvania re-emphasized the importance of complete client files, the FY15 audit test procedures still revealed some minor errors. Refer to the current year finding.

2014-006 Period of Availability

Summary

The AACO Medical awards have a one year duration and begin on March 1st of each year. The RM3757 award ended on February 28, 2014 and the RM 4757 award began on March 1, 2014. During testing over the period of availability for direct costs, we noted that time sheets for one temporary worker related to hours worked in February 2014 were incorrectly charged to the RM4757 award.

Status Update

See current year finding.

2014-007 Cost Transfers

Summary

Cost transfers were identified as those expenditures charged to the award by journal entry that were originally charged to another accounting unit number at the University of Pennsylvania Health System. For each of the 5 transfers tested, the transferred charges for supplies were allowable and explanations were subsequently obtained, however documentation was not maintained to provide a clear justification for the transfer.

Status Update

During FY15, AACO Medical implemented a written procedure for documenting cost transfers which helped clarify what records need to be maintained to support such transactions. As a result of this clarification, there were no new cost transfer findings in the FY15 audit of AACO Awards.



Student Registration and Financial Services

Management Views and Corrective Action Plan

Finding 2015-001 Student Loan Notification and Repayment

Grantor: Department of Education
Program: Student Financial Aid Cluster
CFDA#: 84.038
Title: Federal Perkins Loan Program
Award Year: 07/2014-06/2015

SFS will review with the School of Medicine their process for notifying students of aid, and, as necessary, reassume responsibility for communicating Perkins Loan awards to students.

Penn is a full service client of a third party servicer for loan servicing functions. This servicer performs all due diligence requirements for our Federal and institutional loan portfolios. In addition, Penn uses their system for billing delinquent student tuition accounts. Suspense codes may be placed on delinquent tuition accounts by Penn collection staff members, but are rarely placed on any loan accounts. In the case referenced in this finding, the suspense code was accidentally placed on an incorrect fund number in the servicer's system.

Penn will perform two additional steps to ensure that Federal Perkins due diligence requirements are not suspended in error. First, the suspense code will be changed to a numeric value, rather than an alpha value. If the numeric code of "1" is used, for example, the suspense status will drop off after 1 month and due diligence processes will resume. Alpha values remain until manually cleared. Staff will no longer use Alpha values.

Second, Penn will utilize a report from the servicer's report system on a monthly basis to search for Federal Perkins Loan accounts with a suspended billing status. If any are found, the status will be adjusted.

Performing both activities will ensure that Federal Perkins Loan due diligence activity is not suspended indefinitely, and that the servicer's system accurately reflects the status of the student during the loan repayment process.

Michelle H. Brown-Nevers, Ed.D.
Associate Vice President for Student Services
Student Registration and Financial Services
University of Pennsylvania



Student Registration and Financial Services

Management Views and Corrective Action Plan

Finding 2015-002 Federal Work Study

Grantor: Department of Education
Program: Student Financial Aid Cluster
CFDA#: 84.033
Title: Federal Work Study
Award Year: 07/2014-06/2015
Award Number: P033A143720

Listing of clock hours on time sheets and obtaining the supervisor's signature are clear requirements of Penn's FWS Program. Department work-study coordinators are expected to confirm compliance before submitting the time sheets to Payroll. There is information on the Student Employment website under Students, Faculty/Staff, and Off-Campus Employers that addresses the listing of clock hours and the supervisor's signature on the time sheet. An informational e-mail is sent to all work-study students, supervisors, and department SEMS coordinators prior to the start of the academic year, which also addresses time sheets. The cases cited are exceptions to Penn's standard practice. Additional information will be sent to the field prior to the next semester, as well as prior to next academic year, emphasizing the need to comply with these requirements.

It should be noted that the University has started to implement e-time sheets in the beginning of FY16. SRFS will begin its implementation this calendar year. E-time sheets will enhance and provide a more uniform process for paying hourly paid staff, including student employees. Students will be required to log in and enter clock hours (daily start and end times). Supervisors will approve students' hours, and then forward to the business administrator for review and approval.

Michelle H. Brown-Nevers, Ed.D.
Associate Vice President for Student Services
Student Registration and Financial Services
University of Pennsylvania



Office of Research Services

Management Views and Corrective Action Plan

Finding 2015-003 Cost Transfers and Allowable Costs

Grantor: Various
Program: Research and Development Cluster
CFDA#: Various
Title: Various
Award Year: 07/2014 – 06/2015
Award Number: Various

Allowable Costs

Regarding the questioned direct cost expenditure of \$105, the respective grant manager removed the cost from award number N66001-14-4032 by manual journal entry on July 9, 2015 after taking a closer review of the item. This is an isolated error.

Cost Transfers

The University of Pennsylvania recognizes the need to improve the quality and consistency of the documentation for cost transfers. As a result of past year findings, the University of Pennsylvania launched an internal audit review of cost transfers prior to the issuance of this report. Although the final report for this review has not been issued, we expect the results to help us better target our compliance efforts and more clearly pinpoint any controls in the cost transfer process which need further reinforcement.

We have communicated the need for improvement in compliance with Direct Cost transfer policies to the research community and offered additional guidance on the requirements in meetings with business and grant administrators. As these efforts have not significantly improved compliance with University policy, we will now address the issue in multiple ways, ultimately tightening our internal controls on the direct cost transfer process.

The University of Pennsylvania is revising its cost transfer policy to implement the use of a standardized form for documenting cost transfers. This revised policy is being communicated through electronic announcements to the university research community, information sessions within each of the schools and updated trainings. In addition to using the form, Departments will be required to submit copies of the form to a dedicated email address that will be monitored by our central Office of Research Services. This policy change and the implementation of a standardized form should give the research community a more explicit and uniform method of recording all the elements required for documenting cost transfers properly. The anticipated timeframe for implementation of the new policy is February 2016. Elizabeth Peloso,

Associate Vice Provost for Research Services is responsible for the implementation of the new policy.

Grant and contract cost transfers are restricted to particular BEN Financial journal entry responsibility and manual journal entry category types. Departmental administrators must take the required training to gain access to perform these cost transfer journal types. However, we have seen that some cost transfers are being accomplished using another manual journal entry category ("02" or Adjustment to Previous Transaction) by administrators who have completed the cost transfer training. The BEN Financials group is in the process of adding a customization to the BEN financial system which will prevent usage of this "02" journal category on sponsored program funds. Restricting the use of the "02" category on grant and contract cost transfers will improve monitoring of transfers and compliance with our requirement for Office of Research Services review and approve transfers performed greater than 90 days from the month end of the transaction date. The anticipated timeframe for implementation of this change is February 2016. David Ishmael, Director of Financial Systems, is responsible for this change.

By June 2016, we will also carry out a targeted review of individuals who have performed cost transfers outside of the appropriate manual journal entry categories with individualized retraining. This activity will be headed up by Kim Garrison, Director of Post Award in the Office of Research Services.

The Office of Research Services will be adding cost transfer summary data to the management reports going out to each of the academic units to assist them with monitoring their cost transfers and to increase visibility over this activity. The anticipated completion date for this action is June 2016. Keith Dixon, Director of the Research Operations Group will be responsible for this change.

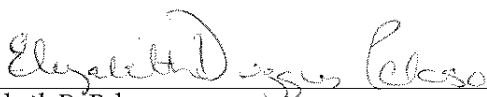
Finding 2015-004 Equipment Management

Grantor: National Institute of Health, United States Department of Agriculture, Department of Commerce
Program: Research and Development Cluster
CFDA#: 93.847, 10.207, 93.855, 93.837, 93.838, 11.550, 93.389
Title: Univ of Pennsylvania Diabetes Endocrinology Res Ctr, USDA Animal Health and Disease Formula Grant, Functional biology of IL-25 during helminth infection, Regulation and function of innate lymphoid cells in the gut, Immuno-regulation of GI nematode infection, Cytokine regulation of anti-helminth immunity, Diffuse Light Imaging of Flow, Oxygen & Brain Metabolism, ABCA3: Biosynthesis, Trafficking, and Cellular Responses in Health and Disease, Genetic Determinants of Hypertensive Heart Disease in CRI, Public Telecommunications Facilities Program - The University of Pennsylvania, Acquisition of a Multiphoton Microscope for Cellular Programming
Award Year: 06/2014-07/2015
Award Number: 5-P30-DK019525-35, 2011-36100-05148, 5-R01-AI074878-05, 5-R01-AI095466-04, 5-R01-AI061570-10, 5-R01-AI097333-03, 5-R01-HL077699-04, 5-R01-HL090732-05, 5-R01-HL091663-05, 42-01-NO9116, 1-S10-RR-027064-01

In almost all of the cases where disposal documentation was submitted to the Office of Research Services a significant amount of time after the disposal occurred, there were no specific disposition instructions applicable to the assets as they were largely funded by NIH with title given to the university. Additionally, in many cases, the assets were retired either near the end of or after their useful lives. In some cases, the assets were retired after the life of the awards under which they were purchased.

While a number of retirements are identified by the University and recorded as top-side adjustments to the Financial Statements, the adjusting items are not immediately recorded at the individual level within the fixed assets records, as this responsibility lies within each operational unit and is not a centrally held function.

The University of Pennsylvania is revising its Asset Retirement Policy to streamline the process for the community by increasing flexibility in how the information is reported, which will reduce some of the administrative burden. This will allow department asset administrators to record retirements in a more timely and efficient manner. A new policy should go into effect before the end of fiscal year 2016. The Associate Comptroller will be responsible for this change. Furthermore, the Comptroller's Office and the Office of Research Services will reinforce the need for proper management of equipment purchased with federal funds, including disposal documentation.



Elizabeth D. Peloso

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Finding 2015-005 Eligibility**CFDA# 93.914 Aids Activity Coordinating Office (AACO)**

Overall, there has been a marked improvement in the documentation and Ryan White certification processes at all of our AACO program locations. As a result of the FY13 eligibility finding, the Pennsylvania Presbyterian Medical Center program was able to secure budget approval from the sponsor for additional resources for certification compliance. This role was implemented for the program during FY15 and contributed to the improvement in compliance and documentation for Ryan White certification at PPMC. Additionally, the AACO program staff at the School of Dental Medicine also improved their process and oversight for Ryan White certification of patients and record retention. While the Hospital of the University of Pennsylvania re-emphasized the importance of complete client files, the FY15 audit test procedures still revealed some minor errors.

Due to the clerical error, the Practice Manager will work with the Hospital of the University of Pennsylvania project staff over the course of this year to remind them of the importance of complete client files.

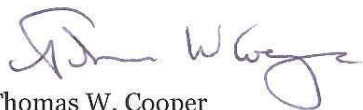
Finding 2015-006 Employee Fringe Benefits**CFDA# 93.914 Aids Activity Coordinating Office (AACO)**

The Senior Manager of Financial Operations - Medicine will closely monitor the employee benefit allocation to ensure only the University's DHHS negotiated fringe benefit rate is charged to the sponsor. In addition, the Financial Operations group will contact the sponsor to discuss the recommended procedure for making a correction to the invoiced amounts within the current award year.

Finding 2015-007 Period of Availability**CFDA# 93.914 Aids Activity Coordinating Office (AACO)**

Due to the turnover of the Clinical Division Administrator overseeing the AACO program, some patient lab expenses for service dates relating to the award year ending February 2015 were erroneously included in the March 2015 invoice for the new award year.

The Senior Manager of Financial Operations – Medicine will work with vendor to improve timeliness of invoices and review close out procedures to ensure services dates are within grant period. In addition, the Financial Operations group will contact the sponsor to discuss the recommended procedure for making a correction to the invoiced amounts within the current award year.



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