

University of Pennsylvania

Philadelphia, Pennsylvania

Reports on Federal Awards in

Accordance with OMB Uniform Guidance

June 30, 2016

Federal Entity Identification

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**University of Pennsylvania
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Accordance with OMB Uniform Guidance
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I. Financial



Report of Independent Auditors

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, 2016 and 2015, and the related consolidated statements of activities and of cash flows for the years then ended and the related notes to the financial statements.

Management's Responsibility for the Consolidated Financial Statements

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

Auditors' Responsibility

Our responsibility is to express an opinion on the consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. 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, 2016 and 2015, and the changes in its net assets and its 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 schedule of expenditures of federal awards Part A, Award Expenditure Detail, Part B, Summary of Program Clusters, Part C, Federal Loan Program Year End Balances for the year ended June 30, 2016 is presented for purposes of additional analysis as required by Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance) and is not a required part of the consolidated financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the consolidated financial statements. The information has been subjected to the auditing procedures applied in the audit of the consolidated financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the consolidated financial statements or to the consolidated financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedule of expenditures of federal awards is fairly stated, in all material respects, in relation to the consolidated financial statements as a whole.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated September 23, 2016 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, 2016. 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 on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the University's internal control over financial reporting and compliance.

PricewaterhouseCoopers LLP

September 23, 2016

Consolidated Statements of Financial Position

University of Pennsylvania
(in thousands)

	June 30, 2016	June 30, 2015
Assets		
Cash and cash equivalents	\$ 1,127,602	\$ 933,984
Accounts receivable, net	323,787	312,577
Patient receivables, net	646,878	464,309
Contributions receivable, net	242,849	271,574
Loans receivable, net	97,663	97,047
Other assets	279,887	200,927
Investments, at fair value	12,452,410	11,565,722
Property, plant and equipment, net	6,202,907	5,154,095
Total assets	\$ 21,373,983	\$ 19,000,235
Liabilities		
Accounts payable	\$ 237,835	\$ 188,870
Accrued expenses and other liabilities	1,650,439	1,429,762
Deferred income	210,331	170,099
Deposits, advances and agency funds	162,719	116,133
Federal student loan advances	80,796	80,349
Liabilities associated with investments	333,080	207,158
Accrued retirement benefits	1,625,740	1,127,085
Debt obligations	2,560,454	2,189,759
Total liabilities	6,861,394	5,509,215
Net assets		
Unrestricted	8,447,469	7,153,207
Temporarily restricted	2,629,729	3,026,715
Permanently restricted	3,435,391	3,311,098
	14,512,589	13,491,020
Total liabilities and net assets	\$ 21,373,983	\$ 19,000,235

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, 2016 and 2015
(in thousands)

	2016	2015
<u>Unrestricted</u>		
Revenue and other support:		
Tuition and fees, net	\$ 903,076	\$ 845,313
Commonwealth appropriations	32,927	31,514
Sponsored programs	904,337	909,869
Contributions and donor support	201,488	193,417
Investment income	439,405	402,059
Net patient service revenue	5,319,743	4,044,499
Sales and services of auxiliary enterprises	118,629	119,196
Other income	577,691	501,673
Independent operations	79,024	72,457
	8,576,320	7,119,997
Expenses:		
Compensation and benefits	4,728,829	3,892,829
Depreciation and amortization	452,748	366,290
Interest on indebtedness	78,634	73,092
Other operating expenses	2,879,776	2,390,904
	8,139,987	6,723,115
Increase in net assets from operations	436,333	396,882
Nonoperating revenue, net gains, reclassifications and other:		
(Loss) gain on investments, net	(112,464)	285,137
Investment income, net of amounts classified as operating revenue	(117,008)	(98,594)
Pension, OPEB and other, net	(326,234)	(339,626)
Contributions and donor support for capital related activities	1,413,635	40,207
Total nonoperating revenue, net gains, reclassifications and other	857,929	(112,876)
Increase in unrestricted net assets	1,294,262	284,006
<u>Temporarily Restricted</u>		
Contributions	202,633	91,440
(Loss) gain on investments, net	(97,930)	316,822
Investment income	15,086	32,238
Net assets released from restrictions	(516,775)	(374,057)
(Decrease) increase in temporarily restricted net assets	(396,986)	66,443
<u>Permanently Restricted</u>		
Contributions	136,471	151,909
(Loss) gain on investments, net	(12,691)	16,111
Investment income	513	714
Increase in permanently restricted net assets	124,293	168,734
Increase in net assets from nonoperating and restricted revenue, net gains, reclassifications and other	585,236	122,301
Increase in total net assets	1,021,569	519,183
Net assets, beginning of year	13,491,020	12,971,837
Net assets, end of year	\$ 14,512,589	\$ 13,491,020

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, 2016 and 2015
(in thousands)

	2016	2015
Cash flows from operating activities:		
Increase in net assets	\$ 1,021,569	\$ 519,183
Adjustment to reconcile increase in net assets to net cash provided by operating activities:		
Depreciation and amortization	452,748	366,290
Provision for bad debts	222,591	236,210
Loss (gain) on investments, net	223,085	(618,070)
Loss on disposal of property, plant and equipment	4,562	57,392
Donated equipment	(341)	(939)
Proceeds from split-interest agreements designated for operations	22,508	22,530
Receipt of contributed securities	(49,593)	(67,154)
Proceeds from contributed securities	18,112	28,159
Receipt of contributions designated for the acquisition of long-lived assets and long-term investment	(1,507,309)	(169,937)
Pension, OPEB and other, net	321,672	286,515
Changes in operating assets and liabilities:		
Patient, accounts and loans receivable	(300,276)	(316,832)
Contributions receivable	29,298	58,091
Other assets	(16,797)	(33,545)
Accounts payable, accrued expenses and accrued retirement benefits	31,433	98,060
Deposits, advances and agency funds	46,737	(5,867)
Deferred income	40,232	4,400
Net cash provided by operating activities	560,231	464,486
Cash flows from investing activities:		
Purchase of investments	(7,428,846)	(10,443,898)
Proceeds from sale of investments	7,504,319	10,293,702
Purchase of property, plant and equipment	(767,373)	(793,332)
Cash acquired in Lancaster General Hospital (LGH) membership substitution	97,307	-
Net cash used by investing activities	(594,593)	(943,528)
Cash flows from financing activities:		
Proceeds from contributions received designated for the acquisition of long-lived assets and long-term investment	220,594	171,052
Proceeds from contributed securities received designated for the acquisition of long-lived assets and long-term investment	30,338	36,974
Federal student loan advances	447	411
Repayment of long-term debt	(103,366)	(61,883)
Proceeds from issuances of long-term debt	79,967	150,000
Net cash provided by financing activities	227,980	296,554
Net increase (decrease) in cash and cash equivalents	193,618	(182,488)
Cash and cash equivalents, beginning of year	933,984	1,116,472
Cash and cash equivalents, end of year	\$ 1,127,602	\$ 933,984
Supplemental disclosure of cash flow information:		
Cash paid for interest, net of amounts capitalized	\$ 81,108	\$ 78,483
Contributed securities received	49,593	67,154
Increase (decrease) in accrued property, plant and equipment	18,572	(37,142)
Assets contributed under split-interest agreements	-	5,024
Assets acquired in LGH membership substitution	1,984,574	-
Liabilities assumed in LGH membership substitution	696,689	-
Contribution received in LGH membership substitution	1,287,885	-

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 or in accordance with donor-specified terms.

Consolidated Notes to Financial Statements

Expirations of temporary restrictions on contributions and investment income, reported as Net assets released from restrictions, and the corresponding amounts are included in the Consolidated Statements of Activities as follows (in thousands):

Temporarily Restricted Net Assets	2016	2015
Net assets released from restrictions	\$ (516,775)	\$ (374,057)
Unrestricted Net Assets	2016	2015
Contributions and donor support	\$ 125,241	\$ 114,707
Investment income	241,766	219,143
Contributions and donor support for capital related activities	149,768	40,207
Net assets released from restrictions	\$ 516,775	\$ 374,057

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.

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 and are 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.

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 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, 2016 and 2015.

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.

Investments, at Fair Value

The majority of the University's investments are held in the Associated Investments Fund (AIF). The 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 AIF including identifying, selecting and monitoring a variety of external investment managers to implement the strategic asset allocation set forth by the Investment Board. The AIF may include marketable and not readily marketable securities that it intends to hold for an indefinite period of time. The University also holds other investments which are not invested in the AIF due to various restrictions. The majority of these investments are in highly liquid short-term and equity type investments. 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, commingled funds and limited partnerships. The securities held in managed accounts, along with 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.

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 inputs are unobservable as Level 3. Limited partnership interests are valued at NAV.

Consolidated Notes to Financial Statements

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.

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.

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.

Natural Resources

Investments in natural resources are made up of limited partnership interests and securities in managed accounts. 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.

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).

Consolidated Notes to Financial Statements

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 5,936 donor-restricted permanent or term endowment funds and 876 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 2016, 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 5.9% for financial aid funds and 4.7% for all other funds. The payout or allocation to operations exceeded actual income, net of expenses and net of income permanently reinvested, by \$365,366,000 in 2016 and by \$336,543,000 in 2015.

Effective for Fiscal Year 2017, the University revised its spending rule formula to reduce the target spending rate on financial aid endowments to 5.3% and increase the target spending rate on non-financial aid endowments to 5.0%

Property, Plant and Equipment

Property, plant and equipment ('PPE') is reported net of related depreciation. Donated PPE 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 PPE is reported at cost. Depreciation is computed on the straight-line method over the estimated useful lives of the assets or the shorter of the lease term or estimated useful life of the asset for capital lease assets. 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 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 investments 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 investments 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 investments 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.

Consolidated Notes to Financial Statements

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.”

The University regularly evaluates its tax position and does not believe it has any uncertain tax positions that require disclosure or adjustment to the consolidated financial statements.

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 \$322,367,000 in 2016 and \$306,831,000 in 2015.

Sponsored Programs

The University receives grant and contract revenue from governmental and private sources. In 2016 and 2015, grant and contract revenue earned from governmental sources totaled \$696,148,000 and \$705,987,000, respectively. The University generally 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 5.64%, net of an allowances for doubtful 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 1.34% to 2.70%, 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 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.

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. 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.

In August 2016, the FASB issued a standard on the Presentation of Financial Statements of Not-for-Profit Entities. The new guidance requires improved presentation and disclosures to help not-for-profits provide more relevant information about their resources to donors, grantor, creditors and other users. 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.

In February 2016, the FASB issued a standard on Leases. This standard requires lessees to recognize assets and liabilities for the rights and obligations created by leases with terms in excess of 12 months. The recognition, measurement, and presentation of expenses and cash flows arising from a lease will primarily depend on its classification as a finance or operating lease. The accounting by lessors remains largely unchanged. This standard is effective for fiscal years beginning after December 15, 2018. University management is evaluating the impact this will have on the consolidated financial statements beginning in Fiscal Year 2020.

2. University of Pennsylvania Health System - Summarized financial and related information

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

Consolidated Notes to Financial Statements

UPHS is comprised of the following operating entities: Clinical Practices of the University of Pennsylvania; Clinical Care Associates; Hospital of the University of Pennsylvania; Penn Presbyterian Medical Center; Pennsylvania Hospital of the University of Pennsylvania Health System; Chester County Hospital and 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 August 2015, through a membership substitution, Lancaster General Health (LGH) became a part of UPHS.

Throughout the year, certain transactions (primarily billings for allocations of common costs, physicians' salaries and benefits, certain purchased services and support for PSOM) are conducted between UPHS and the University. Nonoperating, net, as shown below, includes transfers from UPHS to the University of \$159,055,000 and \$113,279,000 in 2016 and 2015, respectively, to further the research and educational activities of PSOM and \$1,748,000 and \$34,516,000 in 2016 and 2015, respectively, for other activities. In addition, UPHS recognized operating expenses of \$20,648,000 and \$20,676,000 in 2016 and 2015, respectively, to support academic operating activities in the clinical departments of PSOM. The effect of all these transactions is included in the following summarized financial information of UPHS as of and for the years ended June 30, 2016 and 2015 (in thousands):

	2016	2015
Net patient service revenue	\$ 5,545,187	\$ 4,283,346
Provision for bad debt	(218,621)	(231,955)
Net patient service revenue less bad debts	5,326,566	4,051,391
Other revenue	375,249	274,262
Total expenses	(5,282,693)	(3,980,490)
Excess of revenue over expenses from operations	419,122	345,163
Nonoperating, net	843,161	(188,797)
Increase in net assets	\$ 1,262,283	\$ 156,366
Total current assets	\$ 1,522,213	\$ 1,062,050
Assets whose use is limited:		
Held by trustees	66,596	7,686
RRG/ Captive	177,873	127,852
Donor restricted and other	538,122	545,235
Designated	2,009,628	1,223,513
Property and equipment, net	3,082,914	2,187,607
Investments and other assets	933,134	820,253
Total assets	\$ 8,330,480	\$ 5,974,196
Total current liabilities	\$ 808,518	\$ 634,653
Long-term debt, net of current portion	1,482,176	1,121,910
Other liabilities	2,017,880	1,458,010
Total liabilities	\$ 4,308,574	\$ 3,214,573
Net assets		
Unrestricted	\$ 3,479,899	\$ 2,211,529
Temporarily restricted	367,159	382,287
Permanently restricted	174,848	165,807
Total net assets	\$ 4,021,906	\$ 2,759,623
Total liabilities and net assets	\$ 8,330,480	\$ 5,974,196

Consolidated Notes to Financial Statements

Net Patient Service Revenue

Net Patient Service Revenue ('NPSR'), net of contractual allowances and discounts, is as follows for the years ended June 30, 2016 and 2015 (in thousands):

	2016	2015
Third Party Payors	\$ 5,378,831	\$ 4,069,179
Self-Pay	166,356	214,167
Total All Payors	\$ 5,545,187	\$ 4,283,346

NPSR for the years ended June 30, 2016 and 2015 is derived from the following payors:

	2016	2015
Medicare (including Managed Medicare)	30%	28%
Medicaid (including Managed Medicaid)	11%	12%
Managed Care	29%	32%
Independence Blue Cross (IBC)	23%	19%
Commercial	4%	4%
Self Pay	3%	5%
	100%	100%

UPHS has agreements with the following third-party payors that provide for payments at amounts that differ from its established rates:

Effective July 1, 2012, UPHS and IBC reached agreement on terms of a four-year agreement. 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. The agreement continues unless terminated by the parties.

During 2015, 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.

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.

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 NPSR. 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 above by UPHS, an estimated \$16,282,000 and \$7,077,000 were incurred as a result of providing services to charity patients for the years ended June 30, 2016 and 2015, respectively.

Consolidated Notes to Financial Statements

Provision for Bad Debt

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. Included in this assessment are patients who do not have health insurance or do not meet the criteria to qualify for UPHS' charity care policy. UPHS pursues collection of these amounts, however certain amounts are deemed to be uncollectible. Periodically throughout the year, management assesses the adequacy of the allowances 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 2016 or 2015. 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' allowances for uncollectible accounts totaled \$220,700,000 and \$178,299,000 at June 30, 2016 and 2015, respectively.

LGH Membership Substitution

Effective August 1, 2015, UPHS and 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, 3 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 and costs are expensed as incurred. UPHS recorded non-operating contribution income of \$1,287,885,000 in fiscal year 2016 reflecting the fair value of the contributed net assets of LGH on August 1, 2015, of which, \$11,289,000 and \$12,729,000 were recorded in temporarily restricted and permanently restricted net assets, respectively.

Total fair value of assets, liabilities and net assets contributed by LGH and its subsidiaries at August 1, 2015 were as follows (in thousands):

	August 1, 2015
Cash and cash equivalents	\$ 97,307
Patients accounts receivable, net	99,793
Prepaid expenses and other current assets	56,839
Assets limited as to use	160,855
Property, plant and equipment, net	702,845
Other assets	866,935
Total assets acquired	\$ 1,984,574
Accounts payable and accrued expense	\$ 28,668
Accrued compensation and related benefits	269,072
Estimated third-party settlements	12,484
Long-term debt	306,703
Other liabilities	79,762
Total liabilities assumed	\$ 696,689
Unrestricted	\$ 1,263,867
Temporarily restricted	11,289
Permanently restricted	12,729
Total net assets	\$ 1,287,885
Total liabilities and net assets	\$ 1,984,574

Consolidated Notes to Financial Statements

A summary of the pro-forma combined financial results of LGH and UPHS for the years ended June 30, 2016 and 2015, as if the affiliation had occurred on July 1, 2014, is as follows (unaudited and in thousands):

	2016	2015
Total operating revenue	\$ 5,788,466	\$ 5,363,237
Total operating expense	5,365,082	4,970,213
Excess of revenue over expenses from operations	\$ 423,384	\$ 393,024
Non-operating (loss) gain	(24,554)	114,429
Pension and other postretirement plan adjustments	(282,763)	(173,007)
Transfers and other	(135,902)	(140,949)
(Decrease) increase in unrestricted net assets	\$ (19,835)	\$ 193,497

3. Accounts Receivable

The major components of receivables, net of allowances for doubtful accounts of \$15,209,000 and \$13,480,000 at June 30, 2016 and 2015, respectively, are as follows (in thousands):

	2016	2015
Sponsored research	\$ 123,735	\$ 141,507
Malpractice	91,350	80,951
Student	12,798	17,579
Trade	44,318	36,508
Investment income	3,843	6,011
Other	47,743	30,021
Total Accounts receivable	\$ 323,787	\$ 312,577

Accounts receivable are reported at their net realizable value.

4. Loans Receivable

Loans receivable, and related allowances for doubtful accounts, consist of the following at June 30, 2016 and 2015 (in thousands):

2016			
	Receivable	Allowance	Net
Student Loans:			
Federally-sponsored	\$ 72,836		\$ 72,836
Other	17,612	\$ 3,803	13,809
Total Student loans	\$ 90,448	\$ 3,803	\$ 86,645
Other	11,247	229	11,018
Total	\$ 101,695	\$ 4,032	\$ 97,663

2015			
	Receivable	Allowance	Net
Student Loans:			
Federally-sponsored	\$ 72,313		\$ 72,313
Other	17,376	\$ 3,675	13,701
Total Student loans	\$ 89,689	\$ 3,675	\$ 86,014
Other	11,250	217	11,033
Total	\$ 100,939	\$ 3,892	\$ 97,047

Consolidated Notes to Financial Statements

Loans receivable primarily consists of student loans. Student loans include federally-sponsored student loans and donor-restricted student loans with mandated interest rates and repayment terms. The federally-sponsored student loans represent 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. Determination of the fair value of student loans receivable is not practicable.

Loans receivable are reported at their net realizable value. The University regularly assesses the adequacy of the allowances for credit losses of its loans by performing ongoing evaluations, including such factors as aging, differing economic risks associated with each loan category, financial condition of specific borrowers, economic environment in which the borrowers operate, level of delinquent loans, value of collateral and existence of guarantees or indemnifications.

5. Contributions Receivable

A summary of contributions receivable at June 30, 2016 and 2015, is as follows (in thousands):

	2016	2015
Unconditional promises expected to be collected in:		
Less than one year	\$ 118,920	\$ 151,446
One year to five years	134,532	144,036
Over five years	38,853	23,827
	292,305	319,309
Less: Discount	(16,107)	(15,806)
Less: Allowances for doubtful amounts	(33,349)	(31,929)
Total Contributions receivable, net	\$ 242,849	\$ 271,574

At June 30, 2016 and 2015, the University has outstanding unrecorded conditional promises to give, including non-legally binding bequests, of \$300,919,000 and \$292,691,000, 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.

6. Investments, at Fair Value

In Fiscal Year 2015, the University 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.

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, 2016 and June 30, 2015 is as follows (in thousands):

Assets	Level 1	Level 2	Level 3	Investments at NAV	2016
Short-term	\$ 1,144,489				\$ 1,144,489
Equity:					
US equities	1,169,071			\$ 870,155	2,039,226
International equities	456,661			516,157	972,818
Emerging market equities	105,645	\$ 6,915		871,350	983,910
Total Equity	1,731,377	6,915		2,257,662	3,995,954
Debt:					
US treasuries	1,112,101	64,229			1,176,330
Corporate bonds	105,474	186,214	3,542		295,230
High yield				439	439
Total Debt	1,217,575	250,443	3,542	439	1,471,999
Split-interest agreements	71,723		\$ 400,045		471,768
Absolute return				2,622,488	2,622,488
Real estate		1,090	136,139	539,075	676,304
Private equity			8,698	1,570,942	1,579,640
Natural resources	297,708			174,718	472,426
Derivative instruments	867	13,937			14,804
Other			2,538		2,538
Total assets	\$ 4,463,739	\$ 272,385	\$ 550,962	\$ 7,165,324	\$ 12,452,410

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

Consolidated Notes to Financial Statements

A summary of Liabilities associated with investments as of June 30, 2016 and 2015 is as follows (in thousands):

Liabilities	Level 1	Level 2	Level 3	Investments at NAV	2016
Securities sold, not yet purchased	\$ 253,890	\$ 2,949	\$ 354		\$ 257,193
Derivative instruments	1,486	12,745			14,231
Split-interest agreements		47,424			47,424
Other	14,232				14,232
Total liabilities	\$ 269,608	\$ 63,118	\$ 354	\$ -	\$ 333,080

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

Included in Short-term investments is \$59,386,000 and \$2,033,000 of amounts held by trustees under indenture and escrow agreements at June 30, 2016 and 2015, respectively.

At June 30, 2016 and 2015, Short-term investments include \$39,905,000 and \$49,039,000, respectively, of outstanding receivables from trading activities. At June 30, 2016 and 2015, Short-term investments include \$145,893,000 and \$36,928,000, respectively, of outstanding payables from trading activities.

As of June 30, 2016 and 2015 there were no transfers between Level 1 and 2.

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 \$2,666,200,000 which represents 27.9% of the AIF value as of June 30, 2016.

Consolidated Notes to Financial Statements

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, 2016	Fair Value June 30, 2015	Remaining Life	Outstanding Commitments	Redemption Terms	Redemption Restrictions
Short-term	\$ 1,144,489	\$ 793,370	N/A	\$ -	Daily	None
Equity						
Managed accounts	891,040	1,108,414	N/A	-	Daily, monthly and semi-annually	None
Mutual funds	307,379	-	N/A	-	Daily	None
Exchange traded funds	48,462	-	N/A	-	Daily	None
Commingled funds	690,917	949,036	N/A	18,200	Weekly to annually with varying notice periods	Lock-up provisions ranging from 0 to 5 years
Partnerships	2,058,156	1,909,379	N/A	164,075	Quarterly to annually with varying notice periods	Lock-up provisions ranging from 0 to 5 years. Excludes \$63 million in one fund with no redemptions permitted and \$11 million of side pocket investments
Total Equity	3,995,954	3,966,829		182,275		
Debt						
Managed accounts	1,358,267	1,206,012	N/A	-	Daily	None
Partnership	113,732	131,439	N/A	-	Daily to annually with varying notice periods	\$439,000 of side pocket investments
Total Debt	1,471,999	1,337,451				
Absolute return	2,622,488	2,850,658	N/A	384,755	Quarterly, annually, and 2 years with varying notice periods. Excludes 20 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 \$434 million in 20 limited partnerships with no redemptions permitted and \$148 million of side pocket investments
Real estate	676,304	527,199	1 to 15 years	514,842	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	1,579,640	1,142,241	1 to 16 years	1,305,957	Redemptions not permitted. Distributions received as underlying investments are liquidated	N/A
Natural resources						
Managed account	260,352	282,678	N/A	-	Daily and quarterly	Lock-up provisions range from 0 to 2 years
Commingled fund	37,356	-	N/A	-	Daily	None
Partnerships	174,718	132,862	1 to 15 years	278,371	Redemptions not permitted. Distributions received as underlying investments are liquidated	N/A
Total Natural resources	472,426	415,540		278,371		
Totals	\$ 11,963,300	\$ 11,033,288		\$ 2,666,200		

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 \$71,723,000 and \$74,639,000 at June 30, 2016 and 2015, 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 \$141,294,000 and \$150,173,000 at June 30, 2016 and 2015, 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.

Consolidated Notes to Financial Statements

Included in Split-interest agreements are amounts held to meet legally mandated annuity reserves of \$29,815,000 and \$30,100,000 as of June 30, 2016 and 2015, 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, 2016 and 2015 is as follows (in thousands):

	2016	2015
Charitable remainder trusts	\$ 11,113	\$ 10,966
Charitable lead trusts	113,449	129,445
Perpetual trusts	275,483	275,971
Total	\$ 400,045	\$ 416,382

Changes to the reported amounts of Split-interest agreements measured at fair value using unobservable (Level 3) inputs as of June 30, 2016 and 2015 are as follows (in thousands):

	Charitable Remainder Trusts	Charitable Lead Trusts	Perpetual Trusts	Total
June 30, 2015	\$ 10,966	\$ 129,445	\$ 275,971	\$ 416,382
Net realized gains			4,486	4,486
Net unrealized gains/ (losses)	289	6,534	(12,269)	(5,446)
Acquisitions			7,296	7,296
Liquidations	(142)	(22,530)	(1)	(22,673)
June 30, 2016	\$ 11,113	\$ 113,449	\$ 275,483	\$ 400,045

	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

Consolidated Notes to Financial Statements

The following tables set forth the fair value, related Gains (losses) and notional amounts of the University's derivative instruments by contract type as of June 30, 2016 and 2015 (in thousands):

2016				
	Notional Amount	Gross Derivative Assets	Gross Derivative Liabilities	Derivative Gains (Losses)
Foreign currency contracts	\$ 80,261	\$ 2,555	\$ 1,398	\$ 1,574
Futures contracts	(142,697)	-	425	21,889
Options contracts	1,011,977	2,758	1,161	(4,268)
Swaps	196,178	9,491	11,247	(6,780)
Total	\$ 1,145,719	\$ 14,804	\$ 14,231	\$ 12,415

2015				
	Notional Amount	Gross Derivative Assets	Gross Derivative Liabilities	Derivative Gains (Losses)
Foreign currency contracts	\$ 140,124	\$ 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	(436)
Total	\$ 294,380	\$ 19,359	\$ 9,573	\$ 18,195

The notional amount is representative of the volume and activity of the respective derivative type during the years ended June 30, 2016 and 2015.

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, in the appropriate net asset classification.

A summary of the University's total investment return for the years ended June 30, 2016 and 2015 as reported in the Consolidated Statements of Activities is presented below (in thousands):

	2016	2015
AIF investment income	\$ 52,748	\$ 66,830
AIF realized and unrealized (losses) gains	(171,975)	628,322
Return on AIF	(119,227)	695,152
Other investment (losses) gains	(7,628)	40,192
Total Return on investments	\$ (126,855)	\$ 735,344

Consolidated Notes to Financial Statements

7. Endowment

The composition and changes to the amount of the University's endowment at June 30, 2016 are as follows (in thousands):

	Unrestricted	Temporarily Restricted	Permanently Restricted	Total
Donor-restricted endowment funds		\$ 2,143,305	\$ 3,410,740	\$ 5,554,045
Quasi-endowment funds	\$ 5,161,319			5,161,319
June 30, 2016	\$ 5,161,319	\$ 2,143,305	\$ 3,410,740	\$ 10,715,364

	Quasi Unrestricted	Temporarily Restricted	Permanently Restricted	Total
Net assets, June 30, 2015	\$ 4,412,620	\$ 2,442,269	\$ 3,278,680	\$ 10,133,569
Investment return:				
Investment income, net of expenses	5,568	8,530	295	14,393
Other income				-
Losses, realized and unrealized	(77,769)	(93,489)	(12,312)	(183,570)
Total investment return	(72,201)	(84,959)	(12,017)	(169,177)
New gifts	34,573	17,366	124,741	176,680
Allocation of endowment assets for expenditure	(365,366)			(365,366)
Other investment allocation	(5,956)			(5,956)
Transfers to create board designated funds	138,348			138,348
Other transfers	(32,509)	11,119	6,607	(14,783)
LGH membership substitution	806,451	2,869	12,729	822,049
Released from restriction	245,359	(245,359)		
Net assets, June 30, 2016	\$ 5,161,319	\$ 2,143,305	\$ 3,410,740	\$ 10,715,364

The composition and changes to the amount of the University's endowment as of June 30, 2015 are 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

Consolidated Notes to Financial Statements

	Quasi	Donor Restricted		
	Unrestricted	Temporarily	Permanently	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 fair value of certain permanently restricted endowment funds is less than the original donated value by \$6,106,000 and \$79,000 as of June 30, 2016 and 2015, respectively, and is reflected as a reduction of Temporarily restricted assets.

8. Property, Plant and Equipment, net

The components of PPE at June 30, 2016 and 2015 are as follows (in thousands):

	Estimated Useful		
	Life in years	2016	2015
Land and land improvements	0 to 20	\$ 369,758	\$ 290,951
Buildings and fixed equipment	5 to 50	8,129,199	6,843,301
Moveable equipment and other	4 to 20	2,202,886	1,711,059
Construction-in-progress		653,532	476,926
		11,355,375	9,322,237
Less: Accumulated depreciation		(5,152,468)	(4,168,142)
Property, plant and equipment, net		\$ 6,202,907	\$ 5,154,095

The University recorded \$451,227,000 and \$365,204,000 of depreciation expense for the years ended June 30, 2016 and 2015, respectively.

The University capitalized \$12,008,000 and \$9,777,000 of interest costs for the years ended June 30, 2016 and 2015, respectively.

The University has conditional asset retirement obligations of \$21,646,000 and \$23,469,000 as of June 30, 2016 and 2015, respectively, which primarily relate to asbestos contained in buildings and underground steam distribution piping and are included within Accrued expenses and other liabilities in the Consolidated Statements of Financial Position.

9. Split-Interest Agreements

Changes in the value of assets, liabilities and net assets pursuant to split-interest agreements as of June 30, 2016 and 2015 are as follows (in thousands):

2016	Assets	Liabilities	Net Assets
June 30, 2015	\$ 491,021	\$ (44,799)	\$ 446,222
New contributions	9,761	(1,756)	8,005
Investment income	1,346	(1,147)	199
Realized and unrealized loss, net	(1,784)		(1,784)
Payments and settlements	(28,576)	7,399	(21,177)
Actuarial adjustment		(7,121)	(7,121)
Net change	(19,253)	(2,625)	(21,878)
June 30, 2016	\$ 471,768	\$ (47,424)	\$ 424,344
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

10. 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 risk retention programs.

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.

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% to 3.50% discount rate as of June 30, 2016 and 2015. The gross liability recorded under this program is \$677,538,000 and \$636,552,000 at June 30, 2016 and 2015, respectively, with a corresponding receivable of \$91,350,000 and \$80,951,000 at June 30, 2016 and 2015, respectively.

11. Contingencies, Guarantees and Commitments

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 totaling \$64,992,000 and \$66,857,000 at June 30, 2016 and 2015, respectively. 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. The recognized liability is \$6,193,000 and \$6,173,000 at June 30, 2016 and 2015, respectively. These recognized liabilities reflect effective default reserve rates of 39.3% and 30.9% at June 30, 2016 and 2015, respectively.

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 therefrom 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, 2016, approximately \$482,795,000 has been committed by the University.

12. 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 \$159,857,000 and \$125,812,000 as of June 30, 2016 and 2015, respectively.

The University also has non-contributory defined benefit pension plans. Benefits under the plans generally are based on the employee's years of service and compensation during the years preceding retirement. Contributions to the 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 Academic Component's plan was frozen to new full-time entrants effective July 1, 2000. UPHS' non-LGH plan was frozen to new entrants effective July 1, 2010; the benefit accruals for all participants of the LGH plan were frozen effective June 30, 2013.

Additionally, the University provides certain healthcare and life insurance benefits (Other Postretirement Employee Benefits or OPEB) for retired employees. Only a limited number of employees may become eligible for such benefits if they reach retirement age while working for the University. These and similar benefits for active and certain retired employees are provided through insurance contracts.

The University uses a measurement date of June 30 for its defined benefit pension and OPEB plans. 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.

Consolidated Notes to Financial Statements

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	2016	2015	2016	2015
Service cost	\$ 71,063	\$ 64,537	\$ 30,444	\$ 27,334
Interest cost	125,566	83,907	38,913	33,711
Expected return on plan assets	(151,147)	(114,248)	(28,190)	(25,987)
Amortization of:				
Net prior service cost			(108)	27
Net losses	36,436	23,104	11,720	7,261
Net periodic benefit cost	\$ 81,918	\$ 57,300	\$ 52,779	\$ 42,346

Obligation and Funded Status

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

	Pension Benefits		Other Postretirement Benefits	
Change in Benefit Obligation	2016	2015	2016	2015
Benefit obligation at beginning of year	\$ 2,102,127	\$ 1,889,105	\$ 882,835	\$ 771,183
Service cost	71,063	64,537	30,444	27,334
Interest cost	125,566	83,907	38,913	33,711
Plan participants' contributions	157	158	6,348	6,055
Retiree drug subsidy			166	163
Net actuarial loss/(gain)	167,100	112,223	(15,584)	71,631
Net transfers In--Acquisition	771,555		4,510	
Benefits paid from fund	(72,454)	(47,803)	(19,214)	(18,437)
Benefits paid outside of fund			(8,017)	(8,805)
Benefit obligation at end of year	\$ 3,165,114	\$ 2,102,127	\$ 920,401	\$ 882,835
Accumulated benefit obligation	\$ 2,839,089	\$ 1,807,474	\$ 3,285	N/A

	Pension Benefits		Other Postretirement Benefits	
Change in Plan Assets	2016	2015	2016	2015
Fair value of plan assets at beginning of year	\$ 1,496,199	\$ 1,443,378	\$ 369,951	\$ 341,584
University contributions	98,938	62,286	26,170	27,800
Benefits paid by University			7,408	8,215
Plan participants' contributions	157	158	6,348	6,055
Benefits paid from fund	(72,454)	(47,803)	(19,214)	(18,437)
Benefits paid outside of fund			(8,017)	(8,805)
Retiree drug subsidy			166	163
Acquisition	563,617			
Actual return on assets	(4,142)	38,180	(2,887)	13,376
Fair value of plan assets at end of year	\$ 2,082,315	\$ 1,496,199	\$ 379,925	\$ 369,951

Consolidated Notes to Financial Statements

	Pension Benefits		Other Postretirement Benefits	
Funded Status	2016	2015	2016	2015
PBO / APBO	\$ (3,165,114)	\$ (2,102,127)	\$ (920,401)	\$ (882,835)
Plan assets at fair value	2,082,315	1,496,199	379,925	369,951
Funded status at end of year	\$ (1,082,799)	\$ (605,928)	\$ (540,476)	\$ (512,884)

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

	Pension Benefits		Other Postretirement Benefits	
Unrestricted Net Assets	2016	2015	2016	2015
Net actuarial (gain)/loss	\$ 904,181	\$ 618,231	\$ 261,456	\$ 256,019
Net prior service cost			(1,702)	(147)
Total	\$ 904,181	\$ 618,231	\$ 259,754	\$ 255,872
Adjustment to unrestricted net assets	\$ 285,950	\$ 165,187	\$ 3,882	\$ 76,952

The University recorded year-end actuarial valuation adjustments to its pension and other postretirement benefits plans of a \$289,832,000 loss and a \$242,139,000 loss for the years ended June 30, 2016 and 2015 respectively, in Pension, OPEB and other, net in the Consolidated Statements of Activities.

The estimated amount that will be amortized from Unrestricted Net Assets into net periodic benefit cost in 2017 is as follows:

	Pension Benefits	Other Postretirement Benefits
Amortization of prior service cost		\$ (121)
Amortization of net (gains)/ losses	\$ 53,249	11,527

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

	Pension Benefits		Other Postretirement Benefits	
	2016	2015	2016	2015
Accrued retirement benefits	\$ (1,082,799)	\$ (605,928)	\$ (540,476)	\$ (512,884)
Funded status at end of year	\$ (1,082,799)	\$ (605,928)	\$ (540,476)	\$ (512,884)

Reported Accrued retirement benefits includes \$6,858,000 and \$8,273,000 for faculty early retirement programs at June 30, 2016 and 2015, respectively.

	Pension Benefits		Other Postretirement Benefits	
Information for Plans with PBO/APBO in Excess of Plan Assets	2016	2015	2016	2015
Projected benefit obligation / accumulated postretirement benefit obligation	\$ 3,165,114	\$ 2,102,127	\$ 920,401	\$ 882,835
Accumulated benefit obligation	2,839,089	1,807,474	3,285	N/A
Fair value of plan assets	2,082,315	1,496,199	379,925	369,951

Consolidated Notes to Financial Statements

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	2016	2015	2016	2015
Discount rate	4.17%	4.50%	3.95%	4.45%
Salary increase	3.94%	3.92%	4.00%	N/A
Weighted-Average Assumptions Used to				
Determine Net Periodic Benefit Cost				
Discount rate	4.53%	4.50%	4.45%	4.44%
Expected long-term return on plan assets	7.50%	7.93%	7.50%	7.50%
Salary increase	3.94%	3.92%	4.00%	N/A
Assumed Health Care Cost Trend Rates				
Initial trend rate	N/A	N/A	5.51%	6.72%
Ultimate trend rate	N/A	N/A	4.70%	4.70%
Fiscal year end that ultimate trend rate is reached	N/A	N/A	2023	2023

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	
	2016	2015	2016	2015
Effect on total of service and interest cost	\$ 14,950	\$ 14,832	\$ (11,288)	\$ (11,253)
Effect on APBO	172,148	161,082	(134,552)	(126,432)

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 Notes 1 and 6 – 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.

Consolidated Notes to Financial Statements

A summary of plan assets, measured at fair value, as of June 30, 2016 and 2015, is as follows (in thousands):

Pension Benefits:

Assets	Level 1	Level 2	Level 3	Investments at NAV	2016
Short-term	\$ 124,576				\$ 124,576
Equity:					
US equities	262,763			\$ 133,428	396,191
International equities	101,543			214,627	316,170
Emerging market equities	38,354			108,440	146,794
Debt:					
US treasuries	170,169	\$ 15,495			185,664
Corporate bonds		76,153		155,004	231,157
Absolute return				432,563	432,563
Real estate				26,415	26,415
Private equity				57,854	57,854
Natural resources	106,154			59,000	165,154
Derivative instruments:					
Forward currency contracts		8			8
Total assets	\$ 803,559	\$ 91,656	\$ -	\$ 1,187,331	\$ 2,082,546

Liabilities	Level 1	Level 2	Level 3	Investments at NAV	2016
Derivative instruments		\$ 231			\$ 231
Total liabilities	\$ -	\$ 231	\$ -	\$ -	\$ 231

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

Consolidated Notes to Financial Statements

Other Postretirement Benefits:

Assets	Level 1	Level 2	Level 3	Investments at NAV	2016
Short-term	\$ 25,412				\$ 25,412
Equity:					
US equities	13,783			\$ 40,185	53,968
International equities	6,157			66,952	73,109
Emerging market equities	11,466			27,328	38,794
Debt:					
US treasuries	26,436				26,436
Corporate bonds		\$ 623		10,207	10,830
Absolute return				98,905	98,905
Real estate				3,653	3,653
Private equity				14,544	14,544
Natural resources	33,249			1,101	34,350
Derivative instruments:					
Forward currency contracts		3			3
Total	\$ 116,503	\$ 626	\$ -	\$ 262,875	\$ 380,004

Liabilities	Level 1	Level 2	Level 3	Investments at NAV	2016
Derivative instruments		\$ 79			\$ 79
Total	\$ -	\$ 79	\$ -	\$ -	\$ 79

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

As of June 30, 2016, the University has unfunded commitments to limited partnerships totaling \$222,857,000, which are expected to be called over the next 5 years.

Consolidated Notes to Financial Statements

Transfers between leveled assets are based on the actual date of the event which caused the transfer. As of June 30, 2016 and 2015 there were no transfers between Level 1 and 2.

Allocation of Plan Assets	Pension Benefits			Other Postretirement Benefits		
	Target	2016	2015	Target	2016	2015
Short-term	0.0%	6.0%	6.4%	0.0%	6.7%	8.0%
Equity:						
US equities	17.8%	19.0%	19.0%	15.0%	14.2%	19.7%
International equities	18.1%	15.2%	17.9%	21.5%	19.2%	23.6%
Emerging markets equities	7.3%	7.0%	9.5%	10.0%	10.2%	8.7%
Debt:						
US treasuries	21.4%	8.9%	10.5%	10.0%	7.0%	8.6%
Corporate bonds	0.0%	11.1%	3.3%		2.9%	3.0%
Absolute return	22.8%	20.8%	25.6%	29.0%	26.0%	20.5%
Real estate	1.4%	1.3%	1.2%	1.0%	1.0%	
Private equity	2.2%	2.8%	0.6%	2.5%	3.8%	7.9%
Natural resources	9.0%	7.9%	6.0%	11.0%	9.0%	
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Cash Flows & Estimated Future Benefit Payments (in thousands):

University contributions for the year ending:	Pension Benefits		Other Postretirement Benefits	
June 30, 2015	\$	62,286	\$	27,800
June 30, 2016		98,938		26,170
June 30, 2017		128,432		32,651
Benefits paid from outside of the fund for the year ending:				
June 30, 2015		N/A	\$	8,805
June 30, 2016		N/A		8,017
June 30, 2017		N/A		9,403
Plan participants' contributions for the year ending:				
June 30, 2015	\$	158	\$	6,055
June 30, 2016		157		6,348
June 30, 2017		158		6,735

Benefits Payments in Total (in thousands):

Actual benefit payments for the year ending:	Pension Benefits		Other Postretirement Benefits before Medicare Part D Subsidy		Impact of Medicare Part D Subsidy	
June 30, 2015	\$	47,803	\$	27,242	\$	(163)
June 30, 2016		72,454		27,231		(166)
Expected benefit payments for the year ending (Unaudited):						
June 30, 2017	\$	83,886	\$	27,369	\$	(253)
June 30, 2018		91,407		28,884		(253)
June 30, 2019		99,091		29,329		(268)
June 30, 2020		107,783		31,500		(282)
June 30, 2021		116,970		33,728		(292)
June 30, 2022 to June 30, 2026		733,717		204,037		(1,617)

Consolidated Notes to Financial Statements

13. Debt Obligations

Debt obligations at June 30, 2016 and 2015 are as follows (in thousands):

	Final Maturity	Interest Rate at June 30, 2016	2016	2015
Academic Component:				
Fixed rate debt obligations:				
The Trustees of the University of Pennsylvania				
Series 2012 Taxable Bonds	09/2112	4.67%	\$ 300,000	\$ 300,000
Pennsylvania Higher Educational Facilities Authority (PHEFA)				
Series A of 2016 revenue bonds	08/2041	2.25% - 5.00%	169,635	
Unamortized premium			17,420	
Series A of 2015 revenue bonds	10/2045	2.50% - 5.00%	205,670	205,670
Unamortized premium			20,774	21,938
Series B of 2015 revenue bonds	10/2038	3.00% - 5.00%	165,150	165,150
Unamortized premium			27,930	30,036
Series C of 2015 revenue bonds	10/2035	3.68%	8,020	8,020
Series A of 2011 revenue bonds	09/2041	4.50% - 5.00%	14,495	131,805
Unamortized premium			73	710
Series of 2010 revenue bonds	09/2033	4.00%	16,935	50,045
Unamortized premium			978	3,061
Series B of 2009 revenue bonds	09/2032	4.00% - 5.00%	10,575	20,075
Unamortized premium			212	433
Series C of 2009 revenue bonds	09/2019	5.00%	15,105	15,105
Unamortized premium			356	494
Series C of 2005 revenue bonds				5,255
Unamortized premium				52
Series A of 2005 revenue bonds				3,920
Unamortized premium				63
Series B of 2005 revenue bonds				8,495
Other loans	05/2031	3.00%	736	775
Total Fixed rate debt obligations:			974,064	971,102
Variable rate debt obligations:				
PHEFA				
Series of 1990 revenue bonds	12/2020	0.66%	6,500	6,500
Washington County Authority				
Series of 2004	07/2034	0.40%	55,500	55,500
Total Variable rate debt obligations			62,000	62,000
Total Academic Component debt obligations			\$ 1,036,064	\$ 1,033,102

Consolidated Notes to Financial Statements

	Final Maturity	Interest Rate at June 30, 2016	2016	2015
UPHS:				
Fixed rate debt obligations:				
LCHA				
Series A of 2016 revenue bonds	08/2042	3.38% - 5.00%	\$ 173,310	
Unamortized premium			23,921	
Series B of 2016 revenue bonds	08/2046	4.00% - 5.00%	128,050	
Unamortized premium			20,527	
Series A of 2012 revenue bonds	07/2041	1.20%	23,925	
PHEFA				
Series A of 2015 revenue bonds	08/2045	3.00% - 5.00%	357,565	\$ 357,565
Unamortized premium			35,976	40,101
Series A of 2012 revenue bonds	08/2032	3.00% - 5.00%	136,950	136,950
Unamortized premium			10,236	10,891
Series A of 2011 revenue bonds	08/2042	4.75% - 5.88%	123,400	150,000
Unamortized discount			(705)	(917)
Series A of 2009 revenue bonds	08/2024	3.00% - 5.25%	43,515	74,370
Unamortized premium			407	851
Series B of 2008 revenue bonds	08/2018	5.50%	52,000	52,000
Unamortized discount			(326)	(481)
Series A of 2005 revenue bonds				19,680
Unamortized premium				
Series B of 2005 revenue bonds				8,185
Unamortized premium				
LGH 2015 Taxable Direct Obligation Note	08/2022	2.66%	77,553	
Build to suit lease			123,070	123,038
Mortgages	04/2032	5.30%	25,021	8,714
Total Fixed rate debt obligations:			1,354,395	980,947
Variable rate debt obligations:				
PHEFA				
Series A of 2014 revenue bonds	06/2045	0.68%	100,000	100,000
Series A of 2008 revenue bonds	01/2038	0.39%	69,995	75,710
Total Variable rate debt obligations			169,995	175,710
Total UPHS debt obligations			1,524,390	1,156,657
Total University debt obligations			\$ 2,560,454	\$ 2,189,759

The fair value of the University's existing debt obligations was \$2,712,630,000 and \$2,211,566,000 at June 30, 2016 and 2015, 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
2017	\$ 55,658	\$ 11,738	\$ 67,396
2018	56,142	12,133	68,275
2019	110,062	11,850	121,912
2020	57,050	12,007	69,057
2021	69,920	12,325	82,245
Thereafter	1,905,753	187,630	2,093,383
Total Principal	\$2,254,585	\$ 247,683	\$2,502,268
Unamortized net premium	157,779		157,779
Build-to-suit lease related interest		(99,593)	(99,593)
Total Debt	\$2,412,364	\$ 148,090	\$2,560,454

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 \$14,925,000 to \$76,925,000. On June 14, 2016, 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, 2016, there have been no draws under the agreement.

On April 28, 2016, PHEFA issued Series A of 2016 refunding revenue bonds (PHEFA 2016A bonds) with an aggregate principal amount of \$169,635,000. The proceeds were used to fund an escrow which will be used to refund \$7,600,000 from the PHEFA Series B of 2009 revenue bonds (refunded PHEFA 2009B bonds), \$33,110,000 from PHEFA Series 2010 revenue bonds (refunded PHEFA 2010 bonds) and \$117,310,000 from PHEFA Series A of 2011 revenue bonds (refunded PHEFA 2011A). The refunded PHEFA 2009B, PHEFA 2010 and PHEFA 2011A bonds were legally defeased, and as such, are no longer included among the University's reported liabilities. Interest on the PHEFA 2016A bonds is fixed with coupons ranging between 2.250% and 5.250%. The PHEFA 2016A bonds have serial maturities which are due in amounts ranging from \$1,070,000 in 2016 to \$7,865,000 in 2037 and one term maturity in the amount of \$45,570,000 maturing in 2041, which will be subject to mandatory sinking fund redemption. The bonds are subject to optional redemption by the University on or after August 15, 2021 for the term bond or August 15, 2026 for the serial bonds at a price equal to 100% of the principal amount plus accrued interest.

As a result of the legal defeasance of debt associated with the issuance of PHEFA 2016A 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 \$24,556,000 for the year ended June 30, 2016.

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 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 \$21,925,000 and \$3,907,000 at June 30, 2016 and 2015, respectively. These letters of credit have evergreen provisions for automatic renewal. There have been no draws under these letters of credit.

UPHS

Lancaster Hospital Authority Revenue Bonds (LCHA)

UPHS Series A of 2016 were issued April 7, 2016, of which \$34.9 million was used to redeem LCHA Series A 2007 bonds and \$95.3 million was used to redeem LCHA Series B of 2012 bonds. In addition to the refundings, the bonds provided \$65,890,000 of funds held by trustee in a capital projects fund for future expenditures. The bonds mature in varying annual amounts from \$3,950,000 to \$48,935,000 through 2042 and have stated interest rates that range from 3.375% to 5.00%. The bonds maturing on and after August 15, 2027 are subject to optional redemption by the University on or after August 15, 2026 at a redemption price of 100% plus accrued interest.

UPHS Series B of 2016 were issued April 7, 2016, of which \$34.6 million was used to redeem UPHS Series A of 2009 bonds and \$31.9 million was used to redeem UPHS Series A of 2011 bonds. In addition to the refundings, the bonds provided \$81,110,000 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 \$8,595,000 to \$48,785,000 through 2046 and have stated interest rates that range from 4.00% to 5.00%. The bonds maturing on and after August 15, 2045 and August 15,

Consolidated Notes to Financial Statements

2046 are subject to optional redemption by the University on or after August 15, 2026 at a redemption price of 100% plus accrued interest.

As a result of the legal defeasance of debt associated with the issuance of LCHA Series A of 2007, LCHA Series B of 2012, UPHS Series A of 2009 bonds and UPHS Series A of 2011 bonds, 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 \$22,366,000 for the year ended June 30, 2016.

Lancaster General Health Series A of 2012 Refunding Project revenue bonds were issued on June 1, 2012 for \$25,250,000. The bonds mature in varying amounts from \$550,000 to \$1,400,000 through 2041. Interest on the bonds is reset monthly through a remarketing process (1.2% at June 30, 2016).

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. 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 on or after August 15, 2025 at a redemption price of 100% plus accrued interest.

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%.

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%.

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.

The LCHA and 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 2016 and 2015, UPHS met its debt service coverage requirement under the MTI. Additionally, UPHS has pledged its gross revenues to secure its obligation under the MTI.

Lancaster General Hospital 2015 Taxable Direct Obligation Note for \$80,000,000 was issued for the construction of various LGH projects (including a new bed tower, energy plant and various renovations). The note amortizes in varying

Consolidated Notes to Financial Statements

amounts beginning on August 1, 2015 from \$2,343,000 to \$2,675,000 with a final maturity of \$62,518,000 on August 1, 2022. The note has a fixed interest rate of 2.66%.

UPHS has a mortgage payable with a monthly installment of \$61,000 including interest. The mortgage has a stated interest rate of 5.3%. The mortgage will fully amortize on or before April 1, 2032 and is collateralized by land and buildings of approximately \$9,500,000.

UPHS maintains various lines of credit with expirations at various dates through fiscal year 2019 totaling \$105,500,000 and \$100,000,000 at June 30, 2016 and 2015, respectively, to supplement liquidity, cover balances due on construction projects and reinsurance agreements. As of June 30, 2016, there are no draws under any of the agreements.

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.

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

University					
Notional Amounts	\$ 101,950,000				
Trade Date	11/6/2007				
Maturity Date	7/1/2034				
Rates:					
Receive	67% of 1-Month LIBOR				
Pay	3.573%				
Default Optional Termination @ Market Value	Default by University				
Optional Termination @ Market Value	University only				
Collateral Posted	\$ 6,900,000				

	UPHS	UPHS	UPHS	UPHS
Notional Amounts	\$ 24,935,000	\$ 24,935,000	\$ 69,995,000	\$ 23,925,000
Trade Date	7/15/2009	1/7/2010	10/24/2007	6/28/2006
Maturity Date	8/15/2023	8/15/2023	1/1/2038	7/1/2041
Rates:				
Receive	3.184%	2.902%	67% of 1-Month LIBOR	3.980%
Pay	SIFMA index	SIFMA index	3.755%	
Default Optional Termination @ Market Value	Default by UPHS	Default by UPHS	Default by UPHS	Default by UPHS
Optional Termination @ Market Value	UPHS only	UPHS only	UPHS only	UPHS only

Consolidated Notes to Financial Statements

The following tables summarize the fair value of the interest rate swap agreements, not designated as hedging instruments, as of June 30, 2016 and 2015, 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, 2016 and 2015 (in thousands):

Statements of Position					
Line Item		2016		2015	
Asset interest rate swaps					
UPHS	Other assets	\$	4,844	\$	4,608
Total Asset interest rate swaps		\$	4,844	\$	4,608
Liability interest rate swaps					
Academic Component	Accrued expenses and other liabilities	\$	31,491	\$	22,924
UPHS	Accrued expenses and other liabilities		12,694		5,349
Total Liability interest rate swaps		\$	44,185	\$	28,273
Statements of Activities					
Line Item		2016		2015	
Academic Component	Losses on investments	\$	(11,986)	\$	(5,623)
UPHS	Gains on investments		673		365
Total		\$	(11,313)	\$	(5,258)

14. Net Assets

The major components of net assets at June 30, 2016 and 2015 are as follows (in thousands):

2016	Unrestricted	Temporarily restricted	Permanently restricted	Total
General operating	\$ 3,226,035	\$ 264,047	\$	3,490,082
Sponsored programs	49,838			49,838
Capital		86,959		86,959
Student loans	10,277		\$ 16,933	27,210
Planned giving agreements		135,418	7,718	143,136
Endowment	5,161,319	2,143,305	3,410,740	10,715,364
Total	\$ 8,447,469	\$ 2,629,729	\$ 3,435,391	\$ 14,512,589

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

15. Operating Leases

The University leases research labs, office space and equipment under operating leases expiring through July 2036. Rental expense for the years ended June 30, 2016 and 2015 totaling \$93,903,000 and \$78,730,000, respectively, is included in the accompanying Consolidated Statements of Activities.

At June 30, 2016, future minimum lease payments under existing operating leases were as follows (in thousands):

2017	\$ 80,253
2018	78,957
2019	63,321
2020	57,054
2021	48,514
Thereafter	498,046
Total Minimum lease payments	<u>\$ 826,145</u>

16. Functional Classification of Expenditures

Expenses for the years ended June 30, 2016 and 2015 are categorized on a functional basis as follows (in thousands):

	Compensation and benefits	Depreciation and amortization	Interest on indebtedness	Other operating expense	June 30, 2016	June 30, 2015
Instruction	\$ 797,096	\$ 58,830	\$ 3,107	\$ 394,932	\$ 1,253,965	\$ 1,181,690
Research	400,477	44,914	21,229	279,940	746,560	736,613
Hospital and physician practices	3,045,962	252,983	48,267	1,922,179	5,269,391	3,970,869
Auxiliary enterprises	33,593	28,608	4,632	74,482	141,315	139,803
Other educational activities	127,833	13,005	624	55,382	196,844	196,428
Student services	48,792	-	30	37,807	86,629	78,440
Academic support	36,726	30,865	209	13,213	81,013	78,991
Management and general	230,661	17,843	240	45,486	294,230	273,648
Independent operations	7,689	5,700	296	56,355	70,040	66,633
Total	<u>\$ 4,728,829</u>	<u>\$ 452,748</u>	<u>\$ 78,634</u>	<u>\$ 2,879,776</u>	<u>\$ 8,139,987</u>	<u>\$ 6,723,115</u>

Operation and maintenance of PPE and depreciation are allocated 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.

17. Subsequent Events

The University has evaluated subsequent events for the period from June 30, 2016 through September 23, 2016, the date the consolidated financial statements were issued.

UPHS Series C of 2016 bonds were issued August 4, 2016 for \$129,290,000. The bond funds were used to early redeem all remaining UPHS Series A of 2011 bonds. The bonds mature in varying annual amounts from \$245,000 to \$57,890,000 through August 2041 and have stated interest rates that range from 2.00% to 5.00%. The bonds maturing on and after August 15, 2027 are subject to optional redemption by the University on or after August 15, 2026 at a redemption price of 100% plus accrued interest.

Schedule of Expenditures of Federal Awards
Part A, Award Expenditure Detail

UNIVERSITY OF PENNSYLVANIA
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS
Year Ended 6/30/2016

<i>Federal Grantor/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification</i>	<i>Pass-Through Entity Name</i>	<i>Pass-Through Entity Identifying Number</i>	<i>Amount Passed Through to Sub-Recipients</i>	<i>Federal Expenditures</i>
DEPARTMENT OF AGRICULTURE						
DEPARTMENT OF AGRICULTURE DIRECT PROGRAMS						
MAINTENANCE OF MEMBERSHIP LABORATORY REQUIREMENTS	10.025	16-9419-0163-CA				\$11,153
MAINTENANCE OF MEMBERSHIP LABORATORY REQUIREMENTS	10.030	15-9419-0163				\$55,000
PENV FORMULA CIP GRANT FY 2015	10.207	2015-36100-05148				-\$666
WHAT DRIVES DISPARITIES IN FOOD PURCHASES? AN EXAMINATION OF DIFFERENTIALS IN PRICE SENSITIVITY, NUTRITIONAL PREFERENCES, AND RETAIL ACCESS ACROSS THE SOCIOECONOMIC SPECTRUM	10.250	58-4000-2-0084				\$8,891
ADVANCING MEASUREMENT AND MODELING OF HEALTHY FOOD AND ACTIVITY LANDSCAPES	10.310	2010-85215-20659				\$11,956
IMPROVING HONEY BEE QUEEN QUALITY USING IN VITRO ARTIFICIAL SELECTION AND SOCIOGENOMICS	10.310	2014-67013-21725			\$36,303	\$52,997
INCREASING ECONOMIC AND ENVIRONMENTAL SUSTAINABILITY OF SMALL AND MEDIUM SIZED DAIRY FARMS	10.310	2010-85211-20466				\$53,594
ROLE OF FISH IMMUNOGLOBULIN IGT IN SKIN AND GILL MUCOSAL IMMUNE AND PROTECTIVE RESPONSES	10.310	2013-67015-21225				\$54,116
ROBOT SWARMS AND HUMAN SCOUTS FOR PERSISTENT MONITORING OF SPECIALTY CROPS	10.310	2015-67021-23857			\$1,569	\$127,942
ALLELIC VARIATION OF SALMONELLA COLONIZATION FACTORS	10.310	2013-67015-21285				\$195,374
MORE KIDS IN THE WOODS - MORRIS ARBORETUM'S PARTNERS IN EDUCATION INITIATIVE	10.664	12-CS-11242300-122				-\$1,608
EVALUATING NUTRIENT CYCLING IN THE URBAN ENVIRONMENT: A COLLABORATIVE RESEARCH APPROACH	10.679	14-JV-11242308-138				\$29,072
EFFECTS OF ENVIRONMENTAL CHANGES AND LAND-USE HISTORY ON CARBON STOCK AND VEGETATION DYNAMICS IN THE DELAWARE RIVER BASIN	10.679	14-JV-11242306-083				\$30,835
FOOD RETAILERS' RESPONSE TO SNAP	10.RD	58-4000-5-0092				\$24,833
TOTAL DEPARTMENT OF AGRICULTURE DIRECT PROGRAMS					<u>\$37,872</u>	<u>\$653,489</u>
DEPARTMENT OF AGRICULTURE PASS THROUGH PROGRAMS						
USDA SWINE ENTERIC CORONAVIRUS DISEASE COOPERATIVE AGREEMENT	10.025		COMMONWEALTH OF PENNSYLVANIA	PO 4300438005		\$342
A SPATIAL ANALYSIS OF FOOD STORE CHOICE AND IMPLICATIONS FOR DIET	10.253		UNIVERSITY OF KENTUCKY	30481-10944-14-163		\$20,170
NOTIFIABLE AVIAN INFLUENZA (NAI) IN PENNSYLVANIA	10.304		COMMONWEALTH OF PENNSYLVANIA	ME #44112704		\$157,732
UNI SCHOOL FOOD EDUCATION PROGRAM - TRACKS GRANT	10.561		PENNSYLVANIA STATE UNIVERSITY	5163-TUP-COP-9151		\$430,297
PA NUTRITION EDUCATION TRACKS PROGRAM	10.561		PENNSYLVANIA STATE UNIVERSITY	5315-TUP-COP-9151		\$843,081
TOTAL DEPARTMENT OF AGRICULTURE PASS THROUGH PROGRAMS						<u>\$1,451,622</u>
TOTAL DEPARTMENT OF AGRICULTURE					<u>\$37,872</u>	<u>\$2,105,111</u>
DEPARTMENT OF COMMERCE						
DEPARTMENT OF COMMERCE DIRECT PROGRAMS						
ADVANCED REGIONAL AND DECADEAL PREDICTIONS OF COASTAL INUNDATION FOR THE U.S. ATLANTIC AND GULF COASTS.	11.431	NA110AR4310101			\$171,079	\$171,079
COMPLEX AND FRUSTRATED MAGNETIC STRUCTURES	11.609	70NANB13H152				\$32,120
PROPOSAL FOR CODES AND STANDARDS PUBLIC POLICY CASE STUDIES	11.620	70NANB15H344				\$28,815
PROPOSAL FOR COURSE MODULES ON CODES, STANDARDS, AND THE LAW	11.620	70NANB15H343				\$34,898
TOTAL DEPARTMENT OF COMMERCE					<u>\$171,079</u>	<u>\$266,912</u>
DEPARTMENT OF DEFENSE						
DEPARTMENT OF DEFENSE DIRECT PROGRAMS						
SOUTHEAST PENNSYLVANIA PROCUREMENT TECHNICAL ASSISTANCE PROGRAM (PTAP)	12.002	SP4800-13-2-1336				-\$170
SOUTHEAST PENNSYLVANIA PROCUREMENT TECHNICAL ASSISTANCE PROGRAM (PTAP)	12.002	SP4800-14-2-1436			\$165,188	\$201,401
SOUTHEAST PENNSYLVANIA PROCUREMENT TECHNICAL ASSISTANCE PROGRAM (PTAP)	12.002	SP4800-15-2-1536			\$181,550	\$241,225
NANOCRYSTAL SUPERLATTICE THERMAL INTERFACE MATERIALS	12.300	N00014-12-1-0314				\$17,951
THEORY AND VIRTUALIZATION PLATFORM FOR COMPOSITIONAL REAL-TIME SYSTEMS	12.300	N00014-13-1-0802				\$24,202
SEED PROJECT: CORRECT-BY-CONSTRUCTION AUTONOMY PROTOCOLS FOR OPEN, RECONFIGURABLE, NETWORKED NAVAL SYSTEMS	12.300	N00014-15-1-2310				\$27,221
CYBER PROTOCOLS IN THE PHYSICAL ENVIRONMENT	12.300	N00014-15-1-2047				\$45,818
INFERENCE AND DYNAMICS ON NETWORKS	12.300	N00014-14-1-0823				\$77,715
DYNAMIC, REAL-TIME VIRTUALIZATION AND CLOUD COMPUTING	12.300	N00014-16-1-2195				\$99,979
NETWORKS OPPOSING BOTNETS (NOBOT) PHASE II	12.300	N00014-12-1-0757			\$115,109	\$135,047
FINITE-TEMPERATURE MOLECULAR DYNAMICS AND FIRST PRINCIPLE MODELING OF OXIDE SOLID SOLUTIONS	12.300	N00014-12-1-1033				\$136,382
BEYOND LABELS: GENERALIZED SUPERVISION FOR STRUCTURED LEARNING	12.300	N00014-10-1-0746			\$148,663	\$137,260
MATERIALS FOR EXTREME MANIPULATION OF LIGHT, SOUND AND HEAT	12.300	N00014-15-1-2029				\$169,322
COGNITIVE COMPUTATIONS: A NETWORK PERSPECTIVE	12.300	N00014-15-1-2516				\$173,588

UNIVERSITY OF PENNSYLVANIA
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS
Year Ended 6/30/2016

<i>Federal Grantor/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification</i>	<i>Pass-Through Entity Name</i>	<i>Pass-Through Entity Identifying Number</i>	<i>Amount Passed Through to Sub-Recipients</i>	<i>Federal Expenditures</i>
LOCAL-TO-GLOBAL: ALGEBRAIC TOPOLOGY FOR DATA, NETWORKS, AND SYSTEMS	12.300	N00015-16-1-2010				\$173,732
PERCEPTION-BASED, REACTIVE, TEMPORAL-LOGIC PLANNING FOR AUTONOMOUS DECK OPERATIONS	12.300	N00014-13-1-0778				\$205,567
TOPOLOGICAL REPRESENTATIONS AND ALGORITHMS FOR ROBOT SWARMS	12.300	N00014-14-1-0510				\$246,178
UNDERSTANDING THE PHOTOVOLTAIC EFFICIENCY OF ORGANOMETALLIC PEROVSKITES	12.300	N00014-14-1-0761			\$157,169	\$248,418
NEURAL AND PSYCHOPHYSICAL VISUAL MOTION MODELS FOR UGV PERCEPTION AND NAVIGATION	12.300	N000014-11-1-0744				\$259,016
PHENOTYPIC AND GENOTYPIC MARKERS OF PERFORMANCE VULNERABILITY TO SLEEP LOSS	12.300	N00014-11-1-0361				\$259,302
NEW PARADIGMS FOR SCALABLE ONLINE DECENTRALIZED OPTIMIZATION	12.300	N00014-12-1-0997			\$103,019	\$307,471
COUPLING OF METABOLIC AND MECHANICAL FUNCTION IN CELL PHYSIOLOGY	12.300	N00014-14-1-0538				\$368,471
PROBALOGICAL HYBRID DEFENSE (PHD): A NEW APPROACH TO AUTOMATED REASONING AND ITS APPLICATION TO CYBERDEFENSE	12.300	N00014-15-1-2006				\$453,729
SPARCS: SYNTHESIS OF PLATFORM-WEVE ATTACHE-RESILIENT CONTROL SYSTEMS	12.300	FA8760-12-2-0247			\$134,511	\$806,303
LARGE-AREA, 3D OPTICAL METAMATERIALS WITH TUNABILITY AND LOW LOSS	12.300	N00014-10-1-0942			\$806,821	\$1,091,820
DEVELOPMENT AND TRANSLATION OF A TISSUE-ENGINEERED DISC IN A PRECLINICAL RODENT MODEL	12.420	W81XWH-10-1-0949				-\$1,016
A FLEXIBLE BIOMIMETIC NANOPARTICLE PLATFORM FOR TARGETED IMAGING AND DRUG TREATMENT OF PROSTATE TUMOR	12.420	W81XWH-10-1-0604				-\$981
AR120166 - TAILORED BEHAVIORAL INTERVENTION FOR INSOMNIA IN CHILDREN WITH AUTISM SPECTRUM DISORDERS	12.420	W81XWH-13-1-0185 - CLIN 0001				-\$241
BC111503P1 REGULATION OF METASTASIS AND DNA DAMAGE RESISTANCE PATHWAYS BY TRANSPOSABLE ELEMENTS	12.420	W81XWH-12-1-0181				-\$134
NF110152: CHEMOSENSORY FUNCTION IN NEUROFIBROMATOSIS	12.420	1305199				\$806
REGULATION OF METASTASIS AND DNA DAMAGE RESISTANCE PATHWAYS BY TRANSPOSABLE ELEMENTS	12.420	W81XWH-12-1-0180				\$4,750
FULL PROPOSAL- STAGE 2: MAINTAINING HYDRATION OF DOGS IN WORKING ENVIRONMENTS	12.420	W81XWH-13-1-0038				\$7,615
LC130824 ULTRA-SENSITIVE, GENETICALLY ENCODED CONTRAST AGENTS FOR LUNG CANCER DIAGNOSIS	12.420	W81XWH-14-1-0424				\$27,720
NADPH-GENERATING ENZYMES AS POTENTIAL TARGETS FOR PROSTATE CANCER THERAPY	12.420	W81XWH-15-1-0678				\$33,128
(NF130052) ZEBRAFISH AS A MODEL TO STUDY NF1-ASSOCIATED LEARNING DEFICITS	12.420	W81XWH-14-1-0076				\$38,411
ANTIBODY TARGETING OF THE ALK ONCOGENE IN NEUROBLASTOMA	12.420	W81XWH-12-1-0343				\$41,835
RAPID IN VIVO VALIDATION OF TUMOR SUPPRESSOR GENE FUNCTION IN PROSTATE CANCER PROGRESSION	12.420	W81XWH-15-1-0085				\$95,971
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				\$106,894
A CELL-BASED APPROACH TO EARLY PANCREATIC CANCER DETECTION	12.420	W81XWH-15-1-0457				\$123,535
PT140178-THE EFFICACY OF 90-MINUTE VS 60-MINUTE SESSIONS OF PROLONGED EXPOSURE FOR PTSD: A RANDOMIZED CONTROL TRIAL IN ACTIVE DUTY MILITARY PERSONNEL	12.420	W81XWH-15-1-0555			\$19,715	\$134,889
TUMOR-ASSOCIATED NEUTROPHILS IN HUMAN LUNG CANCER	12.420	W81XWH-15-1-0717				\$145,595
PR120935P1: ENHANCING THE EFFICACY OF TARGETED RADIOTHERAPY FOR NEUROBLASTOMA	12.420	W81XWH-13-1-0406				\$145,928
TISSUE-ENGINEERED NERVE GRAFTS FOR REPAIR OF CURRENTLY UNTREATABLE PERIPHERAL NERVE INJURY	12.420	W81XWH-15-1-0466				\$149,775
THE MYC REGULATED LONG NON-CODING RNA DANCR IN PROSTATE CANCER	12.420	W81XWH-15-1-0630				\$150,651
AR110189: EXAMINATION OF THE MGLUR-MTOR PATHWAY FOR THE IDENTIFICATION OF POTENTIAL THERAPEUTIC TARGETS TO TREAT FRAGILE X	12.420	W81XWH-12-1-0596				\$152,925
CHARACTERIZATION OF A NOVEL RECURRENT NONCODING GENOMIC ALTERATION IN BREAST CANCER	12.420	W81XWH-15-1-0041				\$166,792
TARGETED RE-POLARIZATION OF TUMOR-ASSOCIATED MACROPHAGES IN LUNG CANCER	12.420	W81XWH-15-1-0362				\$169,717
DEFINING THE PATHOPHYSIOLOGICAL ROLE OF TAU IN EXPERIMENTAL TBI	12.420	W81XWH-14-1-0275				\$183,013
FLT-PET/CT AS A BIOMARKER OF THERAPEUTIC RESPONSE IN PEMETREXED THERAPY FOR NON-SMALL CELL LUNG CANCER	12.420	W81XWH-14-1-0197				\$190,372
MACROPHAGES AS A THERAPEUTIC TARGET IN TUMOR DORMANCY AND BREAST CANCER RECURRENCE	12.420	W81XWH-13-1-0375				\$208,751
BC123187: ORGANOTROPIC METASTATIC SECRETOMES AND EXOSOMES IN BREAST CANCER COOPERATIVITY BETWEEN ONCOGENIC PKC EPSILON AND PTEN LOSS IN PROSTATE CANCER PROGRESSION	12.420	W81XWH-13-1-0426				\$215,492
PC120820: TRNA AS A NOVEL TARGET FOR PROSTATE CANCER THERAPY	12.420	W81XWH-14-1-053530				\$218,497
NOVEL BIOCOMPATIBLE WOUND DRESSINGS FOR CHRONIC PAIN MANAGEMENT	12.420	W81XWH-13-1-0446				\$223,169
WEB-PE: INTERNET-DELIVERED PROLONGED EXPOSURE THERAPY FOR PTSD	12.420	W81XWH-15-2-0013				\$238,276
YY1 CONTROL OF AID-DEPENDENT LYMPHOMAGENESIS	12.420	W91XWH-14-1-0008			\$66,371	\$241,234
	12.420	W81XWH-14-1-0171				\$249,287

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MELANOPSIN-SPECIFIC CONTRIBUTIONS TO PHOTOPHOBIA IN BRAIN TRAUMA	12.420	W81XWH-15-1-0447				\$255,283
ROLE OF AUTOPHAGY IN DORMANT TUMOR CELL SURVIVAL AND RECURRENCE	12.420	W81XWH-14-1-0404				\$301,759
TARGETING ANTI-VIRAL AND NOTCH3 PATHWAYS TO INHIBIT STROMA-MEDIATED TREATMENT RESISTANCE	12.420	W81XWH-14-1-0450			\$13,096	\$345,531
PROTON THERAPY DOSE CHARACTERIZATION AND VERIFICATION	12.420	W81XWH-09-2-0174			\$52,062	\$355,719
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				\$374,384
DISCOVERY OF HOST FACTORS AND PATHWAYS UTILIZED IN HANTAVIRAL INFECTION	12.420	W81XWH-14-1-0204				\$375,734
ROLE OF HMGB1 IN TRANSFUSION-MEDIATED LUNG INFLAMMATION	12.420	W81XWH-15-1-0363				\$396,681
DEVELOPMENT OF A NOVEL TRANSLATIONAL MODEL OF VIBRATION INJURY TO THE SPINE TO STUDY ACUTE INJURY IN VIVO	12.420	W81XWH-10-2-0140				\$441,382
MECHANISMS AND TREATMENT OF OLIGOMETASTASES	12.420	W81XWH-09-1-0339				\$491,553
PREVENTING RISKY DRINKING IN VETERANS TREATED WITH PRESCRIPTION OPIOIDS	12.420	W81XWH-14-1-0060				\$560,242
THE STRONG STAR MULTIDISCIPLINARY PTSD RESEARCH CONSORTIUM	12.420	W81XWH-08-2-0111				\$683,365
PT110785: TAU ACCUMULATION IN TBI: MECHANISMS AND TREATMENT	12.420	W81XWH-13-1-0052			\$225,890	\$710,702
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			\$1,428,408	\$1,512,890
IMPLEMENTATION OF PROLONGED EXPOSURE IN THE ARMY: IS CONSULTATION NECESSARY FOR EFFECTIVE DISSEMINATION	12.420	W81XWH-12-2-0116			\$1,455,222	\$1,922,780
THE PHYSICS OF MUD	12.431	W911NF-16-1-0290				\$1,260
ELECTROCHEMICAL IMPEDANCE SPECTROMETER WITH AN ENVIRONMENTAL CHAMBER FOR RAPID SCREENING OF NEW PRECISE COPOLYMERS	12.431	W911NF-14-1-0466				\$5,960
II, A, 2, 9.1: CURVATURE DIRECTED ASSEMBLY OF PARTICLES INTO RECONFIGURABLE STRUCTURES AT FLUID INTERFACES	12.431	W911NF-16-1-0288				\$7,604
CONFERENCE: CANINE BEHAVIOR, COGNITION, PERFORMANCE AND GENETICS	12.431	W911NF-14-1-0187				\$32,868
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				\$37,421
INFERRING MICROBIAL FITNESS LANDSCAPES	12.431	W911NF-12-1-0552				\$63,179
RAPID SCREENING OF NEW PRECISE COPOLYMERS: MORPHOLOGY AND IONIC CONDUCTIVITY	12.431	W911NF-13-1-0363				\$94,588
QUANTUM CONTROL AND ENGINEERING OF DEFECTS IN BORON NITRIDE	12.431	W911NF-15-1-0589				\$96,886
DEVELOPING A BETTER CANINE WARRIOR: PERFORMANCE ASSESSMENT, ASSOCIATED PHENOTYPES AND GENOME-WIDE ASSOCIATION MAPPING FOR SUPERIOR INTELLIGENCE IN MILITARY WORKING DOGS (MWDIG)	12.431	W911NF-14-1-0574				\$105,183
GRANULARITY AND JAMMING: A NEW APPROACH TO UNDERSTANDING AND PREDICTING NEAR-THRESHOLD SEDIMENT TRANSPORT	12.431	W911NF-13-1-0458				\$110,633
DASHER: DYNAMICALLY ADAPTIVE SWARM OF HETEROGENEOUS ROBOTS	12.431	W911NF-13-1-0350				\$166,634
DYNAMIC NETWORK NEUROSCIENCE: PROBING ADAPTATION OF LARGE-SCALE NEURAL CIRCUITS	12.431	W911NF-14-1-0679				\$194,272
THE SPATIOTEMPORAL RESOLUTION OF COGNITIVE SIGNALS REVEALED THROUGH HIGH-DENSITY UECOG MAPPING	12.431	W911NF-14-1-0173			\$108,543	\$220,060
BLAST INDUCED THRESHOLD FOR NEURONAL NETWORKS (BITNET)	12.431	W911NF-10-1-0526			\$573,811	\$866,546
EVOLUTION OF CULTURAL NORMS AND DYNAMICS OF SOCIO-POLITICAL CHANGE (YIP) A UNIFIED ALGEBRAIC AND LOGIC-BASED FRAMEWORK TOWARDS SAFE ROUTING IMPLEMENTATIONS	12.800	FA9550-12-1-0327			\$1,095,996	\$1,565,540
UNDERSTANDING COGNITIVE DECISION MAKING VIA NEAREST NEIGHBOR ALGORITHMS IN MACHINE LEARNING	12.800	FA9550-15-1-0002				\$21,853
FUNDAMENTAL STUDIES OF ENDOTHERMIC REFORMING REACTIONS ON ACID CATALYSTS	12.800	FA9550-14-1-0302				\$78,115
						\$85,435
ULTRASTRONG CARBON THIN FILMS FROM DIAMOND TO GRAPHENE UNDER EXTREME CONDITIONS: PROBING ATOMIC-SCALE INTERFACIAL MECHANISMS TO ACHIEVE ULTRALOW FRICTION AND WEAR	12.800	FA2386-15-1-4109				\$99,836
ELECTRON AND ENERGY TRANSFER DYNAMICS IN HOMOGENEOUS AND INHOMOGENEOUS ENVIRONMENTS	12.800	FA9550-13-1-0157				\$223,493
GEOMETRY AND TOPOLOGY OF COMPLEX NETWORKS	12.800	FA9550-13-1-0097			\$276,567	\$484,986
CHASE: CONTROL OF HETEROGENEOUS AUTONOMOUS SENSORS FOR SITUATIONAL AWARENESS	12.800	FA9550-10-1-0567			\$1,059,786	\$1,506,331
UPENN 2015 HINDI-URDU STARTALK PROGRAM	12.900	H98230-15-1-0087				\$82,255
LOCAL-GLOBAL PRINCIPLES AND FIELD INVARIANTS	12.901	H98230-14-1-0145				-\$1
LINGUISTIC RESOURCES FOR MULTILINGUAL DOCUMENT CLASSIFICATION, ANALYSIS AND INTERPRETATION	12.910	HR0011-08-1-0004				-\$15,000
DEDOS: DECLARATIVE DISPERSION-ORIENTED SOFTWARE	12.910	HR0011-16-C-0056				\$4,657

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NEURAL MECHANISMS OF INFLUENCE, DETERRENCE AND MESSAGE PROPAGATION EXPLOITING QUANTITATIVE UNIVERSALS FOR UNSUPERVISED ACQUISITION OF LANGUAGE STRUCTURE (EQUUALS)	12.910	D14AP00048				\$203,564
	12.910	HR0011-15-2-0023 2014-14042400005 CLIN				\$217,723
DATA RESOURCES ALADDIN VIDEO EVALUATIONS	12.910	0001				\$291,044
(DARPA) CODON: CATEGORIFICATION OF DATA OVER NETWORKS	12.910	FA9550-12-1-0416 HR0011516626/HR00115168			\$136,423	\$332,339
FALCON: FAST, AGGRESSIVE, LIGHTWEIGHT FLIGHT IN CONSTRAINED ENVIRONMENTS	12.910	50			\$408,469	\$1,061,931
RAPID AB ISOLATION AND DELIVERY BY RECOMBINANT AAV TECHNOLOGY (RAID-RAT)	12.910	W911NF-13-2-0036			\$101,022	\$1,278,685
REORIENT: RESOURCES FOR OPERATIONALLY RELEVANT INFORMATION EXTRACTION FROM NON- EXPLICIT TEXT	12.910	FA8750-13-2-0045			\$542,647	\$2,797,920
IMMEDIATE AND PERSISTENT E-DNA PROTECTION AGAINST DENGUE	12.910	W31P4Q-13-1-0003			\$2,499,587	\$3,823,083
MEMORY ENHANCEMENT WITH MODELING, ELECTROPHYSIOLOGY, AND STIMULATION (MEMES)	12.910	N66001-14-4032			\$3,030,664	\$6,475,067
NEW ANTIBIOTICS TARGETING THE BIOENERGETICS OF CATEGORY A AND B BACTERIA	12.RD	HDTRA1-10-C-0043				-\$62,946
STATESIM FOR USE WITHIN A MODEL PREDICTIVE CONTROL FRAMEWORK (MPCF)	12.RD	N41756-13-C-3048				-\$20,796
SELECTABLE ANONYMITY FOR ENABLING SAFER TELECOMMUNICATIONS (SAFEST)	12.RD	N66001-11-C-4020				-\$1,676
LINGUISTIC RESOURCES FOR MULTILINGUAL, GENRE-INDEPENDENT LANGUAGE TECHNOLOGIES (BOLT)	12.RD	HR0011-11-C-0145			\$57,218	\$140,447
SPECIFICATION AND CORRECT-BY-CONSTRUCTION SYNTHESIS OF CONTROLPROTOCOLS FOR ADAPTABLE, HUMAN-EMBEDDED AUTONOMY	12.RD	FA8650-15-C-2546			\$59,174	\$208,693
VIPERTOXIN LANGUAGE/DIALECT COLLECTION I	12.RD	H98230-10-D-0041				\$259,807
SONICVIPER	12.RD	H98230-15-C-0825				\$284,589
PHASE II: VECTOR - AAV EXPRESSED CHEMICAL THREAT PROTECTOR	12.RD	HDTRA1-15-C-0023				\$1,417,986
SIREN-IL: SPECIALIZED INTRA/INTERLINGUAL RESOURCES FOR EMERGENT NEWS - INCIDENT LANGUAGES	12.RD	HR0011516904			\$146,166	\$2,301,356
MASTER RESILIENCE TRAINING COURSES LEVELS 3 & 4	12.U13	W9124D-14-D-0027				\$287,534
MASTER RESILIENCE TRAINING COURSES LEVELS 3 & 4	12.U14	W9124D-14-D-0027				\$54,277
MASTER RESILIENCE TRAINING COURSES LEVELS 3 & 4	12.U24	W9124D-14-D-0027				\$974,715
MASTER RESILIENCE TRAINING COURSES LEVELS 3 & 4	12.U25	W9124D-14-D-0027				\$55,656
TOTAL DEPARTMENT OF DEFENSE DIRECT PROGRAMS					\$15,168,697	\$46,819,201
DEPARTMENT OF DEFENSE PASS THROUGH PROGRAMS						
DYNAMIC CAMOUFLAGE IN BENTHIC AND PELAGIC CEPHALOPODS: AN INTERDISCIPLINARY APPROACH TO CRYPTIS BASED ON COLOR, REFLECTION AND BIOLUMINESCENCE.	12.300		DUKE UNIVERSITY	13-ONR-1042		-\$2,133
ANYTIME RESOURCE OPTIMIZATION WITH SLIDING PERFORMANCE FOR MISSION PLANNING AND SENSOR MANAGEMENT	12.300		CARNEGIE MELLON UNIVERSITY	1141265-356580		\$12,017
VERTICAL CHARGE ORDERING TRANSISTORS ENABLED BY STRUCTURALLY COUPLED HETEROINTERFACES	12.300		DREXEL UNIVERSITY	204101-3668		\$36,685
ANTIDOTE: ADAPTIVE NETWORKS FOR THREAT AND INTRUSION DETECTION OR TERMINATION	12.300		UNIVERSITY OF SOUTHERN CALIFORNIA	138804		\$43,253
DECENTRALIZED REASONING IN REDUCED INFORMATION SPACES	12.300		CARNEGIE MELLON UNIVERSITY	1141207-236233		\$74,563
AUTOMATION IN CRYPTOLOGY	12.300		STANFORD UNIVERSITY	60106443-107484-B		\$75,589
MISSION-ORIENTED RESILIENT CLOUD PROGRAM (MRC)	12.300		BAE SYSTEMS	776780		\$92,735
SHIPBOARD AUTONOMOUS FIREFIGHTING ROBOT (SAFFIR)	12.300		VIRGINIA POLYTECHNIC INSTITUTE & STATE UNIVERSITY	450066-19314		\$96,811
LIFELONG TRANSFER LEARNING FOR HETEROGENOUS TEAMS OF AGENTS IN SEQUENTIAL DECISION PROCESSES	12.300		WASHINGTON STATE UNIVERSITY	122700_G003315		\$97,752
INTERACTIVE TRANSFER OF CONTINUAL LIFELONG LEARNING	12.300		BRYN MAWR COLLEGE	2-44101		\$130,955
UTILIZING SYNTHETIC BIOLOGY TO CREATE PROGRAMMABLE MICRO-BIO-ROBOTS	12.300		BOSTON UNIVERSITY	4500000554		\$137,179
SMART ADAPTIVE RELIABLE TEAMS FOR PERSISTENT SURVEILLANCE (SMARTS)	12.300		MASSACHUSETTS INSTITUTE OF TECHNOLOGY	5710002644		\$143,767
ROBOT ECOLOGIES: BIOLOGICALLY INSPIRED HETEROGENEOUS TEAMS	12.300		GEORGIA INSTITUTE OF TECHNOLOGY	RF683-G1		\$163,811
LARGE-SCALE PARAPHRASING FOR NATURAL LANGUAGE UNDERSTANDING	12.300		JOHNS HOPKINS UNIVERSITY	2001801140 / FA8750-13-2-0017		\$197,786
RICH REPRESENTATIONS WITH EXPOSED SEMANTICS FOR DEEP VISUAL REASONING	12.300		CARNEGIE MELLON UNIVERSITY	1141221-258509		\$318,382
IMAGE BASED BIOMARKER OF BREAST CANCER RISK: ANALYSIS OF RISK DISPARITY AMONG MINORITY POPULATIONS	12.420		DELAWARE STATE UNIVERSITY	09-004MH		-\$2,399
SUPPLEMENTAL PERIOPERATIVE OXYGEN TO REDUCE SURGICAL SITE INFECTION AFTER HIGH ENERGY FRACTURE SURGERY	12.420		JOHNS HOPKINS UNIVERSITY	8487		\$2,640
PROSTATE CANCER RESEARCH PROGRAM, SYNERGISTIC IDEA DEVELOPMENT AWARD	12.420		THOMAS JEFFERSON UNIVERSITY	080-27000-X15001		\$3,798
VALIDATION OF APF AS A URINARY BIOMARKER FOR INTERSTITIAL CYSTITIS	12.420		COMMONWEALTH MEDICAL COLLEGE	SUB TO W81XWH-13-1-0454		\$7,547
CYCLIN E1 AS A THERAPEUTIC TARGET IN WOMEN WITH HIGH-GRADE SERIOUS OVARIAN CANCER AND PRIMARY TREATMENT FAILURE	12.420		UNIVERSITY OF MELBOURNE	SUB TO W81XWH-15-1-0160		\$23,466
DEVELOPMENT OF ORALLY BIOAVAILABLE THERAPEUTICS BY THE CHLOROPLAST EXPRESSION SYSTEM						
COUNTER MUSCLE DEGENERATION, WEAKNESS, AND FIBROSIS IN DMD	12.420		UNIVERSITY OF FLORIDA	UFDSP00011237		\$26,513

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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 DISEASE NEUROIMAGING INITIATIVE	12.420		NORTHERN CALIFORNIA INSTITUTE FOR RESEARCH AND EDUCATION	1820		\$29,260
VASOPRESSIN SUPPLEMENTATION DURING THE RESUSCITATION OF HEMORRHAGIC SHOCK	12.420		NATIONAL TRAUMA INSTITUTE	NTI-TRA-09-062		\$36,274
INTERFAMILIAL VIOLENCE FOLLOWING MENTAL ILLNESS IN RETURNING ARMY SERVICE MEMBERS	12.420		CHILDREN'S HOSPITAL OF PHILADELPHIA	27235-321090315/PO #960177RSUB		\$42,820
DETECTION OF EARLY LUNG CANCER AMONG MILITARY PERSONNEL (DECAMP)	12.420		BOSTON UNIVERSITY	9500300580		\$74,315
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 NEUROIMAGING INITIATIVE (ADNI)	12.420		NORTHERN CALIFORNIA INSTITUTE FOR RESEARCH AND EDUCATION	1686		\$92,622
DEVELOPING GENE SILENCING FOR THE STUDY AND TREATMENT OF DYSTONIA	12.420		CHILDREN'S HOSPITAL OF PHILADELPHIA	FP00018899_SUB01_02		\$98,012
POSITIONING VASCULARIZED COMPOSITE ALLOTRANSPLANTATION IN THE SPECTRUM OF TRANSPLANTATION	12.420		CHILDREN'S HOSPITAL OF PHILADELPHIA	321113 / PO #960955RSUB		\$135,566
REPAIR OF MAJOR NERVE TRAUMA USING TISSUE-ENGINEERED NERVE GRAFTS: IND-ENABLING NONCLINICAL EFFICACY STUDIES IN SWINE	12.420		RUTGERS UNIVERSITY	SUB # 5299 AFIRM		\$302,150
IDENTIFYING THE NEURAL SUBSTRATES OF EMOTIONAL AROUSAL: TOWARDS A PATH TO STRESS RESISTANCE	12.431		CHILDREN'S HOSPITAL OF PHILADELPHIA	321104-Y2-4/PO #960194RSUB		\$50,003
IDENTIFYING THE NEURAL SUBSTRATES OF EMOTIONAL AROUSAL: TOWARDS A PATH TO STRESS RESISTANCE	12.431		CHILDREN'S HOSPITAL OF PHILADELPHIA	321104 / PO #961079RSUB		\$95,063
NEAR AND FAR-FIELD INTERFACES TO DNA-GUIDED NANOSTRUCTURES FROM RF TO LIGHTWAVE: EXPLOITING THE SPECTRUM	12.431		UNIVERSITY OF CALIFORNIA, IRVINE	2010-2511		\$123,504
IDENTIFYING THE NEURAL SUBSTRATES OF EMOTIONAL AROUSAL: TOWARDS A PATH TO STRESS RESISTANCE	12.431		CHILDREN'S HOSPITAL OF PHILADELPHIA	321104-Y3-01/PO #960186RSUB		\$158,778
BAYESIAN TRACKING WITHIN A FEEDBACK SENSING ENVIRONMENT	12.800		UNIVERSITY OF WASHINGTON	745882		-\$1,123
FORMAL SYNTHESIS OF SOFTWARE-BASED CONTROL PROTOCOLS FOR FRACTIONATED, COMPOSABLE AUTONOMOUS SYSTEMS	12.800		CALIFORNIA INSTITUTE OF TECHNOLOGY	102-1093654		\$7,736
SEMANTICS, FORMAL REASONING, AND TOOL SUPPORT FOR QUANTUM PROGRAMMING	12.800		TULANE UNIVERSITY	TUL-SCC-553957-15/16		\$44,135
TOPOLOGICAL PRIVACY	12.800		CARNEGIE MELLON UNIVERSITY	1150127-320589		\$118,391
QUANTUM METAPHOTONICS AND METAMATERIALS: FROM SINGLE EMMITERS TO STRONGLY CORRELATED SYSTEMS	12.800		BROWN UNIVERSITY	00000555/PO #P280816		\$121,234
(MURI-10) SCIENCE OF CYBER SECURITY: MODELING, COMPOSITION AND MEASUREMENT	12.800		STANFORD UNIVERSITY	29183000-51677-A		\$158,790
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	\$17,705	\$177,675
UPENN 2014 HINDI-URDU STARTALK PROGRAM	12.900		NATIONAL FOREIGN LANGUAGE CENTER UNIVERSITY OF MARYLAND	H98230-1-1-0045		-\$127
UPENN 2016 HINDI-URDU STARTALK PROGRAM	12.900		NATIONAL FOREIGN LANGUAGE CENTER UNIVERSITY OF MARYLAND	H98230-16-0209		\$20,917
TACTICAL HAZARDOUS OPERATIONS ROBOT (THOR)	12.910		VIRGINIA POLYTECHNIC INSTITUTE & STATE UNIVERSITY	450179-19314A		\$17,255
TRANSIENT SILICON ELECTRONIC INTERFACES TO THE BRAIN	12.910		UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN	2014-02569-01		\$49,689
TACTICAL HAZARDOUS OPERATIONS ROBOT (THOR)	12.910		UNIVERSITY OF CALIFORNIA, LOS ANGELES	0205 G SB098		\$110,527
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		\$232,227
BIOCHRONICITY: TIME, EVOLUTION, NETWORKS AND FUNCTION	12.910		DUKE UNIVERSITY	12-DARPA-1068	\$142,570	\$739,737
ROBOTIC PERCEPTION, INTELLIGENCE, AND DEXTEROUS MANIPULATION & UNIQUE MOBILITY	12.RD	W911NF-10-2-0016	GENERAL DYNAMICS ROBOTIC SYSTEMS	PO #2013-01025	\$49,999	-\$189,409
CLEAN-SLATE DESIGN OF RESILIENT, ADAPTIVE SECURE HOSTS (CRASH)	12.RD	BAA-10-70	BAE SYSTEMS	739528		-\$2,527
SURFACE COAGULATION STUDY	12.RD	W81XWH-14-2-0134	HENRY M. JACKSON FOUNDATION	818633		-\$84
LOW OVERHEAD OBSERVATIONS KEEPING OPERATIONAL UNDER THREATS (LOOKOUT)	12.RD	HR0011-16-C-0061	APPLIED COMMUNICATION SCIENCE	PO-0008421		\$170
THE NATURAL HISTORY OF THE PROGRESSION OF ATROPHY SECONDARY TO STARGARDT DISEASE: A RETROSPECTIVE LONGITUDINAL OBSERVATIONAL STUDY	12.RD	W81XWH-07-1-0720 AND				
SQUAD-X	12.RD	W81XWH-09-2-0189	FOUNDATION FIGHTING BLINDNESS	NNSP-CL-0413-0077-UPENN.NER		\$1,916
PROGRESSIVE MODEL GENERATION FOR ADAPTIVE RESILIENT SYSTEM SOFTWARE	12.RD	W911NF-16-C-0003	KITWARE, INC.	K001306-00-S03		\$3,598
TAMBA: TESTING AND MODELING OF BRANDEIS ARTIFACTS	12.RD	N00014-15-C-0126	GRAMMATECH	GT S14-04		\$11,630
BRASS	12.RD	BAA-15-29	GALOIS, INC.	2015-016		\$14,662
	12.RD	FA8750-16-C-007	BAE SYSTEMS	921073		\$17,022
ARTIFICIAL INTELLIGENCE AND ROBOTICS FOR DISTRIBUTED AUTONOMOUS SYSTEMS (AIRDAS)	12.RD	HR0011-15-C-0043	UNITED TECHNOLOGIES RESEARCH CENTER	1213281		\$19,243
THE NATURAL HISTORY OF THE PROGRESSION OF ATROPHY SECONDARY TO STARGARDT DISEASE: A PROSPECTIVE LONGITUDINAL OBSERVATIONAL STUDY (PROGSTAR)	12.RD	W81XWH-09-2-0189	FOUNDATION FIGHTING BLINDNESS	NNSP-CL-0313-0069-UP3NN-N34		\$22,291
FUEL EFFICIENT NANO-FLUID GEAR OIL	12.RD	W56HZV-15-C-0198	PIXELLIGENT TECHNOLOGIES	10053480		\$30,360
EXPLOITING LANGUAGE INFORMATION FOR SITUATIONAL AWARENEESS (ELISA)	12.RD	HR0011-15-C-0115	UNIVERSITY OF SOUTHERN CALIFORNIA	67104157		\$31,069
STTR AF14-AT06: CORRECT-BY-CONSTRUCTION SYNTHESIS FOR MULTI-VEHICLE AUTONOMY MISSIONS	12.RD	F14A-T06-0018	GALOIS, INC.	SUB TO F14A-T06-0018		\$34,613
HIGH ENTROPY ALLOYS	12.RD	F8650-15-D-5230	UES, INC.	S-109-1N2-001		\$39,289
SCALABLE AND HIGHLY SENSITIVE TRANSISTORS USING 2-D MATERIALS	12.RD	FA8650-09-D-5037	GRAPHENE FRONTIERS	S-875-191-005		\$46,270
ENABLING MOVING TARGET HAND-OFF IN GPS-DENIED ENVIRONMENTS	12.RD	FA8650-15-M-1942	NOVATEUR RESEARCH SOLUTIONS	SUB TO FA8650-15-M-1942		\$49,527

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UPENN SUB-PROPOSAL TO BAE SYSTEMS IN RESPONSE TO DARPA PERFECT AUTONOMOUS UNMANNED VEHICLES APPLIED RESEARCH PROGRAM: UPENN SUB-PROPOSAL TO	12.RD	HR-0011-13-C-0005	BAE SYSTEMS	822298		\$55,293
JOHNS HOPKINS PRIME	12.RD	N00024-13-D-6400	JOHNS HOPKINS UNIVERSITY	125027		\$92,471
PASSIVE WIRELESS CORROSION-MONITORING TAGS	12.RD	W31P4Q-14-C-0040	GENIUSMICRO	SUB TO W31P4Q-14-C-0040		\$124,998
MANAGEMENT OF SUICIDAL-RELATED EVENTS DURING DEPLOYMENT	12.RD	W81XWH-13-2-0003	RESEARCH FOUNDATION FOR MENTAL HYGIENE, INC.	PO #110520		\$157,928
COLLABORATIVE OPERATIONS IN DENIED ENVIRONMENTS PROGRAM	12.RD	HR0011-15-9-000	LOCKHEED MARTIN CORPORATION	PO #4101881426		\$180,000
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, ADMINISTERED IM	12.RD	INO-4212 AND INO-9012	INOVIO PHARMACEUTICALS, INC.	EBOV-001		\$202,172
OR ID FOLLOWED BY ELECTROPORATION IN HEALTHY VOLUNTEERS	12.RD	HR0011-15-C-0057	UNIVERSITY OF CALIFORNIA, BERKELEY	00008779		\$303,408
HETEROGENEOUSLY INTEGRATED OPTICAL SYNTHESIZER (HIOS)	12.RD	BAA-15-10	APPLIED COMMUNICATION SCIENCE	PO-0004103		\$365,124
DISTRIBUTED ENCLAVE DEFENSE USING CONFIGURABLE EDGES (DEDUCE)	12.RD	W911NF-10-2-0022	DCS CORPORATION	APX02-0006 - TASK ORDER 001		\$417,337
DISTINGUISHING BRAIN STATES AND RESOLVING STATE TRANSITIONS	12.RD	W31P4Q-15-1-000	INOVIO PHARMACEUTICALS, INC.	SUB TO W31P4Q-15-1-0003		\$487,888
IMMEDIATE AND PERSISTENT PROTECTION AGAINST EBOLA	12.RD	2013-MA-2386	UNIVERSITY OF CALIFORNIA, BERKELEY	00008165/PO#BB00144165		\$503,874
TERRASWARM RESEARCH CENTER (TSRC)						
ROBOTIC PERCEPTION, INTELLIGENCE, AND DEXTEROUS MANIPULATION & UNIQUE MOBILITY	12.RD	W911NF-10-2-0016	GENERAL DYNAMICS ROBOTIC SYSTEMS	PO #40228149		\$998,666
AM3 AUTONOMOUS MULTIFUNCTIONAL MOBILE MICROSYSTEMS	12.RD	W-911NF-08-2-0004	BAE SYSTEMS	316106	\$1,148	\$1,131,197
TOTAL DEPARTMENT OF DEFENSE PASS THROUGH PROGRAMS					\$211,422	\$9,866,143
TOTAL DEPARTMENT OF DEFENSE					\$15,380,119	\$56,685,344
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT						
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT DIRECT PROGRAMS						
HOMELESS MANAGEMENT INFORMATION SYSTEM GRANT	14.267	PA0586L3T101402				\$82,212
TOTAL DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT DIRECT PROGRAMS						\$82,212
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT PASS THROUGH PROGRAMS						
ASSESSING HOUSING NEED AMONG PEOPLE LIVING WITH HIV/AIDS IN PHILADELPHIA ELIGIBLE METROPOLITAN AREA	14.241		PHILADELPHIA OFFICE OF HOUSING AND COMMUNITY DEVELOPMENT	1420373		\$48,100
TOTAL DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT PASS THROUGH PROGRAMS						\$48,100
TOTAL DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT						\$130,312
DEPARTMENT OF THE INTERIOR						
DEPARTMENT OF THE INTERIOR DIRECT PROGRAMS						
SILUS SPATIAL INTEGRATION LABORATORY FOR URBAN SYSTEMS, 2011-2016	15.808	G11AC20285				\$71,758
JACKSON LAKE LODGE HISTORIC STRUCTURES REPORT	15.945	P14AC01158				\$6,329
CULTURAL LANDSCAPES INVENTORY – WASHINGTON DC HISTORIC GOLF COURSES- NCRO	15.945	P16AC01138				\$513
DEVELOPMENT OF A HISTORIC PRESERVATION TRAINING CURRICULUM AND FUNDAMENTALS COURSE FOR THE VANISHING TREASURES PROGRAM	15.945	P15AC01523				\$2,810
HISTORIC PRESERVATION GRADUATE INTERNSHIP, INDEPENDENCE NATIONAL HISTORICAL PARK, NPS	15.945	P13AC00095				\$4,833
CELEBRATING THE NPS CENTENNIAL THROUGH THE INVESTIGATION, ANALYSIS, AND TREATMENT OF THE FACADE OF MISSION SAN JOSE DE TUMUCACORI, TUMA	15.945	P14AC00965				\$8,833
HISTORIC PRESERVATION GRADUATE INTERNSHIP INHP, PHASE II	15.945	P14AC00147				\$18,460
PHASE II CONDITION SURVEY & ASSESSMENT - LODGE, CABINS, MISC STRUCTURES	15.945	P14AC00921				\$20,865
CULTURAL LANDSCAPE INVENTORY NATIONAL CAPITAL REGION- CIVIL WAR DEFENSES II OF WASHINGTON DC-UPL	15.945	P14AC01144				\$33,715
CULTURAL RESOURCES RESEARCH, INVENTORY, AND DOCUMENTATION TECHNICAL ASSISTANCE	15.945	P15AC00828				\$41,461
DOCUMENTATION & RISK ANALYSIS OF CONDITIONS & TREATMENT AT FORT UNION NATIONAL MONUMENT	15.945	P15AC01619				\$42,068
WASHINGTON, DC PUBLIC RESERVATIONS CULTURAL LANDSCAPES INVENTORY	15.945	P15AC01326				\$76,878
CULTURAL LANDSCAPE INVENTORY - CIVIL WAR DEFENSES OF WASHINGTON	15.RD	H1200090005/ORDER #P12AC10929				-\$130
CONDITION ASSESSMENT AND TREATMENT EVALUATION OF THE SUPPORT BOULDER BENEATH HOLLY TOWER	15.RD	H1200090005				\$150
INDEPENDENCE NATIONAL PARK SERVICE - 2015	15.U17	MT4450-R-0042				\$2,400
TOTAL DEPARTMENT OF THE INTERIOR DIRECT PROGRAMS						\$318,285
DEPARTMENT OF THE INTERIOR PASS THROUGH PROGRAMS						
DEVELOPMENT OF A COMPREHENSIVE HAZARD TO LOSS MODELING FRAMEWORK FOR THE RESIDENTIAL DAMAGE ASSOCIATED WITH INLAND FLOODING FROM NORTH ATLANTIC TROPICAL CYCLONES	15.805		UNIVERSITY OF IOWA	W000645062		\$92,716
NWP/NPS COLLABORATIONS	15.954		NATIONAL WRITING PROJECT	92-PA06-B-NPS2015		\$4,497

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TOTAL DEPARTMENT OF THE INTERIOR PASS THROUGH PROGRAMS						\$97,213
TOTAL DEPARTMENT OF THE INTERIOR						<u>\$415,498</u>
DEPARTMENT OF JUSTICE						
DEPARTMENT OF JUSTICE DIRECT PROGRAMS						
INSTILLING A CULTURE OF CONTINUOUS LEARNING FROM CRIMINAL JUSTICE SYSTEM ERRORS: A MULTI-STAKEHOLDER SENTINEL EVENT REVIEW OF PROCESS IN PHILADELPHIA	16.560	2015-R2-CX-K040				\$1,194
SUSPENSION PRACTICES IN THE CONTEXT OF PBIS: IMPLICATIONS FOR K-8 STUDENTS IN THE SCHOOL DISTRICT OF PHILADELPHIA	16.560	2015-CK-BX-0013			\$11,205	\$220,954
SPACE-TIME STUDY OF YOUTH AND SCHOOL VIOLENCE	16.560	2014-CK-BX-0008				\$459,619
TOTAL DEPARTMENT OF JUSTICE DIRECT PROGRAMS					\$11,205	<u>\$681,767</u>
DEPARTMENT OF JUSTICE PASS THROUGH PROGRAMS						
MEASURING SUCCESS IN FOCUSED DETERRENCE THROUGH AN EFFECTIVE RESEARCHER-PRACTITIONER PARTNERSHIP	16.560		TEMPLE UNIVERSITY	310207-UPENN		\$3,899
HIGHLY PARALLEL ANALYSIS OF COMPLEX GENETIC MIXTURES	16.560		STANFORD UNIVERSITY	60501677-111213		\$6,395
CRIME AND JUSTICE RESEARCH	16.560		COMMONWEALTH OF PENNSYLVANIA	PO #4300224183		\$24,605
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		\$3,095
THE EFFECTS OF SUMMER JOBS ON YOUTH VIOLENCE	16.726		UNIVERSITY OF CHICAGO	FP052923		\$27,642
TOTAL DEPARTMENT OF JUSTICE PASS THROUGH PROGRAMS						<u>\$65,636</u>
TOTAL DEPARTMENT OF JUSTICE					\$11,205	<u>\$747,403</u>
DEPARTMENT OF STATE						
DEPARTMENT OF STATE DIRECT PROGRAMS						
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				-\$2,913
THE INTERNET POLICY OBSERVATORY: A MONITORING AND CIVIL SOCIETY CAPACITY-BUILDING PROJECT	19.345	S-LMAQM-13-GR-1052				\$222,140
CONSERVATION TRAINING, PLANNING AND IMPLEMENTATION PROGRAM AT NYAMATA CHURCH, BUGESERA DISTRICT, RWANDA	19.RD	NCFAG				\$4,627
TOTAL DEPARTMENT OF STATE DIRECT PROGRAMS						<u>\$223,854</u>
DEPARTMENT OF STATE PASS THROUGH PROGRAMS						
SCHOLAR'S RESCUE FUND SUBAWARD	19.016		INSTITUTE OF INTERNATIONAL EDUCATION	3000_PENN_03.24.2015		\$25,000
FULBRIGHT FOREIGN LANGUAGE TEACHING ASSISTANTS SUMMER ORIENTATION 2015	19.400		INSTITUTE OF INTERNATIONAL EDUCATION	SUB TO S-ECADG-15-CA-1015		\$62,763
PROPOSAL FOR MASSIVE OPEN ONLINE COURSES (MOOCS) FOR ENGLISH LANGUAGE LEARNERS UNDER THE ENGLISH ACCESS MICROSCHOLARSHIP PROGRAM	19.U28	S-ECAGD-14-CA-1167-01	FHI 360	PO16000435		\$225,500
TOTAL DEPARTMENT OF STATE PASS THROUGH PROGRAMS						<u>\$313,263</u>
TOTAL DEPARTMENT OF STATE						<u>\$537,117</u>
DEPARTMENT OF TRANSPORTATION						
DEPARTMENT OF TRANSPORTATION DIRECT PROGRAMS						
ADAPTIVE AIRPORT PLANNING FRAMEWORKS AND TECHNIQUES FOR A NEW ERA OF PLANNING	20.106	N/A				\$12,000
PILOT STUDY ON AIRCRAFT NOISE AND SLEEP DISTURBANCE	20.109	13-C-AJFE-UPENN				\$220,456
DWIGHT DAVID EISENHOWER TRANSPORTATION FELLOWSHIP PROGRAM GRADUATE FELLOWSHIPS	20.215	DTFH6415G00061				\$4,450
THE DWIGHT DAVID EISENHOWER TRANSPORTATION FELLOWSHIP PROGRAM 2013 EISENHOWER GRADUATE FELLOWSHIP	20.215	N/A				\$45,248
TOTAL DEPARTMENT OF TRANSPORTATION DIRECT PROGRAMS						<u>\$282,154</u>
DEPARTMENT OF TRANSPORTATION PASS THROUGH PROGRAMS						
TRUSTEES OF THE UNIVERSITY OF PENNSYLVANIA/LIFE SECTION 5310 GRANT FUNDING APPLICATION	20.319		COMMONWEALTH OF PENNSYLVANIA	CCA-G-14-15-TRUST-00159		\$191,392
T-SET: TECHNOLOGIES FOR SAFE AND EFFICIENT TRANSPORTATION	20.701		CARNEGIE MELLON UNIVERSITY	1080311-341328		\$209,995
T-SET: TECHNOLOGIES FOR SAFE AND EFFICIENT TRANSPORTATION	20.RD	1-DTRT12GUTC11	CARNEGIE MELLON UNIVERSITY	1080266-283594		\$322,287
TOTAL DEPARTMENT OF TRANSPORTATION PASS THROUGH PROGRAMS						<u>\$723,674</u>
TOTAL DEPARTMENT OF TRANSPORTATION						<u>\$1,005,828</u>
DEPARTMENT OF TREASURY						
DEPARTMENT OF TREASURY DIRECT PROGRAMS						
REINVENTING OLDER COMMUNITIES	21.U30	CONFERENCE ORGANIZATION AGREEMENT				\$15,605

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TOTAL DEPARTMENT OF TREASURY						<u>\$15,605</u>
NATIONAL AERONAUTICS & SPACE ADMINISTRATION						
NATIONAL AERONAUTICS & SPACE ADMINISTRATION DIRECT PROGRAMS						
PVT SELFTEST ON ISS	43.001	NNX08AY09G				-\$17,690
EXPLORING THE CONNECTION BETWEEN GALACTIC MAGNETIC FIELDS AND STAR FORMATION WITH THE BALLOON-BORNE LARGE APERTURE SUBMILLIMETER TELESCOPE - BLAST	43.001	NNX12AL58H				\$2,598
PROBING HYDROGEN AND HELIUM REIONIZATION.	43.001	NNX12AC97G				\$10,679
FLOOD REGIMES AND CARBON CYCLING IN ANTHROPOGENIC LANDSCAPES OF THE BOLIVIAN AMAZON	43.001	NNX13AQ07G			\$60,724	\$69,768
A BALLOON-BORNE DOPPLER SPECTROMETER FOR DISCOVERING EARTH-LIKE PLANETS ORBITING LOW-MASS STARS	43.001	NNX13AI79G				\$71,714
LABORATORY INVESTIGATIONS OF THE EFFECTS OF PARTICULATES ON THE FLOW OF ICE SEASONAL, INTERANNUAL AND INTERDECADAL VARIABILITY IN GLOBAL PHYTOPLANKTON COMMUNITY SIZE STRUCTURE DERIVED FROM OCEAN COLOR REMOTE SENSING AND IPCC-CLASS ECOSYSTEM MODELS	43.001	NNX13AC92G			\$69,241	\$89,462
BALLOON-BORNE LARGE APERTURE SUBMILLIMETER TELESCOPE - BLAST	43.001	NNX13AE50G			\$680,155	\$1,404,025
HYBRID TRAINING - A SENSORY STIMULATION COUNTERMEASURE FOR LONG DURATION SPACE EXPLORATION MISSIONS	43.003	NNX16AI53G				\$11,366
HERO TWIN ASTRONAUT STUDY CONSORTIUM (TASC) PROJECT: COGNITION ON MONOZYGOTIC TWIN ON EARTH	43.003	NNX14AH27G			\$3,000	\$48,335
COGNITIVE PERFORMANCE AND CREW COHESION DURING CONFINEMENT IN NASA'S HUMAN RESEARCH PROGRAM HUMAN EXPLORATION RESEARCH ANALOG (HERA)	43.003	NNX14AH98G				\$60,346
STANDARDIZED BEHAVIORAL MEASURES FOR DETECTING BEHAVIORAL HEALTH RISKS DURING EXPLORATION MISSIONS	43.003	NNX15AK76G			\$68,833	\$206,022
NEUROSTRUCTURAL, COGNITIVE, AND PHYSIOLOGIC CHANGES DURING A 1-YEAR ANTARCTIC WINTER OVER MISSION	43.003	NNX14AM81G			\$41,615	\$459,612
FOAM: FOAM OPTICS AND MECHANICS (THE MELTING OF OPTIC FOAMS)	43.007	NNX14AM99G				\$109,547
LOW VOLUME FRACTION ENTROPICALLY DRIVEN COLLOIDAL ASSEMBLY (PHASE 2)	43.007	NNX13AL27G				\$176,019
BIOMARKERS AS PREDICTORS OF RESILIENCY AND SUSCEPTIBILITY TO STRESS IN SPACE FLIGHT	43.007	NNX14AN49G			\$60,691	\$247,366
DEVELOPMENT OF MILLIMETER IMAGING TECHNOLOGIES	43.009	NNX11AN19H				\$7,193
MONOCULAR SLAM FOR SMART SPHERES	43.009	NNX14AM10H				\$52,228
DEVELOPING KINETIC INDUCTANCE DETECTORS FOR THE BALLOON-BOURNE LARGE APERTURE SUBMILLIMETER TELESCOPE -BLAST	43.009	NNX14AN63H				\$63,542
KINETIC INDUCTANCE DETECTORS FOR FAR-INFRARED SPECTROSCOPY	43.009	NNX13AL68H				\$65,096
DEVELOPMENT OF INFLATION PROBE TECHNOLOGIES FOR THE ADVANCED ACT EXPERIMENT	43.012	NNX15AQ74H				\$56,493
RESEARCH SPONSORED AGREEMENT: CONSTRAINING DARK ENERGY AND MODIFIED GRAVITY WITH EUCLID	43.RD	1479009				-\$140
CHARACTERIZATION OF EVOLUTIONARILY ANCIENT STRUCTURES ON HALOARCHAEAL CELL SURFACES	43.RD	NNX10AR84G				\$1,746
CONSTRAINING DARK ENERGY AND MODIFIED GRAVITY WITH EUCLID	43.RD	RSA #1515794				\$18,567
CONSTRAINING DARK ENERGY AND MODIFIED GRAVITY WITH EUCLID	43.RD	1515793				\$27,239
TOTAL NATIONAL AERONAUTICS & SPACE ADMINISTRATION DIRECT PROGRAMS					<u>\$984,259</u>	<u>\$3,327,143</u>
NATIONAL AERONAUTICS & SPACE ADMINISTRATION PASS THROUGH PROGRAMS						
COGNITION ON HI-SEAS	43.001		UNIVERSITY OF HAWAII	MA150006		\$17,026
X-RAYING THE STELLAR WIND AND ATMOSPHERE OF VELA-1	43.001		SMITHSONIAN ASTROPHYSICAL OBSERVATORY	GO3-14044X		\$22,562
DISCERNING THE DETAILS OF THE COSMIC DARK SECTOR	43.001		CORNELL UNIVERSITY	71105-10295		\$108,950
RELIVING THE PAST: EXPERIMENTAL EVOLUTION OF MAJOR TRANSITIONS IN THE HISTORY OF LIFE	43.001		UNIVERSITY OF MONTANA	PG15-26850-04	\$74,939	\$157,798
INDIVIDUALIZED REAL-TIME NEUROCOGNITIVE ASSESSMENT TOOLKIT FOR SPACE FLIGHT FATIGUE	43.001		NATIONAL SPACE BIOMEDICAL RESEARCH INSTITUTE	NBPF02501		\$176,232
FREE-FORM MODELS FOR THE SIX HUBBLE FRONTIER FIELDS CLUSTERS	43.RD	NAS5-26555	SPACE TELESCOPE SCIENCE INSTITUTE	STACL-49726		\$248
TOTAL NATIONAL AERONAUTICS & SPACE ADMINISTRATION PASS THROUGH PROGRAMS					<u>\$74,939</u>	<u>\$482,816</u>
TOTAL NATIONAL AERONAUTICS & SPACE ADMINISTRATION					<u>\$1,059,198</u>	<u>\$3,809,959</u>
INSTITUTE OF MUSEUM AND LIBRARY SERVICES OR NATIONAL ENDOWMENT FOR THE ARTS OR NATIONAL ENDOWMENT FOR THE HUMANITIES						
INSTITUTE OF MUSEUM AND LIBRARY SERVICES OR NATIONAL ENDOWMENT FOR THE ARTS OR NATIONAL ENDOWMENT FOR THE HUMANITIES DIRECT PROGRAMS						
WORLD CAFE VIDEO ENGAGEMENT	45.024	14-3400-7128				\$3,829

The accompanying notes are an integral part of this schedule

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T-VOCE PROJECT	45.024	15-3600-7067				\$11,281
PROACTIVE PRACTICE	45.024	15-4200-7053				\$13,602
UNPACKING THE PAST: AN EDUCATIONAL OUTREACH PROGRAM OF THE PENN MUSEUM	45.024	15-4400-7089				\$32,000
KASHAYA (KJU) DATABASE AND DICTIONARY	45.075	PD-50019-12				\$6,280
PROVIDING GLOBAL ACCESS TO PENN'S INDIC MANUSCRIPTS, CIRCA 1527-1930 (BULK 1700-1850)	45.149	PW-51547-14				\$74,145
THE NEW SCHOENBERG DATABASE OF MANUSCRIPTS: A RESEARCH TOOL FOR TRACKING THE CURRENT AND HISTORIC LOCATIONS OF MANUSCRIPTS	45.149	PW-51580-14				\$83,288
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				\$120,040
CHILDREN, DRUG THERAPY, AND PHARMACEUTICALS IN THE UNITED STATES, 1906-1979	45.160	231944-16				\$26,552
TOTAL INSTITUTE OF MUSEUM AND LIBRARY SERVICES OR NATIONAL ENDOWMENT FOR THE ARTS OR NATIONAL ENDOWMENT FOR THE HUMANITIES DIRECT PROGRAMS						<u>\$371,017</u>
INSTITUTE OF MUSEUM AND LIBRARY SERVICES OR NATIONAL ENDOWMENT FOR THE ARTS OR NATIONAL ENDOWMENT FOR THE HUMANITIES PASS THROUGH PROGRAMS						
TWELFTH NIGHT	45.025		MID ATLANTIC ARTS FOUNDATION	27205		\$8,500
TOTAL INSTITUTE OF MUSEUM AND LIBRARY SERVICES OR NATIONAL ENDOWMENT FOR THE ARTS OR NATIONAL ENDOWMENT FOR THE HUMANITIES PASS THROUGH PROGRAMS						<u>\$8,500</u>
TOTAL INSTITUTE OF MUSEUM AND LIBRARY SERVICES OR NATIONAL ENDOWMENT FOR THE ARTS OR NATIONAL ENDOWMENT FOR THE HUMANITIES						<u>\$379,517</u>
NATIONAL SCIENCE FOUNDATION						
NATIONAL SCIENCE FOUNDATION DIRECT PROGRAMS						
ENGINEERING ALL-INORGANIC QUANTUM DOT HETEROJUNCTION PHOTOVOLTAICS THROUGH SURFACE CHEMICAL MANIPULATIONS	47.041	CBET-1236406				-\$41,032
MRI: ACQUISITION OF A LASER DIRECT WRITE SYSTEM FOR RESEARCH, EDUCATION AND TRAINING AT THE MICRO- AND NANOSCALE ELECTRONICS, PHOTONICS, MECHANICS AND BIOENGINEERING APPLICATIONS	47.041	ECCS-1429289				-\$5,818
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				\$805
CAREER: TIME-DOMAIN ENCODING FOR HIGHLY PARALLEL DIGITAL MOLECULAR SENSING	47.041	CBET-1554200				\$3,448
CAREER: LOCOMOTION OF SMALL ORGANISMS IN COMPLEX FLUIDS	47.041	CBET-0954084				\$7,157
FROM RECONSTITUTED ACTIN NETWORKS TO 3D MULTI-CELLULAR MICROTISSUES: MULTI-SCALE MODELS AND EXPERIMENTS ON CONTRACTILITY IN ACTIVE CYTOSKELETAL NETWORKS	47.041	CMMI-1312392				\$7,266
AUTONOMOUS ROBOTIC ROTORCRAFT FOR EXPLORATION, SURVEILLANCE AND TRANSPORTATION (ARREST)	47.041	IIP-1113830				\$8,301
DEVELOPING QUANTITATIVE MODELS OF SHP2-MEDIATED SIGNALING REGULATION IN GLIOMA FOR RATIONAL IDENTIFICATION OF IMPROVED THERAPEUTIC APPROACHES	47.041	CBET-1511853				\$16,209
MULTISCALE MODELING OF COMPOSITIONAL STRESSES IN NONSTOICHIOMETRIC OXIDES	47.041	CMMI-1363203				\$16,885
EAGER: SPATIOTEMPORAL REGULATION OF RECEPTOR-INITIATED INTRACELLULAR COMPLEXES OF SIGNALING PROTEINS	47.041	CBET-1450751				\$19,435
NETEGG: TOOLKIT FOR PROGRAMMING NETWORK POLICIES BY EXAMPLES	47.041	1564730				\$20,232
LARGE-AREA, ALIGNMENT-FREE, 3D CHIRAL PLASMONIC NANOSTRUCTURES USING TEMPLATE-BASED FABRICATION TECHNOLOGY	47.041	1562884				\$22,002
MECHANISMS OF DECOUPLING GRAPHENE FROM STRONG-BINDING SUBSTRATES BY INTERCALATION GOAL/COLLABORATIVE RESEARCH: MANUFACTURING OF CARBON NANOTUBECONTACTS FOR HIGH-PERFORMANCE MICROELECTROMECHANICAL SWITCHES	47.041	CMMI-1308396				\$24,681
NANOANTENNA OPTOMECHANICS: FORCES, DEVICES, AND SENSORS	47.041	CMMI-1463344				\$24,736
ANALYSIS OF MOVING UNFOLDING FRONTS IN LONG PROTEIN MOLECULES	47.041	ECCS-1408139				\$26,382
I/UCRC: COLLABORATIVE RESEARCH: AUTONOMOUS PERCEPTION AND MANIPULATION IN SEARCH AND RECSUE	47.041	CMMI-1066787				\$29,139
COLLABORATIVE RESEARCH: TEMPERATURE-DEPENDENCE OF ATOMIC-SCALE FRICTION	47.041	IIP-1432960				\$36,957
CAREER: MOLECULAR IMAGING OF CANCER RESEARCH AND EDUCATION PROGRAM	47.041	CMMI-1401164				\$49,603
CAREER: COUPLING SPIN, LIGHT, AND CHARGE FOR QUANTUM INFORMATION PROCESSING AND STORAGE IN DIAMOND	47.041	CBET-0953583				\$50,113
PREDICTING THE INTERFACIAL ACTIVITY OF COMPLEX GRAFTED NANOPARTICLES	47.041	ECCS-1553511				\$52,039
	47.041	CBET 1510635				\$53,333
MOLECULAR MODELING OF WETTING AND DEWETTING TRANSITIONS ON NANOTEXTURED SURFACES	47.041	1511437				\$55,854
MOLECULAR MODELING OF FAILURE IN POLYMER NANOCOMPOSITES	47.041	1536914				\$57,430

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COLLABORATIVE RESEARCH: EFFICIENT RARE CELL CAPTURING IN MICROFLUIDIC DEVICES VIA MULTISCALE SURFACE DESIGN	47.041	CBET-1263940				\$63,262
COLLABORATIVE RESEARCH: ULTRAFAST CARRIER DYNAMICS IN SEMICONDUCTOR NANOCRYSTAL SOLAR CELLS	47.041	CBET-1335821				\$67,250
INVESTIGATING THE UNSTEADY RHEOLOGY AND EVOLVING MICROSTRUCTURE OF SUSPENSIONS OF SWIMMING MICROORGANISMS	47.041	CBET-1437482				\$69,431
MULTISCALE MODELING OF THE NANOCARRIER-CELL ADHESION INTERFACE IN TARGETED DRUG DELIVERY	47.041	CBET-1236514				\$69,751
CAREER: DOMAIN BOUNDARY PHENOMENA AND COMPOSITION FLUCTUATIONS IN HETEROGENEOUS LIPID MEMBRANE MIXTURES	47.041	CBET-1053857				\$73,638
STRUCTURED COMPOSITE MATERIALS WITH VARIABLE ADHESION PROPERTIES	47.041	CMMI-1435745				\$78,078
GOALI/COLLABORATIVE RESEARCH: DECIPHERING THE MECHANISMS OF WEAR TO ENABLE HIGH PERFORMANCE TIP-BASED NANOMAUFACTURING	47.041	CMMI-1200019				\$79,546
MECHANISTIC STUDIES OF HYDRODEOXYGENATION OF LIGNIN-DERIVED AROMATIC OXYGENATES OVER BIMETALLIC CATALYSTS	47.041	CBET-1508048				\$84,256
VISCOELASTIC FLUIDS IN PARALLEL SHEAR FLOWS AT LOW RE: INSTABILITIES, BIFURCATIONS & SINGLE MOLECULE EXPERIMENTS	47.041	CBET-1336171				\$88,309
REALIZING NON-CLOSE-PACKED COLLOIDAL CRYSTALS USING DIRECTIONAL-BONDING SUPERPARTICLES	47.041	CBET-1403237				\$89,765
COLLABORATIVE RESEARCH: INTEGRATION OF IMPLANTABLE MEMS SENSORS AND COMPUTATIONAL MODELING TO ASSESS MECHANICAL REGULATION OF BONE REGENERATION	47.041	CMMI-1362652				\$91,346
CPS: MEDIUM: COLLABORATIVE RESEARCH: CO-DESIGN OF MULTIMODAL CPS ARCHITECTURES AND ADAPTIVE CONTROLLERS	47.041	ECCS-1135630				\$98,128
UNDERSTANDING CONTINUUM MODELS OF ELASTO-PLASTIC DEFORMATIONS VIA MULTISCALE ANALYSES	47.041	CMMI-1401537				\$114,375
ENGINEERING PROTEINS FOR REABSORPTION IN THE RENAL PROXIMAL TUBULE	47.041	CBET-1264807				\$117,919
BIO-ENABLED NANOSENSORS WITH FULLY PROGRAMMABLE LIGAND DETECTION	47.041	IIP-1312202				\$138,427
A WIRELESS SENSOR-BRAIN INTERFACE TO RESTORE FINGER SENSATION	47.041	CBET-1404041				\$142,792
COLLABORATIVE RESEARCH: I/UCRC FOR ROBOTS AND SENSORS FOR THE HUMAN WELL-BEING	47.041	IIP-1439681				\$143,689
NONLINEAR HOMOGENIZATION OF POROUS ANISOTROPIC MATERIALS: APPLICATIONS TO PLASTIC AND MAGNETIC SHAPE-MEMORY ALLOYS	47.041	CMMI-1332965				\$150,905
OPTOGENETIC TOOLS FOR MINIMALLY INVASIVE THERAPIES	47.041	CBET-1264975				\$151,418
CDS&E: COLLABORATIVE RESEARCH: DATA-DRIVEN PREDICTIVE MODELING OF FLOWS CONTAINING AGGREGATING PARTICLES	47.041	CBET-1404826				\$171,581
SUNFEST - SUMMER UNDERGRADUATE RESEARCH IN SENSOR TECHNOLOGIES	47.041	EEC-1359107				\$182,557
GOALI: STRUCTURE AND ELECTRONIC PROPERTIES OF GRAIN BOUNDARIES IN EARTH ABUNDANT CU2ZNSNSXSE4-X (CZTS) THIN FILM SOLAR CELLS	47.041	CBET-1235870				\$195,487
NNCI: ESTABLISHMENT OF A NANOTECHNOLOGY USER NODE AT THE UNIVERSITY OF PENNSYLVANIA	47.041	ECCS-1542153				\$209,590
CAREER: ENTROPIC ELASTICITY OF FLUCTUATING FILAMENTS AND NETWORKS	47.041	CMMI-0953548				\$222,937
SNM: SCALABLE MANUFACTURING OF NANOSTRUCTURED MEMBRANES FOR FRACKING						
WASTEWATER TREATMENT	47.041	CBET-1449337			\$75,667	\$255,173
PFI:BIC AFFORDABLE AND MOBILE ASSISTIVE ROBOTS FOR ELDERLY CARE	47.041	IIP-1430216			\$201,790	\$289,149
CDI-TYPE II: COLLABORATIVE RESEARCH: CYBER-AMPLIFIED BIOINSPIRATION IN ROBOTICS	47.041	ECCS-1028237				\$295,626
EFRI 2-DARE: TWO-DIMENSIONAL NANOPORES WITH ELECTRO-OPTICAL CONTROL FOR NEXT GENERATION BIOTECHNOLOGICAL APPLICATIONS	47.041	EFMA-1542707			\$195,513	\$319,052
EFRI 2-DARE: FUNCTIONALIZED MONOLAYER HETEROSTRUCTURES FOR BIOSENSORS WITH OPTICAL READOUT	47.041	EFMA 1542879				\$326,739
EFRI-ODISSEI: CUTTING AND PASTING - KIRIGAMI IN ARCHITECTURE, TECHNOLOGY, AND SCIENCE	47.041	EFRI-1331583			\$183,741	\$413,989
DMREF: COLLABORATIVE RESEARCH: HIGH-THROUGHPUT DISCOVERY, DEVELOPMENT,AND DEMONSTRATION OF MATERIAL SYSTEMS TO ENABLE LOW-POWER NEMS-BASEDCOMPUTATION	47.041	CMMI-1334241				\$415,169
GEOMETRY FESTIVAL	47.049	DMS-1010788				-\$16,106
COLLABORATIVE RESEARCH: OPTIMAL STATISTICS FOR REDSHIFTED 21 CM OBSERVATIONS OF THE REIONIZATION EPOCH.	47.049	AST-1109156				-\$1
PRECISE ACID COPOLYMERS AND IONOMERS: MORPHOLOGY, DYNAMICS AND MECHANICAL PROPERTIES	47.049	DMR-1103858				\$220
CURVATURE GRADIENT DRIVEN ASSEMBLY OF TRAPPED AND RECONFIGURABLE STRUCTURES	47.049	DMR -1607878				\$504
COLLABORATIVE RESEARCH: AGNES: ALGEBRAIC GEOMETRY NORTHEASTERN SERIES	47.049	DMS-1361706				\$642

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THE PARTICLE PHYSICS AND COSMOLOGY OF SUPERSYMMETRY AND STRING THEORY	47.049	PHY-1001296				\$1,013
CAREER: FLOW, FAILURE, FLUCTUATIONS AND THE TOPOLOGY OF VASCULAR NETWORKS	47.049	PHY-1554887				\$1,315
THE COMBINATORICS OF SYMMETRIC FUNCTIONS	47.049	DMS-1200296				\$1,379
FROM PHOTON TO NEURON: A TEXTBOOK ON LIGHT, IMAGING, AND VISION	47.049	PHY-1601894				\$1,647
MOLECULAR COEVOLUTION: LESSONS FROM PATHOGEN-IMMUNE SYSTEM INTERACTIONS	47.049	PHY-1631719				\$3,741
COLLABORATIVE RESEARCH: CHARACTERIZING THE TRANS-NEPTUNIAN SOLAR SYSTEM WITH THE DARK ENERGY SURVEY	47.049	1515804				\$4,525
THEORETICAL STUDIES OF MECHANICS IN ACTIVE MATTER	47.049	DMR 1506625				\$4,584
STATISTICAL METHODS FOR HIGH-RESOLUTION MULTISCALE ANALYSIS 3D DNA INTERACTIONS	47.049	1562665				\$4,671
DEGENERATE DIFFUSIONS ON MANIFOLDS WITH CORNERS	47.049	DMS-1205851				\$5,196
CHARACTERIZING THE PHYSICAL PROPERTIES OF HIGH-REDSHIFT SN IA HOST GALAXIES	47.049	1517742				\$6,532
METAL –LIGAND MULTIPLE BONDS AND THEIR ROLE IN ALKANE METATHESIS, DEHYDROGENATION AND GROUP-TRANSFER CHEMISTRY	47.049	CHE-1413945			\$3,769	\$7,293
COLLABORATIVE RESEARCH: THE DARK ENERGY SURVEY DATA MANAGEMENT OPERATIONS	47.049	AST-1138729				\$8,004
NANOROD ASSEMBLY IN POLYMER MATRICES	47.049	DMR-0907493				\$8,630
ANALYSIS OF NON-LINEAR PARTIAL DIFFERENTIAL EQUATIONS IN KINETIC THEORY AND RELATED FIELDS	47.049	DMS-1200747				\$9,878
TOPICS IN THE THEORY OF ELASTIC NETWORKS AND SOFT-MATTER PHYSICS.	47.049	DMR-1104707				\$10,960
NSF GEOMFEST 2013	47.049	DMS-1337391				\$11,401
THE GEOMETRY OF PROBABILITY GENERATING FUNCTIONS	47.049	DMS-1209117				\$11,821
COLLABORATIVE RESEARCH: PRINCIPLED SCIENCE-DRIVEN METHODS FOR MASSIVE, INTRICATE, AND MULTIFACETED DATA IN ASTRONOMY AND ASTROPHYSICS	47.049	1513546				\$12,097
PARTICIPANT SUPPORT FOR ATTENDANTS TO THE 11TH INTERNATIONAL CONFERENCE ON OBJECTIVE BAYES METHODOLOGY	47.049	DMS-1540663				\$14,967
CAREER: LINKING GRAPH TOPOLOGY OF LEARNED INFORMATION TO BEHAVIORAL VARIABILITY VIA DYNAMICS OF FUNCTIONAL BRAIN NETWORKS	47.049	PHY-1554488				\$16,106
NON-CONVEX HOMOGENIZATION AND APPLICATIONS TO (FERROMAGNETIC) SHAPE-MEMORY POLYCRYSTALS	47.049	DMS-1108847				\$16,662
MODULI SPACES AND ARITHMETIC GEOMETRY	47.049	DMS-1545586				\$18,690
DIFFERENTIAL GEOMETRY IN THE LARGE	47.049	DMS-1630033				\$22,069
ANABELIAN GEOMETRY AND FIELD ARITHMETIC II	47.049	DMS-1101397				\$22,121
ALGEBRAIC, COMBINATORIAL AND ANALYTIC APPLICATIONS OF SYMMETRIC FUNCTIONS	47.049	1500834				\$23,032
MODULI OF ABELIAN VARIETIES	47.049	DMS-1200271				\$29,800
OXIDATIVE METHODS FOR C-C, C-N, AND C-O BOND FORMATION	47.049	CHE-1464778				\$31,709
NONLOCAL DENSITY FUNCTIONAL THEORY OF MOLECULES AND SOLIDS	47.049	CHE-1261918				\$36,845
STRING MATH CONFERENCES 2014	47.049	DMS-1401390			\$37,270	\$37,455
NOVEL POLYFLUOROALKYLATED BUILDING BLOCKS	47.049	CHE-1362841				\$38,225
DEGENERATE DIFFUSIONS ON MANIFOLDS WITH CORNERS	47.049	DMS-1507396				\$44,478
RANDOM MATRIX THEORY AND HIGH DIMENSIONAL STATISTICS	47.049	DMS-1208982				\$45,605
JAMMING TRANSITIONS AND KINETIC PHENOMENA	47.049	DMR-1305199				\$47,635
NOVEL DYNAMICS IN COMPLEX FLUIDS: FROM PHONONS TO THE DRYING PROCESS	47.049	DMR-1205463				\$48,285
NONLINEAR PDE WITH GRADIENT CONSTRAINTS: REGULARITY, EIGENVALUE PROBLEMS, AND INFINITY GROUND STATES	47.049	DMS-1301628				\$49,644
COLLABORATIVE RESEARCH: DE NOVO PROTEIN CONSTRUCTS FOR PHOTOSYNTHETIC ENERGY TRANSDUCTION	47.049	CHE-1412496				\$52,385
MATERIALS WORLD NETWORK: TAILORING ELECTROCATALYTIC MATERIALS BY CONTROLLED SURFACE EXSOLUTION	47.049	DMR-1210388				\$58,303
TIME-RESOLVED STUDIES OF ORBITAL ANGULAR MOMENTUM	47.049	DMR-1206270				\$61,266
THE FUNDAMENTAL PHYSICS OF THE INVISIBLE AND THE VERY EARLY UNIVERSE	47.049	PHY-1145525				\$64,702
FRG: COLLABORATIVE RESEARCH: CHERN CLASSES IN IWASAWA THEORY	47.049	DMS-1360767				\$68,109
COLLABORATIVE RESEARCH: EXPERIMENTAL AND THEORETICAL STUDIES OF THE BIOMECHANICS OF FIBRIN POLYMER	47.049	DMR-1505662				\$70,449
MATERIALS WORLD NETWORK: MECHANICS AND DURABILITY OF DIAMOND-LIKE NANOCOMPOSITES (MADDILIN): AN INTERNATIONAL COLLABORATION TO UNDERSTAND TRIBO-MECHANICAL MULTIPHYSICAL PHENOMENA	47.049	DMR-1107642				\$71,008
CAREER: STATISTICAL AND COMPUTATIONAL COMPLEXITIES OF MODERN LEARNING PROBLEMS	47.049	DMS-0954737				\$71,613
NEURAL POPULATION CODING IN THE BRAIN	47.049	PHY-1058202				\$71,884
VERTICALLY ORIENTED ANISOTROPIC NANOPARTICLES IN POLYMER MATRICES	47.049	1507713				\$73,611
TOPICS IN FLUID DYNAMICS WITH FREE BOUNDARIES, AND KINETIC THEORY	47.049	DMS-1500916				\$81,956

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DESIGNING THE ELECTRONIC PROPERTIES OF PBSE NANOWIRES FOR OPTOELECTRONIC DEVICES	47.049	DMR-1309053				\$82,405
CAREER: NONPARAMETRIC EIGENANALYSIS OF HIGH DIMENSIONAL DATA	47.049	DMS-1352060				\$83,071
TOPOLOGICAL FRAMEWORK FOR ANALYSIS AND VISUALIZATION OF ATOMISTIC MATERIALS SIMULATIONS	47.049	1507013				\$84,306
CAREER: THIOMIDES AS MINIMALIST CHROMOPHORES TO MONITOR PROTEIN DYNAMICS	47.049	CHE-1150351				\$86,860
FRG: COLLABORATIVE RESEARCH: OBSTRUCTIONS TO LOCAL-GLOBAL PRINCIPLES AND APPLICATIONS TO ALGEBRAIC STRUCTURES	47.049	DMS-1463733				\$87,993
FIELD-THEORETIC SIMULATIONS WITH EXCLUDED VOLUME CORRELATIONS	47.049	DMR-1410246				\$91,692
RESEARCH EXPERIENCE FOR UNDERGRADUATES (REU) SITE	47.049	DMR-1359351				\$92,162
ENHANCED MODULI, HODGE THEORY, AND QUANTIZATION	47.049	DMS-1302242				\$92,487
MATERIAL WORLD NETWORK: UNDERSTANDING AND EXPLOITING MIXED-MODE ULTRA-FAST OPTICAL-ELECTRICAL BEHAVIOR IN NANOSCALE PHASE CHANGE MATERIALS	47.049	DMR-1210503				\$95,185
EXPANDING THE CHEMISTRY OF CERIUM AND URANIUM IN THEIR HIGHEST OXIDATION STATES: ELECTRONIC STRUCTURE, REDOX AND ORGANOMETALLICS	47.049	1362854				\$97,244
REACTIVE METAL-LIGAND MULTIPLE BONDS AND THEIR USE IN C-H ACTIVATION, ALKANE DEHYDROGENATION AND COUPLING PROCESSES	47.049	1464659				\$98,537
QUANTUM CHEMISTRY FOR PREDICTING AND QUANTIFYING PHOTOINDUCED NONADIABATIC DYNAMICS.	47.049	CHE-1150851				\$100,621
MEASURING WEAK GRAVITATIONAL LENSING WITH THE DARK ENERGY SURVEY	47.049	AST-1311924				\$100,909
EAGER: ELUCIDATION OF THE ELECTRONIC STRUCTURE AND MODEL COMPLEXES OF THE NATURAL, CERIUM-DEPENDENT XOXF-METHANOL DEHYDROGENASE ENZYME: LAUNCHING THE BIO-INORGANIC CHEMISTRY OF THE RARE EARTH METALS	47.049	CHE-1449246				\$101,115
OXIDATIVE METHODS FOR C-C, C-N, AND C-O BOND FORMATION	47.049	CHE-1213230				\$108,921
COLLABORATIVE RESEARCH: MODELING AND SIMULATION OF GRAPHENE GROWTH	47.049	DMS-1216801				\$109,545
SELF-ASSEMBLY AND MOTILITY FAR FROM EQUILIBRIUM	47.049	DMR-1104637				\$110,177
STRUCTURAL AND CHEMICAL CHANGES DUE TO ELECTRICAL STRESS IN PHASE-CHANGE NANOWIRES: AN IN SITU ELECTRON MICROSCOPY STUDY	47.049	DMR 1505127				\$112,202
CAREER: UNDERSTANDING ELECTROSTATIC INTERACTIONS IN NON-POLAR MEDIA FOR GENERATION OF NANOSTRUCTURED THIN FILMS	47.049	DMR-1055594				\$113,081
VALID INFERENCE WHEN ANALYTICAL MODELS ARE APPROXIMATIONS	47.049	DMS-1512084				\$114,273
TOPOLOGICAL AND GEOMETRICAL PROBLEMS IN SOFT MATTER, DUE 10/1/12	47.049	DMR-1262047				\$114,775
PROGRAMMABLE PATTERN TRANSFORMATION OF RECONFIGURABLE POLYMER MEMBRANES	47.049	DMR-1410253				\$116,213
RADON TRANSFORMS: GEOMETRIC COMBINATORICS, REGULARITY, AND APPLICATIONS	47.049	DMS-1361697				\$118,335
CAREER: MECHANICS OF ULTRA-STRENGTH NANOMATERIALS: REVEALING DEFORMATION MECHANISMS	47.049	DMR-1056293				\$119,150
DMREF-PROGRAMMABLE PEPTIDE-BASED HYBRID MATERIALS	47.049	DMR-1234161				\$119,796
PRECISE COPOLYMERS AND IONOMERS: CONDUCTIVITY IN LAYERED AND PERCOLATED MORPHOLOGIES AND MECHANICAL PROPERTIES	47.049	1506726				\$129,249
COMPUTATIONALLY DESIGNED SYNERGISTIC PROTEIN-NANOPARTICLE ASSEMBLIES	47.049	CHE-1508318				\$130,205
RESPONSIVE VESICLES FROM RECOMBINANT OLEOSIN	47.049	DMR-1309556				\$130,279
ALGEBRAIC GEOMETRY IN STRING THEORY	47.049	DMS-1304962				\$136,268
MATERIAL WORLD NETWORK: DYNAMICS IN POLYMER NANOCOMPOSITES CONTAINING HARD, SOFT AND MOBILE NANOPARTICLES	47.049	DMR-1210379				\$137,447
NOVEL COUPLING REACTIONS	47.049	1464744				\$137,562
CURVATURE, GROUP ACTIONS AND GEOMETRIC FLOWS	47.049	DMS-1506148				\$147,617
ADVANCES FOR BAYESIAN MODEL SELECTION AND INFERENCE	47.049	DMS-1406563				\$149,362
THEORY AND METHODS FOR ESTIMATION OF NONSMOOTH FUNCTIONALS AND DETECTION OF SIMULTANEOUS SIGNALS	47.049	DMS-1403708				\$154,635
POLARIZATION MEDIATED ATOMIC INTERACTIONS: WATER AND PT ON BATIO3 (100)	47.049	DMR-1206563				\$155,984
HIGH RESOLUTION OBSERVATIONS OF THE SYNYAEV-ZEL-DOVICH EFFECT IN CLUSTERS OF GALAXIES AT 90 GHZ USING THE GBT	47.049	AST-1309032				\$162,774
SUB-PICOSECOND STRESS-INDUCED CONDUCTIVITY TRANSITIONS, MECHANICAL TRANSITIONS AND FERROELECTRIC TRANSITIONS	47.049	DMR-1409114				\$260,115
SPECTROSCOPY AND DYNAMICS OF REACTION INTERMEDIATES	47.049	CHE-1362835				\$267,344
NSEC ON MOLECULAR FUNCTION AT THE NANO/BIO INTERFACE	47.049	DMR-0832802				\$323,526
BIOINSPIRED SYNTHESIS OF COMPLEX MOLECULAR SYSTEMS	47.049	DMR-1066116				\$334,702
FRG: COLLABORATIVE RESEARCH: LIFTING PROBLEMS AND GALOIS THEORY	47.049	DMS-1265290			\$46,249	\$455,850
CENTER OF EXCELLENCE FOR MATERIALS RESEARCH AND INNOVATION (CEMRI)	47.049	DMR-1120901			\$66,000	\$3,643,968
"COLLABORATIVE RESEARCH: THE EFFECTS OF HYDRODYNAMIC ND GRANULAR CONTROLS ON BED LOAD FLUX INTERMITTENCY- APPLICATION TO STEEP MOUNTAIN STREAMS	47.050	EAR-1224943				-\$109

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COLLABORATIVE RESEARCH: CENTRAL ANATOLIAN TECTONICS (CD-CAT): SURFACE TO MANTLE DYNAMICS DURING COLLISION TO ESCAPE	47.050	EAR-1109703				\$4,196
EASM-3: INTEGRATION OF DECISION-MAKING WITH PREDICTIVE CAPACITY FOR DECADAL CLIMATE IMPACTS	47.050	AGS-1419504				\$12,928
GOLDBSY NSF-ANS, COLLABORATIVE PROPOSAL: CARBONATION OF SERPENTINITE IN THE SAN ANDREAS FAULT: HOW FLUID-ROCK INTERACTIONS IMPACT ASEISMIC CREEP	47.050	EAR-1502472				\$24,160
COLLABORATIVE RESEARCH: CONVERGING ON A PHYSICAL BASIS FOR RATE AND STATE FRICTION THROUGH NANO-TO-MACRO-SCALE FRICTION AND ADHESION EXPERIMENTS ON GEOLOGICAL MATERIALS	47.050	EAR-1141142				\$30,743
EARLY HISTORY OF HORNED AND DUCK-BILLED DINOSAURS: DISCOVERIES IN GANSU, CHINA	47.050	EAR-1024671				\$53,998
WSC-CATEGORY 2 COLLABORATIVE: ROBUST DECISION-MAKING FOR SOUTH FLORIDA WATER RESOURCES BY ECOSYSTEM SERVICE VALUATION, HYDRO-ECONOMIC OPTIMIZATION AND CONFLICT RESOLUTION MODELING	47.050	EAR-1204780				\$61,516
COLLABORATIVE RESEARCH: THE LEGACY OF TRANSIENCE: UNDERSTANDING DYNAMIC LANDSCAPE ADJUSTMENT FOLLOWING MOUNTAIN UPLIFT IN TWO CZO FIELD AREAS	47.050	EAR-1349261				\$65,911
COLLABORATIVE RESEARCH: CONVERGING ON A PHYSICAL BASIS FOR RATE AND STATE FRICTION THROUGH NANO-TO-MACRO-SCALE FRICTION AND ADHESION EXPERIMENTS ON GEOLOGICAL MATERIALS	47.050	EAR-1464714				\$96,596
SHF: MEDIUM: COLLABORATIVE RESEARCH: ULTRA-RESPONSIVE ARCHITECTURES FOR MOBILE PLATFORMS	47.070	CCF-1161681				-\$19,123
CPS: SYNERGY: COLLABORATIVE RESEARCH: ARCHITECTURAL AND ALGORITHMIC SOLUTIONS FOR LARGE SCALE PEV INTEGRATION INTO POWER GRIDS(CNS-1298984)	47.070	CNS-1312390				-\$17,067
NETS:SMALL: COLLABORATIVE RESEARCH: INTER-PROVIDER DYNAMICS IN NEUTRAL AND NON-NEUTRAL NETWORKS	47.070	CNS-1115547				-\$71
AF: SMALL: SMALL SPACE ALGORITHMS AND REPRESENTATIONS FOR GRAPH OPTIMIZATION PROBLEMS	47.070	CCF1552909				\$170
DOCTORAL MENTORING CONSORTIUM AT THE 25TH INTERNATIONAL JOINT CONFERENCE ON ARTIFICIAL INTELLIGENCE (IJCAI 2016)	47.070	IIS-1631562				\$339
TWC: MEDIUM: DISTRIBUTED DIFFERENTIAL PRIVACY	47.070	CNS-1513694				\$2,068
CICI: DATA PROVENANCE: PROVENANCE-BASED TRUST MANAGEMENT FOR COLLABORATIVE CITIZEN SCIENCE DATA CURATION	47.070	1547360				\$2,457
NETS: MEDIUM: COLLABORATIVE RESEARCH: DEFIND: DECLARATIVE FORMAL INTERACTIVE NETWORK DESIGN	47.070	1513679				\$4,085
NETS: SMALL: ROUTING DESIGN AND ANALYSIS WITH INCOMPLETE INFORMATION	47.070	CNS-1218066				\$13,126
STUDENT MENTORING WORKSHOP AT ICFP 2015	47.070	CCF-1541646				\$20,250
EAGER: SIMPLIFICATION AS MACHINE TRANSLATION	47.070	IIS-1430651				\$22,403
TWC: MEDIUM: CRYPTOGRAPHIC APPLICATIONS OF CAPACITY THEORY	47.070	1513671				\$23,698
III: SMALL: FOUNDATION AND IMPLEMENTATION OF PROVISIONING VIEWS	47.070	IIS-1217798				\$27,281
CAREER: TOWARDS A UNIFIED DECLARATIVE PLATFORM FOR COMPOSABLE VERIFIABLE NETWORKS	47.070					\$28,370
RET SITE: GRASP - TEACHER PARTNERSHIP IN ROBOTICS EDUCATION	47.070	CNS-1542301				\$30,236
CPS: FRONTIER: COLLABORATIVE RESEARCH: COMPOSITIONAL, APPROXIMATE, AND QUANTITATIVE REASONING FOR MEDICAL CYBER-PHYSICAL SYSTEMS	47.070	CNS 1446664				\$31,979
AF: SMALL: OPTIMIZATION ALGORITHM FOR MULTI-ARMED BANDIT PROBLEMS	47.070	CCF-1117216				\$39,752
SHF: SMALL: LUCID: LOW-OVERHEAD, UNOBTUSIVE CACHE CONTENTION DETECTION AND REPAIR	47.070	CCF 1525296				\$40,862
CIF: SMALL: RICH TYPE INFERENCE FOR FUNCTIONAL PROGRAMMING	47.070	CCF-1319880				\$41,058
NSF WORKSHOP ON FUTURE DIRECTIONS IN CYBER PHYSICAL SYSTEMS, ROBOTICS AND AUTONOMY	47.070	1552022				\$41,308
NETS: SMALL: COLLABORATIVE RESEARCH: PLAYING THE DEVIL'S ADVOCATE: THE PROFIT PERSPECTIVE IN SECONDARY SPECTRUM MARKETS (W MICHIGAN)	47.070	CNS-1217730				\$45,213
FROM STATISTICAL TO WORST-CASE LEARNING: A UNIFIED FRAMEWORK	47.070	CCF-1116928				\$46,711
NRI: SMALL: COLLABORATIVE RESEARCH: ACTIVE SENSING FOR ROBOTIC CAMERAMEN	47.070	IIS-1317947				\$48,633
CSR: SMALL: RESOURCE MANAGEMENT FOR REAL-TIME CLOUD COMPUTING	47.070	CNS-1117185				\$49,914
CCF-SHF: BEYOND ALGEBRAIC DATA TYPES: COMBINATORIAL SPECIES AND MATHEMATICALLY-STRUCTURED PROGRAMMING	47.070	CCF-1218002				\$58,101
SHF: SMALL: ALGEBRAIC FOUNDATIONS FOR COLLABORATIVE DATA SHARING 	47.070	CCF-1017212				\$58,790
TC:MEDIUM: COLLABORATIVE RESEARCH: TRACKING ADVERSARIAL BEHAVIOR IN DISTRIBUTED SYSTEMS WITH SECURE NETWORKED PROVENANCE	47.070	CNS-1065130				\$58,839
CAREER: GEOMETRIC SHAPE DEFORMATION WITH APPLICATIONS IN MEDICINE	47.070	IIS-1350330				\$60,887
CAREER: CAPTURING CONTENT AND LINGUISTIC QUALITY IN AUTOMATIC EXTRACTIVE AND ABSTRACTIVE SUMMARIZATION	47.070	IIS-0953445				\$61,848

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CAREER: THE ALGORITHMIC FOUNDATIONS OF DATA PRIVACY	47.070	CNS-1253345				\$68,062
BIGDATA: F: GRAPH SKETCHING AND OPTIMIZATION PROBLEMS	47.070	1546151				\$68,884
SHB: EXP: COLLABORATIVE RESEARCH: HETERGENEOUS LARGE-SCALE TELEMEDICINE FOR CARDIOLOGY PATIENTS	47.070	IIS-1231547				\$70,575
AF: SMALL: CUT, FLOW, AND MATCHING PROBLEMS IN GRAPHS	47.070	CCF-1116961				\$74,200
RI: SMALL: COLLABORATIVE RESEARCH: RESEARCH LEADING TO COMPREHENSIVE GUIDELINES FOR ANNOTATING DISCOURSE RELATIONS	47.070	IIS-1422186				\$81,609
TWC: MEDIUM: COLLABORATIVE RESEARCH: BLACK-BOX EVALUATION OF CRYPTOGRAPHIC ENTROPY AT SCALE	47.070	CNS-1408734				\$85,915
CAREER: EVIDENCE IN FEDERATED DISTRIBUTED SYSTEMS	47.070	CNS-1054229				\$87,026
CAREER: FOUNDATIONS FOR MODELING AND VERIFICATION OF MEDICAL CYBER-PHYSICAL SYSTEMS	47.070	CNS-1253842				\$91,370
SHF: SMALL: NONSTANDARD COMPUTATIONAL MODELS OF LINEAR LOGIC	47.070	CCF-1421193				\$93,284
TC: SMALL: COLLABORATIVE RESEARCH: TOWARDS A FORMAL FRAMEWORK FOR ANALYZING AND IMPLEMENTING SECURE ROUTING PROTOCOLS	47.070	CNS-1117052				\$94,485
CI-NEW: COLLABORATIVE RESEARCH: A MODULAR PLATFORM FOR ENABLING COMPUTING RESEARCH IN SOCIALLY INTELLIGENT HUMAN-ROBOT INTERACTION	47.070	CNS 1513108				\$99,663
SHF: SMALL: GENERIC PROGRAMMING WITH DEPENDENT TYPES	47.070	CCF-1116620				\$103,183
SYNERGY: COLLABORATIVE RESEARCH: SECURITY AND PRIVACY-AWARE CYBER-PHYSICAL SYSTEMS	47.070	1505799				\$103,853
CPS: SYNERGY: COLLABORATIVE RESEARCH: TRUSTWORTHY COMPOSITION OF DYNAMIC APP-CENTRIC ARCHITECTURES FOR MEDICAL APPLICATION	47.070	CNS-1239324				\$103,996
SHF: SMALL: RANDOM TESTING FOR LANGUAGE DESIGN	47.070	CCF-1421243				\$104,481
BIGDATA: F: DKA: SPECTRAL ANALYSIS AND CONTROL OF EVOLVING LARGE-SCALE NETWORKS	47.070	IIS-1447470				\$106,447
NRI: COLLABORATIVE: "SHALL I TOUCH THIS?": NAVIGATING THE LOOK AND FEEL OF COMPLEX SURFACES	47.070	IIS-1426787				\$110,128
COLLABORATIVE RESEARCH: LEARNING ABOUT INFECTIOUS DISEASE THROUGH ONLINE PARTICIPATION IN A VIRTUAL EPIDEMIC	47.070	IIS-1506724			\$67,029	\$123,788
CCF: MEDIUM: VALIDATING PROGRAM TRANSFORMATIONS IN A MECHANIZED LLVM	47.070	CCF-1065166				\$124,264
TC: SMALL: WATCHDOG: HARDWARE-ASSISTED PREVENTION OF ALL USE-AFTER-FREE SECURITY VULNERABILITIES	47.070	CNS-1116682			\$109,402	\$124,403
SATC MEDIUM: HARDWARE-ASSISTED LIGHTWEIGHT CAPABILITY OPTIMIZATION (HALCYON)	47.070	CNS-1513687				\$127,876
COLLABORATIVE RESEARCH: EXPEDITIONS IN COMPUTING: THE SCIENCE OF DEEP SPECIFICATION	47.070	CCF-1521539				\$134,370
CPS: SYNERGY: COLLABORATIVE RESEARCH: HIGH-LEVEL PERCEPTION AND CONTROL FOR AUTONOMOUS RECONFIGURABLE MODULAR ROBOTS	47.070	CNS-1329620				\$135,287
TOWARDS A FORMAL THEORY OF WIRELESS NETWORKING	47.070	CCF-0952867				\$138,897
NRI-LARGE: COLLABORATIVE RESEARCH: HUMAN-ROBOT COORDINATED MANIPULATION AND TRANSPORTATION OF LARGE OBJECTS	47.070	IIS-1328805				\$148,529
CPS: SYNERGY: COLLABORATIVE RESEARCH: MULTIPLE-LEVEL PREDICTIVE CONTROL OF MOBILE CYBER PHYSICAL SYSTEMS WITH CORRELATED CONTEXT	47.070	CNS-1239152				\$152,457
XPS: CLCCA: IMPROVING PARALLEL PROGRAM RELIABILITY THROUGH NOVEL APPROACHES TO PRECISE DATA RACE DETECTION	47.070	CCF-1337174				\$158,285
NETS: SMALL: COLLABORATIVE RESEARCH: COMPETITION, NEUTRALITY AND SERVICE QUALITY IN CELLULAR WIRELESS ACCESS	47.070	1525457				\$163,700
CIF-SMALL: CIRCLES OF TRUST: AN AXIOMATIC CONSTRUCTION OF CLUSTERING IN ASYMMETRIC NETWORKS	47.070	CCRF-1217963				\$184,545
CPS: FRONTIER: COLLABORATIVE RESEARCH: BIOCPs FOR ENGINEERING LIVING CELLS	47.070	CNS-1446592				\$186,807
III: MEDIUM: COLLABORATIVE RESEARCH: CITING STRUCTURED AND EVOLVING DATA	47.070	IIS-1302212				\$205,881
TC: MEDIUM: PUTTING DIFFERENTIAL PRIVACY TO WORK	47.070	CNS-1065060				\$209,702
TWC: MEDIUM: MICRO-POLICIES: A FRAMEWORK FOR TAG-BASED SECURITY MONITORS	47.070	CNS-1513854				\$222,768
CPS: SYNERGY: COLLABORATIVE RESEARCH: SAFETY-FEATURE MODELING AND ADAPTIVE RESOURCE MANAGEMENET FOR MIXED-CRITICALLY CYBER-PHYSICAL SYSTEMS	47.070	CNS-1329984				\$237,753
TWC: MEDIUM: COLLABORATIVE RESEARCH: ACTIVE SECURITY	47.070	CNS-1406225				\$241,586
NETS: MEDIUM: COLLABORATIVE RESEARCH: OPTIMAL COMMUNICATION FOR FASTER SENSOR NETWORK COORDINATION	47.070	CNS-1302222				\$245,100
ECONOMIC FOUNDATIONS OF DIGITAL PRIVACY	47.070	CCF-1101389				\$249,704
NRI: COLLABORATIVE: ROBOTICS 2.0 FOR DISASTER RESPONSE AND RELIEF OPERATIONS	47.070	IIS-1426840				\$314,259
INSPIRE: LEGGED LOCOMOTION FOR DESERT RESEARCH	47.070	IIS-1514882			\$125,681	\$428,130
COLLABORATIVE RESEARCH: PRINTABLE ROBOTS: AN EXPEDITION IN COMPUTING FOR COMPILING FUNCTIONAL PHYSICAL MACHINES	47.070	CCF-1138847				\$923,486

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CPS:LARGE: ASSURING THE SAFETY, SECURITY AND RELIABILITY OF MEDICAL DEVICE CYBER PHYSICAL SYSTEMS	47.070	CNS-1035715			\$334,597	\$1,000,900
COLLABORATIVE RESEARCH: EXPEDITIONS IN COMPUTER AUGMENTED PROGRAM ENGINEERING (EXCAPE): HARNESSING SYNTHESIS FOR SOFTWARE DESIGN	47.070	CCF-1138996				\$1,064,207
EVOLUTION OF VEGETATIVE PHASE CHANGE IN THE ACACIEAE	47.074	IOS-1256979				-\$873
THE HOST SIGNAL LANDSCAPE RECOGNIZED BY AGROBACTERIUM TUMEFACIENS	47.074	IOS-1121019			\$161	\$7,165
COLLABORATIVE RESEARCH: THERMAL CONTROLS ON ECOSYSTEM METABOLISM AND FUNCTION: SCALING FROM LEAVES TO CANOPIES TO REGIONS	47.074	EF-1241873				\$8,259
US-FRANCE RESEARCH PROPOSAL: PREDICTING ODORANT-DEPENDENT AND INDEPENDENT OLFACTORY NEURON ACTIVATION BASED ON RECEPTOR DYNAMICS	47.074	IOS-1515930				\$20,246
THE ROLE OF THE 'ANTIFLORIGEN' TFL1 IN ARABIDIOPSIS DEVELOPMENT	47.074	1557529				\$20,707
CAREER: EFFECTS OF EMOTION ON HIPPOCAMPAL REPRESENTATIONS AND MEMORY RETRIEVAL	47.074	IOS-1256941				\$25,548
NEURAL BASES OF SONG PREFERENCE AND REPRODUCTIVE BEHAVIOR IN A FEMALE SONGBIRD	47.074	1557499				\$28,286
US-FRENCH COLLABORATION: SPATIAL AND TEMPORAL ASPECTS OF MOLECULAR SIGNALING IN SYNAPTIC PLASTICITY	47.074	1515458				\$28,322
REGULATION OF FLOWER INITIATION AND DEVELOPMENT	47.074	IOS-1257111				\$52,727
LTREB:EXPERIMENTAL TESTS OF ALTERNATIVE STATES ON ROCKY INTERTIDAL SHORES	47.074	DEB-1020480			\$29,333	\$54,718
ESTABLISHMENT OF AN EPIGENOMICS OF PLANTS INTERNATIONAL CONSORTIUM (EPIC)	47.074	IOS-0925071				\$56,554
CAREER: UNRAVELING HOMEOSTATIC MECHANISMS IN GENE EXPRESSION REGULATION: INTEGRATING RESEARCH AND SCIENTIFIC COMMUNICATION	47.074	MCB-1350601				\$87,510
NEW TOOLS FOR GENETIC ANALYSIS IN ARABIDOPSIS THALIANA	47.074	MCB-1243754				\$89,991
EXAMINING THE ROLE OF THE ENDOMEMBRANE IN TRANSCRIPTION FACTOR MOVEMENT	47.074	MCB-1243945				\$96,941
BILATERAL BBSRC-NSF/BIO COLLABORATIVE RESEARCH: ABI DEVELOPMENT: ACRITICAL ASSESSMENT OF PROTEIN FUNCTION ANNOTATION	47.074	DBI-1458390			\$48,000	\$109,570
MICROETCHING OF THE HUMAN BRAIN	47.074	IOS-1443767				\$115,635
COLLABORATIVE RESEARCH: ECOLOGICAL CONSEQUENCES OF THE EFFECTS OF A ZOONOTIC PATHOGEN ON ITS RESERVOIR HOST	47.074	DEB-1354184				\$122,934
PAYING THE PIPER: HOW TWO FISH SPECIES ADJUST CALCIUM CYCLING FOR DIFFERENT MATING CALLS	47.074	IOS-1145981				\$141,149
GLOBAL ANALYSIS OF RNA-PROTEIN INTERACTIONS IN PLANTS	47.074	MCB-1243947				\$143,270
CONFINED PROTEIN HYDRATION & DYNAMICS	47.074	MCB-1158038				\$145,509
C. ELEGANS LIPOCALIN FUNCTION IN GROWTH FACTOR SIGNALING	47.074	IOS-1257879				\$146,895
CAREER: GLOBAL ANALYSIS OF RNA-DEPENDENT RNA POLYMERASE FUNCTION	47.074	MCB-1053846				\$152,126
CAREER: DEVELOPING NOVEL SOCIAL SYSTEMS-LEVEL APPROACHES WITH A NEW ANT MODEL TO STUDY THE GENETIC, BEHAVIORAL, AND EVOLUTIONARY BASIS OF SOCIAL TRAITS	47.074	IOS-1452520				\$172,653
POLYCOMB RESPONSE ELEMENTS (PRES) AND POLYCOMB RECRUITMENT IN PLANTS	47.074	MCB1243757				\$200,183
QUANTITATIVE MASS SPECTROMETRY ANALYSIS OF HISTONE CODES IN SACCHAROMYCES CEREVISIAE	47.074	MCB-1262672				\$205,430
PROTEIN FOLDING: MECHANISM AND PRINCIPLES	47.074	MCB-1409137				\$228,207
SIGNALING MECHANISMS THAT REGULATE ATTRACTIVE AXON GUIDANCE AT THE CNS MIDLINE	47.074	IOS-1355181				\$245,546
EVOLUTION OF MUCOSAL B CELL IMMUNITY: NOVEL ROLES OF IGT+ B CELLS IN THE CONTROL OF HOST-PATHOGEN INTERACTIONS	47.074	IOS-1457282			\$4,396	\$264,000
A NOVEL ANCHORING MECHANISM FOR PROKARYOTIC SURFACE PROTEINS	47.074	MCB-1413158				\$301,885
STRUCTURAL, FUNCTIONAL, AND EVOLUTIONARY ANALYSIS OF LONG NON-CODING RNAS IN CONTROL OF STRESS RESPONSE AND THE EPIGENOME IN DIVERSE PLANT SPECIES	47.074	IOS-1444490			\$140,065	\$334,184
NEW EXCAVATIONS AT LA FERASSIE (FRANCE)	47.075	BCS-1219301				-\$10,682
LANGUAGE PRESERVATION 2.0: CROWDSOURCING ORAL LANGUAGE DOCUMENTATION USING MOBILE DEVICES	47.075	BCS-1160639				-\$2,368
THE ICC AND AFRICA: UNCOVERING AFFECT IN THE PURSUIT OF JUSTICE	47.075	BCS-1347863				-\$518
INTEGRATION OF URBAN AND RURAL POPULATION	47.075	BCS-1430404				-\$371
ESTIMATING A COORDINATION GAME IN THE CLASSROOM: EVALUATING THE ROLE OF STUDENT AND TEACHER PERFORMANCE INCENTIVES	47.075	SES-1227364				\$448
DOCTORAL DISSERTATION RESEARCH IN DRMS: ATTITUDES TO GENETICALLY MODIFIED FOODS	47.075	SES-1559371				\$953
FORECASTING AND POLITICAL DISCOURSE	47.075	SES-1559370				\$1,020
CAREER: LIFE HISTORY TRANSITIONS AMONG THE TOBA ON NORTHERN ARGENTINA	47.075	BCS-0952264				\$1,114
THE NEURAL MECHANISMS UNDERLYING VISUAL TARGET AND TASK SWITCHING	47.075	BCS-1265480				\$2,140
EARLY EPIPALEOLITHIC IN THE WESTERN HIGHLANDS OF JORDAN	47.075	BCS-0917660				\$2,250

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DOCTORAL DISSERTATION RESEARCH: PUBLIC SCHOOL SELECTION PROCESSES, EDUCATIONAL INEQUALITY AND THE MEANING OF REJECTION.	47.075	SES-1303603				\$2,373
REVISITING THE VARIABLE DELETION OF LABIOVELAR GLIDE (W) IN SEOUL KOREAN	47.075	1529051				\$2,615
DOCTORAL DISSERTATION RESEARCH: WHEN CRUELTY MEETS COMPASSION: AN ETHNOGRAPHIC ANALYSIS OF THE CONSTITUTIONAL RIGHT TO HEALTHCARE IN A PENNSYLVANIA PRISON	47.075	BCS-1356549				\$3,284
DOCTORAL DISSERTATION IMPROVEMENT GRANT: CERAMIC ENTANGLEMENTS AT THE URARTIAN PERIPHERY	47.075	BCS-1420111				\$4,971
QUANTITATIVE THEORIES OF LEARNING, MEMORY, AND PREDICTION	47.075	BCS-1441502				\$6,886
USING NEURAL ACTIVITY TO PREDICT POLITICAL BEHAVIOR IN RESPONSE TO PERSUASIVE MESSAGES	47.075	SMA-1360732				\$7,368
THE EFFECTS OF RAW MATERIAL VARIABILITY AND HEAT TREATMENT ON FLAKE PRODUCTION AND USE: A CONTROLLED EXPERIMENT	47.075	BCS-1153192				\$9,652
DOCTORAL DISSERTATION RESEARCH: DESIGNING COLLABORATION NETWORKS TO OPTIMIZE COLLECTIVE PROBLEM SOLVING	47.075	1519026				\$10,552
DOCTORAL DISSERTATION RESEARCH: LEAVING HOME: GENETIC, ENDOCRINE, AND BEHAVIORAL CORRELATES OF DISPERSAL IN MONOGAMOUS OWL MONKEYS (AOTUS AZARAE) OF ARGENTINA	47.075	BCS-1540255				\$10,795
DOCTORAL DISSERTATION RESEARCH: GUT MICROBIOMES OF CAMEROON HUNTER-GATHERERS: ROLES OF DIET AND HELMINTHS	47.075	BCS-1540432				\$12,491
DOCTORAL DISSERTATION RESEARCH: GENDER "DONE" AND "UNDONE"? HOW MEN AND WOMEN EXPERIENCE UNEMPLOYMENT DIFFERENTLY AND WHY THIS MATTERS	47.075	1538951				\$12,576
DOCTORAL DISSERTATION RESEARCH: CONSTITUTIONS & THE POLITICAL ECONOMY OF HEALTH IN THE GLOBAL SOUTH	47.075	1534880				\$19,841
TESTING AND IMPROVING METHODS FOR EFFICIENT ANNOTATION THROUGH THE CONSTRUCTION OF A LARGE PARSED CORPUS	47.075	BCS-1147499				\$21,787
COLLABORATIVE RESEARCH: THE NEXT GENERATION OF THE PENN WORLD TRADE	47.075	SES-1061908				\$23,993
RESEARCH ON THE ECONOMICS OF DISCRIMINATION AND AFFIRMATIVE ACTION: NEW EMPIRICAL METHODS, THEORY AND APPLICATIONS	47.075	SES-1122902				\$28,847
ADAPTATION TO DIET IN AFRICA AND ITS IMPACT ON THE GUT MICROBIOME AND GENOMIC VARIATION	47.075	BCS-1317217				\$33,976
INCREASING ACCESS TO FEDERAL COURT DATA WORKSHOP--FALL 2015	47.075	SES-1551564				\$34,365
THE INFLUENCE OF HIGHER EDUCATION ON LOCAL PHONOLOGY	47.075	BCS-1251437			\$14,027	\$39,383
PROSODIC SYSTEMS IN NEW GUINEA: INTEGRATING COMPUTATIONAL AND TYPOLOGICAL APPROACHES TO LINGUISTIC ANALYSIS	47.075	BCS-0951651				\$48,378
COLLABORATIVE RESEARCH: MONETARY DSGE MODELS AT THE ZERO LOWER BOUND: POLICY ANALYSIS AND ECONOMETRIC.	47.075	SES-1424843				\$50,056
COLLABORATIVE RESEARCH: DYNAMIC RATIONAL INATTENTION: THEORY AND APPLICATIONS	47.075	1461469				\$52,655
UNCERTAINTY IN MODELS OF AUTHORITY AND MODELS OF MATCHING	47.075	1559369				\$52,880
CAUSAL INFERENCE IN OBSERVATIONAL STUDIES	47.075	SES-1260782				\$54,495
COLLABORATIVE RESEARCH: PUBLIC AND PRIVATE DEBT CRISES: THEORY AND POLICY IMPLICATIONS	47.075	SES-1325122				\$64,410
TOPICS IN MATCHING	47.075	SES-1260753				\$75,224
MACROECONOMICS OF LABOR MARKET SORTING	47.075	SES-1357903				\$76,038
STANDARD RESEARCH GRANT: PROBING PUBLIC UNDERSTANDING AND ACCEPTANCE OF EVOLUTION	47.075	SES-1455425				\$79,093
CARTEL BIRTH, DEATH, AND DETECTION	47.075	SES-1148129				\$80,872
CAREER; DECISION-INDUCED BIASES IN VISUAL PERCEPTS	47.075	BCS-1350786				\$93,315
AFFORDABLE CARE ACT AND THE LABOR MARKET	47.075	1459353				\$98,081
PRESUPPOSITIONS IN ONLINE LANGUAGE COMPREHENSION	47.075	BCS-1349009				\$116,923
COLLABORATIVE RESEARCH: MAPPING AND CONTROL OF LARGE-SCALE NEURAL DYNAMICS	47.075	BCS-1430087				\$130,801
INHIBITION, SOCIAL RELATIONSHIPS, AND EARLY ADULTHOOD OUTCOMES IN CHINA AND CANADA	47.075	BCS-1225620				\$139,083
COLLABORATIVE RESEARCH: BCC: DEVELOPING A RESEARCH COMMUNITY AND CAPACITY FOR THE STUDY OF CULTURAL HERITAGE IN CONFLICT	47.075	SMA-1439474				\$146,232
NCS-FO: THE ROLE OF NOISE IN MENTAL EXPLORATION FOR LEARNING	47.075	1533623				\$167,980
COLLABORATIVE RESEARCH: THE ROLE OF INSTRUCTOR AND PEER FEEDBACK IN IMPROVING THE COGNITIVE, INTERPERSONAL, AND INTRAPERSONAL COMPETENCIES OF STUDENT WRITERS IN STEM COURSES	47.076	DGE-1544130				\$4,141
COLLABORATIVE RESEARCH: ASSESSING TEACHERS' PEDAGOGICAL DESIGN CAPACITY AND MATHEMATICS CURRICULUM USE	47.076	DRL-0918141				\$6,406

The accompanying notes are an integral part of this schedule

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THE PENN I-CORPS SITE - INTEGRATING COMPANY FORMATION AND EXPERIENTIAL EDUCATION	47.076	IIP-1450467				\$21,913
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				\$25,530
COLLABORATIVE RESEARCH: LEARNING ABOUT NEW DEMANDS IN SCHOOLS: CONSIDERING ALGEBRA POLICY ENVIRONMENTS [LANDSCAPE]	47.076	DRL-1108828				\$50,521
TRANSFORMING STEM COMPETITIONS INTO COLLABORATIVES: DEVELOPING ECRAFTING COLLABS FOR LEARNING WITH ELECTRONIC TEXTILES	47.076	DRL-1238172			\$34,807	\$58,631
CAREER: CHARACTERIZING THE FIRST BILLION YEARS OF GALAXY EVOLUTION WITH 21 CM TOMOGRAPHY	47.076	AST-1455151				\$61,264
NRT-IGE: PENN PATHFINDERS	47.076	1545212				\$98,516
THE EFFECTS OF EDUCATION AND PROFESSIONAL DEVELOPMENT ON BEGINNING STEM TEACHER PERSISTENCE: A LONGITUDINAL STUDY	47.076	DGE-1535175				\$211,945
COLLABORATIVE RESEARCH: GOLFING IN A HURRICANE: INSTABILITY IN EDUCATION SYSTEMS, RANDOMIZED CONTROLLED TRIALS, AND CHILDREN'S ACHIEVEMENT	47.076	DRL-1337237				\$214,400
COLLABORATIVE RESEARCH: ET-ECS: ELECTRONIC TEXTILES FOR EXPLORING COMPUTER SCIENCE WITH HIGH SCHOOL STUDENTS & TEACHERS TO PROMOTE COMPUTATIONAL THINKING AND PARTICIPATION FOR ALL	47.076	DRL-1509245				\$223,340
INSPIRE TRACK 2: DISCOVERY AND DEVELOPMENT OF OPTIMIZED PHOTONIC SYSTEMS FOR HIGH VOLUME, LOW SURFACE AREA SOLAR ENERGY HARVESTING: LEARNING FROM GIANT CLAMS	47.076	IOS-1343159				\$434,286
IGERT: COMPLEX SCENE PERCEPTION	47.076	DGE-0966142				\$494,130
USING RESEARCH-BASED FORMATIVE ASSESSMENT TO IMPROVE MATHEMATICS TEACHING AND LEARNING	47.076	DRL-1316527			\$89,455	\$1,193,455
GRADUATE RESEARCH FELLOWSHIP PROGRAM	47.076	DGE-1321851				\$2,970,626
COLLABORATIVE RESEARCH: ACTIVATION OF HIGH-ELEVATION ALLUVIAL FANS IN THE TRANSANTARCTIC MOUNTAINS - A PROXY FOR PLIO-PLEISTOCENE WARMTH ALONG EAST ANTARCTIC ICE MARGINS	47.078	ANT-1043554				\$57,485
PROPOSAL TO HOST THE FIRST "INTERNATIONAL WORKSHOP ON THE ROLE OF HIGHER EDUCATION: FOSTERING P-20+ COMMUNITY ENGAGEMENT THROUGH KNOWLEDGE PRODUCTION, HUMAN CAPACITY BUILDING, INNOVATION AND SOCIAL COHESION, A U.S.-CHINA-SOUTH AFRICAN COLLABORATION"	47.079	OISE-1219996				\$4,507
INTERNATIONAL: STUDENT EXCHANGE FOR RESEARCH ON NANO/BIOTECHNOLOGY	47.079	OISE-1130994				\$19,283
CDI-TYPE II: COLLABORATIVE RESEARCH: PREPARING THE NEXT GENERATION OF COMPUTATIONAL THINKERS: TRANSFORMING LEARNING AND EDUCATION THROUGH COOPERATION IN DECENTRALIZED NETWORKS	47.080	CDI-1027736				\$6,398
CAREER: FREE SURFACE MOBILITY AND ITS ROLE IN THE FORMATION OF EXCEPTIONALLY STABLE GLASSES	47.081	DMR-1350044				\$111,116
CAREER: HIERARCHICAL SELF-ASSEMBLY OF PHOTONIC DEVICES FROM PATCHY COLLOIDS: DECIPHERING THE REFLECTIN-PHOTONIC ALPHABET	47.081	DMR-1351935				\$132,169
ARRA - URBAN TEACHING FELLOWSHIPS FOR STEM PROFESSIONALS	47.082	DUE-0934618				\$13,631
PIRE: RESEARCH AND EDUCATION IN ACTIVE COATINGS TECHNOLOGIES (REACT) FOR THE HUMAN HABITAT	47.083	OISE-1545884				\$187,428
TOTAL NATIONAL SCIENCE FOUNDATION DIRECT PROGRAMS					\$1,797,071	\$38,519,549
NATIONAL SCIENCE FOUNDATION PASS THROUGH PROGRAMS						
DECIPHERING AND CONTROLLING THE SIGNALLING PROCESSES IN BACTERIAL MULTICELLULAR SYSTEMS AND BACTERIA-HOST INTERACTIONS: EFRI-MIKS	47.041		SYRACUSE UNIV	SP-24889-1-02935-S02		\$5,981
AUTOMATED OBJECT CONTOURING METHODS AND SOFTWARE FOR HEAD AND NECK RADIOTHERAPY PLANNING	47.041		QUANTITATIVE RADIOLOGY SOLUTIONS, LLC	SUB TO 1549509		\$8,473
PEDIATRIC BRAIN INJURY ASSESSMENT	47.041		CHILDREN'S HOSPITAL OF PHILADELPHIA	CCHIPS		\$10,429
PROJECT TOUCH: ENABLING NATURAL TACTILE INTERACTION ACROSS THE INTERNET	47.041		IERION INC.	SUB TO 1519938		\$50,000
SUMMER 2016 QUARKNET AT PENN	47.049		UNIVERSITY OF NOTRE DAME	SUB TO PHY-1219444		\$346
SUMMER 2015 QUARKNET AT PENN	47.049		UNIVERSITY OF NOTRE DAME	NSF GRANT #PHY-1219444		\$13,840
PENN-UPR PARTNERSHIP FOR RESEARCH AND EDUCATION IN MATERIALS	47.049		UNIVERSITY OF PUERTO RICO	DMR-1523463		\$32,717
ACTPOL	47.049		PRINCETON UNIVERSITY	00001883		\$67,076
ADVANCED TECHNIQUES FOR LOADING METALS INTO LIQUID SCINTILLATORS	47.049		UNIVERSITY OF WASHINGTON	745930		\$84,965
HERA: ILLUMINATING OUR EARLY UNIVERSE	47.049		UNIVERSITY OF CALIFORNIA, BERKELEY	00008650		\$85,730
COLLABORATIVE RESEARCH: PRECISION ARRAY FOR PROBING THE EPOCH OF REIONIZATION (PAPER)	47.049		UNIVERSITY OF VIRGINIA	GA10911-139068		\$121,176
ADVANCED ACTPOL	47.049		PRINCETON UNIVERSITY	SUB0000032		\$522,167
INSPIRE TRACK 1: EARTHCASTING FLUVIAL SYSTEMS: PHYSICAL, ECOLOGICAL AND BIOGEOCHEMICAL DYNAMICS	47.050		NORTHWESTERN UNIVERSITY	SP0024578-PROJ0006673		\$84,651

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HAZARDS SEES: RISK ASSESSMENT AND RISK MANAGEMENT: AN INTEGRATED APPROACH FOR RESPONDING TO MULTIPLE HAZARDS FROM TROPICAL CYCLONES IN A CHANGING CLIMATE	47.050		PRINCETON UNIVERSITY	SUB000091		\$88,399
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		\$255,605
AF: SMALL: THEORY AND APPLICATIONS OF UNTRUSTED QUANTUM DEVICES	47.070		UNIVERSITY OF MICHIGAN	3002985767		-\$1,132
COURSE IN NO-BOUNDARY THINKING IN BIOINFORMATICS	47.070		ARKANSAS STATE UNIVERSITY	SA15-704-15-4		\$8,186
CYBER-PHYSICAL SYSTEMS VIRTUAL ORGANIZATION: ACTIVE RESOURCES	47.070		VANDERBILT UNIVERSITY	3834-019899		\$53,016
AF: SMALL: AN INTEGRATED APPROACH TO CHARACTERIZING CONFORMATIONAL CHANGES OF LARGE PROTEINS	47.070		RICE UNIVERSITY	R3E981		\$54,865
MRI-CONSORTIUM DEVELOPMENT: HETEROGENEOUS, AUTONOMIC WIRELESS SENSOR/ACTUATOR NETWORKS FOR SCALABLE CYBER-PHYSICAL SYSTEMS	47.070		PURDUE UNIVERSITY	4101-64763		\$296,746
PENN-ANSP NATIONAL LIVING LABORATORY PARTNERSHIP	47.074		ACADEMY NATURAL SCIENCES	SUB TO 1113648		\$2,319
THE EVOLUTION OF INCENTIVES AND SOCIAL STRUCTURE UNDER IMPERFECT INFORMATION	47.074		PRINCETON UNIVERSITY	00002158		\$29,174
INFORMATION TECHNOLOGY AND DEMOCRATIC REPRESENTATION: EVIDENCE FROM UGANDAS PARLIAMENTARY CALL SYSTEM	47.075		COLUMBIA UNIVERSITY	1(GG009655)		-\$595
MODELLING THE US MARKET FOR HIGHER EDUCATION: THEORY AND ESTIMATION	47.075		CARNEGIE MELLON UNIVERSITY	1122062-327557		\$54,403
SPATIAL INTELLIGENCE AND LEARNING CENTER (SILC)	47.075		TEMPLE UNIVERSITY	330161-18110-7341		\$216,819
ARIEL - AUGMENTED REALITY FOR INTERPRETIVE AND EXPERIENTIAL LEARNING	47.076		FRANKLIN INSTITUTE	FRANKLIN INSTITUTE/DRL-0741659		-\$88
DRK12-BIOGRAPH: GRAPHICAL PROGRAMMING FOR CONSTRUCTING COMPLEX SYSTEMS						
UNDERSTANDING IN BIOLOGY	47.076		MASSACHUSETTS INSTITUTE OF TECHNOLOGY	5710002833		\$6,147
AMP V	47.076		DREXEL UNIVERSITY	235920		\$13,244
REESE: ADAPTIVE SEQUENCING AND PERCEPTUAL LEARNING TECHNOLOGIES IN MATHEMATICS AND SCIENCE	47.076		UNIVERSITY OF CALIFORNIA, LOS ANGELES	0875 G PC027		\$21,349
INTERSECTIONS - GAME ON! PHILADELPHIA	47.076		NATIONAL WRITING PROJECT	92-PA06-B-NSF2014		\$34,963
PIRE: MATERIALS FOR RENEWABLE ENERGY NATURE'S WAY	47.079		CASE WESTERN RESERVE UNIVERSITY	OISE-1243313 / RES507490		\$70,078
SIZ-SSI: THE LANGUAGE APPLICATION GRID: A FRAMEWORK FOR REPID ADAPTATION AND REUSE	47.080		BRANDEIS UNIVERSITY	4-02069		\$47,067
ARRA - MRI-R2: DEVELOPMENT OF COMMON PLATFORM FOR UNIFYING HUMANOIDS RESEARCH	47.082		DREXEL UNIVERSITY	235660		-\$12,197
TOTAL NATIONAL SCIENCE FOUNDATION PASS THROUGH PROGRAMS						\$2,325,919
TOTAL NATIONAL SCIENCE FOUNDATION					\$1,797,071	\$40,845,468
SMALL BUSINESS ADMINISTRATION						
SMALL BUSINESS ADMINISTRATION DIRECT PROGRAMS						
PENNSYLVANIA SMALL BUSINESS DEVELOPMENT CENTERS	59.037	SBAHQ-14-B-0055				\$2,907
REVITALIZING SMALL BUSINESSES IMPACTED BY JOB LOSSES IN THE COAL INDUSTRY	59.037	SBAHQ-15-B-0078				\$5,510
TRANSITIONING FROM WORK TO BUSINESS OWNERSHIP: ENTREPRENEURSHIP-A PATH TO SUCCESS	59.037	SBAHQ-15-B-0079			\$8,614	\$17,877
PORTABLE ASSISTANCE PROGRAM - PENNSYLVANIA'S MON VALLEY REGION	59.037	SBAHQ-14-B-0076			\$69,252	\$84,588
PORTABLE ASSISTANCE PROGRAM - RESPONSE TO MANUFACTURING LAYOFFS/STARTUP BUSINESS TRAINING FOR TRANSITIONING EMPLOYEES - LAID OFF? TAKE CHARGE AND START A BUSINESS	59.037	SBAHQ-14-B-0075			\$77,205	\$94,921
PENNSYLVANIA SMALL BUSINESS DEVELOPMENT CENTERS	59.037	SBAHQ-16-B-0043				\$584,150
PENNSYLVANIA SMALL BUSINESS DEVELOPMENT CENTERS	59.037	SBAHQ-15-B-0053			\$3,226,865	\$3,800,425
HURRICANE SANDY DISASTER RELIEF 2013 (PHASE TWO)	59.064	SBAHQ-13-E-0011			\$166,923	\$331,292
TOTAL SMALL BUSINESS ADMINISTRATION					\$3,548,859	\$4,921,670
DEPARTMENT OF VETERANS AFFAIRS						
DEPARTMENT OF VETERANS AFFAIRS DIRECT PROGRAMS						
IPA	64.RD	IPA - EDNA B. FOA				-\$14,379
INTEGRATED COGNITIVE BEHAVIOR THERAPY TO IMPROVE OUTCOMES IN SCHIZOPHRENIA	64.RD	IPA URICK SARAH				-\$2,305
INTEGRATED COGNITIVE BEHAVIORAL THERAPY TO IMPROVE OUTCOMES IN SCHIZOPHRENIA	64.RD	IPA AGREEMENT				-\$270
IPA CHRISTINA NASH	64.RD	IPA CHRISTINA NASH				\$360
TISSUE-ENGINEERED CONSTRUCTS FOR TREATMENT OF INTERVERTEBRAL DISC DEGENERATION	64.RD	IPA AGREEMENT				\$807
CENTER FOR HEALTH EQUITY RESEARCH AND PROMOTION (CHERP)	64.RD	IPA HENRY GLICK				\$1,547
HUD-VASH FEASIBILITY STUDY IPA - MAX STERN	64.RD	IPA MAX STERN				\$2,074
IPA - INTIMATE PARTNER VIOLENCE: PATIENT CHARACTERISTICS, SERVICE USE AND EXPERIENCES	64.RD	IPA SCARLETT BELLAMY				\$3,425

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IPA SAKHENA HIN	64.RD	IPA AGREEMENT				\$3,455
VA BLRD MERIT AWARD WITH F. SPINALE USC	64.RD	IPA JASON A BURDICK				\$3,466
IPA MELISSA NICHOLSON	64.RD	IPA AGREEMENT				\$3,537
IPA - COMPARATIVE EFFECTIVENESS OF DELIVERY METHODS FOR CAREGIVER SUPPORT EDUCATION	64.RD	IPA KNASHAWN MORALES				\$3,576
HUD-VASH FEASIBILITY STUDY IPA - APRIL HOWARD	64.RD	IPA APRIL HOWARD				\$4,666
INTEGRATED COGNITIVE BEHAVIORAL THERAPY TO IMPROVE OUTCOMES IN SCHIZOPHRENIA	64.RD	IPA WASHINGTON AKBESHA				\$4,766
IPA	64.RD	IPA - ERIK JORGENSON				\$4,972
IPA - CHERP	64.RD	IPA - JUDY SHEA				\$4,999
INSULIN THERAPY AND THE RISK OF COLORECTAL ADENOMA IN TYPE 2 DIABETES MELLITUS	64.RD	IPA - W. HWANG				\$5,855
INSOMNIA DURING RECOVERY: IS CBT-I EFFICACIOUS AND IS INSOMNIA A MODIFIABLE RISK FACTOR FOR RELAPSE?	64.RD	IPA AGREEMENT				\$6,159
IPA - CIN 14-251: CENTER OF INNOVATION FOR HEALTH EQUITY RESEARCH AND PROMOTION	64.RD	IPA SCARLETT BELLAMY				\$6,850
THE EFFECT OF SINGLE TBI ON PTSD RELATED CIRCUITRY, NEUROPHYSIOLOGY, AND BEHAVIOR	64.RD	IPA AGREEMENT				\$7,051
IPA	64.RD	IPA - RUBEN GUR				\$7,335
IPA FOR ALEXIS ZEBROWSKI	64.RD	IPA ALEXIS ZEBROWSKI				\$8,140
IPA BENJAMIN OFFENBERG	64.RD	IPA AGREEMENT				\$8,702
JPA ASSIGNMENT AGREEMENT FOR DAVID GOLDBERG, MD	64.RD	IPA DAVID S GOLDBERG				\$8,813
VA IPA AGREEMENT FOR ADAM MUSSEL	64.RD	IPA ADAM MUSSELL				\$8,842
IPA - ZUOZHEN TIAN - INHIBITION OF ADAM-8 TO REDUCE INTERVERTEBRAL DEGENERATION	64.RD	IPA - ZUOZHEN TIAN				\$9,030
IPA - DAVID YUSKO	64.RD	IPA - YUSKO				\$9,725
IPA AGREEMENT FOR TIMOTHY PHAN	64.RD	IPA TIMOTHY PHAN				\$9,899
CARTILAGE RESPONSE TO COMPRESSION INJURY: A PLATFORM FOR THERAPEUTICS DISCOVERY	64.RD	IPA AGREEMENT				\$10,254
IPA - JENNIFER GREENE - THE PHENOMENOLOGY OF LUCID DREAMING IN PTSD AND POSTTRAUMATIC NIGHTMARES	64.RD	IPA - JENNIFER GREENE				\$10,502
IPA JAMES FINDLEY -CHAKRAVORTY PROJECT	64.RD	IPA JAMES CURTIS FINDLEY				\$10,720
COMPLICATED FAMILY REINTEGRATION IN OEF/OIF VETERANS	64.RD	IIR 08-308				\$11,001
IPA - LAURIE DOWNING	64.RD	IPA - BIDDLE				\$11,467
IPA ALIYA COLLIER	64.RD	IPA ALIYA COLLIER				\$11,722
VA IPA - HAGOP (JIMMY) KAPRIELIAN	64.RD	IPA HAGOP KAPRIELIAN VA IPA AGREEMENT FOR				\$11,878
IPA	64.RD	KEISUKE OJIRO				\$11,971
DMU IPA - MING LI	64.RD	IPA AGREEMENT				\$12,045
TELEMEDICINE MANAGEMENT OF VETERANS WITH PTSD AND CHRONIC INSOMNIA	64.RD	IPA AGREEMENT				\$12,605
INPATIENT PSYCHIATRIC SAFETY AT THE VA	64.RD	IPA				\$12,705
WAY TO CURE: DEVELOPING EFFECTIVE STRATEGIES TO PROMOTE ADHERENCE TO HEPATITIS C THERAPY AMONG VETERANS	64.RD	IPA DANIEL GRAY				\$12,808
INTEGRATED VS. SEQUENTIAL TREATMENT FOR CO-MORBID PTSD/ADDICTION AMONG OEF/OIF VETERANS	64.RD	IPA - CHRISTOPHER PETRO IPA - CHRISTOPHER				\$13,235
IPA - CHRISTOPHER WIRTALLA	64.RD	WIRTALLA IPA HAIDELIZA SOTO- CALDERON				\$13,579
IPA AGREEMENT FOR HAIDELIZA SOTO-CALDERON	64.RD	IPA JUDY SHEA				\$13,726
IPA JUDY SHEA	64.RD	IPA JULIANNE H POTOCEK				\$15,996
GENETIC RESPONSE IN THE ADAPTATION SUPRASPINATUS TENDON AND MUSCLE TO LOAD	64.RD	IPA - TYRONE THOMAS				\$16,448
CESATE - IPA	64.RD	IPA CHRISTOPHER PETRO				\$16,471
DMU IPA - CHRISTOPHER PETRO	64.RD	IPA - 642-C56119				\$17,235
VA IPA FY15 MEAGAN CUSACK	64.RD	IPA - HENNING				\$17,412
CARTILAGE REPAIR WITH SYNOVIAL JOINT PRECURSORS	64.RD					\$17,709
FEASIBILITY STUDY OF INTERVENTIONS DESIGNED TO ENHANCE HUD-VASH SERVICE - IPA FOR	64.RD	PO #642-C26320				\$17,931
HERD/IVERY/THOMAS/VAN HORN/ZIMMERMAN/LI/PETRO	64.RD	IPA - 642-C46744				\$18,886
VA IPA FY15 ELIZABETH FLATLEY						
INTEGRATED COGNITIVE BEHAVIORAL THERAPY TO IMPROVE OUTCOMES IN SCHIZOPHRENIA	64.RD	IPA PAUL M. GRANT				\$18,936
FLATLEY VA IPA (10/01/15 - 12/31/15)	64.RD	IPA ELIZABETH D FLATLEY				\$18,976
MECHANISMS OF CORTICO-LIMBIC NETWORK DYSFUNCTION UNDERLYING PTSD AFTER TBI	64.RD	IPA MICHAEL R GROVOLA				\$20,094
INTENSIVE TRAINING IN COGNITIVE BEHAVIORAL THERAPY FOR VETERANS EXPERIENCING CHRONIC HOMELESSNESS (CBT-H)	64.RD	IPA ASHLEY L BUSH				\$20,891

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IPA - HEATHER JOHNSON	64.RD	CHERP				\$21,137
VA IPA - JUAN YI	64.RD	IPA YUAN JI				\$21,778
IPA - ZUOZHEN TIAN - CELL THERAPY FOR THE DEGENERATING INTERVERTEBRAL DISC	64.RD	IPA TIAN ZUOZHEN				\$21,862
		IPA AGREEMENT - 642-				
VA IPA FY15 NORA HUNT-JOHNSON	64.RD	C46735				\$22,324
IPA AGREEMENT FOR RAVISHANKAR JAYADEVAPPA	64.RD	IPA AGREEMENT				\$23,209
TIMED-RELEASE OF LOCAL ANESTHETIC FROM SOL GELS FOR POST-OP PAIN CONTROL	64.RD	PROJECT B6205R				\$23,285
		IPA AGREEMENT - JUDITH				
IPA JUDY SHEA	64.RD	SHEA				\$23,379
IPA HENRY GLICK	64.RD	IPA AGREEMENT - DR. GLICK				\$24,232
INTERNSIVE TRAINING IN COGNITIVE BEHAVIORAL THERAPY FOR THE HOMELESS POPULATION	64.RD	IPA KELLY LYNN GREEN				\$24,340
IPA - BARBARA CANNON AND ANNA KALOTA	64.RD	IPA - KALOTA/CANNON				\$26,541
IPA	64.RD	IPA - JENNIFER GREENE				\$27,515
HUNT-JOHNSON VA IPA (10/01/15 - 12/31/15)	64.RD	IPA NORA HUNT-JOHNSON				\$28,199
IPA	64.RD	IPA - EUGENIA MAMIKONYAN				\$30,045
IPA AGREEMENTS FOR MARY VALIGA, MASAHIRO KIKUCHI, JAMES KEITH, XIAOWANG QU, JANG PARK	64.RD	PO #642D36032				\$30,754
COMPARATIVE EFFECTIVENESS RESEARCH IN VETERANS WITH PTSD (CERV-PTSD)	64.RD	VA268-15-C-0074				\$31,676
INTEGRATED VS. SEQUENTIAL TREATMENT FOR CO-MORBID PTSD/ADDICTION AMONG OEF/OIF VETERENS	64.RD	IPA - KEVIN LYNCH				\$32,124
INTENSIVE TRAINING IN COGNITIVE BEHAVIORAL THERAPY FOR THE HOMELESS POPULATION	64.RD	IPA / PO #642-C46260				\$32,229
INTENSIVE TRAINING IN COGNITIVE BEHAVIORAL THERAPY FOR VETERANS EXPERIENCING CHRONIC HOMELESSNESS (CBT-H)	64.RD	IPA AGREEMENT				\$32,729
VA IPA FY16 DOROTA SZYKOWIAK (09/01/15 - 08/31/16)	64.RD	IPA DOROTA SZYKOWIAK				\$33,050
		IPA AGREEMENT - 642-				
VA IPA FY15 DENNIS CULHANE	64.RD	C46735				\$33,887
IPA - KASSONDRA BERTULIS	64.RD	IPA KASSONDRA BERTULIS				\$34,537
IPA - MARN BARRETT	64.RD	IPA MARN BARRETT				\$34,655
IPA AGREEMENT ELIZABETH HARDERS	64.RD	IPA ELIZABETH HARDERS				\$35,744
THE EFFECT OF EXOGENOUS INSULIN THERAPY ON COLORECTAL ADENOMA RISK AMONG PATIENTS WITH DIABETES MELLITUS (IPA-BRUNO)	64.RD	IPA - LORRAINE BRUNO				\$37,708
TELEHEALTH FY 13	64.RD	IPA - JAMES FINDLEY				\$38,118
IPA - SARAH MOOAR	64.RD	IPA - SARAH MOOAR				\$38,171
VA IPA - PRERNA SHARMA	64.RD	IPA PRERNA SHARMA				\$38,779
IPA FOR JUDY SHEA	64.RD	IPA JUDY SHEA				\$43,330
PERIOPERATIVE POST-PROSTATECTOMY INCONTINENCE HOME TELEHEALTH PROGRAM	64.RD	IPA - THOMAS BAVARIA				\$47,900
IPA	64.RD	IPA - TIFFANY HUSEMAN				\$50,212
MENTAL ILLNESS RESEARCH, EDUCATION AND CLINICAL CENTER	64.RD	IPA AGREEMENT				\$53,099
INTEGRATED COGNITIVE BEHAVIORAL THERAPY TO IMPROVE OUTCOMES IN SCHIZOPHRENIA	64.RD	IPA SARA ZGORAC				\$56,775
IPA RICHARD SORELLE	64.RD	IPA RICHARD SORELLE				\$58,551
IPA	64.RD	IPA - ERICA GOLDBERG				\$58,905
IPA ANEEZA AGHA	64.RD	IPA ANEEZA AGHA				\$62,169
IPA	64.RD	IPA - MARY VALIGA				\$62,371
INTEGRATED COGNITIVE BEHAVIORAL THERAPY TO IMPROVE OUTCOMES IN SCHIZOPHRENIA IMPLEMENTING GOALS OF CARE CONVERSATIONS WITH VETERANS IN VA LTC SETTINGS, PHILADELPHIA, PA	64.RD	IPA CATHERINE CONROY				\$63,752
	64.RD	IPA				\$67,525
EFFECT OF SCAFFOLD-DELIVERY GROWTH FACTORS IN ROTATOR CUFF REPAIR	64.RD	IPA AGREEMENT				\$72,181
VA IPA AGREEMENT FOR YONGHAI LI	64.RD	IPA LI YONGHAI				\$72,577
ENGINEERED MULTI-FUNCTIONAL NANOFIBROUS MENISCUS IMPLANTS	64.RD	IPA- BURDICK/SCHAER				\$74,528
THE ROLE OF TNF-ALPHA IN CUTANEOUS INTEGRITY	64.RD	IPA MING-LIN LIU				\$75,850
IPA - YOLANDA WILLIAMS	64.RD	IPA YOLANDA WILLIAMS				\$89,846
IPA	64.RD	IPA - TAMARA BONEY				\$91,479
IPA - LISA DRAGANI	64.RD	PO #642-C36282				\$92,988
IPA AGREEMENT	64.RD	IPA - SHIRLEY LEONG				\$93,968
DEVELOPMENT OF A MULTIDIMENSIONAL PAIN MEASURE FOR PERSONS WITH DEMENTIA (PIM-D)	64.RD	IPA				\$96,066

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THE ROLE OF TNF-ALPHA IN CUTANEOUS INTEGRITY	64.RD	IPA AGREEMENT - SHARMA				\$98,286
CULHANE VA IPA (10/01/15 - 09/30/16)	64.RD	IPA DENNIS P CULHANE				\$102,238
BIOACTIVE INJECTABLE IMPLANTS FOR FUNCTIONAL INTERVERTERBRAL DISC REGENERATION	64.RD	IPA AGREEMENT				\$113,787
IPA - DEBORAH VAN HORN	64.RD	IPA				\$118,215
IPA SHIMRIT KEDDEM	64.RD	IPA AGREEMENT				\$118,464
CHRONIC NEURODEGENERATIVE AND NEUROPHYSIOLOGICAL SEQUELA OF CLOSED-HEAD TBI	64.RD	PO #642D36047				\$121,575
VA MERIT AWARD	64.RD	H LI/V ABRAHAM				\$124,744
IPA	64.RD	IPA - ELENE TURZO				\$128,358
CARTILAGE REPAIR WITH STEM-CELL LADEN HYALURONIC ACID HYROGELS	64.RD	A7875-5				\$129,319
IPA - SUZANNE DIFILLIPPO	64.RD	PO #642C16077				\$132,201
IPA AGREEMENT	64.RD	IPA - RUSSO/MAGUIRE				\$139,201
THE ROLE OF LOCAL NSAID ADMINISTRATION AND INFLAMMATION ON TENDON HEALING	64.RD	00979-R				\$174,590
VA COMPREHENSIVE END-OF-LIFE CARE'S PROMISE CENTER	64.RD	IPA				\$329,760
IPA	64.U09	IPA - KELLY ALLISON				\$29,738
REMOTE VETERAN APNEA MANAGMEENT PORTAL (REVAMP)	64.U12	KUNA IPA REVAMP				\$185,974
		IPA ROBERT SEAN				
VA IPA FOR ROBERT SEAN GALLAGHER	64.U16	GALLAGHER				\$4,154
INPATIENT PSYCHIATRIC SAFETY AT THE VA (3)	64.U20	DEPT OF VETERANS AFFAIRS				\$158,379
IPA - KEHLE-FORBES PI (MINNEAPOLIS VA)	64.U21	IIR 14-030				\$59,201
THE EFFECT OF EXOGENOUS INSULIN THERAPY ON COLORECTAL ADENOMA RISK AMONG PATIENTS WITH DIABETES MELLITUS	64.U22	IPA THERESA ALCORN				\$64,885
DMU IPA - INTEGRATED COGNITIVE BEHAVIOR THERAPY TO IMPROVE WORK OUTCOMES IN SCHIZOPHRENIA	64.U23	IPA CHRISTOPHER PETRO				\$10,269
VA IPA FOR JASON A. BLAKE	64.U27	IPA - JASON BLAKE				\$6,920
IPA - MING LI	64.U32	IPA MING LI				\$1,193
VA IPA FOR ALLISON M PORT	64.U33	IPA AGREEMENT				\$2,947
IPA - JENNIFER GREENE	64.U34	IPA JENNIFER GREENE				\$7,840
TOTAL DEPARTMENT OF VETERANS AFFAIRS DIRECT PROGRAMS						\$5,066,617
DEPARTMENT OF VETERANS AFFAIRS PASS THROUGH PROGRAMS						
NOVEL METABOLITES ASSOCIATED WITH RENAL OUTCOMES	64.RD	IPA	STANFORD UNIVERSITY	SUB TO VETERANS AFFAIRS		-\$2,716
JPA - GREENE	64.RD	IPA	PHILADELPHIA RESEARCH AND EDUCATION FOUNDATION	JPA - JENNIFER GREENE		\$9,133
TOTAL DEPARTMENT OF VETERANS AFFAIRS PASS THROUGH PROGRAMS						\$6,417
TOTAL DEPARTMENT OF VETERANS AFFAIRS						\$5,073,034
ENVIRONMENTAL PROTECTION AGENCY						
ENVIRONMENTAL PROTECTION AGENCY DIRECT PROGRAMS						
ENABLING CITIZENS AND OWNERS TO INVEST IN GREEN INFRASTRUCTURE IN PHILADELPHIA	66.509	83555401			\$69,128	\$245,429
TOTAL ENVIRONMENTAL PROTECTION AGENCY DIRECT PROGRAMS					\$69,128	\$245,429
ENVIRONMENTAL PROTECTION AGENCY PASS THROUGH PROGRAMS						
AN INTEGRATED STRATEGY TO IMPROVE GREEN INFRASTRUCTURE APPROACHES IN PHILADELPHIA	66.509		TEMPLE UNIVERSITY	310214-UPENN		\$10,000
TOTAL ENVIRONMENTAL PROTECTION AGENCY PASS THROUGH PROGRAMS						\$10,000
TOTAL ENVIRONMENTAL PROTECTION AGENCY					\$69,128	\$255,429
DEPARTMENT OF ENERGY						
DEPARTMENT OF ENERGY DIRECT PROGRAMS						
HIGH ENERGY PHYSICS RESEARCH AT THE UNIVERSITY OF PENNSYLVANIA.	81.049	SE-SC0007901 DE-FG02-88ER40479 MOD				-\$5,025
SUDBURY NEUTRINO OBSERVATORY	81.049	043				-\$3,756
A PHYSICOCHEMICAL METHOD FOR SEPARATING RARE EARTHS: ADDRESSING AN IMPENDING SHORTFALL	81.049	DE-SC0006518				\$85,466
SUPERNOVA COSMOLOGY WITH THE DARK ENERGY SURVEY	81.049	DE-SC0009890				\$99,791
STRUCTURE AND ELECTRONIC PROPERTIES OF DIRAC MATERIALS	81.049	DE-FG02-84ER45118				\$131,424
ANHARMONIC AND THERMAL EFFECTS ASSOCIATED WITH JAMMED SOLIDS	81.049	DE-FG02-05ER46199				\$132,144
MODULATING THERMAL TRANSPORT PHENOMENA IN NANOSTRUCTURES VIA ELASTIC STRAIN AT EXTREME LIMITS OF STRENGTH	81.049	DE-SC0008135				\$143,082
SURFACE SCIENCE STUDIES OF NANO-CRYSTALLINE METAL OXIDE AND METAL-METAL OXIDE CORE-SHELL CATALYSTS	81.049	DE-FG02-04ER15605				\$148,433

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FIRST-PRINCIPLES INVESTIGATIONS OF FUNDAMENTAL PHYSICS AND NEW MATERIALS FOR OPTOELECTRONIC APPLICATIONS	81.049	DE-FG02-07ER46431				\$155,735
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				\$156,439
ATOMISTIC AND MESOSCOPIC STUDY OF PLASTIC DEFORMATION OF ALLOYS OF BODY-CENTERED-CUBIC TRANSITION METALS AND MAGNETIC IRON	81.049	DE-FG02-98ER45702				\$158,031
EXPLOITING THE FLEXIBILITY AND THE POLARIZATION OF FERROELECTRIC PEROVSKITE SURFACES TO ACHIEVE EFFICIENT PHOTOCHEMISTRY AND ENANTIOSPECIFICITY	81.049	UNDER DE-FG02-07ER15920				\$158,597
OXIDE-METAL INTERACTIONS STUDIED ON CORE-SHELL CATALYSTS	81.049	DE-SC0009440				\$168,422
ELECTRIC-LOADING ENHANCED KINETICS IN OXIDE CERAMICS: PORE MIGRATION, SINTERING AND GRAIN GROWTH	81.049	DE-SC0007064				\$168,529
MEMBRANE-ATTACHED ELECTRON CARRIERS IN PHOTOSYNTHESIS AND RESPIRATION	81.049	DE-FG02-91ER20052				\$173,027
SPECTROSCOPY AND DYNAMICS OF REACTION INTERMEDIATES IN COMBUSTION CHEMISTRY	81.049	DE-FG02-87ER13792				\$185,780
DEVELOPMENT OF SMART, RESPONSIVE COMMUNICATING AND MOTILE MICROCAPSULES	81.049	DE-SC0007063				\$247,277
UNIVERSITY OF PENNSYLVANIA THEORETICAL PROGRAM	81.049	DE-SC0013528				\$341,220
MULTI-DISCIPLINARY RESEARCH AND TRAINING PROGRAM IN BREAST CANCER MOLECULAR IMAGING AND TARGETED RADIOCHEMISTRY	81.049	DE-SC0012476				\$411,526
SUDBURY NEUTRINO OBSERVATORY	81.049	DE-FG02-88ER40479				\$533,972
SISGR: BI-CONTINUOUS MULTI-COMPONENT NANOCRYSTAL SUPERLATTICES FOR SOLAR ENERGY CONVERSION	81.049	DE-SC0002158				\$756,594
HIGH ENERGY PHYSICS RESEARCH AT THE UNIVERSITY OF PENNSYLVANIA	81.049	DE-SC0007901				\$2,713,103
COST-EFFECTIVE MANUFACTURING AND MORPHOLOGICAL STABILIZATION OF NANOSTRUCTURED CATHODES FOR COMMERCIAL SOFCS	81.089	DE-FE0023317			\$111,845	\$206,357
DEVELOPMENT OF TC-99M IMAGING AGENTS FOR ABETS PLAQUES	81.RD	DE-FG02-03ER63589				-\$3,654
TOTAL DEPARTMENT OF ENERGY DIRECT PROGRAMS					\$111,845	\$7,262,514
DEPARTMENT OF ENERGY PASS THROUGH PROGRAMS						
NOVEL CONCEPT IN PET IMAGING	81.049		RADIATION MONITORING DEVICES, INC.	C12-22		-\$3,484
PHOTOSYNTHETIC ANTENNA RESEARCH CENTER (PARC)	81.049		WASHINGTON UNIVERSITY IN ST. LOUIS	WU-HT-10-10-MOD-6		\$124,958
CENTER FOR THE COMPUTATIONAL DESIGN OF FUNCTIONAL LAYERED MATERIALS	81.049		TEMPLE UNIVERSITY	254998		\$210,359
RATIONAL DESIGN OF INNOVATIVE CATALYTIC TECHNOLOGIES FOR BIOMASS DERIVATIVE UTILIZATION	81.049		UNIVERSITY OF DELAWARE	37849		\$279,804
ENERGY EFFICIENT BUILDINGS HUB (EEB HUB) GPIC/HUB TASK #2 REALTIME KNOWLEDGE REPOSITORY ON PRACTICE & PERFORMANCE GPIC/HUB TASK #3 ECONOMIC POLICY AND BEHAVIOR FACTORS INFLUENCING BUILD ENERGY CONSUMPTION	81.086		PENNSYLVANIA STATE UNIVERSITY	4338-UP-DOE-4261	\$224,588	\$859,830
DESIGN OF SOCIAL AND ECONOMIC INCENTIVES AND INFORMATION CAMPAIGNS TO PROMOTE SOLAR TECHNOLOGY DIFFUSION THROUGH DATA-DRIVEN BEHAVIOR MODELING	81.124		SANDIA NATIONAL LABORATORY	PO #1350502		\$111,611
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 DEMONSTRATION OF A SCALABLE 10 KWE PROTOTYPE	81.135		GEORGIA INSTITUTE OF TECHNOLOGY	RD735-G3		\$35,722
SYNTHETIC CROP FOR DIRECT DROP IN BIOFUEL PRODUCTION THROUGH PHOTORESPIRATION INTERMEDIATES AND ENGINEERING TERPENOID PATHWAYS	81.135		TEXAS A&M AGRILIFE RESEARCH	06-5130675		\$153,192
DESC AT UNIVERSITY OF PENNSYLVANIA	81.RD	DE-AC02-76SF00515	STANFORD LINEAR ACCELERATOR CENTER	116079		-\$14,059
RESEARCH ON THE FRONT END ELECTRONICS AND ELECTRONICS SYSTEM ENGINEERING FOR THE LARGE SYNOPSIS SURVEY TELESCOPE (LSST) CAMERA PROJECT	81.RD	DE-AC02-76SF00515	STANFORD LINEAR ACCELERATOR CENTER	101288		\$1,510
UNDERSTANDING TRANSPORT AND AGING MECHANISMS TO OPTIMIZE SANDIA'S ION-CONDUCTING POLYMER ELECTROLYTES FOR ENERGY APPLICATIONS	81.RD	DE-AC04-94-AL85000	SANDIA NATIONAL LABORATORY	SUB TO DE-AC04-94-AL85000		\$9,848
FAST-TRACT: CONDUCTIVE DIAMOND PROBES FOR SCANNING ELECTROCHEMICAL MICROSCOPY	81.RD	DE-SC-0009624	ADVANCED DIAMOND TECHNOLOGIES, INC.	SBIR DE-SC-0009624		\$13,845
THE COLLIDER DETECTOR RESEARCH & DEVELOPMENT PROGRAM OFFICE FOR NOVEL MODULAR TRACKING STRUCTURES AND NEW CALORIMETER READOUT AND TRIGGER SYSTEM SUBSYSTEMS	81.RD	DE-AC02-98CH10886	BROOKHAVEN NATIONAL LABORATORY	229841		\$15,873
THE LIQUID ARGON CONSTRUCTION	81.RD	DE-AC02-98CH10886	BROOKHAVEN NATIONAL LABORATORY	243102		\$22,316
LSST STATEMENT OF WORK - UNIVERSITY OF PENNSYLVANIA	81.RD	DE-AC02-76SF00515	STANFORD LINEAR ACCELERATOR CENTER	123857		\$52,844
NANOCRYSTAL ADDITIVES FOR ADVANCED LUBRICANTS	81.RD	DE-SC0009222	PIXELLIGENT TECHNOLOGIES	DE-SC0009222-UPENN		\$56,323
PROPOSAL TO DESIGN, BUILD AND TEST REB4 BOARDS FOR LSST	81.RD	DE-AC02-98CH10886	BROOKHAVEN NATIONAL LABORATORY	306000		\$71,535
ENERGY FRONTIER RESEARCH CENTERS	81.RD	DE-AC36-08-GO-28308	ALLIANCE FOR SUSTAINABLE ENERGY, LLC	XEJ-5-42261-01		\$108,026
DESIGN AND FABRICATION OF AN ELECTRONICS FOR THE 35 TONNE PROTOTYPE	81.RD	DE-AC02-98CH10886	BROOKHAVEN NATIONAL LABORATORY	264851		\$252,325
RESEARCH FOR ATLAS EXPERIMENT	81.RD	DE-AC02-98CH10886	BROOKHAVEN NATIONAL LABORATORY	80472		\$606,193
DETERMINATION OF STRATEGIES TO ACHIEVE QUAD ENERGY SAVINGS THROUGH TRIBOLOGY	81.U19	DE-AR00282	VON BRAUN CENTER FOR SCIENCE AND INNOVATION, INC.	2300-004		\$398
TOTAL DEPARTMENT OF ENERGY PASS THROUGH PROGRAMS					\$224,588	\$2,968,969
TOTAL DEPARTMENT OF ENERGY					\$336,433	\$10,231,483

The accompanying notes are an integral part of this schedule

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DEPARTMENT OF EDUCATION						
DEPARTMENT OF EDUCATION DIRECT PROGRAMS						
SEOG - SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT	84.007	P007A143720				\$431,540
SEOG - SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT	84.007	P007A153720				\$3,262,660
NATIONAL RESOURCE CENTER	84.015	P015A100160-01				\$3,116
NATIONAL RESOURCE CENTER	84.015	P015A100202-01				\$3,995
NATIONAL RESOURCE CENTER	84.015	P015A100129-01				\$47,379
TITLE VI NATIONAL RESOURCE CENTER FUNDING 2014-2018	84.015	P015A140143				\$166,433
TITLE VI NATIONAL RESOURCE CENTER FUNDING 2014-2018	84.015	P015A140137				\$184,038
TITLE VI FLAS FELLOWSHIP FUNDING 2014-2018	84.015	P015B140144				\$231,490
TITLE VI FLAS FELLOWSHIP FUNDING 2014-2018	84.015	P015B140143				\$284,938
TITLE VI FLAS FELLOWSHIP FUNDING 2014-2018	84.015	P015B140137				\$332,432
STANDARDS-BASED AFRICAN LANGUAGE COURSES ONLINE (SALCO)	84.017	P017A100057-01				\$6,339
FROM APARTHEID TO RECONCILIATION: PERSPECTIVES ON THE HISTORY AND CULTURAL DIVERSITY OF SOUTH AFRICA	84.021	P021A140031				\$14,066
FULBRIGHT-HAYS DOCTORAL DISSERTATION RESEARCH ABROAD FELLOWSHIP PROGRAM	84.022	P022A140004				\$2,125
CWSP - FEDERAL WORK STUDY	84.033	P033A143720				\$175,399
CWSP - FEDERAL WORK STUDY	84.033	P033A153720				\$3,197,724
FEDERAL PERKINS LOANS (FPL)—ADMINISTRATION COSTS	84.038					\$713,327
FEDERAL PERKINS LOANS (FPL)—LOANS ISSUED DURING FY16	84.038					\$12,196,225
FEDERAL PERKINS LOANS (FPL)—OUTSTANDING BALANCE AS OF JULY 1, 2015	84.038					\$65,322,090
STUDENT SUPPORT SERVICES	84.042	P042A100716				\$38,856
OFFICE OF POSTSECONDARY EDUCATION (OPE): STUDENT SUPPORT SERVICES PROGRAM CFDA NUMBER 84.042	84.042	P042A150394				\$175,429
TALENT SEARCH PROGRAM	84.044	P044A110225 ACTION 1				\$256,164
UPWARD BOUND MATH AND SCIENCE PROGRAM	84.047	P047M130476				\$214,321
VETERANS UPWARD BOUND PROGRAM	84.047	P047V120006				\$351,860
UPWARD BOUND	84.047	P047A131651 ACTION 1				\$457,515
PELL GRANT	84.063	P063P20142158				\$3,777
PELL GRANT	84.063	P063P20152158				\$6,864,628
EDUCATIONAL OPPORTUNITY CENTER	84.066	P066A120055				\$217,666
GAANN MECHANICAL ENGINEERING PROGRAM IN MICRO AND NANO MANUFACTURING (MNM)	84.200	P200A120237				\$63,934
QUANTITATIVE CELLULAR ENGINEERING	84.200	P200A120246				\$92,797
FEDERAL DIRECT STUDENT LOANS	84.268					\$181,892,282
PENN GSE POSTDOCTORAL TRAINING PROGRAM IN THE EDUCATION SCIENCES	84.305	R305B100013				\$22,505
THE SCHOOL DISTRICT OF PHILADELPHIA-PENN GRADUATE SCHOOL OF EDUCATION RESEARCHER-PRACTITIONER PARTNERSHIP IN EDUCATION RESEARCH	84.305	R305H140097			\$100,956	\$198,047
UNIVERSITY OF PENNSYLVANIA PRE-DOCTORAL TRAINING PROGRAM IN INTERDISCIPLINARY METHODS FOR FIELD-BASED RESEARCH IN EDUCATION	84.305	R305B090015				\$256,374
CENTER ON STANDARDS, ALIGNMENT, INSTRUCTION, AND LEARNING (C-SAIL)	84.305	R305C150007			\$1,454,992	\$1,893,481
TEACH GRANT	84.379	P379T152158				\$1,854
TEACH GRANT	84.379	P379T162158				\$42,406
TOTAL DEPARTMENT OF EDUCATION DIRECT PROGRAMS					\$1,555,948	\$279,619,212
DEPARTMENT OF EDUCATION PASS THROUGH PROGRAMS						
DYNAMIC SUPPORTED MOBILITY TRAINING FOR INFANTS AND TODDLERS WITH CEREBRAL PALSY	84.116		CHILDREN'S HOSPITAL OF PHILADELPHIA	961438-RSUB		\$7,536
21ST CENTURY COMMUNITY LEARNING CENTER (21CCLC) COHORT 8	84.287		PENNSYLVANIA DEPARTMENT OF EDUCATION	FC #4100071658		\$26,097
21ST CENTURY LEARNING COMMUNITY CENTERS -- COHORT 7	84.287		PENNSYLVANIA DEPARTMENT OF EDUCATION	4100068078	\$9,500	\$361,849
PARTNER FOR PREVENTION (P4P): A WHOLE SCHOOL APPROACH TO PEER AGGRESSION AND BULLYING	84.305		CHILDREN'S HOSPITAL OF PHILADELPHIA	327251 / PO #960869RSUB		\$10,586
RAISING G.P.A.: PARTNERING TO SUPPORT GRIT, PERSEVERANCE, AND ACHIEVEMENT IN BALTIMORE CITY MIDDLE SCHOOLS	84.305		STRATEGIC EDUCATION RESEARCH PARTNERSHIP (SERP)	R305H140121		\$25,173
PERCEPTUAL LEARNING TECHNOLOGY IN MATHEMATICS EDUCATION: EFFICACY AND REPLICATION ADAPTING AN EVIDENCE-BASED PRACTICE FOR CHILDREN AT-RISK FOR AUTISM FOR DIVERSE EARLY INTERVENTION SERVICE SYSTEMS	84.305		UNIVERSITY OF CALIFORNIA, LOS ANGELES	0875 G PE032/4-444040-PK-21313		\$573,802
GEAR UP/AVID SUSTAINABILITY	84.324		UNIVERSITY OF CALIFORNIA, DAVIS	SUB TO R423A150211		\$1,953
GEAR UP CCRCs	84.334		SCHOOL DISTRICT OF PHILADELPHIA	571198		\$24,785
GEAR UP CCRCs	84.334		SCHOOL DISTRICT OF PHILADELPHIA	005/F16		\$34,839
PLN - POLITZ ACADEMY PROFESSIONAL DEVELOPMENT PARTNERSHIP FOR TEACHERS OF TITLE 1 CHILDREN	84.358		SCHOOL DISTRICT OF PHILADELPHIA	961-571745		\$14,905

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PROFESSIONAL DEVELOPMENT FOR TEACHERS AND ADMINISTRATORS TO IMPROVE INSTRUCTION	84.358		GLOUCESTER CITY PUBLIC SCHOOLS	42815A		\$40,385
IMPROVING ENGLISH LANGUAGE LEARNERS' ACADEMIC WRITING: BUILDING A BRIDGE TO SUCCESS	84.365		SCHOOL DISTRICT OF PHILADELPHIA	570442		\$1,233
SUMMER INVITATIONAL INSTITUTE FOR TEACHERS OF ENGLISH LANGUAGE LEARNERS	84.365		SCHOOL DISTRICT OF PHILADELPHIA	570444		\$16,592
INVESTING IN THE NATIONAL WRITING PROJECT'S COLLEGE-READY WRITERS PROGRAM: EXPANDING THE REACH OF EFFECTIVE TEACHER-LEADERS TO SUPPORT ALL STUDENTS	84.367		NATIONAL WRITING PROJECT	92-PA06-B-SEED2016		\$1,890
NATIONAL WRITING PROJECT HIGH- NEED SCHOOL GRANT	84.367		NATIONAL WRITING PROJECT	92-PA06-B-SEED2012		\$4,615
SUMMER INVITATIONAL INSTITUTE FOR ADVANCED TEACHER LEADERSHIP DEVELOPMENT	84.367		NATIONAL WRITING PROJECT	92-PA06-B-SEED2012 AMEND 2A		\$10,606
ARRA - READING RECOVERY: SCALING UP WHAT WORKS	84.396		OHIO STATE UNIVERSITY	60029186	\$50,354	\$82,055
VALIDATING THE SUNBAY MIDDLE SCHOOL DIGITAL MATHEMATICS PROGRAM	84.411		SRI INTERNATIONAL	141-000013		\$503,909
INCLUDE ME TO ACHIEVE	84.412		ELWYN FOUNDATION	LOA #RTTT CIZ 40		\$5,904
REGIONAL EDUCATION LABORATORIES – MID-ATLANTIC REGION	84.RD	ED-IES-12-C-006	ICF INCORPORATED	11AS00024		\$46,285
ACTIONABLE INTELLIGENCE FOR SOCIAL POLICY: DATA USE AND STRATEGIC PLANNING CONSULTANT PROPOSAL FOR HAWAII	84.RD	RFP NO. 014	RESEARCH CORPORATION OF THE UNIVERSITY OF HAWAII	PO #Z10064597		\$59,261
GEAR UP - AVID PARTNERSHIPS	84.U11	312-M03-97AO-2260-3291	SCHOOL DISTRICT OF PHILADELPHIA	593/F11		\$157
PENN TREATY PROFESSIONAL DEVELOPMENT	84.U15	N/A	SCHOOL DISTRICT OF PHILADELPHIA	LCA 568572		-\$1,714
PHILADELPHIA BILINGUAL EDUCATION INSTITUTE, 2015	84.U26	N/A	SCHOOL DISTRICT OF PHILADELPHIA	572174		\$13,595
TOTAL DEPARTMENT OF EDUCATION PASS THROUGH PROGRAMS					\$59,854	\$1,866,298
TOTAL DEPARTMENT OF EDUCATION					\$1,615,802	\$281,485,510
PENSION BENEFIT GUARANTY CORPORATION						
PENSION BENEFIT GUARANTY CORPORATION DIRECT PROGRAMS						
GLOBAL CHANGE FROM THE GROUND UP: SOIL MICROBIAL DIVERSITY IN A CLIMATE AND LAND-USE CHANGE EXPERIMENT	86.514	FP-91762401-0				\$13,531
TOTAL PENSION BENEFIT GUARANTY CORPORATION						<u>\$13,531</u>
UNITED STATES INSTITUTE OF PEACE						
UNITED STATES INSTITUTE OF PEACE DIRECT PROGRAMS						
MOBILE INTERACTION IN RWANDA: INCREASING REACH, TESTING USE	91.004	USIP-084-13F				\$64,650
TOTAL UNITED STATES INSTITUTE OF PEACE						<u>\$64,650</u>
DEPARTMENT OF HEALTH AND HUMAN SERVICES						
DEPARTMENT OF HEALTH AND HUMAN SERVICES DIRECT PROGRAMS						
BOTSWANA-UPENN PARTNERSHIP TECHNICAL ASSISTANCE PLAN FOR HIV COMPLICATIONS, HIV-TB CO-INFECTION AND CERVICAL CANCER SCREENING	93.067	1-U2G-PS-001949-01			\$118,563	\$942,060
PROGRAM AREA B: TB/HIV	93.067	1-U2GGH-001498-01				\$943,662
CENTERS FOR AUTISM AND DEVELOPMENTAL DISABILITIES RESEARCH & EPIDEMIOLOGY (CADDRE): STUDY TO EXPLORE EARLY DEVELOPMENT (SEED) PHASE II	93.073	1-U01-DD-000752-01			\$283,908	\$912,875
USING EYE TRACKING TO UNDERSTAND AND IMPROVE GRAPHIC WARNING LABEL EFFECTIVENESS	93.077	1-R01-CA-180929-01				\$449,532
BRAIN AND BEHAVIORAL EFFECTS OF GRAPHIC CIGARETTE WARNING LABELS	93.077	1-R01-DA-036028-01				\$497,550
UPENN TCORS: TOBACCO PRODUCT MESSAGING IN A COMPLEX COMMUNICATION ENVIRONMENT	93.077	1-P50-CA-179546-01			\$1,258,571	\$4,853,178
IONTROPHORETIC DELIVERY OF DEXAMETHASONE FOR ANTERIOR SCLERITIS, IND 107,84€	93.103	1-R01-FD-003910-01				-\$16,012
RESIQUIMOD GEL THERAPY FOR CUTANEOUS T-CELL LYMPHOMA	93.103	1-R01-FD-004092-01A1				\$3,290
COMPANION ANIMAL AND ANIMAL FOOD DIAGNOSTIC SAMPLE ANALYSIS IN SUPPORT OF FDA VET-LRN ACTIVITIES AND INVESTIGATIONS	93.103	1-U18-FD-005164-01				\$20,221
ANIMAL AND ANIMAL FOOD DIAGNOSTIC SAMPLE ANALYSIS IN SUPPORT OF FDA VET-LRN ACTIVITIES AND INVESTIGATIONS	93.103	1-U18-FD-004625-01				\$27,251
METHOD VALIDATION AND COMPARISON FOR THE DETECTION OF MYCOTOXINS IN NOVEL ANIMAL FEEDS AND TISSUES	93.103	1-U18-FD-005009-01				\$76,452
PLASMA EXCHANGE AND GLUCOCORTICOIDS FOR TREATMENT OF ANCA-ASSOCIATED VASCULITIS	93.103	4-R01-FD-003516-05			\$61,913	\$104,100
PHASE I/II RANDOMIZED TRIAL OF ADOPTIVE LYMPHOCYTE TRANSFER IN OVARIAN CANCER	93.103	1-R01-FD-003520-01				\$213,166
EFFECTS OF FETAL BISPHENOL A EXPOSURE ON MOUSE EPIGENOME	93.113	1-K99-ES-022244-01				\$584
STEER AND TREES SUMMER RESEARCH PROGRAMS	93.113	4-R25-ES-021649-04				\$24,361
STEER AND TREES SUMMER RESEARCH PROGRAMS	93.113	1-R25-ES-021649-01A1				\$35,590
SLEEP AND HEALTH IN THE SOCIAL ENVIRONMENT	93.113	1-R21-ES-022931-01A1				\$37,205
EFFECTS OF OZONE ON THE CENTRAL NERVOUS SYSTEM: NRF2 PATHWAY INVOLVEMENT	93.113	1-F32-ES-025076-01				\$50,245
DEVELOPING CLOUD-BASED TOOLS FOR BIG NEURAL DATA	93.113	1-K01-ES-025436-01				\$59,988

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INGOT: A FAMILY OF STATISTICAL COMPUTING ALGORITHMS FOR HYPOTHESIS-DRIVEN IMAGING GENOMIC AND LONGITUDINAL NEUROIMAGING ANALYSIS	93.113	1-K01-ES-026840-01				\$60,486
MECHANISMS THAT MEDIATE THE LINK BETWEEN LEAD EXPOSURE AND CHILD BEHAVIOR PROBLEM	93.113	1-K02-ES-019878-01 REVISED				\$102,167
IMAGING GENOMICS BASES OF PEDIATRIC EXECUTIVE FUNCTIONING	93.113	1-K01-ES-025432-01				\$102,513
PATERNAL EXPOSURE TO DIOXINS AND OFFSPRING SEX RATIO DISTORTION	93.113	1-R21-ES-024527-01				\$178,524
LEAD EXPOSURE, EXTERNALIZING BEHAVIOR, AND NEUROBIOLOGICAL MEDIATING FACTORS	93.113	1-R01-ES-018858-01				\$211,834
TRANSLATIONAL RESEARCH TRAINING PROGRAM IN ENVIRONMENTAL HEALTH SCIENCES	93.113	1-T32-ES-019851-01A1				\$345,961
PROTEIN KINASE C AND LUNG CARCINOGENESIS	93.113	1-R01-ES-026023-01				\$358,565
TRANSGENERATIONAL EFFECTS OF ENDOCRINE DISRUPTORS: EPIGENETICS AND PHYSIOLOGY	93.113	1-R01-ES-023284-01				\$414,261
CENTER OF EXCELLENCE IN ENVIRONMENTAL TOXICOLOGY	93.113	2-P30-ES-013508-10				\$1,460,902
OCCUPATIONAL MEDICINE RESIDENCY AT THE UNIVERSITY OF PENNSYLVANIA	93.117	1-D33-HP-25770-01-00				\$6,182
OCCUPATIONAL MEDICINE RESIDENCY AT THE UNIVERSITY OF PENNSYLVANIA	93.117	1-D33-HP-25770-01-00				\$408,414
GINGIVA DERIVED MSCS: ROLE IN IMMUNOMODULATION AND TISSUE REGENERATION	93.121	7-R01-DE-019932-05				-\$7,545
INTRACELLULAR TRAFFICKING OF BISPHOSPHONATES IN BONE MESENCHYMAL STEM CELLS	93.121	1-R21-DE-022826-01				\$302
DENTAL OUTCOMES IN FIBROUS DYSPLASIA/MCCUNE ALBRIGHT SYNDROME	93.121	1-R56-DE-022932-01A1				\$403
PENN MULTIDISCIPLINARY CONSORTIUM: PERSONALIZED DENTAL, ORAL AND CRANIOFACIAL TISSUE REGENERATION	93.121	1-R34-DE-025587-01				\$9,065
SCREEN FOR MUTATIONS AFFECTING SKULL AND SUTURE FORMATION IN ZEBRAFISH	93.121	1-R01-DE-022955-01A1				\$20,180
MOLECULAR BASIS FOR CARIES INHIBITING EFFECTS OF CRANBERRY FLAVONOIDS	93.121	7-R01-DE-016139-08			\$11,604	\$24,077
DENDRITIC CELLS AND PERIODONTAL DISEASE	93.121	4-R01-DE-021921-05				\$29,089
ROLE OF GTFB ON S.MUTANS-C.ALBICANS INTERACTIONS AND CARIOGENIC BIOFILM FORMATION	93.121	1-R03-DE-025728-01				\$41,764
A. ACTINOMYCETEMCOMITANS CDT INDUCES PRO-INFLAMMATORY INNATE IMMUNE RESPONSES	93.121	4-R01-DE-023071-04				\$49,342
CONTRIBUTION OF GO-LIKE CELLS TO MAINTENANCE OF THE ORAL CANCER STEM CELL POOL	93.121	1-F32-DE-024685-01				\$65,696
LYSOSOMAL MATURATION DURING PERIODONTAL INFECTIONS	93.121	4-R01-DE-022465-05				\$72,476
REGULATION OF WNT SIGNALING IN TOOTH DEVELOPMENT AND REGENERATION	93.121	1-R56-DE-023100-01A1				\$83,994
ROLES OF EPITHELIAL SPLICING REGULATORY PROTEINS IN CRANIOFACIAL DEVELOPMENT	93.121	1-R56-DE-024749-01			\$103,529	\$88,202
ROLE OF DYSKERIN IN ORAL EPITHELIAL HOMEOSTASIS	93.121	1-K08-DE-021428-01A1				\$127,019
MECHANISMS FOR IMPAIRED DIABETIC ORAL WOUND HEALING	93.121	7-R01-DE-019108-02				\$132,218
TARGETING MESENCHYMAL-LIKE CELLS IN ORAL CANCER TO OVERCOME CETUXIMAB RESISTANCE	93.121	1-K08-DE-022842-01				\$141,516
A QUIESCENT GO-LIKE CELL STATE AS A BARRIER TO ERADICATION ORAL CANCER STEM CELLS	93.121	1-R21-DE-024396-01			\$9,163	\$173,110
NOVEL MECHANISMS AND 'COMPLEMENT-ARY' THERAPY IN PERIODONTITIS	93.121	1-R01-DE-021685-01A1				\$179,314
NOVEL MECHANISMS AND 'COMPLEMENT-ARY' THERAPY IN PERIODONTITIS	93.121	4-R01-DE-021685-05				\$188,317
ANATOMICAL ATLAS AND TRANSGENIC TOOLKIT FOR LATE SKULL FORMATION IN ZEBRAFISH	93.121	1-U01-DE-024434-01			\$109,859	\$195,537
ORAL IMMUNITY AND ADJUVANT RECEPTORS	93.121	7-R01-DE-017138-08			\$132,648	\$212,624
LYSOSOMAL MATURATION DURING PERIODONTAL INFECTIONS	93.121	1-R01-DE-022465-01A1				\$219,766
A. ACTINOMYCETEMCOMITANS CDT INDUCES PRO-INFLAMMATORY INNATE IMMUNE RESPONSES	93.121	1-R01-DE-023071-01A1				\$269,569
DIABETES-ENHANCED EXPERIMENTAL PERIODONTITIS	93.121	2-R01-DE-017732-07A1			\$34,326	\$325,411
S. MUTANS-C. ALBICANS INTERACTIONS SYNERGIZE THE VIRULENCE OF CARIOGENIC BIOFILMS	93.121	1-R01-DE-025220-01			\$39,106	\$352,694
P. GINGIVALIS AS A KEYSTONE PATHOGEN	93.121	2-R01-DE-015254-12A1				\$377,063
MOLECULAR BIOLOGY OF VIRULENCE IN PERIODONTAL DISEASE	93.121	2-R01-DE-009517-21A1				\$379,462
EPIGENETICS, DYSBIOSIS AND INFLAMMATION IN EPITHELIAL CELLS	93.121	1-R01-DE-024160-01A1				\$387,189
BACTERIA AND LYMPHOCYTE SUPPRESSION IN PERIODONTITIS	93.121	2-R01-DE-006014-29A1				\$406,441
DEL-1: MOLECULAR AND CELLULAR TARGETS IN PERIODONTITIS	93.121	1-R01-DE-024716-01				\$426,745
DENDRITIC CELLS AND PERIODONTAL DISEASE	93.121	1-R01-DE-021921-01A1			\$62,904	\$473,471
ROLES OF EPITHELIAL SPLICING REGULATORY PROTEINS IN CRANIOFACIAL DEVELOPMENT	93.121	1-R01-DE-024749-01			\$104,898	\$506,309
REGULATION OF EMBRYONIC PATTERNING AND ADULT STEM CELLS OF ORAL APPENDAGES	93.121	1-R01-DE-024570-01				\$521,413
OSTEOGENIC AND IMMUNOMODULATORY PROPERTIES OF DECIDUOUS TOOTH STEM CELLS	93.121	7-R01-DE-017449-08				\$573,669
NURSE ANESTHETIST TRAINEESHIP PROGRAM (NAT)	93.124	1 A22HP28625-01-00				\$26,977
UNIVERSITY OF PENNSYLVANIA PREVENTION RESEARCH CENTER	93.135	1-U48-DP-005053-01			\$48,781	\$1,974,123
THE PENN VIOLENCE AND INJURY CONTROL RESEARCH CENTER	93.136	1-R49-CE-002474-01			\$6,080	\$524,556
ASBESTOS FATE, EXPOSURE, REMEDIATION, AND ADVERSE HEALTH EFFECTS	93.143	1-P42-ES-023720-01			\$257,440	\$2,508,754
GERIATRIC TRAINING PROGRAM FOR PHYSICIANS, DENTISTS, AND BEHAVIORAL AND MENTAL HEALTH PROFESSIONS	93.156	2-D01-HP-08798-04-00				\$307,152
CENTER OF EXCELLENCE FOR DIVERSITY IN HEALTH EDUCATION AND RESEARCH	93.157	1 D34HP24459-01-00			\$64,069	\$819,048
DNA SEQUENCING USING SINGLE-LAYER GRAPHENE NANORIBBONS WITH NANOPORES.	93.172	1-R21-HG-006313-01				-\$5,222

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STATISTICAL METHODS FOR GENE MAPPING STUDIES IN ADMIXED POPULATIONS	93.172	1-R01-HG-005854-01				-\$1,088
COMPREHENSIVE DETERMINATION OF THE HUMAN PROTEINS THAT DEFINE THE SPLICING CODE	93.172	1-R21-HG-006892-01				-\$52
TRAINING GRANT IN COMPUTATIONAL GENOMICS	93.172	2-T32-HG-000046-11				\$348
ADVANCED TECHNIQUES FOR SINGLE CELL TRANSCRIPTOMICS	93.172	1-R25-HG-007515-01				\$11,961
GENOMIC AND FUNCTIONAL ANALYSIS OF ACTIVE DNA DEMETHYLATION IN MAMMALIAN CELLS	93.172	4-R00-HG-007982-02				\$13,049
THE IMPACT OF UNCERTAINTY IN GENOME-WIDE TESTING FOR AUTISM SPECTRUM DISORDER	93.172	1-R21-HG-006560-01				\$15,280
TRAINING GRANT IN COMPUTATIONAL BIOLOGY	93.172	2-T32-HG-000046-16				\$293,057
HIGH-BANDWIDTH DNA SEQUENCING USING GRAPHENE NANORIBBON-NANOPORE DEVICES	93.172	1-R21-HG-007856-01				\$352,583
STATISTICAL MODELS AND ANALYSIS OF COMPLEX GENOMIC VARIATION IN CLONAL MIXTURES	93.172	2-R01-HG-006137-04			\$154,529	\$385,504
GENOMIC MEDICINE PILOT DEMONSTRATION PROJECTS COORDINATING CENTER	93.172	1-U01-HG-007266-01			\$9,345	\$408,331
IPS-DERIVED HEPATOCYTES FOR INTERROGATION OF LIPID PHENOTYPES	93.172	1-U01-HG-006398-01			\$349,533	\$1,977,655
REPRESENTATIONS OF COMMUNICATION SIGNALS IN THE AUDITORY CORTEX	93.173	7-R01-DC-009224-03				\$192
CONCEPTUAL COMBINATION	93.173	1-R01-DC-015359-01A1				\$10,937
CONFERENCES FOR ADVANCES AND PERSPECTIVES IN AUDITORY NEUROPHYSIOLOGY (APAN)	93.173	2-R13-DC-010549-06				\$17,952
REGULATION OF OLFACTORY CILIA STRUCTURE AND FUNCTION	93.173	1-F31-DC-013945-01A1				\$20,645
OLFACTORY CODING IN MAMMALS	93.173	2-R01-DC-006213-06				\$20,654
NEURAL REPRESENTATIONS OF SPATIAL DIRECTIONS IN LANGUAGE, SCHEMAS, AND IMAGES	93.173	1-F32-DC-015203-01				\$26,190
STRUCTURE AND FUNCTION OF MYOSIN VI	93.173	2-R01-DC-009100-11			\$32,135	\$33,012
INVESTIGATING THE ROLES OF EPITHELIAL SPLICE REGULATORY PROTEINS IN INNER EAR DEVELOPMENT	93.173	1-F31-DC-014647-01				\$42,788
ROLE OF CALHM3 IN ATP-RELEASE CHANNEL GATING AND TASTE PERCEPTION	93.173	1-R03-DC-014328-01				\$119,896
ROLE OF CALHM1 ION CHANNEL IN TASTE TRANSDUCTION	93.173	4-R01-DC-012538-04				\$136,001
ROLE OF CALHM1 ION CHANNEL IN TASTE TRANSDUCTION	93.173	1-R01-DC-012538-01A1				\$141,553
FIGURATIVE LANGUAGE IN APHASIC AND HEALTH PARTICIPANTS	93.173	4-R01-DC-012511-04				\$144,932
THE ROLE OF CORTICAL INTERNEURONS IN AUDITORY PROCESSING AND LEARNING	93.173	1-R03-DC-013660-01				\$147,558
SWEET RECEPTOR (T1R2/3) SIGNALING IN THE UPPER AIRWAY AND REGULATION OF IMMUNITY	93.173	1-R03-DC-013862-01A1				\$160,271
MODULATION OF OLFACTORY CILIA	93.173	1-R01-DC-011554-01A1				\$197,131
OLFACTORY CODING IN MAMMALS	93.173	2-R01-DC-006213-11A1			\$47,243	\$213,919
CORTICAL MECHANISMS OF AUDITORY-VOCAL INTERACTION	93.173	1-K08-DC-014299-01				\$246,197
CIRCUIT MECHANISMS OF SOUND PROCESSING AND DETECTION IN THE AUDITORY PATHWAY	93.173	1-R01-DC-014479-01				\$264,841
FIGURATIVE LANGUAGE IN APHASIC AND HEALTH PARTICIPANTS	93.173	1-R01-DC-012511-01A1				\$290,335
MULTI-SCALE STUDY OF AUDITORY SCENE ANALYSIS IN THE VENTRAL AUDITORY PATHWAY	93.173	1-R01-DC-013961-01A1				\$298,871
ALLELE SPECIFIC EXPRESSION OF TAS2R38 IN HUMAN TASTE AND NASAL TISSUE	93.173	1-R21-DC-013886-01A1			\$194,295	\$363,090
TMS AS A BIOMARKER OF PLASTICITY IN APHASIA RECOVERY	93.173	1-R01-DC-012780-01A1			\$79,148	\$363,227
LINGUISTIC AND NONLINGUISTIC FUNCTIONS OF FRONTAL CORTEX	93.173	2-R01-DC-009209-11				\$363,475
REPRESENTATIONS OF SOUND PROCESSING IN THE AUDITORY CORTEX	93.173	2-R01-DC-009224-07A1				\$367,685
GENOMIC ARCHITECTURE OF SHH DEPENDENT COCHLEAR MORPHOGENESIS	93.173	2-R01-DC-006254-11A1				\$368,801
TARGETING OF SENSORY AXONS IN THE OLFACTORY BULB	93.173	1-R01-DC-012854-01A1				\$469,969
A NOVEL REGULATED NANOHYDROGEL DELIVERY SYSTEM FOR TARGETED INNER EAR APPLICATION	93.173	1-R01-DC-014464-01				\$500,162
CHRONIC RHINOSINUSITIS AND GENETICS OF BITTER TASTE RECEPTORS	93.173	1-R01-DC-013588-01A1			\$110,257	\$505,346
NATIONAL RESEARCH SERVICE AWARD	93.186	2-T32HP10026-18-00				\$446,960
LONG-TERM CHAMOMILE THERAPY OF GENERALIZED ANXIETY DISORDER	93.213	5-R01-AT-005074-02				\$4,039
MECHANISMS OF MINDFULNESS: EFFECTS ON SLEEP QUALITY, STRESS PHYSIOLOGY & CVD RISK	93.213	7-R00-AT-004945-06				\$27,762
NOVEL SYNTHETIC SDG TO TREAT TRAUMA-INDUCED INFLAMMATION	93.213	1-R21-AT-008291-01A1				\$248,831
PRAGMATIC TRIALS IN MAINTENANCE HEMODIALYSIS	93.213	1-UH2-AT-007797-01			\$391,537	\$1,126,823
CAREER DEVELOPMENT IN PATIENT CENTERED OUTCOMES RESEARCH	93.226	1-K12-HS-021706-01			\$9,119	\$11,120
COMPARATIVE EFFECTIVENESS OF ALTERNATIVE LEVELS OF STROKE	93.226	1-R01-HS-018540-01				\$12,909
MULTIVARIATE META-ANALYSIS OF DIAGNOSTIC TESTS	93.226	7-R03-HS-022900-02				\$28,107
OPTIMIZATION MODELING AND COMPARATIVE EFFECTIVENESS OF REGIONALIZED STROKE CARE	93.226	1-R01-HS-018362-01A1			\$3,387	\$32,168
THE EFFECT OF TIERED PROVIDER NETWORKS ON HEALTH CARE DEMAND AND SPENDING	93.226	1-R36-HS024164-01				\$35,700
MEDICAL DECISION MAKING: INNOVATION IN THE ERA OF HEALTH CARE REFORM	93.226	1-R13-HS-022517-01A1				\$35,812

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HOSPITAL RESPONSE TO REIMBURSEMENT CHANGES: EVIDENCE FROM CALIFORNIA MEDICAID	93.226	1-R36-HS-024216-01				\$45,010
PARTICIPATORY DESIGN OF MHEALTH STRATEGIES TO SUPPORT COLLABORATIVE CARE IN PERINATAL DEPRESSION	93.226	1-K18-HS-022441-01				\$67,125
COMPARATIVE EFFECTIVENESS OF HOME CARE ENVIRONMENTS FOR DIVERSE ELDERLY OUTCOMES	93.226	1-K99-HS-022406-01				\$69,335
THE EFFECTIVENESS OF POST-ACUTE CARE	93.226	1-R01-HS-024266-01			\$42,692	\$74,632
A COMPARISON OF COGNITIVE AND DYNAMIC THERAPY FOR MDD IN COMMUNITY SETTINGS	93.226	1-R01-HS-018440-01				\$83,591
COMPARATIVE AND COST EFFECTIVENESS OF STRATEGIES TO LIMIT MRSA IN LONG TERM CARE	93.226	1-R01-HS-023794-01				\$101,787
PARTICIPATORY DESIGN OF PATIENT-CENTERED DEPRESSION AND DIABETES CARE	93.226	1-K18-HS-023445-01				\$142,194
COMPARATIVE EFFECTIVENESS OF INTERVENTIONS FOR DEPRESSION IN THE COMMUNITY	93.226	1-K02-HS-022124-01				\$143,655
MARKET AND ORGANIZATION IMPACT ON MEDICAL TECHNOLOGY DIFFUSION: OUTCOMES AND VALUE	93.226	1-R01-HS-023615-01			\$4,639	\$159,522
THE GEOGRAPHY OF ACUTE CARE	93.226	1-R01-HS-023614-01			\$43,901	\$175,465
PROVIDER CHARACTERISTICS AND QUALITY OF PROSTATE CANCER CARE	93.226	1-R01-HS-024106-01				\$180,704
CLINICAL PREDICTION OF HEPATOTOXICITY & COMPARATIVE HEPATIC SAFETY OF MEDICATIONS	93.226	1-R01-HS-018372-01A1			\$73,003	\$181,531
IMPROVING CONSUMER RESPONSE TO NURSING HOME QUALITY INFORMATION: AN EVALUATION OF COMPOSITE MEASURES	93.226	1-R21-HS-021861-01				\$222,532
ENDOPHENOTYPES OF SLEEP APNEA AND ROLE OF OBESITY	93.233	1-P01-HL-094307-01				-\$12,913
NEURAL BASIS FOR DIFFERENTIAL VULNERABILITY TO SLEEP DEPRIVATION	93.233	1-R01-HL-102119-01A1				-\$10,698
REM MECHANISMS IN NEOCORTICAL DEVELOPMENT	93.233	1-R01-HL-114161-01A1				-\$5,218
CARDIOVASCULAR AND METABOLIC RISK FACTORS ASSOCIATED WITH SHORT SLEEP DURATION	93.233	1-K23-HL-110216-01A1				\$1,603
INTERMITTENT HYPOXIA: MECHANISMS OF HYPERSOMNOLENCE	93.233	2-R01-HL-079588-05				\$166,539
NEUROMETABOLIC ASSESSMENT OF OBSTRUCTIVE SLEEP APNEA BY MRI	93.233	1-R01-HL-122754-01A1				\$295,713
UPPER AIRWAY CONTROL DURING DISRUPTED AND MISALIGNED SLEEP	93.233	1-R01-HL-116508-01A1				\$296,559
PREMOTOR CONTROL OF UPPER AIRWAY AND REM SLEEP ATONIA	93.233	2-R01-HL-047600-20A1				\$373,017
USE OF TELEMEDICINE TO PROMOTE SLEEP MEDICINE EDUCATION IN HEALTHCARE TRAINING	93.233	1-R25-HL-120874-01			\$6,499	\$382,034
GENETIC APPROACHES TO SLEEP/WAKE AND RESPONSE TO SLEEP LOSS IN MICE	93.233	1-R01-HL-111725-01A1			\$94,432	\$384,819
SHIFT WORK SLEEP LOSS: LOCUS COERULEUS NEURON SENESCENCE AND DEGENERATION	93.233	1-R01-HL-124576-01				\$401,604
METABOLIC REGULATION OF WAKEFULNESS	93.233	1-R01-HL-123331-01A1			\$7,033	\$434,375
DEFINING THE EPIGENETIC ARCHITECTURE ASSOCIATED WITH EARLY-LIFE STRESS	93.242	1-R01-MH-091850-01				-\$71,195
ROLE OF HDAC6 IN A MURINE MODEL OF AFFECTIVE DISORDER AND ANTIDEPRESSANT ACTION	93.242	1-R01-MH-087581-01A1				-\$5,314
GENETIC ANALYSIS OF SIMPLE LEARNING BEHAVIORS	93.242	1-R01-MH-092257-01				-\$4,884
IMPLEMENTING CARE FOR DEPRESSION AND DIABETES	93.242	1-R21-MH-094940-01A1				-\$4,810
IN UTERO PROGRAMMING OF THE DOPAMINE SYSTEM: BEHAVIOR, NEUROANATOMY & EPIGENETICS	93.242	1-R01-MH-087978-01A1				-\$4,755
TOOLS TO CONDITIONALLY REGULATE INTRACELLULAR SIGNALING PATHWAYS IN VIVO	93.242	1-R01-MH-086415-01				-\$1,108
REGULATION OF HIPPOCAMPAL NEUROGENESIS BY ANTIDEPRESSANTS	93.242	1-R01-MH-086599-01A1				-\$356
EARLY GESTATION AS A SENSITIVE PERIOD TO STRESS IN SEX-DEPENDENT NEURODEVELOPMENT	93.242	1-R01-MH-091258-01				-\$191
1/2 - PREVENTION OF RELAPSE & RECURRENCE OF BIPOLAR DEPRESSION	93.242	1-R01-MH-080097-01A2				-\$88
RETROTRANSPOSONS IN SCHIZOPHRENIA	93.242	1-R21-MH-101065-01				\$366
2/3 NETWORKS FROM MULTIDIMENSIONAL DATA FOR SCHIZOPHRENIA AND RELATED DISORDERS	93.242	1-R01-MH-097273-01				\$407
MODULATION OF INFLAMMASOME ACTIVATION BY YERSINIA	93.242	R01AI103062				\$430
INTEGRATIVE TRAINING IN THE NEUROCIRCUITRY OF AFFECTIVE DISORDERS	93.242	1-T32-MH-106443-01A1				\$614
THE ROLE OF PREGNANCY ASSOCIATED PLASMA PROTEIN-A IN HABITUATION LEARNING	93.242	1-R03-MH-102680-01				\$749
PTSD AND PREGNANCY: PSYCHOPHYSIOLOGY, RESPONSE TO TREATMENT & PREGNANCY OUTCOME	93.242	1-K23-MH-102360-01A1				\$1,359
STUDY OF FIBER ANATOMY IN MOUSE BRAIN DEVELOPMENT VIA MRI/DTI	93.242	2-R01-MH-070365-05A2				\$1,736
IMPROVING THE EMERGENCY DEPARTMENT MANAGEMENT OF DELIBERATE SELF-HARM	93.242	1-R01-MH-107452-01A1				\$4,116
MOLECULAR PHYSIOLOGY OF MAMMALIAN INSP3 RECEPTORS	93.242	2-R01-MH-059937-11				\$6,617
INTERVENTION MAPPING TO DEVELOP MULTI-LEVEL IMPLEMENTATION STRATEGIES IN PARTNERSHIP WITH STAKEHOLDERS: FIREARMS MEANS RESTRICTION FOR SUICIDE PREVENTION IN PEDIATRIC						
PRIMARY CARE	93.242	1-R21-MH-109878-01				\$9,157
ASSOCIATIVE PROCESSES IN EPISODIC MEMORY	93.242	2-R01-MH-055687-21				\$10,753

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EVOLUTION OF THE LINKED ARCHITECTURE OF NETWORK CONTROL AND EXECUTIVE FUNCTION IN ADOLESCENCE	93.242	1-R21-MH-106799-01A1				\$17,687
PHARMACOGENETICS AND HIV TREATMENT OUTCOMES	93.242	1-R01-MH-080701-01A2			\$22,801	\$18,210
PARTNERS IN SCHOOLS: A PROGRAM FOR PARENTS AND TEACHERS OF CHILDREN WITH AUTISM	93.242	1-F32-MH-101994-01				\$23,150
INTEGRATING ORGANIZATIONAL AND PSYCHOLOGICAL THEORIES TO PREDICT IMPLEMENTATION	93.242	1-R21-MH-106887-01A1				\$24,119
THE MOLECULAR MECHANISMS OF CORTICAL INTERNEURON FATE DETERMINATION	93.242	1-F30-MH-105045-01A1				\$27,187
RECOVERING FROM SERIOUS MENTAL ILLNESS: LEARNING AND UTILIZING WRAP'S FRAMEWORK	93.242	1-F31-MH-105190-01A1				\$28,592
HEME OXYGENASE-1 AS A NOVEL THERAPEUTIC TARGET IN HIV-MEDIATED NEURODEGENERATION	93.242	1-F30-MH-102120-01A1				\$29,062
PARTNERS IN SCHOOLS: A PROGRAM FOR PARENTS AND TEACHERS OF CHILDREN WITH AUTISM	93.242	4-F32-MH-101994-03				\$30,638
EFFECTS OF EXTINCTION ON CELLULAR ACTIVITY IN THE DORSAL AND VENTRAL HIPPOCAMPUS	93.242	1-F31-MH-105161-01A1				\$32,157
CODING AND PROCESSING OF ERROR SIGNALS IN INFERIOR OLIVARY-CEREBELLAR NETWORKS	93.242	1-R01-MH-093727-01				\$37,754
MOLECULAR-GENETIC ANALYSIS OF HABITUATION LEARNING	93.242	1-F32-MH-107139-01				\$38,441
PSYCHOPHYSIOLOGY, NEUROSTERIODS, AND STRESS IN PREMENSTRUAL DYSPHORIC DISORDER (PMDD)	93.242	1-K23-MH-107831-01A1				\$40,353
SEX DIFFERENCES IN OPIOID REGULATION OF THE RAT LOCUS COERULEUS IN RATS	93.242	1-F31-MH105211-01				\$42,692
FEASIBILITY OF A BEHAVIORAL ACTIVATION TRIAL IN COMMUNITY MENTAL HEALTH	93.242	1-R34-MH-108818-01				\$43,908
THE ROLE OF MTOR SIGNALING IN THE COGNITIVE IMPACT OF SLEEP DEPRIVATION	93.242	1-F32-MH-099730-01A1				\$46,221
3/3-SEQUENCING AUTISM SPECTRUM DISORDER EXTENDED PEDIGREES	93.242	4-R01-MH-094382-05				\$51,927
NEURAL MECHANISMS UNDERLYING THE ANTIDEPRESSANT EFFECTS OF SLEEP DEPRIVATION	93.242	1-R01-MH-107571-01A1				\$52,542
MECHANISMS OF DENDRITIC CARGO TRAFFICKING AND MICROTUBULE DYNAMIC REGULATION BY KIF21B	93.242	1-F32-MH-108187-01				\$52,860
INVESTIGATING THE PAYER ROLE IN THE IMPLEMENTATION OF EBP IN THE PUBLIC SECTOR	93.242	1-F32-MH-103960-01A1				\$53,054
TEAM FUNCTIONING IN SCHOOL MENTAL HEALTH TEAMS IMPLEMENTING CBT	93.242	1F32MH103955-01				\$55,830
IMPLEMENTING DRISHTI: REDUCING HIV RISK AMONG HIGH RISK WOMEN WITH DEPRESSION	93.242	1-R21-MH-100935-01			\$5,500	\$61,824
INCREASING ACCURACY AND EFFICIENCY OF FIDELITY MEASUREMENT IN CBT	93.242	1-R01-MH-108551-01				\$61,960
MECHANISMS REGULATING COMPLEX SOCIAL BEHAVIOR	93.242	1-R01-MH-108627-01				\$63,373
BUPRENORPHINE FOR DEPRESSION AND ANXIETY	93.242	4-R01-MH-092412-05				\$66,876
RESEARCH TRAINING FOR PREVENTION OF SUICIDE AND PSYCHOSIS: A PUBLIC HEALTH MODEL	93.242	1 T32 MH082745-01A2				\$69,929
BAR PROTEINS LINKING MEMBRANE AND CYTOSKELETON DYNAMICS	93.242	1-R01-MH-087950-01A1				\$74,046
QUANTIFIABLE MARKERS OF ASD VIA MULTIVARIATE MEG-DTI COMBINATION	93.242					\$74,721
REPETITIVE TRANSCRANIAL MAGNETIC STIMULATION (RTMS) IN PREGNANT WOMEN WITH MDD	93.242	1-K23-MH-092399-01				\$76,265
ASSOCIATIVE PROCESSES IN EPISODIC MEMORY	93.242	2-R01-MH-055687-16A1				\$84,853
PATIENT SAFETY IN INPATIENT PSYCHIATRY	93.242	1-R01-MH-086722-01A2			\$11,041	\$86,135
MENTAL HEALTH BIOSTATISTICS TRAINING GRANT	93.242	2-T32-MH-065218-11				\$91,038
OLIGODENDROCYTE DAMAGE AND DYSFUNCTION IN HIV ASSOCIATED NEUROCOGNITIVE DISORDER	93.242	4-R01-MH-098742-05				\$92,335
3/3-SEQUENCING AUTISM SPECTRUM DISORDER EXTENDED PEDIGREES	93.242	1-R01-MH-094382-01A1				\$95,261
QUANTITATIVE BEHAVIORAL AND IMAGING PHENOTYPES OF AMOTIVATION IN SCHIZOPHRENIA	93.242	4-R01-MH-101111-04				\$99,503
3/3: PEDIGREE-BASED WHOLE GENOME SEQUENCING OF AFFECTIVE AND PSYCHOTIC DISORDERS	93.242	1-U01-MH-105634-01			\$20,432	\$112,723
EVALUATING THE EFFECTS OF AUTISM INSURANCE MANDATES	93.242	4-R01-MH-096848-04				\$116,045
1/3-A NEUROBEHAVIORAL FAMILY STUDY OF SCHIZOPHRENIA	93.242	2-R01-MH-042191-24A1				\$119,898
EARLY PREGNANCY STRESS PROGRAMMING OF OFFSPRING EMOTIONALITY	93.242	1-R01-MH-087597-01A1				\$122,022
MOLECULAR IDENTIFICATION OF GENES CRITICAL FOR VERTEBRATE STARTLE MODULATION	93.242	1-R21-MH-103545-01				\$129,725
NEURAL CIRCUIT MECHANISMS MEDIATING TMS AND OXYTOCIN EFFECTS ON SOCIAL COGNITION	93.242	1-R01-MH-109728-01				\$139,250
CELLULAR AND MOLECULAR ANALYSIS OF STARTLE MODULATION	93.242	1-R01-MH-109498-01				\$139,977
EPIGENETIC MECHANISMS OF MEMORY STORAGE	93.242	2-R01-MH-087463-06			\$30,115	\$143,041
CELL-TYPE SPECIFIC EPIGENOMICS IN THE BRAIN	93.242	1-R21-MH-102679-01				\$155,103
ACTIVITY AS AN ENDOPHENOTYPE FOR GENETIC STUDIES	93.242	1-R21-MH-103963-01A1				\$163,403
ABERRANT PARANASAL SINUS DEVELOPMENT IN SCHIZOPHRENIA	93.242	1-R21-MH-108895-01				\$163,696

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NEUROCOGNITIVE VARIABILITY IN SCHIZOPHRENIA AND YOUTH AT-RISK FOR PSYCHOSIS	93.242	1-K01-MH-102609-01A1				\$165,128
LINKING SYNAPTIC AND COGNITIVE DEFECTS IN A MODEL OF NEUROPSYCHIATRIC DISEASE	93.242	NIH				\$175,743
POLICY TO IMPLEMENTATION: EVIDENCE-BASED PRACTICE IN COMMUNITY MENTAL HEALTH	93.242	1-K23-MH-099179-01				\$180,962
THE MECHANISMS OF COGNITIVE AND DYNAMIC THERAPY IN COMMUNITY SETTINGS.	93.242	1-R01-MH-092363-01				\$202,957
EPIGENETIC MECHANISMS OF MEMORY STORAGE	93.242	1-R01-MH-087463-01A1			\$57,729	\$204,789
ACTIONS OF CRF ON 5-HT PATHWAYS IN MOOD REGULATION	93.242	2-R01-MH-073030-06				\$208,398
AUTOIMMUNITY AGAINST NOVEL ANTIGENS IN NEUROPSYCHIATRIC DYSFUNCTION	93.242	1-R01-MH-094741-01				\$215,855
AN IMPLANTABLE SEMIANNUAL ANTIPSYCHOTIC DELIVERY SYSTEM	93.242	2-R01-MH-074672-03A1				\$218,171
SCHIZOPHRENIA: A NEUROPSYCHIATRIC PERSPECTIVE	93.242	2-T32-MH-019112-24				\$221,231
CLINICAL ALGORITHM FOR IDENTIFYING ADULT AUTISM	93.242	1-R34-MH-100356-01			\$31,265	\$222,277
THE INFLUENCE OF AROUSAL STATE ON COORDINATED NEURAL DYNAMICS	93.242	1-R21-MH-107001-01				\$225,057
TRAINING PROGRAM IN BEHAVIORAL/COGNITIVE NEUROSCIENCE	93.242	2-T32-MH-017168-31				\$230,427
RNA:RNA BINDING PROTEIN COMPLEXES IN NEURONS AND SIV ENCEPHALITIS	93.242	1-R21-MH-106441-01A1				\$238,960
STUDYING EPIGENETIC PATHWAYS IN BRAIN FUNCTION AND SOCIAL BEHAVIOR USING ANTS	93.242	1-0P2-MH-107055-01				\$261,663
ELECTROPHYSIOLOGY OF HUMAN SPATIAL COGNITION	93.242	2-R01-MH-061975-12A1			\$149,972	\$263,268
OLFACTORY NEUROIMAGING MARKERS OF HEIGHTENED DEVELOPMENTAL RISK FOR SCHIZOPHRENIA	93.242	1-R01-MH-099156-01				\$264,074
THE IMPACT OF SLEEP DEPRIVATION ON TRANSLATION	93.242	1-R21-MH-102703-01A1			\$19,800	\$270,656
BUPRENORPHINE FOR DEPRESSION AND ANXIETY	93.242	1-R01-MH-092412-01A1				\$274,034
SERVICES TO ENHANCE SOCIAL FUNCTIONING IN ADULTS WITH AUTISM SPECTRUM DISORDER	93.242	1-R34-MH-104407-01			\$26,674	\$276,757
OLFACTORY NEUROIMAGING MARKERS OF HEIGHTENED DEVELOPMENTAL RISK FOR SCHIZOPHRENIA	93.242	4-R01-MH-099156-04				\$293,523
INDIVIDUAL, AGE-DEPENDENT DIFFERENCES IN ACC-MEDIATED ADAPTIVE DECISION MAKING	93.242	1-R01-MH-098899-01				\$309,023
QUANTITATIVE BEHAVIORAL AND IMAGING PHENOTYPES OF AMOTIVATION IN SCHIZOPHRENIA	93.242	1-R01-MH-101111-01				\$314,351
MATERNAL STRESS AND THE VAGINAL MICROBIOME: IMPACTS ON BRAIN DEVELOPMENT	93.242	1-R21-MH-104184-01				\$323,709
DEVELOPING CBT-INFORMED THESPIAN TRAINING CURRICULA FOR CHR YOUTHS	93.242	1-R34-MH-105248-01				\$335,932
2/2-- ATTAINING AND MAINTAINING WELLNESS IN OCD	93.242	2-R01-MH-045404-20				\$359,883
NOVEL COMPUTATIONAL METHODS FOR HIGHER ORDER DIFFUSION MRI IN AUTISM	93.242	1-R01-MH-092862-01			\$4,459	\$364,007
STRESS AND INFLAMMATION IN THE PATHOPHYSIOLOGY OF LATE-LIFE DEPRESSION	93.242	1-R01-MH-098260-01A1				\$364,737
MECHANISMS OF COMORBIDITY AND SPECIFICITY FOR GENERALIZED ANXIETY AND DEPRESSION	93.242	1-R01-MH-094425-01A1				\$372,331
SRC MEDIATES MOLECULAR ALTERATIONS LEADING TO NMDAR HYPOFUNCTION IN SCHIZOPHRENIA	93.242	2-R01-MH-075916-05A1			\$106,134	\$399,272
COGNITIVE THERAPY FOR SUICIDAL OLDER MEN	93.242	1-R01-MH-086572-01A2				\$400,623
GENOMIC ANALYSIS OF BIPOLAR DISORDER IN A GENETIC ISOLATE	93.242	1-R01-MH-093415-01A1			\$126,076	\$415,895
DOWNMODULATING MONOCYTE/MACROPHAGE ACTIVATION FOR HAND	93.242	2-R01-MH-061139-11A1			\$115,913	\$472,876
PATERNAL STRESS EPIGENETIC PROGRAMMING OF OFFSPRING NEURODEVELOPMENT	93.242	1-R37-MH-108286-01				\$473,942
MULTIMODAL BRAIN MATURATION INDICES MODULATING PSYCHOPATHOLOGY AND NUEROCOGNITION	93.242	1-R01-MH-107235-01			\$11,303	\$483,396
MOLECULAR MECHANISMS OF THE STRESS RESPONSE	93.242	1-R01-MH-100319-01A1				\$485,156
EVALUATING THE EFFECTS OF AUTISM INSURANCE MANDATES	93.242	1-R01-MH-096848-01A1			\$120,181	\$496,361
OLFACTORY EVOKED POTENTIALS AND DEVELOPMENTAL NEUROPATHOLOGY IN SCHIZOPHRENIA	93.242	2-R01-MH-059852-11A1			\$37,674	\$497,275
LONGITUDINAL MULTI-MODAL NEUROIMAGING OF IRRITABILITY IN YOUTH	93.242	1-R01-MH-107703-01				\$509,313
OXIDATIVE STRESS, IMMUNE ACTIVATION, AND THERAPEUTIC TARGETING IN HIV/HAND	93.242	1-R01-MH-104134-01			\$233,312	\$526,838
OLIGODENDROCYTE DAMAGE AND DYSFUNCTION IN HIV ASSOCIATED NEUROCOGNITIVE DISORDER	93.242	1-R01-MH-098742-01			\$195,611	\$534,135
PATHWAYS OF HIV NEURODEGENERATION AND DIMETHYL FUMARATE (DMF/MMF)						
NEUROPROTECTION	93.242	1-R01-MH-095671-01			\$324,538	\$709,475
1/5 INTERNATIONAL CONSORTIUM ON BRAIN AND BEHAVIOR IN 22Q11.2 DELETION SYNDROME	93.242	1-U01-MH-101719-01			\$524,320	\$727,532
SECOISOLARICRESINOL DIGLUCOSIDE TO MITIGATE INFLAMMATION AND TOXICITY IN HAND	93.242	1-R01-MH-106967-01A1			\$316,392	\$761,716
RCT OF TEACHTOWN IN AUTISM SUPPORT CLASSROOMS: INNOVATION AND EXNOVATION	93.242	1-R01-MH-106175-01A1			\$8,252	\$865,759
PREPUBERTAL STRESS, WINDOWS OF RISK & SEX BIAS FOR AFFECTIVE DISTURBANCE	93.242	1-P50-MH-099910-01				\$1,121,078
1/2-BRAIN-BEHAVIOR AND GENETIC STUDIES OF THE 22Q11DS	93.242	1-U01-MH-087626				\$1,267,109
PENN MENTAL HEALTH AIDS RESEARCH CENTER	93.242	1-P30-MH-097488-01A1			\$252,336	\$1,583,659
DEVELOPMENTAL TRAJECTORIES OF NEGATIVE SYMPTOMS IN SCHIZOPHRENIA	93.242	1-P50-MH-096891-01			\$234,794	\$2,041,611
ACADEMIC-PRACTICE PARTNERSHIP FOR THE UNDERSERVED IN PHILADELPHIA, PA (AP4UP)	93.247	1 D09HP28672-01-00				\$228,383

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A PLAN FOR ACHIEVING LEADERSHIP IN THE FIELDS OF GERIATRIC PSYCHIATRY AND INTERDISCIPLINARY EDUCATION	93.250	1 K01HP20497-01-00				\$18,981
TRANSITIONS OF CARE FOR SENIORS	93.250	1-K01-KP-20495-01-00				\$20,281
TRAINING IN OCCUPATIONAL MEDICINE	93.262	2-T03-OH-008628-11				\$117,311
NURSE FACULTY LOAN PROGRAM - LOANS ISSUED DURING FY16	93.264					\$210,940
NURSE FACULTY LOAN PROGRAM - OUTSTANDING BALANCE AS OF JULY 01, 2015	93.264					\$818,893
CENTER ON ADAPTIVE TREATMENTS FOR ALCOHOLISM	93.273	1-P01-AA-016821-01A1				-\$7,719
THE PATHOGENESIS OF INSULIN RESISTANCE IN ALCOHOLIC LIVER DISEASE	93.273	4-K08-AA-021424-04				\$13,675
AN RCT OF BRIEF INTERVENTION FOR PROBLEM DRINKING AND PARTNER VIOLENCE	93.273	1-R01-AA-018705-01A1				\$52,609
2/2 PHARMACOGENETIC TREATMENT FOR ALCOHOLISM	93.273	4-R01-AA-021164-05				\$72,917
COMMUNITY POLICING AND ALCOHOL-INVOLVED CRIME	93.273	7-R03-AA-022776-02				\$73,612
EFFECTIVENESS OF TOPIRAMATE: CHARACTERIZING INDIVIDUAL DIFFERENCES	93.273	1-K23-AA-023894-01				\$126,054
THE PATHOGENESIS OF INSULIN RESISTANCE IN ALCOHOLIC LIVER DISEASE	93.273	1-K08-AA-021424-01A1				\$188,285
A RANDOMIZED TRIAL OF URBAN VACANT LOT STABILIZATION AND SUBSTANCE ABUSE OUTCOMES	93.273	1-R01-AA-020331-01A1				\$196,304
2/2 PHARMACOGENETIC TREATMENT FOR ALCOHOLISM	93.273	1-R01-AA-021164-01				\$226,246
PHARMACOGENETIC ANALYSIS OF TOPIRAMATE TREATMENT OF AUD	93.273	1-R01-AA-023192-01				\$478,360
CYP2E1 MEDIATED MITOCHONDRIAL INJURY AND CELL DAMAGE IN ALCOHOL LIVER DISEASE	93.273	1-R01-AA-022986-01A1			\$186,477	\$518,534
IMPACT OF ENHANCEMENTS TO SMARTPHONE-BASED CONTINUING CARE FOR ALCOHOL DEPENDENCE	93.273	1-R01-AA-022595-01A1			\$146,967	\$687,308
NEUROENDOCRINE CONTRIBUTION TO BEHAVIOR & COGNITION IN THE FEMALE LIFESPAN	93.279	1-K24-DA-030301-01				-\$8,930
INNOVATIVE APPROACHES FOR COCAINE PHARMACOTHERAPY	93.279	2-P50-DA-012756-11				-\$4,947
TREATMENT OF SMOKING AMONG INDIVIDUALS WITH PTSD	93.279	1-R01-DA-023507-01A2				-\$2,163
94-868: RFA/DRUG DEPENDENCE BEHAVIORAL TREATMENT RESEARCH CENTEF	93.279	1-P50-DA-009252-01				-\$375
PHARMACOTHERAPY IMPACT ON COCAINE AND ALCOHOL-DERIVED REINFORCEMENT	93.279	1-K01-DA-025073-01A1				-\$19
GABA B AGONISTS REVISITED: BRAIN, BEHAVIORAL AND GENETIC EFFECTS IN SMOKERS	93.279	4-R01-DA-030394-05				\$880
NEURAL CORRELATES OF RISK TAKING IN SMOKERS BEFORE AND AFTER SMOKING ABSTINENCE	93.279	1-R21-DA-032022-01A1				\$1,616
COGNITIVE TRAINING FOR NICOTINE DEPENDENCE	93.279	1-R01-DA-030819-01				\$2,154
FUNCTIONAL CHARACTERIZATION OF OPRM1 A118G IN NICOTINE DEPENDENCE	93.279	1-R21-DA-027066-01				\$2,712
ADHERENCE TO HIV THERAPY IN HEROIN ADDICTS: ORAL VS EXTENDED RELEASE NALTREXONE	93.279	1-R01-DA-026336-01A1				\$7,814
TRANS-GENERATIONAL EFFECTS OF NICOTINE SELF-ADMINISTRATION	93.279	1-R21-DA-039393-01A1				\$15,435
AMP-ACTIVATED PROTEIN KINASE (AMPK) AND NICOTINE DEPENDENCE	93.279	1-R01-DA-041180-01A1				\$21,673
A PLACEBO CONTROLLED TRIAL OF VARENICLINE FOR SMOKING AMONG THOSE WITH HIV/AIDS	93.279	4-R01-DA-033681-05				\$22,349
MECHANISMS UNDERLYING LEARNING DEFICITS CAUSED BY PATERNAL COCAINE TAKING	93.279	1--K01-DA-039308-01A1				\$22,653
NEURAL MECHANISMS UNDERLYING CHANGES IN PREFERENCE	93.279	1-R01-DA-029149-01A1				\$28,203
YOGA INTERVENTION FOR SUBSTANCE USE AND ART ADHERENCE IN COMMUNITY REENTRY	93.279	1-F31-DA-038429-01				\$30,071
COCAINE ADDICTION AND RETROTRANSPOSONS	93.279	1-R21-DA-035607-01			\$31,732	\$33,699
METHODOLOGY FOR PET IMAGING OF ROLE OF DOPAMINE D3 RECEPTOR IN ADDICTION	93.279	1-K01-DA--040023-01A1				\$35,695
REPURPOSING CHOLINESTERASE INHIBITORS FOR SMOKING CESSATION	93.279	4-K23-DA-035295-04				\$35,853
THE ROLE OF AKAP 150 IN THE NUCLEUS ACCUMBENS SHELL IN COCAINE REINSTATEMENT	93.279	1-F31-DA-037748-01A1				\$41,529
ADAPTIVE TREATMENT MODELS FOR THE MANAGEMENT OF DRUG USE DISORDERS	93.279	1-K24-DA-029062-01				\$46,383
DISSECTION OF THE ORGANIZATIONAL DIFFERENCES BETWEEN PAW AND TRUNK PAIN CIRCUITS	93.279	1-F31-NS-092297-01				\$47,619
CLINICAL AND GENETIC CHARACTERISTICS OF OPIOID ADDICTION IN CHRONIC PAIN	93.279	4-R01-DA-032776-04				\$52,472
NEUROIMAGING STUDY OF HIV-PREVENTION PUBLIC SERVICE ANNOUNCEMENTS	93.279	1-R03-DA-035683-01				\$52,708
PET RADIOTRACERS FOR IMAGING THE DOPAMINE D3 RECEPTOR	93.279	2-R01-DA-029840-06A1				\$54,381
THE LOGICS FOR HIV RISK AMONG STREET-BASED HEROIN INJECTORS	93.279	2-R01-DA-010164-13				\$67,268
EPIGENETICS AND INCUBATION OF CRAVING	93.279	1-K01-DA-030445-01				\$71,256
PET RADIOTRACERS FOR IMAGING THE DOPAMINE D3 RECEPTOR	93.279	7-R01-DA-029840-04			\$7,981	\$74,522
EARLY ONSET VS. PRE-EXISTING VULNERABILITIES IN ADOLESCENT DRUG USE	93.279	1-R01-DA-033996-01			\$31,675	\$85,259
IMAGING DATA RE-ANALYSIS FOR COCAINE ADDICTION	93.279	1-R56-DA-036556-01A1				\$86,800
PSYCHOSTIMULANT-INDUCED CRAVING AND TOXICITY	93.279	2-K02-DA-018678-07				\$96,213
NEURAL BASIS OF SMOKING RELAPSE	93.279	1-R01-DA-041402-01				\$97,153
REPURPOSING CHOLINESTERASE INHIBITORS FOR SMOKING CESSATION	93.279	1-K23-DA-035295-01				\$99,719
OPTOGENETIC TOOLBOX FOR STUDYING REGULATORS OF G-PROTEIN SIGNALING IN ADDICTION	93.279	1-R21-DA-040434-01				\$107,208
TARGETING DOPAMINE D3 RECEPTORS IN COCAINE ADDICTION	93.279	1-R01-DA-039215-01A1				\$111,844
TRANSGENERATIONAL INHERITANCE OF A COCAINE RESISTANCE PHENOTYPE	93.279	4-R01-DA-033641-05				\$129,508

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REPURPOSING MELATONIN RECEPTOR AGONISTS AS ADJUNCT TREATMENTS FOR SMOKING CESSATION	93.279	1-R21-DA-040902-01				\$132,780
THE ROLE OF THE DELTA-OPIOID RECEPTOR GENE, OPRD1, IN OPIOID ADDICTION TREATMENT	93.279	1-K01-DA-036751-01A1				\$133,063
EFFECTS OF REPETITIVE SMOKING IMAGERY ON CUE-INDUCED CRAVING AND SMOKING BEHAVIOR	93.279	1-R21-DA-035360-01A1				\$139,724
TRANSGENERATIONAL EFFECTS OF DRUG-EXPOSURE: EPIGENETIC AND BEHAVIORAL IMPACT	93.279	4-R01-DA-033646-05				\$140,244
CAUSAL INFERENCES FOR TREATMENT MODERATORS ON ZERO-INFLATED OUTCOMES OF HIV RISK	93.279	1-R01-DA-036557-01A1				\$146,163
CHARACTERIZING A CUE-VULNERABLE PHARMACO-RESPONSIVE ENDOPHENOTYPE IN SMOKERS	93.279	1-R01-DA-029845-01A1				\$155,145
THE HIV-1 AND HCV TRANSMISSION BOTTLENECK IN CHINESE INJECTION DRUG USERS	93.279	1-R01-DA-037244-01				\$197,164
OPIOID RELAPS & HIV RISK: 48 VS. 24 WEEKS OF ER INJECTABLE NALTREXONE	93.279	1-R01-DA-033670-01				\$206,834
ECONOMIC EVALUATION OF DRUG ABUSE TREATMENT AND HIV PREVENTION SERVICES FOR PREGN	93.279	7-R01-DA-025555-05			\$102,555	\$220,227
PHARMACOGENETICS OF OPIOID AGONIST THERAPY	93.279	-1R21-DA-036808-01				\$240,126
TRANSGENERATIONAL EFFECTS OF DRUG-EXPOSURE: EPIGENETIC AND BEHAVIORAL IMPACT	93.279	1-R01-DA-033646-01				\$268,538
T32 TRANSLATIONAL ADDICTION RESEARCH FELLOWSHIP PROGRAM	93.279	2-T32-DA-028874-03A1				\$274,299
GABA B AGONISTS REVISITED: BRAIN, BEHAVIORAL AND GENETIC EFFECTS IN SMOKERS	93.279	1-R01-DA-030394-01A1				\$290,131
THE ROLE OF CENTRAL GLP-1 RECEPTORS IN ANIMAL MODELS OF COCAINE ADDICTION	93.279	1-R01-DA-037897-01A1				\$335,794
TRANSGENERATIONAL INHERITANCE OF A COCAINE RESISTANCE PHENOTYPE	93.279	1-R01-DA-033641-01			\$147,966	\$357,608
PREDICTING AOD RELAPSE AND TREATMENT COMPLETION FROM SOCIAL MEDIA USE	93.279	7-R01-DA-039457-02			\$14,417	\$359,204
ACUTE NICOTINE DECREASES ALCOHOL-INDUCED DOPAMINE RESPONSE & INCREASES DRINKING	93.279	2-R01-DA-009411-16A1				\$360,562
ALPHA 5 NACHR IS A RISK FACTOR WITHIN THE DOPAMINE SYSTEM FOR NICOTINE ADDICTION	93.279	1-R01-DA-036572-01				\$370,057
A PLACEBO CONTROLLED TRIAL OF VARENICLINE FOR SMOKING AMONG THOSE WITH HIV/AIDS	93.279	1-R01-DA-033681-01				\$390,995
MPFC, N, ACCUMBENS AND REINSTATEMENT OF COCAINE SEEKING	93.279	2-R01-DA-015214-12A1				\$402,940
2/2 MULTICENTER TRIAL OF COMBINED PHARMACOTHERAPY TO TREAT COCAINE DEPENDENCE	93.279	1-U01-DA-033368-01A1				\$422,241
THE PFT INTERVENTION: LINKING TRIPLY-DIAGNOSED INPATIENTS TO COMMUNITY CARE	93.279	1-R01-DA-036503-01A1				\$589,666
DELAWARE VALLEY NODE OF THE CLINICAL TRIALS NETWORK	93.279	2-U10-DA-013043-11			\$209,385	\$615,183
VARENICLINE FOR THE TREATMENT OF COCAINE DEPENDENCE: PHASE II	93.279	1-U01-DA-032629-01A1				\$628,480
MULTIMODAL IMAGING OF PROGESTERONE/NEUROSTEROID EFFECTS IN NICOTINE ADDICTION	93.279	1-R01-DA-037289-01A1				\$636,771
CLINICAL AND GENETIC CHARACTERISTICS OF OPIOID ADDICTION IN CHRONIC PAIN	93.279	1-R01-DA-032776-01			\$335,732	\$663,967
A PILOT IMPLEMENTATION PROJECT OF METHADONE AND SUBOXONE FOR INJECTING DRUG USERS	93.279	1-R01-DA-033671-01			\$431,139	\$715,381
PHARMACOGENETICS OF NICOTINE ADDICTION AND TREATMENT	93.279	2-U01-DA-020830-06			\$328,556	\$726,458
CENTER FOR THE DEVELOPMENT OF NOVEL MEDICATIONS FOR COCAINE DEPENDENCE	93.279	1-U54-DA-039002-01			\$281,620	\$1,088,767
HOW THE LARGE-SCALE ORGANIZATION OF GENE EXPRESSION RELATES TO BEHAVIOR IN MICE	93.281	7-K08-MH-080228-02				-\$600
MULTIMODAL NEUROIMAGING OF PROSODY IN SCHIZOPHRENIA AND DEVELOPMENTAL DISORDERS	93.281	1-K01-MH-094689-01			\$7,706	\$146,653
NEUROIMAGING OF DIMENSIONAL REWARD DYSFUNCTION IN ADOLESCENCE	93.281	1-K23-MH-098130-01				\$167,565
TRAINING PROGRAM IN NEUROPSYCHOPHARMACOLOGY	93.282	2-T32-MH-014654-34				\$268,750
SOUTHEASTERN PENNSYLVANIA ADULT AND PEDIATRIC PREVENTION EPICENTER NETWORK	93.283	1-U54-CK-000163-01			\$267,599	\$1,076,435
A TIME-OF-FLIGHT PET SCANNER FOR DEDICATED BREAST IMAGING	93.286	1-R01-EB-009056-01A2				-\$457
ACOUSTIC-BASED RANGE VERIFICATION TO IMPROVE PROTON RADIATION THERAPY FOR CANCER TREATMENT	93.286	1-F32-EB-021102-01A1				\$4,130
SUPER-RESOLUTION PET USING STEPPING OF A DELIBERATELY MISALIGNED BED	93.286	1-R21-EB-017416-01				\$4,808
IMAGING B CELLS WITH GD-LABELED DENDRIMER NANOCCLUSERS	93.286	1-R01-EB-012065-01				\$6,969
FOURTH INTERNATIONAL WORKSHOP ON METABOLIC IMAGING	93.286	1-R13-EB-019299-01				\$9,999
TRAINING IN STRUCTURAL, PHYSIOLOGIC AND FUNCTIONAL MRI	93.286	1-T32-EB-020087-01A1				\$15,591
RESEARCH TRACK RADIOLOGY RESIDENCY	93.286	2-T32-EB-004311-06				\$21,731
FOLATE TARGETED INTRAOPERATIVE CANCER IMAGING TO GUIDE PULMONARY RESECTIONS	93.286	1-R03-EB-017828-01A1				\$36,983
ULTRA-HIGH RESOLUTION BOLD FMRI OF MEDIAL TEMPORAL LOBE AT 7 TESLA	93.286	1-R03-EB-016923-01A1				\$43,183
THERANOSTIC NANOPARTICLES TO ENHANCE MORPHOLINO DELIVERY TO THE LIVER FOR SUPPRES	93.286	4-R00-EB-012165-03				\$56,301
DETECTOR CONCEPTS FOR TIME-OF-FLIGHT PET	93.286	1-R21-EB-016205-01A1				\$60,969
TARGETED MICROCARRIER DESIGN AND OPTIMIZATION	93.286	4-R01-EB-006818-08				\$68,988

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CARBON NANOPIPE-BASED AUTOMATED CELL INJECTION SYSTEM	93.286	1-R21-EB-016343-01A1				\$78,501
OPTICAL BARRIERS TO IMPROVE PERFORMANCE OF A CONTINUOUS DETECTOR FOR CLINICAL PET RESEARCH TRACK RADIOLOGY RESIDENCY	93.286	1-R21-EB-017966-01			\$31,199	\$135,539
PRODUCING LARGE QUANTITIES OF POLARIZED XENON WITH DNP METHOD	93.286	2-T32-EB-004311-11				\$173,600
	93.286	1-R01-EB-015767-01A1				\$178,932
CONTINUED DEVELOPMENT AND MAINTENANCE OF ITK-SNAP 3D IMAGE SEGMENTATION SOFTWARE	93.286	1-R01-EB-014346-01			\$67,038	\$203,829
TRAINING PROGRAM IN BIOMEDICAL IMAGING AND INFORMATIONAL SCIENCES	93.286	2-T32-EB-009384-06				\$235,622
BIOCONJUGATE TECHNIQUE FOR SITE-SPECIFIC ATTACHMENT OF IGG ONTO NANOPARTICLES	93.286	1-R21-EB-018863-01A1				\$245,869
AN INDUCIBLE SYSTEM FOR GENE DELIVERY	93.286	1-R21-EB-018064-01A1				\$297,649
DENDRITIC UPCONVERTING NANOPARTICLES FOR MULTIPHOTON IMAGING AND SENSING	93.286	1-R01-EB-018464-01A1			\$138,197	\$304,378
TARGETED MICROCARRIER DESIGN AND OPTIMIZATION	93.286	2-R01-EB-006818-05A1				\$339,667
APPROXIMATING AND REASONING ABOUT DATA PROVENANCE	93.286	1U01EB020954-01				\$362,569
CERENKOV SPECIFIC CONTRAST AGENTS	93.286	1-R01-EB-018645-01				\$405,891
ENGINEERING DEVELOPMENTAL MICROENVIRONMENTS: CARTILAGE FORMATION AND MATURATION	93.286	2-R01-EB008722-05A1			\$6,311	\$437,628
PATHOLOGICAL CONSEQUENCES OF ALTERED TISSUE MECHANICS IN FIBROSIS	93.286	1-R01-EB-017753-01A1				\$487,962
BRIDGING MULTIPLE SCALES IN MODELING TARGETED DRUG NANOCARRIER DELIVERY	93.286	1-U01-EB-016027-01A1				\$490,882
ADAPTIVE LARGE-SCALE FRAMEWORK FOR AUTOMATIC BIOMEDICAL IMAGE SEGMENTATION	93.286	1-R01-EB-017255-01A1				\$494,654
COMPREHENSIVE ASSESSMENT OF PULMONARY DISORDERS USING POLARIZED 13C TECHNOLOGY	93.286	1-R01-EB-010208-01				\$526,255
A RESOURCE FOR MAGNETIC RESONANCE AND OPTICAL IMAGING	93.286	2-P41-EB-015893-31				\$1,171,188
HEALTH PROMOTION FOR POSITIVES: A RANDOMIZED TRIAL WITH HIV POSITIVE BLACK MEN	93.307	4-R01-MD-006232-05			\$5,996	\$54,681
REDUCING RISK OF HIV/STD INFECTION AMONG AFRICAN AMERICAN MEN	93.307	1-R01-MD-004075-01				\$119,811
HEALTH PROMOTION FOR POSITIVES: A RANDOMIZED TRIAL WITH HIV POSITIVE BLACK MEN	93.307	1-R01-MD-006232-01A1			\$16,118	\$122,270
COMPREHENSIVE CENTER OF EXCELLENCE IN HEALTH DISPARITIES	93.307	4-P60-MD-006900-05				\$205,799
WEST PHILADELPHIA CONSORTIUM TO ADDRESS DISPARITIES - PHASE 3	93.307	2-R24-MD-001594-09			\$278,088	\$388,648
COMPREHENSIVE CENTER OF EXCELLENCE IN HEALTH DISPARITIES	93.307	1-P60-MD-006900-01			\$174,107	\$816,133
OPTOELECTRONIC NANOWIRE PROBES FOR INVESTIGATION OF INTRA-CELLULAR PROCESSES	93.310	1-DP2-OD-007251-01				-\$14,387
UNDERSTANDING THE COGNITIVE IMPACT OF EARLY LIFE EPILEPSY	93.310	7-DP-1OD-003347-06				-\$70
MOLECULAR REGULATION OF BROWN ADIPOSE CELL FATE IN SOMITIC STEM CELLS	93.310	1-DP2-OD-007288-01				\$4,685
NOVEL METHODOLOGY FOR QUANTITATIVE HIGH-THROUGHPUT CANCER EPIGENETICS	93.310	DP2-OD-007447				\$9,103
DYNAMIC NETWORK NEUROSCIENCE AND CONTROL THEORY: TOWARD INTERVENTIONS FOR COGNITIVE CONTROL DYSFUNCTION	93.310	1-DP5-OD-021352-01				\$129,755
TRANSFORMATIVE PERSONALIZED VASCULAR DISRUPTING CANCER IMMUNOTHERAPY	93.310	1-R01-CA-156695-01				\$257,140
COMPARATIVE EFFICACY, ACCEPTANCE AND EFFECTIVENESS OF HEALTH INCENTIVE STRUCTURES	93.310	1-R01-CA-159932-01				\$259,742
IMAGE-BASED PHENOTYPING OF HEPATOCELLULAR CARCINOMA CELL SURVIVAL UNDER ISCHEMIC STRESS: TOWARD METABOLIC IMAGING OF CANCER DORMANCY USING HYPERPOLARIZED CARBON-13 TECHNOLOGY	93.310	1-DP5-OD-021391-01				\$287,151
ENGINEERING 3-D EPIGENOME TOPOLOGY WITH LIGHT	93.310	1-DP2-MH-110247-01				\$308,637
DEVELOPMENT OF A UNIVERSAL INFLUENZA SEASONAL VACCINE	93.310	1-R01-AI-092843-01			\$68,416	\$436,594
NUCLEAR PRE-MRNA ANALYSIS OF SINGLE CELLS IN BRAIN SLICE	93.310	1-R33-MH-106637-01				\$482,934
GENE-ENGINEERED ADOPTIVE T CELL IMMUNOTHERAPY OF BBM	93.310	7-DP2-CA-174502-02				\$495,976
A COMPREHENSIVE SPATIAL PICTURE OF TRANSCRIPTION IN THE NUCLEUS	93.310	1-DP2-OD-008514-01				\$517,762
VALIDATION AND DEVELOPMENT OF SINGLE NUCLEOTIDE VARIANT RNA FISH IN SINGLE CELLS IN CULTURE AND TISSUE	93.310	1-R33-EB-019767-01				\$526,485
CAN NEUROSCIENCE DRAMATICALLY IMPROVE OUR ABILITY TO DESIGN HEALTH COMMUNICATIONS	93.310	7-DP2-DA-035156-02				\$580,645
IDENTIFICATION AND VALIDATION OF CELL SPECIFIC EQTLs BY BAYESIAN MODELING	93.310	1-R01-MH-101822-01			\$196,028	\$611,676
A RANDOMIZED CONTROLLED TRIAL OF INCENTIVES FOR HABIT FORMATION	93.310	1-R01-AG-043844-01				\$683,673
COMBATING BACTERIAL DRUG RESISTANCE BY TARGETING THE ENZYMES OF EVOLUTION	93.310	1-DP2-GM-105444-01				\$773,532
BROAD SPECTRUM MOLECULAR THERAPY FOR BLINDING RETINA DISORDERS	93.310	1-DP1-OD-008267-01			\$210,243	\$774,874
ROLE OF SINGLE CELL MRNA VARIATION IN SYSTEMS ASSOCIATED ELECTRICALLY EXCITABLE CELLS	93.310	1-U01-MH-098953-01			\$408,531	\$1,836,734
LOANS FOR DISADVANTAGED STUDENTS - DENTAL - OUTSTANDING BALANCE AS OF JULY 1, 2015	93.342					\$2,201
LOANS FOR DISADVANTAGED STUDENTS - MEDICINE - OUTSTANDING BALANCE AS OF JULY 1, 2015	93.342					\$198,895
HEALTH PROFESSIONS STUDENT LOANS- MEDICAL - OUTSTANDING BALANCE AS JULY 1, 2015	93.342					\$214,854

The accompanying notes are an integral part of this schedule

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LOANS FOR DISADVANTAGED STUDENTS - MEDICINE - LOANS ISSUED DURING FY16	93.342					\$335,301
HEALTH PROFESSIONS STUDENT LOANS-VET-LOANS ISSUED DURING FY16	93.342					\$889,182
HEALTH PROFESSIONS STUDENT LOANS - DENTAL - LOANS ISSUED DURING FY16	93.342					\$1,658,301
HEALTH PROFESSIONS STUDENT LOANS-VET-OUTSTANDING BALANCE AS OF JULY 1, 2015	93.342					\$2,387,884
HEALTH PROFESSIONS STUDENT LOANS - DENTAL - OUSTANDING BALANCE AS OF JULY 1, 2015	93.342					\$8,678,764
INSTITUTIONAL CLINICAL AND TRANSLATIONAL SCIENCE AWARD	93.350	1-UL1-TR-001878-01				\$469
MODELING OXIDATIVE STRESS AND DNA DAMAGE USING GI ORGANOTYPIC CULTURE SYSTEMS	93.350	5-U18-TR-000536-02				\$880
SCANNING ELECTRON MICROSCOPE	93.351	1-S10-OD-018041				\$22,293
SHORT-TERM TRAINING: STUDENTS IN HEALTH PROFESSIONAL SCHOOLS	93.351	2-T35-OD-010919-16				\$105,473
ACQUISITION OF JANUS VARISPAN + MODULAR DISPENSING TOOL (MDT) WORKSTATION	93.351	1-S10-OD-020090-01				\$119,819
RESOURCES FOR EDUCATION AND ACTION FOR COMMUNITY HEALTH IN AMBLER (REACH AMBLER)	93.351	1-R25-OD-010521-01			\$95,997	\$212,820
A 129XE POLARIZER FOR PULMONARY IMAGING	93.351	1-S10-OD-018203-01				\$300,000
A DIAMOND SYSTEM FOR REAL-TIME METABOLIC IMAGING	93.351	1-S10-OD-018478-01				\$500,000
REFERRAL CTR-ANIMAL MODELS OF HUMAN GENETIC DISEASE	93.351	2-P40-OD-010939-29			\$15,210	\$791,589
MOUSE MODELS FOR ESOPHAGEAL COX-2 OXIDATIVE STRESS AND DNA DAMAGE	93.357	4-K26-OD-012097-04				\$78,997
MOUSE MODELS FOR ESOPHAGEAL COX-2 OXIDATIVE STRESS AND DNA DAMAGE	93.357	1-K26-OD-012097-01A1				\$136,665
ADVANCED EDUCATION NURSING TRAINEESHIP (AENT) PROGRAM	93.358	1 A10HP27179-01-00				\$337,728
DEVELOPING GERIATRIC RESOURCE NURSE-LED INTERPROFESSIONAL COLLABORATIVE PRACTICE	93.359	6-UD7H026041-01-03				\$613,525
REAL-TIME DATA CAPTURE OF THE EXPERIENCES OF BLACKS IN CANCER CLINICAL TRIALS	93.361	5-F31-NR-013847-02				-\$425
INJURY IN LATINA WOMEN AFTER SEXUAL ASSAULT: MOVING TOWARD HEALTH CARE EQUITY	93.361	1-R01-NR-011589-01				-\$299
ADVANCED TRAINING IN NURSING OUTCOMES RESEARCH	93.361	2-T32-NR-007104-11				\$350
DEFINING RISK FOR IATROGENIC WITHDRAWAL SYNDROME IN CRITICALLY ILL CHILDREN	93.361	1-F31-NR-015172-01				\$3,746
MECHANISMS OF SLEEPINESS SYMPTOMS IN SLEEP APNEA AND CARDIOVASCULAR DISEASE	93.361	1-K99-NR-014675-01				\$4,664
DOES CHRONOTYPE MODIFY THE RELATIONSHIP BETWEEN SLEEP AND BMI IN ADOLESCENTS?	93.361	1-F31-NR-014603-01A1				\$6,263
THE IMPACT OF NURSING ON IN-HOSPITAL CARDIAC ARREST PATIENT OUTCOMES	93.361	1-R01-NR-016002-01				\$18,486
ATRIAL FIBRILLATION SYMPTOM PERCEPTION	93.361	1F31NR015687-01A1				\$20,460
A MIXED METHODS OBSERVATIONAL STUDY OF PERSISTENT VOCALIZATIONS IN NURSING HOME RESIDENTS WITH MODERATE TO SEVERE DEMENTIA	93.361	1-F31-NR-015693-01				\$32,053
AN OBJECTIVE SNORING INDEX AND ITS ASSOCIATION WITH CAROTID ATHEROSCLEROSIS	93.361	1-K99-NR-013177-01				\$127,130
MECHANISMS OF A SYMPTOM CLUSTER: DYSPNEA, FATIGUE AND SLEEP DISTURBANCE IN CHRONIC ILLNESS	93.361	1-K23-NR-014885-01				\$131,296
SODIUM-RESTRICTED DIETS AND SYMPTOMS IN END STAGE RENAL DISEASE: AN RCT	93.361	1-K23-NR-015058-01				\$131,994
PANEL STUDY OF EFFECTS OF CHANGES IN NURSING ON PATIENT OUTCOMES	93.361	1-R01-NR-014855-01				\$180,784
PROMOTING TEEN HEALTH: A WEB-BASED INTERVENTION TO PREVENT RISKY DRIVING	93.361	4-R00-NR-013548-03			\$71,048	\$225,529
TESTING A LATINO WEB-BASED PARENT-ADOLESCENT SEXUAL COMMUNICATION INTERVENTION	93.361	7-R01-NR-013505-04			\$144,877	\$292,132
DECISION SUPPORT: OPTIMIZING POST ACUTE REFERRALS AND EFFECT ON PATIENT OUTCOMES	93.361	2-R01-NR-007674-04A2				\$329,775
A LONGITUDINAL STUDY OF ADHERENCE TO MEDICATION IN BLACK MEN WITH HYPERTENSION	93.361	1-R01-NR-013491-01A1			\$86,730	\$361,153
INDIVIDUALIZED CARE FOR AT RISK OLDER ADULTS	93.361	2-T32-NR-009356-06A1				\$419,194
ADVANCED TRAINING IN NURSING OUTCOMES RESEARCH	93.361	2-T32-NR-007104-16				\$455,389
PSYCHOLOGICAL EFFECTS OF INJURIES IN URBAN BLACK MEN: A DISPARATE HEALTH ISSUE	93.361	1-R01-NR-013503-01			\$91,879	\$456,420
RESEARCH ON VULNERABLE WOMEN, CHILDREN AND FAMILIES	93.361	2-T32-NR-007100-16				\$459,002
REVEALING THE ROLE OF THE CERVICO-VAGINAL MICROBIOME IN SPONTANEOUS PRETERM BIRTH	93.361	1-R01-NR-014784-01			\$168,578	\$490,129
DECODING THE MICROBIAL BIOBURDEN OF DIABETIC FOOT ULCERS: A METAGENOMIC APPROACH	93.361	1-R01-NR-015639-01			\$36,377	\$634,115
NURSING STUDENT LOANS-GRAD-LOANS ISSUED DURING FY16	93.364					\$57,000
NURSING STUDENT LOANS-GRAD-OUTSTANDING BALANCE AS OF JULY 1, 2015	93.364					\$481,591
NURSING STUDENT LOANS-UNDER GRAD-LOANS ISSUED DURING FY16	93.364					\$561,859
NURSING STUDENT LOANS-UNDER GRAD-OUTSTANDING BALANCE AS OF JULY 1, 2015	93.364					\$2,176,943
SURGERY TO PREVENT POST INFARCTION VENTRICULAR REMODELING	93.387	2-R01-HL-063954-14A1			\$59,667	\$592,584
A RESOURCE FOR MAGNETIC RESONANCE AND OPTICAL IMAGING	93.389	2P41-RR-002305-26				-\$33,853
TRAINING GRANT IN COMPARATIVE MEDICAL & MOLECULAR GENETICS	93.389	2-T32-RR-007063-11A1				-\$3,309

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TRANSLATIONAL RESEARCH AND LABORATORY ANIMAL MEDICINE EDUCATION FOR VETERINARIANS	93.389	5-R25-OD-010986-03				\$1,857
INTEGRATIVE MOUSE PATHOBIOLOGY: GI EPITHELIAL BIOLOGY AND GENETICS	93.389	1-K26-RR-032714-01				\$90,876
HUMANIZED MICE TO STUDY MAST CELL FUNCTION	93.389	1-R21-OD-017843-01A1				\$207,410
INSTITUTIONAL CLINICAL AND TRANSLATIONAL SCIENCE AWARD	93.389	2-UL1-RR-024133-06			\$3,556,384	\$11,470,347
MESOTHELIOMA INHIBITION BY SECOISOLARICRESINOL DIGLUCOSIDE (SDG)	93.393	1-R03-CA-180548-01				-\$1,532
97-448: PREDICTION AND MODIFICATION OF MELANOMA RISK	93.393	1-P01-CA-075434-01 PRIME				-\$1,327
THE RAP80-BRCC36 DEUBIQUITINATING COMPLEX IN DNA REPAIR	93.393	1-R01-CA-138835-01A1				-\$350
LUNG CANCER SCREENING: A DEBATE OF PRACTICE, POLICY, AND SCIENCE	93.393	1-R13-CA-189538-01				\$313
IMAGING AND MODIFYING HYPOXIA IN HEAD AND NECK SQUAMOUS	93.393	1-R01-CA-129349-01A1				\$2,149
C MYC TARGETS IN THE PATHOGENESIS OF HUMAN CANCERS	93.393	7-R01-CA-057341-21				\$5,182
THE ROLE OF FYN AND SRCASM IN UVB-INDUCED CUTANEOUS NEOPLASIA	93.393	4-R01-CA-165836-05				\$8,620
CHROMATIN STRUCTURE MAINTENANCE AND CANCER	93.393	1-R01-CA-148768-01				\$13,575
EXTENDED DURATION VARENICLINE FOR SMOKING AMONG CANCER PATIENTS: A CLINICAL TRIAL	93.393	4-R01-CA-165001-05				\$21,539
ROLES OF CHROMATIN MODIFICATION IN BRCA1 DEPENDENT DNA REPAIR	93.393	4-R01-CA-174904-04				\$23,047
MECHANISM OF BRD4-MEDIATED PAPILLOMAVIRUS HOST INTERACTIONS	93.393	1-R01-CA-142723-01				\$31,203
BEHAVIORAL ACTIVATION FOR SMOKING CESSATION AND THE PREVENTION OF POST-CESSATION WEIGHT GAIN	93.393	1-R01-CA-206058-01				\$33,621
ASSEMBLY COMPARTMENT FORMATION AND NUCLEAR ALTERATIONS MEDIATED BY HCMV	93.393	4-R01-CA-157846-05				\$40,932
VIRTUAL CANCER GENETIC SERVICES: TELEMEDICINE DELIVERY IN COMMUNITY CLINICS	93.393	1-R21-CA-164121-01A1			\$20,113	\$47,193
RACIAL DIFFERENCES IN BRCA 1/2 TESTING: PATIENTS OR PROVIDERS?	93.393	1-R01-CA-133004-01A1			\$49,927	\$49,927
RESTORING HIV-1 SPECIFIC T CELL IMMUNITY	93.393	1-R01-CA-147795-01A1				\$51,441
TESTING AN ORGANIZATIONAL CHANGE MODEL TO ADDRESS SMOKING IN MENTAL HEALTHCARE	93.393	1-R01-CA-202699-01A1				\$53,729
STATISTICAL METHODS FOR CANCER ABSOLUTE RISK PREDICTION	93.393	4-R01-CA-164305-04				\$56,864
REGULATION OF A DNA DAMAGE RESPONSE NETWORK IN GLIOBLASTOMA	93.393	4-R01-CA-172651-04				\$63,384
STATISTICAL METHODS FOR ESTIMATION OF BENEFITS & HARMS OF REPEAT CANCER SCREENING	93.393	7-R03-CA-182986-02				\$67,839
MACROPHAGE COX-2 AS A TARGET IN BREAST CANCER CHEMOPREVENTION	93.393	1R03-CA-171661-01A1				\$76,958
IMPLEMENTING SURVIVORSHIP CARE PLANS: METRICS TO FOSTER RESEARCH AND FIDELITY	93.393	1-R21-CA-169950-01A1				\$99,118
TUMOR ANTIGEN-SPECIFIC T-CELLS AND HEPATOCELLULAR CARCINOMA	93.393	4-R01-CA-166111-04				\$102,838
THE ROLE OF MICRORNA, MIR-30D, IN THE INITIATION AND PROGRESSION OF CANCER	93.393	1-R01-CA-142776-01A1				\$105,234
LINKING CANCER CELL METABOLIC REPROGRAMMING TO THE DNA REPAIR MECHANISM	93.393	1-R21-CA-194973-01				\$132,649
CONSTRUCTING RECOMMENDER SYSTEMS FOR EFFECTIVE HEALTH MESSAGES: SMOKING CESSATION	93.393	1-R01-CA-160226-01				\$142,411
CYTOMEGALOVIRUS-MEDIATED MODIFICATION OF HOST CELL METABOLISM	93.393	1-R01-CA-157679-01				\$158,876
TUMOR ANTIGEN-SPECIFIC T-CELLS AND HEPATOCELLULAR CARCINOMA	93.393	1-R01-CA-166111-01A1				\$161,665
EARLY EVENTS IN KSHV INFECTION OF PRIMARY B-CELLS	93.393	4-P01-CA-174439-04				\$176,827
THE ROLE OF FYN AND SRCASM IN UVB-INDUCED CUTANEOUS NEOPLASIA	93.393	1-R01-CA-165836-01A1				\$180,475
INVESTIGATING THE ASSOCIATION BETWEEN THE SOMATIC AND INHERITED GENETICS OF PHEOCHROMOCYTOMA/PARAGANGLIOMA	93.393	1-R21-CA-185953-01				\$233,754
ROLES OF CHROMATIN MODIFICATION IN BRCA1 DEPENDENT DNA REPAIR	93.393	1-R01-CA-174904-01				\$248,840
COMMUNICATING SMOKING RISKS THROUGH GRAPHIC WARNING LABELS	93.393	1-R01-CA-157824-01A1			\$81,983	\$253,596
INTERACTION OF ANTI-ANGIOGENIC AND CYTOTOXIC THERAPIES IN COLORECTAL CANCER	93.393	1-R01-CA-139003-03			\$18,728	\$278,565
ASSEMBLY COMPARTMENT FORMATION AND NUCLEAR ALTERATIONS MEDIATED BY HCMV	93.393	1-R01-CA-157846-01A1				\$283,049
THE EPIGENETIC MECHANISM OF LONG NON-CODING RNA IN CANCER	93.393	1-R01-CA-190415-01				\$298,019
STATISTICAL METHODS FOR CANCER ABSOLUTE RISK PREDICTION	93.393	1-R01-CA-164305-01A1			\$50,928	\$302,031
MERKEL CELL POLYOMAVIRUS INFECTION, DNA DAMAGE RESPONSE AND CANCER	93.393	1-R01-CA-187718-01A1				\$325,977
USE OF GENETICALLY ENGINEERED T CELLS TARGETING TUMOR STROMA TO TREAT LUNG CANCER	93.393	1-R01-CA-172921-01A1				\$342,242
REGULATION OF A DNA DAMAGE RESPONSE NETWORK IN GLIOBLASTOMA	93.393	1-R01-CA-172651-01A1				\$348,201
RETRAINING NEUROCOGNITIVE MECHANISMS OF CANCER RISK BEHAVIOR (PQ4)	93.393	1-R01-CA-170297-01			\$31,284	\$348,570
MENIN-MEDIATED EPIGENETIC TUMOR SUPPRESSION	93.393	1-R01-CA-178856-01A1				\$353,898
THE RAP80-BRCC36 DEUBIQUITINATING COMPLEX IN DNA REPAIR	93.393	2-R01-CA-138835-06A1			\$33,599	\$354,165
ROLE OF ACETYL-COA IN LINKING CANCER CELL METABOLISM AND EPIGENETICS	93.393	1-R01-CA-174761-01A1				\$359,365
EPIGENETIC REGULATION BY TUMOR SUPPRESSOR P53	93.393	2R01CA078831-16				\$361,307
PQ3-A: NEURAL PREDICTORS OF RECEPTIVITY TO HEALTH COMMUNICATION AND BEHAVIOR CH	93.393	1-R01-CA-180015-01			\$133,310	\$424,562
RETENTION IN CANCER CLINICAL TRIALS: MODELING PATIENTS' RISK BENEFIT ASSESSMENTS	93.393	1-R01-CA-196131-01A1			\$86,048	\$426,130
MYC--TRANSCRIPTION AND APOPTOSIS	93.393	R01-CA-051497				\$433,688
EFFECTS OF ATR-CHEK1 INHIBITION ON GENOME STABILITY AND CANCER PROGRESSION	93.393	1-R01-CA-189743-01A1			\$79,386	\$448,382

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RETURNING GENETIC RESEARCH PANEL RESULTS FOR BREAST CANCER SUSCEPTIBILITY	93.393	1-R01-CA-190871-01			\$78,930	\$479,207
COMMUNICATING GENETIC TEST RESULTS BY TELEPHONE: A RANDOMIZED TRIAL	93.393	1-R01-CA-160847-01A1			\$185,366	\$483,911
EXTENDED DURATION VARENICLINE FOR SMOKING AMONG CANCER PATIENTS: A CLINICAL TRIAL	93.393	1-R01-CA-165001-01A1			\$186,529	\$503,488
NEUROSCIENCE-BASED INTERVENTIONS FOR CANCER RISK BEHAVIOR CHANGE	93.393	1-R35-CA-197461-01				\$741,830
PLACEBO-CONTROLLED TRIAL OF BUPROPION FOR SMOKING CESSATION IN PREGNANT WOMEN	93.393	1-R01-CA-184315-01			\$105,987	\$850,031
EFFECTIVENESS OF SCREENING COLONOSCOPY IN REDUCING DEATHS FROM COLORECTAL CANCER	93.393	7-U01-CA-151736-04			\$480,806	\$980,885
POST GWA STUDIES IN TESTICULAR GERM CELL TUMORS	93.393	1-U01-CA-164947-01			\$273,183	\$1,007,150
EARLY EVENTS IN KSHV INFECTION OF PRIMARY B-CELLS	93.393	1-P01-CA-174439-01A1			\$253,356	\$1,124,032
COLLABORATIVE HUMAN TISSUE NETWORK EASTERN DIVISION	93.393	1-UM1-CA-183711-01				\$1,134,937
CD164 AS A NOVEL BIOMARKER FOR MALIGNANT CD4 T CELLS IN CUTANEOUS T CELL LYMPHOMA	93.394	1-R21-CA-178424-01				-\$32,310
A CLINICAL STUDY OF MRI IN BREAST CANCER	93.394	5-U01-CA-074680-04				-\$28,007
SOFTWARE TO FACILITATE MULTIMODE, MULTISCALE FUSED DATA FOR PATHOLOGY AND RADIOLO	93.394	4-R01-CA-136535-03				-\$23,619
COOPERATIVE HUMAN TISSUE NETWORK EASTERN DIVISION	93.394	2-U01-CA-044974-19				-\$202
HLTF GENE SILENCING: A NOVEL DETERMINANT OF SENSITIVITY TO AUTOPHAGY INHIBITION	93.394	4-R01-CA-169134-04				\$15,842
TUMOR-TARGETED POLYMERSOMES TO IMAGE AND TREAT OVARIAN CANCER	93.394	4-R01-CA-175480-04				\$29,077
MULTI-PARAMETRIC 4-D IMAGING BIOMARKERS FOR NEOADJUVANT TREATMENT RESPONSE	93.394	1-R01-CA-197000-01A1				\$35,649
HIGH PERFORMANCE, QUANTITATIVE BREAST PET SCANNER INTEGRATED WITH TOMOSYNTHESIS	93.394	1-R01-CA-196528-01A1				\$57,583
IMAGING MITOCHONDRIAL REDOX STATES IN VIVO BY HYPERPOLARIZED MR	93.394	1-R01-CA-155348-01				\$75,340
(PDQ5)INTEGRATED GENETIC AND EPIGENETIC PROGNOSTICATION FOR ACUTE MYELOID LEUKEMIA	93.394	1-R21-CA-185365-01				\$90,658
MUTATION PROFILE AS TRANSLATABLE PROGNOSTIC BIOMARKER OF UVEAL MELANOMA	93.394	1-R21-CA-181935-01A1				\$96,239
METABOLIC IMAGING MARKER FOR TRIPLE NEGATIVE BREAST CANCER	93.394	1-R21-CA-198563-01				\$134,414
ADVANCED MRI METHODS FOR DETECTING PSEUDO-PROGRESSION OF GLIOBLASTOMAS	93.394	1-R21-CA-170284-01A1			\$9,110	\$162,750
VIRTUAL CLINICAL TRIALS: SIMULATION OF DIGITAL BREAST TOMOSYNTHESIS SCREENING	93.394	1-R01-CA-154444-01			\$1,000	\$163,929
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			\$18,013	\$178,714
SYSTEMIC CHEMOTHERAPY OF MELANOMA: NMR STUDIES OF LONIDAMINE & N-MUSTARD ACTIVITY	93.394	4-R01-CA-129544-07				\$183,136
NEAR INFRARED INTRAOPERATIVE MOLECULAR IMAGING OF LUNG ADENOCARCINOMA	93.394	1-R01-CA-193556-01A1				\$198,752
KSHV GENOME MODIFICATION IN KS TISSUE	93.394	1-R01-CA-177423-01				\$217,314
A NEW IMAGING APPROACH TO RADIOTHERAPY PLANNING FOR LUNG CANCER	93.394	1-R01-CA-193050-01				\$223,248
EFFECT OF BREAST DENSITY ON SCREENING RECALL WITH DIGITAL BREAST TOMOSYNTHESIS	93.394	1-R01-CA-161749-01A1				\$255,136
A MICRO HALL CHIP FOR CIRCULATING MICROVESICLE BASED CANCER MONITORING	93.394	1-R21-CA-182336-01A1				\$260,766
SYSTEMIC CHEMOTHERAPY OF MELANOMA: NMR STUDIES OF LONIDAMINE & N-MUSTARD ACTIVITY	93.394	2-R01-CA-129544-03A1				\$283,654
TUMOR-TARGETED POLYMERSOMES TO IMAGE AND TREAT OVARIAN CANCER	93.394	1-R01-CA-175480-01A1			\$64,835	\$305,416
HLTF GENE SILENCING: A NOVEL DETERMINANT OF SENSITIVITY TO AUTOPHAGY INHIBITION	93.394	1-R01-CA-169134-01A1				\$330,049
HIGHLY PARAMAGNETIC, BIODEGRADABLE NANOCCLUSERS FOR IMAGING PROSTATE CANCER	93.394	1-R01-CA-157766-01			\$51,942	\$332,990
CARBOHYDRATE ANTIGENIC BIOMARKERS FOR EPITHELIAL CANCERS	93.394	7-U01-CA-168925-03			\$154,554	\$452,786
REDOX IMAGING FOR BREAST CANCER PROGNOSIS	93.394	1-R01-CA-191207-01A1				\$491,069
TIME-OF-FLIGHT PET FOR IMPROVED WHOLE-BODY IMAGING	93.394	2-R01-CA-113941-10				\$543,627
NOVEL PET IMAGING AGENTS FOR UNDERSTANDING GLUTAMINE ADDICTION IN CANCER	93.394	1-R01-CA-164490-01				\$956,560
GENOTYPE AND PHENOTYPE PREDICTORS IN THERAPY RESPONSE IN RENAL CELL CARCINOMA	93.395	1-R01-CA-135509-01A1				-\$3
TOLL RECEPTOR LIGAND THERAPY OF CUTANEOUS T-CELL LYMPHOMA	93.395	1-R01-CA-122569-01A2				\$482
A UNIVERSAL APPROACH TO PERSONALIZED ADOPTIVE T CELL THERAPY OF CANCER	93.395	4-R01-CA-168900-05				\$13,822
INTEGRATIVE INNOVATION: THE 12TH SOCIETY FOR INTEGRATIVE ONCOLOGY ANNUAL CONFERENCE	93.395	1-R13-CA-203369-01				\$15,000
IMMUNO/IMMUNO-GENE THERAPIES FOR THORACIC MALIGNANCIES	93.395	4-P01-CA-066726-19				\$19,165
MECHANISM OF ACTIVITY OF LONIDAMINE	93.395	4-R01-CA-172820-04				\$29,842
IMMUNOBIOLOGY AND IMMUNOTHERAPY OF PANCREATIC CANCER	93.395	4-R01-CA-169123-05				\$49,713
NANOSCALE ENCAPSULATION FOR FRAGMENT BASED DRUG DISCOVERY	93.395	1-R21-CA-206958-01				\$52,338
DENDRITIC CELL-MEDIATED ORAL ANTIGEN TOLERANCE AND THE LUNG	93.395	1-R21-AI-123771-01				\$54,830
ACCOUNTABILITY AND THE ROLE OF THE PRINCIPAL INVESTIGATOR IN MULTICENTER TRIALS	93.395	7-R01-CA-152110-04			\$131,165	\$126,827

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CD19 DIRECTED CAR THERAPY	93.395	4-R01-CA-165206-05				\$128,813
HOW DOES FLT3 MUTATION REGULATE MYELOID DIFFERENTIATION IN ACUTE MYELOID LEUKEMIA	93.395	1-R21-CA-198621-01			\$5,743	\$134,371
IMAGE-GUIDED TREATMENT PLANNING FOR PLEURAL PHOTODYNAMIC THERAPY	93.395	1-R01-CA-154562-01A1				\$138,480
CD19 DIRECTED CAR THERAPY	93.395	1-R01-CA-165206-01				\$155,806
IMAGE-GUIDED TREATMENT PLANNING FOR PLEURAL PHOTODYNAMIC THERAPY	93.395	4-R01-CA-154562-05				\$170,017
ESTROGEN DEPRIVATION AND AROMATASE INHIBITOR ASSOCIATED ARTHRALGIA	93.395	1-R01-CA-158243-01				\$183,844
THE COURAGE TRIAL: COLON RECURRENCE AND AEROBIC EXERCISE: A FEASIBILITY STUDY	93.395	1-R21-CA-182767-01A1			\$28,696	\$188,313
A FACILE METHOD FOR PRODUCING BISPECIFIC ANTIBODIES FROM FULL-LENGTH IGG	93.395	1-R21-CA-187657-01				\$201,717
MOLECULAR MECHANISMS OF BRAF INHIBITOR INDUCED UPB AND AUTOPHAGY	93.395	1-R01-CA-198015-01				\$253,223
COMBINED CD40 ACTIVATION AND CTLA4 BLOCKADE IN MELANOMA	93.395	1-R01-CA-158186-01				\$254,389
ANTITUMOR AGENTS: STRUCTURE AND SYNTHESIS	93.395	2-R01-CA-019033-37A1				\$257,224
HIF1 AND VEGF IN SARCOMA PROGRESSION, METASTASIS, AND RADIATION RESPONSE	93.395	1-R01-CA-158301-01			\$144,272	\$257,807
IMMUNOTHERAPY WITH CAR T CELLS	93.395	2-R01-CA-120409-06				\$262,958
A RANDOMIZED TRIAL OF INCENTIVES FOR RESEARCH PARTICIPATION	93.395	1-R01-CA-197332-01				\$265,866
IMPROVING RADIATION RESPONSE BY TARGETING O2 METABOLISM VIA THE PI3K/MTOR PATHWAY	93.395	1-R01-CA-182747-01A1				\$285,165
A UNIVERSAL APPROACH TO PERSONALIZED ADOPTIVE T CELL THERAPY OF CANCER	93.395	1-R01-CA-168900-01				\$298,664
INHIBITION OF HETEROMERIC ERBB KINASES	93.395	1-R01-CA-149425-01A1			\$10,281	\$315,284
EFFECTS OF PHOTODYNAMIC THERAPY ON TUMOR OXYGENATION AND BLOOD FLOW	93.395	2-R01-CA-085831-11A1				\$319,460
USING 18F-EF5 PET TO MEASURE HYPOXIA MODULATION BY Nelfinavir IN LARYNX CANCER	93.395	1-R01-CA-174976-01A1				\$435,458
MECHANISM OF ACTIVITY OF LONIDAMINE	93.395	1-R01-CA-172820-01A1				\$470,145
RADIATION AND RECEPTOR TARGETED RADIOTHERANOSTIC NANOPARTICLES FOR GLIOBLASTOMA	93.395	1-R01-CA-181429-01A1				\$524,095
IMMUNOBIOLOGY AND IMMUNOTHERAPY OF PANCREATIC CANCER	93.395	1-R01-CA-169123-01				\$596,261
IMMUNO/IMMUNO-GENE THERAPIES FOR THORACIC MALIGNANCIES	93.395	2-P01-CA-066726-15A1				\$882,210
BIOLOGICAL MECHANISMS INVOLVED WITH PDT IN THE TREATMENT OF MPM	93.395	2-P01-CA-087971-11A1			\$97,868	\$1,490,439
MECHANISMS OF ESOPHAGEAL CARCINOGENESIS	93.396	2-P01-CA-098101-01A1				-\$20,927
ROLE OF MITOCHONDRIAL RESPIRATORY STRESS SIGNALING IN CANCER PROGRESSION	93.396	2-R01-CA-022762-29A1				-\$25
CANCER CELL ADAPTATION TO METABOLIC STRESS	93.396	2-P01-CA-104838-06				-\$22
INFLAMMATION AND THE ESOPHAGEAL TUMOR MICROENVIRONMENT	93.396	1-U01-CA-143056-01				\$106
ROLE OF SNF1 KINASE HUNK IN BREAST CANCER PROGRESSION	93.396	1-R01-CA-127917-01A1				\$11,179
IDENTIFYING MECHANISMS OF P53 AND RB TUMOR SUPPRESSION IN SMALL CELL LUNG CANCER	93.396	1-R21-CA-205340-01				\$11,192
ROLE OF ELF2A PHOSPHORYLATION AND ER STRESS IN HYPOXIA TOLERANCE AND TUMOR GROWTH	93.396	4-R01-CA-094214-14				\$25,485
MECHANISMS OF BREAST CANCER PROGRESSION	93.396	2-U01-CA105490-06			\$7,488	\$43,120
RAG-INDUCED DNA DAMAGE: MECHANISMS AND RESPONSES	93.396	7-R01-CA-104588-08				\$61,057
SURVIVAL AND RECURRENCE OF DORMANT CANCER CELLS	93.396	1-R01-CA-148774-01A1				\$64,089
SIGNALING MECHANISMS OF RTKS WITH MEMBRANE-PROXIMAL FIBRONECTIN TYPE III DOMAINS	93.396	1-R03-CA-187021-01				\$67,894
FIBROBLAST ACTIVATION PROTEIN IN THE TUMOR MICROENVIRONMENT IN LUNG CANCER	93.396	7-R01-CA-141144-05				\$72,289
ANALYSIS OF ACTIVE AND INACTIVE EGFR CONFORMATIONS	93.396	2-R01-CA-112552-06A1				\$75,519
REGULATION OF HEMATOPOIETIC STEM CELL AND PROGENITOR CELL PROLIFERATION BY RUNX1 (PQ5) MITOCHONDRIA ARE ENDOCELLULAR SYMBIONTS THAT SERVE AS TARGETS FOR IMMUNE RECOGNITION	93.396	1-R01-CA-149976-01A1				\$80,110
ROLE OF HOS IN CELL TRANSFORMATION AND APOPTOSIS	93.396	1-R01-CA-206012-01				\$83,732
PROSTATE CARCINOGENESIS AND PKC SIGNALING	93.396	5-R01-CA-092900-14			\$2,983	\$98,276
DEREGULATION OF MSI RNA-BINDING PROTEINS PROMOTES INTESTINAL TUMORIGENESIS	93.396	2-R01-CA-089202-11			\$20,016	\$117,806
THE INTERACTION BETWEEN TRNA AND CYTOCHROME C IN APOPTOSIS OF CANCER CELLS	93.396	4-R01-CA-168654-05				\$123,700
ROLE OF MALIC ENZYMES IN TUMORIGENESIS	93.396	1-R21-CA-178581-01A1				\$126,471
ESTABLISHING THERAPEUTIC EFFICACY AND UNCOVERING MECHANISMS OF TUMOR SUPPRESSION	93.396	1-R21-CA-177048-01A1				\$126,873
EFFECTORS OF PROTEIN KINASE C-MEDIATED TUMOR PROGRESSION	93.396	4-R00-CA-158581-03				\$127,917
MINIMAL RESIDUAL DISEASE AND MECHANISMS OF BREAST CANCER RECURRENCE	93.396	1-R01-CA-196232-01A1				\$130,711
IN VIVO ONCOGENE-INDUCED TUMORIGENESIS AND ESCAPE	93.396	1-R01-CA143296-01A1				\$144,871
TUMOR-ASSOCIATED NEUTROPHILS IN HUMAN LUNG CANCER	93.396	2-R01-CA-098371-06				\$153,448
RECEPTOR MEDIATED BREAST CANCER THERAPY	93.396	1-R01-CA-187392-01A1				\$184,223
SPECIFICITY OF THE UBIQUITIN SYSTEM IN LYMPHOID MALIGNANCIES	93.396	2-R01-CA-089481-09A2			\$27,164	\$202,565
P53 AND TUMOR CELL METABOLISM	93.396	4-R00-CA-166181-02				\$210,356
SIGNALING MODULATORS IN EPIDERMAL CARCINOGENESIS	93.396	1R01CA182675-01A1				\$264,067
	93.396	1-R01-CA-163566-01				\$271,087

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ROLE OF ELF2A PHOSPHORYLATION AND ER STRESS IN HYPOXIA TOLERANCE AND TUMOR GROWTH	93.396	2-R01-CA-094214-10				\$289,534
UNDERSTANDING WNT5A REGULATION OF PROTEIN DEPALMITOYLATION DURING CELL MIGRATION	93.396	1-R01-CA-181633-01A1				\$296,555
DEREGULATION OF MSI RNA-BINDING PROTEINS PROMOTES INTESTINAL TUMORIGENESIS	93.396	1-R01-CA-168654-01				\$306,655
ROLE OF P53 FAMILY PROTEINS IN GLUCOSE METABOLISM	93.396	1-R01-CA-184867-01				\$330,405
CXCL13: A MEDIATOR OF PROSTATE CANCER PROGRESSION	93.396	1-R01-CA-189765-01A1				\$352,529
CALCINEURIN-NFAT REGULATES ENDOTHELIAL ACTIVATION IN PRE-METASTATIC SITES	93.396	2-R01-CA-118374-07A1				\$360,811
P53-MEDIATED TUMOR IMMUNE SURVEILLANCE	93.396	1-R01-CA-193602-01A1				\$386,132
UNDERSTANDING AND TARGETING CHEMOTHERAPY RESISTANCE IN ACUTE MYELOID LEUKEMIA	93.396	1-R01-CA-198089-01			\$140,531	\$416,810
METHODS FOR GENOMIC DATA WITH GRAPHICAL STRUCTURES	93.396	2-R01-CA-127334-05			\$15,655	\$442,732
CANCER IMAGING PHENOMICS SOFTWARE SUITE: APPLICATION TO BRAIN AND BREAST CANCER	93.396	1-U24-CA-189523-01A1				\$487,660
STEM CELLS, DIFFERENTIATION AND THERAPEUTIC RESISTANCE IN AML	93.396	1-R01-CA-149566-01A1			\$498,027	\$605,223
THE UNFOLDED PROTEIN RESPONSE IN CANCER	93.396	1-P01-CA-165997-01A1			\$303,879	\$1,027,138
CANCER CELL ADAPTATION TO METABOLIC STRESS	93.396	2-P01-CA-104838-11			\$824,517	\$1,469,382
MECHANISMS OF ESOPHAGEAL CARCINOGENESIS	93.396	2-P01-CA-098101-11			\$812,693	\$1,536,961
BOTSWANA-UPENN: RESEARCH CONSORTIUM OF HPV-RELATED CERVICAL CANCER IN HIV PATIENT	93.397	1-U54-CA-190158-01			\$267,229	\$551,901
PENN CENTER FOR INNOVATION IN PERSONALIZED BREAST SCREENING	93.397	1-U54-CA-163313-01			\$222,364	\$1,226,155
PENN TREC SURVIVOR CENTER	93.397	1-U54-CA-155850-01			\$70,052	\$1,413,213
LIVER CANCER: PRE-MALIGNANT STIFFENING, MEMBRANE TRANSDUCTION, & NUCLEAR RHEOLOGY	93.397	1-U54-CA-193417-01				\$1,887,100
ABRAMSON CANCER CENTER CORE SUPPORT GRANT	93.397	2-P30-CA-016520-35			\$94,258	\$3,538,872
ABRAMSON CANCER CENTER SUPPORT GRANT	93.397	2-P30-CA-016520-40			\$80,805	\$3,628,300
ROLE OF NOTCH 1 SIGNALING IN ESOPHAGEAL CARCINOGENESIS	93.398	1-F32-CA-174146-01				-\$492
SUMMER UNDERGRADUATE PROGRAM TO EDUCATE RADIATION SCIENTISTS (SUPERS)	93.398	5-R25-CA-140116-03				-\$268
SEX STEROID REGULATION OF MELANOCYTE HOMEOSTASIS	93.398	1-F31-CA-206325-01				\$1,948
CYCLIN D3 AND DNA DOUBLE STRAND BREAKS: GENOME STABILITY AND LYMPHOMAGENESIS	93.398	1-F31-CA-177092-01				\$2,439
A NOVEL HEMATOPOIETIC STEM CELL POPULATION	93.398	4-F31-CA-180604-03				\$5,844
CN/NFAT SIGNALING IN FIBROBLAST ACTIVATION AND METASTASIS	93.398	1-F30-CA-196079-01A1				\$7,792
MUTANT P53 HAS GAIN-OF-FUNCTION MECHANISMS TO MEDIATE TUMOR INVASION	93.398	1-F30-CA-174133-01				\$8,378
GENOMIC LANDSCAPE OF PANCREATIC CANCER METASTASIS	93.398	1-F32-CA-192761-01				\$8,431
SENSITIZATION OF CANCERS TO ATR INHIBITION VIA ELEVATED AURORA A-PLK1 ACTIVITY	93.398	1-F32-CA-171911-01A1				\$8,698
PROBING THE ROLE OF TUMOR SUPPRESSIVE FUNCTIONS OF ELF5 IN BREAST CANCER	93.398	1-K22-CA-193661-01A1				\$10,825
IFNARI DOWNREGULATION IN MELANOMA CELLS AND STROMAL CELLS PROMOTES MELANOMA						
PROGRESSION AND PULMONARY METASTASIS	93.398	1-F32-CA-206431-01				\$12,375
THE ROLE OF P120CTN IN PANCREATIC DUCTAL MORPHOGENESIS AND ADENOCARCINOMA	93.398	4-F30-CA-180601				\$13,370
CANCER CENTER RESEARCH TRAINING PROGRAM	93.398	2-T32-CA-009615-21				\$14,751
MUTANT P53 HAS GAIN-OF-FUNCTION MECHANISMS TO MEDIATE TUMOR INVASION	93.398	4-F30-CA-174133-03				\$15,168
THE ROLE OF ATF4 IN PROMOTING C-MYC INDUCED LYMPHOMAGENESIS	93.398	1-F31-CA-183569-01				\$18,090
THE ROLE OF P120CTN IN PANCREATIC DUCTAL MORPHOGENESIS AND ADENOCARCINOMA	93.398	1-F30-CA-180601-01				\$18,114
TRANSCRIPTIONAL COREGULATION IN PANCREATIC ADENOCARCINOMA PROGRESSION	93.398	1-F30-CA-177123-01				\$19,946
THE ROLE OF ATF4 IN PROMOTING C-MYC INDUCED LYMPHOMAGENESIS	93.398	4-F31-CA-183569-03				\$22,335
ROLE OF INTEGRIN ALPHA V IN HUMAN EPIDERMIS AND SQUAMOUS CELL CARCINOMA	93.398	1-F31-CA-186446-01				\$22,940
HIF-2ALPHA MEDIATED MITOPHAGY AND LIPOGENESIS IN CLEAR CELL RENAL CELL CARCINOMA	93.398	1-F30-CA-177106-01				\$23,015
DESIGNER ANTIGEN RECEPTORS TO RE-DIRECT T CELLS TO THE NY-ESO-A TUMOR ANTIGEN	93.398	1-K08-CA-166039-01				\$25,272
ROLE OF MLL1 AND MLL1 LEUKEMOGENIC FUSIONS IN MAINTAINING TRANSCRIPTIONAL MEMORY	93.398	1-F30-CA-189553-01				\$25,444
THE CENP-A COMPLEX AND CENTROMERE IDENTITY	93.398	1-F30-CA-186430-01				\$28,138
RECOMBINATION-BASED MECHANISMS FOR REPAIR OF DAMAGED DNA REPLICATION TEMPLATES	93.398	1-F31-CA189800-01				\$28,192
INVESTIGATING NON-CODING MECHANISMS OF FUNCTIONAL DYSREGULATION IN NEUROBLASTOMA	93.398	1-F30-CA-192831-01A1				\$29,367
ELUCIDATING THE ROLE AND REGULATION OF EPITHELIAL PLASTICITY IN METASTASIS	93.398	1-F31-CA177163-01A1				\$29,760
COMPLICATIONS OF JAW OSTEORADIONECROSIS IN CANCER MANAGEMENT	93.398	1-K22-CA-169089-01				\$33,953
MTOR INHIBITION AS A THERAPEUTIC STRATEGY FOR ACUTE MYELOID LEUKEMIA	93.398	1-K23-CA-141054-01A1				\$36,096
A NOVEL HEMATOPOIETIC STEM CELL POPULATION	93.398	1-F31-CA-180604-01				\$39,697
THE ROLE OF REPLISOME DEGRADATION IN REPLICATION FORK COLLAPSE AND DSB FORMATION	93.398	1-F31-CA-189737-01				\$40,803

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TRIB1 IN NF-KAPPAB SIGNALING: INSIGHTS INTO MALT1 REGULATION AND LEUKEMIA	93.398	1-F31-CA-189661-01				\$42,403
ROLE OF AKT-REGULATED ACETYL-COA METABOLISM IN ALTERING THE CANCER CELL EPIGENOME	93.398	1-F31-CA-189744-01A1				\$42,465
ONCOGENE-INDUCED CYTOPLASMIC AND NUCLEAR EVENTS LEADING TO REPLICATION STRESS	93.398	1-F31-CA-186412-01				\$42,526
THE MOLECULAR BASIS FOR HOW ACETYL-COENZYME A LINKS METABOLISM TO GENE EXPRESSION	93.398	1-F31-CA-189559-01				\$43,025
MECHANISMS AND FUNCTION OF SUPPRESSED RAG EXPRESSION BY DNA DOUBLE STRAND BREAKS	93.398	1-F31-CA-183551-01A1				\$43,906
STROMA-MEDIATED MECHANISMS OF BREAST CANCER TREATMENT RESISTANCE	93.398	1-F31-CA-189707-01				\$44,270
TIP60-CHROMATIN INTERACTIONS AT DNA DOUBLE-STRAND BREAKS	93.398	1-F30-CA-196115-01				\$46,324
MOLECULAR BASIS FOR SMALL MOLECULE STAT3 INHIBITION	93.398	7-F32-CA-180298-02				\$46,475
A ROLE FOR MACROPHAGE PHENOTYPE IN REGULATING METASTASIS IN PANCREATIC CARCINOMA	93.398	1-F30-CA-196106-01				\$47,254
MUTATIONS IN RUNX1 AND EPIGENETIC MODIFIERS COOPERATE IN LEUKEMOGENESIS	93.398	1-F30-CA-196123-01				\$47,255
BIOCHEMICAL REGULATION AND GENOMIC TARGETING OF TET-CATALYZED CYTOSINE OXIDATION	93.398	1-F30-CA-196097-01				\$47,757
DISRUPTION OF CIRCADIAN RHYTHM IN HYPOXIA	93.398	1-F30-CA-200347-01				\$47,943
A CELL-BASED LIQUID BIOPSY APPROACH FOR EARLY PANCREATIC CANCER DETECTION	93.398	1-F32-CA-196120-01				\$49,051
TUMOR SUPPRESSIVE FUNCTIONS OF THE UREA CYCLE IN RENAL CELL CARCINOMA	93.398	1F32CA192758-01				\$52,350
UNDERSTANDING GLUTAMINASE ALTERNATIVE SPLICING IN CANCER METABOLISM	93.398	1-F32-CA-174148-01A1				\$52,471
MOLECULAR BASIS FOR JARID1B DEMETHYLASE ACTIVITY	93.398	1-F32-CA180504-01A1				\$54,308
EXPLOITING MTORC1-DRIVEN CANCER CELL VULNERABILITIES	93.398	1F32CA177108-01A1				\$59,756
PRO- AND ANTI-PHAGOCYtic SIGNALS ON PANCREATIC CANCER REGULATE TUMOR MACROPHAGES	93.398	1-F30-CA-196124-01				\$60,801
ONCOGENIC DISRUPTION OF CIRCADIAN RHYTHM AND CHRONOTHERAPY	93.398	1F32CA180370-01A1				\$61,199
EFFECTS OF EXERCISE ON VISCERAL ADIPOSITY & HYPERINSULINEMIA IN COLON CANCER SURVIVOR	93.398	1-F31-CA-192560-01				\$65,228
COPPER REDUCTION AS A NOVEL THERAPY IN BRAF-MUTANT POSITIVE CANCERS	93.398	7-K01-CA-178145-03				\$77,966
SOCIAL DETERMINANTS OF BREAST CANCER SURVIVORSHIP	93.398	1-K01-CA-184288-01				\$82,075
CHIMERIC ANTIGEN RECEPTOR T CELL THERAPY FOR ACUTE MYELOID LEUKEMIA (AML)	93.398	1-K08-CA-194256-01				\$139,527
EFFECTIVENESS OF RADIOTHERAPY FOR PROSTATE CANCER	93.398	1-K07-CA-163616-01A1				\$144,508
INSULIN RESISTANCE IN THE DEVELOPMENT AND PROGRESSION OF INVASIVE BLADDER CANCER	93.398	1-K23-CA-187185-01A1				\$152,336
CANCER CLINICAL EPIDEMIOLOGY TRAINING GRANT	93.398	2-T32-CA-009679-21				\$171,670
TARGETING SRC SIGNALING PATHWAYS TO PROMOTE CELL CYCLE ARREST IN OVARIAN CANCER	93.398	K08-CA-151892				\$177,121
CD40 PATHWAY IN PANCREATIC ADENOCARCINOMA	93.398	1-K08-CA-138907-01A2				\$179,521
AUGMENTING CHIMERIC ANTIBODY RECEPTOR DIRECTED T CELL THERAPY FOR CANCER	93.398	1-K08-CA-163941-01				\$183,878
IMMUNOBIOLOGY OF NORMAL AND NEOPLASTIC LYMPHOCYTES	93.398	2-T32-CA-009140-36				\$212,875
CHARACTERIZATION OF EPIGENETIC TARGETS IN PROSTATE CANCER	93.398	4-R00-CA-187664-03				\$254,897
SUMMER UNDERGRADUATE PROGRAM TO EDUCATE RADIATION SCIENTISTS (SUPERS)	93.398	2-R25-CA-140116-06				\$257,244
TRAINING IN TUMOR VIROLOGY	93.398	2-T32-CA-115299-06				\$265,723
IMMUNOBIOLOGY OF NORMAL AND NEOPLASTIC LYMPHOCYTES	93.398	2-T32-CA-009140-41A1				\$282,715
CANCER CENTER RESEARCH TRAINING PROGRAM	93.398	2-T32-CA-009615-26				\$288,840
CELLULAR MOLECULAR BIOLOGICS IN CLINICAL CANCER RESEARCH	93.398	2-K12-CA-076931-16A1			\$77,876	\$399,844
CENTER FOR INTERDISCIPLINARY RESEARCH ON NICOTINE ADDICT	93.399	1-P50-CA-143187-01				\$41,470
EXPANDING PUBLIC HEALTH EXPERIENTIAL LEARNING IN PRE-DOCTORAL DENTAL EDUCATION	93.403	D85HP20034-01-00				\$158,374
REGULATION OF NEUROGENESIS AND BEHAVIOR BY GSK-3	93.424	1-R01-MH-100923-01A1				\$645,331
AFFORDABLE CARE ACT: PRIMARY CARE RESIDENCY EXPANSION	93.510	1-T89-HP-21071-01-00				\$505,837
EXPANDING ENROLLMENT IN NP AND NMW PROGRAMS	93.513	1-T57-HP-20598-01-00				\$960
CHILD-CENTERED ASSESSMENT OF APPROACHES TO LEARNING: DEVELOPMENT AND VALIDATION OF A MEASURE FOR USE IN PRESCHOOL CHILD CARE CLASSROOMS	93.575	90YE0162-01-00				\$11,616
HEALTH CARE INNOVATION CHALLENGE	93.610	1C1CMS331016-01-00				\$63,564
HEALTH CARE INNOVATION CHALLENGE	93.610	1-C1C-MS-331009-01-00				\$648,684
ARRA - A RANDOMIZED TRIAL OF BEHAVIORAL ECONOMIC INTERVENTIONS TO REDUCE CVD RISK	93.701	1-RC4-AG-039114-01				-\$3,359
PROTON AND ELECTRON TRANSFER AND ENERGY COUPLING IN SITE I	93.701	2-R01-GM-030736-11				\$46
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 WORKERS	93.732	1 M01HP25197-01-00				\$172,781

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98-493:GRADUATE TRAINING IN SYSTEMS AND INTEGRATIVE BIOLOGY.	93.821	2-T32-GM-007517-21				\$105
TRAINING PROGRAM IN CARDIOVASCULAR BIOLOGY AND MEDICINE	93.827	2-T32-HL-007843-16				\$401,037
INTERROGATION OF NOVEL PATHWAYS REGULATING VLDL PRODUCTION AND PLASMA LIPIDS	93.837	1-R01-HL-109489-01				-\$65,009
DNA VIRUS AS VECTORS FOR CARDIOVASCULAR DISEASES	93.837	2-P01-HL-059407-11				-\$34,769
LUNG TRANSPLANT DONOR: PREDICTION, EVALUATION, AND MECHANISM	93.837	1-K23-HL-116656-01				-\$19,926
IMPROVING THE DIAGNOSIS OF HEPARIN-INDUCED THROMBOCYTOPENIA	93.837	1-K23-HL-112903-01				-\$10,202
GENETIC VARIATION IN THE ANGPT-TIE PATHWAY AND RISK FOR ACUTE LUNG INJURY	93.837	1-K23-HL-102254-01				-\$8,426
EFFECTS OF NIACIN ON LP(A), OXIDIZED LDL, AND INFLAMMATION IN THE AIM-HIGH TRIAL	93.837	1-R01-HL-086864-01A2				-\$6,467
PREDICTORS OF THERAPEUTIC RESPONSIVENESS TO LESTAUTINIB IN MYELOFIBROSIS	93.837	1-K23-HL-093366-01A1				-\$1,686
TRAINING IN CRITICAL CARE HEALTH POLICY RESEARCH	93.837	1-T32-HL-098054-01A1				-\$1,378
THE CONTRIBUTION OF MELANOCYTE-LIKE CELLS TO ATRIAL FUNCTION AND DEVELOPMENT	93.837	1-R01-HL-105734-01A1				\$331
SURGERY TO PREVENT POST INFARCTION VENTRICULAR REMODELING	93.837	- 2R01HL063954-14A1				\$1,334
RESEARCH CAREER TRAINING IN VASCULAR MEDICINE	93.837	1-K12-HL-083772-01A1				\$1,574
INFLAMMATION PROMOTING RESPIRATORY TRACT INFECTION	93.837	1-F30-HL-119030-01				\$1,873
USE OF REAL TIME MRI FOR EVALUATION OF REGIONAL MYOCARDIAL FUNCTION	93.837	1F31HL120580-01A1				\$3,414
PREDICTION AND ASSESSMENT OF COPD LUNG VOLUME REDUCTION OUTCOMES WITH POLARIZED MRI	93.837	1-R01-HL-129805-01A1				\$5,303
EXERCISE AND STEM CELL ENGRAFTMENT IN THE HEART FOLLOWING MYOCARDIAL INFARCTION	93.837	1-R21-HL-113777-01A1				\$5,848
CLINICAL AND GENETIC PREDICTORS OF UNSTABLE WARFARIN RESPONSE	93.837	1-F30-HL-115992-01				\$6,263
THE BIOLOGY OF THE ABCA3 LIPID TRANSPORTER IN HEALTH AND DISEASE	93.837	1-R01-HL-129150-01A1				\$7,074
MULTISCALE ANALYSIS OF TRAUMA	93.837	1-U01-HL-131053-01A1				\$7,248
NOVEL METHODS FOR THE CONDUCT OF CLINICAL TRIALS	93.837	4-R01-HL-115041-04				\$7,651
TARGETING NF-KB IN ATHEROSCLEROSIS	93.837	1-R01-HL-096642-01A2				\$7,759
MULTIDISCIPLINARY TRAINING IN CARDIOVASCULAR BIOLOGY	93.837	2-T32-HL-007954-11A1				\$10,599
GLYCOMICS OF HEART AND LUNG DISEASE IN THE GENOMIC ERA	93.837	1-U01-HL-108636-01				\$11,190
REGULATION OF CARDIAC POWER OUTPUT IN HEALTH AND DISEASE	93.837	1-K99-HL-123623-01				\$12,293
LYMPHANGIOGENESIS IN PULMONARY LYMPHANGIOLEIOMYOMATOSIS (LAM)	93.837	1-R01-HL-131626-01				\$14,975
ENDOTHELIAL TARGETING OF ANTIOXIDANTS	93.837	1-R01-HL-126874-01A1				\$16,128
SURROGATE MEASURES OF ENDOTHELIAL DYSFUNCTION WITH INTEGRATED MRI	93.837	4-K25-HL-111422-05				\$23,665
MOLECULAR MECHANISMS OF CCM SIGNALING	93.837	1-R01-HL-102138-01				\$26,142
INVESTIGATING THE ROLE OF HOPX IN CARDIAC PROGENITOR PROLIFERATION	93.837	4-K08-HL-119553-04				\$28,522
REVERSAL OF DIRECT FXA INHIBITORS USING ZYMOGEN-LIKE VARIANTS OF FXA	93.837	1-F30-HL-120487-01				\$30,515
SHORT-TERM RESEARCH EDUCATION PROGRAM TO INCREASE DIVERSITY IN HEALTH-RELATED RESEARCH	93.837	2-R25-HL-084665-11				\$30,576
TRAINING IN SLEEP AND SLEEP DISORDERS	93.837	2-T32-HL-007953-11A1				\$32,970
G-CSF, A KEY REGULATOR OF NEUTROPHILS, PROMOTES ALVEOLAR REPAIR	93.837	1-F32-HL-131079-01				\$33,412
STRATEGIES FOR TRANSCATHETER MITRAL VALVE REPLACEMENT	93.837	4-R01-HL-115323-04				\$40,437
DEFINING MECHANISMS THAT REGULATE DIET-INDUCED WAKE IMPAIRMENTS	93.837	1-F31-HL-128124-01				\$41,210
APOC-III: STRUCTURE-FUNCTION AND REGULATION OF TRIGLYCERIDE METABOLISM	93.837	1-F30-HL-124967-01				\$42,251
PREGNANCY AS A WINDOW TO FUTURE CARDIOVASCULAR HEALTH	93.837	1-U10-HL-119993-01				\$44,879
UNDERSTANDING THE SLEEP APNEA/INSOMNIA INTERACTION: A CPAP/SHAM-CPAP TRIAL	93.837	1-R34-HL-109462-01A1				\$45,194
THE ROLE OF NEUREGULIN IN HUMAN CARDIAC REMODELING AND HEART FAILURE	93.837	1-K23-HL095661-01A1				\$47,335
FULLY AUTOMATED 4D ECHOCARDIOGRAPHIC MITRAL VALVE ANALYSIS FOR SURGICAL REPAIR	93.837	1-F32-HL-119010-01				\$47,411
IMPROVED STENT DESIGN THROUGH HEMODYNAMICS AND VASCULAR BIOLOGY	93.837	1-K25-HL-107617-01A1				\$49,302
THE ROLE OF NUCLEAR ARCHITECTURE IN CARDIAC DEVELOPMENT	93.837	1-R01-HL-131611-01				\$50,369
DEVELOPMENTAL PATHWAYS REGULATING ADULT LUNG QUIESCENCE	93.837	1-R01-HL-132349-01				\$56,718
HFPEF: MORE THAN JUST THE HEART - WHY THE MITOCHONDRIA AND CAPILLARIES MATTER	93.837	1-K23-HL-130551-01				\$59,490
A NOVEL TREATMENT FOR OBESE DEPRESSED PATIENTS AT RISK FOR CARDIOVASCULAR DISEASE	93.837	1-K23-HL-109235-01				\$69,697
BIODEGRADABLE POLYMETAL NANOPARTICLE CT CONTRAST AGENTS FOR VASCULAR IMAGING	93.837	1-R01-HL-131557-01				\$75,038
SURROGATE MEASURES OF ENDOTHELIAL DYSFUNCTION WITH INTEGRATED MRI	93.837	1-K25-HL-111422-01				\$75,339
GENOMICS OF MYOCARDIAL TRANSCRIPTION FACTORS IN CARDIAC	93.837	1-R01-HL-088577-01				\$85,853
MENTORED PATIENT ORIENTED RESEARCH IN CARDIOMETABOLIC DISEASE	93.837	1-K24-HL-107643-01				\$97,514
ST RESEARCH EDUCATION PROGRAM TO INCREASE DIVERSITY IN HEALTH RELATED RESEARCH	93.837	2-R25-HL-084665-06				\$107,163
MENTORED PATIENT ORIENTED RESEARCH IN LUNG TRANSPLANTATION	93.837	1-K24-HL-115354-01				\$109,861
NUCLEAR MECHANICS VARIES WITH TISSUE MECHANICS & REGULATES CYTOSKELETON	93.837	1-R21-HL-128187-01				\$110,172
IMPLEMENTATION OF CARDIOPULMONARY RESUSCITATION TRAINING FOR AT-RISK FAMILIES	93.837	1-R18-HL-107217-01				\$111,130

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ROLE OF CCBE1 IN LYMPHATIC VASCULAR DEVELOPMENT AND GROWTH	93.837	4-R01-HL-111553-04				\$112,292
ALPHA-DEFENSINS IN PERIOPERATIVE THROMBOSIS	93.837	1-R56-HL-123912-01				\$113,032
GENETICS OF LIPOPROTEIN METABOLISM AND CVD IN CKD	93.837	1-R01-HL-092209-01A2				\$115,415
INVESTIGATING THE ROLE OF HOPX IN CARDIAC PROGENITOR PROLIFERATION	93.837	1-K08-HL-119553-01				\$116,254
THE ROLE OF ABO GLYCOSYLTRANSFERASES IN THE ACUTE RESPIRATORY DISTRESS SYNDROME	93.837	1-K23-HL-125723-01A1				\$116,583
DEVELOPMENT OF A HIGH PERFORMANCE CLINICAL CARDIAC SPECT/TCT SYSTEM	93.837	7-R01-HL-108119-05				\$122,891
LONG PENTRAXIN-3 GENOMICS AND OUTCOMES AFTER LUNG TRANSPLANTATION	93.837	1-K23-HL-121406-01A1				\$123,350
QUANTITATIVE FORCE MEASUREMENTS TO OPTIMIZE VALVE REPAIR FOR ISCHEMIC MR	93.837	4-R01-HL-113216-04				\$124,863
TRANSLATIONAL STUDIES OF ADAMTS7 A NOVEL GWAS LOCUS FOR CORONARY ATHEROSCLEROSIS	93.837	1-R01-HL-111694-01A1				\$129,976
UNDERSTANDING THE DRIVERS OF HOSPITAL PERFORMANCE FOR IN-HOSPITAL CARDIAC ARREST	93.837	1-K23-HL-109083-01				\$138,468
OPTIMIZING HEART AND BRAIN COOLING DURING CARDIAC ARREST	93.837	2-R01-HL-067630-06				\$157,651
DYNAMIC MRI IMAGE ANALYSIS FOR STUDYING THORACIC INSUFFICIENCY SYNDROME	93.837	1-R21-HL-124462-01A1				\$166,012
A TRIAL TO DETERMINE THE EFFECT OF PSORIASIS TREATMENT ON CARDIOMETABOLIC DISEASE	93.837	1-R01-HL-111293-01				\$167,658
BONE MARROW TRANSPLANT CLINICAL NETWORK	93.837	2-U10-HL-069286-11				\$173,053
AROMATASE INHIBITORS IN PULMONARY VASCULAR COMPLICATIONS OF LIVER DISEASE	93.837	1-K24-HL-103844-01A1				\$175,361
STEM CELLS MODELS OF FAMILIAL COMBINED HYPOLIPIDEMIA	93.837	7-R01-HL-118744-04				\$184,604
INTEGRATIVE GENOMICS APPROACHES TO MODEL THE GENETIC ARCHITECTURE OF ASTHMA	93.837	7-R00-HL-105663-04				\$203,832
ELUCIDATION OF TISSUE-SPECIFIC TRANSCRIPTOMIC PROFILES IN CARDIOMETABOLIC DISEASE	93.837	1-R01-HL-113147-01				\$224,002
PROFILIN-1 PHOSPHORYLATION IN NEOVASCULARIZATION	93.837	4-R00-HL-103792-04				\$231,003
TARGETING NF-KB IN ATHEROSCLEROSIS	93.837	2-R56-HL-096642-05				\$232,638
NUCLEAR MAGNETIC TIRHO RELAXATION IN ACUTE AND CHRONIC MYOCARDIAL INFARCTIONS	93.837	4-R00-HL-108157-03				\$241,116
EFFICACY OF POTASSIUM NITRATE IN HEART FAILURE WITH PRESERVED EJECTION FRACTION	93.837	1-R01-HL-121510-01A1			\$9,695	\$247,493
MITRAL SADDLE SHAPE PRESERVATION IMPROVES VALVULOPLASTY	93.837	2-R01-HL-073021-05A2				\$251,469
HIGH ALTITUDE ADAPTATION: A MODEL FOR CHRONIC HYPOXIA	93.837	1-R21-HL-120751-01			\$17,325	\$256,247
ROLE OF RAGE AND NECROPTOSIS IN TRANSFUSION MEDIATED LUNG INFLAMMATION	93.837	1-R01-HL-126788-01A1				\$256,751
STRETCH-DEPENDENT X-ROS SIGNALING: IMPLICATIONS FOR CARDIOMYOPATHY	93.837	4-R00-HL-114879-03				\$256,904
ROLE OF CCBE1 IN LYMPHATIC VASCULAR DEVELOPMENT AND GROWTH	93.837	1-R01-HL-111553-01A1				\$261,410
MRI ASSESSMENT OF VASCULAR REACTIVITY	93.837	1-R01-HL-109545-01				\$266,494
TARGETING CENTRAL PULSATILE HEMODYNAMICS IN CHRONIC KIDNEY DISEASE	93.837	1-R56-HL-124073-01A1				\$296,964
CARDIOLOGY AND PULMONARY CLINICAL RESEARCH TRAINING PROGRAM	93.837	2-T32-HL-007891-16				\$298,442
ECHOCARDIOGRAPHY TO PREDICT RECURRENT IMR AFTER SURGICAL MITRAL VALVE REPLACEMENT	93.837	1-R01-HL-103723-01A1			\$18,916	\$300,973
A TRIAL TO DETERMINE THE EFFECT OF PSORIASIS TREATMENT ON CARDIOMETABOLIC DISEASE	93.837	4-R01-HL-111293-04				\$307,478
MID-ATLANTIC HEART FAILURE NETWORK	93.837	1-U10-HL-110338-01			\$120,790	\$318,114
THE MICROCIRCULATION IN CLAUDICATION AND EXERCISE REHABILITATION	93.837	2-R01-HL-075649-06A2				\$323,639
DISCOVERY AND VALIDATION OF NOVEL LOCI ASSOCIATED WITH HDL FUNCTION	93.837	4-R01-HL-111398				\$352,641
NOVEL METHODS FOR THE CONDUCT OF CLINICAL TRIALS	93.837	1-R01-HL-115041-01			\$205,181	\$365,967
MULTI-INSTITUTIONAL TRAINING IN GENETIC/GENOMIC APPROACHES TO SLEEP DISORDERS	93.837	1-T32-HL-110952-01A1			\$377,518	\$377,519
TRAINING IN CRITICAL CARE HEALTH POLICY RESEARCH	93.837	2-T32-HL-098054-096A1				\$378,641
HDL METABOLISM: INFLUENCE OF EXTRACELLULAR LIPASES	93.837	4-R37-HL-055323-18				\$384,289
TRAINING IN SLEEP AND SLEEP DISORDERS	93.837	2-T32-HL-007953-16				\$391,378
HEG-CCM SIGNALING IN CARDIOVASCULAR DEVELOPMENT AND DISEASE	93.837	2-R01-HL-094326-06				\$394,530
CARDIAC SURGICAL TECHNIQUES TO TREAT VENTRICULAR AND AORTIC REMODELING	93.837	2-UM1-HL-088957-06				\$398,429
ANALYSIS OF A NOVEL HOMEOBOX GENE IN CV DEVELOPMENT	93.837	2-R01-HL-071546-10				\$423,580
SEMAPHORIN3D AND ANOMALOUS PULMONARY VENOUS RETURN	93.837	1-R01-HL-118768-01A1				\$432,987
APOE, ARTERIAL BIOMECHANICS, AND CARDIOVASCULAR DISEASE	93.837	1-R01-HL-119346-01A1			\$171,198	\$450,161
DISCOVERY AND VALIDATION OF NOVEL LOCI ASSOCIATED WITH HDL FUNCTION	93.837	1-R01-HL-111398-01				\$503,330
STIFFNESS, CADHERINS, AND INTEGRINS IN MECHANOCHEMICAL SIGNALING	93.837	1-R01-HL-115553-01A1			\$175,726	\$536,565
ENGINEERING AND VISUALIZING GENOME FOLDING AT HIGH SPATIOTEMPORAL RESOLUTION	93.837	1-U01-HL-129998-01			\$116,621	\$545,246
MULTIDISCIPLINARY TRAINING IN CARDIOVASCULAR BIOLOGY	93.837	2-T32-HL-007954-16				\$587,539
TWITTER AND CARDIOVASCULAR HEALTH	93.837	1-R01-HL-122457-01A1				\$620,403
QUANTITATIVE FORCE MEASUREMENTS TO OPTIMIZE VALVE REPAIR FOR ISCHEMIC MR	93.837	1-R01-HL-113216-01A1			\$224,593	\$647,824
INTEGRATIVE GENOMICS OF HUMAN HEART FAILURE	93.837	1-R01-HL-105993-01A1			\$20,967	\$654,331
STRATEGIES FOR TRANSCATHETER MITRAL VALVE REPLACEMENT	93.837	1-R01-HL-115323-01A1			\$112,111	\$676,426

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TRAINING PROGRAM IN RESPIRATORY NEUROBIOLOGY AND SLEEP	93.837	2-T32-HL-007713-21				\$680,334
PRECLINICAL CARDIAC IMAGING PACKAGE FOR CLINICAL SPECT SYSTEMS	93.837	1-R01-HL-111883-01A1			\$311,310	\$694,743
BLOOD SYSTEMS BIOLOGY	93.837	2-R01-HL-103419-06A1			\$28,660	\$704,483
RCT OF AUTOMATED HOVERING FOR CONGESTIVE HEART FAILURE MANAGEMENT	93.837	1-R01-HL-128465-01				\$721,642
ENABLING MEDICAL RESEARCH GROWTH IN EMERGENCY MEDICINE (EMERGE)	93.837	1-K12-HL-109009-01			\$250,933	\$734,144
MOLECULAR MECHANISMS LINKING THE CXCL12 PATHWAY TO ATHEROSCLEROSIS	93.837	1-R01-HL-122843-01A1				\$772,607
COMPARATIVE EFFECTIVENESS OF PROCESS AND OUTCOMES INCENTIVES FOR LIPID MANAGEMENT	93.837	1-R01-HL-118195-01A1			\$4,126	\$819,778
SORAFENIB IN HEPATOPULMONARY SYNDROME	93.837	1-UM1-HL-116886-01A1			\$429,911	\$857,532
PGC-1 COACTIVATORS IN MUSCLE ANGIOGENESIS AND ISCHEMIA	93.837	2-R01-HL-094499-06				\$870,684
MULTIMARKER RISK PREDICTION IN CANCER THERAPY CARDIOTOXICITY	93.837	1-R01-HL-118018-01A1			\$115,385	\$919,312
EXPANSION OF CARDIAC AND HEMATOPOIETIC PROGENITORS BY WNT AND NOTCH	93.837	1-U01-HL-100405-01			\$211,494	\$1,039,033
ICOMPARE-CCC	93.837	1-U01-HL-125388-01A1			\$262,330	\$1,122,480
AAV GENE THERAPY FOR LIPID DISORDERS	93.837	2-P01-HL-059407-16A1				\$1,379,619
PERSONALIZATION OF THERAPEUTIC EFFICACY AND RISK	93.837	1-U54-HL-117798-01			\$1,789,879	\$3,085,873
TRAINING IN LUNG, CELL, AND MOLECULAR BIOLOGY	93.838	2-T32-HL-007748-16 REVISED				-\$1,290
THE ROLE OF TSC2 AND RHO GTPASES IN LAM	93.838	1-R01-HL-090829-01A1				-\$18
SEDATION MANAGEMENT IN PEDIATRIC PATIENTS WITH ACUTE RESPIRATORY FAILURE	93.838	1-U01-HL-086622-01A1				\$1
A PATIENT ADVOCATE TO IMPROVE REAL-WORLD ASTHMA MANAGEMENT FOR INNER CITY ADULTS	93.838	4-R18-HL-116285-04				\$969
BIOSYNTHESIS AND TRAFFICKING OF SURFACTANT PROTEIN C IN HEALTH AND DISEASE	93.838	4-R01-HL-119436-04				\$1,723
GRADS CLINICAL CENTER: STUDIES IN SARCOIDOSIS AND MICROBIOMICS RESEARCH	93.838	1-U01-HL-112712-01				\$7,659
A NOVEL ROLE FOR THE ADAPTER MOLECULE NHERF1 IN REGULATING ASTHMA AND ALLERGIC RESPONSES	93.838	1-K99-HL-121073-01				\$18,322
ESTROGEN SIGNALING IN PORTOPULMONARY HYPERTENSION	93.838	4-R01-HL-113988-05				\$27,060
TARGETED DRUG DELIVERY FOR ACUTE RESPIRATORY DISTRESS SYNDROME	93.838	1-F32-HL-129665-01				\$35,387
INVESTIGATING THE FUNCTION AND MECHANISM OF NANCY ACTIVITY DURING LUNG DEVELOPMENT	93.838	1-F31-HL-129683-01				\$36,550
ROLE OF ANTI-COL (V) IMMUNITY IN PRIMARY GRAFT DYSFUNCTION	93.838	1-R01-HL-096845-01A1			\$8,803	\$43,913
METHODS TO IMPROVE THE DETECTION OF TREATMENT EFFECTS IN ARDS CLINICAL TRIALS	93.838	1-F31-HL-127947-01				\$46,801
LUNG TRANSPLANT MICROBIOME AND CHRONIC ALLOGRAFT DYSFUNCTION	93.838	4-R01-HL-113252-04				\$51,098
THE ROLE OF LYSOPHOSPHATIDIC ACID SIGNALING IN LUNG ISCHEMIA/REPERFUSION INJURY	93.838	1-F32HL127972-01				\$54,669
FORKHEAD REPRESSORS AND LUNG DEVELOPMENT	93.838	2-R01-HL-071589-10				\$72,467
LUNG TRANSPLANT DONOR: PREDICTION, EVALUATION, AND MECHANISM	93.838	4-K23-HL-116656-04				\$76,898
THE ROLE OF PHYSICIAN EXPERIENCE IN OUTCOMES OF PATIENTS WITH ACUTE RESPIRATORY FAILURE	93.838	1-K08-HL-116771-01A1				\$129,882
HUMAN RESPIRATORY TRACT MICROBIOME IN HEALTH, HIV INFECTION AND HIV LUNG DISEASE	93.838	1-U01-HL-098957-01				\$132,420
IMAGING-BASED CHARACTERIZATION OF THE COPDGENE COHORT	93.838	1-R01-HL127969-01A1				\$171,876
QUANTITATIVE STRUCTURAL AND FUNCTIONAL IMAGING OF THE LUNG	93.838	1-R01-HL-089064-01A1				\$201,809
MOLECULAR IMAGING OF THE LUNG USING HYPERPOLARIZED CARBON-13 COMPOUNDS	93.838	1-R01-HL-116342-01				\$215,125
ROLE OF PRDX6 IN THE ACTIVATION OF NADPH OXIDASE	93.838	1-R01-HL-105509-01				\$245,850
A NEW APPROACH FOR THE ASSESSMENT OF PULMONARY INFLAMMATION	93.838	1-R01-HL-124986-01A1			\$15,305	\$303,533
REGULATION OF AIRWAY MORPHOGENESIS AND DIFFERENTIATION BY WNT SIGNALING	93.838	5-R01-HL-087825-08				\$330,377
TRAINING IN PULMONARY IMMUNOLOGY	93.838	2-T32-HL-007586-26				\$343,773
BIOSYNTHESIS AND TRAFFICKING OF SURFACTANT PROTEIN C IN HEALTH AND DISEASE	93.838	1-R01-HL-119436-01				\$357,359
ROLE OF FOLLICULIN (FLCN) IN LUNG CELL SURVIVAL	93.838	1-R01-HL-110551-01A1			\$12,769	\$414,829
TSC SIGNALING AND PULMONARY LAM	93.838	1-R01-HL-114085-01				\$435,122
GENETIC INVESTIGATION OF PULMONARY LYMPHATIC DEVELOPMENT AND FUNCTION	93.838	1-R01-HL-120872-01A1			\$28,355	\$458,108
EPIGENETIC REGULATION OF LUNG PROGENITOR REPAIR AND REGENERATION	93.838	1-U01-HL-110942-01			\$64,374	\$465,338
ROLE OF PEROXIREDOXIN 6 IN THE REPAIR OF PEROXIDIZED CELL MEMBRANES	93.838	2-R01-HL-102016-05A1				\$532,456
TARGETING NOVEL BIOTHERAPEUTICS TO ENDOTHELIUM	93.838	1-R01-HL-128398-01				\$536,888
PROBING THE PHYSICS OF CHRONIC LUNG DISEASE USING MICROPHYSIOLOGICAL BIOMIMICRY	93.838	1-DP2-HL-127720-01				\$537,312
TARGETED NANOMEDICINE FOR ALI AND I/R	93.838	1-R01-HL-125462-01A1				\$569,168
A PATIENT ADVOCATE TO IMPROVE REAL-WORLD ASTHMA MANAGEMENT FOR INNER CITY ADULTS	93.838	1-R18-HL-116285-01				\$611,906
FUNCTION OF THE INCRNA TRANSCRIPTOME IN LUNG DEVELOPMENT AND REGENERATION	93.838	1-R01-HL-122993-01A1				\$615,524
LUNG TRANSPLANT MICROBIOME AND CHRONIC ALLOGRAFT DYSFUNCTION	93.838	1-R01-HL-113252-01A1				\$679,306
DATA COORDINATING CENTER FOR THE PREMATURETY AND RESPIRATORY OUTCOMES PROGRAM	93.838	1-U01-HL-101794-01			\$151,950	\$774,233

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ESTROGEN SIGNALING IN PORTOPULMONARY HYPERTENSION	93.838	1-R01-HL-113988-01			\$286,669	\$778,736
CLINICAL RISK FACTORS FOR PRIMARY GRAFT DYSFUNCTION	93.838	2-R01-HL-087115-06A1			\$358,640	\$1,092,691
NOVEL MOLECULAR MECHANISMS PROMOTE GPCR-INDUCED BRONCHODILATION IN ASTHMA	93.838	1-P01-HL-114471-01A1			\$1,003,172	\$1,187,653
SUBCELLULAR MECHANISMS OF PLATELET ACTIVATION	93.839	1-R01-HL-119070-01				-\$208
PREVENTION AND MANAGEMENT OF PERIOPERATIVE PULMONARY EMBOLISM	93.839	4-R01-HL-116916-04				\$5,011
ECTOPIC RUNX1 EXPRESSION IN NON-HEMOGENIC ENDOTHELIUM INDUCES BLOOD FORMATION	93.839	1-F31-HL-120615-01				\$26,381
BLOOD SYSTEMS BIOLOGY	93.839	1-R01-HL-103419-01				\$47,842
COMBINED HIF DEFICIENCY IN INFLAMMATION-ASSOCIATED COLORECTAL TUMORIGENESIS	93.839	4-R01-HL-066310-17				\$55,871
MIGRATION OF HEMATOPOIETIC PROGENITORS TO THE THYMUS	93.839	1-R01-HL-110741-01				\$65,238
COMPARATIVE EFFECTIVENESS OF ENOXAPARIN VS. DALTEPARIN FOR THROMBOPROPHYLAXIS AFTER TRAUMA	93.839	1-F32-HL-124914-01				\$72,742
REGULATING HEMATOPOIETIC STEM CELL HOMEOSTASIS THROUGH GSK-3	93.839	1-R01-HL-110806-01			\$62,770	\$77,433
BIOCHEMISTRY OF LEUKEMIA VIRUS CORE BINDING FACTOR	93.839	4-R01-HL-091724-23				\$79,175
MENTORED CAREER DEVELOPMENT IN CLINICAL RESEARCH IN NON-MALIGNANT HEMATOLOGY & TRANSFUSION MEDICINE.	93.839	4-K12-HL-087064-10				\$79,914
ROLE OF PIKFYVE IN PLATELET-MEDIATED INFLAMMATION AND THROMBOSIS	93.839	1-K08-HL-119597-01A1				\$118,524
TRANSFUSION MEDICINE RESEARCH TRAINING PROGRAM	93.839	2-T32-HL-007775-21				\$120,167
THE ROLE OF THE T CELL RECEPTOR IN REGULATORY T CELL HOMEOSTASIS AND EXPANSION	93.839	4-R01-HL-111501-05				\$149,505
STRUCTURAL ORIGIN OF FIBRIN CLOT MECHANICAL PROPERTIES	93.839	2-R56-HL-090774-05A1				\$151,397
THE ROLE OF THE T CELL RECEPTOR IN REGULATORY T CELL HOMEOSTASIS AND EXPANSION	93.839	1-R01-HL-111501-01				\$179,398
BIOCHEMISTRY OF LEUKEMIA VIRUS CORE BINDING FACTOR	93.839	2-R01-HL-091724-20A1			\$78,532	\$270,604
STRUCTURAL ANALYSIS OF THE HIT IMMUNE COMPLEX	93.839	1-R01-HL-128895-01				\$287,207
PROXIMAL SIGNALING COMPLEXES IN NK CELL EFFECTOR FUNCTION AND DEVELOPMENT	93.839	1-R01-HL-107589-01				\$319,083
PREVENTION AND MANAGEMENT OF PERIOPERATIVE PULMONARY EMBOLISM	93.839	1-R01-HL-116916-01			\$39,087	\$340,100
SPATIAL REGULATION OF PLATELET ACTIVATION BY PODOPLANIN-CLEC2 SIGNALING	93.839	1-R01-HL-121650-01A1			\$233,116	\$356,095
ORAL IMMUNE MODULATORY THERAPY USING ANTIGENS BIOENCAPSULATED IN PLANT CELLS	93.839	7-R01-HL-107904-03			\$104,274	\$366,779
MENTORED CAREER DEVELOPMENT IN CLINICAL RESEARCH IN NON-MALIGNANT HEMATOLOGY & TRANSFUSION MEDICINE.	93.839	2-K12-HL-087064-06			\$71,994	\$370,409
ALPHA-DEFENSINS IN PERIOPERATIVE THROMBOSIS	93.839	1-R01-HL-123912-01A1				\$381,301
COMBINED HIF DEFICIENCY IN INFLAMMATION-ASSOCIATED COLORECTAL TUMORIGENESIS	93.839	2-R01-HL-066310-14A1				\$423,916
NANOSCIENCE OF 'SELF' - REDUCTIONIST APPROACHES TO HCD47 INHIBITION OF PHAGOCYTES	93.839	1-R01-HL-124106-01				\$460,137
TRAINING GRANT IN HEMOSTASIS AND THROMBOSIS	93.839	2-T32-HL-007971-11				\$482,676
DRUG DELIVERY BY CARRIER ERYTHROCYTES	93.839	1-R01-HL-121134-01			\$49,370	\$605,833
HEMATOLOGY CLINICAL RESEARCH TRAINING PROGRAM	93.839	2-T32-HL-007439-36				\$624,351
POST-TRANSCRIPTIONAL CONTROLS IN MAMMALIAN ERYTHROID DIFFERENTIATION	93.839	2-R01-HL-065449-15A1			\$51,726	\$720,856
REGULATION OF PLATELET AND ENDOTHELIAL CELL FUNCTION	93.839	2-P01-HL-040387-26A1			\$516,892	\$2,048,049
PLATELET SIGNALS AND THEIR INTERFACE WITH EXTERNAL ENVIRONMENT	93.839	1-P01-HL-120846-01A1			\$751,148	\$2,480,943
ROLE OF AUTOANTIBODY ISOTYPE IN PEMPHIGUS PATHOGENESIS	93.846	1-R01-AR-057001-01A2				-\$48,974
BONE WATER AND MINERALIZATION MEASURED BY NUCLEAR MAGNETIC RESONANCE	93.846	2-R01-AR-050068-05				-\$184
DYNAMIC FIBROUS SCAFFOLDS FOR ENGINEERING DENSE CONNECTIVE TISSUES	93.846	1-R01-AR-056624-01A1				-\$10
THE TOLL-LIKE RECEPTOR PATHWAY IN MENISCAL INJURY AND OSTEOARTHRITIS	93.846	7-K08-AR-057859-04				\$13,659
THE CELLULAR AND MOLECULAR BASIS OF FOP LESIONS	93.846	2-R01-AR-041916-12				\$19,796
EGFR SIGNALING IN GROWTH PLATE DEVELOPMENT	93.846	1-R03-AR-060991-01A1				\$20,612
PSORIASIS AND THE RISK OF DIABETES	93.846	4-K24-AR-064310-04				\$25,579
SYNERGISTIC MOLECULE DELIVERY USING HYDROGELS FOR BONETISSUE REPAIR	93.846	1-F32-AR-063598-01A1				\$27,441
R-SPONDIN-2 MODULATES WNT SIGNALING TO INCREASE BONE MASS	93.846	1-F31-AR-065858-01				\$29,437
NOICEPTIVE MECHANISMS IN WHIPLASH INJURY	93.846	1-R01-AR056288-01A1				\$30,818
INTEGRATIVE ANALYSIS OF GENOMIC RISK FACTORS IN JUVENILE IDIOPATHIC ARTHRITIS	93.846	1-F30-AR-066486-01				\$32,454
STRUCTURE AND FUNCTION OF HUMAN PEMPHIGUS AUTOANTIBODIES	93.846	1-R56-AR-064220-01A1				\$34,315
TRAINING IN MUSCLE BIOLOGY AND MUSCLE DISEASE	93.846	2-T32-AR-053461-11				\$34,663
RELATIONSHIPS BETWEEN AUTOIMMUNE IGG1 AND IGG4 REPERTOIRES IN PEMPHIGUS VULGARIS	93.846	1-F30-AR065870-01				\$35,312
DEFINING COMMON MECHANISMS OF AUTOIMMUNITY IN PEMPHIGUS VULGARIS	93.846	1-F31-AR066456-01A1				\$37,659
AFRICAN-AMERICANS WITH ATOPIC DERMATITIS: SKIN BARRIER AND IMMUNE	93.846	1-R01-AR-069062-01				\$41,294
ESRP REGULATED PROGRAMS OF ALTERNATIVE SPLICING IN SKIN DEVELOPMENT AND FUNCTION	93.846	1-R56-AR-066741-01			\$47,302	\$45,278
RACIAL DISPARITY IN THE UTILIZATION OF JOINT REPLACEMENT FOR OSTEOARTHRITIS	93.846	2-K24-AR-052559-07				\$64,723
BONE STRUCTURE AND STRENGTH RECOVERY AND THE ROLE OF PTHRP POST LACTATION	93.846	1-R03-AR-065145-01A1				\$65,715

The accompanying notes are an integral part of this schedule

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ROLE OF LOCAL STRAIN IN OSTEOGENIC RESPONSE TO VIBRATION THERAPY IN HUMANS	93.846	1-R03-AR-064577-01			\$1,313	\$67,310
MECHANISMS OF VERTEBRAL BONE DISEASE IN MUCOPOLYSACCHARIDOSIS VII	93.846	1-R03-AR-065142-01A1				\$68,516
MECHANISMS OF JOINT DAMAGE FOLLOWING TENDON INJURY	93.846	1-R01-AR-056658-01A2				\$76,581
THE CHARACTERISTICS OF SELF-RECOGNIZING CD4 T CELLS IN RHEUMATOID ARTHRITIS	93.846	7-K08-AR-059760-05				\$76,820
CELL ADHESION REGULATION OF OSTEOCLAST MATURATION	93.846	1-R01-AR-069546-01				\$87,795
RACIAL DISPARITIES IN THE TREATMENT OF PSORIASIS: A MIXED METHODS APPROACH	93.846	1-K23-AR-068433-01				\$89,703
UNDERSTANDING APPENDAGE REGENERATION IN MICE	93.846	7-K08-AR-066661-01				\$124,683
TREATMENT OF DERMATOMYOSITIS WITH AJULEMIC ACID, A NON-PSYCHOACTIVE CANNABINOID	93.846	1-R21-AR-066286-01				\$125,695
IDENTIFICATION OF EARLY PSORIATIC ARTHRITIS	93.846	1-K23-AR-063764-01A1				\$126,540
PSORIASIS AND THE RISK OF DIABETES	93.846	1-K24-AR-064310-01				\$128,025
THE EFFECT OF PARATHYROID HORMONE ON MODELING-BASED BONE FORMATION	93.846	1-K01-AR-066743-01A1				\$129,229
HDAC FUNCTIONS IN SKIN DEVELOPMENT, RENEWAL AND DISEASE	93.846	4-R01-AR-063146-04				\$134,166
EFFECT OF CHRONIC PROTON PUMP INHIBITOR THERAPY ON BONE MINERAL DENSITY AND BONE TRAINING IN MUSCULOSKELETAL RESEARCH	93.846	1-R01-AR-057102-01A1			\$43,193	\$154,103
TRAINING IN MUSCLE BIOLOGY AND MUSCLE DISEASE	93.846	2-T32-AR-007132-37				\$182,297
	93.846	2-T32-AR-053461-06				\$183,139
BEHAVIORAL & SOCIAL SCIENCE RESEARCH ON UNDERSTANDING AND REDUCING HEALTH DISPARITY	93.846	1-R01-AR-059615-01				\$188,240
DIABETIC FRACTURE HEALING	93.846	1-R01-AR-060055-01A1			\$44,506	\$197,653
CLINICAL ASSESSMENT OF HIP FRACTURE BIOMECHANICS USING MRI	93.846	1-R01-AR-068382-01			\$2,471	\$200,447
HDAC FUNCTIONS IN SKIN DEVELOPMENT, RENEWAL AND DISEASE	93.846	1-R01-AR-063146-01A1				\$207,632
CCR7 AND ITS LIGANDS IN OSTEOARTHRITIS	93.846	1-R21-AR-067916-01				\$212,276
DERMATOLOGY RESEARCH TRAINING GRANT	93.846	2-T32-AR-007465-31				\$226,867
MECHANISM OF RADIOTHERAPY-INDUCED OSTEOPOROSIS AND ITS TREATMENT	93.846	1-R01-AR-066098-01A1			\$10,930	\$247,591
ADAPTION AND VALIDATION OF PROMIS FOR USE IN VASCULITIS	93.846	1-R01-AR-064153-01			\$106,003	\$275,533
CLONING AND GENETICS OF HUMAN PEMPHIGUS AUTOANTIBODIES	93.846	2-R01-AR-052672-06				\$279,337
HAIR FOLLICLE NEOGENESIS IN RESPONSE TO WOUNDING	93.846	2-R01-AR-055309-06A1				\$291,476
MOUSE MODELS FOR SLRP ROLES IN TENDON AGING AND IMPAIRED HEALING IN AGING	93.846	1-R01-AR-068057-01A1			\$164,449	\$291,789
INTRINSIC AND EXTRINSIC REGULATION OF EPIDERMAL STEM CELLS	93.846	1-R01-AR-066755-01				\$321,627
SKIN MICROBIOME INTERACTIONS WITH COMPLEMENT	93.846	1-R01-AR-066663-01A1				\$323,853
TRAINING PROGRAM/RHEUMATIC DISEASES	93.846	4-T32-AR-007442-29				\$331,736
MOLECULAR GENETICS OF PROGRESSIVE OSSEOUS HETEROPLASIA	93.846	2-R01-AR-046831-09A1				\$333,364
MOLECULAR REGULATION OF OSTEOCLAST MATURATION	93.846	1-R01-AR-067726-01				\$335,484
INJURY RESPONSE IN NORMAL AND EDS TENDONS: REGULATORY ROLES OF COLLAGEN V	93.846	1-R01-AR-065995-01			\$145,563	\$355,564
ENGINEERING DISEASE-SPECIFIC T CELLS FOR PEMPHIGUS THERAPY	93.846	1-R01-AR-068288-01				\$368,919
WNT SIGNALS IN SKIN AND HAIR DEVELOPMENT AND HAIR GROWTH	93.846	2-R37-AR-047709-11				\$371,612
DYNAMIC FIBROUS SCAFFOLDS FOR REPAIRING DENSE CONNECTIVE TISSUES	93.846	2-R01-AR-056624-06				\$379,833
CHALLENGING TREATMENT PARADIGMS FOR ACHILLES TENDON RUPTURES IN AN ANIMAL MODEL	93.846	1-R01-AR-064216-01A1				\$393,305
OSTEOPOROSIS TREATMENT RESPONSE ASSESSED BY MICROMECHANICAL MODELING OF MRI DATA.	93.846	2-R01-AR-055647-05			\$57,531	\$421,685
ESRP REGULATED PROGRAMS OF ALTERNATIVE SPLICING IN SKIN DEVELOPMENT AND FUNCTION	93.846	1-R01-AR-066741-01A1			\$41,884	\$433,529
FAILED REGENERATION IN THE MUSCULAR DYSTROPHIES	93.846	2-U54-AR-052646-06			\$535,149	\$553,935
CORE CENTER FOR MUSCULOSKELETAL DISORDERS	93.846	2-P30-AR-050950-06			\$14,512	\$564,330
VASCULITIS CLINICAL RESEARCH CONSORTIUM	93.846	2-U54-AR-057319-13			\$593,611	\$1,042,421
THE INTESTINAL STEM CELL NICHE	93.847	1-U01-DK-085551-01				-\$32,633
FORMATION OF ENDOCRINE PANCREAS PROGENITORS	93.847	1-U01-DK-089540-01			\$73,462	-\$28,194
AN INTEGRATIVE APPROACH TO CONSTRUCT A REGULATORY NETWORK EFFECTED BY TDZs	93.847	1-R21-DK-098769-01				-\$9,920
LIMITED COMPETITION OF THE MAPP RESEARCH NETWORK DATA COORDINATING CORE (U01)	93.847	2-U01-DK-082316-06				-\$7,410
TRANSCRIPTIONAL CONTROL OF BROWN ADIPOSE METABOLISM BY HDAC3	93.847	1-F32-DK-095563-01A1				-\$4,085
RENAL AND UROLOGIC BIostatISTICS TRAINING GRANT	93.847	2-T32-DK-060455-06A1				-\$3,803
A RANDOMIZED TRIAL OF INCENTIVES AND PEER MENTORS TO IMPROVE DIABETIC OUTCOMES	93.847	1-R01-DK-087874-01			\$2,050	-\$3,777
RENAL RESEARCH TRAINING PROGRAM	93.847	2-T32-DK-007006-37				-\$1,538
EPIGENETIC REGULATION OF INTESTINAL HOMEOSTASIS	93.847	1-K08-DK-093784-01				-\$1,078
MESENCHYMAL STROMAL FIBROBLASTS AND THE ESOPHAGEAL TUMOR	93.847	5-F32-DK-082149-02				-\$1,071
MAPP RESEARCH NETWORK	93.847	1-U01-DK-082316-01 REVISED				-\$606
MECHANISMS OF BILE DUCT MORPHOGENESIS	93.847	1-R01-DK-083355-01				-\$371

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CLINICAL RESEARCH TRAINING IN KIDNEY DISEASE	93.847	2-T32-DK-007785-11				-\$138
ADULT TO ADULT LIVING DONOR LIVER TRANSPLANTATION COHORT STUDY(A2ALL)(U01)	93.847	2-U01-DK-062494-08				-\$38
THE LIN28B-LET7 AXIS IN INTESTINAL EPITHELIAL BIOLOGY	93.847	2-R56-DK-056645-14				-\$31
NEUROGENIC BLADDER DYSFUNCTIONS IN NEUROLOGICAL DISORDERS	93.847	1-P20-DK-097819-01				\$57
96-1467: SIGNALING PATHWAYS IN THE REGENERATING LIVER	93.847	1-F32-DK-009597-01				\$310
B-LYMPHOCYTE IMMUNOTHERAPY IN ISLET TRANSPLANTATION	93.847	2-U01-DK-070430-06				\$2,173
STRUCTURE/FUNCTION OF STEROID TRANSFORMING AKR'S	93.847	2-R01-DK-047015-14A1				\$2,363
DIABETES, ENDOCRINE AND METABOLIC DISEASE	93.847	2-T32-DK-007314-36				\$2,648
ESRP REGULATED ALTERNATIVE SPLICING IN EMT/MET AND KIDNEY DEVELOPMENT	93.847	1-F32-DK-098917-01				\$4,552
LINK OF BETA CELL PROLIFERATION AND TYPE 2 DIABETES TO EPIGENETIC REGULATION	93.847	1-R01-DK-085121-01A1				\$5,250
CONTROL OF INTESTINAL REGENERATION BY AN MSI-MTORC1 SIGNALING AXIS	93.847	1-R01-DK-106309-01A1				\$5,503
DETERMINANTS OF HEMODIALYSIS AV FISTULA MATURATION	93.847	7-U01-DK-082232-05				\$6,943
MECHANISMS BY WHICH OBESITY IN PREGNANCY LEADS TO OBESITY IN OFFSPRING	93.847	1-R01-DK078761-01A2				\$7,235
NEUROENDOCRINOLOGY OF ENERGY BALANCE CONTROL	93.847	4-R01-DK-096139-05				\$7,742
MITOTIC CHROMATIN AND IMPLICATIONS IN ERYTHROID TRANSCRIPTIONAL REGULATION	93.847	FDK108469A				\$9,550
REGULATION OF BROWN AND BEIGE ADIPOGENESIS BY THE HISTONE READER DPF3	93.847	1-F31-DK-108507-01				\$10,012
TRAINING PROGRAM IN GASTROINTESTINAL SCIENCES	93.847	2-T32-DK-007066-36				\$12,737
AMYLIN MODULATES FOOD REWARD	93.847	1-R01-DK-105155-01A1				\$14,722
CHANGES IN NEURAL RESPONSE TO EATING AFTER BARIATRIC SURGERY: MRI RESULTS	93.847	1-R01-DK085615-01				\$17,555
RENIN-ANGIOTENSIN-ALDOSTERONE SYSTEM AND CARDIAC ARRHYTHMIAS IN PEOPLE WITH CHRONIC KIDNEY DISEASE	93.847	1-K23-DK-089118-01				\$21,248
NEURAL HIERARCHY IN THE MODULATION OF INGESTIVE BEHAVIOR	93.847	4-R01-DK-021397-39				\$21,400
PULSE WAVE VELOCITY IN CHRONIC KIDNEY DISEASES	93.847	2-R01-DK-067390-06A1				\$22,904
ROLE OF EGFR SIGNALING IN BONE FORMATION AND THE ANABOLIC ACTIONS OF PTH	93.847	4-R01-DK-095803-04				\$23,027
CONTROL OF BROWN ADIPOSE PHYSIOLOGY VIA GENOMIC RECRUITMENT OF HISTONE DEACETYLASE 3	93.847	1-F30-DK-104513-01				\$28,265
METABOLIC DEFECTS IN MICE WITH ADIPOCYTE-SPECIFIC DELETION OF AKT2	93.847	1-F30-DK-100123-01				\$30,319
MECHANISMS OF BILE DUCT REPROGRAMMING	93.847	2-R01-DK-083355-06A1				\$31,090
FUNCTIONAL STUDIES OF KLF-14, A PUTATIVE MASTER REGULATOR OF METABOLISM	93.847	7-R01-DK-099571-02				\$32,209
TRANSCRIPTIONAL AND EPIGENOMIC CONTROL OF ADIPOSE TISSUE DEVELOPMENT AND FUNCTION	93.847	4-R01-DK-098542-04				\$32,606
A TRIAL OF EXPANDED CHOICE SETS IN ADVANCE DIRECTIVES FOR HEMODIALYSIS PATIENTS	93.847	1-F32-DK-107109-01				\$33,011
MOTOR PROTEIN MYO1C PARTICIPATES IN NEPHRIN AND NEPH1 SIGNALING	93.847	2-R01-DK-087956-06A1				\$33,819
NUCLEAR HORMONE RECEPTORS IN ADIPOCYTE DIFFERENTIATION	93.847	4-R01-DK-049780-25				\$36,626
AMYLIN RECEPTORS IN THE LATERAL DORSAL TEGMENTAL AREA REGULATE FOOD INTAKE	93.847	1-F31-DK-105858-01A1				\$37,217
DETERMINING THE FUNCTION OF TRIM58 IN TERMINAL ERYTHROPOIESIS	93.847	1-F30-DK-102291-01				\$37,913
GENETIC AND ENVIRONMENTAL REGULATION OF LIVER FAT METABOLISM	93.847	1-F32-DK-108555-01				\$40,840
UNLOCKING HETEROCHROMATIN TO POTENTIATE CELL CONVERSION TO THE HEPATOCYTE FATE	93.847	1-F31-DK-107183-01				\$40,841
OBESITY, RENIN-ANGIOTENSIN-ALDOSTERONE BLOCKADE, AND CHRONIC KIDNEY DISEASE	93.847	1-F32-DK-103484-01				\$42,510
DETERMINATION OF MYELOID CELL SUBPOPULATIONS DURING INTESTINAL CELL INVASION	93.847	1-F32-DK-101166-01A1				\$42,702
INTERPLAY OF IMP1 AND AUTOPHAGY IN INTESTINAL BARRIER FUNCTION AND TUMORIGENESIS	93.847	1-F32-DK-107052-01				\$43,969
THERAPEUTIC POTENTIAL AND BROADER APPLICABILITY OF FORCED CHROMATIN LOOPING	93.847	1-F30-DK-107055-01				\$45,204
INSULIN REGULATION OF GLUCOSE METABOLISM INDEPENDENT OF HEPATIC AKT	93.847	1-F32-DK-101175-01				\$45,907
INVESTIGATING THE ROLE OF PDX1 IN COORDINATING TRANSLATIONAL REGULATION IN PANCREATIC BETA CELLS	93.847	1-F30-DK-105758-01				\$46,777
ISOLATION, IDENTIFICATION AND CHARACTERIZATION OF A TOXIN CAUSING BILIARY ATRESIA	93.847	1-R01-DK-092111-01A1			\$34,004	\$48,200
GENDER AND HORMONAL INFLUENCES ON LIVER FIBROSIS AFTER TRANSPLANT FOR HEPATITIS C	93.847	4-K23-DK-090209-05				\$51,445
THE REGULATION OF ADIPOCYTE LIPOLYSIS BY INSULIN	93.847	1-R01-DK-093959-01				\$51,704
THE ROLE OF PRDM16 IN MAINTAINING SMALL INTESTINAL CRYPT INTEGRITY	93.847	1-F32-DK-105743-01				\$51,815
DYNAMIC HYDROGELS FOR PROBING HEPATIC STELLATE CELL BEHAVIOR DURING FIBROSIS	93.847	1-F32-DK103463-01				\$52,125
THE ROLE OF FOXL1 IN THE DIFFERENTIATION OF HEPATOCYTES AND CHOLANGIOCYTES	93.847	1-F32-DK-104592-01				\$53,962
MECHANISMS BY WHICH IUGR LEADS TO DIABETES	93.847	2-R01-DK-055704-09A2				\$55,074
ATF5 IN THE DEVELOPING PANCREAS AND SURVIVAL FUNCTIONS IN THE MATURE BETA CELL	93.847	1-F32-DK103454-01				\$56,291
CATALYTIC INDEPENDENT FUNCTIONS OF HISTONE DEACETYLASE 3 IN METABOLISM	93.847	1-F32-DK-102284-01				\$56,471
TRANSLATING HUMAN PPARY BINDING REGIONS TO GENE REGULATION AND METABOLIC DISEASE	93.847	4-K08-DK-094968-05				\$63,793
MICROVASCULAR DISEASE, STATINS, ACE-INHIBITORS AND POST-OPERATIVE SBO	93.847	1-K08-DK-095951-01				\$68,748

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ACUTE ADIPOSE INFLAMMATION AS A CONTRIBUTOR TO ACUTE KIDNEY INJURY AFTER TRAUMA	93.847	1-K23-DK-097307-01				\$72,511
APOL1 ASSOCIATED KIDNEY DISEASE	93.847	1-R01-DK-105821-01A1				\$79,233
SELECTIVE AND FUTURE IGNORABILITY IN CAUSAL INFERENCE	93.847	1-R01-DK-090385-01			\$20,145	\$86,943
NIDDK MENTORED RESEARCH SCIENTIST DEVELOPMENT AWARD	93.847	7-K01-DK-102868-02				\$91,774
ACUTE ADIPOSE INFLAMMATION AS A CONTRIBUTOR TO ACUTE KIDNEY INJURY AFTER TRAUMA	93.847	1-K23-DK-097307-01				\$92,862
BIOSTATISTICS FOR RENAL AND UROLOGIC DISEASES	93.847	2-T32-DK-060455-11A1				\$93,204
10/16 ACTION FOR HEALTH IN DIABETES EXTENSION STUDY RESEARCH PROJECT	93.847	2-U01-DK-057135-17				\$106,517
THE FUNCTIONAL ROLE OF MITOPHAGY IN ESOPHAGEAL CELL BIOLOGY	93.847	1-K01-DK-103953-01A1				\$107,944
MOLECULAR BASIS OF ATYPICAL ANTIPSYCHOTIC DRUGS-INDUCED WEIGHT GAIN	93.847	1-R01-DK-084336-01A1				\$111,219
UNDERGRADUATE TRAINING IN GASTROINTESTINAL SCIENCES	93.847	2-R25-DK-066028-11				\$112,438
TRANSLATING HUMAN PPARY BINDING REGIONS TO GENE REGULATION AND METABOLIC DISEASE	93.847	1-K08-DK-094968-01				\$119,689
TRANSCRIPTIONAL COREGULATORS IN PANCREAS DEVELOPMENT	93.847	2-R01-DK-068157-06				\$120,567
THE ROLE OF IMP1 MRNA BINDING PROTEIN IN INTESTINAL EPITHELIAL BIOLOGY	93.847	1-K01-DK-100485-01A1				\$125,192
HISTONE/PROTEIN DEACETYLASE INHIBITORS MINIMIZE RENAL ISCHEMIA-REPERFUSION INJURY	93.847	1-K08-DK-092282-01				\$126,588
INTEGRATIVE METABOLIC ADAPPTIONS TO ENVIRONMENTAL AND NUTRITIONAL CHALLENGE	93.847	4-P01-DK-049210-20				\$128,801
MODIFIABLE AND BIOCHEMICAL PREDICTORS AND CONSEQUENCES OF ACUTE KIDNEY INJURY	93.847	1-K01-DK-092353-01				\$135,617
AMYLIN-MEDIATED CONTROL OF ENERGY BALANCE IN THE MESOLIMBIC REWARD SYSTEM	93.847	1-K01-DK-103804-01				\$138,795
SLIT DIAPHRAGM AND ACTIN DYNAMICS	93.847	2-R01-DK-080751-07				\$144,325
GENETIC BASIS OF LIVER REPOPULATION	93.847	1-K08-DK-106478-01				\$146,473
GENDER AND HORMONAL INFLUENCES ON LIVER FIBROSIS AFTER TRANSPLANT FOR HEPATITIS C	93.847	1-K23-DK-090209-01A1				\$146,673
DIETARY PATTERNS AND THE COURSE OF INFLAMMATORY BOWEL DISEASE	93.847	2-K24-DK-078228-06				\$147,373
AGE, FUNCTIONAL STATUS, AND SURVIVAL BENEFIT FROM KIDNEY TRANSPLANTATION	93.847	1-R01-DK-090388-01A1			\$25,560	\$148,613
A POPULATION-BASED COHORT TO STUDY OUTCOMES IN END-STAGE LIVER DISEASE PATIENTS	93.847	1-K08-DK-098272-01A1				\$148,973
MENIN/MLL PROMOTES CELL SURVIVAL IN THE SETTING OF EGFR INHIBITION	93.847	1-K08-DK-106489-01				\$151,614
REGULATION OF T CELL DIFFERENTIATION DURING ENTERIC VIRAL INFECTION	93.847	1-K08-DK-097301-01				\$158,143
DEFINING THE ROLE OF DRIP27, A NOVEL LONG NONCODING RNA, IN ERYTHROPOIESIS	93.847	1-K08-DK-102533-01A1				\$160,683
SLIT DIAPHRAGM AND ACTIN DYNAMICS	93.847	4-R01-DK-080751-10				\$164,710
IMMUNE REGULATION AND CO-STIMULATION IN TREATMENT OUTCOME OF CHRONIC HEPATITIS B	93.847	5-U01-DK-082866-06				\$168,322
RANDOMIZED STUDY OF DAYTIME VS. DELAYED EATING: EFFECT ON WEIGHT AND METABOLISM	93.847	1-R21-DK-100787-01				\$168,456
SKELETAL DEVELOPMENT AND THE HEMATOPOIETIC NICHE	93.847	1-R01-DK-088334-01A1				\$176,878
GLUCOSE COUNTERREGULATION IN LONG STANDING TYPE 1 DIABETES	93.847	1-R01-DK-091331-01				\$177,141
NEURONAL PROTEIN TYROSINE PHOSPHATASES IN METABOLISM	93.847	2-R01-DK-082417-06A1				\$202,812
THE PRRX-1 TRANSCRIPTION FACTOR IN PANCREATIC DUCTAL BIOLOGY	93.847	2-R01-DK-060694-11				\$205,887
CLINICAL RESEARCH TRAINING IN KIDNEY DISEASE	93.847	2-T32-DK-007785-16				\$207,911
FORMATION AND MATURATION OF ENDOCRINE PANCREAS PROGENITORS	93.847	1-R01-DK-105689-01A1				\$210,064
REGULATION OF DIFFERENTIATION IN ESOPHAGEAL EPITHELIA	93.847	2-R01-DK-069984-06A1				\$214,411
EPIGENETIC DRIVERS AND BIOMARKERS OF DIABETIC KIDNEY DISEASE	93.847	1-DP3-DK-108220-01				\$232,929
NEUROENDOCRINOLOGY OF ENERGY BALANCE CONTROL	93.847	1-R01-DK-096139-01A1				\$247,326
DIABETES, ENDOCRINE AND METABOLIC DISEASE	93.847	2-T32-DK-007314-31				\$253,667
BIOCHEMISTRY AND GENETICS OF IRON TRANSPORT IN MITOCHONDRIA AND RELATED PROCESSES	93.847	4-R37-DK-053953-16				\$254,321
CONTROL OF ERYTHROPOIESIS BY THE OXYGEN SENSOR PHD2	93.847	1-R01-DK-104796-01A1				\$259,906
MEASURES OF FIBROSIS AND CLINICAL OUTCOMES IN CHRONIC KIDNEY DISEASE	93.847	1-R01-DK-104730-01				\$260,977
TGF-BETA, MATRIX, AND MYOFIBROBLASTS IN HEPATIC FIBROSIS	93.847	2-R01-DK-058123-11A1				\$270,979
RENAL RESEARCH TRAINING PROGRAM	93.847	2-T32-DK-007006-42				\$287,107
ROLE OF THE NOTCH PATHWAY IN KIDNEY INJURY	93.847	2-R01-DK-076077-06				\$287,134
INTERLEUKIN-1 RECEPTOR ANTAGONIST IN ARDS	93.847	1-R56-HL-122474-01A1				\$291,023
REGULATORY CASCADES IN GASTROINTESTINAL PROLIFERATION	93.847	2-R37-DK-053839-15				\$291,404
TRACING TRANSCRIPTOMIC CHANGES TO UNCOVER UNKNOWN ROLES OF TZDS	93.847	1-R01 DK-106027-01				\$304,356
INTEGRATIVE NUTRIGENOMIC AND METABOLOMIC ANALYSES OF AFRICANS WITH VARIABLE DIETS	93.847	1-R01-DK-104339-1			\$121,591	\$307,724
LOOK AHEAD: ACTION FOR HEALTH IN DIABETES	93.847	2-U01-DK-057135-15			\$3,629	\$308,306

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ISOLATION, IDENTIFICATION AND CHARACTERIZATION OF A TOXIN CAUSING BILIARY ATRESIA	93.847	2R56DK092111-05			\$45,016	\$310,715
CLINICAL EPIDEMIOLOGY TRAINING IN GASTROENTEROLOGY	93.847	2-T32-DK-007740-16				\$324,427
HEMATOPOIESIS TRAINING GRANT	93.847	2-T32-DK-007780-16				\$326,980
ROLE OF EGFR SIGNALING IN BONE FORMATION AND THE ANABOLIC ACTIONS OF PTH	93.847	1-R01-DK-095803-01A1				\$327,567
UNIVERSITY OF PENNSYLVANIA DIABETES RESEARCH CENTER	93.847	4-P30-DK-019525-40				\$349,391
TRANSCRIPTIONAL AND EPIGENOMIC CONTROL OF ADIPOSE TISSUE DEVELOPMENT AND FUNCTION	93.847	1-R01-DK-098542-01				\$350,703
FRACTALKINE IN ADIPOSE INFLAMMATION AND INSULIN RESISTANCE	93.847	1-R01-DK-090505-01A1				\$361,890
THE LIN28B-LET7 AXIS IN INTESTINAL EPITHELIAL BIOLOGY	93.847	2-R01-DK-056645-14A1				\$362,551
REGULATION OF ESOPHAGEAL GENE EXPRESSION AND FUNCTION BY KLF5 AND P53	93.847	1-R01-DK-101294-01				\$392,813
ALGORITHMS TO IDENTIFY NON-CODING MUTATIONAL BURDEN AND DISEASE-RELEVANT PATHWAYS	93.847	1-R01-DK-101478-02			\$21,381	\$402,340
CHRONIC KIDNEY DISEASE (CKD) BIOMARKERS CONSORTIUM DATA COORDINATING CENTER	93.847	1-U01-DK-103225-01			\$69,350	\$426,064
INNOVATIVE GENETIC APPROACHES FOR HEPATIC REPOPULATION	93.847	1-R01-DK-102667-01A1				\$430,967
TRAINING PROGRAM IN GASTROINTESTINAL SCIENCES	93.847	2-T32-DK-007066-41				\$436,047
BIOLOGY OF THE ORPHAN RECEPTOR REV-ERB ALPHA	93.847	2-R01-DK-045586-19				\$446,697
TARGETING NAD METABOLISM TO IMPROVE GLUCOSE HOMEOSTASIS IN OBESITY AND AGING	93.847	1-R01-DK-098656-01A1			\$23,235	\$446,951
BETA CELL REGENERATION BY AN EPIGENETIC PATHWAY	93.847	1-R01-DK-097555-01A1				\$455,693
EATING PHENOTYPES FOR CHILDHOOD OBESITY IN THE CONTEXT OF FAMILIAL OBESITY RISK	93.847	1-R01-DK-101480-01A1			\$52,602	\$471,850
NUCLEAR HORMONE RECEPTORS IN ADIPOCYTE DIFFERENTIATION	93.847	5-R01-DK-049780-21				\$486,249
EPIGENETIC LANDSCAPE OF CHRONIC KIDNEY DISEASE	93.847	2-R01-DK-087635-06			\$6,082	\$495,810
THYROID HORMONE RECEPTORS - REGULATION AND FUNCTION	93.847	4-R37-DK-043806-23				\$501,662
NEURAL HIERARCHY IN THE MODULATION OF INGESTIVE BEHAVIOR	93.847	2-R01-DK-021397-36A1			\$64,407	\$550,123
GENE THERAPY FOR MUCOPOLYSACCHARIDOSIS	93.847	2-R01-DK054481-18A1			\$61,339	\$553,597
THE IMPACT OF HEALTHY FOOD MARKETING STRATEGIES IN SUPERMARKETS	93.847	1-R01-DK-101629-01A1			\$27,721	\$553,722
UNIVERSITY OF PENNSYLVANIA+ PLUS CLINICAL CENTER (PENN+PLUS CC)	93.847	1-U01-DK-106892-01			\$114,897	\$560,163
PRIMARY OUTCOMES IN GLOMERULONEPHRITIS STUDY (PROGRESS)	93.847	1-UM1-DK-100846-01			\$458,575	\$623,628
REGULATION AND FUNCTION OF THE MEG3 LOCUS IN HUMAN BETA-CELLS	93.847	2-R01-DK-088383-05				\$631,620
MOLECULAR THERAPY FOR CYSTIC FIBROSIS	93.847	2-P30-DK-047757-21			\$83,750	\$657,408
REGULATION OF BROWN AND BEIGE ADIPOCYTE DEVELOPMENT THROUGH EBF2	93.847	1-R01-DK-103008-01				\$685,984
DRUG-DRUG INTERACTIONS INVOLVING ANTIDIABETIC AGENTS	93.847	1-R01-DK-102694-01			\$101,644	\$756,450
DATA COORDINATING CENTER FOR HEMODIALYSIS PILOT STUDIES CONSORTIUM	93.847	1-U01-DK-099919-01			\$27,719	\$800,974
PROSPECTIVE RENAL INSUFFICIENCY COHORT EVALUATION: PRICE	93.847	2-U01-DK-060984-13				\$867,775
EPIGENETIC REJUVENATION OF HUMAN BETA-CELLS	93.847	1-UC4-DK-104119-01			\$259,131	\$995,990
CENTER FOR DIGESTIVE AND LIVER DISEASES	93.847	2-P30-DK-050306-16				\$1,123,868
A VASCULARIZED 3D BIOMIMETIC FOR ISLET FUNCTION AND PHYSIOLOGY	93.847	1-UC4-DK-104196-01			\$557,834	\$1,134,718
UNIVERSITY OF PENNSYLVANIA DIABETES RESEARCH CENTER	93.847	2-P30-DK-019525-36			\$394,503	\$1,579,301
MAPP RESEARCH NETWORK	93.847	2-U01-DK-082316-07			\$428,105	\$1,712,254
INTEGRATIVE METABOLIC ADAPPTIONS TO ENVIRONMENTAL AND NUTRITIONAL CHALLENGE	93.847	5-P01-DK-049210-19				\$2,280,136
CONTINUATION OF THE CHRONIC RENAL INSUFFICIENCY COHORT (CRIC) STUDY	93.847	2-U01-DK-060990-13			\$196,809	\$3,380,663
DIETARY INTAKE AND EATING BEHAVIOR IN ADOLESCENTS WHO UNDERGO BARIATRIC SURGERY	93.848	1-R01-DK-080738-01-01REVISED				\$33,581
SCIENTIFIC AND DATA COORDINATING CENTER (SDCC) FOR THE PROSPECTIVE COHORT STUDY OF CHRONIC RENAL...	93.849	1-U01-DK-060990-01				-\$157
95-493: PROTEIN BONDING, STABILITY, AND FUNCTION	93.849	2-R01-DK-011295-29A1				\$91
CROSS-SENSITIZATION IN THE PELVIS AND NEUROGENIC BLADDER	93.849	7-R01-DK-077699-02				\$328
OPTOGENETIC APPROACHES TO NEUROMUSCULAR SYNAPSE ELIMINATION	93.853	1-R21-NS-076899-01A1				-\$12,000
NTS NEURONS INTEGRATE LEPTIN AND SATIATION SIGNALS TO INFLUENCE REWARD SIGNALING	93.853	1-F31-NS-084633-01A1				-\$778
REGULATION OF SLEEP-LIKE BEHAVIOR IN C. ELEGANS	93.853	1-R01-NS-064030-01A1				-\$260
TRANSCRIPTIONAL CONTROL OF SONIC HEDGEHOG SIGNALING	93.853	2-R01-NS-039421-10A2				-\$190
EXPLORING AND ENHANCING KARYOPHERIN BETA-2 DISAGGREGATE ACTIVITY	93.853	1-R21-NS-090205-01A1				\$2,505
COMBINATION THERAPY, BIOMARKERS, AND IMAGING IN CANINE KRABBE DISEASE	93.853	1-R01-NS-096087-01				\$3,995
NEURAL BASIS OF GENERALIZED QUANTIFIERS	93.853	2-R01-NS-044266-06A1				\$4,357
EXAMINING THE ROLE OF NEURONAL INJURY IN CONCUSSION-RELATED COGNITIVE DYSFUNCTION	93.853	1-F32-NS-083284-01A1				\$5,162
ACHIEVING SUCCESS FOR WOMEN & ACADEMIC MEDICINE: A RANDOMIZED MULTI-LEVEL TRIAL	93.853	1-R01-NS-069793-01 REVISED				\$5,347
ROLE OF CELL CYCLE PROTEINS IN HIV ENCEPHALITIS	93.853	2-R01-NS-041202-09A1				\$5,416

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CORTICAL SYNAPTIC BALANCE AND GAMMA-BAND ACTIVITY AFTER TRAUMATIC BRAIN INJURY	93.853	1-F31-NS-083243-01A1				\$7,010
CIRCUIT CONTRIBUTIONS OF ADULT AND SEIZURE-INDUCED NEUROGENESIS IN THE DENTATE GYRUS	93.853	1-F31-NS-080403-01A1				\$9,888
SPATIOTEMPORAL MODELING OF MRI GRAIN LESION TRAJECTORIES OF BIOMARKER DISCOVERY	93.853	1-R21-NS-093349-01A1				\$10,664
LENTIVIRAL-MEDIATED HEMATOPOIETIC STEM CELL GENE THERAPY FOR CANINE GLOBOID CELL LEUKODYSTROPHY	93.853	1-F32-NS-093898-01A1				\$13,068
SODIUM LEAK CHANNELS AND REGULATION BY NEUROTRANSMITTERS	93.853	4-R01-NS-055293-09				\$13,243
CONTROLLING NEURAL CIRCUITS WITH SINGLE-CELL RESOLUTION IN BEHAVING ANIMALS	93.853	4-R01-NS-084835-04				\$14,148
EARLY LIFE SEIZURES DISRUPT CRITICAL PERIOD PLASTICITY	93.853	4-R01-NS-080565-04				\$14,319
MOLECULAR MECHANISMS IN CONTROLLING DEVELOPMENT OF TOUCH-SENSING NEURONS	93.853	4-R01-NS-083702-04				\$15,115
THE GENETIC REGULATION AND DISEASE FUNCTION OF THE FRONTOTEMPORAL DEMENTIA PROTEIN TMEM106B	93.853	4-R01-NS-082265-04				\$15,979
MURINE CORONAVIRUS NEUROVIRULENCE: ROLE OF TYPE I INTERFERON RESPONSE	93.853	4-R01-NS-081008-05				\$16,776
THE NKCC1 INHIBITOR BUMETANIDE AS A NOVEL THERAPY IN TSC	93.853	1-R21-NS-080268-01A1				\$17,433
MOLECULAR NEUROPATHOLOGY OF TDP-43 PROTEINOPATHIES	93.853	1-R21-NS-087749-01				\$18,705
UNDERSTANDING THE PATHOGENIC MECHANISMS OF RETT SYNDROME	93.853	4-R01-NS-081054-04				\$21,124
MECHANISMS OF SEMA-1A DEPENDENT MIDLINE CROSSING IN THE DROSOPHILA CNS	93.853	1-F31-NS-086340-01				\$27,108
DISSECTING THE ROLE OF DISEASE-ASSOCIATED VARIANTS IN THE REGULATION OF TMEM106B	93.853	1-F31-NS-090892-01				\$28,993
MECHANISMS AND MODIFIERS OF HNRNPA1 AND HNRNPA2 MISFOLDING AND TOXICITY	93.853	1-F31-NS-087676-01A1				\$30,825
EPIGENETICS IN NEURODEGENERATIVE DISEASE: TARGETING HISTONE MODIFICATIONS IN ALS	93.853	1-K22-NS-091314-01				\$30,843
ALPHA SYNUCLEIN OLIGOMER TOXICITY AND THE PATHOGENIC INTERACTION WITH DOPAMINE	93.853	1-F31-NS-087779-01A1				\$31,725
MITOCHONDRIAL DYNAMICS IN ASTROCYTIC PROCESSES AFTER TRANSIENT ISCHEMIA	93.853	1-F31-NS-086255-01A1				\$35,163
THE EPILEPTOGENIC EFFECT OF PERINATAL HYPOXIA	93.853	2-R56-NS-031718-02A1 1-P01-NS-056202-01A2				\$35,506
MILD TRAUMATIC BRAIN INJURY AND DIFFUSE AXONAL INJURY	93.853	REVISED				\$36,894
LOCALIZING EPILEPTIC NETWORKS USING NOVEL 7T MRI GLUTAMATE IMAGING	93.853	1-K23-NS-092973-01A1				\$39,461
MOLECULAR MECHANISMS CONTROLLING SOMATOSENSORY NEURON DEVELOPMENT	93.853	1-F31-NS-086168-01A1				\$40,287
PATHOGENIC MECHANISMS OF REDUCED TRANSPORT INITIATION IN PERRY SYNDROME	93.853	1-F30-NS-092227-01				\$42,562
PERSISTENT MEASLES VIRUS IN THE BRAIN AFTER RESOLUTION OF ACUTE INFECTION	93.853	1-F31-NS-092307-01				\$43,117
SCHWANN CELL MORPHOLOGY AND FUNCTION IN PERIPHERAL NERVE REGENERATION	93.853	1-F31-NS-089250-01				\$43,153
CONNECTOMICS MEETS NEURO-ONCOLOGY: MAPPING THE BRAIN FOR TREATMENT PLANNING	93.853	1-R01-NS-096606-01				\$49,941
THE INTERNATIONAL EPILEPSY ELECTROPHYSIOLOGY DATABASE	93.853	1-U24-NS-063930-01A1			\$67,326	\$52,250
AXON INITIAL SEGMENT MADE SIMPLE: ARCHITECTURE OF THE CYTOSKELETAL NETWORK	93.853	1-K22-NS-091189-01A1				\$52,481
INTEGRATION OF SLEEP-REGULATING SIGNALS BY THE DROSOPHILA PARS INTERCEREBRALIS	93.853	1-F32-NS-090811-01A1				\$53,004
EPIGENETIC MECHANISMS OF TDP43-MEDIATED NEURODEGENERATION	93.853	1-F32-NS-084667-01				\$54,636
MOTOR CIRCUIT MODULATION AND ITS REGULATION	93.853	2-R37-NS-029436-19				\$58,060
PARANEOPLASTIC DISORDERS OF THE CNS: AUTOANTIGEN PROFILING	93.853	9-R01-NS-077851-05A2				\$60,454
THE ROLE OF CONNEXIN32 IN THE PATHOGENESIS OF CMTX	93.853	2-R01-NS-055284-05A1				\$60,823
EPIGENETIC EDITING OF MUTANT C9ORF72	93.853	1-R01-NS-095793-01				\$73,252
MECHANISMS OF AUTOPHAGOSOME BIOGENESIS AND MATURATION IN PRIMARY NEURONS	93.853	4-R00-NS-082619-03				\$76,873
EXPANSION OF INTRACRANIAL HEMORRHAGE BY TPA AFTER TRAUMATIC BRAIN INJURY	93.853	1-R21-NS-080014-01A1				\$77,399
NEUROPATHOLOGICAL CHARACTERIZATION OF 'CTE'	93.853	1-R01-NS-094003-01A1				\$78,038
TDP43 MRNA COMPLEX TRANSPORT IN PHYSIOLOGIC AND PATHOLOGIC STATES	93.853	1-K08-NS-094744-01				\$97,445
MECHANISMS OF REMODELING CIRCUIT CONNECTIVITY AFTER TRAUMATIC BRAIN INJURY	93.853	1-R56-NS-088176-01				\$112,406
SODIUM LEAK CHANNELS AND REGULATION BY NEUROTRANSMITTERS	93.853	2-R01-NS-055293-06A1				\$115,539
FEASIBILITY OF DIRECT QUANTITATIVE MAGNETIC RESONANCE IMAGING OF MYELIN	93.853	1-R21-NS-082953-01A1			\$13,004	\$118,327
ALPHA-SYNUCLEIN BIOMARKERS IN PARKINSON DISEASE	93.853	1-K08-NS-093127-01				\$120,506
TRAINING IN NEUROVIROLOGY	93.853	2-T32-NS-007180-32				\$126,751
TEMPORAL LOBE EPILEPSY AND RETROTRANSPOSONS	93.853	1-R21-NS-095756-01				\$148,135
OPTICAL STUDY OF SECRETION IN MAMMALIAN NERVE TERMINALS	93.853	4-R01-NS-040966-12				\$153,981
DEVELOPMENTAL ENDOTHELIAL LOCUS-1 (DEL-1) IS A HEMOSTATIC FACTOR IN THROMBOTIC STROKE	93.853	1-R21-NS-091793-01				\$154,770
IDENTIFICATION OF ENDOPHENOTYPES IN THE BEHAVIORAL-VARIANT OF FRONTOTEMPORAL DEMENTIA	93.853	1-K23-NS-088341-01				\$155,786
INTERPLAY OF THE MICROBIOME AND THE BRAIN IN NEURODEGENERATIVE DISEASE	93.853	1-R21-NS-088370-01				\$156,253
SAFETY AND EFFICACY OF SYSTEMIC GENE THERAPY IN INFORMATIVE MODELS FOR DMD	93.853	1-R01-NS-094705-01				\$157,746

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EFFECTS OF APPARENT BODY SIZE ON MOTOR FUNCTION	93.853	1-R21-NS-089084-01A1			\$1,308	\$157,763
MECHANISMS OF REMODELING CIRCUIT CONNECTIVITY AFTER TRAUMATIC BRAIN INJURY	93.853	1-R01-NS-088176-01A1				\$165,066
TBI: UNCOVERING MECHANISMS OF AD-LIKE PATHOLOGY	93.853	2-R01-NS-038104-10A1			\$25,238	\$167,066
SYSTEMIC MOLECULAR THERAPY FOR MUSCULAR DYSTROPHY	93.853	2-R01-NS-042874-06A2				\$167,093
BRAIN INJURY TRAINING GRANT	93.853	2-T32-NS-043126-11				\$167,894
TRAINING PROGRAM IN NEUROENGINEERING AND MEDICINE	93.853	1-T32-NS-091006-01				\$172,763
ROLE OF BRAIN MECHANOSENSORS ON OUTCOME AFTER TRAUMATIC BRAIN INJURY	93.853	1-R21-NS-093293-01				\$178,241
EPIGENETIC CHANGES ASSOCIATED WITH NEURODEGENERATIVE DISEASES	93.853	4-R01-NS-078283-05				\$183,381
IDENTIFICATION NEURONS CONTROLLING SLEEP/WAKE IN THE NEMATODE C. ELEGANS	93.853	1-R21-NS-091500-01				\$186,133
TRANSCRIPTIONAL CONTROL OF GLIOMA DEVELOPMENT	93.853	1-R01-NS-093120-01				\$205,180
TARGETED MODULATION OF THE DEATH RECEPTOR AS A THERAPEUTIC STRATEGY FOR GLIOMA	93.853	1-K08-NS-076548-01				\$205,495
PARKINSON DISEASE DISPARITIES AND OUTCOMES	93.853	7-K23-NS-081087-02				\$214,678
A CRITICAL PERIOD OF SLEEP REQUIRED FOR NORMAL BRAIN DEVELOPMENT	93.853	1-K08-NS-090461-01				\$217,113
MECHANISMS OF CASPR2 ANTIBODIES	93.853	1-K08-NS-075142-01A1				\$231,940
INTRATHECAL CYCLODEXTRIN THERAPY OF FELINE NIEMANN-PICK TYPE C DISEASE	93.853	1-R01-NS-073661-01				\$232,457
REGULATION OF NEURONAL EXCITABILITY BY EXTRACELLULAR CALCIUM	93.853	1-R01-NS-074257-01				\$234,729
NEUROLOGIC CLINICAL EPIDEMIOLOGY TRAINING GRANT	93.853	2-T32-NS-061779-06				\$236,787
MOLECULAR, CELLULAR AND PHYSIOLOGICAL MECHANISMS OF THE MAMMALIAN CIRCADIAN CLOCK	93.853	2-R01-NS-054794-06			\$86,453	\$245,444
ENABLING WIDESPREAD USE OF HIGH RESOLUTION IMAGING OF OXYGEN IN THE BRAIN	93.853	1-R24-NS-092986-01			\$89,316	\$248,175
THE ROLE OF CONNEXIN32 IN THE PATHOGENESIS OF CMTX	93.853	4-R01-NS-055284-9				\$251,650
MURINE CORONAVIRUS NEUROVIRULENCE: ROLE OF TYPE I INTERFERON RESPONSE	93.853	1-R01-NS-081008-01				\$253,520
PRECLINICAL CYCLOSPORIN A THERAPY TRIALS FOR PEDIATRIC TBI	93.853	1-U01-NS-069545-01A1			\$14,997	\$258,482
SEMI-SYNTHETIC A-SYNUCLEIN FOR TRACKING AGGREGATION AND CELL-TO-CELL TRANSMISSION	93.853	1-R01-NS-081033-01				\$267,287
CONTROLLING NEURAL CIRCUITS WITH SINGLE-CELL RESOLUTION IN BEHAVING ANIMALS	93.853	1-R01-NS-084835-01				\$268,408
UNDERSTANDING THE PATHOGENIC MECHANISMS OF RETT SYNDROME	93.853	1-R01-NS-081054-01A1				\$274,732
GREATER PHILADELPHIA-SOUTHERN NEW JERSEY NETT NETWORK	93.853	2-U10-NS-058960-06				\$284,652
ENDOTHELIAL PLASTICITY IN GLIOMA VASCULARIZATION AND THERAPY RESISTANCE	93.853	1-R01-NS-094533-01				\$285,295
ROBO RECEPTOR SIGNALING AND REGULATION DURING AXON GUIDANCE IN DROSOPHILA	93.853	2-R01-NS-046333-10A1				\$289,632
PRESSOR CHOICE INFLUENCES PROTECTION OF AUTOREGULATION IN BRAIN INJURY	93.853	1-R01-NS-090998-01A1			\$5,867	\$292,313
MECHANISTIC ANALYSIS OF AXONAL TRANSPORT DEFECTS IN NEURODEGENERATIVE DISEASE	93.853	2-R01-NS-060698-06A1				\$301,084
A NOVEL METHOD FOR GLUTAMATE IMAGING	93.853	1-R01-NS-087516-01				\$311,289
OPTICAL STUDY OF SECRETION IN MAMMALIAN NERVE TERMINALS	93.853	2-R01-NS-040966-08A1			\$7,274	\$313,862
NEUROPEPTIDERGIC REGULATION OF SLEEP IN C. ELEGANS	93.853	1-R01-NS-088432-01A1				\$316,878
UNBIASED APPROACHES TO NOVEL BIOMARKER DISCOVERY IN PARKINSON'S DISEASE	93.853	1-U01-NS-082134-01				\$327,154
THE GENETIC REGULATION AND DISEASE FUNCTION OF THE FRONTOTEMPORAL DEMENTIA PROTEIN TMEM106B	93.853	1-R01-NS-082265-01				\$329,899
CYCLING IN A CIRCADIAN CIRCUIT	93.853	2-R37-NS-048471-10			\$12,202	\$331,440
OXIDATIVE LIPID STRESS IN THE BRAIN	93.853	1-R01-NS-074178-01A1				\$333,868
RESEARCH TRAINING PROGRAM IN DISEASE-ORIENTED NEUROSCIENCE	93.853	2-R25-NS-065745-06				\$344,837
MOLECULAR MECHANISMS IN CONTROLLING DEVELOPMENT OF TOUCH-SENSING NEURONS	93.853	1-R01-NS-083702-01				\$354,025
TRANSCRIPTIONAL MECHANISMS COORDINATING MIDLINE AND MOTOR AXON GUIDANCE	93.853	2-R01-NS-054739-05A1				\$358,388
STATISTICAL METHODS FOR LARGE AND COMPLEX DATABASES OF ULTRA-HIGH-DIMENSIONAL	93.853	1-R01-NS-085211-01			\$131,268	\$366,361
PROPAGATION OF LEWY PATHOLOGY IN PARKINSONS DISEASE	93.853	1-R01-NS-088322-01A1				\$376,926
DETECTION AND MECHANISMS OF MILD TRAUMATIC BRAIN INJURY	93.853	1-R01-NS-092398-01				\$399,177
DICTYOSTATIN AND RELATED PRODRUGS AS CANDIDATES FOR TAUOPATHY TREATMENT	93.853	1-R21-NS-087059-01A1				\$401,394
THE PHILADELPHIA REGIONAL STROKE TRIALS NETWORK COORDINATING CENTER (PRSTNCC)	93.853	1-U10-NS-086474-01			\$36,482	\$413,974
ATAXIN-2 AS A GENETIC RISK FACTOR FOR ALS: NEW INSIGHTS INTO NEURODEGENERATION	93.853	1-R01-NS-073660-01A1			\$244,223	\$419,933
EPIGENETIC CHANGES ASSOCIATED WITH NEURODEGENERATIVE DISEASES	93.853	1-R01-NS-078283-01			\$137,185	\$422,225
TRANSCRIPTIONAL CONTROL OF SONIC HEDGEHOG SIGNALING	93.853	2-R01-NS-039421-15				\$432,810
SELF-ASSOCIATION AND MEMBRANE BINDING OF ALPHA-SYNUCLEIN	93.853	7-R01-NS079955-04				\$433,937
DIFFUSE OPTICS FOR ACUTE STROKE MANAGEMENT	93.853	2-R01-NS-060653-06			\$79,700	\$467,285
BIOLOGICAL 'LIVING ELECTRODES' USING TISSUE ENGINEERED AXONAL TRACTS TO PROBE AND						
MODULATE THE NERVOUS SYSTEM	93.853	1-U01-NS-094340-01			\$66,429	\$487,909
NICOTINIC & DOPAMINERGIC MECHANISMS REGULATING IN VIVO PLASTICITY	93.853	7-R01-NS-021229-29				\$516,979
PREDICTING BRAIN TUMOR PROGRESSION VIA MULTIPARAMETRIC IMAGE ANALYSIS AND MODELIN	93.853	2-R01-NS-042645-11A1			\$67,352	\$577,450

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DETECTION OF CEREBRAL ISCHEMIA WITH A NONINVASIVE NEUROMETABOLIC OPTICAL MONITOR	93.853	1-R01-NS-082309-01A1				\$620,530
NEUROSCIENCE NEUROIMAGING CENTER	93.853	2-P30-NS-045839-11A1				\$704,345
EARLY LIFE SEIZURES DISRUPT CRITICAL PERIOD PLASTICITY	93.853	1-R01-NS-080565-01A1			\$311,090	\$721,197
PARKINSON'S DISEASE AND DEMENTIA	93.853	2-P50-NS-053488-06				\$1,952,172
SHAPING ANTIVIRAL IMMUNITY BY THE INFLAMMATORY, REGULATORY AND TISSUE ENVIRONMENT	93.855	7-U19-AL-083022-02			\$66,073	-\$14,391
OPTIMIZING HIV ENV IMMUGENS FOR T AND B CELL VACCINE RESPONSES	93.855	1-R01-AI-090788-01				-\$8,460
ROLE OF NOTCH SIGNALING IN THE DIFFERENTIATION AND FUNCTION OF INFLAMMATORY DCS	93.855	1-R21-AI-099651-01A1				-\$5,658
UNIVERSITY OF PENNSYLVANIA CENTER FOR AIDS RESEARCH:	93.855	2-P30-AI-045008-06				-\$5,520
CENTER FOR AIDS RESEARCH	93.855	2-P30-AI-045008-11				-\$3,199
ELUCIDATING THE CHEMISTRY AND BIOLOGY OF NUCLEIC ACID CYTIDINE DEAMINASES IN HIV	93.855	7-K08-AI-089242-02				-\$1,028
ALLELIC VARIANTS OF SALMONELLA FIMBRIAL ADHESINS	93.855	1-R21-AI-098041-01A1				-\$851
G-PROTEIN COUPLED RECEPTOR KINASE-2 ON IGE SIGNALING IN MAST CELLS	93.855	1-R21-AI-094896-01				-\$420
CONTROL OF B CELL DEVELOPMENT BY YY1	93.855	1-R01-AI-079002-01A2				-\$320
THERAPEUTICS THAT TARGET PROCESSIVITY COMPLEX PROTEINS OF POX AND OTHER VIRUSES	93.855	1-U01-AI-082211-01				-\$266
HOST-PARASITE INTERACTIONS DURING TOXOPLASMOSIS	93.855	1-R21-AI-104998-01				-\$237
A MURINE MODEL FOR HUMAN FACTOR H R1210C MUTATION-RELATED DISEASES	93.855	1-R21-AI-105455-01				-\$86
DISSECTING THE MECHANISM OF RIPK1 KINASE-DEPENDENT CELL DEATH IN CONTROL OF YERSINIA INFECTION	93.855	1-R21-AI-125924-01				\$27
FULLY-INTEGRATED, NON-INSTRUMENTED DEVICE FOR MOLECULAR DIAGNOSTICS	93.855	4-K25-AI-099160-05				\$310
GENE THERAPY FOR CANINE X-LINKED SCID	93.855	4-R01-AI-043745-13				\$481
LONG NONCODING RNAs IN INNATE LYMPHOID CELL BIOLOGY	93.855	1-F31-AI-124538-01A1				\$1,948
BIOMEDICAL COMPUTING AND INFORMATICS STRATEGIES FOR INFECTIOUS DISEASE RESEARCH	93.855	1-R01-AI-116794-01A1				\$2,221
MECHANISMS OF PNEUMOCOCCAL PERSISTENCE DURING CARRIAGE.	93.855	2-R01-AI-038446-16				\$2,535
MODIFIED HIV EVNS FOR STRUCTURE FUNCTION & VACCINE STUDI	93.855	4-R37-AI-045378-11				\$3,525
ROLE OF APOBEC3 IN IN VIVO RESTRICTION OF RETROVIRUS INFECTION	93.855	1-R01-AL-085015-01A1				\$3,831
SCHISTOSOME TRP ION CHANNELS AS POTENTIAL DRUG TARGETS	93.855	1-R21-AI-100505-01A1				\$4,178
ROS RESPONSES DURING VIBRIO CHOLERAEE INFECTION	93.855	1-R01-AI-120489-01A1				\$4,215
INFECTIOUS DISEASES EPIDEMIOLOGY TRAINING GRANT	93.855	2-T32-AI-055435-06A1				\$4,380
SPLICING AND NUCLEAR TRANSPORT OF INFLUENZA VIRUS MRNA	93.855	1-R01-AI-125524-01				\$4,392
GENETIC DETERMINANTS OF SYSTEMIC HOST-ADAPTED SALMONELLA	93.855	1-R21AI-117135-01A1				\$4,647
BIANNUAL INTERNATIONAL TOXOPLASMOSIS	93.855	1-R13-AI-120914-01				\$4,658
TARGETING THE PERSISTENT HIV-1 VIRAL RESERVOIR USING ENGINEERED T CELLS	93.855	1-R21-AI-104280-01				\$6,751
CONTROL AND MANIPULATION OF HIV-SPECIFIC CD8 T-CELL EFFECTOR RESPONSES	93.855	1-F32-AI-100495-01A1				\$7,595
ROLE OF SCHISTOSOME ABC TRANSPORTERS IN MODULATION OF HOST IMMUNE RESPONSES	93.855	1-R21-AI-106268-01				\$7,897
NUCLEOSIDE MODIFIED MRNA BASED HIV VACCINE	93.855	1-R01-AI-124429-01				\$8,100
ENGINEERING PROTEIN VESICLES FOR DRUG DELIVERY APPLICATIONS	93.855	1-F32-GM-119430-01				\$8,408
ANALYSIS OF GENE REGULATION OF VIBRIO CHOLERAEE DURING INFECTION	93.855	2-R56-AI-072479-06A1				\$9,340
CARBAPENEM-RESISTANT KLEBSIELLA PNEUMONIAE IN LONG-TERM ACUTE CARE HOSPITALS	93.855	4-K01-AI-103028-04				\$9,368
STUDIES OF HERPES SIMPLEX VIRUS GLYCOPROTEINS	93.855	4-R37-AI-018289-29				\$9,463
MECHANISMS OF NEURONAL SPREAD OF NEUROTROPIC MOUSE HEPATITIS VIRUS	93.855	4-K08-AI-098503-05				\$9,858
CHROMOSOME TRANSLOCATION IN PRE B CELLS: THE ROLE OF AN ALTERNATE DNA STRUCTURE	93.855	1-R21-AI-097825-01				\$10,110
IDENTIFYING RARE SUBTYPES OF CD8 T-CELLS USING SINGLE CELL REACTORS	93.855	1-R21-AI-124057-01				\$12,642
DISRUPTING VECTOR-BORNE DISEASE TRANSMISSION IN COMPLEX URBAN ENVIRONMENTS	93.855	4-R01-AI-101229-04				\$13,361
RESIDENT MEMORY T CELLS IN LEISHMANIASIS	93.855	1-R01-AI-125265-01				\$17,098
T CELL FUNCTIONALITY AND CONTROL OF HIV INFECTION	93.855	4-R01-AI-076066-09				\$17,668
CORONAVIRUS ANTAGONISM OF THE OAS-RNASE L PATHWAY	93.855	1-F32-AI-114143-01A1				\$18,298
URINARY INFECTIONS DUE TO ESCHERICHIA COLI WITH REDUCED QUINOLONE SUSCEPTIBILITY	93.855	1-R21-AI-103497-01A1				\$18,695
MOLECULAR BASIS FOR ACTIVITY BY MEMBRANE BOUND O-ACYLTRANSFERASES	93.855	1-R21-AI-119892-01A1				\$22,139
INNATE LYMPHOID CELL REGULATION OF METABOLIC HOMEOSTASIS	93.855	1-F30-AI-112023-01				\$24,696
INTERACTIONS OF EBOLA VIRUS GLYCOPROTEINS WITH HOST CELLS	93.855	1-R01-AI-081913-01A1				\$24,849
RISK OF LIVER COMPLICATIONS WITH HBV AND HIV VIREMIA DURING TENOFOVIR-BASED ART	93.855	1-R21-AI-124868-01				\$26,865
CD8+ T CELL EFFECTOR TRANSCRIPTIONAL PROGRAMMING IN SIV INFECTION	93.855	1-R56-AI-106481-01			\$1,681	\$27,499

The accompanying notes are an integral part of this schedule

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RAPID AND HIGHLY SENSITIVE INFLUENZA DETECTION WITH RNA FISH	93.855	1-F30-AI-114475-01A1				\$29,220
PROBING MECHANISMS OF REDUCED HIV RESERVOIRS IN AN INTERFERON-A CLINICAL TRIAL	93.855	1-R21-AI-106557-01A1				\$29,328
SINGLE MOLECULE FRET STUDY OF VIRAL PROGRAMMED RIBOSOMAL FRAMESHIFTING	93.855	1-F30-AI114187-01				\$29,728
DISCOVERY OF A NOVEL IMMUNE RESPONSE TO THE 5' LEADER OF HIV-1	93.855	1-F30-AI-112426-01				\$30,311
UNDERSTANDING THE ROLE OF IL-22 IN CUTANEOUS LEISHMANIASIS	93.855	1-F31-AI-114227-01				\$32,882
NATURAL TH17 CELLS IN ALLERGIC AIRWAY DISEASE	93.855	1-R21-AI-105046-01			\$14,754	\$34,230
BLOCKING IMMUNE EVASION AS A NOVEL IMMUNOTHERAPY FOR RECURRENT HSV-2 INFECTION	93.855	1-R21-AI-105959-01				\$37,602
NOVEL APPROACHES TO PROPAGATE MOLLUSCUM CONTAGIOSUM VIRUS IN CELL CULTURE	93.855	1-R21-AI-117100-01			\$8,618	\$38,015
MOLECULAR EPIDEMIOLOGY AND NATURAL HISTORY OF SIVCPZ	93.855	7-R01-AI-058715-09			\$42,252	\$42,975
TREFOIL FACTORS REGULATE TH2 IMMUNITY	93.855	7-R01-AI-095289-07				\$43,035
AUTOIMMUNE ENCEPHALOMYELITIS AND C-REL	93.855	4-R01-AI-050059-12				\$45,953
TRAINING IN HIV PATHOGENESIS	93.855	2-T32-AI-007632-11				\$46,707
EARLY T LINEAGE PROGENITORS	93.855	2-R56-AI-059621-11				\$48,081
AUTOIMMUNE ENCEPHALOMYELITIS AND REGULATORY T CELLS	93.855	4-R01-AI-099216-04				\$52,624
NOVEL MECHANISMS OF CALCIUM SIGNALING IN B LYMPHOCYTES	93.855	2-R01-AI-060921-06A1				\$52,868
MECHANISMS OF SYSTEMIC IGA INDUCTION BY COMMENSAL BACTERIA	93.855	1F32AI114089-01A1				\$53,334
DEFINING THE DETERMINANTS ON THE ALPHAVIRUS RECEPTOR NRAMP REQUIRED FOR VIRUS BINDING AND ENTRY	93.855	1-R21-AI-103441-01				\$57,927
THE ROLE OF MYELOID LINEAGE CELLS IN LEISHMANIASIS	93.855	1-F32-AI-114080-01				\$59,599
IMMUNE-BASED DETECTION OF RIFAMPICIN-RESISTANCE IN HIV/TB	93.855	1-R21-AI-108436-01				\$60,538
MOLECULAR BIOLOGY OF CORONAVIRUS INDUCED DEMYELINATION	93.855	2-R01-AI-060021-19A1				\$64,618
MECHANISMS OF INFLAMMASOME INHIBITION BY SALMONELLA	93.855	1-R21-AI-105346-01				\$65,010
ASSOCIATION BETWEEN VIRAL HEPATITIS INFECTION AND LOW MUSCLE MASS AMONG HIV-POSITIVE INDIVIDUALS	93.855	1-F32-AI-120363-01				\$71,352
BIOLOGY OF DECAY ACCELERATING FACTOR	93.855	2-R01-AI-044970-11				\$71,919
LEUKOCYTE ACTIVATION AND MIGRATION IN AUTOIMMUNE ENCEPHALOMYELITIS	93.855	1-R01-AI-121166-01				\$75,781
INNATE IMMUNE REGULATION OF INTRACELLULAR PATHWAYS INVOLVED IN FILOVIRUS BUDDING	93.855	1-R21-AI-103785-01A1				\$76,105
ROLE OF BETA-ARRESTIN-2 ON IGE-MEDIATED COFILIN DEPHOSPHORYLATION AND MAST CELL ACTIVATION	93.855	1-R21-AI-115688-01A1				\$76,759
IMMUNE ACTIVATION AND ISONIAZID METABOLISM IN HIV TB	93.855	1-R21-AI-104441-01			\$48,417	\$90,880
DEFINING HUMAN NONCANONICAL INFLAMMASOME RESPONSES TO LEGIONELLA PNEUMOPHILA	93.855	1-R01-AI-123243-01				\$94,615
FULLY-INTEGRATED, NON-INSTRUMENTED DEVICE FOR MOLECULAR DIAGNOSTICS	93.855	1-K25-AI-099160-01A1				\$96,813
TRANSMITTED/FOUNDER HCV CLONES AS TARGETS FOR TREATMENT AND ERADICATION.	93.855	1-R21-AI-106000-01			\$56,027	\$99,144
TARGETING 5' LEADER-ENCODED DEFECTIVE RIBOSOMAL PRODUCTS FOR HIV T CELL VACCINES	93.855	1-R01-AI-118549-01A1				\$113,170
INTEGRATED MULTI-SCALE ADHESIVE DYNAMICS MODELING OF T-LYMPHOCYTE HOMING	93.855	4-R01-AI-082292-06				\$114,802
MECHANISMS OF NEURONAL SPREAD OF NEUROTROPIC MOUSE HEPATITIS VIRUS	93.855	1-K08-AI-098503-01A1				\$117,255
TRAF6 AND THE FATE OF CD8 T CELLS	93.855	2-R01-AI-064909-06A1				\$127,279
CARBAPENEM-RESISTANT KLEBSIELLA PNEUMONIAE IN LONG-TERM ACUTE CARE HOSPITALS	93.855	1-K01-AI-103028-01A1				\$127,675
FAVORED SITES FOR HIV CDNA INTEGRATION IN THE HUMAN GENOME	93.855	4-R01-AI-052845-15			\$7,986	\$130,178
HUMAN MAST CELL-SPECIFIC MAS-RELATED GENE-X2 (MRGX2) IN ANAPHYLAXIS AND ASTHMA	93.855	1-R21-AI-108585-01A1				\$134,437
SUPER-ENHANCER STRUCTURE DEFINES A SIGNATURE OF INFLAMMATORY BOWEL DISEASE (IBD)	93.855	1-K22-AI-112570-01				\$135,772
VMD-PHD TRAINING IN INFECTIOUS DISEASE-RELATED RESEARCH	93.855	2-T32-AI-070077-06				\$136,009
THE DEVELOPMENT AND FUNCTION OF CD8+ INNATE-LIKE LYMPHOCYTES	93.855	1-K08-AI-101008-01				\$140,989
DETERMINATION OF EXHALED BIOMARKERS FOR LOW-COST DIAGNOSIS AND MONITORING OF TB	93.855	1-R21-AI-105611-01A1			\$68,077	\$146,130
STUDIES OF THE PRECURSOR OF THE HUMAN AIDS VIRUS IN ITS NATURAL CHIMPANZEE HOST	93.855	1-R01-AI-120810-01A1			\$8,904	\$149,809
ANTIVIRAL IMMUNITY IN THE GUT: HOW THE INTESTINAL EPITHELIUM AND MICROBIOTA REGULATE INFECTION	93.855	1-R01-AI-122749-01				\$152,513
ACETATE METABOLISM IN HUMAN CYTOMEGALOVIRUS INFECTION.	93.855	1-R21-AI-105679-01				\$153,882
ROLE OF CASPASE-8 IN YERSINIA VIRULENCE AND HOST DEFENSE	93.855	1-R21-AI-109267-01				\$155,164
TRAF6 AND THE FATE OF CD8 T CELLS	93.855	4-R01-AI-064909-09				\$159,996
THIOL-BASED SWITCHES IN VIBRIO CHOLERAEE PATHOGENESIS	93.855	1-R21-AI-109316-01A1				\$164,640
FOXP TRANSCRIPTION FACTORS IN REGULATORY T CELL DEVELOPMENT AND HOMEOSTASIS	93.855	1-R56-AI-108786-01			\$19,314	\$165,039
CONTROL OF CORONAVIRUS PATHOGENESIS BY ANTAGONISM OF RNASE L	93.855	1-R21-AI-114920-01A1			\$25,986	\$165,223
METABOLIC CONTROL OF TISSUE SPECIFIC MACROPHAGE DIFFERENTIATION	93.855	7-K08-AI-106953-03				\$168,142

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HARNESSING TYPE 1 IFN-STIMULATED ANTIVIRAL MECHANISMS FOR HIV VACCINE DESIGN	93.855	1-R01-AI-111789-01			\$73,571	\$169,254
EPIGENETIC CONTROL OF PLASMA CELL DIFFERENTIATION	93.855	1-R21-AI-116317-01				\$170,621
IMMUNE SYSTEM DEVELOPMENT AND REGULATION	93.855	2-T32-AI-055428-11A1				\$176,773
TRAINING IN VIROLOGY	93.855	2-T32-AI-007324-21A1				\$177,108
PHYLOGEOGRAPHIC DYNAMICS OF A VECTOR AND PATHOGEN IN A NATURAL ENVIRONMENT	93.855	1-R01-AI-097137-01			\$72,214	\$179,327
TRAINING IN EMERGING INFECTIOUS DISEASES	93.855	2-T32-AI-055400-11				\$180,274
AN EX VIVO MODEL TO PREDICT OUTCOMES AND PROBE MECHANISM OF ANTI-RESERVOIR AGENTS	93.855	1-R21-AI-116216-01				\$181,722
ROLE OF APOBEC3 IN IN VIVO RESTRICTION OF RETROVIRUS INFECTION	93.855	2-R01-AI-085015-06A1				\$185,549
SIGNALS AFFECTING HOMESTASIS AND TOLERANCE IN MEMORY T CELLS	93.855	1-R01-AI-085160-01			\$78,241	\$186,424
CONTROL OF PLASMA CELL LONGEVITY BY THE IRE1 PATHWAY	93.855	1-R21-AI-115710-01			\$37,266	\$188,594
VIBRIO CHOLERAEE-HOST INTERACTION AT THE INTESTINAL INTERFACE	93.855	1-R01-AI-080654-01A2			\$87,802	\$191,754
FAVORED SITES FOR HIV CDNA INTEGRATION IN THE HUMAN GENOME	93.855	2-R01-AI-052845-12			\$26,247	\$192,432
EFFECTS OF AGING ON THE T FOLLICULAR HELPER RESPONSE TO INFLUENZA VACCINE	93.855	1-K08-AI-114852-01				\$193,641
IL-10 PRODUCING NEUTROPHILS DURING RESPIRATORY VIRUS INFECTION	93.855	1-R21-AI-109472-01A1				\$198,478
RESIDENT MEMORY T CELLS IN LEISHMANIASIS	93.855	1-R21-AI-110869-01				\$201,601
CONTROL OF B CELL DEVELOPMENT BY YY1	93.855	2-R01-AI-079002-06				\$202,321
MYELOID-LINEAGE CELLS AND IMMUNOPATHOLOGY IN LEISHMANIA BRAZILIENSIS	93.855	1-U01-AI-088650-01			\$109,705	\$202,600
SEPARATION OF GVHD AND GVT EFFECTS BY A TCR SIGNALING MUTATION	93.855	1-R21-AI-117282-01				\$203,157
INTERACTION BETWEEN MICROBIOTA AND DENDRITIC CELLS IN MUCOSAL TOLERANCE	93.855	1-R21-AI-108627-01A1				\$203,779
UNCOVERING THE REGULATORY ROLE OF GH/GLI IN HSV FUSION	93.855	2-R01-AI-056045-06				\$208,617
CLONING, CHARACTERIZATION AND IN VIVO TESTING OF MUCOSALLY TRANSMITTED SIV	93.855	7-R21-AI-087383-03				\$212,482
PARASITOLOGY: MODERN APPROACHES	93.855	5T32AI007532-17				\$220,563
PHYLOGEOGRAPHIC DYNAMICS OF A VECTOR AND PATHOGEN IN A NATURAL ENVIRONMENT	93.855	4-R01-AI-097137-05			\$78,379	\$223,866
T CELL FUNCTIONALITY AND CONTROL OF HIV INFECTION	93.855	2-R01-AI-076066-06A1				\$226,543
A STRATEGY FOR POINT-OF-CARE MOLECULAR DETECTION OF PARASITIC HELMINTH INFECTIONS	93.855	1-R21-AI-112713-01				\$233,325
MICROBIAL PATHOGENESIS AND GENOMICS	93.855	2-T32-AI-060516-06				\$235,195
IL-27 AND TREG CELLS	93.855	1-R01-AI-110201-01				\$239,195
VIRAL AND IMMUNE DYNAMICS OF REBOUND VIREMIA AFTER VRC01 ADMINISTRATION	93.855	1-R21-AI-118431-01				\$242,092
INFECTIOUS DISEASES CLINICAL EPIDEMIOLOGY TRAINING PROGRAM	93.855	2-T32-AI-055435-11A1				\$248,767
THE ROLE OF INNATE CELLS IN THE PATHOGENESIS OF LEISHMANIA BRAZILIENSIS INFECTION	93.855	2-U01-AI-088650-06			\$153,490	\$257,464
THE ROLE OF AUTOPHAGY IN INNATE ANTI-VIRAL IMMUNITY IN DROSOPHILA	93.855	2-R01-AI0-74951-06A1				\$274,357
DONOR ORGAN-SPECIFIC EXOSOME PLATFORM FOR MONITORING TRANSPLANT ORGAN REJECTION	93.855	1-R21-AI-111010-01				\$275,469
INNATE IMMUNE-MEDIATED CONTROL OF PULMONARY LEGIONELLA PNEUMOPHILA INFECTION	93.855	1-R01-AI-118861-01A1				\$275,573
DEFINING THE ROLE OF MICRORNAS IN CD8 T CELL EXHAUSTION	93.855	1-R21-AI-117718-01				\$277,589
CONTROL OF VIRAL PATHOGENESIS BY REGULATION OF 2-SA LEVELS	93.855	4-R01-AI-104887-04			\$135,020	\$278,142
THE REL GENE AND HUMAN AUTOIMMUNE DISEASES	93.855	1-R21-AI-113220-01A1				\$282,098
FUNCTIONS OF HSV GLYCOPROTEINS IN VIRUS ENTRY AND THE HUMORAL IMMUNE RESPONSE	93.855	2-R01-AI-018289-34				\$286,584
TRIM2, A NOVEL HOST FACTOR THAT RESTRICTS NEW WORLD ARENAVIRUS INFECTION	93.855	1R21-AI-112696-01				\$300,531
THE ROLE OF AUTOPHAGY IN INNATE ANTI-VIRAL IMMUNITY IN DROSOPHILA	93.855	4-R01-AI0-74951-09				\$302,981
GP340 AND SYNDECAN INHIBITION BASED MICROBICIDE FOR HIV	93.855	1-R21-AI-082701-01			\$9,534	\$309,694
NATURAL SIV RESERVOIRS AND HUMAN ZOONOTIC RISK	93.855	4-R37-AI-050529-13			\$95,621	\$311,302
MECHANISMS AND TREATMENT OF CHRONIC, LATENT HUMAN STRONGYLOIDIASIS	93.855	1-R21-AI-105856-01			\$150,460	\$344,622
HARNESSING INFLAMMASOME ACTIVATION TO ENHANCE EFFICACY OF SALMONELLA VACCINES	93.855	1-R21-AI-117365-01			\$5,698	\$345,305
TRAINING IN HIV PATHOGENESIS	93.855	2-T32-AI-007632-16				\$349,096
IMMUNOPATHOGENESIS OF TOXOPLASMIC ENCEPHALITIS	93.855	2-R01-AI-041158-15				\$355,692
VIRAL MODULATION OF EPIGENETIC MECHANISMS	93.855	1-R01-AI-118891-01			\$177,569	\$363,549
AUTOIMMUNE ENCEPHALOMYELITIS AND C-REL	93.855	2-R01-AI-050059-08A1				\$367,840
INTEGRATED MULTI-SCALE ADHESIVE DYNAMICS MODELING OF T-LYMPHOCYTE HOMING	93.855	2-R01-AI-082292-03A1			\$40,312	\$367,869
PENILE TRANSMISSION AND NEUTRALIZATION OF PATHOGENIC SIVSMM	93.855	7-R01-AI-094604-02			\$60,879	\$372,303
ORIGINS OF SERUM IGA ANTIBODIES	93.855	1-R01-AI-113543-01				\$374,389
NOTCH REGULATION OF HEMATOPIC CELL FATES	93.855	2-R01-AI-047833-11A1			\$100,313	\$374,889
LONG-LIVED CD19-POSITIVE PLASMA CELLS	93.855	1-R01-AI-097590-01A1				\$375,389
NATURAL SIV RESERVOIRS AND HUMAN ZOONOTIC RISK	93.855	4-R37-AI-050529-12			\$95,621	\$385,559
INSULIN-LIKE SIGNALING IN PARASITIC NEMATODE DEVELOPMENT	93.855	2-R01-AI-050668-09A1				\$387,197

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DISRUPTING VECTOR-BORNE DISEASE TRANSMISSION IN COMPLEX URBAN ENVIRONMENTS	93.855	1-R01-AI-101229-01A1			\$119,441	\$390,449
A NOVEL VIRUS-DERIVED ADJUVANT	93.855	2-R01-AI-083284-06				\$391,014
DISSECTING THE ALPHAVIRUS ENTRY RECEPTOR NRAMP	93.855	1-R01-AI-095500-01A1			\$141,207	\$400,625
HOST-ORIENTED THERAPEUTICS TARGETING FILOVIRUS BUDDING	93.855	4-R33-AI-102104-01				\$403,349
RAPID IMMUNE RESTORATION AND LUNG INJURY IN HIV/TB	93.855	1-R01-AI-120821-01			\$109,327	\$412,392
STRUCTURAL ANALYSIS OF THE THIRD COMPONENT OF COMPLEMENT	93.855	2-R01-AI-030040-16			\$51,724	\$426,501
HSV-2 IMMUNE EVASION AS A VIRULENCE FACTOR	93.855	1-R01-AI-104854-01A1				\$427,552
PROTECTIVE AND PATHOLOGIC ROLES FOR CD8+ T CELLS IN LEISHMANIASIS	93.855	1-R01-AI-106842-01A1				\$456,552
AUTOIMMUNE ENCEPHALOMYELITIS AND REGULATORY T CELLS	93.855	1-R01-AI-099216-01A1				\$456,918
MASSIVELY PARALLEL ANALYSIS OF INTEGRATION IN THERAPEUTIC GENE TRANSFER	93.855	2R01AI082020-05A1			\$56,830	\$462,405
TARGETING THE PERSISTENT HIV-1 VIRAL RESERVOIR USING ENGINEERED T CELLS	93.855	4-R33-AI-104280-03				\$466,031
PATHOGENESIS AND THERAPY OF DENSE DEPOSIT DISEASE IN A MOUSE MODEL	93.855	2-R01-AI-085596-05A1				\$474,206
COMPLEMENT DYSREGULATION AND ATYPICAL HEMOLYTIC UREMIC SYNDROME	93.855	1-R01-AI-117410-01				\$496,531
A FAST ASSAY TO QUANTIFY HIV RESERVOIRS	93.855	1-R01-AI-120011-01			\$187,279	\$528,391
MODULATION OF INFLAMMASOME ACTIVATION BY YERSINIA	93.855	1-R01-AI-103062-01				\$554,730
VIRAL CONTROL MECHANISMS OF HIV-SPECIFIC T CELLS IN HIV-INFECTED LYMPH NODE	93.855	1-R01-AI-118694-01A1			\$151,300	\$566,320
CELLULAR AND TRANSCRIPTIONAL CONTROL OF EXHAUSTED CD8 T CELLS LINEAGE DYNAMICS	93.855	1-R01-AI-105343-01A1				\$566,926
DYNAMICS OF TB AND MDR TB TRANSMISSION IN AREAS WITH HIGH HIV PREVALENCE	93.855	1-R01-AI-097045-01			\$19,591	\$586,752
CONTROL OF VIRAL PATHOGENESIS BY REGULATION OF 2-SA LEVELS	93.855	1-R01-AI-104887-01			\$371,714	\$611,232
GREAT APE RESERVOIRS OF HUMAN MALARIA	93.855	2-R01-AI-091595-04A1			\$140,350	\$646,961
RESTRICTION OF HIV-1 TRANSMISSION BY TYPE 1 INTERFERONS	93.855	1-R01-AI-114266-01			\$261,981	\$657,492
NON-CD4 TROPIC SIV: ENHANCING CD4 T-CELL HELP IN ANTIVIRAL IMMUNE RESPONSES	93.855	1-R01-AI-112456-01			\$440,146	\$707,011
TARGETING BLYS/BAFF IN NON-HUMAN PRIMATE ISLET TRANSPLANTATION	93.855	1-U01-AI-102430-01				\$722,036
MECHANISTIC STUDIES OF BLYS-MEDIATED MODULATION IN HIV-1 ENV-SPECIFIC ANTIBODY RESPONSES	93.855	1-R01-AI-118691-01			\$149,173	\$813,814
PATHOGENIC DETERMINANTS OF THE SIV ENVELOPE TRANSMEMBRANE CYTOPLASMIC DOMAIN	93.855	2-R01-AI-074362-04			\$557,217	\$846,948
PHILADELPHIA HIV THERAPEUTICS AND PREVENTION CLINICAL TRIALS UNIT	93.855	2-UM1-AI-069534-08				\$1,310,590
SYNTHETIC DNA & NOVEL ENV VACCINE FOR HIV	93.855	1-U19-AI-109646-01A1			\$1,062,861	\$1,657,247
RECONSTRUCTING BERLIN:ROLE OF CO-RECEPTOR MODIFIED CELLS IN HIV AND SIV INFECTION	93.855	1-R01-AI-104400-01				\$1,669,668
NOVEL SIVSMM STRAINS FOR ANALYSIS OF MUCOSAL TRANSMISSION AND VACCINE PROTECTION	93.855	7-P01-AI-088564-03			\$223,053	\$1,967,172
COMPLEMENT IN INFLAMMATORY DISEASES: MECHANISMS & THERAPEUTIC MODULATION	93.855	2-P01-AI-068730-06			\$8,009	\$2,020,158
ENGINEERING T CELLS TO PROVIDE DURABLE CONTROL OF HIV-1 REPLICATION	93.855	1-U19-AI-117950-01			\$102,505	\$2,508,997
CENTER FOR AIDS RESEARCH	93.855	2-P30-AI-045008-16			\$340,464	\$2,676,769
THE EUKARYOTIC PATHOGEN BIOINFORMATICS RESOURCE CENTER (EUPATHDB) (CORE)	93.856	HHSN272201400030C			\$1,215,702	\$4,230,289
NATURAL ENGINEERING OF MULTI-ELECTRON BIOLOGICAL OXIDATION & REDUCTION	93.859	2-R01-GM-041048-22				-\$1,604
PREDOCTORAL TRAINING PROGRAM IN GENETICS	93.859	2-T32-GM-008216-23				-\$331
MECHANISMS OF CYTOKINESIS IN YEAST	93.859	1-R01-GM-087365-01A2				-\$101
CYTOSKELETAL MECHANISMS OF ENDOCYTOSIS	93.859	4-R01-GM-095977-04				\$480
STRUCTURE-BASED DESIGN OF XE-129 NMR BIOSENSORS FOR MULTIPLEXED CANCER DETECTION	93.859	1-R01-GM-097478-01A1				\$1,885
BACTERIAL CYTOCHROME BC1: STRUCTURE, FUNCTION, BIOGENESIS	93.859	2-R01-GM-038237-23A1				\$2,276
REGULATION OF CALCIUM-ACTIVATED POTASSIUM CHANNELS BY LIPID MESSENGERS	93.859	2-R01-GM-057654-14				\$7,492
ULTRAFAST PROCESSES IN PROTEINS AND OTHER ASSEMBLIES	93.859	2-R01-GM-012592-46A1				\$10,623
MECHANISMS OF SIGNAL-RESPONSIVE ALTERNATIVE SPLICING IN T-CELL ACTIVATION	93.859	1-F31-GM-103255-01				\$14,288
MECHANISMS FOR REDUCED MACROPHAGE MOTILITY AFTER PRO-INFLAMMATORY ACTIVATION	93.859	1-F32-GM-110961-01A1				\$16,328
COMPUTATIONAL GENOME-WIDE RNA PROFILING USING NEXT-GENERATION SEQUENCING	93.859	4-R01-GM-099962-05				\$20,671
NON-ORGANOMETALLIC PARTNERS AS RADICAL PRECURSORS FOR THE DIVERSIFICATION OF DUAL CATALYTIC CROSS-COUPLING PROCESSES	93.859	1-F32-GM-117634-01				\$20,792
COMPETITION AND MORPHOGENESIS IN TIP CELL-MEDIATED BRANCHING OF TUBULAR NETWORKS	93.859	1-R01-GM-089782-01A1				\$23,079
EGFR IN A STICKY SITUATION: PROBING STRUCTURAL TRANSITIONS IN DIMERIZED RECEPTORS	93.859	1-F32-GM-109688-01				\$27,969
NEURON SPECIFIC ENOLASE AND OUTCOMES IN SEVERE SEPSIS	93.859	1-F32-GM-116637-01				\$28,556
MOLECULAR MECHANISMS OF PROTEIN ARGINYLATION	93.859	4-R01-GM-104003-04				\$29,161
MOLECULAR MECHANISMS AND SIGNAL-INDUCED REGULATION OF ALTERNATIVE SPLICING	93.859	1-R35-GM-118048-01				\$30,967
INTERACTION OF INHALED ANESTHETICS WITH MACROMOLECULES	93.859	4-P01-GM-055876-17				\$32,457
FOSTERING DIVERSITY IN BIOSTATISTICS WORKSHOP	93.859	2-R13-GM-075338-05				\$33,729

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SINGLE MOLECULE DYNAMICS OF MRNA TRANSLATION	93.859	4-R01-GM-080376-08				\$33,795
SITE-RESOLVED HYDRATION DYNAMICS OF PDZ DOMAINS	93.859	1-F31-GM-116520-01				\$37,787
MECHANISM OF CHROMATIN ACCESSIBILITY MEDIATED BY PIONEER TRANSCRIPTION FACTORS	93.859	1-F31-GM-112417-01A1				\$38,460
REGULATION OF MEIOSIS IN MICE	93.859	1-R35-GM-118052-01				\$38,861
ROLE OF THE ESRP'S IN PLURIPOTENT STEM CELL BIOLOGY	93.859	1-F32-GM-109630-01A1				\$39,197
MECHANISMS OF BALBIANI BODY-GENERATED EARLY OOCYTE POLARITY IN ZEBRAFISH	93.859	1-F31-GM-115066-01				\$42,563
BMP MORPHOGEN GRADIENT SPATIOTEMPORAL MODULATION BY METALLOPROTEASE ACTIVITY	93.859	1-F31-GM-113362-01				\$43,310
INVESTIGATING A MECHANISM FOR LOSS OF COMPETENCE DURING EMBRYONIC DEVELOPMENT	93.859	1-F31-GM-116588-01				\$43,362
GWAS USING INTEGRATED CNV AND SNP INFORMATION	93.859	1-R01-GM-088566-01A1				\$46,859
ALTERNATIVE MACROPHAGE ACTIVATION LIMITS IMMUNOPATHOLOGY	93.859	7-R01-GM-083204-09				\$48,387
DNA DOUBLE STRAND BREAK CHROMATIN ALTERATIONS AND GENOME INTEGRITY	93.859	4-R01-GM-101149-04				\$50,088
EFFECTS OF TRANSLATIONAL PAUSING ELEMENTS ON THE RHYTHM OF PROTEIN SYNTHESIS	93.859	1-F32-GM110955-01A1				\$50,884
INVESTIGATING KA1 DOMAIN-MEDIATED REGULATION OF MARK/PAR1 KINASES	93.859	1-F32-GM-115098-01				\$53,017
INVESTIGATING THE REGULATION OF AURORA B LEVELS AT THE CENTROMERE	93.859	1-F32-GM-108360-01A1				\$54,754
PHYSICIAN POSTDOCTORAL RESEARCH TRAINING IN PERIOPERATIVE MEDICINE (PPRTPM)	93.859	1-T32-GM-112596-01				\$59,905
MECHANISMS GOVERNING CONTEXT-DEPENDENT WNT ACTIVITY IN C. ELEGANS EMBRYOGENESIS	93.859	1-K99-GM-111825-01				\$59,997
STEM CELL RENEWAL AND DIFFERENTIATION IN SPERMATOGENESIS	93.859	2-R01-GM-060804-17				\$69,196
COMPUTATIONAL METHODS FOR SELECTIVE CATALYSIS	93.859	2-R01-GM087605-04A1				\$72,901
DYNAMICS & ENERGETICS OF P38A KINASE REGULATION BY LIGANDS	93.859	4-R01-GM-100910-04			\$43,670	\$84,919
HIGH-THROUGHPUT SCREENING AND STEM CELL MODELING OF CAUSAL EQTL VARIANTS	93.859	7-R01-GM-104464-04				\$94,641
NEURONAL BASIS UNDERLYING VOLATILE ANESTHETIC INDUCED HYPNOSIS	93.859	1-R01-GM-088156-01A1				\$102,946
HOST-MICROBIAL INTERACTIONS IN THE GUT OXYGEN EQUILIBRIUM	93.859	1-R01-GM-103591-01			\$6,096	\$103,841
ELECTROPHYSIOLOGY OF NUCLEAR MEMBRANE INSP3 RECEPTOR	93.859	4-R37-GM-056328-18				\$107,024
EXAMINING THE ROLE OF CBK1/NDR KINASE IN REGULATING MRNA LOCALIZATION	93.859	1-R01-GM-097327-01A1				\$109,237
MOLECULAR FUNCTION OF MYOSIN-I	93.859	2-R01-GM-057247-14				\$119,463
THE IMPACT OF VASOPRESSIN ON MITOCHONDRIAL DYSFUNCTION IN HEMORRHAGIC SHOCK	93.859	1-K08-GM-097614-01				\$123,434
SPECTROSCOPIC STUDY OF PROTEIN FOLDING DYNAMICS	93.859	2-R01-GM-065978-10				\$124,585
HOST-MICROBIAL INTERACTIONS IN THE GUT OXYGEN EQUILIBRIUM	93.859	4-R01-GM-103591-04			\$5,717	\$126,613
THE ROLE OF THE EXOCYST IN CELL MIGRATION	93.859	4-R01-GM-085146-09				\$129,764
RAS SIGNALING AND TUBULOGENESIS IN THE C. ELEGANS EXCRETORY (RENAL) SYSTEM	93.859	2-R01-GM-058540-14				\$129,901
DEFINING THE STRUCTURAL AND MECHANISTIC BASIS OF A PRION DISAGGREGASE	93.859	1-R01-GM-099836-01A1				\$138,209
DYNAMICS & ENERGETICS OF P38A KINASE REGULATION BY LIGANDS	93.859	1-R01-GM-100910-01A1			\$92,776	\$158,978
SYNTHESIS OF BIOACTIVE NATURAL PRODUCTS	93.859	2-R01-GM-029028-28A1				\$176,497
MOLECULAR MECHANISMS OF ER LUMINAL [CA2+] MODULATION OF INSP3R CHANNEL ACTIVITY	93.859	1-R01-GM-114042-01A1				\$182,867
DEFINING THE STRUCTURAL AND MECHANISTIC BASIS OF A PRION DISAGGREGASE	93.859	4-R01-GM-099836-04				\$187,079
CATALYTIC OXIDATIVE FRAGMENT COUPLING REACTIONS	93.859	1-R01-GM-112684-01A1				\$188,756
SENSITIVITY ENHANCEMENT IN SOLUTION NMR THROUGH DYNAMIC NUCLEAR POLARIZATION	93.859	1-R21-GM-07829-01				\$192,381
RAS SIGNALING AND TUBULOGENESIS IN THE C. ELEGANS EXCRETORY (RENAL) SYSTEM	93.859	2-R01-GM-058540-01A1				\$193,190
SPATIAL CONTROL OF ACTIN ASSEMBLY BY PHOSPHOINOSITIDES	93.859	1-R01-GM-111942-01A1				\$194,005
OPTOANESTHESIA	93.859	1-R01-GM-107117-01A1				\$198,636
STRUCTURAL DYNAMICS OF ACTOMYOSIN MOTILITY	93.859	2-R01-GM-086352-32			\$62,372	\$199,625
DNA DOUBLE STRAND BREAK CHROMATIN ALTERATIONS AND GENOME INTEGRITY	93.859	1-R01-GM-101149-01A1				\$202,810
STEM CELL RENEWAL AND DIFFERENTIATION IN SPERMATOGENESIS	93.859	2-R01-GM060804-13				\$205,202
FUNCTIONS OF TEX11 AND ITS ASSOCIATED PROTEINS IN MICE AND HUMANS	93.859	2-R01-GM-076327-05				\$208,974
SIGNALING BY GROWTH FACTOR RECEPTORS WITH INTRACELLULAR PSEUDOKINASE DOMAINS	93.859	1-R01-GM-099891-01				\$211,570
MOLECULAR FUNCTION OF MYOSIN-L	93.859	2-R01-GM-057247-18				\$216,602
STRUCTURAL DYNAMICS OF ACTOMYOSIN MOTILITY	93.859	4-R01-GM-086352-35			\$23,160	\$221,064
NOVEL SUBSTRATES OF THE TCR KINASE	93.859	4-R37-GM-053256-18			\$45,676	\$221,814
STRUCTURE DETERMINATION BY VIBRATIONAL SPECTROSCOPY	93.859	2-R01-GM-076201-08A1				\$223,810
CHROMATIN REGULATORY MECHANISMS IN EUKARYOTIC GAMETOGENESIS	93.859	2-R01-GM-055360-14A1				\$226,158
SINGLE MOLECULE DYNAMICS OF MRNA TRANSLATION	93.859	2-R01-GM-080376-05A1				\$232,713
EXAMINING THE ROLE OF CBK1/NDR KINASE IN REGULATING MRNA LOCALIZATION	93.859	4-R01-GM-097327-04				\$234,109
REGULATION OF NONCODING RNA BIOGENESIS AND FUNCTION	93.859	4-R00-GM-104166-02				\$236,130
PREDOCTORAL TRAINING AT THE CHEMISTRY-BIOLOGY INTERFACE	93.859	2-T32-GM-071339-11			\$6,503	\$239,066

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REGULATION OF BACTERIAL TWO-COMPONENT SIGNALING BY SMALL MEMBRANE PROTEINS	93.859	2-R01-GM-080279-05A1				\$250,509
REGULATION OF MEIOTIC RECOMBINATION IN MICE	93.859	2-R01-GM-089893-05				\$250,737
NON-PARAMETRIC BAYESIAN METHODS FOR CAUSAL INFERENCE	93.859	1-R01-GM-112327-01			\$60,981	\$251,951
TRANS-ACTING FACTORS CAUSING CELL SPECIFIC GENE CONTROL	93.859	2-R01-GM-036477-33				\$255,222
THE ROLE OF YY1 IN CONSTITUTIVE AND INDUCIBLE DNA LOOP FORMATION	93.859	1-R01-GM-111384-01				\$256,641
EVOLUTIONARY AND FUNCTIONAL DIVERSIFICATION OF CHROMATIN PROTEINS	93.859	4-R00-GM-107351-03				\$261,128
ENGAGEMENT OF HETEROTRIMERIC G PROTEINS BY SONIC HEDGEHOG	93.859	2-R01-GM-080396-05A1			\$14,749	\$264,490
MECHANISMS OF SIGNAL-INDUCED ALTERNATIVE SPLICING: CD45	93.859	2-R01-GM-067719-10				\$268,540
MECHANISMS AND CONSEQUENCES OF CELF2 REGULATION IN T CELL DEVELOPMENT	93.859	1-R01-GM-103383-01				\$268,694
FLUCTUATIONS AND ENTROPY IN THE ENERGETICS AND FUNCTION OF PROTEIN COMPLEXES	93.859	1-R01-GM-102447-01				\$274,471
MECHANISMS OF SPINDLE FORMATION	93.859	1-R01-GM-102215-01				\$274,494
BASIS FOR GENOTOXIC STRESS RELIEF BY ATP-DEPENDENT CHROMATIN REMODELERS	93.859	1-R01-GM-115888-01				\$275,608
NOVEL BORAZINES: SYNTHESIS AND ELABORATION	93.859	1-R01-GM-111465-01A1				\$277,647
DORSAL-VENTRAL PATTERN FORMATION IN THE ZEBRAFISH EMBRYO	93.859	2-R01-GM-056326-14				\$282,106
CLINICAL PHARMACOEPIDEMOLOGY TRAINING GRANT	93.859	2-T32-GM-075766-06				\$282,466
REGULATION OF CELL DIVISION BY MITOTIC KINASES	93.859	2-R01-GM-083988-06A1				\$282,491
UNDERSTANDING PROTEIN RADICALS	93.859	2-R01-GM-079190-06A1				\$284,541
STRUCTURAL BASIS OF ACTIN CYTOSKELETON DYNAMICS	93.859	2-R01-GM-073791-10				\$285,247
STRUCTURE AND FUNCTION OF METALLOENZYMES	93.859	2-R01-GM-049758-20A1				\$292,517
THE DYNAMIC ASSOCIATION OF AURORA B WITH CENTROMERIC CHROMATIN	93.859	1-R01-GM-105654-01A1				\$292,586
PRIMORDIALLY CONSERVED PRINCIPLES GOVERNING MUCOSAL IMMUNE RESPONSES TO PATHOGENS AND MICROBIOTA	93.859	2-R01-GM-085207-05			\$27,694	\$292,946
PROTON PUMPING MECHANISM IN COMPLEX I	93.859	1-R01-GM-097409-01A1				\$295,410
SEQUENCES CONTROLLING H19 GENE IMPRINTING	93.859	2-R37-GM-051279-18				\$296,323
MECHANISMS OF CURVATURE SENSING AND GENERATION BY PERIPHERAL MEMBRANE PROTEINS	93.859	1-R01-GM-097552-01A1				\$297,284
COMPUTATIONAL GENOME-WIDE RNA PROFILING USING NEXT-GENERATION SEQUENCING	93.859	1-R01-GM-099962-01A1				\$303,082
MECHANISMS OF ANESTHESIA MEDIATED NEUROTOXICITY	93.859	2-R01-GM-084979-06A1			\$8,661	\$308,299
MOLECULAR REGULATION OF EXOCYTOSIS	93.859	1-R01-GM-111128-01				\$309,087
COMPETITION AND MORPHOGENESIS IN TIP CELL-MEDIATED BRANCHING OF TUBULAR NETWORKS	93.859	2-R01-GM-089782-06				\$314,883
RESPIRATORY COMPLEX III: SUPERCOMPLEXES AND ROS, FROM BACTERIA TO HUMAN	93.859	2-R01-GM-038237-27A1				\$315,674
THE ROLE OF THE EXOCYST IN CELL MIGRATION	93.859	2-R01-GM-085146-05				\$318,636
A NOVEL MECHANISTIC PARADIGM FOR CROSS-COUPLING	93.859	1-R01-GM-113878-01				\$322,586
CELL BIOLOGY OF MEIOTIC DRIVE IN MAMMALS	93.859	1-R01-GM-107086-01				\$323,293
TRANS-ACTING FACTORS CAUSING CELL-SPECIFIC GENE CONTROL	93.859	4-R37-GM-036477-28				\$326,685
STATISTICAL METHODS FOR NEXT-GENERATION SEQUENCE DATA	93.859	1-R01-GM-097505-01A1				\$331,025
PREDOCTORAL TRAINING PROGRAM IN GENETICS	93.859	2-T32-GM-008216-28				\$336,141
STRUCTURE AND FUNCTION OF BIOSYNTHETIC ENZYMES	93.859	2-R01-GM-056838-17				\$337,511
STRUCTURE-BASED DESIGN OF XE-129 NMR BIOSENSORS FOR MULTIPLEXED CANCER DETECTION	93.859	2-R01-GM-097478-05			\$47,496	\$337,539
PROTEIN STRUCTURE AND FUNCTION BY HYDROGEN EXCHANGE MASS SPECTROMETRY ANALYSIS	93.859	2-R01-GM031847				\$338,197
CYTOSKELETAL MECHANISMS OF ENDOCYTOSIS	93.859	1-R01-GM-095977-01A1				\$339,747
SEMI-PARAMETRIC JOINT MODELS FOR LONGITUDINAL AND TIME TO EVENT DATA	93.859	1-R01-GM-104470-01				\$341,348
STATISTICAL METHODS FOR TRANSCRIPTOME PROFILING USING RNA SEQUENCING	93.859	1-R01-GM-108600-01A1				\$346,655
COUPLING KINETOCHORE MICROTUBULE DYNAMICS TO CHROMOSOME MOTION	93.859	1-R01-GM-098389-01A1				\$350,577
LARGE SERINE RECOMBINASE MECHANISMS	93.859	1-R01-GM-108751-01				\$359,087
UPENN POST BACCALAUREATE RESEARCH EDUCATION PROGRAM	93.859	2-R25-GM-071745-10				\$365,120
ARYLATION OF WEAKLY ACIDIC SP3 HYBRIDIZED C-H'S	93.859	1-R01-GM-104349-01				\$371,942
THE INTERACTION OF CYTOPLASMIC DYNEIN AND DYNACTIN	93.859	2-R01-GM-048661-22				\$373,825
STRUCTURAL BIOLOGY & MOLECULAR BIOPHYSICS TRAINING PROGRAM	93.859	2-T32-GM-008275-26				\$374,875
MECHANISMS ESTABLISHING OOCYTE POLARITY	93.859	1-R01-GM-117981-01				\$378,201
MECHANISM OF U1 SNRNPS SUPPRESSION OF PREMATURE CLEAVAGE & POLYADENYLATION	93.859	1-R01-GM-112923-01				\$380,320
UNDERSTANDING THE ROLE OF COMBINATORIAL HISTONE PTM PATTERNS	93.859	1-R01-GM-110174-01				\$384,007
ROLE OF MITOCHONDRIA-TARGETED CYP2D6 IN CHEMICAL TOXICITY	93.859	2-R01-GM-034883-27A1			\$56,045	\$384,785
NOVEL ORGANOBORON CHEMISTRY UTILIZING TETRAHYDROXYDIBORANE	93.859	2-R01-GM-081376-05				\$385,597
MOLECULAR MECHANISMS OF PROTEIN ARGINYLATION	93.859	1-R01-GM-104003-01A1			\$29,967	\$386,187
GENETIC ANALYSIS OF A DEVELOPMENTAL CLOCK IN ARABIDOPSIS THALIANA	93.859	2-R01-GM-051893-16				\$386,574
STRUCTURE AND FUNCTION OF PROTEIN ACETYLTRANSFERASES	93.859	7-R01-GM-060293-15				\$391,226
MECHANISMS INTEGRATING LINEAGE HISTORY WITH FATE SPECIFICATION IN C. ELEGANS	93.859	1-R01-GM-105676-01A1				\$392,792

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WATER SOLUBLE VARIANTS OF THE HUMAN MU OPIOID RECEPTOR	93.859	1-R01-GM-111421-01				\$398,885
ELECTROPHYSIOLOGY OF NUCLEAR MEMBRANE INSP3 RECEPTOR	93.859	2-R01-GM-056328-13				\$405,378
FUNCTIONAL CHARACTERIZATION OF PIRNPS	93.859	2-R01-GM-072777-10				\$424,414
REGULATION OF ACTIN DURING CELL MIGRATION	93.859	1-R01-GM-108744-01				\$429,360
UNDERSTANDING WNT SIGNALING THROUGH ROR AND RYK FAMILY RECEPTOR TYROSINE KINASES	93.859	1-R01-GM-107435-01				\$433,123
MECHANISM OF K+ CHANNELS	93.859	2-R01-GM-055560-14A1				\$449,002
USING MICROPOST ARRAYS TO MEASURE TRACTION FORCES DURING DENDRITIC CELL MOTILITY	93.859	1-R01-GM-104287-01A1			\$230,180	\$451,340
TRAINING PROGRAM IN CELL AND MOLECULAR BIOLOGY	93.859	2-T32-GM-007229-38A1				\$452,965
CENTROMERE IDENTITY AND FUNCTION	93.859	2-R01-GM-082989-06				\$471,068
PREDOCTORAL TRAINING GRANT IN PHARMACOLOGY	93.859	2-T32-GM-008076-30				\$475,831
LIGHT-ACTIVATED OLIGONUCLEOTIDES FOR BIOLOGICAL APPLICATIONS	93.859	2-R01-GM-083030-06A1				\$489,143
GRADUATE TRAINING IN SYSTEMS AND INTEGRATIVE BIOLOGY	93.859	4-T32-GM-007517-39				\$507,659
BIOGENESIS OF VOLTRAGE-GATED K+ CHANNELS	93.859	2-R01-GM-052302-17				\$511,652
MECHANISTIC ANALYSIS OF CYTOKINESIS IN EUKARYOTES	93.859	1-R01-GM-115420-01				\$511,753
IN VIVO TRANSLATIONAL ANALYSIS IN NEURONS	93.859	1-R01-GM-110005-01				\$640,786
INTEGRATIVE GENOMICS OF BODY SIZE AND METABOLISM IN ETHNICALLY DIVERSE AFRICANS	93.859	1-R01-GM-113657-01				\$787,029
UNIVERSITY OF PENNSYLVANIA POSTDOCTORAL OPPORTUNITIES IN RESEARCH AND TEACHING	93.859	2-K12-GM-081259-06			\$24,000	\$879,095
ULTRAFAST OPTICAL PROCESSES LABORATORY	93.859	9-P41-GM-104605-31				\$1,165,277
INTERACTION OF INHALED ANESTHETICS WITH MACROMOLECULES	93.859	2-P01-GM-055876-14A1			\$1,065,308	\$1,667,509
CYTOSKELETAL MOTORS AND SCAFFOLDS IN MEMBRANE DYNAMICS AND MOTILITY	93.859	2-P01-GM-087253-11			\$859	\$1,816,397
MEDICAL SCIENTIST TRAINING PROGRAM	93.859	2T32GM007170-39				\$2,264,822
BARBERSHOP-BASED HIV/STD RISK REDUCTION FOR AFRICAN AMERICAN YOUNG MEN	93.864	1-R01-HD-061061-01			\$8,921	\$234,851
ACTIVATION OF HUMAN PLACENTAL HORMONAL EXPRESSION	93.865	2-R01-HD-046737-06A1				-\$23,460
AXONAL PATHWAY SELECTION IN THE ZEBRAFISH EMBRYO	93.865	2-R01-HD-037975-11A1				-\$5,630
MICRORNA REGULATION OF SPERMATOGONIAL STEM CELL SELF-RENEWAL AND DIFFERENTIATION	93.865	1-R01-HD-071012-01				-\$1,387
CBPR TO IMPROVE AFRICAN AMERICAN ENVIRONMENTS FOR YOUTH OBESITY PREVENTION	93.865	1-R13-HD-063127-01				-\$1
PLACENTAL MORPHOLOGY AND SERUM BIOMARKERS TO PREDICT ADVERSE PREGNANCY OUTCOME	93.865	1-R03-HD-069742-01A1				\$51
DO AMPUTEES BENEFIT FROM COMPREHENSIVE REHABILITATION SE	93.865	2-R01-HD-042588-05A2				\$3,265
THE PENN CENTER FOR CAREER DEVELOPMENT IN WOMEN'S HEALTH RESEARCH-	93.865	2-K12-HD-001265-11				\$4,520
CLINICAL CENTER FOR NICHD/NEONATAL RESEARCH NETWORK	93.865	2-UG1-HD-068244-06				\$9,693
COMMUNITY/ACADEMIC PARTNERSHIP TO INCREASE ACTIVITY IN YOUTH AND THEIR FAMILIES	93.865	1-R13-HD-085960-01				\$11,173
GENETIC ANALYSIS OF MALE GONADAL DEVELOPMENT	93.865	1-R01-HD-065600-01				\$11,936
ELICITING MATERNAL KNOWLEDGE ABOUT THE TECHNOLOGY OF SKILL FORMATION	93.865	4-R01-HD-073221-04				\$14,003
AMBULATORY CARE ACCESS AND QUALITY	93.865	4-R01-HD-074756-03				\$25,865
NEURAL PREDICTORS OF RISKY DRIVING AND SUSCEPTIBILITY TO PEER INFLUENCES IN ADOLESCENCE	93.865	1-R21-HD-073549-01A1			\$9,164	\$27,136
LCR ACTIVATION OF THE HUMAN GROWTH HORMONE GENE	93.865	2-R01-HD-025147-20A2				\$28,571
MAGNETOENCEPHALOGRAPHIC STUDIES OF LEXICAL PROCESSING AND ABSTRACTION IN AUTISM	93.865	4-R01-HD-073258-05				\$30,222
OPTIMIZING RESPIRATORY FUNCTION IN DELIVERY ROOM RESUSCITATION: THE INFLATE STUDY (INFANT LUNG AERATION DURING TRANSITION EVENTS)	93.865	1-K23-HD-084727-01A1				\$32,125
THE CFAR SOCIAL & BEHAVIORAL SCIENCE RESEARCH NETWORK NATIONAL SCIENTIFIC MEETING	93.865	1-R13-HD-074468-01			\$955	\$34,391
GENE EXPRESSION IN THE PREIMPLANTATION MOUSE EMBRYO	93.865	4-R01-HD-022681-29				\$35,738
OVARIAN RESERVE AFTER CANCER: LONGITUDINAL EFFECTS (THE ORACLE STUDY)	93.865	1-R01-HD062797-01			\$915	\$39,177
THE FUNCTION OF MOV10L1 IN PIRNA BIOGENESIS	93.865	1-F31-HD081892-01				\$43,120
NICHD MATERNAL FETAL MEDICINE UNITS NETWORK	93.865	1-UG1-HD-087192-01				\$57,669
COMPARATIVE EFFECTIVENESS OF PREGNANCY FAILURE MANAGEMENT REGIMENS (PRE-FAI-R)	93.865	4-R01-HD-071920-04				\$60,440
VACCINATION STATUS OF CHILDREN EXEMPTED FROM SCHOOL-ENTRY IMMUNIZATION MANDATES	93.865	1-R03-HD-080732-01				\$93,102
HORMONAL IMPRINTING PREDETERMINES DEVELOPMENTAL EXPRESSION OF CYTOCHROME P450S	93.865	1-R01-HD-061285-01A1				\$100,942
IMMIGRATION AND FERTILITY IN THE U.S.	93.865	1-R01-HD-075560-01A1				\$103,816

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US-FRANCE RESEARCH PROPOSAL: MODELING AND PREDICTING BRAIN-COMPUTER INTERFACE LEARNING FROM DYNAMIC NETWORKS	93.865	1-R01-HD-086888-01				\$104,594
NEUROBEHAVIORAL STUDY OF GRAPHIC WARNINGS ON ADOLESCENTS AT RISK FOR NICOTINE DEPENDENCE	93.865	1-K99-HD-084746-01				\$105,752
TRAINING IN SEX AND GENDER DIFFERENCES RESEARCH TO IMPROVE WOMEN'S HEALTH	93.865	1-K12-HD-085848-01				\$115,862
FUNCTIONS OF MOV10L1 IN PIRNA BIOGENESIS AND GERM CELL DEVELOPMENT	93.865	4-R01-HD-069592-01A1			\$27,766	\$125,947
GROWTH RECOVERY, SCHOOLING AND COGNITIVE ACHIEVEMENT: EVIDENCE FROM FOUR COHORTS	93.865	7-R01-HD-070993-04			\$74,718	\$135,964
FUNCTIONS OF MOV10L1 IN PIRNA BIOGENESIS AND GERM CELL DEVELOPMENT	93.865	1-R01-HD-069592-01A1				\$149,051
SPONTANEOUS CODE SWITCHING	93.865	1-R21-HD-078072-01A1				\$149,445
SMARTOYGYM: SMART DETECTION OF ATYPICAL TOY-ORIENTED ACTIONS IN AT-RISK INFANTS	93.865	1-R01-HD-084327-01			\$28,016	\$165,164
GENE EXPRESSION IN THE PREIMPLANTATION MOUSE EMBRYO	93.865	2-R01-HD-022681-26A1				\$169,362
SINGLE CELL RECONSTRUCTION OF LINEAGES AND VARIABILITY IN C. ELEGANS EMBRYOS	93.865	1-R21-HD-085201-01				\$172,471
BEHAVIORAL EFFECTS OF TEEN EXPOSURE TO MULTIPLE RISK BEHAVIORS IN MEDIA	93.865	1-R21-HD-079615-01A1			\$958	\$181,176
AGE AND MOLECULAR MECHANISMS CONTRIBUTING TO ANEUPLOIDY IN OOCYTES	93.865	2-R01-HD-058730-06A1				\$184,993
CONTRIBUTIONS OF INFANT LEARNING TO LANGUAGE ACQUISITION	93.865	2-R01-HD-049681-06A1			\$3,457	\$188,697
CONTRIBUTIONS OF INFANT LEARNING TO LANGUAGE ACQUISITION	93.865	4-R01-HD-049681-09				\$192,813
TRAUMATIC BRIDGING VEIN FAILURE IN INFANTS	93.865	1-R21-HD-078842-01A1				\$200,927
A NEW PLAYER IN PLACENTAL DYSFUNCTION: MIR210	93.865	1-R21-HD-076271-01A1				\$218,218
EPIGENETIC LANDSCAPES OF EMBRYONIC LYMPHOID PROGENITORS AND HSCS	93.865	1-R21-HD-081054-01A1			\$60,907	\$235,348
MOBILITY, SELECTIVITY, AND THE MIGRANT MORTALITY ADVANTAGE	93.865	1-R01-HD-079475-01A1			\$65,232	\$251,781
GENE THERAPY FOR UREA CYCLE DISORDERS	93.865	4-P01-HD-057247-10				\$269,260
GRADUATE TRAINING IN DEMOGRAPHY	93.865	2-T32-HD-007242-31				\$269,376
MAGNETOENCEPHALOGRAPHIC STUDIES OF LEXICAL PROCESSING AND ABSTRACTION IN AUTISM	93.865	1-R01-HD-073258-01			\$133,879	\$284,106
REPRODUCTIVE EPIDEMIOLOGY TRAINING GRANT	93.865	2-T32-HD-007440-16				\$293,983
DEVELOPING AND PILOT TESTING A MOBILE PHONE-BASED HIV/STI PREVENTION INTERVENTION	93.865	1-R01-HD-072825-01A1			\$66,926	\$314,513
CLINICAL CENTER FOR NICHD/NEONATAL RESEARCH NETWORK	93.865	1-U10-HD-068244-01			\$288,256	\$317,765
THE PENN CENTER FOR CAREER DEVELOPMENT IN WOMEN'S HEALTH RESEARCH	93.865	2-K12-HD-001265-16				\$318,618
GRADUATE TRAINING IN DEVELOPMENTAL BIOLOGY	93.865	1-T32-HD-083185-01				\$322,226
THE DEVELOPMENT OF ON-LINE SENTENCE PROCESSING IN CHILDREN	93.865	2-R01-HD-037507-15				\$336,716
A NATIONAL TRAINING PROGRAM IN REPRODUCTIVE MEDICINE	93.865	2-T32-HD-040135-11			\$254,953	\$345,116
IMPROVING PARTICIPATION IN VECTOR CONTROL CAMPAIGNS THROUGH BEHAVIORAL ECONOMICS	93.865	1-R01-HD-075869-01A1			\$33,615	\$357,130
THE ROLE OF TLR SIGNALING IN FETAL BRAIN INJURY FROM PRENATAL INFLAMMATION	93.865	1-R01HD-076032-01A1				\$379,778
AMBULATORY CARE ACCESS AND QUALITY	93.865	1-R01-HD-074756-01A1			\$34,257	\$398,011
COOPERATIVE MULTICENTER REPRODUCTIVE MEDICINE NETWORK	93.865	2-U10-HD-027049-21				\$445,307
PELVIC FLOOR DISORDERS NETWORK CLINICAL SITES (U10)	93.865	1-U10-HD-069010-01				\$445,369
DEVELOPING A MULTI-MODALITY, PARADIGM-SHIFTING APPROACH FOR IN VIVO ASSESSMENT OF THE HUMAN PLACENTA AND THE IMPACT OF MATERNAL NUTRITION ON ITS DEVELOPMENT AND FUNCTION	93.865	1-U01-HD-087180-01			\$25,000	\$460,262
COMPARATIVE EFFECTIVENESS OF PREGNANCY FAILURE MANAGEMENT REGIMENS (PRE-FAI-R)	93.865	1-R01-HD-071920-01A1			\$190,032	\$485,894
EARLY CHILD DEVELOPMENT PROGRAMS: EFFECTIVE INTERVENTIONS FOR HUMAN DEVELOPMENT	93.865	1-R01-HD-065436-01A1			\$127,960	\$490,547
TARGETING THE PIRNA PATHWAY AND MEIOTIC RECOMBINATION FOR MALE CONTRACEPTION	93.865	1-U01-HD-084007-01				\$502,271
POPULATION RESEARCH CENTER GRANT	93.865	2-R24-HD044964-11				\$506,787
ADULT GENOME-WIDE PHENOTYPIC ANALYSIS OF MOLECULARLY DEFINED MUTANT GENES	93.865	1-R01-HD-069321-01			\$90,729	\$542,405
IMPROVING MATH ABILITY VIA PRIMITIVE NUMBER SENSE TRAINING	93.865	7-R01-HD-79106-02			\$11,900	\$597,617
DEVELOPMENT OF A SERUM BIOSIGNATURE FOR ECTOPIC PREGNANCY	93.865	1-R01-HD-076279-01A1			\$334,874	\$720,278
ELICITING MATERNAL KNOWLEDGE ABOUT THE TECHNOLOGY OF SKILL FORMATION	93.865	1-R01-HD-073221-01A1			\$705,121	\$815,091
GENE THERAPY FOR UREA CYCLE DISORDERS	93.865	2-P01-HD-057247-05			\$369,192	\$1,040,310
PENN CENTER FOR STUDY OF EPIGENETICS IN REPRODUCTION	93.865	1-U54-HD-068157-01			\$154,227	\$1,120,662
EFFICACY OF AN SSRI FOR MENOPAUSAL SYMPTOMS IN PERIMENOPAUSAL WOMEN	93.866	1-U01-AG-032656-01				-\$17,402
THE UNFOLDED PROTEIN RESPONSE AND NEURODEGENERATIVE TAUOPATHIES	93.866	1-F31-AG-043254-01				-\$1,695
EFFECTS OF CHRONIC SLEEP RESTRICTION ON ENERGY HOMEOSTASIS IN HEALTHY ADULTS	93.866	1-F31-AG-044102-01				-\$1,075
TELOMERE MAINTAINANCE BY WERNER SYNDROME FAMILY PROTEINS	93.866	2-R01-AG-021521-06A1				-\$372
BRAIN INJURY, AGING AND NEURODEGENERATION IN THE RAT	93.866	5-R01-AG-012527-06				\$167
MULTIMODAL BIOMARKERS IN FRONTOTEMPORAL LOBAR DEGENERATION	93.866	4-K01-AG-043503-04				\$487

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THE MECHANISMS OF ALTERATIONS IN SLEEP WITH AGE	93.866	2-P01-AG-017628-06A1				\$597
EVALUATING PAY FOR PERFORMANCE AND ITS DESIGN: EVIDENCE FROM NURSING HOMES	93.866	1-R01-AG-034182-01A1				\$1,438
CONNECTOMIC IMAGING IN FAMILIAL AND SPORADIC FRONTOTEMPORAL DEGENERATION	93.866	1-U01-AG-052943-01				\$10,184
AGE, HEARING LOSS, AND SENTENCE COMPREHENSION: NEURAL CORRELATES	93.866	4-R01-AG-038490-05				\$12,357
CELL-INTRINSIC AND EXTRINSIC FACTORS IN STEM CELL AGING	93.866	1-F31-AG-044995-01A1				\$14,054
MECHANISMS OF HEALTH DISPARITIES IN PARKINSONISM	93.866	1-K23-AG-034236-01A1				\$16,391
CELL-INTRINSIC AND EXTRINSIC FACTORS IN STEM CELL AGING	93.866	4-F31-AG-044995-03				\$17,303
PENN CMU ROYBAL CENTER ON BEHAVIORAL ECONOMICS AND HEALTH	93.866	1-P30-AG-034546-01			\$11,165	\$20,417
MIDCAREER INVESTIGATOR AWARD IN PATIENT-ORIENTED RESEARCH IN AGING	93.866	4-K24-AG-042765-03				\$24,955
TRAINING IN HEALTHCARE FINANCING, ORGANIZATION AND DELIVERY FOR AGING POPULATIONS	93.866	1-T32-AG-051090-01				\$26,387
OPTIMIZED ARTERIAL SPIN LABELING MRI IN MILD COGNITIVE IMPAIRMENT	93.866	4-R01-AG-040271-05				\$33,197
PROBING TRAP150/GSK3-MEDIATED REGULATION OF THE AGING-RELATED PROTEIN PSF	93.866	1-F31-AG-047022-01A1				\$34,148
ORALLY-ABSORBED, SMALL MOLECULE MICROTUBULE-STABILIZERS FOR TAUOPATHY TREATMENT	93.866	4-R01-AG-044332-04				\$34,893
PHOTO-INITIATED DISASSEMBLY OF FIBRILS: APPLICATION TO AMYLOIDS AND HYDROGELS	93.866	1-F31-AG-046010-01A1				\$35,482
PROSPECTIVE ASSESSMENT OF THE ETIOLOGY OF INSOMNIA IN MIDDLE AGED & ELDER ADULTS	93.866	4-R01-AG-041783-04				\$38,045
TARGETING WAVE REFLECTIONS IN HEART FAILURE WITH PRESERVED EJECTION FRACTION	93.866	1-R21-AG-043802-01				\$40,222
SIRTUIN REGULATION OF AGING HUMAN PRIMARY ADIPOSE TISSUE	93.866	4-K08-AG-042496-04				\$41,786
HOSPITAL CARE ENVIRONMENT, NEIGHBORHOOD, AND RACIAL DISPARITIES IN ELDER OUTCOMES	93.866	1-R01-AG-041099-01				\$50,257
MIDCAREER MENTORING AWARD FOR PATIENT-ORIENTED RESEARCH IN AGING	93.866	1-K24-AG-047908-01				\$58,268
ALZHEIMER'S DISEASE GENETICS CONSORTIUM	93.866	1-U01-AG-032984-01			\$47,828	\$58,735
A RANDOMIZED TRIAL OF FINANCIAL INCENTIVES FOR MAINTENANCE OF WEIGHT LOSS	93.866	4-R01-AG-045045-04				\$62,518
BRAIN-PENETRANT THROMBOXANE RECEPTOR ANTAGONISTS FOR ALZHEIMER'S DISEASE THERAPY	93.866	1-R01-AG-034140-01A2				\$71,097
COORDINATING CENTER FOR GENETICS AND GENOMICS OF ALZHEIMER'S DISEASE (CGAD)	93.866	1-U54-AG-052427-01				\$76,334
APOBEC3-MEDIATED DAMAGE OF HOST GENOMIC DNA IN VIVO	93.866	1-R21-AG-047114-01A1				\$77,650
SIRTUIN REGULATION OF AGING HUMAN PRIMARY ADIPOSE TISSUE	93.866	1-K08-AG-042496-01A1				\$99,005
UNDERSTANDING VARIATIONS IN HIP FRACTURE OUTCOMES ACROSS THE CONTINUUM OF CARE	93.866	1-K08-AG-043548-01			\$13,447	\$111,700
MULTIMODAL BIOMARKERS IN FRONTOTEMPORAL LOBAR DEGENERATION	93.866	1-K01-AG-043503-01A1				\$113,322
STAGING ACTIVITY LIMITATION	93.866	4-R01-AG-040105-04				\$113,892
TDP-43 PROTEINOPATHIES IN ALS-DEMENTIA	93.866	1-P01-AG-032953-01A1				\$115,331
CLINICAL IMPORTANCE OF DRUG-DRUG INTERACTIONS	93.866	4-R01-AG-025152-10				\$115,452
MIDCAREER INVESTIGATOR AWARD IN PATIENT-ORIENTED RESEARCH IN AGING	93.866	5-K24-AG-042765-02				\$130,729
COMMUNICATING WITH AFRICAN AMERICANS AT THE END OF LIFE: A CHURCH-BASED MODEL	93.866	1-R21-AG-044677-01A1				\$134,144
THE ROLE OF LEPTIN IN ALZHEIMER'S DISEASE	93.866	1-K08-AG-039510-01				\$138,247
MOLECULAR MECHANISMS OF RAPAMYCIN'S EFFECTS ON HEALTH AND LONGEVITY.	93.866	4-R01-AG-043483-04				\$138,444
STEM CELL AGING AND THE CONTROL OF APOPTOSIS	93.866	1-R21-AG-047915-01A1				\$152,107
YOUNG-ONSET DEMENTIA IN COLOMBIA	93.866	1-R21-AG-046499-01			\$66,674	\$154,684
TARGETED PROTEOMICS OF RESILIENT COGNITION IN AGING	93.866	1-R01-AG-039478-01			\$74,678	\$171,828
A MODEL-BASED APPROACH TO UNDERSTANDING MEMORY IMPAIRMENTS IN NORMAL AGING	93.866	1-R21-AG-048233-01A1				\$179,743
EARLY MARKERS OF ALZHEIMER'S DISEASE (AD) IN BLSA PARTICIPANTS - STRUCTURAL AND FUNCTIONAL BRAIN CHANGES: QUANTITATIVE ANALYSIS OF LONGITUDINAL MR IMAGES	93.866	HHSN271201500049C				\$186,925
THE ROLE OF ATR IN PREVENTING AGE-RELATED DISEASES	93.866	2-R01-AG-027376-06				\$201,687
STAGING ACTIVITY LIMITATION	93.866	1-R01-AG-040105-01A1			\$26,643	\$234,615
A RANDOMIZED TRIAL OF FINANCIAL INCENTIVES FOR MAINTENANCE OF WEIGHT LOSS	93.866	1-R01-AG-045045-01			\$16,695	\$240,324
NOVEL IMAGING BIOMARKERS FOR TREATMENT EVALUATION IN NEURODEGENERATIVE DISORDERS	93.866	1-R01-AG-037376-01				\$257,567
MRI-BASED ASSESSMENT OF STRUCTURAL AND MECHANICAL IMPLICATIONS OF OSTEOPOROSIS	93.866	1-R01-AG-038693-01A1				\$319,618
REVERSING IMPACT OF CHILDHOOD ADVERSITY ON MDD & COGNITIVE DECLINE IN MENOPAUSE	93.866	1-R01-AG-048839-01				\$325,609
OPTIMIZED ARTERIAL SPIN LABELING MRI IN MILD COGNITIVE IMPAIRMENT	93.866	1-R01-AG-040271-01A1				\$325,667
THE CONTRIBUTION OF OBESITY TO INTERNATIONAL DIFFERENCES IN LONGEVITY	93.866	1-R01-AG-040212-01			\$130,043	\$340,401
ORALLY-ABSORBED, SMALL MOLECULE MICROTUBULE-STABILIZERS FOR TAUOPATHY TREATMENT	93.866	1-R01-AG-044332-01				\$345,651
SLEEP/WAKE FRAGMENTATION WITH AGE: MOLECULAR MECHANISMS	93.866	4-P01-AG-017628-14				\$357,264

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MODELING SPLICING IN NORMAL TISSUES AND NEURODEGENERATIVE DISEASE	93.866	1-R01-AG-046544-01A1				\$361,705
CENTER ON THE DEMOGRAPHY OF AGING	93.866	2P30AG012836-21			\$40,626	\$364,078
CITALOPRAM DECREASES CSF AB: A RANDOMIZED DOSE FINDING TRIAL	93.866	7-R01-AG-041502-03			\$119,102	\$377,806
USING PATIENT OUTCOMES TO INFORM SURGICAL EDUCATION	93.866	1-R01-AG-049757-01A1			\$206,960	\$385,614
MOLECULAR MECHANISMS OF RAPAMYCIN'S EFFECTS ON HEALTH AND LONGEVITY.	93.866	1-R01-AG-043483-01				\$386,647
AGE, HEARING LOSS, AND SENTENCE COMPREHENSION: NEURAL CORRELATES	93.866	1-R01-AG-038490-01A1			\$174,909	\$443,947
DEFAULT PALLIATIVE CARE CONSULTATION FOR SERIOUSLY ILL HOSPITALIZED PATIENTS	93.866	1-UH2-AG-050311-01			\$226,425	\$462,163
THE BONE TRIAL OF THE TESTOSTERONE TRIAL	93.866	1-R01-AG-037679-01A1			\$124,676	\$465,882
TRAINING IN AGE RELATED NEURODEGENERATIVE DISEASES	93.866	4-T32-AG-000255-19				\$477,756
CLINICAL IMPORTANCE OF DRUG-DRUG INTERACTIONS	93.866	2-R01-AG-025152-06				\$486,708
AGING, GENDER AND ARTERIAL STIFFNESS IN ATHEROSCLEROSIS	93.866	1-R01-AG-047373-01				\$496,597
COMPUTATIONAL NEUROANATOMY OF AGING AND AD VIA PATTERN ANALYSIS	93.866	2-R01-AG-014971-10A1				\$512,410
PENN ROYBAL CENTER IN BEHAVIORAL ECONOMICS AND HEALTH	93.866	2-P30-AG-034546-06			\$79,011	\$573,055
PROSPECTIVE ASSESSMENT OF THE ETIOLOGY OF INSOMNIA IN MIDDLE AGED & ELDER ADULTS	93.866	1-R01-AG-041783-03				\$642,886
FRONTOTEMPORAL DEMENTIAS: GENOTYPES AND PHENOTYPES	93.866	2-P01-AG-017586-16				\$700,830
SLEEP/WAKE FRAGMENTATION WITH AGE: MOLECULAR MECHANISMS	93.866	2-P01-AG-017628-11			\$94,516	\$1,057,271
FRONTOTEMPORAL DEMENTIAS: GENOTYPES AND PHENOTYPES	93.866	2-P01-AG-017586-11			\$52,534	\$1,154,829
ALZHIEMER'S DISEASE CORE CENTER	93.866	2-P30-AG-010124-21				\$1,416,725
THE NIA GENETICS OF ALZHEIMER'S DISEASE DATA STORAGE SITE	93.866	1-U24-AG-041689-01				\$1,643,865
EPIGENETICS OF AGING AND AGE-ASSOCIATED DISEASES	93.866	2-P01-AG-031862-06A1			\$396,744	\$1,841,901
TESTOSTERONE TRIAL	93.866	1-U01-AG-030644-01A1			\$545,204	\$1,893,172
CONSORTIUM FOR ALZHEIMERS SEQUENCE ANALYSIS (CASA)	93.866	1-UF1-AG-047133-01			\$1,339,107	\$2,351,997
ALZHEIMER'S DISEASE GENETICS CONSORTIUM	93.866	5-U01-AG-032984-07			\$1,009,317	\$4,019,493
MECHANISM OF SIRT1 ACTIVATOR MEDIATED NEUROPROTECTION OF RETINAL GANGLION CELLS	93.867	1-R01-EY-019014-01A2				-\$16,332
HERMANSKY PUDLAK SYNDROME & MELANOSOME FORMATION	93.867	2-R01-EY-015625-06A1				-\$111
COMPLEMENT IN AMD: MECHANISMS AND THERAPEUTIC INTERVENTION	93.867	1-R01-EY-020633-01A1				-\$78
THALAMOCORTICAL MECHANISMS IN PRIMARY VISUAL CORTEX	93.867	1-F32-EY-026463-01				\$2,199
RETINAL IRON TRANSPORT IN HEALTH AND DISEASE	93.867	4-R01-EY-015240-12				\$25,971
RECYCLING OF METABOLITES FROM INGESTED OUTER SEGMENTS SUPPORTS VISUAL FUNCTION	93.867	1-R01-EY-026525-01				\$35,042
AQUEOUS HUMOR OUTFLOW CONTROL AND INTRAOCULAR PRESSURE	93.867	2-R01-EY-013624-08				\$42,348
COLOR CONSTANCY	93.867	2-R01-EY-010016-18A1				\$51,584
ADAPTATION AND MULTIVOXEL CODES IN HIGH-LEVEL VISUAL CORTEX	93.867	1-R21-EY-022751-01A1				\$52,159
OPTIMIZING GENE THERAPIES IN LARGE ANIMAL MODELS OF RETINAL DEGENERATION	93.867	1-F32-EY-023891-01A1				\$55,350
PENN VISION CLINICAL SCIENTIST PROGRAM	93.867	2-K12-EY-015398-11A1				\$57,980
NEURAL PROCESSING IN THE VENTRAL VISUAL PATHWAY DURING OBJECT SEARCH	93.867	1-R01-EY-020851-01				\$59,041
PLASTICITY OF HUMAN VISUAL SYSTEM IN RESPONSE TO RETINAL GENE THERAPY	93.867	1-R01-EY-025287-01A1				\$65,236
SYNAPTIC ORGANIZATION OF SIMPLE CELL RECEPTIVE FIELDS	93.867	1-R01-EY-020765-01A1				\$90,005
SECONDARY ANALYSIS OF THE DATA FROM THE TELEMEDICINE APPROACHES TO EVALUATING ACUTE-PHASE ROP (E-ROP)	93.867	1-R21-EY-025686-01			\$20,866	\$105,603
ROLE OF BASAL GANGLIA IN REWARD-BIASED VISUAL DECISIONS	93.867	4-R01-EY-022411-04				\$106,717
RETINAL CIRCUITS FOR PRECISE SIGNALING	93.867	2-R01-EY-016607-21A1				\$115,357
REGULATION OF LYSOSOMAL PH IN RPE CELLS	93.867	2-R01-EY-013434-11A1				\$129,563
MECHANISM OF SIRT1 ACTIVATOR MEDIATED NEUROPROTECTION OF RETINAL GANGLION CELLS	93.867	2-R01-EY-019014-06A1				\$131,522
P-30 CORE GRANT FOR VISION RESEARCH	93.867	2-P30-EY-001583-36				\$135,911
SECONDARY DATA ANALYSIS OF THE DATA FROM COMPARISON OF AMD TREATMENTS TRIALS	93.867	1-R21-EY-023689-01				\$152,576
GENETIC EPIDEMIOLOGY OF REFRACTIVE ERROR	93.867	1-R01-EY-020483-01				\$163,302
BIOINFORMATICS APPROACHES TO VISUAL DISEASE GENETICS	93.867	7-R01-EY-022300-04				\$169,024
THE ROLE OF SRC-FAMILY TYROSINE KINASES AND SRCASM IN OCULAR SURFACE EPITHELIAL WOUND REPAIR AND NEOPLASIA	93.867	1-K08-EY-025742-01				\$173,512
PURINES AND THE HEALTH OF RETINAL GANGLION CELLS	93.867	2-R01-EY-015537-08A1				\$175,109
COLOR CONSTANCY	93.867	2-R01-EY-010016-21A1				\$180,919
PATIENT CENTERED CARE FOR DIABETIC MACULAR EDEMA	93.867	1-K23-EY-025729-01				\$186,295
COMPLICATIONS OF IMMUNOSUPPRESSION FOR EYE DISEASES	93.867	2-R01-EY-014943-07			\$104,273	\$231,018
TRAINING IN OPHTHALMIC STATISTICAL GENETICS AND BIOINFORMATICS	93.867	1-T32-EY-021451-01				\$232,915
RESEARCH ON NORMAL AND ABNORMAL MECHANISMS OF VISION	93.867	2-T32-EY-007035-36				\$238,487
PENN VISION CLINICAL SCIENTIST PROGRAM	93.867	2-K12-EY-015398-06				\$239,307
CORTICAL STRUCTURE AND FUNCTION IN BLINDNESS AND FOLLOWING RESTORED VISION	93.867	1-R01-EY-020516-01A1				\$242,513

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ROLE OF BASAL GANGLIA IN REWARD-BIASED VISUAL DECISIONS	93.867	1-R01-EY-022411-01A1				\$243,479
HOW VESICLES SEND INFORMATION TO RETINAL GANGLION CELLS	93.867	2-R01-EY-013333-12A1				\$284,877
MELANOPSIN AND CONE SIGNALS IN HUMAN VISUAL PROCESSING	93.867	1-R01-EY-024681-01A1				\$300,278
THE NEURAL MECHANISMS RESPONSIBLE FOR RECOGNIZING AND REMEMBERING NOVEL OBJECTS AND SCENES	93.867	2-R01-EY-020851-06				\$316,021
NEURAL MECHANISMS FOR LANDMARK-BASED NAVIGATION	93.867	1-R01-EY-022350-01A1				\$319,122
OBJECT CONCEPTS	93.867	1-R01-EY-021717-01				\$319,954
RETINAL CIRCUITS FOR LOCAL SYNAPTIC PROCESSING	93.867	1-R01-EY023766-01A1			\$181,471	\$323,689
CLINICAL TRIALS OF GENE THERAPY FOR LEBER CONGENITAL AMAUROSIS	93.867	2-U10-EY-017280-06			\$44,080	\$327,491
MECHANISMS OF LEARNING A VISUAL DISCRIMINATION	93.867	2-R01-EY-015260-11				\$415,854
GENETIC ANALYSIS OF AXONAL REGENERATION	93.867	1-R01-EY-024861-01				\$444,229
MEMBRANE COMPLEMENT REGULATORS IN RPE DEGENERATION AND RETINAL INJURY	93.867	1-R01-EY-023709-01				\$448,098
RETINAL IRON TRANSPORT IN HEALTH AND DISEASE	93.867	2-R01-EY-015240-09				\$465,604
INTEGRATIVE DATA ANALYSIS FOR REFRACTIVE ERROR	93.867	1-R01-EY-024233-01			\$243,986	\$492,251
RETINAL CIRCADIAN RHYTHMS AND REFRACTIVE DEVELOPMENT	93.867	1-R01-EY-022342-01A1			\$119,318	\$497,274
DEGRADATIVE PROCESSES IN RPE-PHOTORECEPTOR RENEWAL	93.867	2-R01-EY-010420-17A1			\$42,316	\$618,085
PGC-1 COACTIVATORS IN PHOTORECEPTOR DEVELOPMENT AND SURVIVAL	93.867	7-R01-EY-023682-02			\$403,321	\$621,176
P-30 CORE GRANT FOR VISION RESEARCH	93.867	2-P30-EY-001583-41				\$623,660
FOLLOW-UP STUDY: COMPARISON OF AMD TREATMENTS TRIALS (CATT)	93.867	1-U10-EY-023530-01			\$228,909	\$670,457
TRANSLATIONAL RESEARCH FOR RETINAL DEGENERATION THERAPIES	93.867	2-R01-EY-017549-06			\$142,944	\$761,514
MODELS FOR THERAPY OF HEREDITARY RETINAL DEGENERATION	93.867	2-R01-EY-006855-29				\$861,737
TRANSLATIONAL GENE THERAPY FOR RHODOPSIN AUTOSOMAL DOMINANT RETINITIS PIGMENTOSA	93.867	1-R24-EY-022012-01			\$398,314	\$1,352,937
GENETIC EPIDEMIOLOGY OF AGE-RELATED MACULAR DEGENERATION IN THE OLDER ORDER AMISH	93.867	1-R01-EY-023164-01			\$1,041,996	\$1,407,577
THE DRY EYE EVALUATION AND MANAGEMENT (DREAM) STUDY: COORDINATING CENTER	93.867	1-U10-EY-022879-01			\$542,646	\$1,883,829
PRIMARY OPEN ANGLE AFRICAN-AMERICAN GLAUCOMA GENETICS (POAAGG)	93.867	1-R01-EY-023557-01			\$550,948	\$2,944,296
BIOINFORMATICS STRATEGIES FOR GENOME-WIDE ASSOCIATION STUDIES	93.879	7-R01-LM-010098-06			\$30,926	\$150,398
MACHINE LEARNING PREDICTION OF CANCER SUSCEPTIBILITY	93.879	7-R01-LM-009012-10				\$348,021
POPULATION HEALTH AND PRIMARY CARE: INTEGRATING PUBLIC HEALTH INTO MEDICAL EDUCATION	93.884	1 T85HP24468-01-00				\$299,305
GROWING TOGETHER: UNIVERSITY ASSISTED COMMUNITY SCHOOL PARTNERSHIPS USING COMMUNITY FOOD SYSTEMS AS A CONTEXT FOR YOUTH EMPOWERMENT.	93.910	YEPMP120066-01-00				\$290,919
GRANTS TO PROVIDE OUTPATIENT EARLY INTERVENTION SERVICES WITH RESPECT TO HIV DISEASE	93.918	N/A				\$506,436
RYAN WHITE HIV/AIDS PROGRAM PART F DENTAL REIMBURSEMENT PROGRAM	93.924	1 T22HA28903-01-00				\$27,809
SCHOLARSHIPS FOR DISADVANTAGED STUDENTS (SDS)	93.925	5 T08HP25250-02-00				\$392,853
GENOME PERSISTENCE OF KSHV	93.939	4-R01-CA-171979-04				\$130,781
GENOME PERSISTENCE OF KSHV	93.939	1-R01-CA-171979-01A1				\$210,410
HIV/STI PREVENTION AMONG BLACK ADOLESCENTS WITH MENTAL ILLNESSES	93.941	1-U01-PS-003304-01				\$189,607
PRACTICE CHANGE IN GERIATRIC CARE	93.969	1-UB4-HP-19214-01-00			\$16,105	\$32,220
KEYSTONE GERIATRICS CENTER FOR ENHANCING PRIMARY CARE AND COMMUNITY EDUCATION	93.969	1 U1QHP282720-01-00			\$116,176	\$669,593
MEXICAN MIGRATION AND THE ECONOMIC RECESSION: EFFECTS ON HEALTH AND WELL-BEING	93.989	1-R03-TW-008704-01				\$3,266
CHRONIC DISEASE CLINICAL EPIDEMIOLOGY TRAINING IN GUATEMALA AND PERU	93.989	1-D43-TW-008317-01A1				\$33,047
INJURY AND TRAUMA RESEARCH TRAINING FOR GUATEMALA	93.989	1-D43-TW-008972-01				\$213,381
BUILDING LOCAL CAPACITIES IN ETHICS TRAINING AND IRB REVIEW IN GUATEMALA	93.989	1-R25-TW-009738-01			\$24,735	\$252,643
HIV CLINICAL RESEARCH TRAINING FOR BOTSWANA	93.989	1-D43-TW-009781-01				\$276,551
TELEMAMMOGRAPHY FOR THE NEXT GENERATION INTERNET (PHASE II)	93.RD	N01-LM-0-3512,AMEND,1,2,3				-\$5,898
BIOINFORMATICS RESOURCE CENTER FOR INFECTIOUS DISEASES	93.RD	HHSN272200900038C				-\$65
VOXEL-BASED ANALYSIS OF THE BRAIN: CARDIA BRAIN STUDY	93.RD	HHSN271201300540P				\$692
CSF BIOMARKERS	93.RD	HHSN271201000487P				\$6,758
EFFECTIVENESS OF THE PSYCHOSOCIAL TREATMENT FOR BRAZILIAN SYNTHETIC DRUGS USERS	93.RD	CTN RESEARCH FELLOWSHIP				\$30,069
CENTERS OF EXCELLENCE FOR PAIN EDUCATION (COEPE)	93.RD	HHSN271201500067C				\$39,938
CLINICAL EVALUATION OF NOVEL PRODUCTS FOR FEMALE CONTRACEPTION (MAIN STUDY)	93.RD	HHSN2752013000201				\$44,729
CONTRACEPTIVE CLINICAL TRIALS NETWORK - FEMALE SITES	93.RD	HHSN275201300020I				\$130,796
PHASE 2, MULTI-CENTER TRIAL OF AZD8529 FOR SMOKING CESSATION IN FEMALE SMOKERS	93.RD	AZD8529				\$389,643
GTRP PRECLINICAL VECTOR PRODUCTION CORE LABORATORY - RENEWAL	93.RD	HHSN268201200041C				\$1,291,791
CHAIR PERSON FOR STEERING COMMITTEE	93.U08	HHSN276201200534P				\$26,830

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IPA (INTERGOVERNMENTAL PERSONNEL ACT)	93.U31	IPA AGREEMENT				\$77,985
TOTAL DEPARTMENT OF HEALTH AND HUMAN SERVICES DIRECT PROGRAMS					\$58,868,391	\$493,965,769
DEPARTMENT OF HEALTH AND HUMAN SERVICES PASS THROUGH PROGRAMS						
PARTNERSHIPS TO INCREASE COVERAGE IN COMMUNITIES - INSURING SHARED PROSPERITY	93.004		BENEFITS DATA TRUST	BENEFITS DATA TRUST		\$14,876
OSU CENTER OF EXCELLENCE IN REGULATORY TOBACCO SCIENCE (OSU-CERTS)(PROJECT 4)	93.077		OHIO STATE UNIVERSITY	60042253 / PO #RF01356877		\$29,743
UNIVERSAL DATA COLLECTION PROJECT FOR BLOOD INHIBITOR STUDY	93.080		INDIANA HEMOPHILIA AND THROMBOSIS CENTER	MOA #284-10 SC		\$4,550
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) IN LARGE CELL VASCULITIS	93.103		CLEVELAND CLINIC LERNER COLLEGE OF MEDICINE	280SUB		\$427
HEARTMAP DYNAMIC AED REGISTRY	93.103		UNIVERSITY OF WASHINGTON	755623		\$2,556
PHILADELPHIA INTEGRATED SYSTEM OF CARE EXPANSION (PISCE)	93.104		COMMUNITY BEHAVIORAL HEALTH	SUB TO 1U79SM062463		\$27,374
STANDARDIZED COMPREHENSIVE MEDICAL CARE FOR THALASSEMIA PATIENTS: MID-ATLANTIC REGION	93.110		CHILDREN'S HOSPITAL OF PHILADELPHIA	ACTIVITY #3210800517/PO # 961718-R		\$4,901
PRIMARY CARE DRUG THERAPEUTICS CER IN A PEDIATRIC EHR NETWORK	93.110		AMERICAN ACADEMY OF PEDIATRICS	731101UPENN		\$6,080
HEMOPHILIA TREATMENT CENTERS	93.110		CHILDREN'S HOSPITAL OF PHILADELPHIA	320961-06-01		\$16,679
AUTISM INTERVENTION RESEARCH NETWORK ON BEHAVIORAL HEALTH	93.110		UNIVERSITY OF CALIFORNIA, LOS ANGELES	2000 G PG206		\$41,842
AUTISM INTERVENTION RESEARCH NETWORK FOR BEHAVIORAL HEALTH	93.110		UNIVERSITY OF CALIFORNIA, LOS ANGELES	2000 G TC248		\$225,872
THE COMMUNITY HEALTH ASSESSMENT OF RISKS ASSOCIATED WITH THE MACONDO SPILL	93.113		UNIVERSITY OF TEXAS MEDICAL BRANCH	13-085/PO #UOSPC-0000001088		\$8,481
PRENATAL ENVIRONMENTAL EXPOSURES AND REPRODUCTIVE HORMONE CONCENTRATIONS (PERCH)	93.113		SEATTLE CHILDREN'S HOSPITAL RESEARCH INSTITUTE	SUB TO 1R21ES023883-01		\$18,982
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		\$35,259
SELECTIVE INHIBITORS OF UBIQUITIN E3 LIGASE TO TREAT HIGH CHOLESTEROL	93.113		PROGENRA, INC.	RES025600A		\$64,476
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		\$147,505
A MICROFLUIDIC SYSTEM FOR POC MOLECULAR DIAGNOSIS OF HPV IN ORAL FLUIDS	93.121		LUCIGEN	10049846		\$736
QUALITY OF LIFE IN CHILDREN WITH CLEFT	93.121		CHILDREN'S HOSPITAL OF PHILADELPHIA	8230930815		\$840
EPIGENETIC REGULATION OF EPSTEIN-BARR VIRUS	93.121		WISTAR INSTITUTE	23675-02-319; WON		\$1,751
ORAL HYGIENE, PERIODONTAL DISEASE AND INFECTIVE ENDOCARDITIS	93.121		CAROLINAS HEALTH CARE SYSTEM	SUB TO 1R01DE023375		\$70,886
CLINICAL REGISTRY OF DENTAL OUTCOMES IN HEAD AND NECK CANCER PATIENTS	93.121		CAROLINAS HEALTH CARE SYSTEM	SUB TO 1U01DE022939-01		\$249,629
MICHIGAN YOUTH VIOLENCE PREVENTION CENTER COMMUNITY ENGAGEMENT AND REVITALIZATION	93.136		UNIVERSITY OF MICHIGAN	3003727976		\$57,934
IMPUTATION AND ASSOCIATION ANALYSIS OF RARE VARIANTS IN ADMIXED POPULATIONS	93.172		UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL	5-32731		\$4,495
INTEGRATIVE VARIATION DETECTION, ANNOTATION AND ANALYSIS FOR HIGH-THROUGHOUT SEQUENCE DATA	93.172		UNIVERSITY OF SOUTHERN CALIFORNIA	H51483		\$15,778
ADVANCING COLLABORATIVE GENETIC RESEARCH: ETHICAL AND POLICY CHALLENGES	93.172		CASE WESTERN RESERVE UNIVERSITY	RES508669		\$18,948
THE USE OF WHOLE-EXOME SEQUENCING TO GUIDE THE CARE OF CANCER PATIENTS (PROJECT 3)	93.172		DANA-FARBER CANCER INSTITUTE	1198202		\$34,171
COMPUTATIONAL TOOLS FOR MINING LARGE AMOUNTS OF CHIP AND GENE EXPRESSION DATA	93.172		JOHNS HOPKINS UNIVERSITY	SUB TO R01HG006282-01A1		\$44,146
INTEGRATED, MULTIPLEXED HIGH-FREQUENCY ELECTRONIC ANALYSIS OF DNA IN NANOPORES	93.172		COLUMBIA UNIVERSITY	1 (GG009283)/PO #G03078		\$56,416
APPLYING GENOMIC SEQUENCING IN PEDIATRICS	93.172		CHILDREN'S HOSPITAL OF PHILADELPHIA	960033RUSB		\$134,184
OBJECTIVE EVALUATION OF CONDUCTIVE OLFACTORY LOSSES AND NASAL OBSTRUCTION SYMPTOMS	93.173		MONELL CHEMICAL SENSES CENTER	SUB TO 1-R01-DC013626		\$3,453
THEORY-DRIVEN TREATMENT OF LANGUAGE AND COGNITIVE PROCESSES IN APHASIA	93.173		TEMPLE UNIVERSITY	253763-UPENN		\$64,012
MODULATION OF ODORANT RECEPTOR FUNCTION	93.173		DUKE UNIVERSITY	2032340		\$77,494
SEMANTIC MEMORY AND LANGUAGE LEARNING IN ALZHEIMER'S DISEASE AND SEMANTIC DEMENTIA	93.173		TEMPLE UNIVERSITY	254692-UPENN		\$127,081
PSYCHOLINGUISTIC ANALYSIS OF APHASIC SYNDROMES	93.173		MOSS REHABILITATION RESEARCH INSTITUTE	SUB TO 2-R01-DC0000191-30		\$242,891
HEMOPHILIA LIVER TRANSPLANTATION OBSERVATIONAL STUDY (HOTS)	93.211		HEMOPHILIA CENTER OF WESTERN PENNSYLVANIA	PRO12060248		\$3,139
MOBILE MINDFULNESS TO IMPROVE PSYCHOLOGICAL DISTRESS AFTER CRITICAL ILLNESS	93.213		DUKE UNIVERSITY	2034786		\$18,942
FAMILY PLANNING SERVICE	93.217		FAMILY HEALTH COUNCIL OF CENTRAL PA	5 FHPHA03160-02-00		\$62,498
MEDICAL FAILURE-TO-RESCUE	93.226		CHILDREN'S HOSPITAL OF PHILADELPHIA	321060		\$394
STATE OF PA / DHHS AGREEMENT	93.226		CHILDREN'S HOSPITAL OF PHILADELPHIA	8233620000 / PO #960821RSUB		\$22,243
PREDICTING AND PREVENTING PEDIATRIC HOSPITAL READMISSIONS	93.226		CHILDREN'S HOSPITAL OF PHILADELPHIA	3210810519		\$28,631
THE SPIN TRIAL (STORIES TO PROMOTE INFORMATION THROUGH NARRATIVE): A RCT TESTING	93.226		AMERICAN COLLEGE OF EMERGENCY PHYSICIANS	SUB TO 1-R18-HS021956		\$65,763
IMPROVING THE FRAMEWORK FOR HEALTHCARE PUBLIC REPORTING	93.226		CHILDREN'S HOSPITAL OF PHILADELPHIA	320984 / PO #860573RSUB		\$73,884
MODIFIABLE RISK AND PROTECTIVE FACTORS FOR SUICIDAL BEHAVIORS IN THE US ARMY (ARMY STARRS)	93.242		HENRY M. JACKSON FOUNDATION	2262 / PO# 755757		-\$1,510
ATTACHMENT BASED FAMILY THERAPY FOR SUICIDAL ADOLESCENTS	93.242		DREXEL UNIVERSITY	232589_PENN		\$4,933

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3/5-THE AUTISM BIOMARKERS CONSORTIUM DAAC	93.242		DUKE UNIVERSITY	3838663		\$6,610
SUICIDE RISK REDUCTION IN THE YEAR FOLLOWING JAIL RELEASE	93.242		MICHIGAN STATE UNIVERSITY	RC105383UOPENN		\$7,182
MECHANISMS OF NEUROINFLAMMATION IN HAND	93.242		JOHNS HOPKINS UNIVERSITY	2001680041		\$7,270
DEVELOPING METHODS FOR BRAIN STIMULATION ENHANCED FEAR REVERSAL IN PTSD	93.242		PALO ALTO VETERANS INSTITUTE FOR RESEARCH	ETK0008-01		\$9,772
PHARMACOGENOMICS OF MOOD STABILIZER RESPONSE IN BIPOLAR DISORDER	93.242		UNIVERSITY OF CALIFORNIA, SAN DIEGO	PO #10314028 - SUB		\$10,510
THE DEPRESSION/HYPERTENSION COACH STUDY	93.242		UNIVERSITY OF ROCHESTER	PO #416223-G		\$10,542
PTSD AND PREGNANCY: PSYCHOPHYSIOLOGY, RESPONSE TO TREATMENT & PREGNANCY OUTCOME	93.242		WASHINGTON UNIVERSITY IN ST. LOUIS	WU-16-217		\$11,459
THE NEURAL BASIS OF SOCIAL KNOWLEDGE	93.242		TEMPLE UNIVERSITY	255791-UPENN		\$13,253
TRANSCRANIAL DIRECT CURRENT STIMULATION (TDCS) AS A TREATMENT FOR ACUTE FEAR	93.242		DUKE UNIVERSITY	2035098		\$14,911
ANTI-HIV NEUROIMMUNOMODULATORY THERAPY WITH NEUROKININ-1 (NK1-R) ANTAGONISTS	93.242		CHILDREN'S HOSPITAL OF PHILADELPHIA	950481RSUB		\$15,214
STAFF AND SCHOOL FACTORS AFFECTING IMPLEMENTATION OF ASD INTERVENTIONS IN SCHOOLS	93.242		UNIVERSITY OF WASHINGTON	UWSC8785		\$20,363
ED-SAFE-2: TRANSLATING SAFETY PLANNING INTO PRACTICE	93.242		UNIVERSITY OF MASSACHUSETTS	WA00320041/RFS2016010		\$26,437
CIS-REGULATORY EPIGENOME MAPPINGS IN SCHIZOPHRENIA	93.242		ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI	0255-7234-4609		\$32,989
HIGHER ORDER CHROMATIN AND GENETIC RISK FOR SCHIZOPHRENIA	93.242		ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI	0255-8051-4609		\$37,501
CORTICOTROPIN-RELEASING FACTOR-SEROTONERGIC INTERACTIONS	93.242		CHILDREN'S HOSPITAL OF PHILADELPHIA	ACTIVITY #20493		\$38,232
IMPLEMENTATION OF FEDERAL MENTAL HEALTH POLICY	93.242		JOHNS HOPKINS UNIVERSITY	R01-MH093414		\$47,693
RECOVERY-ORIENTED PRACTICES IN COMMUNITY MENTAL HEALTH CENTERS: A NATIONAL STUDY OF ADHERENCE AND PARTICIPATION	93.242		YALE UNIVERSITY	M151A11969 (A10040)		\$62,300
2/2 BRAIN, BEHAVIOR AND GENETIC STUDIES OF THE 22Q11 DELETION STUDIES	93.242		CHILDREN'S HOSPITAL OF PHILADELPHIA	320898-01-03 / PO #951176RSU		\$68,652
PERSON CENTERED CARE PLANNING & SERVICE ENGAGEMENT	93.242		NEW YORK UNIVERSITY	F7437-01		\$73,027
1/9 - PREDICTORS AND MECHANISMS OF CONVERSION TO PSYCHOSIS	93.242		YALE UNIVERSITY	C16A122293 (A10323)		\$98,579
SOCIAL AND CIRCADIAN RHYTHMS, REWARD SENSITIVITY, AND RISK FOR BIPOLAR DISORDER	93.242		TEMPLE UNIVERSITY	5R01-MH102310		\$120,241
ANTI-HIV NEUROIMMUNOMODULATORY THERAPY WITH NEUROKININ-1 (NK1R) ANTAGONISTS	93.242		CHILDREN'S HOSPITAL OF PHILADELPHIA	950480RSUB		\$135,013
GENOMICS OF SCHIZOPHRENIA IN THE SOUTH AFRICAN XHOSA	93.242		COLUMBIA UNIVERSITY	1(GG008292)/PO #G03931		\$143,126
PERFUSION MRI FOR MULTI-SITE STUDIES FOR BRAIN FUNCTION	93.242		BETH ISRAEL MEDICAL CENTER	01027167		\$272,762
WEIGHT HISTORY, BRAIN ACTIVATION TO FOOD CUES AND EATING DISORDER PROGRESSION	93.242		DREXEL UNIVERSITY	232616		\$304,443
NON- NEURONAL REGULATORS OF SLEEP	93.242		WASHINGTON STATE UNIVERSITY	123565 G003432		\$377,165
PHILADELPHIA ALLIANCE FOR CHILD TRAUMA SERVICES (PACTS)	93.243		CITY OF PHILADELPHIA	1320657		\$86,026
RECOVERY-ORIENTED COGNITIVE THERAPY FOR INDIVIDUALS WITH SEVERE AND PERSISTENT MENTAL ILLNESS IN GEORGIA	93.243		GEORGIA STATE UNIVERSITY	SP00011772-01		\$90,664
PA HOSPITAL	93.243		CITY OF PHILADELPHIA	13-20104-03		\$97,569
OCCUPATIONAL SAFETY & HEALTH PROGRAM	93.262		MARSHFIELD CLINIC RESEARCH FOUNDATION	PRIME AWARD NO: 2U50H009568-06		
MEDICAL EDUCATION PARTNERSHIP INITIATIVE	93.266		UNIVERSITY OF BOTSWANA	SUBAWARD NO: 60640		\$4,766
GENETICS OF ALCOHOL DEPENDENCE IN AFRICAN-AMERICANS	93.273		YALE UNIVERSITY	555958	\$16,939	\$110,526
GENETICS OF ALCOHOL DEPENDENCE IN AMERICAN POPULATIONS	93.273		YALE UNIVERSITY	M11A11121 (A07754)		-\$4,387
COMPONENT ANALYSIS OF MOTIVATIONAL INTERVIEWING	93.273		YALE UNIVERSITY	M11A11134 (A07470)		-\$230
			FEINSTEIN INSTITUTE FOR MEDICAL RESEARCH, THE	500665UP		\$19,010
NEUROSCIENCE IN YOUR WORLD: A PARTNERSHIP FOR NEUROSCIENCE ACROSS THE K-12 SPECTRUM	93.273		FRANKLIN INSTITUTE	SUB TO 5R25DA033023		\$57,068
NICOTINE ADDICTION: LEARNING, NEURAL & GENETIC PROCESS	93.279		TEMPLE UNIVERSITY	360665		-\$13,534
PARENTS' TRANSLATIONAL RESEARCH CENTER	93.279		TREATMENT RESEARCH INSTITUTE	027841-CURTIS		-\$2,957
EXPANDING TREATMENT FOR OPIOID DEPENDENCE AMONG THE PRIVATELY INSURED	93.279		YALE UNIVERSITY	A07696 (M11A11035)		-\$1
MECHANISMS OF RESISTANCE IN HESN-IDU SUBJECTS: INDUCTION OF IFN-MEDIATED FACTORS AND S100 PROTEINS AS DETERMINANTS OF NK CELL-MEDIATED CLEARANCE AND LOW CD4 T CELL INFECTIVITY	93.279		WISTAR INSTITUTE	25251-03-324		\$1,917
HIGH SPECIFICITY HIV-1 MARKERS PREDICTIVE OF NEURO-AIDS	93.279		DREXEL UNIVERSITY	220529		\$2,402
DELIVERING PSYCHOSOCIAL TREATMENT TO SUBSTANCE ABUSERS VIA MOBILE TECHNOLOGIES	93.279		NATIONAL DEVELOPMENT AND RESEARCH INSTITUTES, INC.	SUB TO R01 DA029630 PROJECT #		
FLORIDA NODE ALLIANCE OF DRUG ABUSE CLINICAL TRIALS NETWORK	93.279		UNIVERSITY OF MIAMI	631		\$6,496
CLINICAL TRIALS NETWORK MID-ATLANTIC INTEGRATED CARE RESEARCH COLLABORATIVE	93.279		JOHNS HOPKINS UNIVERSITY	665615		\$9,823
PARENTS' TRANSLATIONAL RESEARCH CENTER	93.279		TREATMENT RESEARCH INSTITUTE	2002753634		\$10,840
PARENTS' TRANSLATIONAL RESEARCH CENTER	93.279		TREATMENT RESEARCH INSTITUTE	02741_CURTIS2		\$12,898
BEHAVIORAL TREATMENT OF ADOLESCENT MARIJUANA USE	93.279		DARTMOUTH COLLEGE	027841_MCKAY		\$15,288
ACTG; AIDS CLINICAL TRIALS GROUP - A5340 BAR SUPPORT	93.279		BRIGHAM AND WOMEN'S HOSPITAL	1347		\$18,151
				A5340		\$19,293
QUANTITATIVE METHODS TO SUBTYPE DRUG DEPENDENCE AND DETECT NOVEL GENE VARIANTS	93.279		UNIVERSITY OF CONNECTICUT	81436		\$25,144
LONG-ACTING HIV THERAPY FOR INJECTION DRUG USERS	93.279		DREXEL UNIVERSITY	SUB TO 1-R01-DA-029663-01A1		\$35,078

The accompanying notes are an integral part of this schedule

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ANHEDONIA AS A RISK FACTOR AND CONSEQUENCE OF SUBSTANCE USE	93.279		UNIVERSITY OF SOUTHERN CALIFORNIA	35609807		\$40,157
INHIBITORY SYNAPTIC TRANSMISSION, STRESS, AND DRUGS OF ABUSE	93.279		BROWN UNIVERSITY	00000759		\$41,061
DEEP SEQUENCING STUDIES FOR CANNABIS AND STIMULANT DEPENDENCE	93.279		UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL	5-30997		\$52,499
ADAR2 EDITING OF GLUA2 AND COCAINE REINSTATEMENT	93.279		MASSACHUSETTS GENERAL HOSPITAL	226055		\$57,467
ECONOMIC EVALUATION OF MEDICATION-ASSISTED SUBSTANCE ABUSE TREATMENT	93.279		CORNELL UNIVERSITY	R01-DA035808		\$57,726
DEVELOPMENT OF A5*NACHR POSITIVE ALLOSTERIC MODULATORS FOR TOBACCO DEPENDENCE	93.279		SCRIPPS RESEARCH INSTITUTE	PO #5-20250		\$70,128
GENETICS OF OPIOID DEPENDENCE	93.279		YALE UNIVERSITY	M14A11735 (A09415)		\$83,741
GAAS PHOTOMULTIPLIER CHIPS FOR TOF-PET	93.279		LIGHTSPIN TECHNOLOGIES	SUB TO 2R44DA028813		\$96,187
DEVELOPMENT OF A5* NACHR POSITIVE ALLOSTERIC MODULATORS FOR TOBACCO DEPENDENCE	93.279		ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI	0255-6811-4609		\$97,477
DEVELOPMENT OF NOVEL DOPAMINE D3 RECEPTOR SELECTIVE ANTIPSYCHOTICS	93.279		UNIVERSITY OF NORTH TEXAS HEALTH SCIENCE CENTER AT FORT WORTH	RN0127-2015-0148		\$183,492
HEALTH ECONOMICS OF SUBSTANCE ABUSE AND HCV/HIV TREATMENT IN THE ERA OF INTEGRATED HEALTH CARE	93.279		CORNELL UNIVERSITY	15070983-02		\$240,093
EVALUATING NEW NICOTINE STANDARDS FOR CIGARETTES - PROJECT 2	93.279		UNIVERSITY OF MINNESOTA	P004140307		\$758,219
PREVENTION EPICENTERS SVAP COLLABORATIVE CONTINUATION: WAKE UP AND BREATHE	93.283		HARVARD PILGRIM HEALTH CARE	SUB TO 3U54CK000172-03SI		-\$2,291
COMMUNITY COUNTS: PUBLIC HEALTH SURVEILLANCE FOR BLEEDING DISORDERS	93.283		CHILDREN'S HOSPITAL OF PHILADELPHIA	950875RSUB		\$4,603
CROSS-SCALE INTERACTIONS BETWEEN MINERAL AND COLLAGEN FOR TENDON-BONE ATTACHMENT	93.286		WASHINGTON UNIVERSITY IN ST. LOUIS	1-U01-EB016422-01A1		\$29,911
NON-CONTRAST 4-D DYNAMIC MRA IN ARTERIOVENOUS MALFORMATION	93.286		UNIVERSITY OF CALIFORNIA, LOS ANGELES	1580 G RB668		\$58,406
MICROSCOPIC IMAGING OF TISSUE OXYGEN DELIVERY ALTERED BY MICROVASCULAR CHANGES	93.286		MASSACHUSETTS GENERAL HOSPITAL	226968		\$67,683
ASSESSMENT OF MEDICAL IMAGE QUALITY WITH FOVEATED SEARCH MODELS	93.286		UNIVERSITY OF CALIFORNIA, SANTA BARBARA	KK1614		\$92,697
MULTI-SCALE BIOMECHANICS OF ENGINEERED AND NATIVE FIBROUS LOAD-BEARING TISSUE	93.286		UNIVERSITY OF DELAWARE	SUB TO 2-R01-EB-002425-01A1		\$165,309
MULTISCALE MODELING OF FACET CAPSULE MECHANOBIOLOGY	93.286		UNIVERSITY OF MINNESOTA	A003160902		\$211,889
PILOT TESTING A NATURAL MENTOR INTERVENTION FOR OLDER YOUTH IN FOSTER CARE (CARE: CARING ADULTS R EVERYWHERE)	93.293		PHILADELPHIA DEPARTMENT OF HUMAN SERVICES	14-20407		\$10,412
UPCC 03715: A RANDOMIZED RECRUITMENT INTERVENTION TRIAL BMT CTN 1505	93.307		NATIONAL MARROW DONOR PROGRAM	0008663BN		\$9,378
REDUCING FUNCTIONAL HEALTH DISPARITIES AMOUNG OLDER BREAST CANCER SURVIVORS	93.307		CASE WESTERN RESERVE UNIVERSITY	RES510118		\$19,379
STUDYING SOCIOECONOMIC DISPARITIES IN CANCER SURVIVAL WITH TAPERED MATCHING GREATER-PHILADELPHIA-SOUTHERN NEW JERSEY NEUROLOGICAL EMERGENCIES TREATMENT: RAMPART TRIAL	93.310		UNIVERSITY OF MICHIGAN	3000691507-RPT	\$5,120	\$5,130
IMPACT OF RACIALLY TARGETED FOOD AND BEVERAGE ADS ON ADOLESCENT BEHAVIOR	93.310		NEW YORK UNIVERSITY	15-A0-00-004321-01		\$12,603
CONTRAST-ENHANCED AND IMAGE-GUIDED SURGERY OF LUNG CANCER	93.310		EMORY UNIVERSITY	S701566		\$263,170
ALZHEIMER'S PREVENTION INITIATIVE APOE4 TRIAL	93.310		BANNER HEALTH	0435-02-48535		\$454,605
WEIGHT TRAJECTORY IN CKD	93.350		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	9231SC		\$5,666
IDENTIFICATION OF SHARED MOLECULAR TARGETS	93.350		UNIVERSITY OF SOUTH FLORIDA	6119-1359-11-A		\$102,731
MECHANISMS OF HAEMOPHILUS INFLUENZAE PATHOGENESIS IN THE LUNG	93.355		UNIVERSITY OF MISSISSIPPI MEDICAL CENTER	66103650115-UP		\$139,587
THE IMPACT OF HOSPICE PREFERRED PRACTICES ON PATIENT OUTCOMES AND HOSPICE COSTS	93.361		MOUNT SINAI MEDICAL CENTER	0255-5681-4609		\$8,823
SEVERE PAIN DURING WOUND CARE PROCEDURES: MODEL AND MECHANISMS	93.361		UNIVERSITY OF IOWA	W000711747		\$24,047
TRANSLATING UNIQUE LEARNING FOR INCONTINENCE PREVENTION: THE TULIP PROJECT	93.361		UNIVERSITY OF MICHIGAN	3001740447		\$48,632
TECHNOLOGY APPLICATION TO ENHANCE DISCHARGE REFERRAL DECISION SUPPORT	93.361		RIGHTCARE SOLUTIONS	SUB TO 2R44NR013609		\$56,295
SEPSIS SURVIVORS' POST-ACUTE OUTCOMES: IMPACT OF EARLY HOME HEALTH AND MD VISITS	93.361		VISITING NURSE SERVICE OF NEW YORK	4598P		\$63,518
TRANSITIONAL TELEHEALTH HOME CARE: REACH	93.361		CHILDREN'S HOSPITAL OF PHILADELPHIA	951260RSUB		\$217,192
EFFICACY OF POMALIDOMIDE IN HHT-RELATED BLEEDING	93.387		CLEVELAND CLINIC FOUNDATION	541-SUB		\$19,386
THE IMPACT VASOPRESSIN ON MITOCHONDRIAL DYSFUNCTION IN HEMORRHAGIC SHOCK	93.389		AMERICAN COLLEGE OF SURGEONS	ACS/AAST K23		\$73,834
PHASE III RANDOMIZED CLINICAL TRIAL OF PROTON THERAPY VS IMRT FOR LOW OR LOW-INTERMEDIATE RISK PROSTATE CANCER	93.392		MASSACHUSETTS GENERAL HOSPITAL	220778		\$12,988
PROTON CONSORTIA WORKSHOP	93.392		MASSACHUSETTS GENERAL HOSPITAL	217756		\$28,954
CT DOSE COLLABORATION	93.393		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	849SC		-\$39,355
GENETIC SUSCEPTIBILITY AND BIOMARKERS OF PLATINUM-RELATED TOXICITIES	93.393		UNIVERSITY OF ROCHESTER	PO #416005-G		\$2,767
BREAST CANCER FAMILY REGISTRY COHORT	93.393		FOX CHASE CANCER CENTER	FCCE22458-01 PO # SQ1331114		\$4,021
CHARACTERIZING MOLECULAR SUBTYPES OF OVARIAN CANCER IN AFRICAN-AMERICAN WOMEN	93.393		DARTMOUTH COLLEGE	SUB TO NIH ADV ACCT		\$4,178
THE MECHANISMS DRIVING BRAIN ONCOGENESIS BY FGFR-TACC GENE FUSIONS	93.393		COLUMBIA UNIVERSITY	2 (GG010414-01)		\$11,459
EFFICIENT DESIGN AND ANALYTIC STRATEGIES FOR ENHANCING THE POWER OF DETECTING G X E EFFECTS	93.393		UNIVERSITY OF MICHIGAN	3002494144		\$13,078
COMMONLY USED MEDICATIONS AND RISK OF COLORECTAL CANCER RECURRENCE	93.393		GROUP HEALTH RESEARCH INSTITUTE	2015124711		\$26,321
MRI BACKGROUND PARENCHYMAL ENHANCEMENT AS A RISK FACTOR FOR BREAST CANCER	93.393		MEMORIAL SLOAN-KETTERING CANCER CENTER	BD517005		\$27,667
GENETIC SUSCEPTIBILITY AND BIOMARKERS OF PLATINUM-RELATED TOXICITIES	93.393		INDIANA UNIVERSITY	IN4687559UPENN		\$34,539

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EFFECTS OF COMMON POLYMORPHISMS IN IMMUNE SENSORS IN TUMOR IMMUNOSURVEILLANCE	93.393		WISTAR INSTITUTE	24861-02-365		\$37,779
THE GENETIC BASIS OF NEUROBLASTOMA TUMORIGENESIS (GWAS)	93.393		CHILDREN'S HOSPITAL OF PHILADELPHIA	FP1442_SUB02_01/PO #960672RSUB		\$39,314
EPIGENETIC REGULATION OF HUMAN TELOMERES	93.393		WISTAR INSTITUTE	24512-02-319		\$43,986
ESTIMATING OVER DIAGNOSIS IN CANCER SCREENING STUDIES	93.393		HUTCHINSON (FRED) CANCER RESEARCH CENTER	SUB TO R01CA192402		\$52,267
TOBACCO CONTROL IN A RAPIDLY CHANGING MEDIA ENVIRONMENT	93.393		UNIVERSITY OF ILLINOIS	SUB TO 1U01CA154254		\$53,783
GENETIC EPIDEMIOLOGY OF MELANOMA (GENOMEL)	93.393		MOFFITT CANCER CTR	10-17751-99-01-G1		\$63,157
COMPARATIVE EFFECTIVENESS OF PREOPERATIVE BREAST MRI ON SURGERY AND OUTCOMES	93.393		DARTMOUTH COLLEGE	R163		\$65,080
MODELING BREAST CANCER RECURRENCE USING NEW STATISTICAL METHODS FOR SEMI-MARKOV PROCESSES	93.393		UNIVERSITY OF WASHINGTON	UWSC8553		\$72,873
IDENTIFYING AND VALIDATING NOVEL SUSCEPTIBILITY GENES FOR BREAST CANCER	93.393		MAYO CLINIC ROCHESTER	PO #63562056		\$73,917
ONCOHISTONES: ROLE OF HISTONE H3 MUTATIONS IN THE ONCOGENESIS OF PEDIATRIC CANCER	93.393		ROCKEFELLER UNIVERSITY	1P01CA196539-01		\$84,122
INFLUENCING CERVICAL CANCER PREVENTION AND DETECTION ONLINE THROUGH SOCIAL MEDIA	93.393		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	8361SC		\$94,353
MRI BACKGROUND PARENCHYMAL ENHANCEMENT AS A RISK FACTOR FOR BREAST CANCER	93.393		MEMORIAL SLOAN-KETTERING CANCER CENTER	BD517003		\$115,189
NRG ONCOLOGY CENTER FOR INNOVATION IN RADIATION ONCOLOGY (CIRO)	93.393		RTOG FOUNDATION, INC.	0004-NRG-15		\$139,618
LEGACY: A COHORT OF YOUTH IN FAMILIES FROM THE BREAST CANCER FAMILY REGISTRY	93.393		FOX CHASE CANCER CENTER	FCCC 15054-02/PO #SQ1313322		\$141,269
RISK AND PENETRANCE OF MUTATIONS FROM BREAST CANCER TESTING PANELS	93.393		MAYO CLINIC ROCHESTER	63846738		\$291,878
BEHAVIORAL ACTIVATION AND VARENICLINE FOR SMOKING CESSATION IN DEPRESSED SMOKERS	93.393		NORTHWESTERN UNIVERSITY	60038259 UP		\$382,045
HARMONIZED PET RECONSTRUCTIONS FOR CANCER CLINICAL TRIALS	93.394		UNIVERSITY OF IOWA	W000420845/PO #1001078460		-\$80,627
SAN ANTONIO CENTER FOR BIOMARKERS OF RISK FOR PROSTATE CANCER	93.394		UNIVERSITY OF TEXAS	130202 / PO #RGC0000000376		\$1,441
WEIGHT MANAGEMENT COUNSELING IN MEDICAL SCHOOLS: A RANDOMIZED CONTROLLED TRIAL	93.394		UNIVERSITY OF MASSACHUSETTS	WA00397956/OSP2016156		\$4,137
ECOG-ACRIN BIOREPOSITORIES TO SUPPORT NCTN	93.394		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	U24CA196172-01-UPA2		\$8,673
ECOG-ACRIN BIOREPOSITORIES TO SUPPORT NCTN	93.394		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	U24CA196172-01-UPA1		\$9,679
PATHOLOGY IMAGE INFORMATICS PLATFORM FOR VISUALIZATION, ANALYSIS AND MANAGEMENT	93.394		CASE WESTERN RESERVE UNIVERSITY	RES510429		\$10,735
RF-SRC: A UNIFIED DATA TOOL	93.394		UNIVERSITY OF MIAMI	66972K / PO #M175680		\$30,465
ECOG-ACRIN-BASED QIN RESOURCE FOR ADVANCING QUANTITATIVE CANCER IMAGING IN CLINICAL TRIALS	93.394		AMERICAN COLLEGE OF RADIOLOGY	1672		\$57,847
NANOMEDICINE CENTER FOR NUCLEOPROTEIN MACHINES	93.394		RICE UNIVERSITY	R22568		\$61,848
ENABLING TECHNOLOGIES FOR ULTRA-HIGH SENSITIVITY PET SCANNERS (PQ13)	93.394		UNIVERSITY OF CALIFORNIA, DAVIS	201121765-02		\$66,426
ADVANCED DEVELOPMENT OF TIES - ENHANCING ACCESS TO TISSUE FOR CANCER RESEARCH	93.394		UNIVERSITY OF PITTSBURGH	0035722 (123867-1)		\$72,623
EARLY DETECTION RESEARCH NETWORK/PROTEOMIC, GENETIC AND LONGITUDINAL PATHWAYS TO OVARIAN CANCER BIOMARKER DISCOVERY	93.394		MASSACHUSETTS GENERAL HOSPITAL	217321		\$94,847
Z1071: A PHASE II STUDY EVALUATING THE ROLE OF SENTINEL LYMPH NODE SURGERY AND AXILLARY LYMPH NODE DISSECTION FOLLOWING PREOPERATIVE CHEMOTHERAPY IN WOMEN WITH NODE POSITIVE BREAST CANCER (T1-4, N1-2, M0) AT INITIAL DIAGNOSIS	93.395		DUKE UNIVERSITY	SUB TO 7-U10CA76001		-\$16,725
NRG ONCOLOGY NETWORK GROUP OPERATIONS CENTER	93.395		NRG ONCOLOGY	UOFP-YR 1		\$2
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 UNDERGOING STANDARD, REPEATED TEMOZOLOMIDE TREATMENT	93.395		JOHNS HOPKINS UNIVERSITY	ABTC 1101		\$112
GYNECOLOGIC ONCOLOGY GROUP	93.395		GYNECOLOGIC ONCOLOGY GROUP	27469-025		\$327
COG NCTN SURGERY REVIEWER WORK ORDER	93.395		CHILDREN'S HOSPITAL OF PHILADELPHIA	9500080215-06C		\$2,500
INTERNET STUDIES TO ENHANCE LONG TERM SURVIVORSHIP AFTER HEMATOLOGIC MALIGNANCY	93.395		HUTCHINSON (FRED) CANCER RESEARCH CENTER	0000729827		\$3,351
CELLULAR AND MOLECULAR STUDIES OF BONE MARROW TRANSPLANT	93.395		MOUNT SINAI MEDICAL CENTER	0254-3503-4605		\$3,915
CHIMERIC IGG/A TUMOR IMMUNOTHERAPY	93.395		PLANET BIOTECHNOLOGY	SUB TO 1R43CA171417-01A1		\$4,259
MEDICAL ONCOLOGY RESEARCH STUDY	93.395		ECOG-ACRIN MEDICAL RESOURCE FOUNDATION	1U10CA180820		\$4,500
SINGLE ARM SALVAGE THERAPY WITH PEGYLATED INTERFERON ALFA-2A FOR PATIENTS WITH HIGH RISK POLYCYTHEMIA VERA OR HIGH RISK ESSENTIAL THROMBOCYTHEMIA WHO ARE EITHER HYDROXYUREA RESISTANT OR INTOLERANT OR HAVE HAD ABDOMINAL VEIN THROMBOSIS	93.395		MOUNT SINAI MEDICAL CENTER	0254-7375-4605		\$5,525
PSYCHOLOGICAL INTERVENTIONS FOR GYNECOLOGIC CANCER PATIENTS	93.395		UNIVERSITY OF MEDICINE AND DENTISTRY OF NJ	1573-1 / PO #P0525144		\$5,835
COG NCTN NETWORK GROUP OPERATIONS CENTER	93.395		CHILDREN'S HOSPITAL OF PHILADELPHIA	95000870216-XX		\$7,813
ECOG-ACRIN NCORP RESEARCH BASE - CT	93.395		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	1UG1CA189828-01-UPA1		\$9,893
ECOG-ACRIN OPERATIONS CENTER	93.395		FRONTIER SCIENCE & TECHNOLOGY RESEARCH FDN	GIPO39PO-00		\$13,204
ECOG-ACRIN OPERATIONS CENTER	93.395		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	SUB TO U10-CA-180820		\$18,400

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ECOG-ACRIN OPERATIONS CENTER	93.395		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	ECOG-ACRIN		\$18,673
ECOG-ACRIN OPERATIONS CENTER	93.395		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	SUB TO U10CA180820-01-UPA7		\$18,947
ECON-ACRIN NICORP RESEARCH BASE	93.395		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	1-UG-1CA-189828-01-UPA2		\$20,064
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		\$25,314
FRONTIER SCIENCE AND TECHNOLOGY/CGOP OUTREACH	93.395		FRONTIER SCIENCE & TECHNOLOGY RESEARCH FDN	ECOG PURCHASE SERVICE		
COG: NCTN SCIENTIFIC LEADERSHIP WORK ORDER (JOFFE)	93.395		CHILDREN'S HOSPITAL OF PHILADELPHIA	AGREEMENT		\$25,376
ECOG-ACRIN NCORP RESEARCH BASE - CCCR	93.395		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	961650-RSUB		\$29,035
ECOG-ACRIN OPERATIONS CENTER	93.395		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	1UG1CA189828-01-UPA3		\$36,329
MODELS TO PREDICT PROGNOSIS AND BENEFIT FROM ADJUVANT THERAPY IN RENAL CELL CARCINOMA	93.395		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	U10CA180820-01-UPA5		\$37,969
ECOG-ACRIN OPERATIONS CENTER	93.395		YALE UNIVERSITY	M12A11106 (A08276)		\$48,930
FRONTIER SCIENCE & TECHNOLOGY RESEARCH FOUNDATION	93.395		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	U10CA180820-01-UPA8		\$49,999
TARGETED THERAPIES IN MELANOMA	93.395		FRONTIER SCIENCE & TECHNOLOGY RESEARCH FDN	UPA039SL-00		\$50,000
ECOG-ACRIN OPERATIONS CENTER	93.395		WISTAR INSTITUTE	24921-13-314; NATHANSON		\$56,247
HSP70 AND MELANOMA	93.395		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	SUB TO U10CA180820-01-UPA3		\$56,546
ECOG-ACRIN OPERATIONS CENTER	93.395		WISTAR INSTITUTE	24672-02-366		\$62,240
INHIBITION OF SENESENCE TO INCREASE CANCER CELL DEATH: A NEW PARADIGM	93.395		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	U10CA180820-02-UPA10		\$74,599
IMAGING & RADIATION ONCOLOGY CORE - PHILADELPHIA IMAGING CORE LAB DIRECTOR	93.395		ALBERT EINSTEIN COLLEGE OF MEDICINE, INC	310917		\$77,911
TARGETED THERAPIES IN MELANOMA	93.395		AMERICAN COLLEGE OF RADIOLOGY	1616		\$103,622
INTIMACY-ENHANCING COUPLES' INTERVENTION FOR LOCALIZED PROSTATE CANCER	93.395		WISTAR INSTITUTE	24921-11-314; XU		\$146,553
			RUTGERS UNIVERSITY	8028		\$147,048
(PQA2) MAMMALIAN REGENERATION, HIGH FAT DIETS, AND BREAST CANCER: A COMMON LINK?	93.395		LANKENAU INSTITUTE FOR MEDICAL RESEARCH	06297-0791		\$155,775
PIPERLONGUMINE AS A NOVEL RADIOSENSITIZER FOR LUNG CANCER	93.395		NORTH DAKOTA STATE UNIVERSITY	FAR0024666		\$157,603
TARGETED THERAPIES IN MELANOMA	93.395		WISTAR INSTITUTE	24921-06-314; GEORGE		\$180,909
ECOG-ACRIN OPERATIONS CENTER	93.395		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	U10CA180820-01-UPA1		\$185,907
IROC - IMAGING & RADIATION ONCOLOGY CORE - CORE LAB PHYSICIST	93.395		AMERICAN COLLEGE OF RADIOLOGY	SUB TO U24-CA-180803		\$187,059
TARGETED THERAPIES IN MELANOMA	93.395		WISTAR INSTITUTE	24921-07-314; MARMORSTEIN		\$239,681
ECOG-ACRIN OPERATIONS CENTER	93.395		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	U10CA180820-01-UPA2		\$276,785
HUMAN MELANOMA - ETIOLOGY, PROGRESSION AND THERAPY	93.395		WISTAR INSTITUTE	24623-05-314; MARMORSTEIN		\$328,378
TARGETED THERAPIES IN MELANOMA	93.395		WISTAR INSTITUTE	2-P01-CA114046		\$543,816
(PQA2) MAMMALIAN REGENERATION, HIGH FAT DIETS, AND BREAST CANER: A COMMON LINK?	93.396		WISTAR INSTITUTE	24821-02-312		-\$60
REVERSE CHIP: SEQUENCE-SPECIFIC EXTRACTION OF DNA-BOUND HISTONES FOR ANALYSIS OF POST-TRANSLATIONAL MODIFICATION	93.396		GENERATION BIOTECH	SUB TO 1R43CA159883-01A1		\$1
HUMAN MELANOMA - ETIOLOGY, PROGRESSION AND THERAPY	93.396		WISTAR INSTITUTE	24621-03-314; GIMOTTY		\$31,535
PROLACTIN PATHWAYS AND METASTATIC PROGRESSION OF ER-POSITIVE BREAST CANCER	93.396		MEDICAL COLLEGE OF WISCONSIN	SUB TO 7R01CA188575		\$32,373
HUMAN MELANOMA - ETIOLOGY, PROGRESSION AND THERAPY	93.396		WISTAR INSTITUTE	24621-02-314; XU		\$37,250
HUMAN MELANOMA: ETIOLOGY, PROGRESSION AND THERAPY	93.396		WISTAR INSTITUTE	24625-07-314; WINKLER		\$39,643
GENETICALLY ENCODED PROBES OF RNA LOCALIZATION	93.396		UNIVERSITY OF SOUTHERN CALIFORNIA	57916791		\$46,996
THE ROLE OF DCLK1 IN THE INITIATION OF PANCREATIC DUCTAL ADENOCARCINOMA	93.396		UNIVERSITY OF OKLAHOMA	RS20150916-01		\$49,495
HAT INHIBITION TO IMPAIR FOXP3+ TREG FUNCTION AND BOOST ANTI-TUMOR IMMUNITY	93.396		CHILDREN'S HOSPITAL OF PHILADELPHIA	320922-01-01 / PO #951078RSUB		\$51,774
RPTP DOMAINS REGULATING HOMODIMERIZATION AND EGFR ACTIVITY VIA HETERODIMERIZATION	93.396		LEHIGH UNIVERSITY	543339-78001		\$52,130
QUANTITATIVE ANALYSES OF TUMOR CELL EXTRAVASATION	93.396		MASSACHUSETTS INSTITUTE OF TECHNOLOGY	5710004020		\$75,599
(POC2) LOCALIZATION AS A DETERMINANT OF CANCER DORMANCY	93.396		MASSACHUSETTS GENERAL HOSPITAL	226262		\$83,608
INHIBITION OF A TREG DEUBIQUITINASE, USP7, PROMOTES ANTI-TUMOR IMMUNITY	93.396		CHILDREN'S HOSPITAL OF PHILADELPHIA	ACTIVITY 321068(PO#961564RSUB		\$86,100
ONCOGENIC NOTCH SIGNALING - PROJECT 2	93.396		BRIGHAM AND WOMEN'S HOSPITAL	P01-CA-119070		\$239,461
ANDROGEN RECEPTOR ACTION IN CASTRATION RESISTANT PROSTATE CANCER-CORE C	93.396		BETH ISRAEL MEDICAL CENTER	01026711		\$259,375
SPORE IN OVARIAN CANCER	93.397		FOX CHASE CANCER CENTER	FCCC 17107-12		-\$312
FCCC-PENN SPORE IN OVARIAN CANCER, PROJECT 4	93.397		FOX CHASE CANCER CENTER	FCCC #17107-15/PO #SQ1405805		-\$2
COMBINATION ACTIVATED T-CELL AND VACCINE THERAPY IN MYELOMA	93.397		UNIVERSITY OF TEXAS	PO #35959-2000/29859/98018081		\$14,078
PACIFIC OVARIAN CANCER RESEARCH CONSORTIUM/ SPORE IN OVARIAN CANCER	93.397		HUTCHINSON (FRED) CANCER RESEARCH CENTER			\$27,202
SPORE IN SKIN CANCER	93.397		WISTAR INSTITUTE	24961-02-314		\$67,675
HYPOFRACTIONATED RADIOTHERAPY AS A VACCINE FOR PATIENTS WITH METASTATIC MELANOMA	93.397		WISTAR INSTITUTE	24961-12-314; MAITY		\$75,372
WEIGHT LOSS-INDUCED MICROBIOME AND ADIPOKINE CHANGES IN BARRETT'S ESOPHAGUS	93.397		COLUMBIA UNIVERSITY	4(GG0006360-15)		\$162,576
OPTIMIZING COLONOSCOPY & FECAL IMMUNOCHEMICAL TESTS FOR COMMUNITY-BASED SCREENING	93.397		KAISER PERMANENTE	115-9064-05		\$173,943
SPORE IN SKIN CANCER	93.397		WISTAR INSTITUTE	24961-04-314		\$224,191
SPORE IN SKIN CANCER	93.397		WISTAR INSTITUTE	24961-10-314		\$245,995

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STEM CELLS AND THE ORIGINS OF BARRETT'S ESOPHAGUS	93.397		COLUMBIA UNIVERSITY	1 (ACCT #5-30761)		\$294,516
SPORE IN SKIN CANCER	93.397		WISTAR INSTITUTE	24961-06-314		\$300,428
SPORE IN SKIN CANCER	93.397		WISTAR INSTITUTE	24961-05-314		\$337,934
SPORE IN SKIN CANCER	93.397		WISTAR INSTITUTE	24961-09-314		\$353,904
A NATIONAL CURRICULUM IN CANCER GENOMICS FOR PATHOLOGY RESIDENTS SUPPLEMENT	93.398		BETH ISRAEL DEACONESS MEDICAL CENTER	01028566		\$919
TRAINING COMMUNITY NURSES AND ADMINISTRATORS TO IMPLEMENT CANCER CLINICAL TRIALS	93.398		MOUNT SINAI MEDICAL CENTER	0253-6571-4609		\$115,143
ALLIANCE NCORP RESEARCH BASE	93.399		DANA-FARBER CANCER INSTITUTE	4540802		\$32,298
GENETIC DETERMINANTS OF BARRETT'S ESOPHAGUS AND ESOPHAGEAL ADENOCARCINOMA	93.399		CASE WESTERN RESERVE UNIVERSITY	RES506508		\$43,250
NRG ONCOLOGY CAPITATION FUND	93.399		NRG ONCOLOGY	NRC ONCOLOGY FOUNDATION		\$113,607
AFFORDABLE CARE ACT (ACA) MATERNAL, INFANT AND EARLY CHILDHOOD HOME VISITING PROGRAM	93.505		UNITED WAY OF LANCASTER COUNTY	D89MC28289		\$9,216
AFFORDABLE CARE ACT (ACA) MATERNAL, INFANT AND EARLY CHILDHOOD HOME VISITING PROGRAM	93.505		UNITED WAY OF LANCASTER COUNTY	X10MC29500		\$401,608
MEDICAID INCENTIVES FOR PREVENTION OF CHRONIC DISEASE IN NEW YORK STATE	93.536		NEW YORK STATE	C-027854		\$90,167
THE OPTIMISTIC PROJECT - OPTIMIZING PATIENT TRANSFER, IMPACTING MEDICAL QUALITY, AND IMPROVING SYMPTOMS: TRANSFORMING INSTITUTIONAL CARE	93.621		INDIANA UNIVERSITY	PO #1244917		\$54,634
PA HOSPITAL	93.667		CITY OF PHILADELPHIA	13-20104-03		\$501,593
ARRA - NEURO-OPHTHALMOLOGY RESEARCH DISEASE INVESTIGATOR CONSORTIUM (NORDIC) NETWORK	93.701		ST LUKE'S ROOSEVELT HOSPITAL	3-U10-EY-017281-01A151		-\$1,174
CHIPRA QUALITY DEMONSTRATION	93.767		CHILDREN'S HOSPITAL OF PHILADELPHIA	9239000215		\$9,820
PA HOSPITAL	93.778		CITY OF PHILADELPHIA	13-20106-03		\$161,575
HOSPITAL PREPAREDNESS PROGRAM (HPP) EBOLA PREPAREDNESS AND RESPONSE ACTIVITIES	93.817		COMMONWEALTH OF PENNSYLVANIA	4100070411		\$960,000
FUNCTIONAL IMPACT OF GLP-1 FOR HEART FAILURE TREATMENT (FIGHT)	93.837		DUKE UNIVERSITY	193603		-\$1,910
MUTATIONS IN SMOOTH MUSCLE CONTRACTILE PROTEINS: PATHWAYS TO VASCULAR DISEASES	93.837		UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT HOUSTON	0009085A		-\$1,240
GENETICS, MECHANISMS AND CLINICAL PHENOTYPES OF ARRHYTHMOGENIC CARDIOMYOPATHY	93.837		CINCINNATI CHILDREN'S HOSPITAL MEDICAL CENTER	131950		\$256
ORAL IRON REPLETION EFFECTS ON OXYGEN UPTAKE IN HEART FAILURE: IRONOUT-HF	93.837		DUKE UNIVERSITY	200464		\$669
NEUROPROTECTION IN PATIENTS UNDERGOING AORTIC VALVE REPLACEMENT	93.837		ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI	0255-3107-4605		\$777
NITRATE'S EFFECT ON ACTIVITY TOLERANCE IN HEART FAILURE WITH PRESERVED EJECTION FRACTION: NEAT-HFPEF	93.837		DUKE UNIVERSITY	HFN-NEAT-NT052		\$1,682
HIPPO SIGNALING IN PULMONARY ARTERIAL HYPERTENSION	93.837		UNIVERSITY OF PITTSBURGH	SUB TO 1-R01-HL-130261-01		\$2,671
DETERMINING OPTIMUM MEDICAL THERAPY FOR ITP	93.837		CORNELL UNIVERSITY	12040498-2 / PO #4100193331		\$3,586
CARDIOVASCULAR INFLAMMATION REDUCTION TRIAL (CIRT): A RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED, EVENT-DRIVEN OF WEEKLY LOW-DOSE METHOTREXATE (LDM) IN THE PREVENTION OF RECURRENT CARDIOVASCULAR EVENTS AMONG STABLE POST-MYOCARDIAL INFARCTION PATIENTS WITH TYPE 2 DIABETES OR METABOLIC SYNDROME	93.837		BRIGHAM AND WOMEN'S HOSPITAL	CIRT - UNDER U01HL101422 #1		\$4,120
PHASE II RANDOMIZED, PLACEBO-CONTROLLED, DOUBLE BLIND CLINICAL TRIAL OF VALSARTAN FOR ATTENUATING DISEASE EVOLUTION IN EARLY SARCOMERIC HCM (VANISH)	93.837		BRIGHAM AND WOMEN'S HOSPITAL	SUB TO 5-P50-HL-1123349-02		\$4,340
REGULATION OF DISTAL LUNG EPITHELIAL REGENERATION BY MICRORNA-HIPPO PATHWAY	93.837		TEMPLE UNIVERSITY	361262-04710-02		\$4,381
PEDIATRIC HEART TRANSPLANTATION: TRANSITIONING TO ADULT CARE	93.837		CHILDREN'S MEMORIAL HOSPITAL	901477-PENN		\$4,682
ALDOSTERONE TARGETED NEUROHORMONAL COMBINED WITH NATRIURESIS THERAPY - HF (ATHENA HF)	93.837		DUKE UNIVERSITY	SUB TO U10HL084904		\$6,087
SURGICAL ABLATION VERSUS NO SURGICAL ABLATION FOR PATIENTS WITH PERSISTENT OR LONGSTANDING PERSISTENT ATRIAL FIBRILLATION UNDERGOING MITRAL VALVE SURGERY.	93.837		MOUNT SINAI MEDICAL CENTER	0255-3101-4609		\$6,292
NHLBI PROGENITOR CELL BIOLOGY CONSORTIUM ADMINISTRATIVE COORDINATING CENTER	93.837		UNIVERSITY OF MARYLAND	8382 / PO #SR00002870		\$7,005
LIPIDOMIC SCREENING FOR FUNCTIONAL SURFACTANT GENE MUTATIONS	93.837		WASHINGTON UNIVERSITY IN ST. LOUIS	WU-16-181		\$8,848
CEREBRAL ANATOMY, HEMODYNAMICS AND METABOLISM IN SINGLE VENTRICLES: RELATIONSHIP TO NEURODEVELOPMENT	93.837		CHILDREN'S HOSPITAL OF PHILADELPHIA	3207950619		\$10,222
DETERMINANTS OF MIDLIFE & LONGITUDINAL CHANGE IN COGNITIVE FUNCTION: CARDIA STUDY	93.837		KAISER PERMANENTE	RNG200103-PENN		\$10,679
LVAD THERAPY: EXPLORING THE EFFECT OF INTRAMYOCARDIAL INJECTION OF MESENCHYMAL PRECURSOR CELLS ON MYOCARDIAL FUNCTION	93.837		MOUNT SINAI MEDICAL CENTER	MT SINANI LVAD		\$13,314
SAFETY & EFFICACY OF INTRAMYOCARDIAL INJECTION OF MESENCHYMAL PRECURSOR CELLS ON MYOCARDIAL FUNCTION IN LVAD RECIPIENTS	93.837		ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI	0255-3106-4605		\$13,329
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		\$13,842
CARDIOVASCULAR DISEASES RESEARCH	93.837		UNIVERSITY OF PENNSYLVANIA	5R01HL118195-02 REVISED		\$14,017
TRANS-AGENCY RESEARCH CONSORTIUM FOR TRAUMA INDUCED COAGULOPATHY-(TACTIC- UM1)	93.837		OKLAHOMA MEDICAL RESEARCH FOUNDATION	SUB TO UM1 OMRF		\$14,762

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PRECISION MEDICINE FOR DILATED CARDIOMYOPATHY IN EUROPEAN AND AFRICAN ANCESTRY	93.837		OHIO STATE UNIVERSITY	6008444		\$18,664
EXERCISE AND VASCULAR FUNCTION IN CHRONIC KIDNEY DISEASE	93.837		UNIVERSITY OF DELAWARE	R01-HL-1135104		\$18,947
PULMONARY HYPERTENSION BREAKTHROUGH INITIATIVE	93.837		UNIVERSITY OF COLORADO	SUB TO R24-HL-123767		\$28,031
INFANT GROWTH AND MICROBIOME STUDY 2	93.837		CHILDREN'S HOSPITAL OF PHILADELPHIA	3200040820		\$28,296
PATHOGENESIS OF THROMBOTIC MICROANGIOPATHY	93.837		UNIVERSITY OF ALABAMA AT BIRMINGHAM	SUB TO R01-HL-126724-01 ADV ACCT		\$28,729
WEST PHILADELPHIA ASTHMA CARE IMPLEMENTATION PROGRAM	93.837		CHILDREN'S HOSPITAL OF PHILADELPHIA	3210880816		\$29,036
CARDIOVASCULAR DISEASES RESEARCH	93.837		UNIVERSITY OF ROCHESTER	U01HL096607		\$31,162
HCMR - NOVEL PREDICTORS OF OUTCOME IN HYPERTROPHIC CARDIOMYOPATHY	93.837		UNIVERSITY OF VIRGINIA	SUB TO U01HL117006-01A1		\$31,634
EARLY DETECTION OF HEART FAILURE VIA THE ELECTRONIC HEALTH RECORD IN PRIMARY CARE	93.837		CALIFORNIA PACIFIC MEDICAL CENTER RESEARCH INSTITUTE	280201001-5163/PO #120418		\$33,852
SYSTEM FOR MEASURING TISSUE OXYGENATION	93.837		ADVANCED MEDICAL ELECTRONICS	SUB TO 1R43HL127578		\$36,045
KLOTHO AND THE PATHOGENESIS OF CARDIOVASCULAR DISEASE	93.837		JOHNS HOPKINS UNIVERSITY	2001676026		\$38,489
ATRIAL FIBRILLATION BURDEN, VASCULAR DISEASE OF THE BRAIN AND CARDIAC MRI IN MESA	93.837		UNIVERSITY OF WASHINGTON	UWSC8520		\$39,825
CEREBRAL ANATOMY, HEMODYNAMICS AND METABOLISM IN SINGLE VENTRICLES: RELATIONSHIP TO	93.837		CHILDREN'S HOSPITAL OF PHILADELPHIA	3207950619		\$43,125
NEURODEVELOPMENT	93.837		UNIVERSITY OF PENNSYLVANIA	U1QHP287200100		\$45,856
GERIATRIC WORKFORCE ENHANCEMENT	93.837					
SEROTONIN SIGNALING IN MITRAL VALVE HOMEOSTASIS MAINTENANCE AND RESTORATION	93.837		CHILDREN'S HOSPITAL OF PHILADELPHIA	3200120320		\$46,655
RANDOMIZED TRIAL TO PREVENT VASCULAR EVENTS IN HIV – REPRIEVE (A5332)	93.837		BRIGHAM AND WOMEN'S HOSPITAL	SUB TO 1U01HL23336/A5332/A5333		\$55,002
COMMUNITY VOICES (3): COMMUNITY VOICES ON INFORMED CONSENT IN EMERGENCY SITUATION	93.837		MOUNT SINAI MEDICAL CENTER	0255-9033-4609		\$58,093
AN INTERVENTION TO IMPROVE ICD DEACTIVATION CONVERSATIONS	93.837		MOUNT SINAI MEDICAL CENTER	0255-3111-4609		\$58,107
METHODS FOR HIGH-DIMENSIONAL DATA IN HIV/CVD RESEARCH	93.837		MOUNT HOLYOKE COLLEGE	HIV/CVD(MT. HOLYOKE)		\$59,686
PATHOGENESIS OF THROMBOTIC MICROANGIOPATHY	93.837		UNIVERSITY OF ALABAMA AT BIRMINGHAM	000510232		\$66,566
NUMOM2B HEART HEALTH STUDY CAPITATION FUNDING	93.837		RESEARCH TRIANGLE INSTITUTE	NUMOM2B-HHS / U10HL1199930215		\$73,163
NEUROLOGICAL AND COGNITIVE EFFECTS OF HYPEROXIA AFTER CARDIAC ARREST	93.837		COOPER MEDICAL CNTR	311500191PENN		\$94,260
CHRONIC HYPERTENSION AND PREGNANCY (CHAP)	93.837		UNIVERSITY OF ALABAMA AT BIRMINGHAM	SUB TO U01-HL-120338		\$108,697
ENGINEERED STEM CELL MICROENVIRONMENTS CONTROLLED VASCULOGENESIS	93.837		JOHNS HOPKINS UNIVERSITY	2001253216		\$127,979
LOCALIZED TARGETING OF MATRIX PROTEASES FOLLOWING MYOCARDIAL INFARCTION	93.837		UNIVERSITY OF SOUTH CAROLINA	13-2022 / PO #51636		\$149,024
ANALYSIS AND CHARACTERIZATION OF TRAUMA-INDUCED COAGULOPATHY	93.837		UNIVERSITY OF VERMONT	SUB51510 U OF PENN		\$152,173
DEVELOPMENT OF A HIGH-PERFORMANCE CLINICAL CARDIAC SPECT/TCT SYSTEM	93.837		RUSH-PRESBYTERIAN-ST. LUKE'S MEDICAL CENTER	SUB TO 1R01HL108119-01A1		\$164,249
NEUROPROTECTION IN PATIENTS UNDERGOING AORTIC VALVE REPLACEMENT TRIAL	93.837		MOUNT SINAI MEDICAL CENTER	0225-3107-4609		\$170,817
MINDFULNESS-BASED STRESS REDUCTION FOR HIGH BLOOD PRESSURE: A TWO-SITERCT	93.837		KENT STATE UNIVERSITY	403013-UPENN	\$20,851	\$254,607
PULMONARY HYPERTENSION BREAKTHROUGH INITIATIVE	93.837		INDIANA UNIVERSITY	SUB TO R24-HL-123767		\$263,419
REDUCING HEART FAILURE RE-ADMISSIONS BY ENHANCING SLEEP APNEA TREATMENT ADHERENCE	93.837		RIGHTCARE SOLUTIONS	SUB TO 1R44HL124923		\$296,488
A NOVEL APPROACH FOR THE DESIGN SIMULATION OF VALVULAR REPLACEMENT BIOMATERIALS	93.837		UNIVERSITY OF TEXAS AT AUSTIN	UTA12-000569		\$319,868
MULTISCALE MODELING AND EMPIRICAL STUDY OF A MECHANISM LIMITING BLOOD CLOT GROWTH	93.837		UNIVERSITY OF NOTRE DAME	202403		\$329,440
IDIOPATHIC PULMONARY FIBROSIS CLINICAL RESEARCH NETWORK (IPFNET)	93.838		DUKE UNIVERSITY	STEP IPF 119		-\$1
COR PULMONALE PARVUS IN SEVERE COPD	93.838		COLUMBIA UNIVERSITY	SUB TO 2-R01-HL-093081-05		\$16,331
MECHANISMS OF LUNG HOMEOSTASIS BY F BOX PROTEINS	93.838		UNIVERSITY OF PITTSBURGH	0038410(124605-1)		\$21,579
MAPGEN PENN CENTER (G TO G) COLLABORATING AUXILIARY	93.838		UNIVERSITY OF SOUTHERN CALIFORNIA	USC MAPGEN		\$24,184
MTOR COORDINATES CELL METABOLISM, GROWTH AND SURVIVAL IN PULMONARY HYPERTENSION	93.838		UNIVERSITY OF PITTSBURGH	0037735 (123597-1)		\$24,939
SARCOIDOSIS AND A1AT GENOMICS & INFORMATICS CENTER	93.838		UNIVERSITY OF PITTSBURGH	9008508(123014-4)		\$31,037
ICOMPARE—DCC	93.838		JOHNS HOPKINS UNIVERSITY	2002773100		\$38,334
HALF-PINT: HEART AND LUNG FAILURE - PEDIATRIC INSULIN TITRATION TRIAL - CCC	93.838		CHILDREN'S HOSPITAL BOSTON	74159 / PO #0000414068		\$39,662
FOXP3+ TREG CELLS AND PRIMARY GRAFT DYSFUNCTION IN CLINICAL LUNG TRANSPLANT	93.838					
RECIPIENTS	93.838		CHILDREN'S HOSPITAL OF PHILADELPHIA	320960 / PO #960222RSUB		\$52,925
PATHOLOGY OF ASTHMA	93.838		CLEVELAND CLINIC FOUNDATION	CLEVELAND CLINIC		\$100,999
OBESITY, INFLAMMATION, AND LUNG INJURY AFTER LUNG TRANSPLANTATION	93.838		COLUMBIA UNIVERSITY	4(GG007576)		\$242,907
A NOVEL PLATFORM TO ASSESS GENE FUNCTION IN HUMAN AIRWAY BASAL CELLS	93.838		DUKE UNIVERSITY	5-U01-HL-110967-04		\$283,636
GENETIC AND ENVIRONMENTAL DETERMINANTS OF WARFARIN RESPONSE	93.839		UNIVERSITY OF ALABAMA AT BIRMINGHAM	000308405-005		-\$920
MANAGEMENT PRACTICES AND THE RISK OF INFECTIONS FOLLOWING CARDIAC SURGERY	93.839		MOUNT SINAI MEDICAL CENTER	0255-3102-4605		\$838

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A TRIAL OF SINGLE AUTOLOGOUS TRANSPLANT WITH OR WITHOUT CONSOLIDATION THERAPY VERSUS TANDEN AUTOLOGOUS TRANSPLANT WITH LENALIDOMIDE MAINTENANCE FOR PATIENTS WITH MULTIPLE MYELOMA (BMT CTN PROTOCOL #0702)	93.839		BLOOD AND MARROW TRANSPLANTATION CLINICAL TRIALS NETWORK	PROTOCOL RIDER #0702		\$4,911
GENE THERAPY FOR HEMOPHILIA	93.839		CHILDREN'S HOSPITAL OF PHILADELPHIA	20469-03-01/PO #951203RSUB		\$12,924
PATHOGENESIS AND MANAGEMENT OF HEPARIN-INDUCED THROMBOCYTOPENIA	93.839		CHILDREN'S HOSPITAL OF PHILADELPHIA	330183-02-01/PO #960541RSUB		\$17,443
LNK REGULATORY FUNCTIONS IN HEMATOPOIETIC STEM CELLS	93.839		CHILDREN'S HOSPITAL OF PHILADELPHIA	3208231218		\$19,372
EASY-TO-READ INFORMED CONSENT FOR HCT CLINICAL TRIAL	93.839		MEDICAL COLLEGE OF WISCONSIN	SUB U10-HL069294-02		\$20,084
PLATELET GRANULE FORMATION AND FUNCTION IN HEALTH AND DISEASE	93.839		CHILDREN'S HOSPITAL OF PHILADELPHIA	321034		\$24,218
PROJECT 1: MECHANO-DYNAMICS OF THE TRANSITION TO FIRM ADHESION AND MOTILITY IN NEUTROPHILS	93.839		UNIVERSITY OF ROCHESTER	415341-G		\$50,151
PATHOGENEISS AND MANAGEMENT OF HEPARIN-INDUCED TROMBOCYTOPENIA	93.839		THOMAS JEFFERSON UNIVERSITY	080-18060-Z64601		\$56,635
PATHOGENESIS AND MANAGEMENT OF HEPARIN-INDUCED THROMBOCYTOPENIA	93.839		CHILDREN'S HOSPITAL OF PHILADELPHIA	330183-03-01/PO #960544RSUB		\$134,361
ORAL THERAPY FOR HEMOPHILIA A	93.839		UNIVERSITY OF FLORIDA	UF13086/00090658		\$210,913
PATHOGENESIS AND MANAGEMENT OF HEPARIN-INDUCED THROMBOCYTOPENIA	93.839		CHILDREN'S HOSPITAL OF PHILADELPHIA	330183-01-01/PO #960543RSUB		\$588,009
MECHANISMS UNDERLYING MYOSTATIN REGULATION AND ACTIVITY	93.846		JOHNS HOPKINS UNIVERSITY	2001045371		-\$4,753
STIMULATION OF TENDON REPAIR BY RETINOID NUCLEAR RECEPTOR AGONISTS	93.846		CHILDREN'S HOSPITAL OF PHILADELPHIA	3210090615/PO #960855RSUB		\$4
NIAMS: CORT	93.846		BOSTON UNIVERSITY	4500001681		\$40
STREAMLINING TRAUMA RESEARCH EVALUATION WITH ADVANCED MEASUREMENT (STREAM STUDY)	93.846		JOHNS HOPKINS UNIVERSITY	STREAM IR01AR064066-01		\$2,501
HIP FRACTURE EVALUATION ALTERNATIVES OF TOTAL HIP VS HEMI-ARTHROPLASTY (HEALTH)	93.846		BOSTON UNIVERSITY	4500001240		\$3,180
ROLES OF DECORIN AND BIGLYCAN IN CARTILAGE NANOMECHANICS AND OSTEOARTHRITIS	93.846		DREXEL UNIVERSITY	1-R21-AR-066824-01A1		\$4,848
MECHANICS AND PERFORMANCE OF TRACEABLE UHMWPE IMPLANTS	93.846		DREXEL UNIVERSITY	11012367		\$7,543
FIXATION USING ALTERNATIVE IMPLANTS FOR THE TREATMENT OF HIP FRACTURES (FAITH)	93.846		UNIVERSITY OF MINNESOTA	N000188527		\$12,934
MECHANOSENSING IN THE BONE LACUNAR-CANALICULAR SYSTEM	93.846		UNIVERSITY OF DELAWARE	39762		\$13,458
NOTOCHORDAL CELL DERIVED THERAPIES FOR PAINFUL DISC DEGENERATION	93.846		ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI	1 R01 AR064157-01A1		\$18,191
REGULATORS OF ISCHEMIC FRACTURE HEALING	93.846		UNIVERSITY OF MICHIGAN	RC105700UPENN		\$26,285
DISC MECHANICS AND ALTERED LOADING IN DEGENERATION	93.846		UNIVERSITY OF DELAWARE	27360		\$28,149
MRI OF PROXIMAL FEMUR MICROARCHITECTURE AS A BIOMARKER OF BONE QUALITY	93.846		NEW YORK UNIVERSITY	14-A1-00-001693-01		\$28,369
DISRUPTION OF OSMOREGULATION PROMOTES DEGENERATIVE DISC DISEASE	93.846		THOMAS JEFFERSON UNIVERSITY	080-23000-S13301		\$30,973
UNCOVERING THE MOLECULAR BASIS OF MALIGNANT HYPERTHERMIA	93.846		UNIVERSITY OF CALIFORNIA, DAVIS	201223252-02		\$99,728
AHR AND OSTEOPOROSIS	93.846		MOUNT SINAI MEDICAL CENTER	0255-7261-4609		\$302,273
HUMAN HEMATOPOIETIC STEM CELL CENTER OF EXCELLENCE	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA	320905-07-01/PO #951186RSUB		-\$4,571
TOLL-LIKE RECEPTOR SIGNALING IN THE ESOPHAGEAL EPITHELIUM	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA	PO #961190-RSUB		-\$177
BIOPHYSICAL PROPERTIES OF RENAL GLOMERULI AND PODOCYTES	93.847		UNIVERSITY OF TEXAS	GMO140908 / RGC0000000436		-\$61
EPIGENETIC STRATEGIES FOR THE IN VITRO GENERATION OF REPLACEMENT BETA CELLS	93.847		UNIVERSITY OF CALIFORNIA, SAN DIEGO	PO #10313247 - SUB		-\$1
GENETIC CONTROL OF PANCREATIC ENDOCRINE CELL DEVELOPMENT	93.847		VANDERBILT UNIVERSITY	VUMC 37462		-\$1
NEPHROTIC SYNDROME RARE DISEASE CLINICAL RESEARCH NETWORK	93.847		UNIVERSITY OF MICHIGAN	PO #3001321364		\$378
A MULTI-CENTER GROUP TO STUDY ACUTE LIVER FAILURE	93.847		UNIVERSITY OF TEXAS	120306		\$762
MUSCLE ACCRUAL AND FUNCTION IN CYSTIC FIBROSIS-IMPACT OF GLUCOSE INTOLERANCE	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA	3258760720		\$1,080
PRENATAL CONDITIONS AND THE PATHWAY TO OBESITY AND DIABETES IN CHILDREN	93.847		UNIVERSITY OF OKLAHOMA	RS20100590-06		\$1,198
COLLABORATIVE ISLET TRANSPLANT REGISTRY (CITR)	93.847		EMMES CORPORATION	3383		\$1,210
BLOOD PRESSURE IN ADVANCED CHRONIC KIDNEY DISEASE	93.847		UNIVERSITY OF WASHINGTON	UWSC7208		\$1,461
PATTERNS AND IMPLICATIONS OF FUNCTIONAL DECLINE AMONG KIDNEY TRANSPLANT CANDIDATES	93.847		DREXEL UNIVERSITY	SUB TO K23DK105207		\$1,661
MODELS FOR OPTIMAL LIVER TRANSPLANT OUTCOMES	93.847		STANFORD UNIVERSITY	60896108-116817		\$1,901
TUBULAR SECRETION IN CHRONIC KIDNEY DISEASE	93.847		UNIVERSITY OF WASHINGTON	SUB TO R01DK107931		\$3,217
IDENTIFICATION - VALIDATION OF PROGNOSTIC BIOMARKERS IN CHRONIC KIDNEY DISEASE	93.847		UNIVERSITY OF MICHIGAN	SUB TO K08		\$3,323
FGF-23 AND CLINICAL OUTCOMES IN ADPKD PATIENTS	93.847		NORTHWESTERN UNIVERSITY	60037057 UP		\$3,331
PERFORMANCE OF VITAMIN D - BINDING PROTEIN (DBP) ELISA BY GENOTYPE: VALIDATION USING MASS SPECTROMETRY	93.847		STANFORD UNIVERSITY	60844304-117234		\$3,803
HUMAN HEMATOPOIETIC STEM CELL CENTER OF EXCELLENCE	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA	320905-01-02 / PO #950997RSUB		\$4,041
MEDIATORS & PROGNOSTIC VALUE OF MUSCLE MASS & FUNCTION IN CHRONIC KIDNEY DISEASE	93.847		YALE UNIVERSITY	M15A12103(A10152		\$4,288
HEARING IMPAIRMENT IN LONG-TERM TYPE 1 DIABETES	93.847		CASE WESTERN RESERVE UNIVERSITY	RES508603		\$5,044
NET ACID EXCRETION AND MORBIDITY IN CKD	93.847		DUKE UNIVERSITY	3020704		\$6,665
HEALTH LITERACY IN HISPANICS WITH CHRONIC KIDNEY DISEASE	93.847		UNIVERSITY OF ILLINOIS	2012-00004-01-00		\$7,134
DOES A NEW SUPERMARKET IMPROVE THE DIET AND FOOD ENVIRONMENT OF RESIDENTS	93.847		UNIVERSITY OF DELAWARE	38843		\$8,330
VISCERAL ADIPOSITY AND PHYSICAL FITNESS IN CKD	93.847		CLEVELAND CLINIC FOUNDATION	536-SUB		\$8,623
HEALTH DISPARITIES IN CHRONIC KIDNEY DISEASE	93.847		UNIVERSITY OF ILLINOIS	2011-06727-01-00		\$9,951
GENDER DISPARITIES AND VASCULAR FUNCTION IN CHRONIC KIDNEY DISEASE OUTCOMES	93.847		UNIVERSITY OF ILLINOIS	SUB TO 1-K23-DK-094829-01A1		\$10,743
IS THERE A DIGITAL DIVIDE IN CHRONIC KIDNEY DISEASE (CKD)	93.847		DUKE UNIVERSITY	3020695		\$10,970

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INTERSTITIAL CYSTITIS-EXAMINATION OF THE CENTRAL AUTONOMIC NETWORK (ICECAN)	93.847		MEDICAL COLLEGE OF WISCONSIN	SUB TO 2R01DK083538		\$11,090
INTEGRATIVE GENOMIC, EPIGENETIC AND FUNCTIONAL STUDIES IN DIABETIC KIDNEY DISEASE	93.847		BROAD INSTITUTE OF MIT AND HARVARD	SUB TO R01DK105154		\$12,112
PATIENT ORIENTED RESEARCH IN KIDNEY DISEASE	93.847		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	7521SC		\$12,168
THE ROLE OF THE TYROSINE KINASE TYK2 IN REGULATION OF OBESITY	93.847		VIRGINIA COMMONWEALTH UNIVERSITY	PD303498-SC105185		\$13,696
EPIDEMIOLOGY AND PATHOPHYSIOLOGY OF ELEVATED NIGHTTIME BLOOD PRESSURE IN CKD	93.847		UNIVERSITY OF MINNESOTA	N003151601		\$14,538
RESIDUAL BETA CELL FUNCTION IN PATIENTS WITH LONG-TERM TYPE1 DIABETES (C-PEPTIDE)	93.847		CASE WESTERN RESERVE UNIVERSITY	RES509457		\$14,853
ENHANCING APPRECIATION OF THE CLINICAL SIGNIFICANCE OF ACUTE KIDNEY INJURY	93.847		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	8233SC		\$15,786
CONTINUATION OF CLINICAL ISLET TRANSPLANTATION CONSORTIUM: DATA COORDINATING CENTER	93.847		UNIVERSITY OF IOWA	PO #1001235745/W000521064		\$16,625
MIND THE KIDNEYS	93.847		STANFORD UNIVERSITY	60233474-51126-G		\$16,935
DIACOMP PILOT AND FEASIBILITY STUDY 'THE EPIGENOME MAPS OF HUMAN DIABETIC KIDNEY DISEASE'	93.847		GEORGIA REGENTS UNIVERSITY	25732-29		\$17,121
DOES GEOGRAPHIC ACCESS TO CARE IMPACT PEDIATRIC ESRD OUTCOMES?	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA	321046		\$19,250
OXALATE AND THE PROGRESSION AND COMPLICATIONS OF CKD	93.847		BRIGHAM AND WOMEN'S HOSPITAL	113077		\$22,358
MASS SPECTROMETRY-BASED PROTEOME MAPS FOR HUMAN ISLET CELLS	93.847		BECKMAN RESEARCH INSTITUTE OF THE CITY OF HOPE	51504.2000556.669305		\$27,000
VISCERAL ADIPOSITY AND FITNESS AMONG CRIC PARTICIPANTS	93.847		CLEVELAND CLINIC	SUB TO 1-R01-DK-101500-01A1		\$27,756
NOVEL BIOMARKER VALIDATION AND DOSING ALGORITHMS FOR ANEMIA MANAGEMENT IN ESRD	93.847		UNIVERSITY OF LOUISVILLE	OICB111041203		\$30,107
COGNITIVE DECLINE IN CHRONIC RENAL INSUFFICIENCY	93.847		NORTHERN CALIFORNIA INSTITUTE FOR RESEARCH AND EDUCATION	YAF1637-02 / 081782		\$30,751
NEPHROTIC SYNDROME RARE DISEASE CLINICAL RESEARCH NETWORK II	93.847		UNIVERSITY OF MICHIGAN	3003289619		\$31,680
TOWARDS PRECISION MEDICINE IN CHILDHOOD ACQUIRED APLASTIC ANEMIA	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA	R		\$35,432
FUEL METABOLISM AND INSULIN SECRETION IN KATP-HYPERINSULINISM HUMAN ISLETS	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA	321019 / PO #960980RSUB		\$37,488
WHOLE-EXOME SEQUENCING STUDY OF DIABETIC NEPHROPATHY	93.847		TULANE UNIVERSITY	TUL-HSC-553788-15/16		\$37,601
COORDINATING CENTER FOR BETA CELL BIOLOGY CONSORTIUM AKA "EPCONDB GROUP" AKA "BIOINFORMATICS"	93.847		VANDERBILT UNIVERSITY	VUMC-33758		\$40,164
NEPHROTIC SYNDROME RARE DISEASE CLINICAL RESEARCH NETWORK II	93.847		UNIVERSITY OF MICHIGAN	SUB TO 1U54DK083912		\$40,573
VITAMIN D CATABOLISM IN CHRONIC KIDNEY DISEASE	93.847		UNIVERSITY OF WASHINGTON	762370		\$42,767
VISCERAL ADIPOSITY AND FITNESS AMONG CRIC PARTICIPANTS (PHASE 3)	93.847		BAYLOR COLLEGE OF MEDICINE	SUB TO R01DK101500		\$42,940
ACTION FOR HEALTH IN DIABETES BRAIN MAGNETIC RESONANCE IMAGING ANCILLARY STUDY	93.847		WAKE FOREST UNIVERSITY	WFUHS 10475		\$46,653
PATHOPHYSIOLOGICAL ROLE OF PRORENIN IN CKD	93.847		UNIVERSITY OF UTAH	10030258-00		\$51,118
DO PATIENT SAFETY EVENTS ACCOUNT FOR ADVERSE OUTCOMES IN CKD?	93.847		UNIVERSITY OF MARYLAND	SR00002162		\$51,135
HEART FAILURE AND ATRIAL ARRHYTHMIAS IN CKD	93.847		UNIVERSITY OF WASHINGTON	UWSC8765		\$52,289
FUEL METABOLISM AND INSULIN SECRETION IN KATP-HYPERINSULINISM HUMAN ISLETS	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA	321019 / PO #960981RSUB		\$58,181
ISLET DYSREGULATION IN INFANTS WITH CONGENITAL HYPERINSULINISM	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA	204200419		\$69,418
CLINICAL ISLET TRANSPLANTATION: DATA COORDINATING CENTER LIMITED COMPETITION:						
CONTINUATION OF CLINICAL ISLET TRANSPLANTATION (CIT) CONSORTIUM (U01) B-LYMPHOCYTE	93.847		UNIVERSITY OF IOWA	W000685190		\$72,277
IMMUNOTHERAPY IN ISLET TRANSPLANTATION	93.847		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	5972SC		\$76,970
VALIDATION OF NOVEL CKD BIOMARKERS IN CRIC	93.847		BAYLOR COLLEGE OF MEDICINE	BAYLORSUB		\$77,338
VISCERAL ADIPOSITY AND PHYSICAL FITNESS IN CKD	93.847					
NOVEL KIDNEY INJURY TOOLS IN DECEASED ORGAN DONATION TO PREDICT GRAFT OUTCOME	93.847		YALE UNIVERSITY	M13A11472 (AO8744)		\$77,777
PSYCHOPATHOLOGY, DISORDERED EATING, AND IMPULSIVITY AS PREDICTORS OF OUTCOMES OF BARIATRIC SURGERY	93.847		TEMPLE UNIVERSITY	258377-UPENN		\$102,524
METHOTREXATE RESPONSE IN TREATMENT OF UC-MERIT	93.847		UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL	5-31695		\$104,448
MIND THE KIDNEYS	93.847		STANFORD UNIVERSITY	60120672-51126-B		\$104,605
HUMAN HEMATOPOIETIC STEM CELL CENTER OF EXCELLENCE	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA	320901-01-04 / PO #950999RSUB		\$128,831
DEVELOPMENT AND FUNCTIONAL ANALYSIS OF A HUMAN ADIPOSE TISSUE CHIP	93.847		GEORGIA REGENTS UNIVERSITY	30367-2		\$135,284
NONINVASIVE SUBHARMONIC AIDED PRESSURE ESTIMATION OF PORTAL HYPERTENSION	93.847		THOMAS JEFFERSON UNIVERSITY	080-30000-S09201		\$166,118
JOINT ANALYSIS OF LONGITUDINAL OUTCOMES AND CLINICAL EVENTS IN CHRONIC KIDNEY DISEASE						
COHORTS	93.847		UNIVERSITY OF UTAH	10017651-01		\$167,570
EPIDEMIOLOGY OF DIABETES INTERVENTIONS AND COMPLICATIONS (EDIC)	93.847		CASE WESTERN RESERVE UNIVERSITY	RES507516		\$174,468
HISPANIC CHRONIC RENAL INSUFFICIENCY COHORT (CRIC) STUDY	93.847		UNIVERSITY OF ILLINOIS	489983 E3922		\$193,717
FGF-23 AND CARDIOVASCULAR DISEASE IN CKD	93.847		NORTHWESTERN UNIVERSITY	60036902 UP		\$209,969
EVALUATION OF ENTERO-INSULAR (INCRETIN) AXIS IN CYSTIC FIBROSIS	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA	320981 / PO #960506RSUB		\$243,023
STEM CELL MOBILIZATION AND DIABETIC SKIN ULCERS	93.847		UNIVERSITY OF MARYLAND	8875		\$255,296
INTEGRATED ISLET DISTRIBUTION PROGRAM	93.847		BECKMAN RESEARCH INSTITUTE OF THE CITY OF HOPE	50578.914951.6560		\$315,271
THE EPILEPSY BIOINFORMATICS STUDY (EPBIOS) - ADMINISTRATIVE SUPPLEMENTAL	93.853		UNIVERSITY OF CALIFORNIA, LOS ANGELES	1580 G QE281		-\$13,378
INHERITED NEUROPATHIES CONSORTIUM	93.853		UNIVERSITY OF IOWA	1001455729		-\$4,592

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CAROTID REVASCLARIZATION AND MEDICAL MANAGEMENT FOR ASYMPTOMATIC CAROTID STENOSIS TRIAL (CREST-2) TRIAL	93.853		MAYO CLINIC JACKSONVILLE	SUB TO 5-U01NS080168-02		\$2,000
ROLE OF DNA DAMAGE IN THE EARLY STEPS OF HSV INFECTION AND LATENCY IN NEURONS	93.853		CHILDREN'S HOSPITAL OF PHILADELPHIA	321012 / PO #960927RSUB		\$3,144
THE SYNAPTIC PROTEIN ECONOMY IN HIV/AIDS AND AGING	93.853		UNIVERSITY OF TEXAS AT GALVESTON	10-082		\$4,988
PROOF OF PRINCIPLE FOR A DIAGNOSTIC BLOOD TEST OF RECURRENT SEIZURES	93.853		COGNIZANCE BIOMARKERS	1-R43-NS-079029-01A1		\$5,879
C.R.E.S.T. (CAROTID REVASCLARIZATION ENDARTERECTOMY VX. STENT TRIAL)	93.853		RUTGERS UNIVERSITY	SUB TO R01-NS38384		\$7,434
EVAL OF OUTCOMES FOLLOWING MVR IN SEVERE CHRONIC ISCHEMIC MITRAL REGURGITATION	93.853		MOUNT SINAI MEDICAL CENTER	SUB TO 7U01 HL088942-02		\$7,640
SURGICAL INTERVENTIONS FOR MODERATE ISCHEMIC MITRAL REGURGITATION	93.853		MOUNT SINAI MEDICAL CENTER	0255-3104-4605		\$8,353
LONGITUDINAL EVALUATION OF FAMILIAL FRONTOTEMPORAL DEMENTIA SUBJECTS (LEFFTDS)	93.853		MAYO CLINIC ROCHESTER	63788299		\$13,428
MODELING SYNAPTIC VESICLES: HOW DOES ϵ -SYNUCLEIN INHIBIT FUSION	93.853		UNIVERSITY OF MINNESOTA	A003585702		\$16,943
UNDERSTANDING THE CONCEPTUAL-MOTOR INTERFACE	93.853		MOSS REHABILITATION RESEARCH INSTITUTE	SUB TO 1-R01-NS065049-01A2		\$18,365
AUTOIMMUNE MECHANISMS IN A NOVEL AIRE-DEFICIENT MODEL OF PERIPHERAL NEUROPATHY	93.853		UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL	5-33303		\$19,759
RATIONAL DESIGN OF TMS FOR NEUROMODULATION	93.853		DUKE UNIVERSITY	203-5257		\$20,113
METABOLIC APPROACHES TO FRIEDREICH ATAXIA	93.853		CHILDREN'S HOSPITAL OF PHILADELPHIA	R21-NS087343		\$21,889
GREATER PHILADELPHIA SOUTHERN NEW JERSEY NETT NETWORK ESETT TRIAL	93.853		UNIVERSITY OF MICHIGAN	SUBK00004105-ESETT	\$12,000	\$21,892
GREATER-PHILADELPHIA SOUTHERN NEW JERSEY NETT: PROTECT	93.853		UNIVERSITY OF MICHIGAN	3001300019-PIII	\$11,714	\$22,159
VASOACTIVE AGENTS AND CEREBRAL OUTCOMES IN BRAIN INJURY	93.853		UNIVERSITY OF WASHINGTON	UWSC8805		\$22,395
A PHASE 3 DOUBLE-BLIND PLACEBO-CONTROLLED PARALLEL GROUP STUDY IF ISRADAPINE AS A DISEASE MODIFYING AGENT IN PATIENTS WITH EARLY PARKINSON'S DISEASE. STEADY PD	93.853		NORTHWESTERN UNIVERSITY	60036745 UPA		\$23,537
THE EPILEPSY BIOINFOMRATICS STUDY (EPIBIOS)	93.853		UNIVERSITY OF CALIFORNIA, LOS ANGELES	1580 G QE281		\$26,282
FUTILITY STUDY OF DEFEROXAMINE MESYLATE IN INTRACEREBRAL HEMORRHAGE (HI-DEF)	93.853		BETH ISRAEL MEDICAL CENTER	SUB TO U01-NS-074425-01		\$27,859
GREATER PHILADELPHIA SOUTHERN NEW JERSEY NETT NETWORK ATACH II TRIAL	93.853		UNIVERSITY OF MICHIGAN	SUB TO 5-U01-NS-062091-04	\$22,735	\$29,920
RECANALIZATION THERAPIES AND MARKERS OF STROKE OUTCOME (SPOTRIAS, STOP-IT)	93.853		UNIVERSITY OF CINCINNATI	SUB TO 2-P50-NS-044283-06		\$32,221
THE FRONTOTEMPORAL LOBAR DEGENERATION CLINICAL RESEARCH CONSORTIUM	93.853		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	8567		\$36,526
RATE CONTROL VERSUS RHYTHM CONTROL FOR POSTOPERATIVE ATRIAL FIBRILLATION	93.853		MOUNT SINAI MEDICAL CENTER	SUB TO 5U01HL088942		\$36,534
NEUSTART II STUDY	93.853		COLUMBIA UNIVERSITY	6 (GG006906-11)		\$38,322
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		\$47,128
DISSEMINATED AAV VECTOR TRANSPORT IN THE BRAIN VIA NEURONAL PATHWAYS	93.853		CHILDREN'S HOSPITAL OF PHILADELPHIA	20479-10-01 / PO #951200RSUB		\$47,546
TARGETING TUMORS WITH NF1 LOSS	93.853		DARTMOUTH COLLEGE	R837		\$58,524
ANTIHYPERTENSIVE TREATMENT OF ACUTE CEREBRAL HEMORRHAGE (ATACH II)	93.853		UNIVERSITY OF MINNESOTA	N936909 SUBTO 1-U01-NS-062091-01A1		\$59,088
A LONGITUDINAL MULTI-MODAL NEUROIMAGING INVESTIGATION OF FUNCTIONAL RECOVERY AFTER DIFFUSE TRAUMATIC BRAIN INJURY	93.853		CITY COLLEGE OF NEW YORK	41903-A		\$69,147
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		\$72,601
TWO-PHOTON MICROSCOPY OF OXYGEN CONSUMPTION IN THE BRAIN	93.853		MASSACHUSETTS GENERAL HOSPITAL	226626		\$90,843
NEURONAL CIRCUIT MECHANISMS	93.853		CHILDREN'S HOSPITAL OF PHILADELPHIA	20459 / PO #960209RSUB		\$96,433
GREATER PHILADELPHIA SOUTHERN NEW JERSEY NETT TRIAL POINT	93.853		UNIVERSITY OF MICHIGAN	3001413184-PNT/SUB TO U01-NS-062835	\$66,300	\$98,396
MECHANISMS LINKING INSULIN RESISTANCE TO BRAIN STRUCTURE, PATHOLOGY, AND FUNCTION	93.853		RUSH UNIVERSITY	SUB TO 1-R01-NS-084965-01A1		\$98,999
STROKE HYPERGLYCEMIA INSULIN NETWORK EFFORT (SHINE) TRIAL	93.853		UNIVERSITY OF MICHIGAN	3002111996-SHN	\$40,800	\$108,454
INHERITED NEUROPATHIES CONSORTIUM	93.853		UNIVERSITY OF IOWA	W000750292		\$127,896
MEKK3-ERKS-KLF SIGNALING IN CCM PATHOGENESIS	93.853		DUKE UNIVERSITY MEDICAL CENTER	2034906		\$163,134
PHARMACOTHERAPY TO COUNTERACT PARATHION-INDUCED NMJ DYSFUNCTION	93.853		UNIVERSITY OF MASSACHUSETTS	1-U01-NS083452-01		\$295,157
GLOBAL INNATE IMMUNE RESPONSES TO HIV-1 INFECTION	93.855		SALK INSTITUTE	PO #P0040250		-\$6,060
MECHANISMS OF IMMUNE FAILURE IN CHRONIC INFECTION: HEPATITIS C AS A KEY PARADIGM, PROJECT 3	93.855		MASSACHUSETTS GENERAL HOSPITAL	214829		-\$1,901
PROJECT I-5: INHIBITION OF DNA MODIFYING ENZYMES OF CATEGORY A-C AGENTS	93.855		UNIVERSITY OF MARYLAND	SRO0001120 MOD #4		-\$921
EARLY DETECTION OF CONGENITAL CHAGAS DISEASE	93.855		JOHNS HOPKINS UNIVERSITY	SUB TO R01-AI-087776		\$56
IL-33 BLOCKADE AS A NOVEL THERAPEUTIC FOR T-CELL MEDIATED HYPERCYTOKINEMIA SYNDROMES	93.855		CHILDREN'S HOSPITAL OF PHILADELPHIA	SUB TO R01AI121250		\$1,466
RESTARTT - IMMUNOSUPPRESSION WITH ANTITHYMOCYTE GLOBULIN, RITUXIMAB, TACROLIMUS, MYCOPHENOLATE MOFETIL AND SIROLIMUS, FOLLOWED BY IMMUNOSUPPRESSION WITHDRAWAL	93.855		BENAROYA RESEARCH INSTITUTE	1-UM1-AI-109565-01		\$1,894
IN LIVING-DONOR RENAL TRANSPLANT RECIPIENTS	93.855		HARVARD MEDICAL SCHOOL	116543-5079901		\$2,914
HIV CURE STUDIES: RISK, RISK PERCEPTION, AND ETHICS	93.855					

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FUNCTIONAL CURE AND VIRUS ERADICATION BY EARLY HAART PLUS VACCINATION WITH LIVE ATTENUATED RUBELLA VIRUS VECTORS IN MACAQUE INFANTS AND NEONATES	93.855		TEXAS BIOMEDICAL RESEARCH INSTITUTE	15-4547-001		\$4,169
UTILITY OF DEEP SEQUENCING FOR DETECTING HETERORESISTANT MYCOBACTERIUM TUBERCULOSIS INFECTIONS AMONG HIV-INFECTED PERSONS	93.855		UNIVERSITY OF CALIFORNIA, LOS ANGELES	1935 G TA238		\$5,063
HIV CURE STUDIES: RISK, RISK PERCEPTIONS, AND ETHICS	93.855		HARVARD MEDICAL SCHOOL	152785.5079901.0007		\$5,199
ALTERNATIVE MHCII PROCESSING OF INFLUENZA VIRUS PROTEINS	93.855		THOMAS JEFFERSON UNIVERSITY	080-03000-S14401		\$5,753
GLOBAL INNATE IMMUNE RESPONSES TO HIV-1 INFECTION	93.855		SANFORD-BURNHAM MEDICAL RESEARCH INSTITUTE	55648-12645-UPENN		\$6,698
HIV PREVENTION TRIALS NETWORK (HPTN)	93.855		DREXEL UNIVERSITY	239643		\$6,960
TH17 AUTOIMMUNITY TO TYPE V COLLAGEN IN HEART AND LUNG TRANSPLANT	93.855		INDIANA UNIVERSITY	IN-4685530-UP		\$8,976
AIDS CLINICAL TRIALS GROUP (ACTG) - PROTOCOL CHAIR SUPPORT	93.855		BRIGHAM AND WOMEN'S HOSPITAL	110236		\$9,465
TOWARDS ERADICATION: REDUCING PROVIRAL HIV DNA WITH INTERFERON-&INFIN; IMMUNOTHERAPY	93.855		WISTAR INSTITUTE	24971-06-324		\$9,787
ARLG - EIS - TAMMA	93.855		DUKE CLINICAL RESEARCH INSTITUTE	2038787		\$10,136
FOXO1-DEPENDENT PROGRAMME IN THE CONTROL OF REGULATORY T CELL FUNCTION	93.855		MEMORIAL SLOAN-KETTERING CANCER CENTER	BD516327		\$10,632
STRUCTURE AND FUNCTION OF HIV-1 INTEGRASE	93.855		OHIO STATE UNIVERSITY	60050510		\$11,213
AIDS CLINICAL TRIAL GROUP (ACTG) - COMMITTEE MEMBERSHIP SUPPORT	93.855		BRIGHAM AND WOMEN'S HOSPITAL	108085		\$11,552
CTOT-11 NOVEL THERAPIES TO IMPROVE RENAL AND CARDIAC ALLOGRAFT OUTCOMES	93.855		BRIGHAM AND WOMEN'S HOSPITAL	PS #105087 / CTOT-11		\$17,169
DARE: DELANEY AIDS RESEARCH ENTERPRISE TO FIND A CURE	93.855		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	84195C		\$19,273
CLASS II PROCESSING AND PRESENTATION DURING SECONDARY RESPONSES TO INFLUENZA	93.855		CHILDREN'S HOSPITAL OF PHILADELPHIA	3210960000/PO#961957-RSUB		\$19,463
DIVERSITY OF CD4+ TH SUBSETS IN TB IMMUNITY: IMPACT OF HIV INFECTION	93.855		UNIVERSITY OF CAPE TOWN	SUB TO R21-AI-115977		\$21,328
A FOXP3 COMPLEX THAT CONTROLS HUMAN REGULATORY T CELL FUNCTION	93.855		BENAROYA RESEARCH INSTITUTE	1-R56-AL-112323-01		\$21,475
ANTI IL-5 AND CHURG STRAUSS SYNDROME: A DOUBLE BLIND, PLACEBO CONTROLLED STUDY	93.855		NATIONAL JEWISH HEALTH	1-UO1-AI-097073-01A1		\$22,980
CLASS II PROCESSING AND PRESENTATION DURING SECONDARY RESPONSES TO INFLUENZA	93.855		THOMAS JEFFERSON UNIVERSITY	080-03000-S16401		\$23,857
ANTIBACTERIAL RESISTANCE LEADERSHIP GROUP OR ALRG (PROJECT)	93.855		DUKE UNIVERSITY	203-9727		\$23,931
TREATMENT AS PREVENTION FOR INJECTION DRUG USERS: A PILOT STUDY FOR A NETWORK-BASED RANDOMIZED PREVENTION TRIAL	93.855		FAMILY HEALTH INTERNATIONAL	FCO 790/ID 0080.0224		\$25,358
ALTERNATIVE MHCII PROCESSING OF INFLUENZA VIRUS PROTEINS	93.855		CHILDREN'S HOSPITAL OF PHILADELPHIA	3210970000		\$25,976
ASTHMA, ANXIETY AND GR ABNORMALITIES IN NON-HUMAN PRIMATES	93.855		UNIVERSITY OF CALIFORNIA, DAVIS	201503774-01		\$26,055
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		\$28,976
CONCEPT WORKING GROUP	93.855		HUTCHINSON (FRED) CANCER RESEARCH CENTER	0000851168		\$38,588
CENTER FOR HIV/AIDS VACCINE IMMUNOLOGY AND IMMUNOGEN DISCOVERY	93.855		DUKE UNIVERSITY	2034081		\$39,530
A FOXP3 COMPLEX THAT CONTROLS HUMAN REGULATORY T CELL FUNCTION	93.855		BENAROYA RESEARCH INSTITUTE	0112701S01		\$40,000
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		\$41,703
DEVELOPMENT OF SMALL MOLECULE THERAPEUTICS AGAINST RNA VIRUSES	93.855		FOX CHASE CHEMICAL DIVERSITY CENTER	1R41AI113952-UPENN		\$44,493
				SUB TO NIH-STTR-1 R41AI104418-01A1		\$44,713
POINT OF CARE DEVICE FOR MOLECULAR DETECTION OF HIV	93.855		AC DIAGNOSTICS, INC.	203-1433		\$63,879
EVOLUTION OF CRYPTOCOCCUS NEOFORMANS STRAINS FROM PATIENTS WITH HIV/AIDS	93.855		DUKE UNIVERSITY	88725 / PO #0000477740		\$64,000
MODELING AND CORRECTING HUMAN SCID USING PATIENT-DERIVED IPS CELLS	93.855		CHILDREN'S HOSPITAL BOSTON			
THE EPIDEMIOLOGY OF CARBAPENEM-RESISTANT KLEBSIELLA PNEUMONIAE IN LONG-TERM ACUTE CARE HOSPITALS (LTACHS)	93.855		DUKE CLINICAL RESEARCH INSTITUTE	203-8691		\$66,998
GENE TRANSFER FOR SCID-X1 USING SELF-INACTIVATING GAMMARETROVIRAL VECTOR	93.855		CHILDREN'S HOSPITAL BOSTON	0000369947		\$70,410
A-WISH - GRADUAL WITHDRAWAL OF IMMUNE SYSTEM SUPPRESSING DRUGS IN PATIENTS RECEIVING A LIVER TRANSPLANT	93.855		BENAROYA RESEARCH INSTITUTE	1-UM-1AL-109565-01		\$72,732
CONSORTIUM FOR AIDS VACCINE RESEARCH IN NONHUMAN PRIMATES - CORE D: VIROLOGY CORE	93.855		BETH ISRAEL MEDICAL CENTER	01025093-CORED		\$78,790
CENTER FOR HIV/AIDS VACCINE IMMUNOLOGY (CHAVI)-ID	93.855		DUKE UNIVERSITY	5-UM1-AI-100645-04		\$85,603
TOWARDS ERADICATION: REDUCING PROVIRAL HIV DNA WITH INTERFERON-OL IMMUNOTHERAPY	93.855		WISTAR INSTITUTE	SUB TO 1-U01-AI-110434-01		\$86,807
AIDS CLINICAL TRIALS GROUP (ACTG) - EOY - ANTI TB AGENTS	93.855		BRIGHAM AND WOMEN'S HOSPITAL	2UM1AI068636		\$89,768
STUDIES OF NATURAL SIV INFECTION OF SOOTY MANGABEYS	93.855		EMORY UNIVERSITY	5648454		\$89,863
(CORE) SYNERGIES AMONG INHIBITORY RECEPTORS IN TOLERANCE CANCER AND ANTIVIRAL IMMUNITY	93.855		UNIVERSITY OF PITTSBURGH	9011702 (126206-1)		\$114,447
HVTN PROTOCOL FUNDING (PF)	93.855		HUTCHINSON (FRED) CANCER RESEARCH CENTER	0000853385		\$150,770
HVTN 703 SITE READINESS	93.855		HUTCHINSON (FRED) CANCER RESEARCH CENTER	0000841667		\$167,886
REGULATION OF PROTECTIVE IMMUNITY FOLLOWING ENTERIC VIRAL INFECTION	93.855		CORNELL UNIVERSITY	SUB TO U01AI095608		\$198,785
TOWARDS ERADICATION: REDUCING PROVIRAL HIV DNA WITH INTERFERON-A IMMUNOTHERAPY	93.855		WISTAR INSTITUTE	24971-04-324		\$206,432
REVERSAL OF IMMUNE FAILURE WITH VIRAL ANTIGEN REMOVAL IN CHRONIC HCV INFECTION, PROJECT 2	93.855		MASSACHUSETTS GENERAL HOSPITAL	224470		\$212,837
MECHANISMS AND IMMUNOLOGICAL CONSEQUENCES OF HOST-VIRUS INTERACTIONS	93.855		HARVARD MEDICAL SCHOOL	152384.5077707.0006		\$245,479

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CD4+ T AND B CELL MECHANISMS OF INFLUENZA VACCINE	93.855		CASE WESTERN RESERVE UNIVERSITY	RES508678		\$284,395
CENTER FOR HIV/AIDS VACCINE IMMUNOLOGY AND IMMUNOGEN DISCOVERY SUPPLEMENT (UM1AI100663)	93.855		SCRIPPS RESEARCH INSTITUTE	SUB TO SUMAI100663-04		\$301,655
AIDS CLINICAL TRIALS GROUP; PROTOCOL FUNDS (COST REIMBURSEMENT)	93.855		BRIGHAM AND WOMEN'S HOSPITAL	SUB TO UM1 AI068636/111674		\$318,648
REVERSAL OF IMMUNE FAILURE WITH VIRAL ANTIGEN REMOVAL IN CHRONIC HCV INFECTION, PROJECT 3	93.855		MASSACHUSETTS GENERAL HOSPITAL	224471		\$328,515
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		\$339,004
DEVELOPMENT OF SMALL MOLECULE THERAPEUTICS AGAINST SMALLPOX AND OTHER POXVIRUSES	93.855		FOX CHASE CHEMICAL DIVERSITY CENTER	SUB TO 1R44AI115759-01		\$345,754
AIDS CLINICAL TRIALS GROUP; PROTOCOL FUNDS	93.855		BRIGHAM AND WOMEN'S HOSPITAL	SUB TO UM1AI068636/FUND 110215		\$363,700
DEVELOPMENT OF A NOVEL ADJUVANT FOR VACCINE SPARRING	93.855		NEW YORK BLOOD CENTER	SUB TO 1R01-AI105431-01		\$434,023
(PROJECT) SYNERGIES AMONG INHIBITORY RECEPTORS IN TOLERANCE CANCER AND ANTIVIRAL IMMUNITY	93.855		UNIVERSITY OF PITTSBURGH	9011707 (126211-1)		\$435,695
PHASE II: KL4 SURFACTANT TO MITIGATE RADIATION INDUCED LUNG INJURY	93.855		WINDTREE THERAPEUTICS, INC.	SUB TO 2-R44-A1-102308-03		\$527,114
HVTN PROTOCOL FUNDING	93.855		HUTCHINSON (FRED) CANCER RESEARCH CENTER	0000852931		\$610,726
IMPROVING THE CLINICAL UTILITY OF BIOPHYSICAL DOSIMETRY	93.856		DARTMOUTH COLLEGE	SUB TO U19-AI-091173		-\$2
STRUCTURAL BIOCHEMISTRY OF PARP-1	93.859		THOMAS JEFFERSON UNIVERSITY	080-02000-S01201		\$12,707
EXPLORING RESPIRATORY CHAIN GLYCOPROTEOMICS IN MITOCHONDRIAL DISEASE	93.859		CHILDREN'S HOSPITAL OF PHILADELPHIA	ACTIVITY 3210930818		\$13,351
UNDERSTANDING WNT SIGNALING THROUGH ROR AND RYK FAMILY RECEPTOR TYROSINE KINASES	93.859		YALE UNIVERSITY	M16A12424 (A10630)		\$15,237
COSTIMULATORY LIGAND MOBILITY EFFECTS ON T CELL ACTIVATION	93.859		CHILDREN'S HOSPITAL OF PHILADELPHIA	321004 / PO #960802RSUB		\$21,065
BIOLOGICAL SUPER-RESOLUTION IMAGING USING HIGH-INDEX MICROSPHERES FOR CANCER RESEARCH APPLICATION	93.859		SPHEREVIS, LLC	SUB TO R41GM117844		\$22,927
CHARGE-TRANSFER DYNAMICS RELEVANT TO PROTEIN-MEDIATED ENERGY TRANSDUCTION	93.859		DUKE UNIVERSITY	12-NIH-1016		\$27,146
AN ORDERLY APPROACH TO TOXIC MECHANISM BY DISORDERLY PEPTIDES	93.859		YALE UNIVERSITY	C16A12268(A08906)		\$29,280
MOLECULAR MECHANISMS OF MITOCHONDRIAL DNA DELETION FORMATION	93.859		UNIVERSITY OF PITTSBURGH	0047527 (125989-2)		\$29,322
THE POPULATION GENETICS OF DIVERGENCE	93.859		TEMPLE UNIVERSITY	360959-13120-02		\$33,515
ANALYSIS TOOLS AND SOFTWARE FOR SECOND GENERATION SEQUENCING DATA	93.859		DANA-FARBER CANCER INSTITUTE	1228005		\$41,172
MOLECULAR ANALYSIS OF METHYLATED P53	93.859		UNIVERSITY OF COLORADO	SUB TO 3 R01-GM101664		\$74,040
CYTOSKELETAL EFFECTS ON MITOCHONDRIAL DYNAMICS THROUGH THE ER-BOUND FORMIN INF2	93.859		DARTMOUTH COLLEGE	1261		\$93,984
REGULATION AND FUNCTION OF INTERMEDIATE FILAMENTS IN CELL MECHANICS	93.859		NORTHWESTERN UNIVERSITY	60029186UP		\$138,194
DUAL-ACTION VIROLYTIC ENTRY INHIBITORS AGAINST HIV-1	93.859		DREXEL UNIVERSITY	232511		\$139,222
ADAPTATION IN 6 DIMENSIONS	93.859		STANFORD UNIVERSITY	60078513-52304-A		\$170,141
MITOCHONDRIA-CYTOPLASM INTERACTIONS FOR CYTOSOLIC FE-S CLUSTER ASSEMBLY	93.859		UNIVERSITY OF MEDICINE AND DENTISTRY OF NJ	8159		\$183,668
CG-GRID: COMPUTATIONAL GENETICS GRID RESOURCE FOR INTERACTION DISCOVERY	93.859		PARABON COMPUTATION, INC.	20150301-PCI-STTR-UPENN-051-001		\$286,959
STRUCTURE-BASED ANTAGONISM OF HIV-1 ENVELOPE FUNCTION IN CELL ENTRY	93.859		DREXEL UNIVERSITY	2-P01-GM-056550-17A1		\$295,890
MOLECULAR AND ARCHITECTURAL MECHANISMS OF REPROGRAMMING TO PLURIPOTENCY	93.859		UNIVERSITY OF CALIFORNIA, LOS ANGELES	1445 G PB337		\$417,435
TREATMENT OF HYPERANDROGENISM VS. INSULIN RESISTANCE IN INFERTILE PCOS WOMEN	93.864		PENNSYLVANIA STATE UNIVERSITY	UPA HD056510		-\$13
THE FETAL ADRENAL GLAND AS A PREDICTOR OF SPONTANEOUS PRETERM BIRTH	93.865		COLUMBIA UNIVERSITY	2 (ACCT #5-30279)/PO #G02789		-\$164
IDDRC	93.865		CHILDREN'S HOSPITAL OF PHILADELPHIA	ACTIVITY 321098 (PO#961915RSUB		\$3,355
IMPROVING THE QUALITY OF IN-HOSPITAL PEDIATRIC RESUSCITATION	93.865		CHILDREN'S HOSPITAL OF PHILADELPHIA	950929RSUB		\$3,965
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		\$5,725
INTELLECTUAL AND DEVELOPMENTAL DISABILITIES RESEARCH CENTER	93.865		CHILDREN'S HOSPITAL OF PHILADELPHIA	203660 / 950908RSUB		\$6,852
IDENTIFYING SOURCES OF HIV INFECTION IN ADOLESCENT GIRLS IN RURAL SOUTH AFRICA	93.865		CAPRISA (CENTER FOR THE AIDS PROGRAMME OF RESEARCH IN SOUTH	SUB TO 1-R01-HD083343		\$10,227
LONGITUDINAL STUDY OF ADVERSE DRIVING OUTCOMES AMONG ADOLESCENTS WITH ADHD #SEXMESSAGES: SOCIAL MEDIA, SEXUAL RISK, & SUBSTANCE USE BEHAVIORS AMONG AFRICAN AMERICAN AND LATINO YOUTH	93.865		CHILDREN'S HOSPITAL OF PHILADELPHIA	3210580717		\$14,440
PFDN CAPITATION FUNDING	93.865		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	8879SC		\$15,562
INTELLECTUAL AND DEVELOPMENT DISABILITIES RESEARCH CENTER -NEUROIMAGING CORE	93.865		RESEARCH TRIANGLE INSTITUTE	PFDN CAPITATION FUNDING		\$22,572
LONGITUDINAL STUDY OF ADOLESCENTS, NEIGHBORHOODS, AND DRINKING	93.865		CHILDREN'S HOSPITAL OF PHILADELPHIA	951220RSUB		\$29,867
NEWBORN IRON DEFICIENCY	93.865		PACIFIC INSTITUTE FOR RESEARCH AND EVALUATION	SUB TO 1-R01-HD-078415-01A1		\$31,456
CHOP/UPENN INTELLECTUAL AND DEVELOPMENTAL DISABILITIES RESEARCH CENTER	93.865		UNIVERSITY OF MINNESOTA	N002524701		\$31,456
A PROGRAM TO PROMOTE DIVERSITY WITHIN THE AMERICAN SOCIETY OF ANDROLOGY	93.865		CHILDREN'S HOSPITAL OF PHILADELPHIA	203661015-S1		\$31,939
			AMERICAN SOCIETY OF ANDROLOGY	SUB TO 1-R25-DK096957-01		\$34,255
CREATING AN INFECTION-FREE INTRAOSSEOUS TRANSCUTANEOUS AMPUTATION PROSTHESIS	93.865		THOMAS JEFFERSON UNIVERSITY	0802300-R96501		\$37,206
HOME-BASED MIRROR THERAPY FOR TREATING HEMIPARESIS IN STROKE PATIENTS	93.865		MOSS REHABILITATION RESEARCH INSTITUTE	SUB TO R01-HD068565		\$41,957
TBI: IGG AUTOANTIBODIES IN SECONDARY NEURONAL INJURY	93.865		UNIVERSITY OF PITTSBURGH	0024922 (125803-11)		\$44,618

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NULLIPAROUS PREGNANCY OUTCOME STUDY: MONITORING MOTHERS-TO-BE (NUMOM2B): CAPITATION	93.865		RESEARCH TRIANGLE INSTITUTE	SUB TO 1U10HD063048-01		\$53,375
MALE GERMLINE DEVELOPMENT AND ESTROGENIC EXPOSURES	93.865		WASHINGTON STATE UNIVERSITY	123853-G003469		\$60,198
SYSTEMS ANALYSIS OF BMP REGULATION IN DEVELOPING ZEBRAFISH EMBRYOS	93.865		PURDUE UNIVERSITY	4102-57125		\$69,102
PRENATAL CYTOGENETIC DIAGNOSIS BY ARRAY-BASED COPY NUMBER ANALYSES: FOLLOW-UP FUNCTIONAL IMPACT OF DIFFERENTIAL EXPRESSION AND DNA METHYLATION IN MOUSE OOCYTES AND EMBRYOS RESULTING FROM MATERNAL DIET-INDUCED OBESITY	93.865		COLUMBIA UNIVERSITY	3 (GG006961)/PO #G03619		\$106,134
CHOROID PLEXUS-DIRECTED GENE THERAPY FOR ALPHA-MANNOSIDOSIS	93.865		WASHINGTON UNIVERSITY IN ST. LOUIS	UWASH-ST.LOUIS SUB		\$155,452
NEONATAL AND PEDIATRIC PLATELET FUNCTION AND PHARMACOLOGY	93.865		CHILDREN'S HOSPITAL OF PHILADELPHIA	FP00015905_A1_SUB_01		\$162,268
	93.865		COLUMBIA UNIVERSITY	1 (GG011666)		\$179,748
SEDATION STRATEGY AND COGNITIVE OUTCOME AFTER CRITICAL ILLNESS IN EARLY CHILDHOOD	93.865		SEATTLE CHILDREN'S HOSPITAL RESEARCH INSTITUTE	UNDER R01HD074757		\$261,493
OPTIMIZING MANAGEMENT OF THE SECOND STAGE OF LABOR: MULTICENTER RANDOMIZED TRIAL	93.865		WASHINGTON UNIVERSITY IN ST. LOUIS	WU-15-54		\$404,208
NICHD NEONATAL RESEARCH NETWORK (NRN) CAPITATION FUNDING	93.865		RESEARCH TRIANGLE INSTITUTE	MOU SUB TO U10HD68244-1202		\$474,751
SUSTAINED AERATION OF INFANT LUNGS (SAIL)	93.865		CHILDREN'S HOSPITAL OF PHILADELPHIA	3210050618 / PO #961074RSUB		\$625,641
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		-\$12,459
HIGH PRIORITY RESEARCH NETWORK ON THE DETERMINANTS OF LIFE COURSE OUTCOME	93.866		UNIVERSITY OF CHICAGO	FP056559		-\$118
MILD COGNITIVE IMPAIRMENT AND OBSTRUCTIVE SLEEP APNEA	93.866		GEORGE MASON UNIVERSITY	E2023761		-\$2
ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE	93.866		UNIVERSITY OF CALIFORNIA, SAN DIEGO	AG024904		\$98
NBER ROYBAL CENTER FOR BEHAVIOR CHANGE IN HEALTH AND SAVINGS: REMINDERS THROUGH ASSOCIATION	93.866		NATIONAL BUREAU OF ECONOMIC RESEARCH, INC.	33-4121-07-01		\$2,987
PREDICTION OF SEVERITY IN ALZHEIMER'S DISEASE	93.866		DUKE UNIVERSITY	14-CU-1082		\$4,000
UNDERSTANDING MULTIMORBIDITY THROUGH MULTIVARIATE TEMPLATE MATCHING	93.866		CHILDREN'S HOSPITAL OF PHILADELPHIA	321095		\$5,816
THE CONTRIBUTION OF WEIGHT STATUS TO BLACK-WHITE DIFFERENCES IN MORTALITY AND DIABETES	93.866		UNIVERSITY OF MICHIGAN	3003722048		\$7,500
THE ECONOMICS OF HEALTH, WEALTH, AND WELL-BEING PILOT: SAVE MORE LATER AND PARTICULARLY AFTER YOUR NEXT BIRTHDAY: THE EFFECT OF PROCRASTINATION ON RETIREMENT SAVINGS	93.866		NATIONAL BUREAU OF ECONOMIC RESEARCH, INC.	P01-AG-005842		\$9,303
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		\$11,041
EFFECTS OF MULTI-MODAL EXERCISE INTERVENTION POST HIP FRACTURE	93.866		UNIVERSITY OF MARYLAND	SR00002503		\$12,427
LONG LIFE FAMILY STUDY	93.866		BOSTON MEDICAL CENTER	5-U01-AG-023755-08		\$13,138
HANDLS SCAN SUBSTUDY: RACE, SOCIOECONOMIC STATUS AND THE BRAIN	93.866		UNIVERSITY OF MARYLAND	0000007283		\$15,222
EARLY, DETECTION OF ALZHEIMER'S (MCI STAGE): ANALYSIS OF PLASMA CELL-FREE MIRNAI	93.866		DIAMIR, LLC	SUB TO 2-R44-AG-044860-02		\$15,491
GENETIC ARCHITECTURE OF MEMORY AND EXECUTIVE FUNCTIONING IN ALZHEIMER'S DISEASE	93.866		UNIVERSITY OF WASHINGTON	763366		\$17,621
ELUCIDATING AD GENOTYPE-PHENOTYPE RELATIONSHIPS USING GENETICS OF HUMAN IPS CELLS	93.866		UNIVERSITY OF CALIFORNIA, SAN DIEGO	55748937		\$18,946
INTERNAL ETHICS COMMITTEE	93.866		UNIVERSITY OF CALIFORNIA, SAN DIEGO	37458739		\$25,810
DATA AND SAFETY MONITORING BOARD	93.866		UNIVERSITY OF CALIFORNIA, SAN DIEGO	47180199		\$28,076
ANTI-AMYLOID TREATMENT IN ASYMPTOMATIC ALZHEIMER'S DISEASE (STUDY A4)-LILLY	93.866		UNIVERSITY OF CALIFORNIA, SAN DIEGO	46177790		\$28,771
STATISTICAL METHODS FOR VITAMIN D TARGETS FOR FUNCTIONAL OUTCOMES IN OLDER ADULTS	93.866		UNIVERSITY OF MARYLAND	1600268		\$29,237
DISCOVERY OF NOVEL PROTEOMIC TARGETS FOR TREATMENT OF ALZHEIMER'S DISEASE	93.866		EMORY UNIVERSITY	T233735		\$32,000
ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE 2 (ADNI2)	93.866		UNIVERSITY OF SOUTHERN CALIFORNIA	65937958		\$34,139
ETHICAL ISSUES IN DEMENTIA RESEARCH INVOLVING SURROGATES AND STUDY PARTNERS	93.866		JOHNS HOPKINS UNIVERSITY	2001440333		\$43,971
IMPACT OF DISCLOSING AMYLOID IMAGING RESULTS TO COGNITIVELY NORMAL INDIVIDUALS	93.866		BRIGHAM AND WOMEN'S HOSPITAL	113049		\$46,120
NATIONAL ALZHEIMER'S COORDINATING CENTER (NACC)	93.866		UNIVERSITY OF WASHINGTON	762205		\$63,600
ALZHEIMER'S PREVENTION INITIATIVE APOE4 TRIAL	93.866		BANNER HEALTH	0435-02-42372		\$68,708
METABOLIC NETWORKS AND PATHWAYS IN ALZHEIMERS DISEASE	93.866		DUKE UNIVERSITY MEDICAL CENTER	2034217		\$69,264
METABOLIC SIGNATURES UNDERLYING VASCULAR RISK FACTORS FOR ALZHEIMER-TYPE DEMENTIAS	93.866		DUKE UNIVERSITY	2034990		\$70,695
CAUSAL ROLE OF PFC IN PERCEPTUAL AND COGNITIVE AUDITORY PROCESSING AND AGE-RELATED PLASTICITY	93.866		UNIVERSITY OF CALIFORNIA, DAVIS	201402652-01		\$80,953
IMMEDIATE FIT USING INNOVATIVE TECHNOLOGY TRANTIBIAL PROSTHESIS	93.866		IFIT PROSTHETICS	SUB TO 2R42AG050430-04		\$100,274
HEALTH AND RETIREMENT STUDY (YEARS 23-28)	93.866		UNIVERSITY OF MICHIGAN	3002222932		\$104,354
PROCESSING SPEED TRAINING TO PRESERVE DRIVING AND FUNCTION COMPETENCIES IN MCI	93.866		UNIVERSITY OF ALABAMA AT BIRMINGHAM	000504619-001		\$107,900
ANEMIA TRIAL OF THE T-TRIAL	93.866		DUKE CLINICAL RESEARCH INSTITUTE	2039905		\$113,844

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ANTI-AMYLOID IN ASYMPTOMATIC ALZHEIMERS DISEASE, ETHICS SUB STUDY	93.866		UNIVERSITY OF CALIFORNIA, SAN DIEGO	39177054		\$138,182
GENOME WIDE ANALYSIS OF LXR BINDING-METABOLIC AND EPIGENETIC REGULATION IN AD	93.866		UNIVERSITY OF PITTSBURGH	0017484 (122314-1)		\$158,567
ANTI-AMYLOID TREATMENT IN ASYMPTOMATIC ALZHEIMER'S DISEASE (A4 STUDY)-NIH	93.866		UNIVERSITY OF CALIFORNIA, SAN DIEGO	2-U19-AG-010483-22		\$200,043
GROUP LEARNING ACHIEVES DECREASE INCIDENTS OF LOWER URINARY SYMPTOMS (GLADIOLUS)	93.866		BEAUMONT HOSPITAL, ROYAL OAK CAMPUS	PO #100-2940836		\$385,072
THE ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE 2 BIOMARKER CORE	93.866		NORTHERN CALIFORNIA INSTITUTE FOR RESEARCH AND EDUCATION	1576 SUB TO U01AG024904-07		\$536,153
LONGITUDINAL EVALUATION OF FAMILIAL FRONTOTEMPORAL DEMENTIA SUBJECTS (LEFFTDS)	93.866		MAYO CLINIC ROCHESTER	PO #63788299		\$569,168
NANOMEDICINE CENTER FOR NUCLEOPROTEIN MACHINES	93.867		GEORGIA INSTITUTE OF TECHNOLOGY	R7747- G13		-\$18,197
NEURO-OPHTHALMOLOGY RESEARCH DISEASE INVESTIGATOR CONSORTIUM (NORDIC-IIHTT) NETWORK	93.867		ST LUKE'S ROOSEVELT HOSPITAL	SUB TO U10-EY017281-01A1		-\$11,105
VISION, EYE GROWTH RHYTHMS AND RETINAL SIGNALS IN REFRACTIVE DEVELOPMENT	93.867		NEW ENGLAND COLLEGE OF OPTOMETRY	3708-01-01-16UP		\$242
OXIDATIVE DAMAGE AND CONE CELL DEATH IN RP	93.867		JOHNS HOPKINS UNIVERSITY	2001536680		\$1,593
COMPETITIVE RENEWAL FOR MULTICENTER UVEITIS STEROID TREATMENT (MUST) TRIAL	93.867		JOHNS HOPKINS UNIVERSITY	SUB TO 2-U10-EY014660-06		\$7,002
MACULAR EDEMA TREATMENT TRIALS ASSOCIATED WITH MUST (META-MUST)	93.867		JOHNS HOPKINS UNIVERSITY	2002565177		\$12,065
MUST ME CHAIR SECTION	93.867		ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI	0255-7711-4609		\$15,948
MORE COMPLETE ASSESSMENT OF DNA VARIATION IN AGE-RELATED MACULAR DEGENERATION	93.867		UNIVERSITY OF MICHIGAN	3002502378		\$19,535
SCORE2 COMPARATIVE TRIAL (SCT)	93.867		PENNSYLVANIA STATE UNIVERSITY	UPA023533		\$25,965
CENTRAL PROCESSING OF VISUAL INFORMATION	93.867		CORNELL UNIVERSITY	15050678		\$36,240
ORAL THERAPY FOR DIABETIC RETINOPATHY USING ACE2/ANG1-7 BIOENCAPSULATED IN PLANT CELLS	93.867		UNIVERSITY OF FLORIDA	UFDSP00010918		\$39,152
OCULAR HYPERTENSION TREATMENT STUDY 20-YEAR FOLLOW-UP: CHAIR'S GRANT	93.867		WASHINGTON UNIVERSITY IN ST. LOUIS	WU-16-30		\$45,870
A PILOT STUDY OF LASER PHOTOCOAGULATION FOR DIABETIC MACULAR EDEMA DRCR 1A	93.867		JAEB CENTER FOR HEALTH RESEARCH	EY 14231		\$46,208
RETINAL CIRCUITRY FOR ROBUST DIRECTION SELECTIVITY	93.867		OREGON HEALTH SCIENCES UNIVERSITY	1001748_UP		\$66,628
MULTICENTER UVEITIS STEROID TREATMENT (MUST) TRIAL - CHAIRMAN'S GRANT	93.867		ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI	0255-1775-4609		\$95,105
HUMAN CONNECTOMES FOR LOW VISION, BLINDNESS, AND SIGHT RESTORATION	93.867		UNIVERSITY OF SOUTHERN CALIFORNIA	67228549		\$95,160
POSTNATAL GROWTH AND RETINOPATHY OF PREMATURITY (G-ROP) STUDIES	93.867		CHILDREN'S HOSPITAL OF PHILADELPHIA	3209850813 / PO #960522RSUB		\$100,722
VISION IN PRESCHOOLERS - HYPEROPIA IN CHILDREN (VIP-HIP)	93.867		OHIO STATE UNIVERSITY	60025489 / PO #RF01249423		\$114,575
TELEMEDICINE APPROACHES TO EVALUATING ACUTE-PHASE ROP_EROP	93.867		CHILDREN'S HOSPITAL OF PHILADELPHIA	320886-01-02 / PO #950802RSUB		\$114,983
PLATFORM TECHNOLOGIES FOR MICROSCOPIC RETINAL IMAGING	93.867		MEDICAL COLLEGE OF WISCONSIN	SUB TO U01-EY-025477-01		\$120,770
NDC FOR THE OPTICAL CONTROL OF BIOLOGICAL FUNCTION	93.867		UNIVERSITY OF CALIFORNIA, BERKELEY	00007510/PO #2000038320		\$208,431
TELEMEDICINE APPROACHES TO EVALUATING ACUTE-PHASE ROP_EROP	93.867		CHILDREN'S HOSPITAL OF PHILADELPHIA	320886-01-01 / PO #950800RSUB		\$234,674
THERPAUTIC APPROACHES FOR ABCA4-ASSOCIATED DISORDERS	93.867		COLUMBIA UNIVERSITY	2 (ACCT. #5-30209)		\$251,612
PHOTO SWITCHABLE CHANNEL BLOCKERS FOR TREATMENT OF BLINDNESS	93.867		UNIVERSITY OF WASHINGTON	762671		\$281,470
RESEARCH PLATFORM INTEGRATING PATIENT REPORTED AND CLINICAL OUTCOMES DATA SOURCES	93.879		DYNAMIC CLINICAL SYSTEMS, INC.	SUB TO NIH #1R43LM011408-01		\$2
STATISTICAL METHODS AND SOFTWARE FOR MULTIVARIATE META-ANALYSIS	93.879		UNIVERSITY OF MINNESOTA	P004683901		\$22,854
BIOINFORMATICS STRATEGIES FOR MULTIDIMENSIONAL BRAIN IMAGING GENETICS	93.879		INDIANA UNIVERSITY	IN4687237UP		\$134,279
SRSC I-VIRUS BIOLOGY HAHN	93.885		DUKE UNIVERSITY	2031969		\$1,253,008
NATIONAL BIOTERRORISM HOSPITAL PREPAREDNESS PROGRAM	93.889		COMMONWEALTH OF PENNSYLVANIA	4100062597		\$9,896
NATIONAL BIOTERRORISM HOSPITAL PREPAREDNESS PROGRAM	93.889		COMMONWEALTH OF PENNSYLVANIA	4100062641		\$13,865
NATIONAL BIOTERRORISM HOSPITAL PREPAREDNESS PROGRAM	93.889		COMMONWEALTH OF PENNSYLVANIA	4100062670		\$15,892
RYAN WHITE GRANT	93.914		CITY OF PHILADELPHIA	1320703-R6965		\$19,902
RYAN WHITE GRANT	93.914		CITY OF PHILADELPHIA	1320703-R5965		\$44,376
HIV EMERGENCY RELIEF PROJECTS GRANTS	93.914		CITY OF PHILADELPHIA	1320715-04 - RWS5668		\$73,999
PART A RW HIV/AIDS MINORITY AIDS INITIATIVE	93.914		CITY OF PHILADELPHIA	1320709-04 - RM6757		\$89,844
PART A RW HIV/AIDS MINORITY AIDS INITIATIVE	93.914		CITY OF PHILADELPHIA	1320709-03 - RM5757		\$213,550
HIV EMERGENCY RELIEF PROJECTS GRANTS	93.914		CITY OF PHILADELPHIA	1320715-03 - RS5668		\$234,841
RYAN WHITE HIV/AIDS TREATMENT EXTENSION ACT OF 2009 - PART A FOR FY2011	93.914		CITY OF PHILADELPHIA	RS4731 / 0920881-02 & -03 / AACC		\$339,389
OUTPATIENT EARLY INTERVENTION SERVICES WITH RESPECT TO HIV DISEASE - PART C	93.918		DREXEL UNIVERSITY	228084-6101		\$4,103
RW PART C HIV EARLY PREVENTION	93.918		CITY OF PHILADELPHIA	1420093-02		\$100,000
COOPERATIVE AGREEMENTS FOR STATE-BASED COMPREHENSIVE BREAST AND CERVICAL CANCER						
EARLY DETECTION PROGRAMS	93.919		FAMILY HEALTH COUNCIL OF CENTRAL PA	4100066441		\$39,416
REMODELING POTENTIAL OF THE MITRAL VALVE FOLLOWING SURGICAL REPAIR	93.937		UNIVERSITY OF TEXAS AT AUSTIN	UTA13-000980		\$758,726
HIV EMERGENCY RELIEF PROJECTS GRANTS	93.940		CITY OF PHILADELPHIA	1220442 - CPB5011		\$35,302
HIV EMERGENCY RELIEF PROJECTS GRANTS	93.940		CITY OF PHILADELPHIA	1620357 - CPB6011		\$35,528
PENNSYLVANIA FIRST EPISODE PSYCHOSIS TREATMENT INITIATIVE: PROGRAM EVALUATION						
RESEARCH	93.958		ADAMS COUNTY, PENNSYLVANIA	PERC-SAMHSA		\$7,001
PERC-SAMHSA PROJECT	93.958		ADAMS COUNTY, PENNSYLVANIA	PERC		\$160,792
PERC-SAMHSA PROJECT	93.958		ADAMS COUNTY, PENNSYLVANIA	PERC-SAMHSA		\$213,339
GERIATRIC WORKFORCE ENHANCEMENT	93.969		UNIVERSITY OF PENNSYLVANIA	1U1QHP287200100		\$10,115

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TARGETING HIGH CO-INFECTION RATES OF SYPHILIS AND OTHER SEXUALLY TRANSMITTED INFECTIONS (STIS) REPORTED AMONG HIV-INFECTED PATIENTS WHO IDENTIFY AS MSM	93.977		JOHNS HOPKINS UNIVERSITY	2002700015		\$16,792
DARTMOUTH/PENN RESEARCH ETHICS TRAINING AND PROGRAM DEVELOPMENT FOR TANZANIA	93.989		DARTMOUTH COLLEGE	885		\$23,087
MATERNAL AND CHILD HEALTH SERVICE BLOCK GRANT	93.994		SHADYSIDE HOSPITAL FOUNDATION	4100071256		\$30,286
MATERNAL AND CHILD HEALTH SERVICES BLOCK GRANT TO THE STATES	93.994		COMMONWEALTH OF PENNSYLVANIA	4100065681		\$125,936
ANTI-AMYLOID TREATMENT IN ASYMPTOMATIC ALZHEIMER'S DISEASE (A4 STUDY)-NIH	93.999		UNIVERSITY OF SOUTHERN CALIFORNIA	SUB TO U19AG010483		\$6,899
MULTI-SCALE OBSERVATION AND MODELING OF IP3/CA SIGNALING	93.999		LOS ALAMOS NATIONAL LABORATORY	278443		\$166,311
HARVARD CLINICAL AND TRANSLATIONAL SCIENCE AWARD	93.RD	HHSN26820070031C	HARVARD MEDICAL SCHOOL	5045815		-\$6,709
RANDOMIZED EVALUATION OF VAD INTERVENTION BEFORE INOTROPIC THERAPY (REVIVE-IT)	93.RD	HHSN268201100026C	UNIVERSITY OF MICHIGAN	3001890360		-\$3,300
PROTOCOL-BASED ASSESSMENT OF THROMBOEMBOLIC EVENTS AFTER IMMUNOGLOBULIN ADMINISTRATION	93.RD	HHSF223200910006I	HARVARD PILGRIM HEALTH CARE	HHSF223200910006T-0003		\$12,651
EVIDENCE-BASED PRACTICE CENTERS V	93.RD	HHSA2902015000051	ECRI	SUB TO HHSA2902015000051		\$18,631
IMPLANTABLE CONSTRUCT FOR ARCHITECTURAL CONTROL OF RE-VASCULARIZATION OF ISCHEMIC TISSUES	93.RD	R43HL118851	INNOLIGN BIOMEDICAL, LLC	SUB TO NIH STTR AWARD		\$29,267
PROSPECTIVE ROUTINE OBSERVATIONAL MONITORING OF MIRABEGRON	93.RD	HHSF223200910006I	HARVARD PILGRIM HEALTH CARE	HHSF22320097T-0013		\$31,146
DETECTION AND ANALYSIS OF ADVERSE EVENTS RELATED TO REGULATED PRODUCTS IN AUTOMATED HEALTHCARE DATA. EFFORTS TO DEVELOP THE SENTINEL INITIATIVE (YEAR 6 INFRASTRUCTURE)	93.RD	HHSF223200910006I	HARVARD PILGRIM HEALTH CARE	HHSF22301016T-0002		\$35,458
RADLEX AND LOINC COLLABORATION PROPOSAL	93.RD	HHSN268200800020C	RADIOLOGICAL SOCIETY OF NORTH AMERICA	HHSN268200800020C MOD 0006 (A)		\$38,852
ODSH AS A COUNTERMEASURE FOR RADITION-INDUCED THROMBOCYTOPENIA	93.RD	N01HHSN272201400033C	CHILDREN'S HOSPITAL OF PHILADELPHIA	7300220817		\$45,891
NJ HEALTHCARE INNOVATIONS PROJECT: MODEL DESIGN	93.RD	1-G1C-MS-331386-01-5	RUTGERS UNIVERSITY	5721		\$70,257
ANALYTIC METHODS FOR USING LABORATORY TEST RESULTS IN ACTIVE DATABASE SURVEILLANCE	93.RD	HHSF223200910006I	HARVARD PILGRIM HEALTH CARE	HHSF22301012T-0008		\$72,102
TISSUE COMPARTMENTALIZATION OF HUMAN LYMPHOCYTES	93.RD	P01AI106697	COLUMBIA UNIVERSITY	#5-GG007579-03		\$72,673
NICHD INTERNATIONAL AND DOMESTIC PEDIATRIC AND MATERNAL HIV STUDIES COORDINATING CENTER	93.RD	HHSN275201300003C	CHILDREN'S HOSPITAL OF PHILADELPHIA	8234501114		\$73,531
DEVELOPMENT AND DEMONSTRATIONS OF A SURGICAL UNIT-BASED SAFETY PROGRAM (SUSP) TO REDUCE SURGICAL SITE INFECTIONS (SSI) AND OTHER SURGICAL COMPLICATIONS	93.RD	HHSA2902010000271	JOHNS HOPKINS UNIVERSITY	PO #2001586468 STUDY 1		\$95,936
REGISTRY OF GENETICALLY TRIGGERED THORACIC AORTIC ANEURYSMS AND CARDIOVASCULAR CONDITIONS (GENTAC)	93.RD	HHSN268201000048C/N01-				
SYSTOLIC BLOOD PRESSURE INTERVENTION TRIAL (SPRINT)	93.RD	HV-08238	RESEARCH TRIANGLE INSTITUTE	2-312-0212746		\$122,531
CELL-DERIVED MATERIALS FOR PHYSICAL SCIENCES-ONCOLOGY NETWORK (PS-ON) CELL LINES- PROTOMIC ANALYSIS	93.RD	HHSN268200900049C	CASE WESTERN RESERVE UNIVERSITY	RES508735		\$144,559
	93.RD	HHSN261200800001E	LEIDOS, INC.	15X008		\$175,325
	93.RD	HHSN268200900040C/N01-				
SYSTOLIC BLOOD PRESSURE INTERVENTION TRIAL (SPRINT)	93.RD	HC-95240	WAKE FOREST UNIVERSITY	WFUHS 30158		\$192,365
TISSUE COMPARTMENTALIZATION OF HUMAN LYMPHOCYTES	93.RD	P01AI106697	COLUMBIA UNIVERSITY	#4-GG007579-03		\$198,059
IMPROVED DNA VACCINES	93.RD	N01-AI-80063	VGX PHARMACEUTICALS, INC.	HHSN2722008000063C		\$201,274
PROTECTIVE IMMUNITY IN SPECIAL POPULATIONS	93.RD	HHSN272201100018C	WISTAR INSTITUTE	29902-04-307; WHERRY		\$276,016
IMMUNOSUPPRESSION WITHDRAWAL IN LIVER TRANSPLANT RECIPIENTS INFECTED WITH HEPATITIS C VIRUS	93.RD	N01-AI-15416	UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	ITN00111-00SC		\$401,721
LONGITUDINAL STUDIES OF CORONARY ARTERY RISK DEVELOPMENT IN YOUNG ADULTS (CARDIA) - COORDINATING CENTER	93.RD	HHSN268201300025C	UNIVERSITY OF ALABAMA AT BIRMINGHAM	000501394-SC007		\$434,815
EVALUATION OF SDG AS COUNTERMESAURE TO RADIATION-INDUCED LUNG DAMAGE	93.RD	HHSN27220150000	LIGNAMED	LGM-2605		\$709,492
DSAMH TRAUMA-INFORMED CARE EVALUATION	93.U01	031148	DE DIVISION OF SUBSTANCE ABUSE AND MENTAL HEALTH	031148-YEAR 5 (EXTENSION)		\$30,000
DSAMH TRAUMA-INFORMED CARE EVALUATION	93.U02	031148	DE DIVISION OF SUBSTANCE ABUSE AND MENTAL HEALTH	031148-YEAR 5 (FINAL)		\$49,000
IMPROVING CLINICAL CARE	93.U03	1620129-01	CITY OF PHILADELPHIA	1620129-01		\$30,000
PUBLIC HEALTH APPROACHES TO IMPROVING CLINCIAL CARE	93.U04	1620129	CITY OF PHILADELPHIA	1620129		\$75,000
RYAN WHITE PART D	93.U05	166307	CITY OF PHILADELPHIA	166307		\$28,824
EVALUATION OF PROGRAMS TO PROVIDE SERVICES TO PERSONS WHO ARE HOMELESS WITH MENTAL AND/OR SUBSTANCE USE DISORDERS	93.U06	23-312-0210700-M4	RESEARCH TRIANGLE INSTITUTE INTERNATIONAL, INC.	23-312-0210700-M4		\$50,115
EVALUATION OF PROGRAMS TO PROVIDE SERVICES TO PERSONS WHO ARE HOMELESS WITH MENTAL AND/OR SUBSTANCE USE DISORDERS	93.U07	23-312-0210700-M5	RESEARCH TRIANGLE INSTITUTE INTERNATIONAL, INC.	23-312-0210700-M5		\$121,709
LEND: LEADERSHIP EDUCATION IN NEURODEVELOPMENTAL AND RELATED DISABILITIES	93.U10	T73MCM00051	CHILDREN'S HOSPITAL OF PHILADELPHIA	204510613 / PO #960258RSUB		-\$1
NATIONAL NETWORK OF LIBRARIES OF MEDICINE: MID-ATLANTIC REGION	93.U18	HHSN276201100003C	UNIVERSITY OF PITTSBURGH	0049274-Y4015		\$10,903
HISPANIC NURSES EDUCATING MULTICULTURAL COMMUNITIES ON THE PATIENT PROTECTION & AFFORDABLE CARE ACT	93.U29	1-CPIMP-14-072-01	NATIONAL ASSOCIATION OF HISPANIC NURSES	SUB TO 1 CPIMP141072-01-00		\$46,934
TOTAL DEPARTMENT OF HEALTH AND HUMAN SERVICES PASS THROUGH PROGRAMS					\$196,459	\$56,844,671
TOTAL DEPARTMENT OF HEALTH AND HUMAN SERVICES					\$59,064,850	\$550,810,440

UNIVERSITY OF PENNSYLVANIA
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS
Year Ended 6/30/2016

<i>Federal Grantor/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification</i>	<i>Pass-Through Entity Name</i>	<i>Pass-Through Entity Identifying Number</i>	<i>Amount Passed Through to Sub-Recipients</i>	<i>Federal Expenditures</i>
CORPORATION FOR NATIONAL AND COMMUNITY SERVICE						
CORPORATION FOR NATIONAL AND COMMUNITY SERVICE DIRECT PROGRAMS						
VISTA ADMIN	94.013	12VSAPA008				\$6,364
VISTA ADMIN	94.013	12VSAPA008				\$29,211
TOTAL CORPORATION FOR NATIONAL AND COMMUNITY SERVICE DIRECT PROGRAMS						<u>\$35,575</u>
CORPORATION FOR NATIONAL AND COMMUNITY SERVICE PASS THROUGH PROGRAMS						
NEXT STEPS AMERICORPS (REVISED PD#10044961)	94.006		COMMONWEALTH OF PENNSYLVANIA	4100067714		-\$17,881
NEXT STEPS AMERICORPS FY15/16	94.006		COMMONWEALTH OF PENNSYLVANIA	4100070812	\$2,636	\$113,499
TOTAL CORPORATION FOR NATIONAL AND COMMUNITY SERVICE PASS THROUGH PROGRAMS					<u>\$2,636</u>	<u>\$95,618</u>
TOTAL CORPORATION FOR NATIONAL AND COMMUNITY SERVICE					<u>\$2,636</u>	<u>\$131,193</u>
SOCIAL SECURITY ADMINISTRATION						
SOCIAL SECURITY ADMINISTRATION PASS THROUGH PROGRAMS						
SOCIAL SECURITY CLAIMING, LIFE INSURANCE, AND LONG-TERM CARE INSURANCE: THE IMPACT OF NARROW FRAMING AND LOSS AVERSION	96.007		UNIVERSITY OF MICHIGAN	PO #3003326493UM15-05		\$61,308
TOTAL SOCIAL SECURITY ADMINISTRATION						<u>\$61,308</u>
DEPARTMENT OF HOMELAND SECURITY						
DEPARTMENT OF HOMELAND SECURITY PASS THROUGH PROGRAMS						
BUREAU OF PUBLIC HEALTH PREPAREDNESS	97.036		COMMONWEALTH OF PENNSYLVANIA	4100062680?		\$21,358
UNDERSTANDING CULTURE: ASSESSMENT OF SAFETY CLIMATE	97.044		DREXEL UNIVERSITY	215024		\$30,891
ENHANCING COMMUNITY FLOOD RESILIENCE	97.061		UNIVERSITY OF SOUTHERN CALIFORNIA	66148716		\$76,200
CRITICAL INFRASTRUCTURES RESILIENCE CENTER (CIRC)	97.061		NORTHEASTERN UNIV	500001-78050		\$118,125
TOTAL DEPARTMENT OF HOMELAND SECURITY						<u>\$246,574</u>
U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT						
U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT PASS THROUGH PROGRAMS						
SOUTH SUDAN MEDIA EDUCATIONAL DEVELOPMENT PROJECT: STRENGTHENING FREE AND INDEPENDENT MEDIA IN SOUTH SUDAN	98.002		INTERNEWS NETWORK, INC.	SG-R-SS1301-4		\$22,479
MONITORING & EVALUATION PLAN FOR HALF THE SKY'S HTS TRANSMEDIA PROJECT	98.012		SHOW OF FORCE, LLC	AID-OAA-A-12-00078		\$105,957
				3001413184-PNT/SUB TO U01-NS-		
GREATER PHILADELPHIA SOUTHERN NEW JERSEY NETT TRIAL POINT	98.853		UNIVERSITY OF MICHIGAN	062835	\$250	\$5,304
TOTAL U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT					<u>\$250</u>	<u>\$133,740</u>
TOTAL EXPENDITURE OF FEDERAL AWARDS					<u>\$83,094,502</u>	<u>\$960,372,636</u>

Schedule of Expenditures of Federal Awards
Part B, Summary of Program Clusters

UNIVERSITY OF PENNSYLVANIA
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS
SUMMARY OF PROGRAM CLUSTERS
Year Ended 6/30/2016

<i>Cluster Name/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification</i>	<i>Pass-Through Entity Name</i>	<i>Pass-Through Entity Identifying Number</i>	<i>Federal Expenditures</i>
CCDF CLUSTER PROGRAMS					
CHILD-CENTERED ASSESSMENT OF APPROACHES TO LEARNING: DEVELOPMENT AND VALIDATION OF A MEASURE FOR USE IN PRESCHOOL CHILD CARE CLASSROOMS	93.575	90YE0162-01-00			\$11,616
TOTAL CCDF CLUSTER PROGRAMS					\$11,616
OTHER PROGRAMS					
UNI SCHOOL FOOD EDUCATION PROGRAM - TRACKS GRANT	10.561		PENNSYLVANIA STATE UNIVERSITY	5163-TUP-COP-9151	\$430,297
PA NUTRITION EDUCATION TRACKS PROGRAM	10.561		PENNSYLVANIA STATE UNIVERSITY	5315-TUP-COP-9151	\$843,081
MORE KIDS IN THE WOODS - MORRIS ARBORETUM'S PARTNERS IN EDUCATION INITIATIVE	10.664	12-CS-11242300-122			-\$1,608
SOUTHEAST PENNSYLVANIA PROCUREMENT TECHNICAL ASSISTANCE PROGRAM (PTAP)	12.002	SP4800-13-2-1336			-\$170
SOUTHEAST PENNSYLVANIA PROCUREMENT TECHNICAL ASSISTANCE PROGRAM (PTAP)	12.002	SP4800-14-2-1436			\$201,401
SOUTHEAST PENNSYLVANIA PROCUREMENT TECHNICAL ASSISTANCE PROGRAM (PTAP)	12.002	SP4800-15-2-1536			\$241,225
CONFERENCE: CANINE BEHAVIOR, COGNITION, PERFORMANCE AND GENETICS	12.431	W911NF-14-1-0187			\$32,868
UPENN 2014 HINDI-URDU STARTALK PROGRAM	12.900		NATIONAL FOREIGN LANGUAGE CENTER UNIVERSITY OF MARYLAND	H98230-1-1-0045	-\$127
UPENN 2016 HINDI-URDU STARTALK PROGRAM	12.900		NATIONAL FOREIGN LANGUAGE CENTER UNIVERSITY OF MARYLAND	H98230-16-0209	\$20,917
UPENN 2015 HINDI-URDU STARTALK PROGRAM	12.900	H98230-15-1-0087			\$82,255
MASTER RESILIENCE TRAINING COURSES LEVELS 3 & 4	12.U13	W9124D-14-D-0027			\$287,534
MASTER RESILIENCE TRAINING COURSES LEVELS 3 & 4	12.U14	W9124D-14-D-0027			\$54,277
MASTER RESILIENCE TRAINING COURSES LEVELS 3 & 4	12.U24	W9124D-14-D-0027			\$974,715
MASTER RESILIENCE TRAINING COURSES LEVELS 3 & 4	12.U25	W9124D-14-D-0027			\$55,656
ASSESSING HOUSING NEED AMONG PEOPLE LIVING WITH HIV/AIDS IN PHILADELPHIA ELIGIBLE METROPOLITAN AREA	14.241		PHILADELPHIA OFFICE OF HOUSING AND COMMUNITY DEVELOPMENT	1420373	\$48,100
HOMELESS MANAGEMENT INFORMATION SYSTEM GRANT	14.267	PA0586L3T101402			\$82,212
NWP/NPS COLLABORATIONS	15.954		NATIONAL WRITING PROJECT	92-PA06-B-NPS2015	\$4,497
INDEPENDENCE NATIONAL PARK SERVICE - 2015	15.U17	MT4450-R-0042			\$2,400
SCHOLAR'S RESCUE FUND SUBAWARD	19.016		INSTITUTE OF INTERNATIONAL EDUCATION	3000_PENN_03.24.2015	\$25,000
FULBRIGHT FOREIGN LANGUAGE TEACHING ASSISTANTS SUMMER ORIENTATION 2015	19.400		INSTITUTE OF INTERNATIONAL EDUCATION	SUB TO S-ECADG-15-CA-1015	\$62,763
PROPOSAL FOR MASSIVE OPEN ONLINE COURSES (MOOCS) FOR ENGLISH LANGUAGE LEARNERS UNDER THE ENGLISH ACCESS MICROSCHOLARSHIP PROGRAM	19.U28	S-ECAGD-14-CA-1167-01	FHI 360	PO16000435	\$225,500
TRUSTEES OF THE UNIVERSITY OF PENNSYLVANIA/LIFE SECTION 5310 GRANT FUNDING APPLICATION	20.319		COMMONWEALTH OF PENNSYLVANIA	CCA-G-14-15-TRUST-00159	\$191,392
		CONFERENCE ORGANIZATION			
REINVENTING OLDER COMMUNITIES	21.U30	AGREEMENT			\$15,605
WORLD CAFE VIDEO ENGAGEMENT	45.024	14-3400-7128			\$3,829
T-VOCE PROJECT	45.024	15-3600-7067			\$11,281
UNPACKING THE PAST: AN EDUCATIONAL OUTREACH PROGRAM OF THE PENN MUSEUM	45.024	15-4400-7089			\$32,000
TWELFTH NIGHT	45.025		MID ATLANTIC ARTS FOUNDATION	27205	\$8,500
PROVIDING GLOBAL ACCESS TO PENN'S INDIC MANUSCRIPTS, CIRCA 1527-1930 (BULK 1700-1850)	45.149	PW-51547-14			\$74,145
THE NEW SCHOENBERG DATABASE OF MANUSCRIPTS: A RESEARCH TOOL FOR TRACKING THE CURRENT AND HISTORIC LOCATIONS OF MANUSCRIPTS	45.149	PW-51580-14			\$83,288
PENNSYLVANIA SMALL BUSINESS DEVELOPMENT CENTERS	59.037	SBAHQ-14-B-0055			\$2,907
REVITALIZING SMALL BUSINESSES IMPACTED BY JOB LOSSES IN THE COAL INDUSTRY	59.037	SBAHQ-15-B-0078			\$5,510
TRANSITIONING FROM WORK TO BUSINESS OWNERSHIP: ENTREPRENEURSHIP-A PATH TO SUCCESS	59.037	SBAHQ-15-B-0079			\$17,877
PORTABLE ASSISTANCE PROGRAM - PENNSYLVANIA'S MON VALLEY REGION	59.037	SBAHQ-14-B-0076			\$84,588
PORTABLE ASSISTANCE PROGRAM - RESPONSE TO MANUFACTURING LAYOFFS/STARTUP BUSINESS TRAINING FOR TRANSITIONING EMPLOYEES - LAID OFF? TAKE CHARGE AND START A BUSINESS	59.037	SBAHQ-14-B-0075			\$94,921
PENNSYLVANIA SMALL BUSINESS DEVELOPMENT CENTERS	59.037	SBAHQ-16-B-0043			\$584,150
PENNSYLVANIA SMALL BUSINESS DEVELOPMENT CENTERS	59.037	SBAHQ-15-B-0053			\$3,800,425
HURRICANE SANDY DISASTER RELIEF 2013 (PHASE TWO)	59.064	SBAHQ-13-E-0011			\$331,292
IPA	64.U09	IPA - KELLY ALLISON			\$29,738
REMOTE VETERAN APNEA MANAGMEENT PORTAL (REVAMP)	64.U12	KUNA IPA REVAMP			\$185,974
VA IPA FOR ROBERT SEAN GALLAGHER	64.U16	IPA ROBERT SEAN GALLAGHER			\$4,154

UNIVERSITY OF PENNSYLVANIA
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS
SUMMARY OF PROGRAM CLUSTERS
Year Ended 6/30/2016

Cluster Name/Program Title	Federal CFDA Number	Additional Award Identification	Pass-Through Entity Name	Pass-Through Entity Identifying Number	Federal Expenditures
INPATIENT PSYCHIATRIC SAFETY AT THE VA (3)	64.U20	DEPT OF VETERANS AFFAIRS			\$158,379
IPA - KEHLE-FORBES PI (MINNEAPOLIS VA)	64.U21	IIR 14-030			\$59,201
THE EFFECT OF EXOGENOUS INSULIN THERAPY ON COLORECTAL ADENOMA RISK AMONG PATIENTS WITH DIABETES MELLITUS	64.U22	IPA THERESA ALCORN			\$64,885
DMU IPA - INTEGRATED COGNITIVE BEHAVIOR THERAPY TO IMPROVE WORK OUTCOMES IN SCHIZOPHRENIA	64.U23	IPA CHRISTOPHER PETRO			\$10,269
VA IPA FOR JASON A. BLAKE	64.U27	IPA - JASON BLAKE			\$6,920
IPA - MING LI	64.U32	IPA MING LI			\$1,193
VA IPA FOR ALLISON M PORT	64.U33	IPA AGREEMENT			\$2,947
IPA - JENNIFER GREENE	64.U34	IPA JENNIFER GREENE			\$7,840
DETERMINATION OF STRATEGIES TO ACHIEVE QUAD ENERGY SAVINGS THROUGH TRIBOLOGY	81.U19	DE-AR00282	VON BRAUN CENTER FOR SCIENCE AND INNOVATION, INC.	2300-004	\$398
NATIONAL RESOURCE CENTER	84.015	P015A100160-01			\$3,116
NATIONAL RESOURCE CENTER	84.015	P015A100202-01			\$3,995
NATIONAL RESOURCE CENTER	84.015	P015A100129-01			\$47,379
TITLE VI NATIONAL RESOURCE CENTER FUNDING 2014-2018	84.015	P015A140143			\$166,433
TITLE VI NATIONAL RESOURCE CENTER FUNDING 2014-2018	84.015	P015A140137			\$184,038
TITLE VI FLAS FELLOWSHIP FUNDING 2014-2018	84.015	P015B140143			\$284,938
TITLE VI FLAS FELLOWSHIP FUNDING 2014-2018	84.015	P015B140137			\$332,432
STANDARDS-BASED AFRICAN LANGUAGE COURSES ONLINE (SALCO)	84.017	P017A100057-01			\$6,339
GAANN MECHANICAL ENGINEERING PROGRAM IN MICRO AND NANO MANUFACTURING (MNM)	84.200	P200A120237			\$63,934
QUANTITATIVE CELLULAR ENGINEERING	84.200	P200A120246			\$92,797
21ST CENTURY COMMUNITY LEARNING CENTER (21CCLC) COHORT 8	84.287		PENNSYLVANIA DEPARTMENT OF EDUCATION	FC #4100071658	\$26,097
21ST CENTURY LEARNING COMMUNITY CENTERS -- COHORT 7	84.287		PENNSYLVANIA DEPARTMENT OF EDUCATION	4100068078	\$361,849
PENN GSE POSTDOCTORAL TRAINING PROGRAM IN THE EDUCATION SCIENCES	84.305	R305B100013			\$22,505
GEAR UP/AVID SUSTAINABILITY	84.334		SCHOOL DISTRICT OF PHILADELPHIA	571198	\$24,785
GEAR UP CCRCS	84.334		SCHOOL DISTRICT OF PHILADELPHIA	005/F16	\$34,839
PLN - POLITZ ACADEMY PROFESSIONAL DEVELOPMENT PARTNERSHIP FOR TEACHERS OF TITLE 1 CHILDREN	84.358		SCHOOL DISTRICT OF PHILADELPHIA	961-571745	\$14,905
PROFESSIONAL DEVELOPMENT FOR TEACHERS AND ADMINISTRATORS TO IMPROVE INSTRUCTION	84.358		GLOUCESTER CITY PUBLIC SCHOOLS	42815A	\$40,385
IMPROVING ENGLISH LANGUAGE LEARNERS' ACADEMIC WRITING: BUILDING A BRIDGE TO SUCCESS	84.365		SCHOOL DISTRICT OF PHILADELPHIA	570442	\$1,233
SUMMER INVITATIONAL INSTITUTE FOR TEACHERS OF ENGLISH LANGUAGE LEARNERS	84.365		SCHOOL DISTRICT OF PHILADELPHIA	570444	\$16,592
INVESTING IN THE NATIONAL WRITING PROJECT'S COLLEGE-READY WRITERS PROGRAM: EXPANDING THE REACH OF EFFECTIVE TEACHER-LEADERS TO SUPPORT ALL STUDENTS	84.367		NATIONAL WRITING PROJECT	92-PA06-B-SEED2016	\$1,890
NATIONAL WRITING PROJECT HIGH- NEED SCHOOL GRANT	84.367		NATIONAL WRITING PROJECT	92-PA06-B-SEED2012	\$4,615
SUMMER INVITATIONAL INSTITUTE FOR ADVANCED TEACHER LEADERSHIP DEVELOPMENT	84.367		NATIONAL WRITING PROJECT	92-PA06-B-SEED2012 AMEND 2A	\$10,606
GEAR UP - AVID PARTNERSHIPS	84.U11	312-M03-97AO-2260-3291	SCHOOL DISTRICT OF PHILADELPHIA	593/F11	\$157
PENN TREATY PROFESSIONAL DEVELOPMENT	84.U15	N/A	SCHOOL DISTRICT OF PHILADELPHIA	LCA 568572	-\$1,714
PHILADELPHIA BILINGUAL EDUCATION INSTITUTE, 2015	84.U26	N/A	SCHOOL DISTRICT OF PHILADELPHIA	572174	\$13,595
PARTNERSHIPS TO INCREASE COVERAGE IN COMMUNITIES - INSURING SHARED PROSPERITY	93.004		BENEFITS DATA TRUST	BENEFITS DATA TRUST	\$14,876
PHILADELPHIA INTEGRATED SYSTEM OF CARE EXPANSION (PISCE)	93.104		COMMUNITY BEHAVIORAL HEALTH	SUB TO 1U79SM062463	\$27,374
FAMILY PLANNING SERVICE	93.217		FAMILY HEALTH COUNCIL OF CENTRAL PA	5 FPHPA03160-02-00	\$62,498
PHILADELPHIA ALLIANCE FOR CHILD TRAUMA SERVICES (PACTS)	93.243		CITY OF PHILADELPHIA	1320657	\$86,026
RECOVERY-ORIENTED COGNITIVE THERAPY FOR INDIVIDUALS WITH SEVERE AND PERSISTENT MENTAL ILLNESS IN GEORGIA	93.243		GEORGIA STATE UNIVERSITY	SP00011772-01	\$90,664
PA HOSPITAL	93.243		CITY OF PHILADELPHIA	13-20104-03	\$97,569
OCCUPATIONAL SAFETY & HEALTH PROGRAM	93.262		MARSHFIELD CLINIC RESEARCH FOUNDATION	PRIME AWARD NO: 2U5OH009568-06 SUBAWARD NO: 60640	\$4,766
NEUROSCIENCE IN YOUR WORLD: A PARTNERSHIP FOR NEUROSCIENCE ACROSS THE K-12 SPECTRUM	93.273		FRANKLIN INSTITUTE	SUB TO 5R25DA033023	\$57,068
SHORT-TERM TRAINING: STUDENTS IN HEALTH PROFESSIONAL SCHOOLS	93.351	2-T35-OD-010919-16			\$105,473
A NATIONAL CURRICULUM IN CANCER GENOMICS FOR PATHOLOGY RESIDENTS SUPPLEMENT	93.398		BETH ISRAEL DEACONESS MEDICAL CENTER	01028566	\$919
AFFORDABLE CARE ACT (ACA) MATERNAL, INFANT AND EARLY CHILDHOOD HOME VISITING PROGRAM	93.505		UNITED WAY OF LANCASTER COUNTY	D89MC28289	\$9,216
AFFORDABLE CARE ACT (ACA) MATERNAL, INFANT AND EARLY CHILDHOOD HOME VISITING PROGRAM	93.505		UNITED WAY OF LANCASTER COUNTY	X10MC29500	\$401,608

The accompanying notes are an integral part of this schedule

UNIVERSITY OF PENNSYLVANIA
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS
SUMMARY OF PROGRAM CLUSTERS
Year Ended 6/30/2016

<i>Cluster Name/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification</i>	<i>Pass-Through Entity Name</i>	<i>Pass-Through Entity Identifying Number</i>	<i>Federal Expenditures</i>
THE OPTIMISTIC PROJECT - OPTIMIZING PATIENT TRANSFER, IMPACTING MEDICAL QUALITY, AND IMPROVING SYMPTOMS: TRANSFORMING INSTITUTIONAL CARE	93.621		INDIANA UNIVERSITY	PO #1244917	\$54,634
PA HOSPITAL	93.667		CITY OF PHILADELPHIA	13-20104-03	\$501,593
PA HOSPITAL	93.778		CITY OF PHILADELPHIA	13-20106-03	\$161,575
HOSPITAL PREPAREDNESS PROGRAM (HPP) EBOLA PREPAREDNESS AND RESPONSE ACTIVITIES	93.817		COMMONWEALTH OF PENNSYLVANIA	4100070411	\$960,000
GERIATRIC WORKFORCE ENHANCEMENT	93.837		UNIVERSITY OF PENNSYLVANIA	U1QHP287200100	\$45,856
IDENTIFICATION - VALIDATION OF PROGNOSTIC BIOMARKERS IN CHRONIC KIDNEY DISEASE	93.847		UNIVERSITY OF MICHIGAN	SUB TO K08	\$3,323
#SEXMESSAGES: SOCIAL MEDIA, SEXUAL RISK, & SUBSTANCE USE BEHAVIORS AMONG AFRICAN AMERICAN AND LATINO YOUTH	93.865		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	8879SC	\$15,562
NATIONAL BIOTERRORISM HOSPITAL PREPAREDNESS PROGRAM	93.889		COMMONWEALTH OF PENNSYLVANIA	4100062597	\$9,896
NATIONAL BIOTERRORISM HOSPITAL PREPAREDNESS PROGRAM	93.889		COMMONWEALTH OF PENNSYLVANIA	4100062641	\$13,865
NATIONAL BIOTERRORISM HOSPITAL PREPAREDNESS PROGRAM	93.889		COMMONWEALTH OF PENNSYLVANIA	4100062670	\$15,892
GROWING TOGETHER: UNIVERSITY ASSISTED COMMUNITY SCHOOL PARTNERSHIPS USING COMMUNITY FOOD SYSTEMS AS A CONTEXT FOR YOUTH EMPOWERMENT.	93.910	YEPMP120066-01-00			\$290,919
RYAN WHITE GRANT	93.914		CITY OF PHILADELPHIA	1320703-R6965	\$19,902
RYAN WHITE GRANT	93.914		CITY OF PHILADELPHIA	1320703-R5965	\$44,376
HIV EMERGENCY RELIEF PROJECTS GRANTS	93.914		CITY OF PHILADELPHIA	1320715-04 - RWS6668	\$73,999
PART A RW HIV/AIDS MINORITY AIDS INITIATIVE	93.914		CITY OF PHILADELPHIA	1320709-04 - RM6757	\$89,844
PART A RW HIV/AIDS MINORITY AIDS INITIATIVE	93.914		CITY OF PHILADELPHIA	1320709-03 - RM5757	\$213,550
HIV EMERGENCY RELIEF PROJECTS GRANTS	93.914		CITY OF PHILADELPHIA	1320715-03 - RS5668	\$234,841
RYAN WHITE HIV/AIDS TREATMENT EXTENSION ACT OF 2009 - PART A FOR FY2011	93.914		CITY OF PHILADELPHIA	RS4731 / 0920881-02 & -03 / AACO	\$339,389
OUTPATIENT EARLY INTERVENTION SERVICES WITH RESPECT TO HIV DISEASE - PART C	93.918		DREXEL UNIVERSITY	228084-6101	\$4,103
RW PART C HIV EARLY PREVENTION	93.918		CITY OF PHILADELPHIA	1420093-02	\$100,000
GRANTS TO PROVIDE OUTPATIENT EARLY INTERVENTION SERVICES WITH RESPECT TO HIV DISEASE COOPERATIVE AGREEMENTS FOR STATE-BASED COMPREHENSIVE BREAST AND CERVICAL CANCER EARLY DETECTION PROGRAMS	93.918	N/A			\$506,436
RYAN WHITE HIV/AIDS PROGRAM PART F DENTAL REIMBURSEMENT PROGRAM	93.919		FAMILY HEALTH COUNCIL OF CENTRAL PA	4100066441	\$39,416
HIV EMERGENCY RELIEF PROJECTS GRANTS	93.924	1 T22HA28903-01-00			\$27,809
HIV EMERGENCY RELIEF PROJECTS GRANTS	93.940		CITY OF PHILADELPHIA	1220442 - CPB5011	\$35,302
HIV EMERGENCY RELIEF PROJECTS GRANTS	93.940		CITY OF PHILADELPHIA	1620357 - CPB6011	\$35,528
PERC-SAMHSA PROJECT	93.958		ADAMS COUNTY, PENNSYLVANIA	PERC	\$160,792
PERC-SAMHSA PROJECT	93.958		ADAMS COUNTY, PENNSYLVANIA	PERC-SAMHSA	\$213,339
GERIATRIC WORKFORCE ENHANCEMENT	93.969		UNIVERSITY OF PENNSYLVANIA	1U1QHP287200100	\$10,115
KEYSTONE GERIATRICS CENTER FOR ENHANCING PRIMARY CARE AND COMMUNITY EDUCATION	93.969	1 U1QHP28720-01-00			\$669,593
DARTMOUTH/PENN RESEARCH ETHICS TRAINING AND PROGRAM DEVELOPMENT FOR TANZANIA	93.989		DARTMOUTH COLLEGE	885	\$23,087
MATERNAL AND CHILD HEALTH SERVICE BLOCK GRANT	93.994		SHADYSIDE HOSPITAL FOUNDATION	4100071256	\$30,286
MATERNAL AND CHILD HEALTH SERVICES BLOCK GRANT TO THE STATES	93.994		COMMONWEALTH OF PENNSYLVANIA	4100065681	\$125,936
DSAMH TRAUMA-INFORMED CARE EVALUATION	93.U01	031148	DE DIVISION OF SUBSTANCE ABUSE AND MENTAL HEALTH	031148-YEAR 5 (EXTENSION)	\$30,000
DSAMH TRAUMA-INFORMED CARE EVALUATION	93.U02	031148	DE DIVISION OF SUBSTANCE ABUSE AND MENTAL HEALTH	031148-YEAR 5 (FINAL)	\$49,000
IMPROVING CLINICAL CARE	93.U03	1620129-01	CITY OF PHILADELPHIA	1620129-01	\$30,000
PUBLIC HEALTH APPROACHES TO IMPROVING CLINICAL CARE	93.U04	1620129	CITY OF PHILADELPHIA	1620129	\$75,000
RYAN WHITE PART D	93.U05	166307	CITY OF PHILADELPHIA	166307	\$28,824
EVALUATION OF PROGRAMS TO PROVIDE SERVICES TO PERSONS WHO ARE HOMELESS WITH MENTAL AND/OR SUBSTANCE USE DISORDERS	93.U06	23-312-0210700-M4	RESEARCH TRIANGLE INSTITUTE INTERNATIONAL, INC.	23-312-0210700-M4	\$50,115
EVALUATION OF PROGRAMS TO PROVIDE SERVICES TO PERSONS WHO ARE HOMELESS WITH MENTAL AND/OR SUBSTANCE USE DISORDERS	93.U07	23-312-0210700-M5	RESEARCH TRIANGLE INSTITUTE INTERNATIONAL, INC.	23-312-0210700-M5	\$121,709
CHAIR PERSON FOR STEERING COMMITTEE	93.U08	HHSN276201200534P			\$26,830
LEND: LEADERSHIP EDUCATION IN NEURODEVELOPMENTAL AND RELATED DISABILITIES	93.U10	T73MC00051	CHILDREN'S HOSPITAL OF PHILADELPHIA	204510613 / PO #960258RSUB	-\$1
NATIONAL NETWORK OF LIBRARIES OF MEDICINE: MID-ATLANTIC REGION	93.U18	HHSN276201100003C	UNIVERSITY OF PITTSBURGH	0049274-Y4015	\$10,903
HISPANIC NURSES EDUCATING MULTICULTURAL COMMUNITIES ON THE PATIENT PROTECTION & AFFORDABLE CARE ACT	93.U29	1-CPIMP-14-072-01	NATIONAL ASSOCIATION OF HISPANIC NURSES	SUB TO 1 CPIMP141072-01-00	\$46,934
IPA (INTERGOVERNMENTAL PERSONNEL ACT)	93.U31	IPA AGREEMENT			\$77,985
NEXT STEPS AMERICORPS (REVISED PD#10044961)	94.006		COMMONWEALTH OF PENNSYLVANIA	4100067714	-\$17,881
NEXT STEPS AMERICORPS FY15/16	94.006		COMMONWEALTH OF PENNSYLVANIA	4100070812	\$113,499
VISTA ADMIN	94.013	12VSAPA008			\$6,364
VISTA ADMIN	94.013	12VSAPA008			\$29,211
BUREAU OF PUBLIC HEALTH PREPAREDNESS	97.036		COMMONWEALTH OF PENNSYLVANIA	4100062680?	\$21,358

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SOUTH SUDAN MEDIA EDUCATIONAL DEVELOPMENT PROJECT: STRENGTHENING FREE AND INDEPENDENT MEDIA IN SOUTH SUDAN	98.002		INTERNEWS NETWORK, INC.	SG-R-SS1301-4	\$22,479
TOTAL OTHER PROGRAMS					<u>\$18,055,285</u>
RESEARCH AND DEVELOPMENT AND RESEARCH TRAINING CLUSTER PROGRAMS					
USDA SWINE ENTERIC CORONAVIRUS DISEASE COOPERATIVE AGREEMENT	10.025		COMMONWEALTH OF PENNSYLVANIA	PO 4300438005	\$342
MAINTENANCE OF MEMBERSHIP LABORATORY REQUIREMENTS	10.025	16-9419-0163-CA			\$11,153
MAINTENANCE OF MEMBERSHIP LABORATORY REQUIREMENTS	10.030	15-9419-0163			\$55,000
PENV FORMULA CIP GRANT FY 2015	10.207	2015-36100-05148			-\$666
WHAT DRIVES DISPARITIES IN FOOD PURCHASES? AN EXAMINATION OF DIFFERENTIALS IN PRICE SENSITIVITY, NUTRITIONAL PREFERENCES, AND RETAIL ACCESS ACROSS THE SOCIOECONOMIC SPECTRUM	10.250	58-4000-2-0084			\$8,891
A SPATIAL ANALYSIS OF FOOD STORE CHOICE AND IMPLICATIONS FOR DIET	10.253		UNIVERSITY OF KENTUCKY	30481-10944-14-163	\$20,170
NOTIFIABLE AVIAN INFLUENZA (NAI) IN PENNSYLVANIA	10.304		COMMONWEALTH OF PENNSYLVANIA	ME #44112704	\$157,732
ADVANCING MEASUREMENT AND MODELING OF HEALTHY FOOD AND ACTIVITY LANDSCAPES	10.310	2010-85215-20659			\$11,956
IMPROVING HONEY BEE QUEEN QUALITY USING IN VITRO ARTIFICIAL SELECTION AND SOCIOGENOMICS	10.310	2014-67013-21725			\$52,997
INCREASING ECONOMIC AND ENVIRONMENTAL SUSTAINABILITY OF SMALL AND MEDIUM SIZED DAIRY FARMS	10.310	2010-85211-20466			\$53,594
ROLE OF FISH IMMUNOGLOBULIN IGT IN SKIN AND GILL MUCOSAL IMMUNE AND PROTECTIVE RESPONSES	10.310	2013-67015-21225			\$54,116
ROBOT SWARMS AND HUMAN SCOUTS FOR PERSISTENT MONITORING OF SPECIALTY CROPS	10.310	2015-67021-23857			\$127,942
ALLELIC VARIATION OF SALMONELLA COLONIZATION FACTORS	10.310	2013-67015-21285			\$195,374
EVALUATING NUTRIENT CYCLING IN THE URBAN ENVIRONMENT: A COLLABORATIVE RESEARCH APPROACH	10.679	14-JV-11242308-138			\$29,072
EFFECTS OF ENVIRONMENTAL CHANGES AND LAND-USE HISTORY ON CARBON STOCK AND VEGETATION DYNAMICS IN THE DELAWARE RIVER BASIN	10.679	14-JV-11242306-083			\$30,835
FOOD RETAILERS' RESPONSE TO SNAP	10.RD	58-4000-5-0092			\$24,833
ADVANCED REGIONAL AND DECADEAL PREDICTIONS OF COASTAL INUNDATION FOR THE U.S. ATLANTIC AND GULF COASTS.	11.431	NA11OAR4310101			\$171,079
COMPLEX AND FRUSTRATED MAGNETIC STRUCTURES	11.609	70NANB13H152			\$32,120
PROPOSAL FOR CODES AND STANDARDS PUBLIC POLICY CASE STUDIES	11.620	70NANB15H344			\$28,815
PROPOSAL FOR COURSE MODULES ON CODES, STANDARDS, AND THE LAW	11.620	70NANB15H343			\$34,898
DYNAMIC CAMOUFLAGE IN BENTHIC AND PELAGIC CEPHALOPODS: AN INTERDISCIPLINARY APPROACH TO CRYPTIS BASED ON COLOR, REFLECTION AND BIOLUMINESCENCE.	12.300		DUKE UNIVERSITY	13-ONR-1042	-\$2,133
ANYTIME RESOURCE OPTIMIZATION WITH SLIDING PERFORMANCE FOR MISSION PLANNING AND SENSOR MANAGEMENT	12.300		CARNEGIE MELLON UNIVERSITY	1141265-356580	\$12,017
NANOCRYSTAL SUPERLATTICE THERMAL INTERFACE MATERIALS	12.300	N00014-12-1-0314			\$17,951
THEORY AND VIRTUALIZATION PLATFORM FOR COMPOSITIONAL REAL-TIME SYSTEMS	12.300	N00014-13-1-0802			\$24,202
SEED PROJECT: CORRECT-BY-CONSTRUCTION AUTONOMY PROTOCOLS FOR OPEN, RECONFIGURABLE, NETWORKED NAVAL SYSTEMS	12.300	N00014-15-1-2310			\$27,221
VERTICAL CHARGE ORDERING TRANSISTORS ENABLED BY STRUCTURALLY COUPLED HETEROINTERFACES	12.300		DREXEL UNIVERSITY	204101-3668	\$36,685
ANTIDOTE: ADAPTIVE NETWORKS FOR THREAT AND INTRUSION DETECTION OR TERMINATION	12.300		UNIVERSITY OF SOUTHERN CALIFORNIA	138804	\$43,253
CYBER PROTOCOLS IN THE PHYSICAL ENVIRONMENT	12.300	N00014-15-1-2047			\$45,818
DECENTRALIZED REASONING IN REDUCED INFORMATION SPACES	12.300		CARNEGIE MELLON UNIVERSITY	1141207-236233	\$74,563
AUTOMATION IN CRYPTOLOGY	12.300		STANFORD UNIVERSITY	60106443-107484-B	\$75,589
INFERENCE AND DYNAMICS ON NETWORKS	12.300	N00014-14-1-0823			\$77,715
MISSION-ORIENTED RESILIENT CLOUD PROGRAM (MRC)	12.300		BAE SYSTEMS	776780	\$92,735
SHIPBOARD AUTONOMOUS FIREFIGHTING ROBOT (SAFFIR)	12.300		VIRGINIA POLYTECHNIC INSTITUTE & STATE UNIVERSITY	450066-19314	\$96,811
LIFELONG TRANSFER LEARNING FOR HETEROGENOUS TEAMS OF AGENTS IN SEQUENTIAL DECISION PROCESSES	12.300		WASHINGTON STATE UNIVERSITY	122700_g003315	\$97,752
DYNAMIC, REAL-TIME VIRTUALIZATION AND CLOUD COMPUTING	12.300	N00014-16-1-2195			\$99,979
INTERACTIVE TRANSFER OF CONTINUAL LIFELONG LEARNING	12.300		BRYN MAWR COLLEGE	2-44101	\$130,955
NETWORKS OPPOSING BOTNETS (NOBOT) PHASE II	12.300	N00014-12-1-0757			\$135,047
FINITE-TEMPERATURE MOLECULAR DYNAMICS AND FIRST PRINCIPLE MODELING OF OXIDE SOLID SOLUTIONS	12.300	N00014-12-1-1033			\$136,382
UTILIZING SYNTHETIC BIOLOGY TO CREATE PROGRAMMABLE MICRO-BIO-ROBOTS	12.300		BOSTON UNIVERSITY	4500000554	\$137,179
BEYOND LABELS: GENERALIZED SUPERVISION FOR STRUCTURED LEARNING	12.300	N00014-10-1-0746			\$137,260

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SMART ADAPTIVE RELIABLE TEAMS FOR PERSISTENT SURVEILLANCE (SMARTS)	12.300		MASSACHUSETTS INSTITUTE OF TECHNOLOGY	5710002644	\$143,767
ROBOT ECOLOGIES: BIOLOGICALLY INSPIRED HETEROGENEOUS TEAMS	12.300		GEORGIA INSTITUTE OF TECHNOLOGY	RF683-G1	\$163,811
MATERIALS FOR EXTREME MANIPULATION OF LIGHT, SOUND AND HEAT	12.300	N00014-15-1-2029			\$169,322
COGNITIVE COMPUTATIONS: A NETWORK PERSPECTIVE	12.300	N00014-15-1-2516			\$173,588
LOCAL-TO-GLOBAL: ALGEBRAIC TOPOLOGY FOR DATA, NETWORKS, AND SYSTEMS	12.300	N00015-16-1-2010			\$173,732
LARGE-SCALE PARAPHRASING FOR NATURAL LANGUAGE UNDERSTANDING	12.300		JOHNS HOPKINS UNIVERSITY	2001801140 / FA8750-13-2-0017	\$197,786
PERCEPTION-BASED, REACTIVE, TEMPORAL-LOGIC PLANNING FOR AUTONOMOUS DECK OPERATIONS	12.300	N00014-13-1-0778			\$205,567
TOPOLOGICAL REPRESENTATIONS AND ALGORITHMS FOR ROBOT SWARMS	12.300	N00014-14-1-0510			\$246,178
UNDERSTANDING THE PHOTOVOLTAIC EFFICIENCY OF ORGANOMETALLIC PEROVSKITES	12.300	N00014-14-1-0761			\$248,418
NEURAL AND PSYCHOPHYSICAL VISUAL MOTION MODELS FOR UGV PERCEPTION AND NAVIGATION	12.300	N000014-11-1-0744			\$259,016
PHENOTYPIC AND GENOTYPIC MARKERS OF PERFORMANCE VULNERABILITY TO SLEEP LOSS	12.300	N00014-11-1-0361			\$259,302
NEW PARADIGMS FOR SCALABLE ONLINE DECENTRALIZED OPTIMIZATION	12.300	N00014-12-1-0997			\$307,471
RICH REPRESENTATIONS WITH EXPOSED SEMANTICS FOR DEEP VISUAL REASONING	12.300		CARNEGIE MELLON UNIVERSITY	1141221-258509	\$318,382
COUPLING OF METABOLIC AND MECHANICAL FUNCTION IN CELL PHYSIOLOGY	12.300	N00014-14-1-0538			\$368,471
PROBALOGICAL HYBRID DEFENSE (PHD): A NEW APPROACH TO AUTOMATED REASONING AND ITS APPLICATION TO CYBERDEFENSE	12.300	N00014-15-1-2006			\$453,729
SPARCS: SYNTHESIS OF PLATFORM-WEVE ATTACHE-RESILIENT CONTROL SYSTEMS	12.300	FA8760-12-2-0247			\$806,303
LARGE-AREA, 3D OPTICAL METAMATERIALS WITH TUNABILITY AND LOW LOSS	12.300	N00014-10-1-0942			\$1,091,820
IMAGE BASED BIOMARKER OF BREAST CANCER RISK: ANALYSIS OF RISK DISPARITY AMONG MINORITY POPULATIONS	12.420		DELAWARE STATE UNIVERSITY	09-004MH	-\$2,399
DEVELOPMENT AND TRANSLATION OF A TISSUE-ENGINEERED DISC IN A PRECLINICAL RODENT MODEL	12.420	W81XWH-10-1-0949			-\$1,016
A FLEXIBLE BIOMIMETIC NANOPARTICLE PLATFORM FOR TARGETED IMAGING AND DRUG TREATMENT OF PROSTATE TUMOR	12.420	W81XWH-10-1-0604			-\$981
AR120166 - TAILORED BEHAVIORAL INTERVENTION FOR INSOMNIA IN CHILDREN WITH AUTISM SPECTRUM DISORDERS	12.420	W81XWH-13-1-0185 - CLIN 0001			-\$241
BC111503P1 REGULATION OF METASTASIS AND DNA DAMAGE RESISTANCE PATHWAYS BY TRANSPOSABLE ELEMENTS	12.420	W81XWH-12-1-0181			-\$134
NF110152: CHEMOSENSORY FUNCTION IN NEUROFIBROMATOSIS	12.420	1305199			\$806
SUPPLEMENTAL PERIOPERATIVE OXYGEN TO REDUCE SURGICAL SITE INFECTION AFTER HIGH ENERGY FRACTURE SURGERY	12.420		JOHNS HOPKINS UNIVERSITY	8487	\$2,640
PROSTATE CANCER RESEARCH PROGRAM, SYNERGISTIC IDEA DEVELOPMENT AWARD	12.420		THOMAS JEFFERSON UNIVERSITY	080-27000-X15001	\$3,798
REGULATION OF METASTASIS AND DNA DAMAGE RESISTANCE PATHWAYS BY TRANSPOSABLE ELEMENTS	12.420	W81XWH-12-1-0180			\$4,750
VALIDATION OF APF AS A URINARY BIOMARKER FOR INTERSTITIAL CYSTITIS	12.420		COMMONWEALTH MEDICAL COLLEGE	SUB TO W81XWH-13-1-0454	\$7,547
FULL PROPOSAL- STAGE 2: MAINTAINING HYDRATION OF DOGS IN WORKING ENVIRONMENTS	12.420	W81XWH-13-1-0038			\$7,615
CYCLIN E1 AS A THERAPEUTIC TARGET IN WOMEN WITH HIGH-GRADE SERIOUS OVARIAN CANCER AND PRIMARY TREATMENT FAILURE	12.420		UNIVERSITY OF MELBOURNE	SUB TO W81XWH-15-1-0160	\$23,466
DEVELOPMENT OF ORALLY BIOAVAILABLE THERAPEUTICS BY THE CHLOROPLAST EXPRESSION SYSTEM					
COUNTER MUSCLE DEGENERATION, WEAKNESS, AND FIBROSIS IN DMD	12.420		UNIVERSITY OF FLORIDA	UFDSP00011237	\$26,513
LC130824 ULTRA-SENSITIVE, GENETICALLY ENCODED CONTRAST AGENTS FOR LUNG CANCER DIAGNOSIS	12.420	W81XWH-14-1-0424			\$27,720
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 DISEASE NEUROIMAGING INITIATIVE	12.420		NORTHERN CALIFORNIA INSTITUTE FOR RESEARCH AND EDUCATION	1820	\$29,260
NADPH-GENERATING ENZYMES AS POTENTIAL TARGETS FOR PROSTATE CANCER THERAPY	12.420	W81XWH-15-1-0678			\$33,128
VASOPRESSIN SUPPLEMENTATION DURING THE RESUSCITATION OF HEMORRHAGIC SHOCK	12.420		NATIONAL TRAUMA INSTITUTE	NTI-TRA-09-062	\$36,274
(NF130052) ZEBRAFISH AS A MODEL TO STUDY NF1-ASSOCIATED LEARNING DEFICITS	12.420	W81XWH-14-1-0076			\$38,411
ANTIBODY TARGETING OF THE ALK ONCOGENE IN NEUROBLASTOMA	12.420	W81XWH-12-1-0343			\$41,835
INTERFAMILIAL VIOLENCE FOLLOWING MENTAL ILLNESS IN RETURNING ARMY SERVICE MEMBERS	12.420		CHILDREN'S HOSPITAL OF PHILADELPHIA	27235-321090315/PO #960177RSUB	\$42,820
DETECTION OF EARLY LUNG CANCER AMONG MILITARY PERSONNEL (DECAMP)	12.420		BOSTON UNIVERSITY	9500300580	\$74,315
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 NEUROIMAGING INITIATIVE (ADNI)	12.420		NORTHERN CALIFORNIA INSTITUTE FOR RESEARCH AND EDUCATION	1686	\$92,622
RAPID IN VIVO VALIDATION OF TUMOR SUPPRESSOR GENE FUNCTION IN PROSTATE CANCER PROGRESSION	12.420	W81XWH-15-1-0085			\$95,971

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DEVELOPING GENE SILENCING FOR THE STUDY AND TREATMENT OF DYSTONIA	12.420		CHILDREN'S HOSPITAL OF PHILADELPHIA	FP00018899_SUB01_02	\$98,012
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			\$106,894
A CELL-BASED APPROACH TO EARLY PANCREATIC CANCER DETECTION	12.420	W81XWH-15-1-0457			\$123,535
PT140178-THE EFFICACY OF 90-MINUTE VS 60-MINUTE SESSIONS OF PROLONGED EXPOSURE FOR PTSD: A RANDOMIZED CONTROL TRIAL IN ACTIVE DUTY MILITARY PERSONNEL	12.420	W81XWH-15-1-0555			\$134,889
POSITIONING VASCULARIZED COMPOSITE ALLOTRANSPLANTATION IN THE SPECTRUM OF TRANSPLANTATION	12.420		CHILDREN'S HOSPITAL OF PHILADELPHIA	321113 / PO #960955RSUB	\$135,566
TUMOR-ASSOCIATED NEUTROPHILS IN HUMAN LUNG CANCER	12.420	W81XWH-15-1-0717			\$145,595
PR120935P1: ENHANCING THE EFFICACY OF TARGETED RADIOTHERAPY FOR NEUROBLASTOMA	12.420	W81XWH-13-1-0406			\$145,928
TISSUE-ENGINEERED NERVE GRAFTS FOR REPAIR OF CURRENTLY UNTREATABLE PERIPHERAL NERVE INJURY	12.420	W81XWH-15-1-0466			\$149,775
THE MYC REGULATED LONG NON-CODING RNA DANCER IN PROSTATE CANCER	12.420	W81XWH-15-1-0630			\$150,651
AR110189: EXAMINATION OF THE MGLUR-MTOR PATHWAY FOR THE IDENTIFICATION OF POTENTIAL THERAPEUTIC TARGETS TO TREAT FRAGILE X	12.420	W81XWH-12-1-0596			\$152,925
CHARACTERIZATION OF A NOVEL RECURRENT NONCODING GENOMIC ALTERATION IN BREAST CANCER	12.420	W81XWH-15-1-0041			\$166,792
TARGETED RE-POLARIZATION OF TUMOR-ASSOCIATED MACROPHAGES IN LUNG CANCER	12.420	W81XWH-15-1-0362			\$169,717
DEFINING THE PATHOPHYSIOLOGICAL ROLE OF TAU IN EXPERIMENTAL TBI	12.420	W81XWH-14-1-0275			\$183,013
FLT-PET/CT AS A BIOMARKER OF THERAPEUTIC RESPONSE IN PEMETREXED THERAPY FOR NON-SMALL CELL LUNG CANCER	12.420	W81XWH-14-1-0197			\$190,372
MACROPHAGES AS A THERAPEUTIC TARGET IN TUMOR DORMANCY AND BREAST CANCER RECURRENCE	12.420	W81XWH-13-1-0375			\$208,751
BC123187: ORGANTROPIC METASTATIC SECRETOMES AND EXOSOMES IN BREAST CANCER	12.420	W81XWH-13-1-0426			\$215,492
COOPERATIVITY BETWEEN ONCOGENIC PKC EPSILON AND PTEN LOSS IN PROSTATE CANCER PROGRESSION	12.420	W81XWH-14-1-053530			\$218,497
PC120820: TRNA AS A NOVEL TARGET FOR PROSTATE CANCER THERAPY	12.420	W81XWH-13-1-0446			\$223,169
NOVEL BIOCOMPATIBLE WOUND DRESSINGS FOR CHRONIC PAIN MANAGEMENT	12.420	W81XWH-15-2-0013			\$238,276
WEB-PE: INTERNET-DELIVERED PROLONGED EXPOSURE THERAPY FOR PTSD	12.420	W91XWH-14-1-0008			\$241,234
YY1 CONTROL OF AID-DEPENDENT LYMPHOMAGENESIS	12.420	W81XWH-14-1-0171			\$249,287
MELANOPSIN-SPECIFIC CONTRIBUTIONS TO PHOTOPHOBIA IN BRAIN TRAUMA	12.420	W81XWH-15-1-0447			\$255,283
ROLE OF AUTOPHAGY IN DORMANT TUMOR CELL SURVIVAL AND RECURRENCE	12.420	W81XWH-14-1-0404			\$301,759
REPAIR OF MAJOR NERVE TRAUMA USING TISSUE-ENGINEERED NERVE GRAFTS: IND-ENABLING NONCLINICAL EFFICACY STUDIES IN SWINE	12.420		RUTGERS UNIVERSITY	SUB # 5299 AFIRM	\$302,150
TARGETING ANTI-VIRAL AND NOTCH3 PATHWAYS TO INHIBIT STROMA-MEDIATED TREATMENT RESISTANCE	12.420	W81XWH-14-1-0450			\$345,531
PROTON THERAPY DOSE CHARACTERIZATION AND VERIFICATION	12.420	W81XWH-09-2-0174			\$355,719
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			\$374,384
DISCOVERY OF HOST FACTORS AND PATHWAYS UTILIZED IN HANTAVIRAL INFECTION	12.420	W81XWH-14-1-0204			\$375,734
ROLE OF HMGB1 IN TRANSFUSION-MEDIATED LUNG INFLAMMATION	12.420	W81XWH-15-1-0363			\$396,681
DEVELOPMENT OF A NOVEL TRANSLATIONAL MODEL OF VIBRATION INJURY TO THE SPINE TO STUDY ACUTE INJURY IN VIVO	12.420	W81XWH-10-2-0140			\$441,382
MECHANISMS AND TREATMENT OF OLIGOMETASTASES	12.420	W81XWH-09-1-0339			\$491,553
PREVENTING RISKY DRINKING IN VETERANS TREATED WITH PRESCRIPTION OPIOIDS	12.420	W81XWH-14-1-0060			\$560,242
THE STRONG STAR MULTIDISCIPLINARY PTSD RESEARCH CONSORTIUM	12.420	W81XWH-08-2-0111			\$683,365
PT110785: TAU ACCUMULATION IN TBI: MECHANISMS AND TREATMENT	12.420	W81XWH-13-1-0052			\$710,702
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			\$1,512,890
IMPLEMENTATION OF PROLONGED EXPOSURE IN THE ARMY: IS CONSULTATION NECESSARY FOR EFFECTIVE DISSEMINATION	12.420	W81XWH-12-2-0116			\$1,922,780
THE PHYSICS OF MUD	12.431	W911NF-16-1-0290			\$1,260
ELECTROCHEMICAL IMPEDANCE SPECTROMETER WITH AN ENVIRONMENTAL CHAMBER FOR RAPID SCREENING OF NEW PRECISE COPOLYMERS	12.431	W911NF-14-1-0466			\$5,960
II, A, 2, 9.1: CURVATURE DIRECTED ASSEMBLY OF PARTICLES INTO RECONFIGURABLE STRUCTURES AT FLUID INTERFACES	12.431	W911NF-16-1-0288			\$7,604
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			\$37,421

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IDENTIFYING THE NEURAL SUBSTRATES OF EMOTIONAL AROUSAL: TOWARDS A PATH TO STRESS RESISTANCE	12.431		CHILDREN'S HOSPITAL OF PHILADELPHIA	321104-Y2-4/PO #960194RSUB	\$50,003
INFERRING MICROBIAL FITNESS LANDSCAPES	12.431	W911NF-12-1-0552			\$63,179
RAPID SCREENING OF NEW PRECISE COPOLYMERS: MORPHOLOGY AND IONIC CONDUCTIVITY	12.431	W911NF-13-1-0363			\$94,588
IDENTIFYING THE NEURAL SUBSTRATES OF EMOTIONAL AROUSAL: TOWARDS A PATH TO STRESS RESISTANCE	12.431		CHILDREN'S HOSPITAL OF PHILADELPHIA	321104 / PO #961079RSUB	\$95,063
QUANTUM CONTROL AND ENGINEERING OF DEFECTS IN BORON NITRIDE	12.431	W911NF-15-1-0589			\$96,886
DEVELOPING A BETTER CANINE WARRIOR: PERFORMANCE ASSESSMENT, ASSOCIATED PHENOTYPES AND GENOME-WIDE ASSOCIATION MAPPING FOR SUPERIOR INTELLIGENCE IN MILITARY WORKING DOGS (MWDIG)	12.431	W911NF-14-1-0574			\$105,183
GRANULARITY AND JAMMING: A NEW APPROACH TO UNDERSTANDING AND PREDICTING NEAR-THRESHOLD SEDIMENT TRANSPORT	12.431	W911NF-13-1-0458			\$110,633
NEAR AND FAR-FIELD INTERFACES TO DNA-GUIDED NANOSTRUCTURES FROM RF TO LIGHTWAVE: EXPLOITING THE SPECTRUM	12.431		UNIVERSITY OF CALIFORNIA, IRVINE	2010-2511	\$123,504
IDENTIFYING THE NEURAL SUBSTRATES OF EMOTIONAL AROUSAL: TOWARDS A PATH TO STRESS RESISTANCE	12.431		CHILDREN'S HOSPITAL OF PHILADELPHIA	321104-Y3-01/PO #960186RSUB	\$158,778
DASHER: DYNAMICALLY ADAPTIVE SWARM OF HETEROGENEOUS ROBOTS	12.431	W911NF-13-1-0350			\$166,634
DYNAMIC NETWORK NEUROSCIENCE: PROBING ADAPTATION OF LARGE-SCALE NEURAL CIRCUITS	12.431	W911NF-14-1-0679			\$194,272
THE SPATIOTEMPORAL RESOLUTION OF COGNITIVE SIGNALS REVEALED THROUGH HIGH-DENSITY UECOG MAPPING	12.431	W911NF-14-1-0173			\$220,060
BLAST INDUCED THRESHOLD FOR NEURONAL NETWORKS (BITNET)	12.431	W911NF-10-1-0526			\$866,546
EVOLUTION OF CULTURAL NORMS AND DYNAMICS OF SOCIO-POLITICAL CHANGE	12.431	W911NF-12-1-0509			\$1,565,540
BAYESIAN TRACKING WITHIN A FEEDBACK SENSING ENVIRONMENT	12.800		UNIVERSITY OF WASHINGTON	745882	-\$1,123
FORMAL SYNTHESIS OF SOFTWARE-BASED CONTROL PROTOCOLS FOR FRACTIONATED, COMPOSABLE AUTONOMOUS SYSTEMS	12.800		CALIFORNIA INSTITUTE OF TECHNOLOGY	102-1093654	\$7,736
(YIP) A UNIFIED ALGEBRAIC AND LOGIC-BASED FRAMEWORK TOWARDS SAFE ROUTING IMPLEMENTATIONS	12.800	FA9550-12-1-0327			\$21,853
SEMANTICS, FORMAL REASONING, AND TOOL SUPPORT FOR QUANTUM PROGRAMMING	12.800		TULANE UNIVERSITY	TUL-SCC-553957-15/16	\$44,135
UNDERSTANDING COGNITIVE DECISION MAKING VIA NEAREST NEIGHBOR ALGORITHMS IN MACHINE LEARNING	12.800	FA9550-15-1-0002			\$78,115
FUNDAMENTAL STUDIES OF ENDOTHERMIC REFORMING REACTIONS ON ACID CATALYSTS	12.800	FA9550-14-1-0302			\$85,435
ULTRASTRONG CARBON THIN FILMS FROM DIAMOND TO GRAPHENE UNDER EXTREME CONDITIONS: PROBING ATOMIC-SCALE INTERFACIAL MECHANISMS TO ACHIEVE ULTRALOW FRICTION AND WEAR	12.800	FA2386-15-1-4109			\$99,836
TOPOLOGICAL PRIVACY	12.800		CARNEGIE MELLON UNIVERSITY	1150127-320589	\$118,391
QUANTUM METAPHOTONICS AND METAMATERIALS: FROM SINGLE EMMITTERS TO STRONGLY CORRELATED SYSTEMS	12.800		BROWN UNIVERSITY	00000555/PO #P280816	\$121,234
(MURI-10) SCIENCE OF CYBER SECURITY: MODELING, COMPOSITION AND MEASUREMENT	12.800		STANFORD UNIVERSITY	29183000-51677-A	\$158,790
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	\$177,675
ELECTRON AND ENERGY TRANSFER DYNAMICS IN HOMOGENEOUS AND INHOMOGENEOUS ENVIRONMENTS	12.800	FA9550-13-1-0157			\$223,493
GEOMETRY AND TOPOLOGY OF COMPLEX NETWORKS	12.800	FA9550-13-1-0097			\$484,986
CHASE: CONTROL OF HETEROGENEOUS AUTONOMOUS SENSORS FOR SITUATIONAL AWARENESS	12.800	FA9550-10-1-0567			\$1,506,331
LOCAL-GLOBAL PRINCIPLES AND FIELD INVARIANTS	12.901	H98230-14-1-0145			-\$1
LINGUISTIC RESOURCES FOR MULTILINGUAL DOCUMENT CLASSIFICATION, ANALYSIS AND INTERPRETATION	12.910	HR0011-08-1-0004			-\$15,000
DEDOS: DECLARATIVE DISPERSION-ORIENTED SOFTWARE	12.910	HR0011-16-C-0056			\$4,657
TACTICAL HAZARDOUS OPERATIONS ROBOT (THOR)	12.910		VIRGINIA POLYTECHNIC INSTITUTE & STATE UNIVERSITY	450179-19314A	\$17,255
TRANSIENT SILICON ELECTRONIC INTERFACES TO THE BRAIN	12.910		UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN	2014-02569-01	\$49,689
TACTICAL HAZARDOUS OPERATIONS ROBOT (THOR)	12.910		UNIVERSITY OF CALIFORNIA, LOS ANGELES	0205 G SB098	\$110,527
NEURAL MECHANISMS OF INFLUENCE, DETERRENCE AND MESSAGE PROPAGATION	12.910	D14AP00048			\$203,564
EXPLOITING MECHANISMS OF INFLUENCE, DETERRENCE AND MESSAGE PROPAGATION	12.910	HR0011-15-2-0023			\$217,723
EXPLOITING MECHANISMS OF INFLUENCE, DETERRENCE AND MESSAGE PROPAGATION	12.910				\$217,723
EXPLORE 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	\$232,227
		2014-14042400005 CLIN			
DATA RESOURCES ALADDIN VIDEO EVALUATIONS	12.910	0001			\$291,044

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(DARPA) CODON: CATEGORIFICATION OF DATA OVER NETWORKS	12.910	FA9550-12-1-0416			\$332,339
BIOCHRONICITY: TIME, EVOLUTION, NETWORKS AND FUNCTION	12.910		DUKE UNIVERSITY	12-DARPA-1068	\$739,737
		HR0011516626/HR001151685			
FALCON: FAST, AGGRESSIVE, LIGHTWEIGHT FLIGHT IN CONSTRAINED ENVIRONMENTS	12.910	0			\$1,061,931
RAPID AB ISOLATION AND DELIVERY BY RECOMBINANT AAV TECHNOLOGY (RAID-RAT)	12.910	W911NF-13-2-0036			\$1,278,685
REORIENT: RESOURCES FOR OPERATIONALLY RELEVANT INFORMATION EXTRACTION FROM NON-EXPLICIT TEXT	12.910	FA8750-13-2-0045			\$2,797,920
IMMEDIATE AND PERSISTENT E-DNA PROTECTION AGAINST DENGUE	12.910	W31P4Q-13-1-0003			\$3,823,083
MEMORY ENHANCEMENT WITH MODELING, ELECTROPHYSIOLOGY, AND STIMULATION (MEMES)	12.910	N66001-14-4032			\$6,475,067
ROBOTIC PERCEPTION, INTELLIGENCE, AND DEXTEROUS MANIPULATION & UNIQUE MOBILITY	12.RD	W911NF-10-2-0016	GENERAL DYNAMICS ROBOTIC SYSTEMS	PO #2013-01025	-\$189,409
NEW ANTIBOTICS TARGETING THE BIOENERGETICS OF CATEGORY A AND B BACTERIA	12.RD	HDTRA1-10-C-0043			-\$62,946
STATESIM FOR USE WITHIN A MODEL PREDICTIVE CONTROL FRAMEWORK (MPCF)	12.RD	N41756-13-C-3048			-\$20,796
CLEAN-SLATE DESIGN OF RESILIENT, ADAPTIVE SECURE HOSTS (CRASH)	12.RD	BAA-10-70	BAE SYSTEMS	739528	-\$2,527
SELECTABLE ANONYMITY FOR ENABLING SAFER TELECOMMUNICATIONS (SAFEST)	12.RD	N66001-11-C-4020			-\$1,676
SURFACE COAGULATION STUDY	12.RD	W81XWH-14-2-0134	HENRY M. JACKSON FOUNDATION	818633	-\$84
LOW OVERHEAD OBSERVATIONS KEEPING OPERATIONAL UNDER THREATS (LOOKOUT)	12.RD	HR0011-16-C-0061	APPLIED COMMUNICATION SCIENCE	PO-0008421	\$170
THE NATURAL HISTORY OF THE PROGRESSION OF ATROPHY SECONDARY TO STARGARDT DISEASE: A RETROSPECTIVE LONGITUDINAL OBSERVATIONAL STUDY	12.RD	W81XWH-07-1-0720 AND			
SQUAD-X	12.RD	W81XWH-09-2-0189	FOUNDATION FIGHTING BLINDNESS	NNSP-CL-0413-0077-UPENN.NER	\$1,916
PROGRESSIVE MODEL GENERATION FOR ADAPTIVE RESILIENT SYSTEM SOFTWARE	12.RD	W911NF-16-C-0003	KITWARE, INC.	K001306-00-S03	\$3,598
TAMBA: TESTING AND MODELING OF BRANDEIS ARTIFACTS	12.RD	N00014-15-C-0126	GRAMMATECH	GT S14-04	\$11,630
BRASS	12.RD	BAA-15-29	GALOIS, INC.	2015-016	\$14,662
ARTIFICIAL INTELLIGENCE AND ROBOTICS FOR DISTRIBUTED AUTONOMOUS SYSTEMS (AIRDAS)	12.RD	FA8750-16-C-007	BAE SYSTEMS	921073	\$17,022
THE NATURAL HISTORY OF THE PROGRESSION OF ATROPHY SECONDARY TO STARGARDT DISEASE: A PROSPECTIVE LONGITUDINAL OBSERVATIONAL STUDY (PROGSTAR)	12.RD	HR0011-15-C-0043	UNITED TECHNOLOGIES RESEARCH CENTER	1213281	\$19,243
FUEL EFFICIENT NANO-FLUID GEAR OIL	12.RD	W81XWH-07-1-0720 AND			
EXPLOITING LANGUAGE INFORMATION FOR SITUATIONAL AWARENEESS (ELISA)	12.RD	W81XWH-09-2-0189	FOUNDATION FIGHTING BLINDNESS	NNSP-CL-0313-0069-UP3NN-N34	\$22,291
	12.RD	W56HZV-15-C-0198	PIXELLIGENT TECHNOLOGIES	10053480	\$30,360
	12.RD	HR0011-15-C-0115	UNIVERSITY OF SOUTHERN CALIFORNIA	67104157	\$31,069
STTR AF14-AT06: CORRECT-BY-CONSTRUCTION SYNTHESIS FOR MULTI-VEHICLE AUTONOMY MISSIONS	12.RD	F14A-T06-0018	GALOIS, INC.	SUB TO F14A-T06-0018	\$34,613
HIGH ENTROPY ALLOYS	12.RD	F8650-15-D-5230	UES, INC.	S-109-1N2-001	\$39,289
SCALABLE AND HIGHLY SENSITIVE TRANSISTORS USING 2-D MATERIALS	12.RD	FA8650-09-D-5037	GRAPHENE FRONTIERS	S-875-191-005	\$46,270
ENABLING MOVING TARGET HAND-OFF IN GPS-DENIED ENVIRONMENTS	12.RD	FA8650-15-M-1942	NOVATEUR RESEARCH SOLUTIONS	SUB TO FA8650-15-M-1942	\$49,527
UPENN SUB-PROPOSAL TO BAE SYSTEMS IN RESPONSE TO DARPA PERFECT	12.RD	HR-0011-13-C-0005	BAE SYSTEMS	822298	\$55,293
AUTONOMOUS UNMANNED VEHICLES APPLIED RESEARCH PROGRAM: UPENN SUB-PROPOSAL TO JOHNS HOPKINS PRIME	12.RD	N00024-13-D-6400	JOHNS HOPKINS UNIVERSITY	125027	\$92,471
PASSIVE WIRELESS CORROSION-MONITORING TAGS	12.RD	W31P4Q-14-C-0040	ENGENIUSMICRO	SUB TO W31P4Q-14-C-0040	\$124,998
LINGUISTIC RESOURCES FOR MULTILINGUAL, GENRE-INDEPENDENT LANGUAGE TECHNOLOGIES (BOLT)	12.RD	HR0011-11-C-0145			\$140,447
MANAGEMENT OF SUICIDAL-RELATED EVENTS DURING DEPLOYMENT	12.RD	W81XWH-13-2-0003	RESEARCH FOUNDATION FOR MENTAL HYGIENE, INC.	PO #110520	\$157,928
COLLABORATIVE OPERATIONS IN DENIED ENVIRONMENTS PROGRAM	12.RD	HR0011-15-9-000	LOCKHEED MARTIN CORPORATION	PO #4101881426	\$180,000
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, ADMINISTERED IM OR ID FOLLOWED BY ELECTROPORATION IN HEALTHY VOLUNTEERS	12.RD	INO-4212 AND INO-9012	INOVIO PHARMACEUTICALS, INC.	EBOV-001	\$202,172
SPECIFICATION AND CORRECT-BY-CONSTRUCTION SYNTHESIS OF CONTROLPROTOCOLS FOR ADAPTABLE, HUMAN-EMBEDDED AUTONOMY	12.RD	FA8650-15-C-2546			\$208,693
VIPERTOXIN LANGUAGE/DIALECT COLLECTION I	12.RD	H98230-10-D-0041			\$259,807
SONICVIPER	12.RD	H98230-15-C-0825			\$284,589
HETEROGENEOUSLY INTEGRATED OPTICAL SYNTHESIZER (HIOS)	12.RD	HR0011-15-C-0057	UNIVERSITY OF CALIFORNIA, BERKELEY	00008779	\$303,408
DISTRIBUTED ENCLAVE DEFENSE USING CONFIGURABLE EDGES (DEDUCE)	12.RD	BAA-15-10	APPLIED COMMUNICATION SCIENCE	PO-0004103	\$365,124
DISTINGUISHING BRAIN STATES AND RESOLVING STATE TRANSITIONS	12.RD	W911NF-10-2-0022	DCS CORPORATION	APX02-0006 - TASK ORDER 001	\$417,337
IMMEDIATE AND PERSISTENT PROTECTION AGAINST EBOLA	12.RD	W31P4Q-15-1-000	INOVIO PHARMACEUTICALS, INC.	SUB TO W31P4Q-15-1-0003	\$487,888
TERRASWARM RESEARCH CENTER (TSRC)	12.RD	2013-MA-2386	UNIVERSITY OF CALIFORNIA, BERKELEY	00008165/PO#BB00144165	\$503,874
ROBOTIC PERCEPTION, INTELLIGENCE, AND DEXTEROUS MANIPULATION & UNIQUE MOBILITY	12.RD	W911NF-10-2-0016	GENERAL DYNAMICS ROBOTIC SYSTEMS	PO #40228149	\$998,666
AM3 AUTONOMOUS MULTIFUNCTIONAL MOBILE MICROSYSTEMS	12.RD	W-911NF-08-2-0004	BAE SYSTEMS	316106	\$1,131,197
PHASE II: VECTOR - AAV EXPRESSED CHEMICAL THREAT PROTECTOR	12.RD	HDTRA1-15-C-0023			\$1,417,986
SIREN-IL: SPECIALIZED INTRA/INTERLINGUAL RESOURCES FOR EMERGENT NEWS - INCIDENT LANGUAGES	12.RD	HR0011516904			\$2,301,356

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DEVELOPMENT OF A COMPREHENSIVE HAZARD TO LOSS MODELING FRAMEWORK FOR THE RESIDENTIAL DAMAGE ASSOCIATED WITH INLAND FLOODING FROM NORTH ATLANTIC TROPICAL CYCLONES	15.805		UNIVERSITY OF IOWA	W000645062	\$92,716
SILUS SPATIAL INTEGRATION LABORATORY FOR URBAN SYSTEMS, 2011-2016	15.808	G11AC20285			\$71,758
JACKSON LAKE LODGE HISTORIC STRUCTURES REPORT	15.945	P14AC01158			-\$6,329
CULTURAL LANDSCAPES INVENTORY – WASHINGTON DC HISTORIC GOLF COURSES- NCRO	15.945	P16AC01138			\$513
DEVELOPMENT OF A HISTORIC PRESERVATION TRAINING CURRICULUM AND FUNDAMENTALS COURSE FOR THE VANISHING TREASURES PROGRAM	15.945	P15AC01523			\$2,810
HISTORIC PRESERVATION GRADUATE INTERNSHIP, INDEPENDENCE NATIONAL HISTORICAL PARK, NPS CELEBRATING THE NPS CENTENNIAL THROUGH THE INVESTIGATION, ANALYSIS, AND TREATMENT OF THE FACADE OF MISSION SAN JOSE DE TUMUCACORI, TUMA	15.945	P13AC00095			\$4,833
HISTORIC PRESERVATION GRADUATE INTERNSHIP INHP, PHASE II	15.945	P14AC00965			\$8,833
PHASE II CONDITION SURVEY & ASSESSMENT - LODGE, CABINS, MISC STRUCTURES	15.945	P14AC00147			\$18,460
CULTURAL LANDSCAPE INVENTORY NATIONAL CAPITAL REGION- CIVIL WAR DEFENSES II OF WASHINGTON DC-UPL	15.945	P14AC00921			\$20,865
CULTURAL RESOURCES RESEARCH, INVENTORY, AND DOCUMENTATION TECHNICAL ASSISTANCE	15.945	P14AC01144			\$33,715
DOCUMENTATION & RISK ANALYSIS OF CONDITIONS & TREATMENT AT FORT UNION NATIONAL MONUMENT	15.945	P15AC00828			\$41,461
WASHINGTON, DC PUBLIC RESERVATIONS CULTURAL LANDSCAPES INVENTORY	15.945	P15AC01619			\$42,068
	15.945	P15AC01326			\$76,878
		H1200090005/ORDER			
CULTURAL LANDSCAPE INVENTORY - CIVIL WAR DEFENSES OF WASHINGTON	15.RD	#P12AC10929			-\$130
CONDITION ASSESSMENT AND TREATMENT EVALUATION OF THE SUPPORT BOULDER BENEATH HOLLY TOWER	15.RD	H1200090005			\$150
INSTILLING A CULTURE OF CONTINUOUS LEARNING FROM CRIMINAL JUSTICE SYSTEM ERRORS: A MULTI-STAKEHOLDER SENTINEL EVENT REVIEW OF PROCESS IN PHILADELPHIA	16.560	2015-R2-CX-K040			\$1,194
MEASURING SUCCESS IN FOCUSED DETERRENCE THROUGH AN EFFECTIVE RESEARCHER-PRACTITIONER PARTNERSHIP	16.560		TEMPLE UNIVERSITY	310207-UPENN	\$3,899
HIGHLY PARALLEL ANALYSIS OF COMPLEX GENETIC MIXTURES	16.560		STANFORD UNIVERSITY	60501677-111213	\$6,395
CRIME AND JUSTICE RESEARCH	16.560		COMMONWEALTH OF PENNSYLVANIA	PO #4300224183	\$24,605
SUSPENSION PRACTICES IN THE CONTEXT OF PBIS: IMPLICATIONS FOR K-8 STUDENTS IN THE SCHOOL DISTRICT OF PHILADELPHIA	16.560	2015-CK-BX-0013			\$220,954
SPACE-TIME STUDY OF YOUTH AND SCHOOL VIOLENCE	16.560	2014-CK-BX-0008			\$459,619
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	\$3,095
THE EFFECTS OF SUMMER JOBS ON YOUTH VIOLENCE	16.726		UNIVERSITY OF CHICAGO	FP052923	\$27,642
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			-\$2,913
THE INTERNET POLICY OBSERVATORY: A MONITORING AND CIVIL SOCIETY CAPACITY-BUILDING PROJECT	19.345	S-LMAQM-13-GR-1052			\$222,140
CONSERVATION TRAINING, PLANNING AND IMPLEMENTATION PROGRAM AT NYAMATA CHURCH, BUGESERA DISTRICT, RWANDA	19.RD	NCFAG			\$4,627
ADAPTIVE AIRPORT PLANNING FRAMEWORKS AND TECHNIQUES FOR A NEW ERA OF PLANNING	20.106	N/A			\$12,000
PILOT STUDY ON AIRCRAFT NOISE AND SLEEP DISTURBANCE	20.109	13-C-AJFE-UPENN			\$220,456
DWIGHT DAVID EISENHOWER TRANSPORTATION FELLOWSHIP PROGRAM GRADUATE FELLOWSHIPS	20.215	DTFH6415G00061			\$4,450
THE DWIGHT DAVID EISENHOWER TRANSPORTATION FELLOWSHIP PROGRAM 2013 EISENHOWER GRADUATE FELLOWSHIP	20.215	N/A			\$45,248
T-SET: TECHNOLOGIES FOR SAFE AND EFFICIENT TRANSPORTATION	20.701		CARNEGIE MELLON UNIVERSITY	1080311-341328	\$209,995
T-SET: TECHNOLOGIES FOR SAFE AND EFFICIENT TRANSPORTATION	20.RD	1-DTRT12GUTC11	CARNEGIE MELLON UNIVERSITY	1080266-283594	\$322,287
PVT SELFTEST ON ISS	43.001	NNX08AY09G			-\$17,690
EXPLORING THE CONNECTION BETWEEN GALACTIC MAGNETIC FIELDS AND STAR FORMATION WITH THE BALLOON-BORNE LARGE APERTURE SUBMILLIMETER TELESCOPE - BLAST	43.001	NNX12AL58H			\$2,598
PROBING HYDROGEN AND HELIUM REIONIZATION.	43.001	NNX12AC97G			\$10,679
COGNITION ON HI-SEAS	43.001		UNIVERSITY OF HAWAII	MA150006	\$17,026
X-RAYING THE STELLAR WIND AND ATMOSPHERE OF VELA-1	43.001		SMITHSONIAN ASTROPHYSICAL OBSERVATORY	GO3-14044X	\$22,562
FLOOD REGIMES AND CARBON CYCLING IN ANTHROPOGENIC LANDSCAPES OF THE BOLIVIAN AMAZON	43.001	NNX13AQ07G			\$69,768

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A BALLOON-BORNE DOPPLER SPECTROMETER FOR DISCOVERING EARTH-LIKE PLANETS ORBITING LOW-MASS STARS	43.001	NNX13AI79G			\$71,714
LABORATORY INVESTIGATIONS OF THE EFFECTS OF PARTICULATES ON THE FLOW OF ICE	43.001	NNX15AM69G			\$86,010
SEASONAL, INTERANNUAL AND INTERDECADAL VARIABILITY IN GLOBAL PHYTOPLANKTON COMMUNITY SIZE STRUCTURE DERIVED FROM OCEAN COLOR REMOTE SENSING AND IPCC-CLASS ECOSYSTEM MODELS DISCERNING THE DETAILS OF THE COSMIC DARK SECTOR	43.001	NNX13AC92G			\$89,462
	43.001		CORNELL UNIVERSITY	71105-10295	\$108,950
RELIVING THE PAST: EXPERIMENTAL EVOLUTION OF MAJOR TRANSITIONS IN THE HISTORY OF LIFE	43.001		UNIVERSITY OF MONTANA	PG15-26850-04	\$157,798
INDIVIDUALIZED REAL-TIME NEUROCOGNITIVE ASSESSMENT TOOLKIT FOR SPACE FLIGHT FATIGUE	43.001		NATIONAL SPACE BIOMEDICAL RESEARCH INSTITUTE	NBPF02501	\$176,232
BALLOON-BORNE LARGE APERTURE SUBMILLIMETER TELESCOPE - BLAST	43.001	NNX13AE50G			\$1,404,025
HYBRID TRAINING - A SENSORY STIMULATION COUNTERMEASURE FOR LONG DURATION SPACE EXPLORATION MISSIONS	43.003	NNX16AI53G			\$11,366
HERO TWIN ASTRONAUT STUDY CONSORTIUM (TASC) PROJECT: COGNITION ON MONOZYGOTIC TWIN ON EARTH	43.003	NNX14AH27G			\$48,335
COGNITIVE PERFORMANCE AND CREW COHESION DURING CONFINEMENT IN NASA'S HUMAN RESEARCH PROGRAM HUMAN EXPLORATION RESEARCH ANALOG (HERA)	43.003	NNX14AH98G			\$60,346
STANDARDIZED BEHAVIORAL MEASURES FOR DETECTING BEHAVIORAL HEALTH RISKS DURING EXPLORATION MISSIONS	43.003	NNX15AK76G			\$206,022
NEUROSTRUCTURAL, COGNITIVE, AND PHYSIOLOGIC CHANGES DURING A 1-YEAR ANTARCTIC WINTER-OVER MISSION	43.003	NNX14AM81G			\$459,612
FOAM: FOAM OPTICS AND MECHANICS (THE MELTING OF OPTIC FOAMS)	43.007	NNX14AM99G			\$109,547
LOW VOLUME FRACTION ENTROPICALLY DRIVEN COLLOIDAL ASSEMBLY (PHASE 2)	43.007	NNX13AL27G			\$176,019
BIOMARKERS AS PREDICTORS OF RESILIENCY AND SUSCEPTIBILITY TO STRESS IN SPACE FLIGHT	43.007	NNX14AN49G			\$247,366
DEVELOPMENT OF MILLIMETER IMAGING TECHNOLOGIES	43.009	NNX11AN19H			\$7,193
MONOCULAR SLAM FOR SMART SPHERES	43.009	NNX14AM10H			\$52,228
DEVELOPING KINETIC INDUCTANCE DETECTORS FOR THE BALLOON-BOURNE LARGE APERTURE SUBMILLIMETERTELESCOPE –BLAST	43.009	NNX14AN63H			\$63,542
KINETIC INDUCTANCE DETECTORS FOR FAR-INFRARED SPECTROSCOPY	43.009	NNX13AL68H			\$65,096
DEVELOPMENT OF INFLATION PROBE TECHNOLOGIES FOR THE ADVANCED ACT EXPERIMENT	43.012	NNX15AQ74H			\$56,493
RESEARCH SPONSORED AGREEMENT: CONSTRAINING DARK ENERGY AND MODIFIED GRAVITY WITH EUCLID FREE-FORM MODELS FOR THE SIX HUBBLE FRONTIER FIELDS CLUSTERS	43.RD	1479009			-\$140
	43.RD	NAS5-26555	SPACE TELESCOPE SCIENCE INSTITUTE	STSCL-49726	\$248
CHARACTERIZATION OF EVOLUTIONARILY ANCIENT STRUCTURES ON HALOARCHAEAL CELL SURFACES	43.RD	NNX10AR84G			\$1,746
CONSTRAINING DARK ENERGY AND MODIFIED GRAVITY WITH EUCLID	43.RD	RSA #1515794			\$18,567
CONSTRAINING DARK ENERGY AND MODIFIED GRAVITY WITH EUCLID	43.RD	1515793			\$27,239
PROACTIVE PRACTICE	45.024	15-4200-7053			\$13,602
KASHAYA (KJU) DATABASE AND DICTIONARY	45.075	PD-50019-12			\$6,280
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			\$120,040
CHILDREN, DRUG THERAPY, AND PHARMACEUTICALS IN THE UNITED STATES, 1906-1979	45.160	231944-16			\$26,552
ENGINEERING ALL-INORGANIC QUANTUM DOT HETEROJUNCTION PHOTOVOLTAICS THROUGH SURFACE CHEMICAL MANIPULATIONS	47.041	CBET-1236406			-\$41,032
MRI: ACQUISITION OF A LASER DIRECT WRITE SYSTEM FOR RESEARCH, EDUCATION AND TRAINING AT THE MICRO- AND NANOSCALE ELECTRONICS, PHOTONICS, MECHANICS AND BIOENGINEERING APPLICATIONS	47.041	ECCS-1429289			-\$5,818
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			\$805
CAREER: TIME-DOMAIN ENCODING FOR HIGHLY PARALLEL DIGITAL MOLECULAR SENSING	47.041	CBET-1554200			\$3,448
DECIPHERING AND CONTROLLING THE SIGNALLING PROCESSES IN BACTERIAL MULTICELLULAR SYSTEMS AND BACTERIA-HOST INTERACTIONS: EFRI-MIKS	47.041		SYRACUSE UNIV	SP-24889-1-02935-S02	\$5,981
CAREER: LOCOMOTION OF SMALL ORGANISMS IN COMPLEX FLUIDS	47.041	CBET-0954084			\$7,157
FROM RECONSTITUTED ACTIN NETWORKS TO 3D MULTI-CELLULAR MICROTISSUES: MULTI-SCALE MODELS AND EXPERIMENTS ON CONTRACTILITY IN ACTIVE CYTOSKELETAL NETWORKS	47.041	CMMI-1312392			\$7,266
AUTONOMOUS ROBOTIC ROTORCRAFT FOR EXPLORATION, SURVEILLANCE AND TRANSPORTATION (ARREST)	47.041	IIP-1113830			\$8,301

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AUTOMATED OBJECT CONTOURING METHODS AND SOFTWARE FOR HEAD AND NECK RADIOTHERAPY PLANNING	47.041		QUANTITATIVE RADIOLOGY SOLUTIONS, LLC	SUB TO 1549509	\$8,473
PEDIATRIC BRAIN INJURY ASSESSMENT	47.041		CHILDREN'S HOSPITAL OF PHILADELPHIA	CCHIPS	\$10,429
DEVELOPING QUANTITATIVE MODELS OF SHP2-MEDIATED SIGNALING REGULATION IN GLIOMA FOR RATIONAL IDENTIFICATION OF IMPROVED THERAPEUTIC APPROACHES	47.041	CBET-1511853			\$16,209
MULTISCALE MODELING OF COMPOSITIONAL STRESSES IN NONSTOICHIOMETRIC OXIDES	47.041	CMMI-1363203			\$16,885
EAGER: SPATIOTEMPORAL REGULATION OF RECEPTOR-INITIATED INTRACELLULAR COMPLEXES OF SIGNALING PROTEINS	47.041	CBET-1450751			\$19,435
NETEGG: TOOLKIT FOR PROGRAMMING NETWORK POLICIES BY EXAMPLES	47.041	1564730			\$20,232
LARGE-AREA, ALIGNMENT-FREE, 3D CHIRAL PLASMONIC NANOSTRUCTURES USING TEMPLATE-BASED FABRICATION TECHNOLOGY	47.041	1562884			\$22,002
MECHANISMS OF DECOUPLING GRAPHENE FROM STRONG-BINDING SUBSTRATES BY INTERCALATION GOAL/COLLABORATIVE RESEARCH: MANUFACTURING OF CARBON NANOTUBECONTACTS FOR HIGH-PERFORMANCE MICROELECTROMECHANICAL SWITCHES	47.041	CMMI-1308396			\$24,681
NANOANTENNA OPTOMECHANICS: FORCES, DEVICES, AND SENSORS	47.041	CMMI-1463344			\$24,736
ANALYSIS OF MOVING UNFOLDING FRONTS IN LONG PROTEIN MOLECULES	47.041	ECCS-1408139			\$26,382
I/UCRC: COLLABORATIVE RESEARCH: AUTONOMOUS PERCEPTION AND MANIPULATION IN SEARCH AND RECSUE	47.041	CMMI-1066787			\$29,139
COLLABORATIVE RESEARCH: TEMPERATURE-DEPENDENCE OF ATOMIC-SCALE FRICTION	47.041	IIP-1432960			\$36,957
PROJECT TOUCH: ENABLING NATURAL TACTILE INTERACTION ACROSS THE INTERNET	47.041	CMMI-1401164			\$49,603
CAREER: MOLECULAR IMAGING OF CANCER RESEARCH AND EDUCATION PROGRAM	47.041	CBET-0953583	IERION INC.	SUB TO 1519938	\$50,000
CAREER: COUPLING SPIN, LIGHT, AND CHARGE FOR QUANTUM INFORMATION PROCESSING AND STORAGE IN DIAMOND	47.041	ECCS-1553511			\$50,113
PREDICTING THE INTERFACIAL ACTIVITY OF COMPLEX GRAFTED NANOPARTICLES	47.041	CBET 1510635			\$52,039
MOLECULAR MODELING OF WETTING AND DEWETTING TRANSITIONS ON NANOTEXTURED SURFACES	47.041	1511437			\$53,333
MOLECULAR MODELING OF FAILURE IN POLYMER NANOCOMPOSITES	47.041	1536914			\$55,854
COLLABORATIVE RESEARCH: EFFICIENT RARE CELL CAPTURING IN MICROFLUIDIC DEVICES VIA MULTISCALE SURFACE DESIGN	47.041	CBET-1263940			\$57,430
COLLABORATIVE RESEARCH: ULTRAFAST CARRIER DYNAMICS IN SEMICONDUCTOR NANOCRYSTAL SOLAR CELLS	47.041	CBET-1335821			\$63,262
INVESTIGATING THE UNSTEADY RHEOLOGY AND EVOLVING MICROSTRUCTURE OF SUSPENSIONS OF SWIMMING MICROORGANISMS	47.041	CBET-1437482			\$67,250
MULTISCALE MODELING OF THE NANOCARRIER-CELL ADHESION INTERFACE IN TARGETED DRUG DELIVERY CAREER: DOMAIN BOUNDARY PHENOMENA AND COMPOSITION FLUCTUATIONS IN HETEROGENEOUS LIPID MEMBRANE MIXTURES	47.041	CBET-1236514			\$69,431
STRUCTURED COMPOSITE MATERIALS WITH VARIABLE ADHESION PROPERTIES	47.041	CBET-1053857			\$69,751
GOAL/COLLABORATIVE RESEARCH: DECIPHERING THE MECHANISMS OF WEAR TO ENABLE HIGH PERFORMANCE TIP-BASED NANOMAUFACTURING	47.041	CMMI-1435745			\$73,638
MECHANISTIC STUDIES OF HYDRODEOXYGENATION OF LIGNIN-DERIVED AROMATIC OXYGENATES OVER BIMETALLIC CATALYSTS	47.041	CMMI-1200019			\$78,078
VISCOELASTIC FLUIDS IN PARALLEL SHEAR FLOWS AT LOW RE: INSTABILITIES, BIFURCATIONS & SINGLE MOLECULE EXPERIMENTS	47.041	CBET-1508048			\$79,546
REALIZING NON-CLOSE-PACKED COLLOIDAL CRYSTALS USING DIRECTIONAL-BONDING SUPERPARTICLES	47.041	CBET-1336171			\$84,256
COLLABORATIVE RESEARCH: INTEGRATION OF IMPLANTABLE MEMS SENSORS AND COMPUTATIONAL MODELING TO ASSESS MECHANICAL REGULATION OF BONE REGENERATION	47.041	CBET-1403237			\$88,309
CPS: MEDIUM: COLLABORATIVE RESEARCH: CO-DESIGN OF MULTIMODAL CPS ARCHITECTURES AND ADAPTIVE CONTROLLERS	47.041	CMMI-1362652			\$89,765
UNDERSTANDING CONTINUUM MODELS OF ELASTO-PLASTIC DEFORMATIONS VIA MULTISCALE ANALYSES	47.041	ECCS-1135630			\$91,346
ENGINEERING PROTEINS FOR REABSORPTION IN THE RENAL PROXIMAL TUBULE	47.041	CBET-1403237			\$98,128
BIO-ENABLED NANOSENSORS WITH FULLY PROGRAMMABLE LIGAND DETECTION	47.041	CMMI-1401537			\$114,375
A WIRELESS SENSOR-BRAIN INTERFACE TO RESTORE FINGER SENSATION	47.041	CBET-1264807			\$117,919
COLLABORATIVE RESEARCH: I/UCRC FOR ROBOTS AND SENSORS FOR THE HUMAN WELL-BEING	47.041	IIP-1312202			\$138,427
NONLINEAR HOMOGENIZATION OF POROUS ANISOTROPIC MATERIALS: APPLICATIONS TO PLASTIC AND MAGNETIC SHAPE-MEMORY ALLOYS	47.041	CBET-1404041			\$142,792
	47.041	IIP-1439681			\$143,689
	47.041	CMMI-1332965			\$150,905

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OPTOGENETIC TOOLS FOR MINIMALLY INVASIVE THERAPIES	47.041	CBET-1264975			\$151,418
CDS&E: COLLABORATIVE RESEARCH: DATA-DRIVEN PREDICTIVE MODELING OF FLOWS CONTAINING AGGREGATING PARTICLES	47.041	CBET-1404826			\$171,581
SUNFEST - SUMMER UNDERGRADUATE RESEARCH IN SENSOR TECHNOLOGIES	47.041	EEC-1359107			\$182,557
GOALI: STRUCTURE AND ELECTRONIC PROPERTIES OF GRAIN BOUNDARIES IN EARTH ABUNDANT CU2ZNSNSXSE4-X (CZTS) THIN FILM SOLAR CELLS	47.041	CBET-1235870			\$195,487
NNCI: ESTABLISHMENT OF A NANOTECHNOLOGY USER NODE AT THE UNIVERSITY OF PENNSYLVANIA	47.041	ECCS-1542153			\$209,590
CAREER: ENTROPIC ELASTICITY OF FLUCTUATING FILAMENTS AND NETWORKS	47.041	CMMI-0953548			\$222,937
SNM: SCALABLE MANUFACTURING OF NANOSTRUCTURED MEMBRANES FOR FRACKING WASTEWATER TREATMENT	47.041	CBET-1449337			\$255,173
PFI:BIC AFFORDABLE AND MOBILE ASSISTIVE ROBOTS FOR ELDERLY CARE	47.041	IIP-1430216			\$289,149
CDI-TYPE II: COLLABORATIVE RESEARCH: CYBER-AMPLIFIED BIOINSPIRATION IN ROBOTICS	47.041	ECCS-1028237			\$295,626
EFRI 2-DARE: TWO-DIMENSIONAL NANOPORES WITH ELECTRO-OPTICAL CONTROL FOR NEXT GENERATION BIOTECHNOLOGICAL APPLICATIONS	47.041	EFMA-1542707			\$319,052
EFRI 2-DARE: FUNCTIONALIZED MONOLAYER HETEROSTRUCTURES FOR BIOSENSORS WITH OPTICAL READOUT	47.041	EFMA 1542879			\$326,739
EFRI-ODISSEI: CUTTING AND PASTING - KIRIGAMI IN ARCHITECTURE, TECHNOLOGY, AND SCIENCE	47.041	EFRI-1331583			\$413,989
DMREF: COLLABORATIVE RESEARCH: HIGH-THROUGHPUT DISCOVERY, DEVELOPMENT,AND DEMONSTRATION OF MATERIAL SYSTEMS TO ENABLE LOW-POWER NEMS-BASEDCOMPUTATION GEOMETRY FESTIVAL	47.041	CMMI-1334241			\$415,169
COLLABORATIVE RESEARCH: OPTIMAL STATISTICS FOR REDSHIFTED 21 CM OBSERVATIONS OF THE REIONIZATION EPOCH.	47.049	DMS-1010788			-\$16,106
	47.049	AST-1109156			-\$1
PRECISE ACID COPOLYMERS AND IONOMERS: MORPHOLOGY, DYNAMICS AND MECHANICAL PROPERTIES	47.049	DMR-1103858			\$220
SUMMER 2016 QUARKNET AT PENN	47.049		UNIVERSITY OF NOTRE DAME	SUB TO PHY-1219444	\$346
CURVATURE GRADIENT DRIVEN ASSEMBLY OF TRAPPED AND RECONFIGURABLE STRUCTURES	47.049	DMR -1607878			\$504
COLLABORATIVE RESEARCH: AGNES: ALGEBRAIC GEOMETRY NORTHEASTERN SERIES	47.049	DMS-1361706			\$642
THE PARTICLE PHYSICS AND COSMOLOGY OF SUPERSYMMETRY AND STRING THEORY	47.049	PHY-1001296			\$1,013
CAREER: FLOW, FAILURE, FLUCTUATIONS AND THE TOPOLOGY OF VASCULAR NETWORKS	47.049	PHY-1554887			\$1,315
THE COMBINATORICS OF SYMMETRIC FUNCTIONS	47.049	DMS-1200296			\$1,379
FROM PHOTON TO NEURON: A TEXTBOOK ON LIGHT, IMAGING, AND VISION	47.049	PHY-1601894			\$1,647
MOLECULAR COEVOLUTION: LESSONS FROM PATHOGEN-IMMUNE SYSTEM INTERACTIONS	47.049	PHY-1631719			\$3,741
COLLABORATIVE RESEARCH: CHARACTERIZING THE TRANS-NEPTUNIAN SOLAR SYSTEM WITH THE DARK ENERGY SURVEY	47.049	1515804			\$4,525
THEORETICAL STUDIES OF MECHANICS IN ACTIVE MATTER	47.049	DMR 1506625			\$4,584
STATISTICAL METHODS FOR HIGH-RESOLUTION MULTISCALE ANALYSIS 3D DNA INTERACTIONS	47.049	1562665			\$4,671
DEGENERATE DIFFUSIONS ON MANIFOLDS WITH CORNERS	47.049	DMS-1205851			\$5,196
CHARACTERIZING THE PHYSICAL PROPERTIES OF HIGH-REDSHIFT SN IA HOST GALAXIES	47.049	1517742			\$6,532
METAL -LIGAND MULTIPLE BONDS AND THEIR ROLE IN ALKANE METATHESIS, DEHYDROGENATION AND GROUP-TRANSFER CHEMISTRY	47.049	CHE-1413945			\$7,293
COLLABORATIVE RESEARCH: THE DARK ENERGY SURVEY DATA MANAGEMENT OPERATIONS	47.049	AST-1138729			\$8,004
NANOROD ASSEMBLY IN POLYMER MATRICES	47.049	DMR-0907493			\$8,630
ANALYSIS OF NON-LINEAR PARTIAL DIFFERENTIAL EQUATIONS IN KINETIC THEORY AND RELATED FIELDS	47.049	DMS-1200747			\$9,878
TOPICS IN THE THEORY OF ELASTIC NETWORKS AND SOFT-MATTER PHYSICS.	47.049	DMR-1104707			\$10,960
NSF GEOMFEST 2013	47.049	DMS-1337391			\$11,401
THE GEOMETRY OF PROBABILITY GENERATING FUNCTIONS	47.049	DMS-1209117			\$11,821
COLLABORATIVE RESEARCH: PRINCIPLED SCIENCE-DRIVEN METHODS FOR MASSIVE, INTRICATE, AND MULTIFACETED DATA IN ASTRONOMY AND ASTROPHYSICS	47.049	1513546			\$12,097
SUMMER 2015 QUARKNET AT PENN	47.049		UNIVERSITY OF NOTRE DAME	NSF GRANT #PHY-1219444	\$13,840
PARTICIPANT SUPPORT FOR ATTENDANTS TO THE 11TH INTERNATIONAL CONFERENCE ON OBJECTIVE BAYES METHODOLOGY	47.049	DMS-1540663			\$14,967
CAREER: LINKING GRAPH TOPOLOGY OF LEARNED INFORMATION TO BEHAVIORAL VARIABILITY VIA DYNAMICS OF FUNCTIONAL BRAIN NETWORKS	47.049	PHY-1554488			\$16,106
NON-CONVEX HOMOGENIZATION AND APPLICATIONS TO (FERROMAGNETIC) SHAPE-MEMORY POLYCRYSTALS	47.049	DMS-1108847			\$16,662
MODULI SPACES AND ARITHMETIC GEOMETRY	47.049	DMS-1545586			\$18,690

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DIFFERENTIAL GEOMETRY IN THE LARGE	47.049	DMS-1630033			\$22,069
ANABELIAN GEOMETRY AND FIELD ARITHMETIC II	47.049	DMS-1101397			\$22,121
ALGEBRAIC, COMBINATORIAL AND ANALYTIC APPLICATIONS OF SYMMETRIC FUNCTIONS	47.049	1500834			\$23,032
MODULI OF ABELIAN VARIETIES	47.049	DMS-1200271			\$29,800
OXIDATIVE METHODS FOR C-C, C-N, AND C-O BOND FORMATION	47.049	CHE-1464778			\$31,709
PENN-UPR PARTNERSHIP FOR RESEARCH AND EDUCATION IN MATERIALS	47.049		UNIVERSITY OF PUERTO RICO	DMR-1523463	\$32,717
NONLOCAL DENSITY FUNCTIONAL THEORY OF MOLECULES AND SOLIDS	47.049	CHE-1261918			\$36,845
STRING MATH CONFERENCES 2014	47.049	DMS-1401390			\$37,455
NOVEL POLYFLUOROALKYLATED BUILDING BLOCKS	47.049	CHE-1362841			\$38,225
DEGENERATE DIFFUSIONS ON MANIFOLDS WITH CORNERS	47.049	DMS-1507396			\$44,478
RANDOM MATRIX THEORY AND HIGH DIMENSIONAL STATISTICS	47.049	DMS-1208982			\$45,605
JAMMING TRANSITIONS AND KINETIC PHENOMENA	47.049	DMR-1305199			\$47,635
NOVEL DYNAMICS IN COMPLEX FLUIDS: FROM PHONONS TO THE DRYING PROCESS	47.049	DMR-1205463			\$48,285
NONLINEAR PDE WITH GRADIENT CONSTRAINTS: REGULARITY, EIGENVALUE PROBLEMS, AND INFINITY					
GROUND STATES	47.049	DMS-1301628			\$49,644
COLLABORATIVE RESEARCH: DE NOVO PROTEIN CONSTRUCTS FOR PHOTOSYNTHETIC ENERGY					
TRANSDUCTION	47.049	CHE-1412496			\$52,385
MATERIALS WORLD NETWORK: TAILORING ELECTROCATALYTIC MATERIALS BY CONTROLLED SURFACE					
EXSOLUTION	47.049	DMR-1210388			\$58,303
TIME-RESOLVED STUDIES OF ORBITAL ANGULAR MOMENTUM	47.049	DMR-1206270			\$61,266
THE FUNDAMENTAL PHYSICS OF THE INVISIBLE AND THE VERY EARLY UNIVERSE	47.049	PHY-1145525			\$64,702
ACTPOL	47.049		PRINCETON UNIVERSITY	00001883	\$67,076
FRG: COLLABORATIVE RESEARCH: CHERN CLASSES IN IWASAWA THEORY	47.049	DMS-1360767			\$68,109
COLLABORATIVE RESEARCH: EXPERIMENTAL AND THEORETICAL STUDIES OF THE BIOMECHANICS OF FIBRIN					
POLYMER	47.049	DMR-1505662			\$70,449
MATERIALS WORLD NETWORK: MECHANICS AND DURABILITY OF DIAMOND-LIKE NANOCOMPOSITES					
(MADDILIN): AN INTERNATIONAL COLLABORATION TO UNDERSTAND TRIBO-MECHANICAL MULTIPHYSICAL					
PHENOMENA	47.049	DMR-1107642			\$71,008
CAREER: STATISTICAL AND COMPUTATIONAL COMPLEXITIES OF MODERN LEARNING PROBLEMS	47.049	DMS-0954737			\$71,613
NEURAL POPULATION CODING IN THE BRAIN	47.049	PHY-1058202			\$71,884
VERTICALLY ORIENTED ANISOTROPIC NANOPARTICLES IN POLYMER MATRICES	47.049	1507713			\$73,611
TOPICS IN FLUID DYNAMICS WITH FREE BOUNDARIES, AND KINETIC THEORY	47.049	DMS-1500916			\$81,956
DESIGNING THE ELECTRONIC PROPERTIES OF PBSE NANOWIRES FOR OPTOELECTRONIC DEVICES	47.049	DMR-1309053			\$82,405
CAREER: NONPARAMETRIC EIGENANALYSIS OF HIGH DIMENSIONAL DATA	47.049	DMS-1352060			\$83,071
TOPOLOGICAL FRAMEWORK FOR ANALYSIS AND VISUALIZATION OF ATOMISTIC MATERIALS SIMULATIONS	47.049	1507013			\$84,306
ADVANCED TECHNIQUES FOR LOADING METALS INTO LIQUID SCINTILLATORS	47.049		UNIVERSITY OF WASHINGTON	745930	\$84,965
HERA: ILLUMINATING OUR EARLY UNIVERSE	47.049		UNIVERSITY OF CALIFORNIA, BERKELEY	00008650	\$85,730
CAREER: THIOMIDES AS MINIMALIST CHROMOPHORES TO MONITOR PROTEIN DYNAMICS	47.049	CHE-1150351			\$86,860
FRG: COLLABORATIVE RESEARCH: OBSTRUCTIONS TO LOCAL-GLOBAL PRINCIPLES AND APPLICATIONS TO					
ALGEBRAIC STRUCTURES	47.049	DMS-1463733			\$87,993
FIELD-THEORETIC SIMULATIONS WITH EXCLUDED VOLUME CORRELATIONS	47.049	DMR-1410246			\$91,692
RESEARCH EXPERIENCE FOR UNDERGRADUATES (REU) SITE	47.049	DMR-1359351			\$92,162
ENHANCED MODULI, HODGE THEORY, AND QUANTIZATION	47.049	DMS-1302242			\$92,487
MATERIAL WORLD NETWORK: UNDERSTANDING AND EXPLOITING MIXED-MODE ULTRA-FAST OPTICAL-					
ELECTRICAL BEHAVIOR IN NANOSCALE PHASE CHANGE MATERIALS	47.049	DMR-1210503			\$95,185
EXPANDING THE CHEMISTRY OF CERIUM AND URANIUM IN THEIR HIGHEST OXIDATION STATES:					
ELECTRONIC STRUCTURE, REDOX AND ORGANOMETALLICS	47.049	1362854			\$97,244
REACTIVE METAL-LIGAND MULTIPLE BONDS AND THEIR USE IN C-H ACTIVATION, ALKANE					
DEHYDROGENATION AND COUPLING PROCESSES	47.049	1464659			\$98,537
QUANTUM CHEMISTRY FOR PREDICTING AND QUANTIFYING PHOTOINDUCED NONADIABATIC DYNAMICS.	47.049	CHE-1150851			\$100,621
MEASURING WEAK GRAVITATIONAL LENSING WITH THE DARK ENERGY SURVEY	47.049	AST-1311924			\$100,909
EAGER: ELUCIDATION OF THE ELECTRONIC STRUCTURE AND MODEL COMPLEXES OF THE NATURAL, CERIUM-					
DEPENDENT XOXF-METHANOL DEHYDROGENASE ENZYME: LAUNCHING THE BIO-INORGANIC CHEMISTRY OF					
THE RARE EARTH METALS	47.049	CHE-1449246			\$101,115
OXIDATIVE METHODS FOR C-C, C-N, AND C-O BOND FORMATION	47.049	CHE-1213230			\$108,921
COLLABORATIVE RESEARCH: MODELING AND SIMULATION OF GRAPHENE GROWTH	47.049	DMS-1216801			\$109,545
SELF-ASSEMBLY AND MOTILITY FAR FROM EQUILIBRIUM	47.049	DMR-1104637			\$110,177

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STRUCTURAL AND CHEMICAL CHANGES DUE TO ELECTRICAL STRESS IN PHASE-CHANGE NANOWIRES: AN IN SITU ELECTRON MICROSCOPY STUDY	47.049	DMR 1505127			\$112,202
CAREER: UNDERSTANDING ELECTROSTATIC INTERACTIONS IN NON-POLAR MEDIA FOR GENERATION OF NANOSTRUCTURED THIN FILMS	47.049	DMR-1055594			\$113,081
VALID INFERENCE WHEN ANALYTICAL MODELS ARE APPROXIMATIONS	47.049	DMS-1512084			\$114,273
TOPOLOGICAL AND GEOMETRICAL PROBLEMS IN SOFT MATTER, DUE 10/1/12	47.049	DMR-1262047			\$114,775
PROGRAMMABLE PATTERN TRANSFORMATION OF RECONFIGURABLE POLYMER MEMBRANES	47.049	DMR-1410253			\$116,213
RADON TRANSFORMS: GEOMETRIC COMBINATORICS, REGULARITY, AND APPLICATIONS	47.049	DMS-1361697			\$118,335
CAREER: MECHANICS OF ULTRA-STRENGTH NANOMATERIALS: REVEALING DEFORMATION MECHANISMS	47.049	DMR-1056293			\$119,150
DMREF-PROGRAMMABLE PEPTIDE-BASED HYBRID MATERIALS	47.049	DMR-1234161			\$119,796
COLLABORATIVE RESEARCH: PRECISION ARRAY FOR PROBING THE EPOCH OF REIONIZATION (PAPER)	47.049		UNIVERSITY OF VIRGINIA	GA10911-139068	\$121,176
PRECISE COPOLYMERS AND IONOMERS: CONDUCTIVITY IN LAYERED AND PERCOLATED MORPHOLOGIES AND MECHANICAL PROPERTIES	47.049	1506726			\$129,249
COMPUTATIONALLY DESIGNED SYNERGISTIC PROTEIN-NANOPARTICLE ASSEMBLIES	47.049	CHE-1508318			\$130,205
RESPONSIVE VESICLES FROM RECOMBINANT OLEOSIN	47.049	DMR-1309556			\$130,279
ALGEBRAIC GEOMETRY IN STRING THEORY	47.049	DMS-1304962			\$136,268
MATERIAL WORLD NETWORK: DYNAMICS IN POLYMER NANOCOMPOSITES CONTAINING HARD, SOFT AND MOBILE NANOPARTICLES	47.049	DMR-1210379			\$137,447
NOVEL COUPLING REACTIONS	47.049	1464744			\$137,562
CURVATURE, GROUP ACTIONS AND GEOMETRIC FLOWS	47.049	DMS-1506148			\$147,617
ADVANCES FOR BAYESIAN MODEL SELECTION AND INFERENCE	47.049	DMS-1406563			\$149,362
THEORY AND METHODS FOR ESTIMATION OF NONSMOOTH FUNCTIONALS AND DETECTION OF SIMULTANEOUS SIGNALS	47.049	DMS-1403708			\$154,635
POLARIZATION MEDIATED ATOMIC INTERACTIONS: WATER AND PT ON BATIO3 (100)	47.049	DMR-1206563			\$155,984
HIGH RESOLUTION OBSERVATIONS OF THE SYNIAEV-ZEL-DOVICH EFFECT IN CLUSTERS OF GALAXIES AT 90 GHZ USING THE GBT	47.049	AST-1309032			\$162,774
SUB-PICOSECOND STRESS-INDUCED CONDUCTIVITY TRANSITIONS, MECHANICAL TRANSITIONS AND FERROELECTRIC TRANSITIONS	47.049	DMR-1409114			\$260,115
SPECTROSCOPY AND DYNAMICS OF REACTION INTERMEDIATES	47.049	CHE-1362835			\$267,344
NSEC ON MOLECULAR FUNCTION AT THE NANO/BIO INTERFACE	47.049	DMR-0832802			\$323,526
BIOINSPIRED SYNTHESIS OF COMPLEX MOLECULAR SYSTEMS	47.049	DMR-1066116			\$334,702
FRG: COLLABORATIVE RESEARCH: LIFTING PROBLEMS AND GALOIS THEORY	47.049	DMS-1265290			\$455,850
ADVANCED ACTPOL	47.049		PRINCETON UNIVERSITY	SUB0000032	\$522,167
CENTER OF EXCELLENCE FOR MATERIALS RESEARCH AND INNOVATION (CEMRI)	47.049	DMR-1120901			\$3,643,968
"COLLABORATIVE RESEARCH: THE EFFECTS OF HYDRODYNAMIC ND GRANULAR CONTROLS ON BED LOAD FLUX INTERMITTENCY- APPLICATION TO STEEP MOUNTAIN STREAMS	47.050	EAR-1224943			-\$109
COLLABORATIVE RESEARCH: CENTRAL ANATOLIAN TECTONICS (CD-CAT): SURFACE TO MANTLE DYNAMICS DURING COLLISION TO ESCAPE	47.050	EAR-1109703			\$4,196
EASM-3: INTEGRATION OF DECISION-MAKING WITH PREDICTIVE CAPACITY FOR DECADAL CLIMATE IMPACTS	47.050	AGS-1419504			\$12,928
GOLDBSY NSF-ANS, COLLABORATIVE PROPOSAL: CARBONATION OF SERPENTINITE IN THE SAN ANDREAS FAULT: HOW FLUID-ROCK INTERACTIONS IMPACT ASEISMIC CREEP	47.050	EAR-1502472			\$24,160
COLLABORATIVE RESEARCH: CONVERGING ON A PHYSICAL BASIS FOR RATE AND STATE FRICTION THROUGH NANO-TO-MACRO-SCALE FRICTION AND ADHESION EXPERIMENTS ON GEOLOGICAL MATERIALS	47.050	EAR-1141142			\$30,743
EARLY HISTORY OF HORNED AND DUCK-BILLED DINOSAURS: DISCOVERIES IN GANSU, CHINA	47.050	EAR-1024671			\$53,998
WSC-CATEGORY 2 COLLABORATIVE: ROBUST DECISION-MAKING FOR SOUTH FLORIDA WATER RESOURCES BY ECOSYSTEM SERVICE VALUATION, HYDRO-ECONOMIC OPTIMIZATION AND CONFLICT RESOLUTION MODELING	47.050	EAR-1204780			\$61,516
COLLABORATIVE RESEARCH: THE LEGACY OF TRANSIENCE: UNDERSTANDING DYNAMIC LANDSCAPE ADJUSTMENT FOLLOWING MOUNTAIN UPLIFT IN TWO CZO FIELD AREAS	47.050	EAR-1349261			\$65,911
INSPIRE TRACK 1: EARTHCASTING FLUVIAL SYSTEMS: PHYSICAL, ECOLOGICAL AND BIOGEOCHEMICAL DYNAMICS	47.050		NORTHWESTERN UNIVERSITY	SP0024578-PROJ0006673	\$84,651
HAZARDS SEES: RISK ASSESSMENT AND RISK MANAGEMENT: AN INTEGRATED APPROACH FOR RESPONDING TO MULTIPLE HAZARDS FROM TROPICAL CYCLONES IN A CHANGING CLIMATE	47.050		PRINCETON UNIVERSITY	SUB0000091	\$88,399

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COLLABORATIVE RESEARCH: CONVERGING ON A PHYSICAL BASIS FOR RATE AND STATE FRICTION THROUGH NANO-TO-MACRO-SCALE FRICTION AND ADHESION EXPERIMENTS ON GEOLOGICAL MATERIALS	47.050	EAR-1464714			\$96,596
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	\$255,605
SHF: MEDIUM: COLLABORATIVE RESEARCH: ULTRA-RESPONSIVE ARCHITECTURES FOR MOBILE PLATFORMS	47.070	CCF-1161681			-\$19,123
CPS: SYNERGY: COLLABORATIVE RESEARCH: ARCHITECTURAL AND ALGORITHMIC SOLUTIONS FOR LARGE SCALE PEV INTEGRATION INTO POWER GRIDS(CNS-1298984)	47.070	CNS-1312390			-\$17,067
AF: SMALL: THEORY AND APPLICATIONS OF UNTRUSTED QUANTUM DEVICES	47.070		UNIVERSITY OF MICHIGAN	3002985767	-\$1,132
NETS:SMALL: COLLABORATIVE RESEARCH: INTER-PROVIDER DYNAMICS IN NEUTRAL AND NON-NEUTRAL NETWORKS	47.070	CNS-1115547			-\$71
AF: SMALL: SMALL SPACE ALGORITHMS AND REPRESENTATIONS FOR GRAPH OPTIMIZATION PROBLEMS	47.070	CCF1552909			\$170
DOCTORAL MENTORING CONSORTIUM AT THE 25TH INTERNATIONAL JOINT CONFERENCE ON ARTIFICIAL INTELLIGENCE (IJCAI 2016)	47.070	IIS-1631562			\$339
TWC: MEDIUM: DISTRIBUTED DIFFERENTIAL PRIVACY	47.070	CNS-1513694			\$2,068
CICI: DATA PROVENANCE: PROVENANCE-BASED TRUST MANAGEMENT FOR COLLABORATIVE CITIZEN SCIENCE DATA CURATION	47.070	1547360			\$2,457
NETS: MEDIUM: COLLABORATIVE RESEARCH: DEFIND: DECLARATIVE FORMAL INTERACTIVE NETWORK DESIGN	47.070	1513679			\$4,085
COURSE IN NO-BOUNDARY THINKING IN BIOINFORMATICS	47.070		ARKANSAS STATE UNIVERSITY	SA15-704-15-4	\$8,186
NETS: SMALL: ROUTING DESIGN AND ANALYSIS WITH INCOMPLETE INFORMATION	47.070	CNS-1218066			\$13,126
STUDENT MENTORING WORKSHOP AT ICFP 2015	47.070	CCF-1541646			\$20,250
EAGER: SIMPLIFICATION AS MACHINE TRANSLATION	47.070	IIS-1430651			\$22,403
TWC: MEDIUM: CRYPTOGRAPHIC APPLICATIONS OF CAPACITY THEORY	47.070	1513671			\$23,698
III: SMALL: FOUNDATION AND IMPLEMENTATION OF PROVISIONING VIEWS	47.070	IIS-1217798			\$27,281
CAREER: TOWARDS A UNIFIED DECLARATIVE PLATFORM FOR COMPOSABLE VERIFIABLE NETWORKS	47.070				\$28,370
RET SITE: GRASP - TEACHER PARTNERSHIP IN ROBOTICS EDUCATION	47.070	CNS-1542301			\$30,236
CPS: FRONTIER: COLLABORATIVE RESEARCH: COMPOSITIONAL, APPROXIMATE, AND QUANTITATIVE REASONING FOR MEDICAL CYBER-PHYSICAL SYSTEMS	47.070	CNS 1446664			\$31,979
AF: SMALL: OPTIMIZATION ALGORITHM FOR MULTI-ARMED BANDIT PROBLEMS	47.070	CCF-1117216			\$39,752
SHF: SMALL: LUCID: LOW-OVERHEAD, UNOBTUSIVE CACHE CONTENTION DETECTION AND REPAIR	47.070	CCF 1525296			\$40,862
CIF: SMALL: RICH TYPE INFERENCE FOR FUNCTIONAL PROGRAMMING	47.070	CCF-1319880			\$41,058
NSF WORKSHOP ON FUTURE DIRECTIONS IN CYBER PHYSICAL SYSTEMS, ROBOTICS AND AUTONOMY	47.070	1552022			\$41,308
NETS: SMALL: COLLABORATIVE RESEARCH: PLAYING THE DEVIL'S ADVOCATE: THE PROFIT PERSPECTIVE IN SECONDARY SPECTRUM MARKETS (W MICHIGAN)	47.070	CNS-1217730			\$45,213
FROM STATISTICAL TO WORST-CASE LEARNING: A UNIFIED FRAMEWORK	47.070	CCF-1116928			\$46,711
NRI: SMALL: COLLABORATIVE RESEARCH: ACTIVE SENSING FOR ROBOTIC CAMERAMEN	47.070	IIS-1317947			\$48,633
CSR: SMALL: RESOURCE MANAGEMENT FOR REAL-TIME CLOUD COMPUTING	47.070	CNS-1117185			\$49,914
CYBER-PHYSICAL SYSTEMS VIRTUAL ORGANIZATION: ACTIVE RESOURCES	47.070		VANDERBILT UNIVERSITY	3834-019899	\$53,016
AF: SMALL: AN INTEGRATED APPROACH TO CHARACTERIZING CONFORMATIONAL CHANGES OF LARGE PROTEINS	47.070		RICE UNIVERSITY	R3E981	\$54,865
CCF-SHF: BEYOND ALGEBRAIC DATA TYPES: COMBINATORIAL SPECIES AND MATHEMATICALLY-STRUCTURED PROGRAMMING	47.070	CCF-1218002			\$58,101
SHF: SMALL: ALGEBRAIC FOUNDATIONS FOR COLLABORATIVE DATA SHARING 	47.070	CCF-1017212			\$58,790
TC:MEDIUM: COLLABORATIVE RESEARCH: TRACKING ADVERSARIAL BEHAVIOR IN DISTRIBUTED SYSTEMS WITH SECURE NETWORKED PROVENANCE	47.070	CNS-1065130			\$58,839
CAREER: GEOMETRIC SHAPE DEFORMATION WITH APPLICATIONS IN MEDICINE	47.070	IIS-1350330			\$60,887
CAREER: CAPTURING CONTENT AND LINGUISTIC QUALITY IN AUTOMATIC EXTRACTIVE AND ABSTRACTIVE SUMMARIZATION	47.070	IIS-0953445			\$61,848
CAREER: THE ALGORITHMIC FOUNDATIONS OF DATA PRIVACY	47.070	CNS-1253345			\$68,062
BIGDATA: F: GRAPH SKETCHING AND OPTIMIZATION PROBLEMS	47.070	1546151			\$68,884
SHB: EXP: COLLABORATIVE RESEARCH: HETERGEIOUS LARGE-SCALE TELEMEDICINE FOR CARDIOLOGY PATIENTS	47.070	IIS-1231547			\$70,575
AF: SMALL: CUT, FLOW, AND MATCHING PROBLEMS IN GRAPHS	47.070	CCF-1116961			\$74,200

The accompanying notes are an integral part of this schedule

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RI: SMALL: COLLABORATIVE RESEARCH: RESEARCH LEADING TO COMPREHENSIVE GUIDELINES FOR ANNOTATING DISCOURSE RELATIONS	47.070	IIS-1422186			\$81,609
TWC: MEDIUM: COLLABORATIVE RESEARCH: BLACK-BOX EVALUATION OF CRYPTOGRAPHIC ENTROPY AT SCALE	47.070	CNS-1408734			\$85,915
CAREER: EVIDENCE IN FEDERATED DISTRIBUTED SYSTEMS	47.070	CNS-1054229			\$87,026
CAREER: FOUNDATIONS FOR MODELING AND VERIFICATION OF MEDICAL CYBER-PHYSICAL SYSTEMS	47.070	CNS-1253842			\$91,370
SHF: SMALL: NONSTANDARD COMPUTATIONAL MODELS OF LINEAR LOGIC	47.070	CCF-1421193			\$93,284
TC: SMALL: COLLABORATIVE RESEARCH: TOWARDS A FORMAL FRAMEWORK FOR ANALYZING AND IMPLEMENTING SECURE ROUTING PROTOCOLS	47.070	CNS-1117052			\$94,485
CI-NEW: COLLABORATIVE RESEARCH: A MODULAR PLATFORM FOR ENABLING COMPUTING RESEARCH IN SOCIALLY INTELLIGENT HUMAN-ROBOT INTERACTION	47.070	CNS 1513108			\$99,663
SHF: SMALL: GENERIC PROGRAMMING WITH DEPENDENT TYPES	47.070	CCF-1116620			\$103,183
SYNERGY: COLLABORATIVE RESEARCH: SECURITY AND PRIVACY-AWARE CYBER-PHYSICAL SYSTEMS	47.070	1505799			\$103,853
CPS: SYNERGY: COLLABORATIVE RESEARCH: TRUSTWORTHY COMPOSITION OF DYNAMIC APP-CENTRIC ARCHITECTURES FOR MEDICAL APPLICATION	47.070	CNS-1239324			\$103,996
SHF: SMALL: RANDOM TESTING FOR LANGUAGE DESIGN	47.070	CCF-1421243			\$104,481
BIGDATA: F: DKA: SPECTRAL ANALYSIS AND CONTROL OF EVOLVING LARGE-SCALE NETWORKS	47.070	IIS-1447470			\$106,447
NRI: COLLABORATIVE: "SHALL I TOUCH THIS?": NAVIGATING THE LOOK AND FEEL OF COMPLEX SURFACES	47.070	IIS-1426787			\$110,128
COLLABORATIVE RESEARCH: LEARNING ABOUT INFECTIOUS DISEASE THROUGH ONLINE PARTICIPATION IN A VIRTUAL EPIDEMIC	47.070	IIS-1506724			\$123,788
CCF: MEDIUM: VALIDATING PROGRAM TRANSFORMATIONS IN A MECHANIZED LLVM	47.070	CCF-1065166			\$124,264
TC: SMALL: WATCHDOG: HARDWARE-ASSISTED PREVENTION OF ALL USE-AFTER-FREE SECURITY VULNERABILITIES	47.070	CNS-1116682			\$124,403
SATC MEDIUM: HARDWARE-ASSISTED LIGHTWEIGHT CAPABILITY OPTIMIZATION (HALCYON)	47.070	CNS-1513687			\$127,876
COLLABORATIVE RESEARCH: EXPEDITIONS IN COMPUTING: THE SCIENCE OF DEEP SPECIFICATION	47.070	CCF-1521539			\$134,370
CPS: SYNERGY: COLLABORATIVE RESEARCH: HIGH-LEVEL PERCEPTION AND CONTROL FOR AUTONOMOUS RECONFIGURABLE MODULAR ROBOTS	47.070	CNS-1329620			\$135,287
TOWARDS A FORMAL THEORY OF WIRELESS NETWORKING	47.070	CCF-0952867			\$138,897
NRI-LARGE: COLLABORATIVE RESEARCH: HUMAN-ROBOT COORDINATED MANIPULATION AND TRANSPORTATION OF LARGE OBJECTS	47.070	IIS-1328805			\$148,529
CPS: SYNERGY: COLLABORATIVE RESEARCH: MULTIPLE-LEVEL PREDICTIVE CONTROL OF MOBILE CYBER PHYSICAL SYSTEMS WITH CORRELATED CONTEXT	47.070	CNS-1239152			\$152,457
XPS: CLCCA: IMPROVING PARALLEL PROGRAM RELIABILITY THROUGH NOVEL APPROACHES TO PRECISE DATA RACE DETECTION	47.070	CCF-1337174			\$158,285
NETS: SMALL: COLLABORATIVE RESEARCH: COMPETITION, NEUTRALITY AND SERVICE QUALITY IN CELLULAR WIRELESS ACCESS	47.070	1525457			\$163,700
CIF-SMALL: CIRCLES OF TRUST: AN AXIOMATIC CONSTRUCTION OF CLUSTERING IN ASYMMETRIC NETWORKS	47.070	CCRF-1217963			\$184,545
CPS: FRONTIER: COLLABORATIVE RESEARCH: BIOCPs FOR ENGINEERING LIVING CELLS	47.070	CNS-1446592			\$186,807
III: MEDIUM: COLLABORATIVE RESEARCH: CITING STRUCTURED AND EVOLVING DATA	47.070	IIS-1302212			\$205,881
TC: MEDIUM: PUTTING DIFFERENTIAL PRIVACY TO WORK	47.070	CNS-1065060			\$209,702
TWC: MEDIUM: MICRO-POLICIES: A FRAMEWORK FOR TAG-BASED SECURITY MONITORS	47.070	CNS-1513854			\$222,768
CPS: SYNERGY: COLLABORATIVE RESEARCH: SAFETY-FEATURE MODELING AND ADAPTIVE RESOURCE MANAGEMENET FOR MIXED-CRITICALLY CYBER-PHYSICAL SYSTEMS	47.070	CNS-1329984			\$237,753
TWC: MEDIUM: COLLABORATIVE RESARCH: ACTIVE SECURITY	47.070	CNS-1406225			\$241,586
NETS: MEDIUM: COLLABORATIVE RESEARCH: OPTIMAL COMMUNICATION FOR FASTER SENSOR NETWORK COORDINATION	47.070	CNS-1302222			\$245,100
ECONOMIC FOUNDATIONS OF DIGITAL PRIVACY	47.070	CCF-1101389			\$249,704
MRI-CONSORTIUM DEVELOPMENT: HETEROGENEOUS, AUTONOMIC WIRELESS SENSOR/ACTUATOR NETWORKS FOR SCALABLE CYBER-PHYSICAL SYSTEMS	47.070		PURDUE UNIVERSITY	4101-64763	\$296,746
NRI: COLLABORATIVE: ROBOTICS 2.0 FOR DISASTER RESPONSE AND RELIEF OPERATIONS	47.070	IIS-1426840			\$314,259
INSPIRE: LEGGED LOCOMOTION FOR DESERT RESEARCH	47.070	IIS-1514882			\$428,130
COLLABORATIVE RESEARCH: PRINTABLE ROBOTS: AN EXPEDITION IN COMPUTING FOR COMPILING FUNCTIONAL PHYSICAL MACHINES	47.070	CCF-1138847			\$923,486

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CPS:LARGE: ASSURING THE SAFETY, SECURITY AND RELIABILITY OF MEDICAL DEVICE CYBER PHYSICAL SYSTEMS	47.070	CNS-1035715			\$1,000,900
COLLABORATIVE RESEARCH: EXPEDITIONS IN COMPUTER AUGMENTED PROGRAM ENGINEERING (EXCAPE): HARNESSING SYNTHESIS FOR SOFTWARE DESIGN	47.070	CCF-1138996			\$1,064,207
EVOLUTION OF VEGETATIVE PHASE CHANGE IN THE ACACIEAE	47.074	IOS-1256979			-\$873
PENN-ANSP NATIONAL LIVING LABORATORY PARTNERSHIP	47.074		ACADEMY NATURAL SCIENCES	SUB TO 1113648	\$2,319
THE HOST SIGNAL LANDSCAPE RECOGNIZED BY AGROBACTERIUM TUMEFACIENS	47.074	IOS-1121019			\$7,165
COLLABORATIVE RESEARCH: THERMAL CONTROLS ON ECOSYSTEM METABOLISM AND FUNCTION: SCALING FROM LEAVES TO CANOPIES TO REGIONS	47.074	EF-1241873			\$8,259
US-FRANCE RESEARCH PROPOSAL: PREDICTING ODORANT-DEPENDENT AND INDEPENDENT OLFACTORY NEURON ACTIVATION BASED ON RECEPTOR DYNAMICS	47.074	IOS-1515930			\$20,246
THE ROLE OF THE 'ANTIFLORIGEN' TFL1 IN ARABIDOPSIS DEVELOPMENT	47.074	1557529			\$20,707
CAREER: EFFECTS OF EMOTION ON HIPPOCAMPAL REPRESENTATIONS AND MEMORY RETRIEVAL	47.074	IOS-1256941			\$25,548
NEURAL BASES OF SONG PREFERENCE AND REPRODUCTIVE BEHAVIOR IN A FEMALE SONGBIRD	47.074	1557499			\$28,286
US-FRENCH COLLABORATION: SPATIAL AND TEMPORAL ASPECTS OF MOLECULAR SIGNALING IN SYNAPTIC PLASTICITY	47.074	1515458			\$28,322
THE EVOLUTION OF INCENTIVES AND SOCIAL STRUCTURE UNDER IMPERFECT INFORMATION	47.074		PRINCETON UNIVERSITY	00002158	\$29,174
REGULATION OF FLOWER INITIATION AND DEVELOPMENT	47.074	IOS-1257111			\$52,727
LTREB:EXPERIMENTAL TESTS OF ALTERNATIVE STATES ON ROCKY INTERTIDAL SHORES	47.074	DEB-1020480			\$54,718
ESTABLISHMENT OF AN EPIGENOMICS OF PLANTS INTERNATIONAL CONSORTIUM (EPIC)	47.074	IOS-0925071			\$56,554
CAREER: UNRAVELING HOMEOSTATIC MECHANISMS IN GENE EXPRESSION REGULATION: INTEGRATING RESEARCH AND SCIENTIFIC COMMUNICATION	47.074	MCB-1350601			\$87,510
NEW TOOLS FOR GENETIC ANALYSIS IN ARABIDOPSIS THALIANA	47.074	MCB-1243754			\$89,991
EXAMINING THE ROLE OF THE ENDOMEBRANE IN TRANSCRIPTION FACTOR MOVEMENT	47.074	MCB-1243945			\$96,941
BILATERAL BBSRC-NSF/BIO COLLABORATIVE RESEARCH: ABI DEVELOPMENT: ACRITICAL ASSESSMENT OF PROTEIN FUNCTION ANNOTATION	47.074	DBI-1458390			\$109,570
MICROETCHING OF THE HUMAN BRAIN	47.074	IOS-1443767			\$115,635
COLLABORATIVE RESEARCH: ECOLOGICAL CONSEQUENCES OF THE EFFECTS OF A ZOONOTIC PATHOGEN ON ITS RESERVOIR HOST	47.074	DEB-1354184			\$122,934
PAYING THE PIPER: HOW TWO FISH SPECIES ADJUST CALCIUM CYCLING FOR DIFFERENT MATING CALLS	47.074	IOS-1145981			\$141,149
GLOBAL ANALYSIS OF RNA-PROTEIN INTERACTIONS IN PLANTS	47.074	MCB-1243947			\$143,270
CONFINED PROTEIN HYDRATION & DYNAMICS	47.074	MCB-1158038			\$145,509
C. ELEGANS LIPOCALIN FUNCTION IN GROWTH FACTOR SIGNALING	47.074	IOS-1257879			\$146,895
CAREER: GLOBAL ANALYSIS OF RNA-DEPENDENT RNA POLYMERASE FUNCTION	47.074	MCB-1053846			\$152,126
CAREER: DEVELOPING NOVEL SOCIAL SYSTEMS-LEVEL APPROACHES WITH A NEW ANT MODEL TO STUDY THE GENETIC, BEHAVIORAL, AND EVOLUTIONARY BASIS OF SOCIAL TRAITS	47.074	IOS-1452520			\$172,653
POLYCOMB RESPONSE ELEMENTS (PRES) AND POLYCOMB RECRUITMENT IN PLANTS	47.074	MCB1243757			\$200,183
QUANTITATIVE MASS SPECTROMETRY ANALYSIS OF HISTONE CODES IN SACCHAROMYCES CEREVISIAE	47.074	MCB-1262672			\$205,430
PROTEIN FOLDING: MECHANISM AND PRINCIPLES	47.074	MCB-1409137			\$228,207
SIGNALING MECHANISMS THAT REGULATE ATTRACTIVE AXON GUIDANCE AT THE CNS MIDLINE	47.074	IOS-1355181			\$245,546
EVOLUTION OF MUCOSAL B CELL IMMUNITY: NOVEL ROLES OF IGT+ B CELLS IN THE CONTROL OF HOST-PATHOGEN INTERACTIONS	47.074	IOS-1457282			\$264,000
A NOVEL ANCHORING MECHANISM FOR PROKARYOTIC SURFACE PROTEINS	47.074	MCB-1413158			\$301,885
STRUCTURAL, FUNCTIONAL, AND EVOLUTIONARY ANALYSIS OF LONG NON-CODING RNAS IN CONTROL OF STRESS RESPONSE AND THE EPIGENOME IN DIVERSE PLANT SPECIES	47.074	IOS-1444490			\$334,184
NEW EXCAVATIONS AT LA FERASSIE (FRANCE)	47.075	BCS-1219301			-\$10,682
LANGUAGE PRESERVATION 2.0: CROWDSOURCING ORAL LANGUAGE DOCUMENTATION USING MOBILE DEVICES	47.075	BCS-1160639			-\$2,368
INFORMATION TECHNOLOGY AND DEMOCRATIC REPRESENTATION: EVIDENCE FROM UGANDAS PARLIAMENTARY CALL SYSTEM	47.075		COLUMBIA UNIVERSITY	1(GG009655)	-\$595
THE ICC AND AFRICA: UNCOVERING AFFECT IN THE PURSUIT OF JUSTICE	47.075	BCS-1347863			-\$518
INTEGRATION OF URBAN AND RURAL POPULATION	47.075	BCS-1430404			-\$371
ESTIMATING A COORDINATION GAME IN THE CLASSROOM: EVALUATING THE ROLE OF STUDENT AND TEACHER PERFORMANCE INCENTIVES	47.075	SES-1227364			\$448
DOCTORAL DISSERTATION RESEARCH IN DRMS: ATTITUDES TO GENETICALLY MODIFIED FOODS	47.075	SES-1559371			\$953
FORECASTING AND POLITICAL DISCOURSE	47.075	SES-1559370			\$1,020

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UNIVERSITY OF PENNSYLVANIA
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<i>Cluster Name/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification</i>	<i>Pass-Through Entity Name</i>	<i>Pass-Through Entity Identifying Number</i>	<i>Federal Expenditures</i>
CAREER: LIFE HISTORY TRANSITIONS AMONG THE TOBA ON NORTHERN ARGENTINA	47.075	BCS-0952264			\$1,114
THE NEURAL MECHANISMS UNDERLYING VISUAL TARGET AND TASK SWITCHING	47.075	BCS-1265480			\$2,140
EARLY EPIPALEOLITHIC IN THE WESTERN HIGHLANDS OF JORDAN	47.075	BCS-0917660			\$2,250
DOCTORAL DISSERTATION RESEARCH: PUBLIC SCHOOL SELECTION PROCESSES, EDUCATIONAL INEQUALITY AND THE MEANING OF REJECTION.	47.075	SES-1303603			\$2,373
REVISITING THE VARIABLE DELETION OF LABIOVELAR GLIDE (W) IN SEOUL KOREAN	47.075	1529051			\$2,615
DOCTORAL DISSERTATION RESEARCH: WHEN CRUELTY MEETS COMPASSION: AN ETHNOGRAPHIC ANALYSIS OF THE CONSTITUTIONAL RIGHT TO HEALTHCARE IN A PENNSYLVANIA PRISON	47.075	BCS-1356549			\$3,284
DOCTORAL DISSERTATION IMPROVEMENT GRANT: CERAMIC ENTANGLEMENTS AT THE URARTIAN PERIPHERY	47.075	BCS-1420111			\$4,971
QUANTITATIVE THEORIES OF LEARNING, MEMORY, AND PREDICTION	47.075	BCS-1441502			\$6,886
USING NEURAL ACTIVITY TO PREDICT POLITICAL BEHAVIOR IN RESPONSE TO PERSUASIVE MESSAGES	47.075	SMA-1360732			\$7,368
THE EFFECTS OF RAW MATERIAL VARIABILITY AND HEAT TREATMENT ON FLAKE PRODUCTION AND USE: A CONTROLLED EXPERIMENT	47.075	BCS-1153192			\$9,652
DOCTORAL DISSERTATION RESEARCH: DESIGNING COLLABORATION NETWORKS TO OPTIMIZE COLLECTIVE PROBLEM SOLVING	47.075	1519026			\$10,552
DOCTORAL DISSERTATION RESEARCH: LEAVING HOME: GENETIC, ENDOCRINE, AND BEHAVIORAL CORRELATES OF DISPERSAL IN MONOGAMOUS OWL MONKEYS (AOTUS AZARAE) OF ARGENTINA	47.075	BCS-1540255			\$10,795
DOCTORAL DISSERTATION RESEARCH: GUT MICROBIOMES OF CAMEROON HUNTER-GATHERERS: ROLES OF DIET AND HELMINTHS	47.075	BCS-1540432			\$12,491
DOCTORAL DISSERTATION RESEARCH: GENDER "DONE" AND "UNDONE"? HOW MEN AND WOMEN EXPERIENCE UNEMPLOYMENT DIFFERENTLY AND WHY THIS MATTERS	47.075	1538951			\$12,576
DOCTORAL DISSERTATION RESEARCH: CONSTITUTIONS & THE POLITICAL ECONOMY OF HEALTH IN THE GLOBAL SOUTH	47.075	1534880			\$19,841
TESTING AND IMPROVING METHODS FOR EFFICIENT ANNOTATION THROUGH THE CONSTRUCTION OF A LARGE PARSED CORPUS	47.075	BCS-1147499			\$21,787
COLLABORATIVE RESEARCH: THE NEXT GENERATION OF THE PENN WORLD TRADE	47.075	SES-1061908			\$23,993
RESEARCH ON THE ECONOMICS OF DISCRIMINATION AND AFFIRMATIVE ACTION: NEW EMPIRICAL METHODS, THEORY AND APPLICATIONS	47.075	SES-1122902			\$28,847
ADAPTATION TO DIET IN AFRICA AND ITS IMPACT ON THE GUT MICROBIOME AND GENOMIC VARIATION	47.075	BCS-1317217			\$33,976
INCREASING ACCESS TO FEDERAL COURT DATA WORKSHOP--FALL 2015	47.075	SES-1551564			\$34,365
THE INFLUENCE OF HIGHER EDUCATION ON LOCAL PHONOLOGY	47.075	BCS-1251437			\$39,383
PROSODIC SYSTEMS IN NEW GUINEA: INTEGRATING COMPUTATIONAL AND TYPOLOGICAL APPROACHES TO LINGUISTIC ANALYSIS	47.075	BCS-0951651			\$48,378
COLLABORATIVE RESEARCH: MONETARY DSGE MODELS AT THE ZERO LOWER BOUND: POLICY ANALYSIS AND ECONOMETRIC.	47.075	SES-1424843			\$50,056
COLLABORATIVE RESEARCH: DYNAMIC RATIONAL INATTENTION: THEORY AND APPLICATIONS	47.075	1461469			\$52,655
UNCERTAINTY IN MODELS OF AUTHORITY AND MODELS OF MATCHING	47.075	1559369			\$52,880
MODELLING THE US MARKET FOR HIGHER EDUCATION: THEORY AND ESTIMATION	47.075		CARNEGIE MELLON UNIVERSITY	1122062-327557	\$54,403
CAUSAL INFERENCE IN OBSERVATIONAL STUDIES	47.075	SES-1260782			\$54,495
COLLABORATIVE RESEARCH: PUBLIC AND PRIVATE DEBT CRISES: THEORY AND POLICY IMPLICATIONS	47.075	SES-1325122			\$64,410
TOPICS IN MATCHING	47.075	SES-1260753			\$75,224
MACROECONOMICS OF LABOR MARKET SORTING	47.075	SES-1357903			\$76,038
STANDARD RESEARCH GRANT: PROBING PUBLIC UNDERSTANDING AND ACCEPTANCE OF EVOLUTION	47.075	SES-1455425			\$79,093
CARTEL BIRTH, DEATH, AND DETECTION	47.075	SES-1148129			\$80,872
CAREER; DECISION-INDUCED BIASES IN VISUAL PERCEPTS	47.075	BCS-1350786			\$93,315
AFFORDABLE CARE ACT AND THE LABOR MARKET	47.075	1459353			\$98,081
PRESUPPOSITIONS IN ONLINE LANGUAGE COMPREHENSION	47.075	BCS-1349009			\$116,923
COLLABORATIVE RESEARCH: MAPPING AND CONTROL OF LARGE-SCALE NEURAL DYNAMICS	47.075	BCS-1430087			\$130,801
INHIBITION, SOCIAL RELATIONSHIPS, AND EARLY ADULTHOOD OUTCOMES IN CHINA AND CANADA	47.075	BCS-1225620			\$139,083
COLLABORATIVE RESEARCH: BCC: DEVELOPING A RESEARCH COMMUNITY AND CAPACITY FOR THE STUDY OF CULTURAL HERITAGE IN CONFLICT	47.075	SMA-1439474			\$146,232
NCS-FO: THE ROLE OF NOISE IN MENTAL EXPLORATION FOR LEARNING	47.075	1533623			\$167,980

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SPATIAL INTELLIGENCE AND LEARNING CENTER (SILC)	47.075		TEMPLE UNIVERSITY	330161-18110-7341	\$216,819
ARIEL - AUGMENTED REALITY FOR INTERPRETIVE AND EXPERIENTIAL LEARNING	47.076		FRANKLIN INSTITUTE	FRANKLIN INSTITUTE/DRL-0741659	-\$88
COLLABORATIVE RESEARCH: THE ROLE OF INSTRUCTOR AND PEER FEEDBACK IN IMPROVING THE COGNITIVE, INTERPERSONAL, AND INTRAPERSONAL COMPETENCIES OF STUDENT WRITERS IN STEM COURSES	47.076	DGE-1544130			\$4,141
DRK12-BIOGRAPH: GRAPHICAL PROGRAMMING FOR CONSTRUCTING COMPLEX SYSTEMS UNDERSTANDING IN BIOLOGY	47.076		MASSACHUSETTS INSTITUTE OF TECHNOLOGY	5710002833	\$6,147
COLLABORATIVE RESEARCH: ASSESSING TEACHERS' PEDAGOGICAL DESIGN CAPACITY AND MATHEMATICS CURRICULUM USE	47.076	DRL-0918141			\$6,406
AMP V	47.076		DREXEL UNIVERSITY	235920	\$13,244
REESE: ADAPTIVE SEQUENCING AND PERCEPTUAL LEARNING TECHNOLOGIES IN MATHEMATICS AND SCIENCE	47.076		UNIVERSITY OF CALIFORNIA, LOS ANGELES	0875 G PC027	\$21,349
THE PENN I-CORPS SITE - INTEGRATING COMPANY FORMATION AND EXPERIENTIAL EDUCATION	47.076	IIP-1450467			\$21,913
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			\$25,530
INTERSECTIONS - GAME ON! PHILADELPHIA	47.076		NATIONAL WRITING PROJECT	92-PA06-B-NSF2014	\$34,963
COLLABORATIVE RESEARCH: LEARNING ABOUT NEW DEMANDS IN SCHOOLS: CONSIDERING ALGEBRA POLICY ENVIRONMENTS [LANDSCAPE]	47.076	DRL-1108828			\$50,521
TRANSFORMING STEM COMPETITIONS INTO COLLABORATIVES: DEVELOPING ECRAFTING COLLABS FOR LEARNING WITH ELECTRONIC TEXTILES	47.076	DRL-1238172			\$58,631
CAREER: CHARACTERIZING THE FIRST BILLION YEARS OF GALAXY EVOLUTION WITH 21 CM TOMOGRAPHY	47.076	AST-1455151			\$61,264
NRT-IGE: PENN PATHFINDERS	47.076	1545212			\$98,516
THE EFFECTS OF EDUCATION AND PROFESSIONAL DEVELOPMENT ON BEGINNING STEM TEACHER PERSISTENCE: A LONGITUDINAL STUDY	47.076	DGE-1535175			\$211,945
COLLABORATIVE RESEARCH: GOLFING IN A HURRICANE: INSTABILITY IN EDUCATION SYSTEMS, RANDOMIZED CONTROLLED TRIALS, AND CHILDREN'S ACHIEVEMENT	47.076	DRL-1337237			\$214,400
COLLABORATIVE RESEARCH: ET-ECS: ELECTRONIC TEXTILES FOR EXPLORING COMPUTER SCIENCE WITH HIGH SCHOOL STUDENTS & TEACHERS TO PROMOTE COMPUTATIONAL THINKING AND PARTICIPATION FOR ALL	47.076	DRL-1509245			\$223,340
INSPIRE TRACK 2: DISCOVERY AND DEVELOPMENT OF OPTIMIZED PHOTONIC SYSTEMS FOR HIGH VOLUME, LOW SURFACE AREA SOLAR ENERGY HARVESTING: LEARNING FROM GIANT CLAMS	47.076	IOS-1343159			\$434,286
IGERT: COMPLEX SCENE PERCEPTION	47.076	DGE-0966142			\$494,130
USING RESEARCH-BASED FORMATIVE ASSESSMENT TO IMPROVE MATHEMATICS TEACHING AND LEARNING	47.076	DRL-1316527			\$1,193,455
GRADUATE RESEARCH FELLOWSHIP PROGRAM	47.076	DGE-1321851			\$2,970,626
COLLABORATIVE RESEARCH: ACTIVATION OF HIGH-ELEVATION ALLUVIAL FANS IN THE TRANSANTARCTIC MOUNTAINS - A PROXY FOR PLIO-PLEISTOCENE WARMTH ALONG EAST ANTARCTIC ICE MARGINS	47.078	ANT-1043554			\$57,485
PROPOSAL TO HOST THE FIRST "INTERNATIONAL WORKSHOP ON THE ROLE OF HIGHER EDUCATION: FOSTERING P-20+ COMMUNITY ENGAGEMENT THROUGH KNOWLEDGE PRODUCTION, HUMAN CAPACITY BUILDING, INNOVATION AND SOCIAL COHESION, A U.S.-CHINA-SOUTH AFRICAN COLLABORATION"	47.079	OISE-1219996			\$4,507
INTERNATIONAL: STUDENT EXCHANGE FOR RESEARCH ON NANO/BIOTECHNOLOGY	47.079	OISE-1130994			\$19,283
PIRE: MATERIALS FOR RENEWABLE ENERGY NATURE'S WAY	47.079		CASE WESTERN RESERVE UNIVERSITY	OISE-1243313 / RES507490	\$70,078
CDI-TYPE II: COLLABORATIVE RESEARCH: PREPARING THE NEXT GENERATION OF COMPUTATIONAL THINKERS: TRANSFORMING LEARNING AND EDUCATION THROUGH COOPERATION IN DECENTRALIZED NETWORKS	47.080	CDI-1027736			\$6,398
SI2-SSI: THE LANGUAGE APPLICATION GRID: A FRAMEWORK FOR REPID ADAPTATION AND REUSE	47.080		BRANDEIS UNIVERSITY	4-02069	\$47,067
CAREER: FREE SURFACE MOBILITY AND ITS ROLE IN THE FORMATION OF EXCEPTIONALLY STABLE GLASSES	47.081	DMR-1350044			\$111,116
CAREER: HIERARCHICAL SELF-ASSEMBLY OF PHOTONIC DEVICES FROM PATCHY COLLOIDS: DECIPHERING THE REFLECTIN-PHOTONIC ALPHABET	47.081	DMR-1351935			\$132,169
ARRA - MRI-R2: DEVELOPMENT OF COMMON PLATFORM FOR UNIFYING HUMANOID RESEARCH	47.082		DREXEL UNIVERSITY	235660	-\$12,197
ARRA - URBAN TEACHING FELLOWSHIPS FOR STEM PROFESSIONALS	47.082	DUE-0934618			\$13,631
PIRE: RESEARCH AND EDUCATION IN ACTIVE COATINGS TECHNOLOGIES (REACT) FOR THE HUMAN HABITAT	47.083	OISE-1545884			\$187,428

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IPA	64.RD	IPA - EDNA B. FOA			-\$14,379
NOVEL METABOLITES ASSOCIATED WITH RENAL OUTCOMES	64.RD	IPA	STANFORD UNIVERSITY	SUB TO VETERANS AFFAIRS	-\$2,716
INTEGRATED COGNITIVE BEHAVIOR THERAPY TO IMPROVE OUTCOMES IN SCHIZOPHRENIA	64.RD	IPA URICK SARAH			-\$2,305
INTEGRATED COGNITIVE BEHAVIORAL THERAPY TO IMPROVE OUTCOMES IN SCHIZOPHRENIA	64.RD	IPA AGREEMENT			-\$270
IPA CHRISTINA NASH	64.RD	IPA CHRISTINA NASH			\$360
TISSUE-ENGINEERED CONSTRUCTS FOR TREATMENT OF INTERVERTEBRAL DISC DEGENERATION	64.RD	IPA AGREEMENT			\$807
CENTER FOR HEALTH EQUITY RESEARCH AND PROMOTION (CHERP)	64.RD	IPA HENRY GLICK			\$1,547
HUD-VASH FEASIBILITY STUDY IPA - MAX STERN	64.RD	IPA MAX STERN			\$2,074
IPA - INTIMATE PARTNER VIOLENCE: PATIENT CHARACTERISTICS, SERVICE USE AND EXPERIENCES	64.RD	IPA SCARLETT BELLAMY			\$3,425
IPA SAKHENA HIN	64.RD	IPA AGREEMENT			\$3,455
VA BLRD MERIT AWARD WITH F. SPINALE USC	64.RD	IPA JASON A BURDICK			\$3,466
IPA MELISSA NICHOLSON	64.RD	IPA AGREEMENT			\$3,537
IPA - COMPARATIVE EFFECTIVENESS OF DELIVERY METHODS FOR CAREGIVER SUPPORT EDUCATION	64.RD	IPA KNASHAWN MORALES			\$3,576
HUD-VASH FEASIBILITY STUDY IPA - APRIL HOWARD	64.RD	IPA APRIL HOWARD			\$4,666
INTEGRATED COGNITIVE BEHAVIORAL THERAPY TO IMPROVE OUTCOMES IN SCHIZOPHRENIA	64.RD	IPA WASHINGTON AKBESHA			\$4,766
IPA	64.RD	IPA - ERIK JORGENSEN			\$4,972
IPA - CHERP	64.RD	IPA - JUDY SHEA			\$4,999
INSULIN THERAPY AND THE RISK OF COLORECTAL ADENOMA IN TYPE 2 DIABETES MELLITUS	64.RD	IPA - W. HWANG			\$5,855
INSOMNIA DURING RECOVERY: IS CBT-I EFFICACIOUS AND IS INSOMNIA A MODIFIABLE RISK FACTOR FOR RELAPSE?	64.RD	IPA AGREEMENT			\$6,159
IPA - CIN 14-251: CENTER OF INNOVATION FOR HEALTH EQUITY RESEARCH AND PROMOTION	64.RD	IPA SCARLETT BELLAMY			\$6,850
THE EFFECT OF SINGLE TBI ON PTSD RELATED CIRCUITRY, NEUROPHYSIOLOGY, AND BEHAVIOR	64.RD	IPA AGREEMENT			\$7,051
IPA	64.RD	IPA - RUBEN GUR			\$7,335
IPA FOR ALEXIS ZEBROWSKI	64.RD	IPA ALEXIS ZEBROWSKI			\$8,140
IPA BENJAMIN OFFENBERG	64.RD	IPA AGREEMENT			\$8,702
JPA ASSIGNMENT AGREEMENT FOR DAVID GOLDBERG, MD	64.RD	IPA DAVID S GOLDBERG			\$8,813
VA IPA AGREEMENT FOR ADAM MUSSEL	64.RD	IPA ADAM MUSSELL			\$8,842
IPA - ZUOZHEN TIAN - INHIBITION OF ADAM-8 TO REDUCE INTERVERTEBRAL DEGENERATION	64.RD	IPA - ZUOZHEN TIAN			\$9,030
JPA - GREENE	64.RD	IPA	PHILADELPHIA RESEARCH AND EDUCATION FOUNDATION	JPA - JENNIFER GREENE	\$9,133
IPA - DAVID YUSKO	64.RD	IPA - YUSKO			\$9,725
IPA AGREEMENT FOR TIMOTHY PHAN	64.RD	IPA TIMOTHY PHAN			\$9,899
CARTILAGE RESPONSE TO COMPRESSION INJURY: A PLATFORM FOR THERAPEUTICS DISCOVERY	64.RD	IPA AGREEMENT			\$10,254
IPA - JENNIFER GREENE - THE PHENOMENOLOGY OF LUCID DREAMING IN PTSD AND POSTTRAUMATIC NIGHTMARES	64.RD	IPA - JENNIFER GREENE			\$10,502
IPA JAMES FINDLEY -CHAKRAVORTY PROJECT	64.RD	IPA JAMES CURTIS FINDLEY			\$10,720
COMPLICATED FAMILY REINTEGRATION IN OEF/OIF VETERANS	64.RD	IIR 08-308			\$11,001
IPA - LAURIE DOWNING	64.RD	IPA - BIDDLE			\$11,467
IPA ALIYA COLLIER	64.RD	IPA ALIYA COLLIER			\$11,722
VA IPA - HAGOP (JIMMY) KAPRIELIAN	64.RD	IPA HAGOP KAPRIELIAN VA IPA AGREEMENT FOR			\$11,878
IPA	64.RD	KEISUKE OJIRO			\$11,971
DMU IPA - MING LI	64.RD	IPA AGREEMENT			\$12,045
TELEMEDICINE MANAGEMENT OF VETERANS WITH PTSD AND CHRONIC INSOMNIA	64.RD	IPA AGREEMENT			\$12,605
INPATIENT PSYCHIATRIC SAFETY AT THE VA	64.RD	IPA			\$12,705
WAY TO CURE: DEVELOPING EFFECTIVE STRATEGIES TO PROMOTE ADHERENCE TO HEPATITIS C THERAPY AMONG VETERANS	64.RD	IPA DANIEL GRAY			\$12,808
INTEGRATED VS. SEQUENTIAL TREATMENT FOR CO-MORBID PTSD/ADDICTION AMONG OEF/OIF VETERANS	64.RD	IPA - CHRISTOPHER PETRO			\$13,235
IPA - CHRISTOPHER WIRTALLA	64.RD	IPA - CHRISTOPHER WIRTALLA IPA HAIDELIZA SOTO- CALDERON			\$13,579
IPA AGREEMENT FOR HAIDELIZA SOTO-CALDERON	64.RD	IPA JUDY SHEA			\$13,726
IPA JUDY SHEA	64.RD	IPA JULIANNE H POTOCEK			\$15,996
GENETIC RESPONSE IN THE ADAPTATION SUPRASPINATUS TENDON AND MUSCLE TO LOAD	64.RD	IPA - TYRONE THOMAS			\$16,448
CESATE - IPA	64.RD	IPA CHRISTOPHER PETRO			\$16,471
DMU IPA - CHRISTOPHER PETRO	64.RD				\$17,235

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VA IPA FY15 MEAGAN CUSACK	64.RD	IPA - 642-C56119			\$17,412
CARTILAGE REPAIR WITH SYNOVIAL JOINT PRECURSORS	64.RD	IPA - HENNING			\$17,709
FEASIBILITY STUDY OF INTERVENTIONS DESIGNED TO ENHANCE HUD-VASH SERVICE - IPA FOR					
HERD/IVERY/THOMAS/VAN HORN/ZIMMERMAN/LI/PETRO	64.RD	PO #642-C26320			\$17,931
VA IPA FY15 ELIZABETH FLATLEY	64.RD	IPA - 642-C46744			\$18,886
INTEGRATED COGNITIVE BEHAVIORAL THERAPY TO IMPROVE OUTCOMES IN SCHIZOPHRENIA	64.RD	IPA PAUL M. GRANT			\$18,936
FLATLEY VA IPA (10/01/15 - 12/31/15)	64.RD	IPA ELIZABETH D FLATLEY			\$18,976
MECHANISMS OF CORTICO-LIMBIC NETWORK DYSFUNCTION UNDERLYING PTSD AFTER TBI	64.RD	IPA MICHAEL R GROVOLA			\$20,094
INTENSIVE TRAINING IN COGNITIVE BEHAVIORAL THERAPY FOR VETERANS EXPERIENCING CHRONIC					
HOMELESSNESS (CBT-H)	64.RD	IPA ASHLEY L BUSH			\$20,891
IPA - HEATHER JOHNSON	64.RD	CHERP			\$21,137
VA IPA - JUAN YI	64.RD	IPA YUAN JI			\$21,778
IPA - ZUOZHEN TIAN - CELL THERAPY FOR THE DEGENERATING INTERVERTEBRAL DISC	64.RD	IPA TIAN ZUOZHEN			\$21,862
VA IPA FY15 NORA HUNT-JOHNSON	64.RD	IPA AGREEMENT - 642-C46735			\$22,324
IPA AGREEMENT FOR RAVISHANKAR JAYADEVAPPA	64.RD	IPA AGREEMENT			\$23,209
TIMED-RELEASE OF LOCAL ANESTHETIC FROM SOL GELS FOR POST-OP PAIN CONTROL	64.RD	PROJECT B6205R			\$23,285
		IPA AGREEMENT - JUDITH			
IPA JUDY SHEA	64.RD	SHEA			\$23,379
IPA HENRY GLICK	64.RD	IPA AGREEMENT - DR. GLICK			\$24,232
INTERNSIVE TRAINING IN COGNITIVE BEHAVIORAL THERAPY FOR THE HOMELESS POPULATION	64.RD	IPA KELLY LYNN GREEN			\$24,340
IPA - BARBARA CANNON AND ANNA KALOTA	64.RD	IPA - KALOTA/CANNON			\$26,541
IPA	64.RD	IPA - JENNIFER GREENE			\$27,515
HUNT-JOHNSON VA IPA (10/01/15 - 12/31/15)	64.RD	IPA NORA HUNT-JOHNSON			\$28,199
IPA	64.RD	IPA - EUGENIA MAMIKONYAN			\$30,045
IPA AGREEMENTS FOR MARY VALIGA, MASAHIRO KIKUCHI, JAMES KEITH, XIAOWANG QU, JANG PARK	64.RD	PO #642D36032			\$30,754
COMPARATIVE EFFECTIVENESS RESEARCH IN VETERANS WITH PTSD (CERV-PTSD)	64.RD	VA268-15-C-0074			\$31,676
INTEGRATED VS. SEQUENTIAL TREATMENT FOR CO-MORBID PTSD/ADDICTION AMONG OEF/OIF VETERENS	64.RD	IPA - KEVIN LYNCH			\$32,124
INTENSIVE TRAINING IN COGNITIVE BEHAVIORAL THERAPY FOR THE HOMELESS POPULATION	64.RD	IPA / PO #642-C46260			\$32,229
INTENSIVE TRAINING IN COGNITIVE BEHAVIORAL THERAPY FOR VETERANS EXPERIENCING CHRONIC					
HOMELESSNESS (CBT-H)	64.RD	IPA AGREEMENT			\$32,729
VA IPA FY16 DOROTA SZYKOWIAK (09/01/15 - 08/31/16)	64.RD	IPA DOROTA SZYKOWIAK			\$33,050
VA IPA FY15 DENNIS CULHANE	64.RD	IPA AGREEMENT - 642-C46735			\$33,887
IPA - KASSONDRA BERTULIS	64.RD	IPA KASSONDRA BERTULIS			\$34,537
IPA - MARNA BARRETT	64.RD	IPA MARNA BARRETT			\$34,655
IPA AGREEMENT ELIZABETH HARDERS	64.RD	IPA ELIZABETH HARDERS			\$35,744
THE EFFECT OF EXOGENOUS INSULIN THERAPY ON COLORECTAL ADENOMA RISK AMONG PATIENTS WITH					
DIABETES MELLITUS (IPA-BRUNO)	64.RD	IPA - LORRAINE BRUNO			\$37,708
TELEHEALTH FY 13	64.RD	IPA - JAMES FINDLEY			\$38,118
IPA - SARAH MOOAR	64.RD	IPA - SARAH MOOAR			\$38,171
VA IPA - PRERNA SHARMA	64.RD	IPA PRERNA SHARMA			\$38,779
IPA FOR JUDY SHEA	64.RD	IPA JUDY SHEA			\$43,330
PERIOPERATIVE POST-PROSTATECTOMY INCONTINENCE HOME TELEHEALTH PROGRAM	64.RD	IPA - THOMAS BAVARIA			\$47,900
IPA	64.RD	IPA - TIFFANY HUSEMAN			\$50,212
MENTAL ILLNESS RESEARCH, EDUCATION AND CLINICAL CENTER	64.RD	IPA AGREEMENT			\$53,099
INTEGRATED COGNITIVE BEHAVIORAL THERAPY TO IMPROVE OUTCOMES IN SCHIZOPHRENIA	64.RD	IPA SARA ZGORAC			\$56,775
IPA RICHARD SORELLE	64.RD	IPA RICHARD SORELLE			\$58,551
IPA	64.RD	IPA - ERICA GOLDBERG			\$58,905
IPA ANEEZA AGHA	64.RD	IPA ANEEZA AGHA			\$62,169
IPA	64.RD	IPA - MARY VALIGA			\$62,371
INTEGRATED COGNITIVE BEHAVIORAL THERAPY TO IMPROVE OUTCOMES IN SCHIZOPHRENIA	64.RD	IPA CATHERINE CONROY			\$63,752
IMPLEMENTING GOALS OF CARE CONVERSATIONS WITH VETERANS IN VA LTC SETTINGS, PHILADELPHIA, PA	64.RD	IPA			\$67,525
EFFECT OF SCAFFOLD-DELIVERY GROWTH FACTORS IN ROTATOR CUFF REPAIR	64.RD	IPA AGREEMENT			\$72,181

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UNIVERSITY OF PENNSYLVANIA
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<i>Cluster Name/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification</i>	<i>Pass-Through Entity Name</i>	<i>Pass-Through Entity Identifying Number</i>	<i>Federal Expenditures</i>
VA IPA AGREEMENT FOR YONGHAI LI	64.RD	IPA LI YONGHAI			\$72,577
ENGINEERED MULTI-FUNCTIONAL NANOFIBROUS MENISCUS IMPLANTS	64.RD	IPA- BURDICK/SCHAEER			\$74,528
THE ROLE OF TNF-ALPHA IN CUTANEOUS INTEGRITY	64.RD	IPA MING-LIN LIU			\$75,850
IPA - YOLANDA WILLIAMS	64.RD	IPA YOLANDA WILLIAMS			\$89,846
IPA	64.RD	IPA - TAMARA BONEY			\$91,479
IPA - LISA DRAGANI	64.RD	PO #642-C36282			\$92,988
IPA AGREEMENT	64.RD	IPA - SHIRLEY LEONG			\$93,968
DEVELOPMENT OF A MULTIDIMENSIONAL PAIN MEASURE FOR PERSONS WITH DEMENTIA (PIM-D)	64.RD	IPA			\$96,066
THE ROLE OF TNF-ALPHA IN CUTANEOUS INTEGRITY	64.RD	IPA AGREEMENT - SHARMA			\$98,286
CULHANE VA IPA (10/01/15 - 09/30/16)	64.RD	IPA DENNIS P CULHANE			\$102,238
BIOACTIVE INJECTABLE IMPLANTS FOR FUNCTIONAL INTERVERTERBRAL DISC REGENERATION	64.RD	IPA AGREEMENT			\$113,787
IPA - DEBORAH VAN HORN	64.RD	IPA			\$118,215
IPA SHIMRIT KEDDEM	64.RD	IPA AGREEMENT			\$118,464
CHRONIC NEURODEGENERATIVE AND NEUROPHYSIOLOGICAL SEQUELA OF CLOSED-HEAD TBI	64.RD	PO #642D36047			\$121,575
VA MERIT AWARD	64.RD	H LI/V ABRAHAM			\$124,744
IPA	64.RD	IPA - ELENE TURZO			\$128,358
CARTILAGE REPAIR WITH STEM-CELL LADEN HYALURONIC ACID HYOGELS	64.RD	A7875-5			\$129,319
IPA - SUZANNE DIFILLIPPO	64.RD	PO #642C16077			\$132,201
IPA AGREEMENT	64.RD	IPA - RUSSO/MAGUIRE			\$139,201
THE ROLE OF LOCAL NSAID ADMINISTRATION AND INFLAMMATION ON TENDON HEALING	64.RD	00979-R			\$174,590
VA COMPREHENSIVE END-OF-LIFE CARE'S PROMISE CENTER	64.RD	IPA			\$329,760
AN INTEGRATED STRATEGY TO IMPROVE GREEN INFRASTRUCTURE APPROACHES IN PHILADELPHIA	66.509		TEMPLE UNIVERSITY	310214-UPENN	\$10,000
ENABLING CITIZENS AND OWNERS TO INVEST IN GREEN INFRASTRUCTURE IN PHILADELPHIA	66.509	83555401			\$245,429
HIGH ENERGY PHYSICS RESEARCH AT THE UNIVERSITY OF PENNSYLVANIA.	81.049	SE-SC0007901			-\$5,025
		DE-FG02-88ER40479 MOD			
SUDBURY NEUTRINO OBSERVATORY	81.049	043			-\$3,756
NOVEL CONCEPT IN PET IMAGING	81.049		RADIATION MONITORING DEVICES, INC.	CI2-22	-\$3,484
A PHYSICOCHEMICAL METHOD FOR SEPARATING RARE EARTHS: ADDRESSING AN IMPENDING SHORTFALL	81.049	DE-SC0006518			\$85,466
SUPERNOVA COSMOLOGY WITH THE DARK ENERGY SURVEY	81.049	DE-SC0009890			\$99,791
PHOTOSYNTHETIC ANTENNA RESEARCH CENTER (PARC)	81.049		WASHINGTON UNIVERSITY IN ST. LOUIS	WU-HT-10-10-MOD-6	\$124,958
STRUCTURE AND ELECTRONIC PROPERTIES OF DIRAC MATERIALS	81.049	DE-FG02-84ER45118			\$131,424
ANHARMONIC AND THERMAL EFFECTS ASSOCIATED WITH JAMMED SOLIDS	81.049	DE-FG02-05ER46199			\$132,144
MODULATING THERMAL TRANSPORT PHENOMENA IN NANOSTRUCTURES VIA ELASTIC STRAIN AT EXTREME LIMITS OF STRENGTH	81.049	DE-SC0008135			\$143,082
SURFACE SCIENCE STUDIES OF NANO-CRYSTALLINE METAL OXIDE AND METAL-METAL OXIDE CORE-SHELL CATALYSTS	81.049	DE-FG02-04ER15605			\$148,433
FIRST-PRINCIPLES INVESTIGATIONS OF FUNDAMENTAL PHYSICS AND NEW MATERIALS FOR OPTOELECTRONIC APPLICATIONS	81.049	DE-FG02-07ER46431			\$155,735
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			\$156,439
ATOMISTIC AND MESOSCOPIC STUDY OF PLASTIC DEFORMATION OF ALLOYS OF BODY-CENTERED-CUBIC TRANSITION METALS AND MAGNETIC IRON	81.049	DE-FG02-98ER45702			\$158,031
EXPLOITING THE FLEXIBILITY AND THE POLARIZATION OF FERROELECTRIC PEROVSKITE SURFACES TO ACHIEVE EFFICIENT PHOTOCHEMISTRY AND ENANTIOSPECIFICITY	81.049	UNDER DE-FG02-07ER15920			\$158,597
OXIDE-METAL INTERACTIONS STUDIED ON CORE-SHELL CATALYSTS	81.049	DE-SC0009440			\$168,422
ELECTRIC-LOADING ENHANCED KINETICS IN OXIDE CERAMICS: PORE MIGRATION, SINTERING AND GRAIN GROWTH	81.049	DE-SC0007064			\$168,529
MEMBRANE-ATTACHED ELECTRON CARRIERS IN PHOTOSYNTHESIS AND RESPIRATION	81.049	DE-FG02-91ER20052			\$173,027
SPECTROSCOPY AND DYNAMICS OF REACTION INTERMEDIATES IN COMBUSTION CHEMISTRY	81.049	DE-FG02-87ER13792			\$185,780
CENTER FOR THE COMPUTATIONAL DESIGN OF FUNCTIONAL LAYERED MATERIALS	81.049		TEMPLE UNIVERSITY	254998	\$210,359
DEVELOPMENT OF SMART, RESPONSIVE COMMUNICATING AND MOTILE MICROCAPSULES	81.049	DE-SC0007063			\$247,277
RATIONAL DESIGN OF INNOVATIVE CATALYTIC TECHNOLOGIES FOR BIOMASS DERIVATIVE UTILIZATION	81.049		UNIVERSITY OF DELAWARE	37849	\$279,804
UNIVERSITY OF PENNSYLVANIA THEORETICAL PROGRAM	81.049	DE-SC0013528			\$341,220

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MULTI-DISCIPLINARY RESEARCH AND TRAINING PROGRAM IN BREAST CANCER MOLECULAR IMAGING AND TARGETED RADIOCHEMISTRY	81.049	DE-SC0012476			\$411,526
SUDBURY NEUTRINO OBSERVATORY	81.049	DE-FG02-88ER40479			\$533,972
SISGR: BI-CONTINUOUS MULTI-COMPONENT NANOCRYSTAL SUPERLATTICES FOR SOLAR ENERGY CONVERSION	81.049	DE-SC0002158			\$756,594
HIGH ENERGY PHYSICS RESEARCH AT THE UNIVERSITY OF PENNSYLVANIA	81.049	DE-SC0007901			\$2,713,103
ENERGY EFFICIENT BUILDINGS HUB (EEB HUB) GPIC/HUB TASK #2 REALTIME KNOWLEDGE REPOSITORY ON PRACTICE & PERFORMANCE GPIC/HUB TASK #3 ECONOMIC POLICY AND BEHAVIOR FACTORS INFLUENCING BUILD ENERGY CONSUMPTION	81.086		PENNSYLVANIA STATE UNIVERSITY	4338-UP-DOE-4261	\$859,830
COST-EFFECTIVE MANUFACTURING AND MORPHOLOGICAL STABILIZATION OF NANOSTRUCTURED CATHODES FOR COMMERCIAL SOFCS	81.089	DE-FE0023317			\$206,357
DESIGN OF SOCIAL AND ECONOMIC INCENTIVES AND INFORMATION CAMPAIGNS TO PROMOTE SOLAR TECHNOLOGY DIFFUSION THROUGH DATA-DRIVEN BEHAVIOR MODELING	81.124		SANDIA NATIONAL LABORATORY	PO #1350502	\$111,611
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 DEMONSTRATION OF A SCALABLE 10 KWE PROTOTYPE	81.135		GEORGIA INSTITUTE OF TECHNOLOGY	RD735-G3	\$35,722
SYNTHETIC CROP FOR DIRECT DROP IN BIOFUEL PRODUCTION THROUGH PHOTORESPIRATION INTERMEDIATES AND ENGINEERING TERPENOID PATHWAYS	81.135		TEXAS A&M AGRILIFE RESEARCH	06-S130675	\$153,192
DESC AT UNIVERSITY OF PENNSYLVANIA	81.RD	DE-AC02-76SF00515	STANFORD LINEAR ACCELERATOR CENTER	116079	-\$14,059
DEVELOPMENT OF TC-99M IMAGING AGENTS FOR ABETS PLAQUES	81.RD	DE-FG02-03ER63589			-\$3,654
RESEARCH ON THE FRONT END ELECTRONICS AND ELECTRONICS SYSTEM ENGINEERING FOR THE LARGE SYNOPTIC SURVEY TELESCOPE (LSST) CAMERA PROJECT	81.RD	DE-AC02-76SF00515	STANFORD LINEAR ACCELERATOR CENTER	101288	\$1,510
UNDERSTANDING TRANSPORT AND AGING MECHANISMS TO OPTIMIZE SANDIA'S ION-CONDUCTING POLYMER ELECTROLYTES FOR ENERGY APPLICATIONS	81.RD	DE-AC04-94-AL85000	SANDIA NATIONAL LABORATORY	SUB TO DE-AC04-94-AL85000	\$9,848
FAST-TRACT: CONDUCTIVE DIAMOND PROBES FOR SCANNING ELECTROCHEMICAL MICROSCOPY	81.RD	DE-SC-0009624	ADVANCED DIAMOND TECHNOLOGIES, INC.	SBIR DE-SC-0009624	\$13,845
THE COLLIDER DETECTOR RESEARCH & DEVELOPMENT PROGRAM OFFICE FOR NOVEL MODULAR TRACKING STRUCTURES AND NEW CALORIMETER READOUT AND TRIGGER SYSTEM SUBSYSTEMS	81.RD	DE-AC02-98CH10886	BROOKHAVEN NATIONAL LABORATORY	229841	\$15,873
THE LIQUID ARGON CONSTRUCTION	81.RD	DE-AC02-98CH10886	BROOKHAVEN NATIONAL LABORATORY	243102	\$22,316
LSST STATEMENT OF WORK - UNIVERSITY OF PENNSYLVANIA	81.RD	DE-AC02-76SF00515	STANFORD LINEAR ACCELERATOR CENTER	123857	\$52,844
NANOCRYSTAL ADDITIVES FOR ADVANCED LUBRICANTS	81.RD	DE-SC0009222	PIXELLIGENT TECHNOLOGIES	DE-SC0009222-UPENN	\$56,323
PROPOSAL TO DESIGN, BUILD AND TEST REB4 BOARDS FOR LSST	81.RD	DE-AC02-98CH10886	BROOKHAVEN NATIONAL LABORATORY	306000	\$71,535
ENERGY FRONTIER RESEARCH CENTERS	81.RD	DE-AC36-08-GO-28308	ALLIANCE FOR SUSTAINABLE ENERGY, LLC	XEJ-5-42261-01	\$108,026
DESIGN AND FABRICATION OF AN ELECTRONICS FOR THE 35 TONNE PROTOTYPE	81.RD	DE-AC02-98CH10886	BROOKHAVEN NATIONAL LABORATORY	264851	\$252,325
RESEARCH FOR ATLAS EXPERIMENT	81.RD	DE-AC02-98CH10886	BROOKHAVEN NATIONAL LABORATORY	80472	\$606,193
TITLE VI FLAS FELLOWSHIP FUNDING 2014-2018	84.015	P015B140144			\$231,490
FROM APARTHEID TO RECONCILIATION: PERSPECTIVES ON THE HISTORY AND CULTURAL DIVERSITY OF SOUTH AFRICA	84.021	P021A140031			\$14,066
FULBRIGHT-HAYS DOCTORAL DISSERTATION RESEARCH ABROAD FELLOWSHIP PROGRAM	84.022	P022A140004			\$2,125
DYNAMIC SUPPORTED MOBILITY TRAINING FOR INFANTS AND TODDLERS WITH CEREBRAL PALSY	84.116		CHILDREN'S HOSPITAL OF PHILADELPHIA	961438-RSUB	\$7,536
PARTNER FOR PREVENTION (P4P): A WHOLE SCHOOL APPROACH TO PEER AGGRESSION AND BULLYING	84.305		CHILDREN'S HOSPITAL OF PHILADELPHIA	327251 / PO #960869RSUB	\$10,586
RAISING G.P.A.: PARTNERING TO SUPPORT GRIT, PERSEVERANCE, AND ACHIEVEMENT IN BALTIMORE CITY MIDDLE SCHOOLS	84.305		STRATEGIC EDUCATION RESEARCH PARTNERSHIP (SERP)	R305H140121	\$25,173
THE SCHOOL DISTRICT OF PHILADELPHIA-PENN GRADUATE SCHOOL OF EDUCATION RESEARCHER-PRACTITIONER PARTNERSHIP IN EDUCATION RESEARCH	84.305	R305H140097			\$198,047
UNIVERSITY OF PENNSYLVANIA PRE-DOCTORAL TRAINING PROGRAM IN INTERDISCIPLINARY METHODS FOR FIELD-BASED RESEARCH IN EDUCATION	84.305	R305B090015			\$256,374
PERCEPTUAL LEARNING TECHNOLOGY IN MATHEMATICS EDUCATION: EFFICACY AND REPLICATION CENTER ON STANDARDS, ALIGNMENT, INSTRUCTION, AND LEARNING (C-SAIL)	84.305	R305C150007	UNIVERSITY OF CALIFORNIA, LOS ANGELES	0875 G PE032/4-444040-PK-21313	\$573,802
ADAPTING AN EVIDENCE-BASED PRACTICE FOR CHILDREN AT-RISK FOR AUTISM FOR DIVERSE EARLY INTERVENTION SERVICE SYSTEMS	84.324		UNIVERSITY OF CALIFORNIA, DAVIS	SUB TO R423A150211	\$1,953
ARRA - READING RECOVERY: SCALING UP WHAT WORKS	84.396		OHIO STATE UNIVERSITY	60029186	\$82,055
VALIDATING THE SUNBAY MIDDLE SCHOOL DIGITAL MATHEMATICS PROGRAM	84.411		SRI INTERNATIONAL	141-000013	\$503,909
INCLUDE ME TO ACHIEVE	84.412		ELWYN FOUNDATION	LOA #RTTT CIZ 40	\$5,904
REGIONAL EDUCATION LABORATORIES – MID-ATLANTIC REGION	84.RD	ED-IES-12-C-006	ICF INCORPORATED	11A500024	\$46,285
ACTIONABLE INTELLIGENCE FOR SOCIAL POLICY: DATA USE AND STRATEGIC PLANNING CONSULTANT PROPOSAL FOR HAWAII	84.RD	RFP NO. 014	RESEARCH CORPORATION OF THE UNIVERSITY OF HAWAII	PO #Z10064597	\$59,261

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GLOBAL CHANGE FROM THE GROUND UP: SOIL MICROBIAL DIVERSITY IN A CLIMATE AND LAND-USE CHANGE EXPERIMENT	86.514	FP-91762401-0			\$13,531
MOBILE INTERACTION IN RWANDA: INCREASING REACH, TESTING USE	91.004	USIP-084-13F			\$64,650
BOTSWANA-UPENN PARTNERSHIP TECHNICAL ASSISTANCE PLAN FOR HIV COMPLICATIONS, HIV-TB CO-INFECTION AND CERVICAL CANCER SCREENING	93.067	1-U2G-PS-001949-01			\$942,060
PROGRAM AREA B: TB/HIV	93.067	1-U2GGH-001498-01			\$943,662
CENTERS FOR AUTISM AND DEVELOPMENTAL DISABILITIES RESEARCH & EPIDEMIOLOGY (CADDRE): STUDY TO EXPLORE EARLY DEVELOPMENT (SEED) PHASE II	93.073	1-U01-DD-000752-01			\$912,875
OSU CENTER OF EXCELLENCE IN REGULATORY TOBACCO SCIENCE (OSU-CERTS)(PROJECT 4)	93.077		OHIO STATE UNIVERSITY	60042253 / PO #RF01356877	\$29,743
USING EYE TRACKING TO UNDERSTAND AND IMPROVE GRAPHIC WARNING LABEL EFFECTIVENESS	93.077	1-R01-CA-180929-01			\$449,532
BRAIN AND BEHAVIORAL EFFECTS OF GRAPHIC CIGARETTE WARNING LABELS	93.077	1-R01-DA-036028-01			\$497,550
UPENN TCORS: TOBACCO PRODUCT MESSAGING IN A COMPLEX COMMUNICATION ENVIRONMENT	93.077	1-P50-CA-179546-01			\$4,853,178
UNIVERSAL DATA COLLECTION PROJECT FOR BLOOD INHIBITOR STUDY	93.080		INDIANA HEMOPHILIA AND THROMBOSIS CENTER	MOA #284-10 SC	\$4,550
IONTROPHORETIC DELIVERY OF DEXAMETHASONE FOR ANTERIOR SCLERITIS, IND 107,846	93.103	1-R01-FD-003910-01			-\$16,012
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) IN LARGE CELL VASCULITIS	93.103		CLEVELAND CLINIC LERNER COLLEGE OF MEDICINE	280SUB	\$427
HEARTMAP DYNAMIC AED REGISTRY	93.103		UNIVERSITY OF WASHINGTON	755623	\$2,556
RESIQUIMOD GEL THERAPY FOR CUTANEOUS T-CELL LYMPHOMA	93.103	1-R01-FD-004092-01A1			\$3,290
COMPANION ANIMAL AND ANIMAL FOOD DIAGNOSTIC SAMPLE ANALYSIS IN SUPPORT OF FDA VET-LIRN ACTIVITIES AND INVESTIGATIONS	93.103	1-U18-FD-005164-01			\$20,221
ANIMAL AND ANIMAL FOOD DIAGNOSTIC SAMPLE ANALYSIS IN SUPPORT OF FDA VET-LRN ACTIVITIES AND INVESTIGATIONS	93.103	1-U18-FD-004625-01			\$27,251
METHOD VALIDATION AND COMPARISON FOR THE DETECTION OF MYCOTOXINS IN NOVEL ANIMAL FEEDS AND TISSUES	93.103	1-U18-FD-005009-01			\$76,452
PLASMA EXCHANGE AND GLUCOCORTICOID FOR TREATMENT OF ANCA-ASSOCIATED VASCULITIS	93.103	4-R01-FD-003516-05			\$104,100
PHASE I/II RANDOMIZED TRIAL OF ADOPTIVE LYMPHOCYTE TRANSFER IN OVARIAN CANCER	93.103	1-R01-FD-003520-01		ACTIVITY #3210800517/PO # 961718-R	\$213,166
STANDARDIZED COMPREHENSIVE MEDICAL CARE FOR THALASSEMIA PATIENTS: MID-ATLANTIC REGION	93.110		CHILDREN'S HOSPITAL OF PHILADELPHIA		\$4,901
PRIMARY CARE DRUG THERAPEUTICS CER IN A PEDIATRIC EHR NETWORK	93.110		AMERICAN ACADEMY OF PEDIATRICS	731101UPENN	\$6,080
HEMOPHILIA TREATMENT CENTERS	93.110		CHILDREN'S HOSPITAL OF PHILADELPHIA	320961-06-01	\$16,679
AUTISM INTERVENTION RESEARCH NETWORK ON BEHAVIORAL HEALTH	93.110		UNIVERSITY OF CALIFORNIA, LOS ANGELES	2000 G PG206	\$41,842
AUTISM INTERVENTION RESEARCH NETWORK FOR BEHAVIORAL HEALTH	93.110		UNIVERSITY OF CALIFORNIA, LOS ANGELES	2000 G TC248	\$225,872
EFFECTS OF FETAL BISPHENOL A EXPOSURE ON MOUSE EPIGENOME	93.113	1-K99-ES-022244-01			\$584
THE COMMUNITY HEALTH ASSESSMENT OF RISKS ASSOCIATED WITH THE MACONDO SPILL	93.113		UNIVERSITY OF TEXAS MEDICAL BRANCH	13-085/PO #UOSPC-0000001088	\$8,481
PRENATAL ENVIRONMENTAL EXPOSURES AND REPRODUCTIVE HORMONE CONCENTRATIONS (PERCH)	93.113		SEATTLE CHILDREN'S HOSPITAL RESEARCH INSTITUTE	SUB TO 1R21ES023883-01	\$18,982
STEER AND TREES SUMMER RESEARCH PROGRAMS	93.113	4-R25-ES-021649-04			\$24,361
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	\$35,259
STEER AND TREES SUMMER RESEARCH PROGRAMS	93.113	1-R25-ES-021649-01A1			\$35,590
SLEEP AND HEALTH IN THE SOCIAL ENVIRONMENT	93.113	1-R21-ES-022931-01A1			\$37,205
EFFECTS OF OZONE ON THE CENTRAL NERVOUS SYSTEM: NRF2 PATHWAY INVOLVEMENT	93.113	1-F32-ES-025076-01			\$50,245
DEVELOPING CLOUD-BASED TOOLS FOR BIG NEURAL DATA	93.113	1-K01-ES-025436-01			\$59,988
INGOT: A FAMILY OF STATISTICAL COMPUTING ALGORITHMS FOR HYPOTHESIS-DRIVEN IMAGING GENOMIC AND LONGITUDINAL NEUROIMAGING ANALYSIS	93.113	1-K01-ES-026840-01			\$60,486
SELECTIVE INHIBITORS OF UBIQUITIN E3 LIGASE TO TREAT HIGH CHOLESTEROL	93.113		PROGENRA, INC.	RES025600A	\$64,476
MECHANISMS THAT MEDIATE THE LINK BETWEEN LEAD EXPOSURE AND CHILD BEHAVIOR PROBLEM	93.113	1-K02-ES-019878-01 REVISED			\$102,167
IMAGING GENOMICS BASES OF PEDIATRIC EXECUTIVE FUNCTIONING	93.113	1-K01-ES-025432-01			\$102,513
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	\$147,505
PATERNAL EXPOSURE TO DIOXINS AND OFFSPRING SEX RATIO DISTORTION	93.113	1-R21-ES-024527-01			\$178,524
LEAD EXPOSURE, EXTERNALIZING BEHAVIOR, AND NEUROBIOLOGICAL MEDIATING FACTORS	93.113	1-R01-ES-018858-01			\$211,834
TRANSLATIONAL RESEARCH TRAINING PROGRAM IN ENVIRONMENTAL HEALTH SCIENCES	93.113	1-T32-ES-019851-01A1			\$345,961
PROTEIN KINASE C AND LUNG CARCINOGENESIS	93.113	1-R01-ES-026023-01			\$358,565
TRANSGENERATIONAL EFFECTS OF ENDOCRINE DISRUPTORS: EPIGENETICS AND PHYSIOLOGY	93.113	1-R01-ES-023284-01			\$414,261
CENTER OF EXCELLENCE IN ENVIRONMENTAL TOXICOLOGY	93.113	2-P30-ES-013508-10			\$1,460,902

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OCCUPATIONAL MEDICINE RESIDENCY AT THE UNIVERSITY OF PENNSYLVANIA	93.117	1-D33-HP-25770-01-00			\$6,182
OCCUPATIONAL MEDICINE RESIDENCY AT THE UNIVERSITY OF PENNSYLVANIA	93.117	1-D33-HP-25770-01-00			\$408,414
GINGIVA DERIVED MSCS: ROLE IN IMMUNOMODULATION AND TISSUE REGENERATION	93.121	7-R01-DE-019932-05			-\$7,545
INTRACELLULAR TRAFFICKING OF BISPHOSPHONATES IN BONE MESENCHYMAL STEM CELLS	93.121	1-R21-DE-022826-01			\$302
DENTAL OUTCOMES IN FIBROUS DYSPLASIA/MCCUNE ALBRIGHT SYNDROME	93.121	1-R56-DE-022932-01A1			\$403
A MICROFLUIDIC SYSTEM FOR POC MOLECULAR DIAGNOSIS OF HPV IN ORAL FLUIDS	93.121		LUCIGEN	10049846	\$736
QUALITY OF LIFE IN CHILDREN WITH CLEFT	93.121		CHILDREN'S HOSPITAL OF PHILADELPHIA	8230930815	\$840
EPIGENETIC REGULATION OF EPSTEIN-BARR VIRUS	93.121		WISTAR INSTITUTE	23675-02-319; WON	\$1,751
PENN MULTIDISCIPLINARY CONSORTIUM: PERSONALIZED DENTAL, ORAL AND CRANIOFACIAL TISSUE REGENERATION	93.121	1-R34-DE-025587-01			\$9,065
SCREEN FOR MUTATIONS AFFECTING SKULL AND SUTURE FORMATION IN ZEBRAFISH	93.121	1-R01-DE-022955-01A1			\$20,180
MOLECULAR BASIS FOR CARIES INHIBITING EFFECTS OF CRANBERRY FLAVONOIDS	93.121	7-R01-DE-016139-08			\$24,077
DENDRITIC CELLS AND PERIODONTAL DISEASE	93.121	4-R01-DE-021921-05			\$29,089
ROLE OF GTFB ON S.MUTANS-C.ALBICANS INTERACTIONS AND CARIOGENIC BIOFILM FORMATION	93.121	1-R03-DE-025728-01			\$41,764
A. ACTINOMYCETEMCOMITANS CDT INDUCES PRO-INFLAMMATORY INNATE IMMUNE RESPONSES	93.121	4-R01-DE-023071-04			\$49,342
CONTRIBUTION OF GO-LIKE CELLS TO MAINTENANCE OF THE ORAL CANCER STEM CELL POOL	93.121	1-F32-DE-024685-01			\$65,696
ORAL HYGIENE, PERIODONTAL DISEASE AND INFECTIVE ENDOCARDITIS	93.121		CAROLINAS HEALTH CARE SYSTEM	SUB TO 1R01DE023375	\$70,886
LYSOSOMAL MATURATION DURING PERIODONTAL INFECTIONS	93.121	4-R01-DE-022465-05			\$72,476
REGULATION OF WNT SIGNALING IN TOOTH DEVELOPMENT AND REGENERATION	93.121	1-R56-DE-023100-01A1			\$83,994
ROLES OF EPITHELIAL SPLICING REGULATORY PROTEINS IN CRANIOFACIAL DEVELOPMENT	93.121	1-R56-DE-024749-01			\$88,202
ROLE OF DYSKERIN IN ORAL EPITHELIAL HOMEOSTASIS	93.121	1-K08-DE-021428-01A1			\$127,019
MECHANISMS FOR IMPAIRED DIABETIC ORAL WOUND HEALING	93.121	7-R01-DE-019108-02			\$132,218
TARGETING MESENCHYMAL-LIKE CELLS IN ORAL CANCER TO OVERCOME CETUXIMAB RESISTANCE	93.121	1-K08-DE-022842-01			\$141,516
A QUIESCENT GO-LIKE CELL STATE AS A BARRIER TO ERADICATION ORAL CANCER STEM CELLS	93.121	1-R21-DE-024396-01			\$173,110
NOVEL MECHANISMS AND 'COMPLEMENT-ARY' THERAPY IN PERIODONTITIS	93.121	1-R01-DE-021685-01A1			\$179,314
NOVEL MECHANISMS AND 'COMPLEMENT-ARY' THERAPY IN PERIODONTITIS	93.121	4-R01-DE-021685-05			\$188,317
ANATOMICAL ATLAS AND TRANSGENIC TOOLKIT FOR LATE SKULL FORMATION IN ZEBRAFISH	93.121	1-U01-DE-024434-01			\$195,537
ORAL IMMUNITY AND ADJUVANT RECEPTORS	93.121	7-R01-DE-017138-08			\$212,624
LYSOSOMAL MATURATION DURING PERIODONTAL INFECTIONS	93.121	1-R01-DE-022465-01A1			\$219,766
CLINICAL REGISTRY OF DENTAL OUTCOMES IN HEAD AND NECK CANCER PATIENTS	93.121		CAROLINAS HEALTH CARE SYSTEM	SUB TO 1U01DE022939-01	\$249,629
A. ACTINOMYCETEMCOMITANS CDT INDUCES PRO-INFLAMMATORY INNATE IMMUNE RESPONSES	93.121	1-R01-DE-023071-01A1			\$269,569
DIABETES-ENHANCED EXPERIMENTAL PERIODONTITIS	93.121	2-R01-DE-017732-07A1			\$325,411
S. MUTANS-C. ALBICANS INTERACTIONS SYNERGIZE THE VIRULENCE OF CARIOGENIC BIOFILMS	93.121	1-R01-DE-025220-01			\$352,694
P. GINGIVALIS AS A KEYSTONE PATHOGEN	93.121	2-R01-DE-015254-12A1			\$377,063
MOLECULAR BIOLOGY OF VIRULENCE IN PERIODONTAL DISEASE	93.121	2-R01-DE-009517-21A1			\$379,462
EPIGENETICS, DYSBIOSIS AND INFLAMMATION IN EPITHELIAL CELLS	93.121	1-R01-DE-024160-01A1			\$387,189
BACTERIA AND LYMPHOCYTE SUPPRESSION IN PERIODONTITIS	93.121	2-R01-DE-006014-29A1			\$406,441
DEL-1: MOLECULAR AND CELLULAR TARGETS IN PERIODONTITIS	93.121	1-R01-DE-024716-01			\$426,745
DENDRITIC CELLS AND PERIODONTAL DISEASE	93.121	1-R01-DE-021921-01A1			\$473,471
ROLES OF EPITHELIAL SPLICING REGULATORY PROTEINS IN CRANIOFACIAL DEVELOPMENT	93.121	1-R01-DE-024749-01			\$506,309
REGULATION OF EMBRYONIC PATTERNING AND ADULT STEM CELLS OF ORAL APPENDAGES	93.121	1-R01-DE-024570-01			\$521,413
OSTEOGENIC AND IMMUNOMODULATORY PROPERTIES OF DECIDUOUS TOOTH STEM CELLS	93.121	7-R01-DE-017449-08			\$573,669
NURSE ANESTHETIST TRAINEESHIP PROGRAM (NAT)	93.124	1 A22HP28625-01-00			\$26,977
UNIVERSITY OF PENNSYLVANIA PREVENTION RESEARCH CENTER	93.135	1-U48-DP-005053-01			\$1,974,123
MICHIGAN YOUTH VIOLENCE PREVENTION CENTER COMMUNITY ENGAGEMENT AND REVITALIZATION	93.136		UNIVERSITY OF MICHIGAN	3003727976	\$57,934
THE PENN VIOLENCE AND INJURY CONTROL RESEARCH CENTER	93.136	1-R49-CE-002474-01			\$524,556
ASBESTOS FATE, EXPOSURE, REMEDIATION, AND ADVERSE HEALTH EFFECTS	93.143	1-P42-ES-023720-01			\$2,508,754
GERIATRIC TRAINING PROGRAM FOR PHYSICIANS, DENTISTS, AND BEHAVIORAL AND MENTAL HEALTH PROFESSIONS	93.156	2-D01-HP-08798-04-00			\$307,152
CENTER OF EXCELLENCE FOR DIVERSITY IN HEALTH EDUCATION AND RESEARCH	93.157	1 D34HP24459-01-00			\$819,048
DNA SEQUENCING USING SINGLE-LAYER GRAPHENE NANORIBBONS WITH NANOPORES.	93.172	1-R21-HG-006313-01			-\$5,222
STATISTICAL METHODS FOR GENE MAPPING STUDIES IN ADMIXED POPULATIONS	93.172	1-R01-HG-005854-01			-\$1,088
COMPREHENSIVE DETERMINATION OF THE HUMAN PROTEINS THAT DEFINE THE SPLICING CODE	93.172	1-R21-HG-006892-01			-\$52
TRAINING GRANT IN COMPUTATIONAL GENOMICS	93.172	2-T32-HG-000046-11			\$348

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IMPUTATION AND ASSOCIATION ANALYSIS OF RARE VARIANTS IN ADMIXED POPULATIONS	93.172		UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL	5-32731	\$4,495
ADVANCED TECHNIQUES FOR SINGLE CELL TRANSCRIPTOMICS	93.172	1-R25-HG-007515-01			\$11,961
GENOMIC AND FUNCTIONAL ANALYSIS OF ACTIVE DNA DEMETHYLATION IN MAMMALIAN CELLS	93.172	4-R00-HG-007982-02			\$13,049
THE IMPACT OF UNCERTAINTY IN GENOME-WIDE TESTING FOR AUTISM SPECTRUM DISORDER	93.172	1-R21-HG-006560-01			\$15,280
INTEGRATIVE VARIATION DETECTION, ANNOTATION AND ANALYSIS FOR HIGH-THROUGHOUT SEQUENCE DATA	93.172		UNIVERSITY OF SOUTHERN CALIFORNIA	H51483	\$15,778
ADVANCING COLLABORATIVE GENETIC RESEARCH: ETHICAL AND POLICY CHALLENGES	93.172		CASE WESTERN RESERVE UNIVERSITY	RES508669	\$18,948
THE USE OF WHOLE-EXOME SEQUENCING TO GUIDE THE CARE OF CANCER PATIENTS (PROJECT 3)	93.172		DANA-FARBER CANCER INSTITUTE	1198202	\$34,171
COMPUTATIONAL TOOLS FOR MINING LARGE AMOUNTS OF CHIP AND GENE EXPRESSION DATA	93.172		JOHNS HOPKINS UNIVERSITY	SUB TO R01HG006282-01A1	\$44,146
INTEGRATED, MULTIPLEXED HIGH-FREQUENCY ELECTRONIC ANALYSIS OF DNA IN NANOPORES	93.172		COLUMBIA UNIVERSITY	1 (GG009283)/PO #G03078	\$56,416
APPLYING GENOMIC SEQUENCING IN PEDIATRICS	93.172		CHILDREN'S HOSPITAL OF PHILADELPHIA	960033RUSB	\$134,184
TRAINING GRANT IN COMPUTATIONAL BIOLOGY	93.172	2-T32-HG-000046-16			\$293,057
HIGH-BANDWIDTH DNA SEQUENCING USING GRAPHENE NANORIBBON-NANOPORE DEVICES	93.172	1-R21-HG-007856-01			\$352,583
STATISTICAL MODELS AND ANALYSIS OF COMPLEX GENOMIC VARIATION IN CLONAL MIXTURES	93.172	2-R01-HG-006137-04			\$385,504
GENOMIC MEDICINE PILOT DEMONSTRATION PROJECTS COORDINATING CENTER	93.172	1-U01-HG-007266-01			\$408,331
IPS-DERIVED HEPATOCYTES FOR INTERROGATION OF LIPID PHENOTYPES	93.172	1-U01-HG-006398-01			\$1,977,655
REPRESENTATIONS OF COMMUNICATION SIGNALS IN THE AUDITORY CORTEX	93.173	7-R01-DC-009224-03			\$192
OBJECTIVE EVALUATION OF CONDUCTIVE OLFACTORY LOSSES AND NASAL OBSTRUCTION SYMPTOMS	93.173		MONELL CHEMICAL SENSES CENTER	SUB TO 1-R01-DC013626	\$3,453
CONCEPTUAL COMBINATION	93.173	1-R01-DC-015359-01A1			\$10,937
CONFERENCES FOR ADVANCES AND PERSPECTIVES IN AUDITORY NEUROPHYSIOLOGY (APAN)	93.173	2-R13-DC-010549-06			\$17,952
REGULATION OF OLFACTORY CILIA STRUCTURE AND FUNCTION	93.173	1-F31-DC-013945-01A1			\$20,645
OLFACTORY CODING IN MAMMALS	93.173	2-R01-DC-006213-06			\$20,654
NEURAL REPRESENTATIONS OF SPATIAL DIRECTIONS IN LANGUAGE, SCHEMAS, AND IMAGES	93.173	1-F32-DC-015203-01			\$26,190
STRUCTURE AND FUNCTION OF MYOSIN VI	93.173	2-R01-DC-009100-11			\$33,012
INVESTIGATING THE ROLES OF EPITHELIAL SPLICE REGULATORY PROTEINS IN INNER EAR DEVELOPMENT	93.173	1-F31-DC-014647-01			\$42,788
THEORY-DRIVEN TREATMENT OF LANGUAGE AND COGNITIVE PROCESSES IN APHASIA	93.173		TEMPLE UNIVERSITY	253763-UPENN	\$64,012
MODULATION OF ODORANT RECEPTOR FUNCTION	93.173		DUKE UNIVERSITY	2032340	\$77,494
ROLE OF CALHM3 IN ATP-RELEASE CHANNEL GATING AND TASTE PERCEPTION	93.173	1-R03-DC-014328-01			\$119,896
SEMANTIC MEMORY AND LANGUAGE LEARNING IN ALZHEIMER'S DISEASE AND SEMANTIC DEMENTIA	93.173		TEMPLE UNIVERSITY	254692-UPENN	\$127,081
ROLE OF CALHM1 ION CHANNEL IN TASTE TRANSDUCTION	93.173	4-R01-DC-012538-04			\$136,001
ROLE OF CALHM1 ION CHANNEL IN TASTE TRANSDUCTION	93.173	1-R01-DC-012538-01A1			\$141,553
FIGURATIVE LANGUAGE IN APHASIC AND HEALTH PARTICIPANTS	93.173	4-R01-DC-012511-04			\$144,932
THE ROLE OF CORTICAL INTERNEURONS IN AUDITORY PROCESSING AND LEARNING	93.173	1-R03-DC-013660-01			\$147,558
SWEET RECEPTOR (T1R2/3) SIGNALING IN THE UPPER AIRWAY AND REGULATION OF IMMUNITY	93.173	1-R03-DC-013862-01A1			\$160,271
MODULATION OF OLFACTORY CILIA	93.173	1-R01-DC-011554-01A1			\$197,131
OLFACTORY CODING IN MAMMALS	93.173	2-R01-DC-006213-11A1			\$213,919
PSYCHOLINGUISTIC ANALYSIS OF APHASIC SYNDROMES	93.173		MOSS REHABILITATION RESEARCH INSTITUTE	SUB TO 2-R01-DC000191-30	\$242,891
CORTICAL MECHANISMS OF AUDITORY-VOCAL INTERACTION	93.173	1-K08-DC-014299-01			\$246,197
CIRCUIT MECHANISMS OF SOUND PROCESSING AND DETECTION IN THE AUDITORY PATHWAY	93.173	1-R01-DC-014479-01			\$264,841
FIGURATIVE LANGUAGE IN APHASIC AND HEALTH PARTICIPANTS	93.173	1-R01-DC-012511-01A1			\$290,335
MULTI-SCALE STUDY OF AUDITORY SCENE ANALYSIS IN THE VENTRAL AUDITORY PATHWAY	93.173	1-R01-DC-013961-01A1			\$298,871
ALLELE SPECIFIC EXPRESSION OF TAS2R38 IN HUMAN TASTE AND NASAL TISSUE	93.173	1-R21-DC-013886-01A1			\$363,090
TMS AS A BIOMARKER OF PLASTICITY IN APHASIA RECOVERY	93.173	1-R01-DC-012780-01A1			\$363,227
LINGUISTIC AND NONLINGUISTIC FUNCTIONS OF FRONTAL CORTEX	93.173	2-R01-DC-009209-11			\$363,475
REPRESENTATIONS OF SOUND PROCESSING IN THE AUDITORY CORTEX	93.173	2-R01-DC-009224-07A1			\$367,685
GENOMIC ARCHITECTURE OF SHH DEPENDENT COCHLEAR MORPHOGENESIS	93.173	2-R01-DC-006254-11A1			\$368,801
TARGETING OF SENSORY AXONS IN THE OLFACTORY BULB	93.173	1-R01-DC-012854-01A1			\$469,969
A NOVEL REGULATED NANOHYDROGEL DELIVERY SYSTEM FOR TARGETED INNER EAR APPLICATION	93.173	1-R01-DC-014464-01			\$500,162
CHRONIC RHINOSINUSITIS AND GENETICS OF BITTER TASTE RECEPTORS	93.173	1-R01-DC-013588-01A1			\$505,346
NATIONAL RESEARCH SERVICE AWARD	93.186	2-T32HP10026-18-00			\$446,960
HEMOPHILIA LIVER TRANSPLANTATION OBSERVATIONAL STUDY (HOTS)	93.211		HEMOPHILIA CENTER OF WESTERN PENNSYLVANIA	PRO12060248	\$3,139
LONG-TERM CHAMOMILE THERAPY OF GENERALIZED ANXIETY DISORDER	93.213	5-R01-AT-005074-02			\$4,039
MOBILE MINDFULNESS TO IMPROVE PSYCHOLOGICAL DISTRESS AFTER CRITICAL ILLNESS	93.213		DUKE UNIVERSITY	2034786	\$18,942
MECHANISMS OF MINDFULNESS: EFFECTS ON SLEEP QUALITY, STRESS PHYSIOLOGY & CVD RISK	93.213	7-R00-AT-004945-06			\$27,762

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NOVEL SYNTHETIC SDG TO TREAT TRAUMA-INDUCED INFLAMMATION	93.213	1-R21-AT-008291-01A1			\$248,831
PRAGMATIC TRIALS IN MAINTENANCE HEMODIALYSIS	93.213	1-UH2-AT-007797-01			\$1,126,823
MEDICAL FAILURE-TO-RESCUE	93.226		CHILDREN'S HOSPITAL OF PHILADELPHIA	321060	\$394
CAREER DEVELOPMENT IN PATIENT CENTERED OUTCOMES RESEARCH	93.226	1-K12-HS-021706-01			\$11,120
COMPARATIVE EFFECTIVENESS OF ALTERNATIVE LEVELS OF STROKE	93.226	1-R01-HS-018540-01			\$12,909
STATE OF PA / DHHS AGREEMENT	93.226		CHILDREN'S HOSPITAL OF PHILADELPHIA	8233620000 / PO #960821RSUB	\$22,243
MULTIVARIATE META-ANALYSIS OF DIAGNOSTIC TESTS	93.226	7-R03-HS-022900-02			\$28,107
PREDICTING AND PREVENTING PEDIATRIC HOSPITAL READMISSIONS	93.226		CHILDREN'S HOSPITAL OF PHILADELPHIA	3210810519	\$28,631
OPTIMIZATION MODELING AND COMPARATIVE EFFECTIVENESS OF REGIONALIZED STROKE CARE	93.226	1-R01-HS-018362-01A1			\$32,168
THE EFFECT OF TIERED PROVIDER NETWORKS ON HEALTH CARE DEMAND AND SPENDING	93.226	1-R36-HS024164-01			\$35,700
MEDICAL DECISION MAKING: INNOVATION IN THE ERA OF HEALTH CARE REFORM	93.226	1-R13-HS-022517-01A1			\$35,812
HOSPITAL RESPONSE TO REIMBURSEMENT CHANGES: EVIDENCE FROM CALIFORNIA MEDICAID	93.226	1-R36-HS-024216-01			\$45,010
THE SPIN TRIAL (STORIES TO PROMOTE INFORMATION THROUGH NARRATIVE): A RCT TESTING	93.226		AMERICAN COLLEGE OF EMERGENCY PHYSICIANS	SUB TO 1-R18-HS021956	\$65,763
PARTICIPATORY DESIGN OF MHEALTH STRATEGIES TO SUPPORT COLLABORATIVE CARE IN PERINATAL DEPRESSION	93.226	1-K18-HS-022441-01			\$67,125
COMPARATIVE EFFECTIVENESS OF HOME CARE ENVIRONMENTS FOR DIVERSE ELDER'S OUTCOMES	93.226	1-K99-HS-022406-01			\$69,335
IMPROVING THE FRAMEWORK FOR HEALTHCARE PUBLIC REPORTING	93.226		CHILDREN'S HOSPITAL OF PHILADELPHIA	320984 / PO #860573RSUB	\$73,884
THE EFFECTIVENESS OF POST-ACUTE CARE	93.226	1-R01-HS-024266-01			\$74,632
A COMPARISON OF COGNITIVE AND DYNAMIC THERAPY FOR MDD IN COMMUNITY SETTINGS	93.226	1-R01-HS-018440-01			\$83,591
COMPARATIVE AND COST EFFECTIVENESS OF STRATEGIES TO LIMIT MRSA IN LONG TERM CARE	93.226	1-R01-HS-023794-01			\$101,787
PARTICIPATORY DESIGN OF PATIENT-CENTERED DEPRESSION AND DIABETES CARE	93.226	1-K18-HS-023445-01			\$142,194
COMPARATIVE EFFECTIVENESS OF INTERVENTIONS FOR DEPRESSION IN THE COMMUNITY	93.226	1-K02-HS-022124-01			\$143,655
MARKET AND ORGANIZATION IMPACT ON MEDICAL TECHNOLOGY DIFFUSION: OUTCOMES AND VALUE	93.226	1-R01-HS-023615-01			\$159,522
THE GEOGRAPHY OF ACUTE CARE	93.226	1-R01-HS-023614-01			\$175,465
PROVIDER CHARACTERISTICS AND QUALITY OF PROSTATE CANCER CARE	93.226	1-R01-HS-024106-01			\$180,704
CLINICAL PREDICTION OF HEPATOTOXICITY & COMPARATIVE HEPATIC SAFETY OF MEDICATIONS	93.226	1-R01-HS-018372-01A1			\$181,531
IMPROVING CONSUMER RESPONSE TO NURSING HOME QUALITY INFORMATION: AN EVALUATION OF COMPOSITE MEASURES	93.226	1-R21-HS-021861-01			\$222,532
ENDOPHENOTYPES OF SLEEP APNEA AND ROLE OF OBESITY	93.233	1-P01-HL-094307-01			-\$12,913
NEURAL BASIS FOR DIFFERENTIAL VULNERABILITY TO SLEEP DEPRIVATION	93.233	1-R01-HL-102119-01A1			-\$10,698
REM MECHANISMS IN NEOCORTICAL DEVELOPMENT	93.233	1-R01-HL-114161-01A1			-\$5,218
CARDIOVASCULAR AND METABOLIC RISK FACTORS ASSOCIATED WITH SHORT SLEEP DURATION	93.233	1-K23-HL-110216-01A1			\$1,603
INTERMITTENT HYPOXIA: MECHANISMS OF HYPERSONNOLENCE	93.233	2-R01-HL-079588-05			\$166,539
NEUROMETABOLIC ASSESSMENT OF OBSTRUCTIVE SLEEP APNEA BY MRI	93.233	1-R01-HL-122754-01A1			\$295,713
UPPER AIRWAY CONTROL DURING DISRUPTED AND MISALIGNED SLEEP	93.233	1-R01-HL-116508-01A1			\$296,559
PREMOTOR CONTROL OF UPPER AIRWAY AND REM SLEEP ATONIA	93.233	2-R01-HL-047600-20A1			\$373,017
USE OF TELEMEDICINE TO PROMOTE SLEEP MEDICINE EDUCATION IN HEALTHCARE TRAINING	93.233	1-R25-HL-120874-01			\$382,034
GENETIC APPROACHES TO SLEEP/WAKE AND RESPONSE TO SLEEP LOSS IN MICE	93.233	1-R01-HL-111725-01A1			\$384,819
SHIFT WORK SLEEP LOSS: LOCUS COERULEUS NEURON SENESCENCE AND DEGENERATION	93.233	1-R01-HL-124576-01			\$401,604
METABOLIC REGULATION OF WAKEFULNESS	93.233	1-R01-HL-123331-01A1			\$434,375
DEFINING THE EPIGENETIC ARCHITECTURE ASSOCIATED WITH EARLY-LIFE STRESS	93.242	1-R01-MH-091850-01			-\$71,195
ROLE OF HDAC6 IN A MURINE MODEL OF AFFECTIVE DISORDER AND ANTIDEPRESSANT ACTION	93.242	1-R01-MH-087581-01A1			-\$5,314
GENETIC ANALYSIS OF SIMPLE LEARNING BEHAVIORS	93.242	1-R01-MH-092257-01			-\$4,884
IMPLEMENTING CARE FOR DEPRESSION AND DIABETES	93.242	1-R21-MH-094940-01A1			-\$4,810
IN UTERO PROGRAMMING OF THE DOPAMINE SYSTEM: BEHAVIOR, NEUROANATOMY & EPIGENETICS	93.242	1-R01-MH-087978-01A1			-\$4,755
MODIFIABLE RISK AND PROTECTIVE FACTORS FOR SUICIDAL BEHAVIORS IN THE US ARMY (ARMY STARRS)	93.242		HENRY M. JACKSON FOUNDATION	2262 / PO# 755757	-\$1,510
TOOLS TO CONDITIONALLY REGULATE INTRACELLULAR SIGNALING PATHWAYS IN VIVO	93.242	1-R01-MH-086415-01			-\$1,108
REGULATION OF HIPPOCAMPAL NEUROGENESIS BY ANTIDEPRESSANTS	93.242	1-R01-MH-086599-01A1			-\$356
EARLY GESTATION AS A SENSITIVE PERIOD TO STRESS IN SEX-DEPENDENT NEURODEVELOPMENT	93.242	1-R01-MH-091258-01			-\$191
1/2 - PREVENTION OF RELAPSE & RECURRENCE OF BIPOLAR DEPRESSION	93.242	1-R01-MH-080097-01A2			-\$88
RETROTRANSPOSONS IN SCHIZOPHRENIA	93.242	1-R21-MH-101065-01			\$366
2/3 NETWORKS FROM MULTIDIMENSIONAL DATA FOR SCHIZOPHRENIA AND RELATED DISORDERS	93.242	1-R01-MH-097273-01			\$407
MODULATION OF INFLAMMASOME ACTIVATION BY YERSINIA	93.242	R01AI103062			\$430
INTEGRATIVE TRAINING IN THE NEUROCIRCUITRY OF AFFECTIVE DISORDERS	93.242	1-T32-MH-106443-01A1			\$614

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THE ROLE OF PREGNANCY ASSOCIATED PLASMA PROTEIN-A IN HABITUATION LEARNING	93.242	1-R03-MH-102680-01			\$749
PTSD AND PREGNANCY: PSYCHOPHYSIOLOGY, RESPONSE TO TREATMENT & PREGNANCY OUTCOME	93.242	1-K23-MH-102360-01A1			\$1,359
STUDY OF FIBER ANATOMY IN MOUSE BRAIN DEVELOPMENT VIA MRI/DTI	93.242	2-R01-MH-070365-05A2			\$1,736
IMPROVING THE EMERGENCY DEPARTMENT MANAGEMENT OF DELIBERATE SELF-HARM	93.242	1-R01-MH-107452-01A1			\$4,116
ATTACHMENT BASED FAMILY THERAPY FOR SUICIDAL ADOLESCENTS	93.242		DREXEL UNIVERSITY	232589_PENN	\$4,933
3/5-THE AUTISM BIOMARKERS CONSORTIUM DAAC	93.242		DUKE UNIVERSITY	3838663	\$6,610
MOLECULAR PHYSIOLOGY OF MAMMALIAN INSP3 RECEPTORS	93.242	2-R01-MH-059937-11			\$6,617
SUICIDE RISK REDUCTION IN THE YEAR FOLLOWING JAIL RELEASE	93.242		MICHIGAN STATE UNIVERSITY	RC105383UOPENN	\$7,182
MECHANISMS OF NEUROINFLAMMATION IN HAND	93.242		JOHNS HOPKINS UNIVERSITY	2001680041	\$7,270
INTERVENTION MAPPING TO DEVELOP MULTI-LEVEL IMPLEMENTATION STRATEGIES IN PARTNERSHIP WITH STAKEHOLDERS: FIREARMS MEANS RESTRICTION FOR SUICIDE PREVENTION IN PEDIATRIC PRIMARY CARE	93.242	1-R21-MH-109878-01			\$9,157
DEVELOPING METHODS FOR BRAIN STIMULATION ENHANCED FEAR REVERSAL IN PTSD	93.242		PALO ALTO VETERANS INSTITUTE FOR RESEARCH	ETK0008-01	\$9,772
PHARMACOGENOMICS OF MOOD STABILIZER RESPONSE IN BIPOLAR DISORDER	93.242		UNIVERSITY OF CALIFORNIA, SAN DIEGO	PO #10314028 - SUB	\$10,510
THE DEPRESSION/HYPERTENSION COACH STUDY	93.242		UNIVERSITY OF ROCHESTER	PO #416223-G	\$10,542
ASSOCIATIVE PROCESSES IN EPISODIC MEMORY	93.242	2-R01-MH-055687-21			\$10,753
PTSD AND PREGNANCY: PSYCHOPHYSIOLOGY, RESPONSE TO TREATMENT & PREGNANCY OUTCOME	93.242		WASHINGTON UNIVERSITY IN ST. LOUIS	WU-16-217	\$11,459
THE NEURAL BASIS OF SOCIAL KNOWLEDGE	93.242		TEMPLE UNIVERSITY	255791-UPENN	\$13,253
TRANSCRANIAL DIRECT CURRENT STIMULATION (TDCS) AS A TREATMENT FOR ACUTE FEAR	93.242		DUKE UNIVERSITY	2035098	\$14,911
ANTI-HIV NEUROIMMUNOMODULATORY THERAPY WITH NEUROKININ-1 (NK1-R) ANTAGONISTS	93.242		CHILDREN'S HOSPITAL OF PHILADELPHIA	950481RSUB	\$15,214
EVOLUTION OF THE LINKED ARCHITECTURE OF NETWORK CONTROL AND EXECUTIVE FUNCTION IN ADOLESCENCE	93.242	1-R21-MH-106799-01A1			\$17,687
PHARMACOGENETICS AND HIV TREATMENT OUTCOMES	93.242	1-R01-MH-080701-01A2			\$18,210
STAFF AND SCHOOL FACTORS AFFECTING IMPLEMENTATION OF ASD INTERVENTIONS IN SCHOOLS	93.242		UNIVERSITY OF WASHINGTON	UWSC8785	\$20,363
PARTNERS IN SCHOOLS: A PROGRAM FOR PARENTS AND TEACHERS OF CHILDREN WITH AUTISM	93.242	1-F32-MH-101994-01			\$23,150
INTEGRATING ORGANIZATIONAL AND PSYCHOLOGICAL THEORIES TO PREDICT IMPLEMENTATION	93.242	1-R21-MH-106887-01A1			\$24,119
ED-SAFE-2: TRANSLATING SAFETY PLANNING INTO PRACTICE	93.242		UNIVERSITY OF MASSACHUSETTS	WA00320041/RFS2016010	\$26,437
THE MOLECULAR MECHANISMS OF CORTICAL INTERNEURON FATE DETERMINATION	93.242	1-F30-MH-105045-01A1			\$27,187
RECOVERING FROM SERIOUS MENTAL ILLNESS: LEARNING AND UTILIZING WRAP'S FRAMEWORK	93.242	1-F31-MH-105190-01A1			\$28,592
HEME OXYGENASE-1 AS A NOVEL THERAPEUTIC TARGET IN HIV-MEDIATED NEURODEGENERATION	93.242	1-F30-MH-102120-01A1			\$29,062
PARTNERS IN SCHOOLS: A PROGRAM FOR PARENTS AND TEACHERS OF CHILDREN WITH AUTISM	93.242	4-F32-MH-101994-03			\$30,638
EFFECTS OF EXTINCTION ON CELLULAR ACTIVITY IN THE DORSAL AND VENTRAL HIPPOCAMPUS	93.242	1-F31-MH-105161-01A1			\$32,157
CIS-REGULATORY EPIGENOME MAPPINGS IN SCHIZOPHRENIA	93.242		ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI	0255-7234-4609	\$32,989
HIGHER ORDER CHROMATIN AND GENETIC RISK FOR SCHIZOPHRENIA	93.242		ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI	0255-8051-4609	\$37,501
CODING AND PROCESSING OF ERROR SIGNALS IN INFERIOR OLIVARY-CEREBELLAR NETWORKS	93.242	1-R01-MH-093727-01			\$37,754
CORTICOTROPIN-RELEASING FACTOR-SEROTONERGIC INTERACTIONS	93.242		CHILDREN'S HOSPITAL OF PHILADELPHIA	ACTIVITY #20493	\$38,232
MOLECULAR-GENETIC ANALYSIS OF HABITUATION LEARNING	93.242	1-F32-MH-107139-01			\$38,441
PSYCHOPHYSIOLOGY, NEUROSTEROIDS, AND STRESS IN PREMENSTRUAL DYSPHORIC DISORDER (PMDD)	93.242	1-K23-MH-107831-01A1			\$40,353
SEX DIFFERENCES IN OPIOID REGULATION OF THE RAT LOCUS COERULEUS IN RATS	93.242	1-F31-MH105211-01			\$42,692
FEASIBILITY OF A BEHAVIORAL ACTIVATION TRIAL IN COMMUNITY MENTAL HEALTH	93.242	1-R34-MH-108818-01			\$43,908
THE ROLE OF MTOR SIGNALING IN THE COGNITIVE IMPACT OF SLEEP DEPRIVATION	93.242	1-F32-MH-099730-01A1			\$46,221
IMPLEMENTATION OF FEDERAL MENTAL HEALTH POLICY	93.242		JOHNS HOPKINS UNIVERSITY	R01-MH093414	\$47,693
3/3-SEQUENCING AUTISM SPECTRUM DISORDER EXTENDED PEDIGREES	93.242	4-R01-MH-094382-05			\$51,927
NEURAL MECHANISMS UNDERLYING THE ANTIDEPRESSANT EFFECTS OF SLEEP DEPRIVATION	93.242	1-R01-MH-107571-01A1			\$52,542
MECHANISMS OF DENDRITIC CARGO TRAFFICKING AND MICROTUBULE DYNAMIC REGULATION BY KIF21B	93.242	1-F32-MH-108187-01			\$52,860
INVESTIGATING THE PAYER ROLE IN THE IMPLEMENTATION OF EBP IN THE PUBLIC SECTOR	93.242	1-F32-MH-103960-01A1			\$53,054
TEAM FUNCTIONING IN SCHOOL MENTAL HEALTH TEAMS IMPLEMENTING CBT	93.242	1F32MH103955-01			\$55,830
IMPLEMENTING DRISHTI: REDUCING HIV RISK AMONG HIGH RISK WOMEN WITH DEPRESSION	93.242	1-R21-MH-100935-01			\$61,824
INCREASING ACCURACY AND EFFICIENCY OF FIDELITY MEASUREMENT IN CBT	93.242	1-R01-MH-108551-01			\$61,960
RECOVERY-ORIENTED PRACTICES IN COMMUNITY MENTAL HEALTH CENTERS: A NATIONAL STUDY OF ADHERENCE AND PARTICIPATION	93.242		YALE UNIVERSITY	M151A11969 (A10040)	\$62,300
MECHANISMS REGULATING COMPLEX SOCIAL BEHAVIOR	93.242	1-R01-MH-108627-01			\$63,373

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BUPRENORPHINE FOR DEPRESSION AND ANXIETY	93.242	4-R01-MH-092412-05			\$66,876
2/2 BRAIN, BEHAVIOR AND GENETIC STUDIES OF THE 22Q11 DELETION STUDIES	93.242		CHILDREN'S HOSPITAL OF PHILADELPHIA	320898-01-03 / PO #951176RSU	\$68,652
RESEARCH TRAINING FOR PREVENTION OF SUICIDE AND PSYCHOSIS: A PUBLIC HEALTH MODEL	93.242	1 T32 MH082745-01A2			\$69,929
PERSON CENTERED CARE PLANNING & SERVICE ENGAGEMENT	93.242		NEW YORK UNIVERSITY	F7437-01	\$73,027
BAR PROTEINS LINKING MEMBRANE AND CYTOSKELETON DYNAMICS	93.242	1-R01-MH-087950-01A1			\$74,046
QUANTIFIABLE MARKERS OF ASD VIA MULTIVARIATE MEG-DTI COMBINATION	93.242				\$74,721
REPETITIVE TRANSCRANIAL MAGNETIC STIMULATION (RTMS) IN PREGNANT WOMEN WITH MDD	93.242	1-K23-MH-092399-01			\$76,265
ASSOCIATIVE PROCESSES IN EPISODIC MEMORY	93.242	2-R01-MH-055687-16A1			\$84,853
PATIENT SAFETY IN INPATIENT PSYCHIATRY	93.242	1-R01-MH-086722-01A2			\$86,135
MENTAL HEALTH BIOSTATISTICS TRAINING GRANT	93.242	2-T32-MH-065218-11			\$91,038
OLIGODENDROCYTE DAMAGE AND DYSFUNCTION IN HIV ASSOCIATED NEUROCOGNITIVE DISORDER	93.242	4-R01-MH-098742-05			\$92,335
3/3-SEQUENCING AUTISM SPECTRUM DISORDER EXTENDED PEDIGREES	93.242	1-R01-MH-094382-01A1			\$95,261
1/9 - PREDICTORS AND MECHANISMS OF CONVERSION TO PSYCHOSIS	93.242		YALE UNIVERSITY	C16A122293 (A10323)	\$98,579
QUANTITATIVE BEHAVIORAL AND IMAGING PHENOTYPES OF AMOTIVATION IN SCHIZOPHRENIA	93.242	4-R01-MH-101111-04			\$99,503
3/3: PEDIGREE-BASED WHOLE GENOME SEQUENCING OF AFFECTIVE AND PSYCHOTIC DISORDERS	93.242	1-U01-MH-105634-01			\$112,723
EVALUATING THE EFFECTS OF AUTISM INSURANCE MANDATES	93.242	4-R01-MH-096848-04			\$116,045
1/3-A NEUROBEHAVIORAL FAMILY STUDY OF SCHIZOPHRENIA	93.242	2-R01-MH-042191-24A1			\$119,898
SOCIAL AND CIRCADIAN RHYTHMS, REWARD SENSITIVITY, AND RISK FOR BIPOLAR DISORDER	93.242		TEMPLE UNIVERSITY	5R01-MH102310	\$120,241
EARLY PREGNANCY STRESS PROGRAMMING OF OFFSPRING EMOTIONALITY	93.242	1-R01-MH-087597-01A1			\$122,022
MOLECULAR IDENTIFICATION OF GENES CRITICAL FOR VERTEBRATE STARTLE MODULATION	93.242	1-R21-MH-103545-01			\$129,725
ANTI-HIV NEUROIMMUNOMODULATORY THERAPY WITH NEUROKININ-1 (NK1R) ANTAGONISTS	93.242		CHILDREN'S HOSPITAL OF PHILADELPHIA	950480RSUB	\$135,013
NEURAL CIRCUIT MECHANISMS MEDIATING TMS AND OXYTOCIN EFFECTS ON SOCIAL COGNITION	93.242	1-R01-MH-109728-01			\$139,250
CELLULAR AND MOLECULAR ANALYSIS OF STARTLE MODULATION	93.242	1-R01-MH-109498-01			\$139,977
EPIGENETIC MECHANISMS OF MEMORY STORAGE	93.242	2-R01-MH-087463-06			\$143,041
GENOMICS OF SCHIZOPHRENIA IN THE SOUTH AFRICAN XHOSA	93.242		COLUMBIA UNIVERSITY	1(GG008292)/PO #G03931	\$143,126
CELL-TYPE SPECIFIC EPIGENOMICS IN THE BRAIN	93.242	1-R21-MH-102679-01			\$155,103
ACTIVITY AS AN ENDOPHENOTYPE FOR GENETIC STUDIES	93.242	1-R21-MH-103963-01A1			\$163,403
ABERRANT PARANASAL SINUS DEVELOPMENT IN SCHIZOPHRENIA	93.242	1-R21-MH-108895-01			\$163,696
NEUROCOGNITIVE VARIABILITY IN SCHIZOPHRENIA AND YOUTH AT-RISK FOR PSYCHOSIS	93.242	1-K01-MH-102609-01A1			\$165,128
LINKING SYNAPTIC AND COGNITIVE DEFECTS IN A MODEL OF NEUROPSYCHIATRIC DISEASE	93.242	NIH			\$175,743
POLICY TO IMPLEMENTATION: EVIDENCE-BASED PRACTICE IN COMMUNITY MENTAL HEALTH	93.242	1-K23-MH-099179-01			\$180,962
THE MECHANISMS OF COGNITIVE AND DYNAMIC THERAPY IN COMMUNITY SETTINGS.	93.242	1-R01-MH-092363-01			\$202,957
EPIGENETIC MECHANISMS OF MEMORY STORAGE	93.242	1-R01-MH-087463-01A1			\$204,789
ACTIONS OF CRF ON 5-HT PATHWAYS IN MOOD REGULATION	93.242	2-R01-MH-073030-06			\$208,398
AUTOIMMUNITY AGAINST NOVEL ANTIGENS IN NEUROPSYCHIATRIC DYSFUNCTION	93.242	1-R01-MH-094741-01			\$215,855
AN IMPLANTABLE SEMIANNUAL ANTIPSYCHOTIC DELIVERY SYSTEM	93.242	2-R01-MH-074672-03A1			\$218,171
SCHIZOPHRENIA: A NEUROPSYCHIATRIC PERSPECTIVE	93.242	2-T32-MH-019112-24			\$221,231
CLINICAL ALGORITHM FOR IDENTIFYING ADULT AUTISM	93.242	1-R34-MH-100356-01			\$222,277
THE INFLUENCE OF AROUSAL STATE ON COORDINATED NEURAL DYNAMICS	93.242	1-R21-MH-107001-01			\$225,057
TRAINING PROGRAM IN BEHAVIORAL/COGNITIVE NEUROSCIENCE	93.242	2-T32-MH-017168-31			\$230,427
RNA:RNA BINDING PROTEIN COMPLEXES IN NEURONS AND SIV ENCEPHALITIS	93.242	1-R21-MH-106441-01A1			\$238,960
STUDYING EPIGENETIC PATHWAYS IN BRAIN FUNCTION AND SOCIAL BEHAVIOR USING ANTS	93.242	1-DP2-MH-107055-01			\$261,663
ELECTROPHYSIOLOGY OF HUMAN SPATIAL COGNITION	93.242	2-R01-MH-061975-12A1			\$263,268
OLFACTORY NEUROIMAGING MARKERS OF HEIGHTENED DEVELOPMENTAL RISK FOR SCHIZOPHRENIA	93.242	1-R01-MH-099156-01			\$264,074
THE IMPACT OF SLEEP DEPRIVATION ON TRANSLATION	93.242	1-R21-MH-102703-01A1			\$270,656
PERFUSION MRI FOR MULTI-SITE STUDIES FOR BRAIN FUNCTION	93.242		BETH ISRAEL MEDICAL CENTER	01027167	\$272,762
BUPRENORPHINE FOR DEPRESSION AND ANXIETY	93.242	1-R01-MH-092412-01A1			\$274,034
SERVICES TO ENHANCE SOCIAL FUNCTIONING IN ADULTS WITH AUTISM SPECTRUM DISORDER	93.242	1-R34-MH-104407-01			\$276,757
OLFACTORY NEUROIMAGING MARKERS OF HEIGHTENED DEVELOPMENTAL RISK FOR SCHIZOPHRENIA	93.242	4-R01-MH-099156-04			\$293,523
WEIGHT HISTORY, BRAIN ACTIVATION TO FOOD CUES AND EATING DISORDER PROGRESSION	93.242		DREXEL UNIVERSITY	232616	\$304,443
INDIVIDUAL, AGE-DEPENDENT DIFFERENCES IN ACC-MEDIATED ADAPTIVE DECISION MAKING	93.242	1-R01-MH-098899-01			\$309,023
QUANTITATIVE BEHAVIORAL AND IMAGING PHENOTYPES OF AMOTIVATION IN SCHIZOPHRENIA	93.242	1-R01-MH-101111-01			\$314,351
MATERNAL STRESS AND THE VAGINAL MICROBIOME: IMPACTS ON BRAIN DEVELOPMENT	93.242	1-R21-MH-104184-01			\$323,709
DEVELOPING CBT-INFORMED THERAPIAN TRAINING CURRICULA FOR CHR YOUTHS	93.242	1-R34-MH-105248-01			\$335,932
2/2-- ATTAINING AND MAINTAINING WELLNESS IN OCD	93.242	2-R01-MH-045404-20			\$359,883

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NOVEL COMPUTATIONAL METHODS FOR HIGHER ORDER DIFFUSION MRI IN AUTISM	93.242	1-R01-MH-092862-01			\$364,007
STRESS AND INFLAMMATION IN THE PATHOPHYSIOLOGY OF LATE-LIFE DEPRESSION	93.242	1-R01-MH-098260-01A1			\$364,737
MECHANISMS OF COMORBIDITY AND SPECIFICITY FOR GENERALIZED ANXIETY AND DEPRESSION	93.242	1-R01-MH-094425-01A1			\$372,331
NON- NEURONAL REGULATORS OF SLEEP	93.242		WASHINGTON STATE UNIVERSITY	123565 G003432	\$377,165
SRC MEDIATES MOLECULAR ALTERATIONS LEADING TO NMDAR HYPOFUNCTION IN SCHIZOPHRENIA	93.242	2-R01-MH-075916-05A1			\$399,272
COGNITIVE THERAPY FOR SUICIDAL OLDER MEN	93.242	1-R01-MH-086572-01A2			\$400,623
GENOMIC ANALYSIS OF BIPOLAR DISORDER IN A GENETIC ISOLATE	93.242	1-R01-MH-093415-01A1			\$415,895
DOWNMODULATING MONOCYTE/MACROPHAGE ACTIVATION FOR HAND	93.242	2-R01-MH-061139-11A1			\$472,876
PATERNAL STRESS EPIGENETIC PROGRAMMING OF OFFSPRING NEURODEVELOPMENT	93.242	1-R37-MH-108286-01			\$473,942
MULTIMODAL BRAIN MATURATION INDICES MODULATING PSYCHOPATHOLOGY AND NUEROCOGNITION	93.242	1-R01-MH-107235-01			\$483,396
MOLECULAR MECHANISMS OF THE STRESS RESPONSE	93.242	1-R01-MH-100319-01A1			\$485,156
EVALUATING THE EFFECTS OF AUTISM INSURANCE MANDATES	93.242	1-R01-MH-096848-01A1			\$496,361
OLFACTORY EVOKED POTENTIALS AND DEVELOPMENTAL NEUROPATHOLOGY IN SCHIZOPHRENIA	93.242	2-R01-MH-059852-11A1			\$497,275
LONGITUDINAL MULTI-MODAL NEUROIMAGING OF IRRITABILITY IN YOUTH	93.242	1-R01-MH-107703-01			\$509,313
OXIDATIVE STRESS, IMMUNE ACTIVATION, AND THERAPEUTIC TARGETING IN HIV/HAND	93.242	1-R01-MH-104134-01			\$526,838
OLIGODENDROCYTE DAMAGE AND DYSFUNCTION IN HIV ASSOCIATED NEUROCOGNITIVE DISORDER	93.242	1-R01-MH-098742-01			\$534,135
PATHWAYS OF HIV NEURODEGENERATION AND DIMETHYL FUMARATE (DMF/MMF) NEUROPROTECTION	93.242	1-R01-MH-095671-01			\$709,475
1/5 INTERNATIONAL CONSORTIUM ON BRAIN AND BEHAVIOR IN 22Q11.2 DELETION SYNDROME	93.242	1-U01-MH-101719-01			\$727,532
SECOISOLARICINESINOL DIGLUCOSIDE TO MITIGATE INFLAMMATION AND TOXICITY IN HAND	93.242	1-R01-MH-106967-01A1			\$761,716
RCT OF TEACHTOWN IN AUTISM SUPPORT CLASSROOMS: INNOVATION AND EXNOVATION	93.242	1-R01-MH-106175-01A1			\$865,759
PREPUBERTAL STRESS, WINDOWS OF RISK & SEX BIAS FOR AFFECTIVE DISTURBANCE	93.242	1-P50-MH-099910-01			\$1,121,078
1/2-BRAIN-BEHAVIOR AND GENETIC STUDIES OF THE 22Q11DS	93.242	1-U01-MH-087626			\$1,267,109
PENN MENTAL HEALTH AIDS RESEARCH CENTER	93.242	1-P30-MH-097488-01A1			\$1,583,659
DEVELOPMENTAL TRAJECTORIES OF NEGATIVE SYMPTOMS IN SCHIZOPHRENIA	93.242	1-P50-MH-096891-01			\$2,041,611
ACADEMIC-PRACTICE PARTNERSHIP FOR THE UNDERSERVED IN PHILADELPHIA, PA (AP4UP)	93.247	1 D09HP28672-01-00			\$228,383
A PLAN FOR ACHIEVING LEADERSHIP IN THE FIELDS OF GERIATRIC PSYCHIATRY AND INTERDISCIPLINARY EDUCATION	93.250	1 K01HP20497-01-00			\$18,981
TRANSITIONS OF CARE FOR SENIORS	93.250	1-K01-KP-20495-01-00			\$20,281
TRAINING IN OCCUPATIONAL MEDICINE	93.262	2-T03-OH-008628-11			\$117,311
MEDICAL EDUCATION PARTNERSHIP INITIATIVE	93.266		UNIVERSITY OF BOTSWANA	555958	\$110,526
CENTER ON ADAPTIVE TREATMENTS FOR ALCOHOLISM	93.273	1-P01-AA-016821-01A1			-\$7,719
GENETICS OF ALCOHOL DEPENDENCE IN AFRICAN-AMERICANS	93.273		YALE UNIVERSITY	M11A11121 (A07754)	-\$4,387
GENETICS OF ALCOHOL DEPENDENCE IN AMERICAN POPULATIONS	93.273		YALE UNIVERSITY	M11A11134 (A07470)	-\$230
THE PATHOGENESIS OF INSULIN RESISTANCE IN ALCOHOLIC LIVER DISEASE	93.273	4-K08-AA-021424-04			\$13,675
COMPONENT ANALYSIS OF MOTIVATIONAL INTERVIEWING	93.273		FEINSTEIN INSTITUTE FOR MEDICAL RESEARCH, THE	500665UP	\$19,010
AN RCT OF BRIEF INTERVENTION FOR PROBLEM DRINKING AND PARTNER VIOLENCE	93.273	1-R01-AA-018705-01A1			\$52,609
2/2 PHARMACOGENETIC TREATMENT FOR ALCOHOLISM	93.273	4-R01-AA-021164-05			\$72,917
COMMUNITY POLICING AND ALCOHOL-INVOLVED CRIME	93.273	7-R03-AA-022776-02			\$73,612
EFFECTIVENESS OF TOPIRAMATE: CHARACTERIZING INDIVIDUAL DIFFERENCES	93.273	1-K23-AA-023894-01			\$126,054
THE PATHOGENESIS OF INSULIN RESISTANCE IN ALCOHOLIC LIVER DISEASE	93.273	1-K08-AA-021424-01A1			\$188,285
A RANDOMIZED TRIAL OF URBAN VACANT LOT STABILIZATION AND SUBSTANCE ABUSE OUTCOMES	93.273	1-R01-AA-020331-01A1			\$196,304
2/2 PHARMACOGENETIC TREATMENT FOR ALCOHOLISM	93.273	1-R01-AA-021164-01			\$226,246
PHARMACOGENETIC ANALYSIS OF TOPIRAMATE TREATMENT OF AUD	93.273	1-R01-AA-023192-01			\$478,360
CYP2E1 MEDIATED MITOCHONDRIAL INJURY AND CELL DAMAGE IN ALCOHOL LIVER DISEASE	93.273	1-R01-AA-022986-01A1			\$518,534
IMPACT OF ENHANCEMENTS TO SMARTPHONE-BASED CONTINUING CARE FOR ALCOHOL DEPENDENCE	93.273	1-R01-AA-022595-01A1			\$687,308
NICOTINE ADDICTION: LEARNING, NEURAL & GENETIC PROCESS	93.279		TEMPLE UNIVERSITY	360665	-\$13,534
NEUROENDOCRINE CONTRIBUTION TO BEHAVIOR & COGNITION IN THE FEMALE LIFESPAN	93.279	1-K24-DA-030301-01			-\$8,930
INNOVATIVE APPROACHES FOR COCAINE PHARMACOTHERAPY	93.279	2-P50-DA-012756-11			-\$4,947
PARENTS' TRANSLATIONAL RESEARCH CENTER	93.279		TREATMENT RESEARCH INSTITUTE	027841-CURTIS	-\$2,957
TREATMENT OF SMOKING AMONG INDIVIDUALS WITH PTSD	93.279	1-R01-DA-023507-01A2			-\$2,163
94-868: RFA/DRUG DEPENDENCE BEHAVIORAL TREATMENT RESEARCH CENTER	93.279	1-P50-DA-009252-01			-\$375
PHARMACOTHERAPY IMPACT ON COCAINE AND ALCOHOL-DERIVED REINFORCEMENT	93.279	1-K01-DA-025073-01A1			-\$19

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EXPANDING TREATMENT FOR OPIOID DEPENDENCE AMONG THE PRIVATELY INSURED	93.279		YALE UNIVERSITY	A07696 (M11A11035)	-\$1
GABA B AGONISTS REVISITED: BRAIN, BEHAVIORAL AND GENETIC EFFECTS IN SMOKERS	93.279	4-R01-DA-030394-05			\$880
NEURAL CORRELATES OF RISK TAKING IN SMOKERS BEFORE AND AFTER SMOKING ABSTINENCE	93.279	1-R21-DA-032022-01A1			\$1,616
MECHANISMS OF RESISTANCE IN HESN-IDU SUBJECTS: INDUCTION OF IFN-MEDIATED FACTORS AND S100 PROTEINS AS DETERMINANTS OF NK CELL-MEDIATED CLEARANCE AND LOW CD4 T CELL INFECTIVITY	93.279		WISTAR INSTITUTE	25251-03-324	\$1,917
COGNITIVE TRAINING FOR NICOTINE DEPENDENCE	93.279	1-R01-DA-030819-01			\$2,154
HIGH SPECIFICITY HIV-1 MARKERS PREDICTIVE OF NEURO-AIDS	93.279		DREXEL UNIVERSITY	220529	\$2,402
FUNCTIONAL CHARACTERIZATION OF OPRM1 A118G IN NICOTINE DEPENDENCE	93.279	1-R21-DA-027066-01			\$2,712
DELIVERING PSYCHOSOCIAL TREATMENT TO SUBSTANCE ABUSERS VIA MOBILE TECHNOLOGIES	93.279		NATIONAL DEVELOPMENT AND RESEARCH INSTITUTES, INC.	SUB TO R01 DA029630 PROJECT # 631	\$6,496
ADHERENCE TO HIV THERAPY IN HEROIN ADDICTS: ORAL VS EXTENDED RELEASE NALTREXONE	93.279	1-R01-DA-026336-01A1			\$7,814
FLORIDA NODE ALLIANCE OF DRUG ABUSE CLINICAL TRIALS NETWORK	93.279		UNIVERSITY OF MIAMI	665615	\$9,823
CLINICAL TRIALS NETWORK MID-ATLANTIC INTEGRATED CARE RESEARCH COLLABORATIVE	93.279		JOHNS HOPKINS UNIVERSITY	2002753634	\$10,840
PARENTS' TRANSLATIONAL RESEARCH CENTER	93.279		TREATMENT RESEARCH INSTITUTE	02741_CURTIS2	\$12,898
PARENTS' TRANSLATIONAL RESEARCH CENTER	93.279		TREATMENT RESEARCH INSTITUTE	027841_MCKAY	\$15,288
TRANS-GENERATIONAL EFFECTS OF NICOTINE SELF-ADMINISTRATION	93.279	1-R21-DA-039393-01A1			\$15,435
BEHAVIORAL TREATMENT OF ADOLESCENT MARIJUANA USE	93.279		DARTMOUTH COLLEGE	1347	\$18,151
ACTG; AIDS CLINICAL TRIALS GROUP - A5340 BAR SUPPORT	93.279		BRIGHAM AND WOMEN'S HOSPITAL	A5340	\$19,293
AMP-ACTIVATED PROTEIN KINASE (AMPK) AND NICOTINE DEPENDENCE	93.279	1-R01-DA-041180-01A1			\$21,673
A PLACEBO CONTROLLED TRIAL OF VARENICLINE FOR SMOKING AMONG THOSE WITH HIV/AIDS	93.279	4-R01-DA-033681-05			\$22,349
MECHANISMS UNDERLYING LEARNING DEFICITS CAUSED BY PATERNAL COCAINE TAKING	93.279	1-K01-DA-039308-01A1			\$22,653
QUANTITATIVE METHODS TO SUBTYPE DRUG DEPENDENCE AND DETECT NOVEL GENE VARIANTS	93.279		UNIVERSITY OF CONNECTICUT	81436	\$25,144
NEURAL MECHANISMS UNDERLYING CHANGES IN PREFERENCE	93.279	1-R01-DA-029149-01A1			\$28,203
YOGA INTERVENTION FOR SUBSTANCE USE AND ART ADHERENCE IN COMMUNITY REENTRY	93.279	1-F31-DA-038429-01			\$30,071
COCAINE ADDICTION AND RETROTRANSPOSONS	93.279	1-R21-DA-035607-01			\$33,699
LONG-ACTING HIV THERAPY FOR INJECTION DRUG USERS	93.279		DREXEL UNIVERSITY	SUB TO 1-R01-DA-029663-01A1	\$35,078
METHODOLOGY FOR PET IMAGING OF ROLE OF DOPAMINE D3 RECEPTOR IN ADDICTION	93.279	1-K01-DA--040023-01A1			\$35,695
REPURPOSING CHOLINESTERASE INHIBITORS FOR SMOKING CESSATION	93.279	4-K23-DA-035295-04			\$35,853
ANHEDONIA AS A RISK FACTOR AND CONSEQUENCE OF SUBSTANCE USE	93.279		UNIVERSITY OF SOUTHERN CALIFORNIA	35609807	\$40,157
INHIBITORY SYNAPTIC TRANSMISSION, STRESS, AND DRUGS OF ABUSE	93.279		BROWN UNIVERSITY	00000759	\$41,061
THE ROLE OF AKAP 150 IN THE NUCLEUS ACCUMBENS SHELL IN COCAINE REINSTATEMENT	93.279	1-F31-DA-037748-01A1			\$41,529
ADAPTIVE TREATMENT MODELS FOR THE MANAGEMENT OF DRUG USE DISORDERS	93.279	1-K24-DA-029062-01			\$46,383
DISSECTION OF THE ORGANIZATIONAL DIFFERENCES BETWEEN PAW AND TRUNK PAIN CIRCUITS	93.279	1-F31-NS-092297-01			\$47,619
CLINICAL AND GENETIC CHARACTERISTICS OF OPIOID ADDICTION IN CHRONIC PAIN	93.279	4-R01-DA-032776-04			\$52,472
DEEP SEQUENCING STUDIES FOR CANNABIS AND STIMULANT DEPENDENCE	93.279		UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL	5-30997	\$52,499
NEUROIMAGING STUDY OF HIV-PREVENTION PUBLIC SERVICE ANNOUNCEMENTS	93.279	1-R03-DA-035683-01			\$52,708
PET RADIOTRACERS FOR IMAGING THE DOPAMINE D3 RECEPTOR	93.279	2-R01-DA-029840-06A1			\$54,381
ADAR2 EDITING OF GLUA2 AND COCAINE REINSTATEMENT	93.279		MASSACHUSETTS GENERAL HOSPITAL	226055	\$57,467
ECONOMIC EVALUATION OF MEDICATION-ASSISTED SUBSTANCE ABUSE TREATMENT	93.279		CORNELL UNIVERSITY	R01-DA035808	\$57,726
THE LOGICS FOR HIV RISK AMONG STREET-BASED HEROIN INJECTORS	93.279	2-R01-DA-010164-13			\$67,268
DEVELOPMENT OF A5*NACHR POSITIVE ALLOSTERIC MODULATORS FOR TOBACCO DEPENDENCE	93.279		SCRIPPS RESEARCH INSTITUTE	PO #5-20250	\$70,128
EPIGENETICS AND INCUBATION OF CRAVING	93.279	1-K01-DA-030445-01			\$71,256
PET RADIOTRACERS FOR IMAGING THE DOPAMINE D3 RECEPTOR	93.279	7-R01-DA-029840-04			\$74,522
GENETICS OF OPIOID DEPENDENCE	93.279		YALE UNIVERSITY	M14A11735 (A09415)	\$83,741
EARLY ONSET VS. PRE-EXISTING VULNERABILITIES IN ADOLESCENT DRUG USE	93.279	1-R01-DA-033996-01			\$85,259
IMAGING DATA RE-ANALYSIS FOR COCAINE ADDICTION	93.279	1-R56-DA-036556-01A1			\$86,800
GAAS PHOTOMULTIPLIER CHIPS FOR TOF-PET	93.279		LIGHTSPIN TECHNOLOGIES	SUB TO 2R44DA028813	\$96,187
PSYCHOSTIMULANT-INDUCED CRAVING AND TOXICITY	93.279	2-K02-DA-018678-07			\$96,213
NEURAL BASIS OF SMOKING RELAPSE	93.279	1-R01-DA-041402-01			\$97,153
DEVELOPMENT OF A5* NACHR POSITIVE ALLOSTERIC MODULATORS FOR TOBACCO DEPENDENCE	93.279		ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI	0255-6811-4609	\$97,477
REPURPOSING CHOLINESTERASE INHIBITORS FOR SMOKING CESSATION	93.279	1-K23-DA-035295-01			\$99,719
OPTOGENETIC TOOLBOX FOR STUDYING REGULATORS OF G-PROTEIN SIGNALING IN ADDICTION	93.279	1-R21-DA-040434-01			\$107,208
TARGETING DOPAMINE D3 RECEPTORS IN COCAINE ADDICTION	93.279	1-R01-DA-039215-01A1			\$111,844
TRANSGENERATIONAL INHERITANCE OF A COCAINE RESISTANCE PHENOTYPE	93.279	4-R01-DA-033641-05			\$129,508
REPURPOSING MELATONIN RECEPTOR AGONISTS AS ADJUNCT TREATMENTS FOR SMOKING CESSATION	93.279	1-R21-DA-040902-01			\$132,780
THE ROLE OF THE DELTA-OPIOID RECEPTOR GENE, OPRD1, IN OPIOID ADDICTION TREATMENT	93.279	1-K01-DA-036751-01A1			\$133,063

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EFFECTS OF REPETITIVE SMOKING IMAGERY ON CUE-INDUCED CRAVING AND SMOKING BEHAVIOR	93.279	1-R21-DA-035360-01A1			\$139,724
TRANSGENERATIONAL EFFECTS OF DRUG-EXPOSURE: EPIGENETIC AND BEHAVIORAL IMPACT	93.279	4-R01-DA-033646-05			\$140,244
CAUSAL INFERENCES FOR TREATMENT MODERATORS ON ZERO-INFLATED OUTCOMES OF HIV RISK	93.279	1-R01-DA-036557-01A1			\$146,163
CHARACTERIZING A CUE-VULNERABLE PHARMACO-RESPONSIVE ENDOPHENOTYPE IN SMOKERS	93.279	1-R01-DA-029845-01A1			\$155,145
DEVELOPMENT OF NOVEL DOPAMINE D3 RECEPTOR SELECTIVE ANTIPSYCHOTICS	93.279		UNIVERSITY OF NORTH TEXAS HEALTH SCIENCE CENTER AT FORT WORTH	RN0127-2015-0148	\$183,492
THE HIV-1 AND HCV TRANSMISSION BOTTLENECK IN CHINESE INJECTION DRUG USERS	93.279	1-R01-DA-037244-01			\$197,164
OPIOID RELAPS & HIV RISK: 48 VS. 24 WEEKS OF ER INJECTABLE NALTREXONE	93.279	1-R01-DA-033670-01			\$206,834
ECONOMIC EVALUATION OF DRUG ABUSE TREATMENT AND HIV PREVENTION SERVICES FOR PREGN	93.279	7-R01-DA-025555-05			\$220,227
HEALTH ECONOMICS OF SUBSTANCE ABUSE AND HCV/HIV TREATMENT IN THE ERA OF INTEGRATED					
HEALTH CARE	93.279		CORNELL UNIVERSITY	15070983-02	\$240,093
PHARMACOGENETICS OF OPIOID AGONIST THERAPY	93.279	-1R21-DA-036808-01			\$240,126
TRANSGENERATIONAL EFFECTS OF DRUG-EXPOSURE: EPIGENETIC AND BEHAVIORAL IMPACT	93.279	1-R01-DA-033646-01			\$268,538
T32 TRANSLATIONAL ADDICTION RESEARCH FELLOWSHIP PROGRAM	93.279	2-T32-DA-028874-03A1			\$274,299
GABA B AGONISTS REVISITED: BRAIN, BEHAVIORAL AND GENETIC EFFECTS IN SMOKERS	93.279	1-R01-DA-030394-01A1			\$290,131
THE ROLE OF CENTRAL GLP-1 RECEPTORS IN ANIMAL MODELS OF COCAINE ADDICTION	93.279	1-R01-DA-037897-01A1			\$335,794
TRANSGENERATIONAL INHERITANCE OF A COCAINE RESISTANCE PHENOTYPE	93.279	1-R01-DA-033641-01			\$357,608
PREDICTING AOD RELAPSE AND TREATMENT COMPLETION FROM SOCIAL MEDIA USE	93.279	7-R01-DA-039457-02			\$359,204
ACUTE NICOTINE DECREASES ALCOHOL-INDUCED DOPAMINE RESPONSE & INCREASES DRINKING	93.279	2-R01-DA-009411-16A1			\$360,562
ALPHA 5 NACHR IS A RISK FACTOR WITHIN THE DOPAMINE SYSTEM FOR NICOTINE ADDICTION	93.279	1-R01-DA-036572-01			\$370,057
A PLACEBO CONTROLLED TRIAL OF VARENICLINE FOR SMOKING AMONG THOSE WITH HIV/AIDS	93.279	1-R01-DA-033681-01			\$390,995
MPFC, N, ACCUMBENS AND REINSTATEMENT OF COCAINE SEEKING	93.279	2-R01-DA-015214-12A1			\$402,940
2/2 MULTICENTER TRIAL OF COMBINED PHARMACOTHERAPY TO TREAT COCAINE DEPENDENCE	93.279	1-U01-DA-033368-01A1			\$422,241
THE PFT INTERVENTION: LINKING TRIPLY-DIAGNOSED INPATIENTS TO COMMUNITY CARE	93.279	1-R01-DA-036503-01A1			\$589,666
DELAWARE VALLEY NODE OF THE CLINICAL TRIALS NETWORK	93.279	2-U10-DA-013043-11			\$615,183
VARENICLINE FOR THE TREATMENT OF COCAINE DEPENDENCE: PHASE II	93.279	1-U01-DA-032629-01A1			\$628,480
MULTIMODAL IMAGING OF PROGESTERONE/NEUROSTEROID EFFECTS IN NICOTINE ADDICTION	93.279	1-R01-DA-037289-01A1			\$636,771
CLINICAL AND GENETIC CHARACTERISTICS OF OPIOID ADDICTION IN CHRONIC PAIN	93.279	1-R01-DA-032776-01			\$663,967
A PILOT IMPLEMENTATION PROJECT OF METHADONE AND SUBOXONE FOR INJECTING DRUG USERS	93.279	1-R01-DA-033671-01			\$715,381
PHARMACOGENETICS OF NICOTINE ADDICTION AND TREATMENT	93.279	2-U01-DA-020830-06			\$726,458
EVALUATING NEW NICOTINE STANDARDS FOR CIGARETTES - PROJECT 2	93.279		UNIVERSITY OF MINNESOTA	P004140307	\$758,219
CENTER FOR THE DEVELOPMENT OF NOVEL MEDICATIONS FOR COCAINE DEPENDENCE	93.279	1-U54-DA-039002-01			\$1,088,767
HOW THE LARGE-SCALE ORGANIZATION OF GENE EXPRESSION RELATES TO BEHAVIOR IN MICE	93.281	7-K08-MH-080228-02			-\$600
MULTIMODAL NEUROIMAGING OF PROSODY IN SCHIZOPHRENIA AND DEVELOPMENTAL DISORDERS	93.281	1-K01-MH-094689-01			\$146,653
NEUROIMAGING OF DIMENSIONAL REWARD DYSFUNCTION IN ADOLESCENCE	93.281	1-K23-MH-098130-01			\$167,565
TRAINING PROGRAM IN NEUROPSYCHOPHARMACOLOGY	93.282	2-T32-MH-014654-34			\$268,750
PREVENTION EPICENTERS SVAP COLLABORATIVE CONTINUATION: WAKE UP AND BREATHE	93.283		HARVARD PILGRIM HEALTH CARE	SUB TO 3U54CK000172-03SI	-\$2,291
COMMUNITY COUNTS: PUBLIC HEALTH SURVEILLANCE FOR BLEEDING DISORDERS	93.283		CHILDREN'S HOSPITAL OF PHILADELPHIA	950875RSUB	\$4,603
SOUTHEASTERN PENNSYLVANIA ADULT AND PEDIATRIC PREVENTION EPICENTER NETWORK	93.283	1-U54-CK-000163-01			\$1,076,435
A TIME-OF-FLIGHT PET SCANNER FOR DEDICATED BREAST IMAGING	93.286	1-R01-EB-009056-01A2			-\$457
ACOUSTIC-BASED RANGE VERIFICATION TO IMPROVE PROTON RADIATION THERAPY FOR CANCER					
TREATMENT	93.286	1-F32-EB-021102-01A1			\$4,130
SUPER-RESOLUTION PET USING STEPPING OF A DELIBERATELY MISALIGNED BED	93.286	1-R21-EB-017416-01			\$4,808
IMAGING B CELLS WITH GD-LABELED DENDRIMER NANOCUSTERS	93.286	1-R01-EB-012065-01			\$6,969
FOURTH INTERNATIONAL WORKSHOP ON METABOLIC IMAGING	93.286	1-R13-EB-019299-01			\$9,999
TRAINING IN STRUCTURAL, PHYSIOLOGIC AND FUNCTIONAL MRI	93.286	1-T32-EB-020087-01A1			\$15,591
RESEARCH TRACK RADIOLOGY RESIDENCY	93.286	2-T32-EB-004311-06			\$21,731
CROSS-SCALE INTERACTIONS BETWEEN MINERAL AND COLLAGEN FOR TENDON-BONE ATTACHMENT	93.286		WASHINGTON UNIVERSITY IN ST. LOUIS	1-U01-EB016422-01A1	\$29,911
FOLATE TARGETED INTRAOPERATIVE CANCER IMAGING TO GUIDE PULMONARY RESECTIONS	93.286	1-R03-EB-017828-01A1			\$36,983
ULTRA-HIGH RESOLUTION BOLD FMRI OF MEDIAL TEMPORAL LOBE AT 7 TESLA	93.286	1-R03-EB-016923-01A1			\$43,183
THERANOSTIC NANOPARTICLES TO ENHANCE MORPHOLINO DELIVERY TO THE LIVER FOR SUPPRES	93.286	4-R00-EB-012165-03			\$56,301
NON-CONTRAST 4-D DYNAMIC MRA IN ARTERIOVENOUS MALFORMATION	93.286		UNIVERSITY OF CALIFORNIA, LOS ANGELES	1580 G RB668	\$58,406

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DETECTOR CONCEPTS FOR TIME-OF-FLIGHT PET	93.286	1-R21-EB-016205-01A1			\$60,969
MICROSCOPIC IMAGING OF TISSUE OXYGEN DELIVERY ALTERED BY MICROVASCULAR CHANGES	93.286		MASSACHUSETTS GENERAL HOSPITAL	226968	\$67,683
TARGETED MICROCARRIER DESIGN AND OPTIMIZATION	93.286	4-R01-EB-006818-08			\$68,988
CARBON NANPIPE-BASED AUTOMATED CELL INJECTION SYSTEM	93.286	1-R21-EB-016343-01A1			\$78,501
ASSESSMENT OF MEDICAL IMAGE QUALITY WITH FOVEATED SEARCH MODELS	93.286		UNIVERSITY OF CALIFORNIA, SANTA BARBARA	KK1614	\$92,697
OPTICAL BARRIERS TO IMPROVE PERFORMANCE OF A CONTINUOUS DETECTOR FOR CLINICAL PET	93.286	1-R21-EB-017966-01			\$135,539
MULTI-SCALE BIOMECHANICS OF ENGINEERED AND NATIVE FIBROUS LOAD-BEARING TISSUE	93.286		UNIVERSITY OF DELAWARE	SUB TO 2-R01-EB-002425-01A1	\$165,309
RESEARCH TRACK RADIOLOGY RESIDENCY	93.286	2-T32-EB-004311-11			\$173,600
PRODUCING LARGE QUANTITIES OF POLARIZED XENON WITH DNP METHOD	93.286	1-R01-EB-015767-01A1			\$178,932
CONTINUED DEVELOPMENT AND MAINTENANCE OF ITK-SNAP 3D IMAGE SEGMENTATION SOFTWARE	93.286	1-R01-EB-014346-01			\$203,829
MULTISCALE MODELING OF FACET CAPSULE MECHANOBIOLOGY	93.286		UNIVERSITY OF MINNESOTA	A003160902	\$211,889
TRAINING PROGRAM IN BIOMEDICAL IMAGING AND INFORMATIONAL SCIENCES	93.286	2-T32-EB-009384-06			\$235,622
BIOCONJUGATE TECHNIQUE FOR SITE-SPECIFIC ATTACHMENT OF IGG ONTO NANOPARTICLES	93.286	1-R21-EB-018863-01A1			\$245,869
AN INDUCIBLE SYSTEM FOR GENE DELIVERY	93.286	1-R21-EB-018064-01A1			\$297,649
DENDRITIC UPONVERTING NANOPARTICLES FOR MULTIPHOTON IMAGING AND SENSING	93.286	1-R01-EB-018464-01A1			\$304,378
TARGETED MICROCARRIER DESIGN AND OPTIMIZATION	93.286	2-R01-EB-006818-05A1			\$339,667
APPROXIMATING AND REASONING ABOUT DATA PROVENANCE	93.286	1U01EB020954-01			\$362,569
CERENKOV SPECIFIC CONTRAST AGENTS	93.286	1-R01-EB-018645-01			\$405,891
ENGINEERING DEVELOPMENTAL MICROENVIRONMENTS: CARTILAGE FORMATION AND MATURATION	93.286	2-R01-EB008722-05A1			\$437,628
PATHOLOGICAL CONSEQUENCES OF ALTERED TISSUE MECHANICS IN FIBROSIS	93.286	1-R01-EB-017753-01A1			\$487,962
BRIDGING MULTIPLE SCALES IN MODELING TARGETED DRUG NANOCARRIER DELIVERY	93.286	1-U01-EB-016027-01A1			\$490,882
ADAPTIVE LARGE-SCALE FRAMEWORK FOR AUTOMATIC BIOMEDICAL IMAGE SEGMENTATION	93.286	1-R01-EB-017255-01A1			\$494,654
COMPREHENSIVE ASSESSMENT OF PULMONARY DISORDERS USING POLARIZED 13C TECHNOLOGY	93.286	1-R01-EB-010208-01			\$526,255
A RESOURCE FOR MAGNETIC RESONANCE AND OPTICAL IMAGING	93.286	2-P41-EB-015893-31			\$1,171,188
PILOT TESTING A NATURAL MENTOR INTERVENTION FOR OLDER YOUTH IN FOSTER CARE (CARE: CARING ADULTS R EVERYWHERE)	93.293		PHILADELPHIA DEPARTMENT OF HUMAN SERVICES	14-20407	\$10,412
UPCC 03715: A RANDOMIZED RECRUITMENT INTERVENTION TRIAL BMT CTN 1505	93.307		NATIONAL MARROW DONOR PROGRAM	0008663BN	\$9,378
REDUCING FUNCTIONAL HEALTH DISPARITIES AMOUNG OLDER BREAST CANCER SURVIVORS	93.307		CASE WESTERN RESERVE UNIVERSITY	RES510118	\$19,379
HEALTH PROMOTION FOR POSITIVES: A RANDOMIZED TRIAL WITH HIV POSITIVE BLACK MEN	93.307	4-R01-MD-006232-05			\$54,681
STUDYING SOCIOECONOMIC DISPARITIES IN CANCER SURVIVAL WITH TAPERED MATCHING	93.307		CHILDREN'S HOSPITAL OF PHILADELPHIA	ACTIVITY #321042	\$83,995
REDUCING RISK OF HIV/STD INFECTION AMONG AFRICAN AMERICAN MEN	93.307	1-R01-MD-004075-01			\$119,811
HEALTH PROMOTION FOR POSITIVES: A RANDOMIZED TRIAL WITH HIV POSITIVE BLACK MEN	93.307	1-R01-MD-006232-01A1			\$122,270
COMPREHENSIVE CENTER OF EXCELLENCE IN HEALTH DISPARITIES	93.307	4-P60-MD-006900-05			\$205,799
WEST PHILADELPHIA CONSORTIUM TO ADDRESS DISPARITIES - PHASE 3	93.307	2-R24-MD-001594-09			\$388,648
COMPREHENSIVE CENTER OF EXCELLENCE IN HEALTH DISPARITIES	93.307	1-P60-MD-006900-01			\$816,133
OPTOELECTRONIC NANOWIRE PROBES FOR INVESTIGATION OF INTRA-CELLULAR PROCESSES	93.310	1-DP2-OD-007251-01			-\$14,387
UNDERSTANDING THE COGNITIVE IMPACT OF EARLY LIFE EPILEPSY	93.310	7-DP-10D-003347-06			-\$70
MOLECULAR REGULATION OF BROWN ADIPOSE CELL FATE IN SOMITIC STEM CELLS	93.310	1-DP2-OD-007288-01			\$4,685
GREATER-PHILADELPHIA-SOUTHERN NEW JERSEY NEUROLOGICAL EMERGENCIES TREATMENT: RAMPART TRIAL	93.310		UNIVERSITY OF MICHIGAN	3000691507-RPT	\$5,130
NOVEL METHODOLOGY FOR QUANTITATIVE HIGH-THROUGHPUT CANCER EPIGENETICS	93.310	DP2-OD-007447			\$9,103
IMPACT OF RACIALLY TARGETED FOOD AND BEVERAGE ADS ON ADOLESCENT BEHAVIOR	93.310		NEW YORK UNIVERSITY	15-A0-00-004321-01	\$12,603
DYNAMIC NETWORK NEUROSCIENCE AND CONTROL THEORY: TOWARD INTERVENTIONS FOR COGNITIVE CONTROL DYSFUNCTION	93.310	1-DP5-OD-021352-01			\$129,755
TRANSFORMATIVE PERSONALIZED VASCULAR DISRUPTING CANCER IMMUNOTHERAPY	93.310	1-R01-CA-156695-01			\$257,140
COMPARATIVE EFFICACY, ACCEPTANCE AND EFFECTIVENESS OF HEALTH INCENTIVE STRUCTURES	93.310	1-R01-CA-159932-01			\$259,742
CONTRAST-ENHANCED AND IMAGE-GUIDED SURGERY OF LUNG CANCER	93.310		EMORY UNIVERSITY	S701566	\$263,170
IMAGE-BASED PHENOTYPING OF HEPATOCELLULAR CARCINOMA CELL SURVIVAL UNDER ISCHEMIC STRESS: TOWARD METABOLIC IMAGING OF CANCER DORMANCY USING HYPERPOLARIZED CARBON-13 TECHNOLOGY	93.310	1-DP5-OD-021391-01			\$287,151
ENGINEERING 3-D EPIGENOME TOPOLOGY WITH LIGHT	93.310	1-DP2-MH-110247-01			\$308,637
DEVELOPMENT OF A UNIVERSAL INFLUENZA SEASONAL VACCINE	93.310	1-R01-AI-092843-01			\$436,594
ALZHEIMER'S PREVENTION INITIATIVE APOE4 TRIAL	93.310		BANNER HEALTH	0435-02-48535	\$454,605
NUCLEAR PRE-MRNA ANALYSIS OF SINGLE CELLS IN BRAIN SLICE	93.310	1-R33-MH-106637-01			\$482,934

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GENE-ENGINEERED ADOPTIVE T CELL IMMUNOTHERAPY OF BBM	93.310	7-DP2-CA-174502-02			\$495,976
A COMPREHENSIVE SPATIAL PICTURE OF TRANSCRIPTION IN THE NUCLEUS	93.310	1-DP2-OD-008514-01			\$517,762
VALIDATION AND DEVELOPMENT OF SINGLE NUCLEOTIDE VARIANT RNA FISH IN SINGLE CELLS IN CULTURE AND TISSUE	93.310	1-R33-EB-019767-01			\$526,485
CAN NEUROSCIENCE DRAMATICALLY IMPROVE OUR ABILITY TO DESIGN HEALTH COMMUNICATIONS	93.310	7-DP2-DA-035156-02			\$580,645
IDENTIFICATION AND VALIDATION OF CELL SPECIFIC EQTLS BY BAYESIAN MODELING	93.310	1-R01-MH-101822-01			\$611,676
A RANDOMIZED CONTROLLED TRIAL OF INCENTIVES FOR HABIT FORMATION	93.310	1-R01-AG-043844-01			\$683,673
COMBATING BACTERIAL DRUG RESISTANCE BY TARGETING THE ENZYMES OF EVOLUTION	93.310	1-DP2-GM-105444-01			\$773,532
BROAD SPECTRUM MOLECULAR THERAPY FOR BLINDING RETINA DISORDERS	93.310	1-DP1-OD-008267-01			\$774,874
ROLE OF SINGLE CELL MRNA VARIATION IN SYSTEMS ASSOCIATED ELECTRICALLY EXCITABLE CELLS	93.310	1-U01-MH-098953-01			\$1,836,734
INSTITUTIONAL CLINICAL AND TRANSLATIONAL SCIENCE AWARD	93.350	1-UL1-TR-001878-01			\$469
MODELING OXIDATIVE STRESS AND DNA DAMAGE USING GI ORGANOTYPIC CULTURE SYSTEMS	93.350	5-U18-TR-000536-02			\$880
WEIGHT TRAJECTORY IN CKD	93.350		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	9231SC	\$5,666
IDENTIFICATION OF SHARED MOLECULAR TARGETS	93.350		UNIVERSITY OF SOUTH FLORIDA	6119-1359-11-A	\$102,731
SCANNING ELECTRON MICROSCOPE	93.351	1-S10-OD-018041			\$22,293
ACQUISITION OF JANUS VARISPAN + MODULAR DISPENSING TOOL (MDT) WORKSTATION	93.351	1-S10-OD-020090-01			\$119,819
RESOURCES FOR EDUCATION AND ACTION FOR COMMUNITY HEALTH IN AMBLER (REACH AMBLER)	93.351	1-R25-OD-010521-01			\$212,820
A 129XE POLARIZER FOR PULMONARY IMAGING	93.351	1-S10-OD-018203-01			\$300,000
A DIAMOND SYSTEM FOR REAL-TIME METABOLIC IMAGING	93.351	1-S10-OD-018478-01			\$500,000
REFERRAL CTR-ANIMAL MODELS OF HUMAN GENETIC DISEASE	93.351	2-P40-OD-010939-29			\$791,589
MECHANISMS OF HAEMOPHILUS INFLUENZAE PATHOGENESIS IN THE LUNG	93.355		UNIVERSITY OF MISSISSIPPI MEDICAL CENTER	66103650115-UP	\$139,587
MOUSE MODELS FOR ESOPHAGEAL COX-2 OXIDATIVE STRESS AND DNA DAMAGE	93.357	4-K26-OD-012097-04			\$78,997
MOUSE MODELS FOR ESOPHAGEAL COX-2 OXIDATIVE STRESS AND DNA DAMAGE	93.357	1-K26-OD-012097-01A1			\$136,665
ADVANCED EDUCATION NURSING TRAINEESHIP (AENT) PROGRAM	93.358	1 A10HP27179-01-00			\$337,728
DEVELOPING GERIATRIC RESOURCE NURSE-LED INTERPROFESSIONAL COLLABORATIVE PRACTICE	93.359	6-UD7H026041-01-03			\$613,525
REAL-TIME DATA CAPTURE OF THE EXPERIENCES OF BLACKS IN CANCER CLINICAL TRIALS	93.361	5-F31-NR-013847-02			-\$425
INJURY IN LATINA WOMEN AFTER SEXUAL ASSAULT: MOVING TOWARD HEALTH CARE EQUITY	93.361	1-R01-NR-011589-01			-\$299
ADVANCED TRAINING IN NURSING OUTCOMES RESEARCH	93.361	2-T32-NR-007104-11			\$350
DEFINING RISK FOR IATROGENIC WITHDRAWAL SYNDROME IN CRITICALLY ILL CHILDREN	93.361	1-F31-NR-015172-01			\$3,746
MECHANISMS OF SLEEPINESS SYMPTOMS IN SLEEP APNEA AND CARDIOVASCULAR DISEASE	93.361	1-K99-NR-014675-01			\$4,664
DOES CHRONOTYPE MODIFY THE RELATIONSHIP BETWEEN SLEEP AND BMI IN ADOLESCENTS?	93.361	1-F31-NR-014603-01A1			\$6,263
THE IMPACT OF HOSPICE PREFERRED PRACTICES ON PATIENT OUTCOMES AND HOSPICE COSTS	93.361		MOUNT SINAI MEDICAL CENTER	0255-5681-4609	\$8,823
THE IMPACT OF NURSING ON IN-HOSPITAL CARDIAC ARREST PATIENT OUTCOMES	93.361	1-R01-NR-016002-01			\$18,486
ATRIAL FIBRILLATION SYMPTOM PERCEPTION	93.361	1F31NR015687-01A1			\$20,460
SEVERE PAIN DURING WOUND CARE PROCEDURES: MODEL AND MECHANISMS	93.361		UNIVERSITY OF IOWA	W000711747	\$24,047
A MIXED METHODS OBSERVATIONAL STUDY OF PERSISTENT VOCALIZATIONS IN NURSING HOME RESIDENTS					
WITH MODERATE TO SEVERE DEMENTIA	93.361	1-F31-NR-015693-01			\$32,053
TRANSLATING UNIQUE LEARNING FOR INCONTINENCE PREVENTION: THE TULIP PROJECT	93.361		UNIVERSITY OF MICHIGAN	3001740447	\$48,632
TECHNOLOGY APPLICATION TO ENHANCE DISCHARGE REFERRAL DECISION SUPPORT	93.361		RIGHTCARE SOLUTIONS	SUB TO 2R44NR013609	\$56,295
SEPSIS SURVIVORS' POST-ACUTE OUTCOMES: IMPACT OF EARLY HOME HEALTH AND MD VISITS	93.361		VISITING NURSE SERVICE OF NEW YORK	4598P	\$63,518
AN OBJECTIVE SNORING INDEX AND ITS ASSOCIATION WITH CAROTID ATHEROSCLEROSIS	93.361	1-K99-NR-013177-01			\$127,130
MECHANISMS OF A SYMPTOM CLUSTER: DYSPNEA, FATIGUE AND SLEEP DISTURBANCE IN CHRONIC ILLNESS	93.361	1-K23-NR-014885-01			\$131,296
SODIUM-RESTRICTED DIETS AND SYMPTOMS IN END STAGE RENAL DISEASE: AN RCT	93.361	1-K23-NR-015058-01			\$131,994
PANEL STUDY OF EFFECTS OF CHANGES IN NURSING ON PATIENT OUTCOMES	93.361	1-R01-NR-014855-01			\$180,784
TRANSITIONAL TELEHEALTH HOME CARE: REACH	93.361		CHILDREN'S HOSPITAL OF PHILADELPHIA	951260RSUB	\$217,192
PROMOTING TEEN HEALTH: A WEB-BASED INTERVENTION TO PREVENT RISKY DRIVING	93.361	4-R00-NR-013548-03			\$225,529
TESTING A LATINO WEB-BASED PARENT-ADOLESCENT SEXUAL COMMUNICATION INTERVENTION	93.361	7-R01-NR-013505-04			\$292,132
DECISION SUPPORT: OPTIMIZING POST ACUTE REFERRALS AND EFFECT ON PATIENT OUTCOMES	93.361	2-R01-NR-007674-04A2			\$329,775
A LONGITUDINAL STUDY OF ADHERENCE TO MEDICATION IN BLACK MEN WITH HYPERTENSION	93.361	1-R01-NR-013491-01A1			\$361,153
INDIVIDUALIZED CARE FOR AT RISK OLDER ADULTS	93.361	2-T32-NR-009356-06A1			\$419,194
ADVANCED TRAINING IN NURSING OUTCOMES RESEARCH	93.361	2-T32-NR-007104-16			\$455,389
PSYCHOLOGICAL EFFECTS OF INJURIES IN URBAN BLACK MEN: A DISPARATE HEALTH ISSUE	93.361	1-R01-NR-013503-01			\$456,420
RESEARCH ON VULNERABLE WOMEN, CHILDREN AND FAMILIES	93.361	2-T32-NR-007100-16			\$459,002

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REVEALING THE ROLE OF THE CERVICO-VAGINAL MICROBIOME IN SPONTANEOUS PRETERM BIRTH	93.361	1-R01-NR-014784-01			\$490,129
DECODING THE MICROBIAL BIOBURDEN OF DIABETIC FOOT ULCERS: A METAGENOMIC APPROACH	93.361	1-R01-NR-015639-01			\$634,115
EFFICACY OF POMALIDOMIDE IN HHT-RELATED BLEEDING	93.387		CLEVELAND CLINIC FOUNDATION	541-SUB	\$19,386
SURGERY TO PREVENT POST INFARCTION VENTRICULAR REMODELING	93.387	2-R01-HL-063954-14A1			\$592,584
A RESOURCE FOR MAGNETIC RESONANCE AND OPTICAL IMAGING	93.389	2P41-RR-002305-26			-\$33,853
TRAINING GRANT IN COMPARATIVE MEDICAL & MOLECULAR GENETICS	93.389	2-T32-RR-007063-11A1			-\$3,309
TRANSLATIONAL RESEARCH AND LABORATORY ANIMAL MEDICINE EDUCATION FOR VETERINARIANS	93.389	5-R25-OD-010986-03			\$1,857
THE IMPACT VASOPRESSIN ON MITOCHONDRIAL DYSFUNCTION IN HEMORRHAGIC SHOCK	93.389		AMERICAN COLLEGE OF SURGEONS	ACS/AAST K23	\$73,834
INTEGRATIVE MOUSE PATHOBIOLOGY: GI EPITHELIAL BIOLOGY AND GENETICS	93.389	1-K26-RR-032714-01			\$90,876
HUMANIZED MICE TO STUDY MAST CELL FUNCTION	93.389	1-R21-OD-017843-01A1			\$207,410
INSTITUTIONAL CLINICAL AND TRANSLATIONAL SCIENCE AWARD	93.389	2-UL1-RR-024133-06			\$11,470,347
PHASE III RANDOMIZED CLINICAL TRIAL OF PROTON THERAPY VS IMRT FOR LOW OR LOW-INTERMEDIATE RISK PROSTATE CANCER	93.392		MASSACHUSETTS GENERAL HOSPITAL	220778	\$12,988
PROTON CONSORTIA WORKSHOP	93.392		MASSACHUSETTS GENERAL HOSPITAL	217756	\$28,954
CT DOSE COLLABORATION	93.393		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	8495C	-\$39,355
MESOTHELIOMA INHIBITION BY SECOISOLARICIRESNOL DIGLUCOSIDE (SDG)	93.393	1-R03-CA-180548-01			-\$1,532
97-448: PREDICTION AND MODIFICATION OF MELANOMA RISK	93.393	1-P01-CA-075434-01 PRIME			-\$1,327
THE RAP80-BRCC36 DEUBIQUITINATING COMPLEX IN DNA REPAIR	93.393	1-R01-CA-138835-01A1			-\$350
LUNG CANCER SCREENING: A DEBATE OF PRACTICE, POLICY, AND SCIENCE	93.393	1-R13-CA-189538-01			\$313
IMAGING AND MODIFYING HYPOXIA IN HEAD AND NECK SQUAMOUS	93.393	1-R01-CA-129349-01A1			\$2,149
GENETIC SUSCEPTIBILITY AND BIOMARKERS OF PLATINUM-RELATED TOXICITIES	93.393		UNIVERSITY OF ROCHESTER	PO #416005-G	\$2,767
BREAST CANCER FAMILY REGISTRY COHORT	93.393		FOX CHASE CANCER CENTER	FCCC22458-01 PO # SQ1331114	\$4,021
CHARACTERIZING MOLECULAR SUBTYPES OF OVARIAN CANCER IN AFRICAN-AMERICAN WOMEN	93.393		DARTMOUTH COLLEGE	SUB TO NIH ADV ACCT	\$4,178
C MYC TARGETS IN THE PATHOGENESIS OF HUMAN CANCERS	93.393	7-R01-CA-057341-21			\$5,182
THE ROLE OF FYN AND SRCASM IN UVB-INDUCED CUTANEOUS NEOPLASIA	93.393	4-R01-CA-165836-05			\$8,620
THE MECHANISMS DRIVING BRAIN ONCOGENESIS BY FGFR-TACC GENE FUSIONS	93.393		COLUMBIA UNIVERSITY	2 (GG010414-01)	\$11,459
EFFICIENT DESIGN AND ANALYTIC STRATEGIES FOR ENHANCING THE POWER OF DETECTING G X E EFFECTS	93.393		UNIVERSITY OF MICHIGAN	3002494144	\$13,078
CHROMATIN STRUCTURE MAINTENANCE AND CANCER	93.393	1-R01-CA-148768-01			\$13,575
EXTENDED DURATION VARENICLINE FOR SMOKING AMONG CANCER PATIENTS: A CLINICAL TRIAL	93.393	4-R01-CA-165001-05			\$21,539
ROLES OF CHROMATIN MODIFICATION IN BRCA1 DEPENDENT DNA REPAIR	93.393	4-R01-CA-174904-04			\$23,047
COMMONLY USED MEDICATIONS AND RISK OF COLORECTAL CANCER RECURRENCE	93.393		GROUP HEALTH RESEARCH INSTITUTE	2015124711	\$26,321
MRI BACKGROUND PARENCHYMAL ENHANCEMENT AS A RISK FACTOR FOR BREAST CANCER	93.393		MEMORIAL SLOAN-KETTERING CANCER CENTER	BD517005	\$27,667
MECHANISM OF BRD4-MEDIATED PAPILLOMAVIRUS HOST INTERACTIONS	93.393	1-R01-CA-142723-01			\$31,203
BEHAVIORAL ACTIVATION FOR SMOKING CESSATION AND THE PREVENTION OF POST-CESSATION WEIGHT GAIN	93.393	1-R01-CA-206058-01			\$33,621
GENETIC SUSCEPTIBILITY AND BIOMARKERS OF PLATINUM-RELATED TOXICITIES	93.393		INDIANA UNIVERSITY	IN4687559UPENN	\$34,539
EFFECTS OF COMMON POLYMORPHISMS IN IMMUNE SENSORS IN TUMOR IMMUNOSURVEILLANCE	93.393		WISTAR INSTITUTE	24861-02-365	\$37,779
THE GENETIC BASIS OF NEUROBLASTOMA TUMORIGENESIS (GWAS)	93.393		CHILDREN'S HOSPITAL OF PHILADELPHIA	FP1442_SUB02_01/PO #960672RSUB	\$39,314
ASSEMBLY COMPARTMENT FORMATION AND NUCLEAR ALTERATIONS MEDIATED BY HCMV	93.393	4-R01-CA-157846-05			\$40,932
EPIGENETIC REGULATION OF HUMAN TELOMERES	93.393		WISTAR INSTITUTE	24512-02-319	\$43,986
VIRTUAL CANCER GENETIC SERVICES: TELEMEDICINE DELIVERY IN COMMUNITY CLINICS	93.393	1-R21-CA-164121-01A1			\$47,193
RACIAL DIFFERENCES IN BRCA 1/2 TESTING: PATIENTS OR PROVIDERS?	93.393	1-R01-CA-133004-01A1			\$49,927
RESTORING HIV-1 SPECIFIC T CELL IMMUNITY	93.393	1-R01-CA-147795-01A1			\$51,441
ESTIMATING OVER DIAGNOSIS IN CANCER SCREENING STUDIES	93.393		HUTCHINSON (FRED) CANCER RESEARCH CENTER	SUB TO R01CA192402	\$52,267
TESTING AN ORGANIZATIONAL CHANGE MODEL TO ADDRESS SMOKING IN MENTAL HEALTHCARE	93.393	1-R01-CA-202699-01A1			\$53,729
TOBACCO CONTROL IN A RAPIDLY CHANGING MEDIA ENVIRONMENT	93.393		UNIVERSITY OF ILLINOIS	SUB TO 1U01CA154254	\$53,783
STATISTICAL METHODS FOR CANCER ABSOLUTE RISK PREDICTION	93.393	4-R01-CA-164305-04			\$56,864
GENETIC EPIDEMIOLOGY OF MELANOMA (GENOME1)	93.393		MOFFITT CANCER CTR	10-17751-99-01-G1	\$63,157
REGULATION OF A DNA DAMAGE RESPONSE NETWORK IN GLIOBLASTOMA	93.393	4-R01-CA-172651-04			\$63,384
COMPARATIVE EFFECTIVENESS OF PREOPERATIVE BREAST MRI ON SURGERY AND OUTCOMES	93.393		DARTMOUTH COLLEGE	R163	\$65,080

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STATISTICAL METHODS FOR ESTIMATION OF BENEFITS & HARMS OF REPEAT CANCER SCREENING	93.393	7-R03-CA-182986-02			\$67,839
MODELING BREAST CANCER RECURRENCE USING NEW STATISTICAL METHODS FOR SEMI-MARKOV PROCESSES	93.393		UNIVERSITY OF WASHINGTON	UWSC8553	\$72,873
IDENTIFYING AND VALIDATING NOVEL SUSCEPTIBILITY GENES FOR BREAST CANCER	93.393		MAYO CLINIC ROCHESTER	PO #63562056	\$73,917
MACROPHAGE COX-2 AS A TARGET IN BREAST CANCER CHEMOPREVENTION	93.393	1R03-CA-171661-01A1			\$76,958
ONCOHISTONES: ROLE OF HISTONE H3 MUTATIONS IN THE ONCOGENESIS OF PEDIATRIC CANCER	93.393		ROCKEFELLER UNIVERSITY	1P01CA196539-01	\$84,122
INFLUENCING CERVICAL CANCER PREVENTION AND DETECTION ONLINE THROUGH SOCIAL MEDIA	93.393		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	8361SC	\$94,353
IMPLEMENTING SURVIVORSHIP CARE PLANS: METRICS TO FOSTER RESEARCH AND FIDELITY	93.393	1-R21-CA-169950-01A1			\$99,118
TUMOR ANTIGEN-SPECIFIC T-CELLS AND HEPATOCELLULAR CARCINOMA	93.393	4-R01-CA-166111-04			\$102,838
THE ROLE OF MICRORNA, MIR-30D, IN THE INITIATION AND PROGRESSION OF CANCER	93.393	1-R01-CA-142776-01A1			\$105,234
MRI BACKGROUND PARENCHYMAL ENHANCEMENT AS A RISK FACTOR FOR BREAST CANCER	93.393		MEMORIAL SLOAN-KETTERING CANCER CENTER	BD517003	\$115,189
LINKING CANCER CELL METABOLIC REPROGRAMMING TO THE DNA REPAIR MECHANISM	93.393	1-R21-CA-194973-01			\$132,649
NRG ONCOLOGY CENTER FOR INNOVATION IN RADIATION ONCOLOGY (CIRO)	93.393		RTOG FOUNDATION, INC.	0004-NRG-15	\$139,618
LEGACY: A COHORT OF YOUTH IN FAMILIES FROM THE BREAST CANCER FAMILY REGISTRY	93.393		FOX CHASE CANCER CENTER	FCCC 15054-02/PO #SQ1313322	\$141,269
CONSTRUCTING RECOMMENDER SYSTEMS FOR EFFECTIVE HEALTH MESSAGES: SMOKING CESSATION	93.393	1-R01-CA-160226-01			\$142,411
CYTOMEGALOVIRUS-MEDIATED MODIFICATION OF HOST CELL METABOLISM	93.393	1-R01-CA-157679-01			\$158,876
TUMOR ANTIGEN-SPECIFIC T-CELLS AND HEPATOCELLULAR CARCINOMA	93.393	1-R01-CA-166111-01A1			\$161,665
EARLY EVENTS IN KSHV INFECTION OF PRIMARY B-CELLS	93.393	4-P01-CA-174439-04			\$176,827
THE ROLE OF FYN AND SRCASM IN UVB-INDUCED CUTANEOUS NEOPLASIA	93.393	1-R01-CA-165836-01A1			\$180,475
INVESTIGATING THE ASSOCIATION BETWEEN THE SOMATIC AND INHERITED GENETICS OF PHEOCHROMOCYTOMA/PARAGANGLIOMA	93.393	1-R21-CA-185953-01			\$233,754
ROLES OF CHROMATIN MODIFICATION IN BRCA1 DEPENDENT DNA REPAIR	93.393	1-R01-CA-174904-01			\$248,840
COMMUNICATING SMOKING RISKS THROUGH GRAPHIC WARNING LABELS	93.393	1-R01-CA-157824-01A1			\$253,596
INTERACTION OF ANTI-ANGIOGENIC AND CYTOTOXIC THERAPIES IN COLORECTAL CANCER	93.393	1-R01-CA-139003-03			\$278,565
ASSEMBLY COMPARTMENT FORMATION AND NUCLEAR ALTERATIONS MEDIATED BY HCMV	93.393	1-R01-CA-157846-01A1			\$283,049
RISK AND PENETRANCE OF MUTATIONS FROM BREAST CANCER TESTING PANELS	93.393		MAYO CLINIC ROCHESTER	63846738	\$291,878
THE EPIGENETIC MECHANISM OF LONG NON-CODING RNA IN CANCER	93.393	1-R01-CA-190415-01			\$298,019
STATISTICAL METHODS FOR CANCER ABSOLUTE RISK PREDICTION	93.393	1-R01-CA-164305-01A1			\$302,031
MERKEL CELL POLYOMAVIRUS INFECTION, DNA DAMAGE RESPONSE AND CANCER	93.393	1-R01-CA-187718-01A1			\$325,977
USE OF GENETICALLY ENGINEERED T CELLS TARGETING TUMOR STROMA TO TREAT LUNG CANCER	93.393	1-R01-CA-172921-01A1			\$342,242
REGULATION OF A DNA DAMAGE RESPONSE NETWORK IN GLIOBLASTOMA	93.393	1-R01-CA-172651-01A1			\$348,201
RETRAINING NEUROCOGNITIVE MECHANISMS OF CANCER RISK BEHAVIOR (PQ4)	93.393	1-R01-CA-170297-01			\$348,570
MENIN-MEDIATED EPIGENETIC TUMOR SUPPRESSION	93.393	1-R01-CA-178856-01A1			\$353,898
THE RAP80-BRCC36 DEUBIQUITINATING COMPLEX IN DNA REPAIR	93.393	2-R01-CA-138835-06A1			\$354,165
ROLE OF ACETYL-COA IN LINKING CANCER CELL METABOLISM AND EPIGENETICS	93.393	1-R01-CA-174761-01A1			\$359,365
EPIGENETIC REGULATION BY TUMOR SUPPRESSOR P53	93.393	2R01CA078831-16			\$361,307
BEHAVIORAL ACTIVATION AND VARENICLINE FOR SMOKING CESSATION IN DEPRESSED SMOKERS	93.393		NORTHWESTERN UNIVERSITY	60038259 UP	\$382,045
PQ3-A: NEURAL PREDICTORS OF RECEPTIVITY TO HEALTH COMMUNICATION AND BEHAVIOR CH	93.393	1-R01-CA-180015-01			\$424,562
RETENTION IN CANCER CLINICAL TRIALS: MODELING PATIENTS' RISK BENEFIT ASSESSMENTS	93.393	1-R01-CA-196131-01A1			\$426,130
MYC-TRANSCRIPTION AND APOPTOSIS	93.393	R01-CA-051497			\$433,688
EFFECTS OF ATR-CHK1 INHIBITION ON GENOME STABILITY AND CANCER PROGRESSION	93.393	1-R01-CA-189743-01A1			\$448,382
RETURNING GENETIC RESEARCH PANEL RESULTS FOR BREAST CANCER SUSCEPTIBILITY	93.393	1-R01-CA-190871-01			\$479,207
COMMUNICATING GENETIC TEST RESULTS BY TELEPHONE: A RANDOMIZED TRIAL	93.393	1-R01-CA-160847-01A1			\$483,911
EXTENDED DURATION VARENICLINE FOR SMOKING AMONG CANCER PATIENTS: A CLINICAL TRIAL	93.393	1-R01-CA-165001-01A1			\$503,488
NEUROSCIENCE-BASED INTERVENTIONS FOR CANCER RISK BEHAVIOR CHANGE	93.393	1-R35-CA-197461-01			\$741,830
PLACEBO-CONTROLLED TRIAL OF BUPROPION FOR SMOKING CESSATION IN PREGNANT WOMEN	93.393	1-R01-CA-184315-01			\$850,031
EFFECTIVENESS OF SCREENING COLONOSCOPY IN REDUCING DEATHS FROM COLORECTAL CANCER	93.393	7-U01-CA-151736-04			\$980,885
POST GWA STUDIES IN TESTICULAR GERM CELL TUMORS	93.393	1-U01-CA-164947-01			\$1,007,150
EARLY EVENTS IN KSHV INFECTION OF PRIMARY B-CELLS	93.393	1-P01-CA-174439-01A1			\$1,124,032
COLLABORATIVE HUMAN TISSUE NETWORK EASTERN DIVISION	93.393	1-UM1-CA-183711-01			\$1,134,937
HARMONIZED PET RECONSTRUCTIONS FOR CANCER CLINICAL TRIALS	93.394		UNIVERSITY OF IOWA	W000420845/PO #1001078460	-\$80,627
CD164 AS A NOVEL BIOMARKER FOR MALIGNANT CD4 T CELLS IN CUTANEOUS T CELL LYMPHOMA	93.394	1-R21-CA-178424-01			-\$32,310

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A CLINICAL STUDY OF MRI IN BREAST CANCER	93.394	5-U01-CA-074680-04			-\$28,007
SOFTWARE TO FACILITATE MULTIMODE, MULTISCALE FUSED DATA FOR PATHOLOGY AND RADIOLO	93.394	4-R01-CA-136535-03			-\$23,619
COOPERATIVE HUMAN TISSUE NETWORK EASTERN DIVISION	93.394	2-U01-CA-044974-19			-\$202
SAN ANTONIO CENTER FOR BIOMARKERS OF RISK FOR PROSTATE CANCER	93.394		UNIVERSITY OF TEXAS	130202 / PO #RGC0000000376	\$1,441
WEIGHT MANAGEMENT COUNSELING IN MEDICAL SCHOOLS: A RANDOMIZED CONTROLLED TRIAL	93.394		UNIVERSITY OF MASSACHUSETTS	WA00397956/OSP2016156	\$4,137
ECOG-ACRIN BIOREPOSITORIES TO SUPPORT NCTN	93.394		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	U24CA196172-01-UPA2	\$8,673
ECOG-ACRIN BIOREPOSITORIES TO SUPPORT NCTN	93.394		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	U24CA196172-01-UPA1	\$9,679
PATHOLOGY IMAGE INFORMATICS PLATFORM FOR VISUALIZATION, ANALYSIS AND MANAGEMENT	93.394		CASE WESTERN RESERVE UNIVERSITY	RES510429	\$10,735
HLTF GENE SILENCING: A NOVEL DETERMINANT OF SENSITIVITY TO AUTOPHAGY INHIBITION	93.394	4-R01-CA-169134-04			\$15,842
TUMOR-TARGETED POLYMERSOMES TO IMAGE AND TREAT OVARIAN CANCER	93.394	4-R01-CA-175480-04			\$29,077
RF-SRC: A UNIFIED DATA TOOL	93.394		UNIVERSITY OF MIAMI	66972K / PO #M175680	\$30,465
MULTI-PARAMETRIC 4-D IMAGING BIOMARKERS FOR NEOADJUVANT TREATMENT RESPONSE	93.394	1-R01-CA-197000-01A1			\$35,649
HIGH PERFORMANCE, QUANTITATIVE BREAST PET SCANNER INTEGRATED WITH TOMOSYNTHESIS	93.394	1-R01-CA-196528-01A1			\$57,583
ECOG-ACRIN-BASED QIN RESOURCE FOR ADVANCING QUANTITATIVE CANCER IMAGING IN CLINICAL TRIALS	93.394		AMERICAN COLLEGE OF RADIOLOGY	1672	\$57,847
NANOMEDICINE CENTER FOR NUCLEOPROTEIN MACHINES	93.394		RICE UNIVERSITY	R22568	\$61,848
ENABLING TECHNOLOGIES FOR ULTRA-HIGH SENSITIVITY PET SCANNERS (PQ13)	93.394		UNIVERSITY OF CALIFORNIA, DAVIS	201121765-02	\$66,426
ADVANCED DEVELOPMENT OF TIES - ENHANCING ACCESS TO TISSUE FOR CANCER RESEARCH	93.394		UNIVERSITY OF PITTSBURGH	0035722 (123867-1)	\$72,623
IMAGING MITOCHONDRIAL REDOX STATES IN VIVO BY HYPERPOLARIZED MR	93.394	1-R01-CA-155348-01			\$75,340
(PDQ5)INTEGRATED GENETIC AND EPIGENETIC PROGNOSTICATION FOR ACUTE MYELOID LEUKEMIA	93.394	1-R21-CA-185365-01			\$90,658
EARLY DETECTION RESEARCH NETWORK/PROTEOMIC, GENETIC AND LONGITUDINAL PATHWAYS TO					
OVARIAN CANCER BIOMARKER DISCOVERY	93.394		MASSACHUSETTS GENERAL HOSPITAL	217321	\$94,847
MUTATION PROFILE AS TRANSLATABLE PROGNOSTIC BIOMARKER OF UVEAL MELANOMA	93.394	1-R21-CA-181935-01A1			\$96,239
METABOLIC IMAGING MARKER FOR TRIPLE NEGATIVE BREAST CANCER	93.394	1-R21-CA-198563-01			\$134,414
ADVANCED MRI METHODS FOR DETECTING PSEUDO-PROGRESSION OF GLIOBLASTOMAS	93.394	1-R21-CA-170284-01A1			\$162,750
VIRTUAL CLINICAL TRIALS: SIMULATION OF DIGITAL BREAST TOMOSYNTHESIS SCREENING	93.394	1-R01-CA-154444-01			\$163,929
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			\$178,714
SYSTEMIC CHEMOTHERAPY OF MELANOMA: NMR STUDIES OF LONIDAMINE & N-MUSTARD ACTIVITY	93.394	4-R01-CA-129544-07			\$183,136
NEAR INFRARED INTRAOPERATIVE MOLECULAR IMAGING OF LUNG ADENOCARCINOMA	93.394	1-R01-CA-193556-01A1			\$198,752
KSHV GENOME MODIFICATION IN KS TISSUE	93.394	1-R01-CA-177423-01			\$217,314
A NEW IMAGING APPROACH TO RADIOOTHERAPY PLANNING FOR LUNG CANCER	93.394	1-R01-CA-193050-01			\$223,248
EFFECT OF BREAST DENSITY ON SCREENING RECALL WITH DIGITAL BREAST TOMOSYNTHESIS	93.394	1-R01-CA-161749-01A1			\$255,136
A MICRO HALL CHIP FOR CIRCULATING MICROVESICLE BASED CANCER MONITORING	93.394	1-R21-CA-182336-01A1			\$260,766
SYSTEMIC CHEMOTHERAPY OF MELANOMA: NMR STUDIES OF LONIDAMINE & N-MUSTARD ACTIVITY	93.394	2-R01-CA-129544-03A1			\$283,654
TUMOR-TARGETED POLYMERSOMES TO IMAGE AND TREAT OVARIAN CANCER	93.394	1-R01-CA-175480-01A1			\$305,416
HLTF GENE SILENCING: A NOVEL DETERMINANT OF SENSITIVITY TO AUTOPHAGY INHIBITION	93.394	1-R01-CA-169134-01A1			\$330,049
HIGHLY PARAMAGNETIC, BIODEGRADABLE NANOCLUSTERS FOR IMAGING PROSTATE CANCER	93.394	1-R01-CA-157766-01			\$332,990
CARBOHYDRATE ANTIGENIC BIOMARKERS FOR EPITHELIAL CANCERS	93.394	7-U01-CA-168925-03			\$452,786
REDOX IMAGING FOR BREAST CANCER PROGNOSIS	93.394	1-R01-CA-191207-01A1			\$491,069
TIME-OF-FLIGHT PET FOR IMPROVED WHOLE-BODY IMAGING	93.394	2-R01-CA-113941-10			\$543,627
NOVEL PET IMAGING AGENTS FOR UNDERSTANDING GLUTAMINE ADDICTION IN CANCER	93.394	1-R01-CA-164490-01			\$956,560
Z1071: A PHASE II STUDY EVALUATING THE ROLE OF SENTINEL LYMPH NODE SURGERY AND AXILLARY					
LYMPH NODE DISSECTION FOLLOWING PREOPERATIVE CHEMOTHERAPY IN WOMEN WITH NODE POSITIVE					
BREAST CANCER (T1-4, N1-2, M0) AT INITIAL DIAGNOSIS	93.395		DUKE UNIVERSITY	SUB TO 7-U10CA76001	-\$16,725
GENOTYPE AND PHENOTYPE PREDICTORS IN THERAPY RESPONSE IN RENAL CELL CARCINOMA	93.395	1-R01-CA-135509-01A1			-\$3
NRG ONCOLOGY NETWORK GROUP OPERATIONS CENTER	93.395		NRG ONCOLOGY	UOFP-YR 1	\$2
A PHASE I OPEN LABEL SAFETY STUDY TO EVALUATE THE PHARMACOKINETIC PROFILE AND TOLERANCE OF					
MIBEFRAIL DOSE FINDING IN SUBJECTS WITH RECURRENT HIGH-GRADE GLIOMA UNDERGOING					
STANDARD, REPEATED TEMOZOLOMIDE TREATMENT	93.395		JOHNS HOPKINS UNIVERSITY	ABTC 1101	\$112
GYNCOLOGIC ONCOLOGY GROUP	93.395		GYNCOLOGIC ONCOLOGY GROUP	27469-025	\$327
TOLL RECEPTOR LIGAND THERAPY OF CUTANEOUS T-CELL LYMPHOMA	93.395	1-R01-CA-122569-01A2			\$482

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COG NCTN SURGERY REVIEWER WORK ORDER	93.395		CHILDREN'S HOSPITAL OF PHILADELPHIA	9500080215-06C	\$2,500
INTERNET STUDIES TO ENHANCE LONG TERM SURVIVORSHIP AFTER HEMATOLOGIC MALIGNANCY	93.395		HUTCHINSON (FRED) CANCER RESEARCH CENTER	0000729827	\$3,351
CELLULAR AND MOLECULAR STUDIES OF BONE MARROW TRANSPLANT	93.395		MOUNT SINAI MEDICAL CENTER	0254-3503-4605	\$3,915
CHIMERIC IGG/A TUMOR IMMUNOTHERAPY	93.395		PLANET BIOTECHNOLOGY	SUB TO 1R43CA171417-01A1	\$4,259
MEDICAL ONCOLOGY RESEARCH STUDY	93.395		ECOG-ACRIN MEDICAL RESOURCE FOUNDATION	1U10CA180820	\$4,500
SINGLE ARM SALVAGE THERAPY WITH PEGYLATED INTERFERON ALFA-2A FOR PATIENTS WITH HIGH RISK POLYCYTHEMIA VERA OR HIGH RISK ESSENTIAL THROMBOCYTHEMIA WHO ARE EITHER HYDROXYUREA RESISTANT OR INTOLERANT OR HAVE HAD ABDOMINAL VEIN THROMBOSIS	93.395		MOUNT SINAI MEDICAL CENTER	0254-7375-4605	\$5,525
PSYCHOLOGICAL INTERVENTIONS FOR GYNECOLOGIC CANCER PATIENTS	93.395		UNIVERSITY OF MEDICINE AND DENTISTRY OF NJ	1573-1 / PO #P0525144	\$5,835
COG NCTN NETWORK GROUP OPERATIONS CENTER	93.395		CHILDREN'S HOSPITAL OF PHILADELPHIA	95000870216-XX	\$7,813
ECOG-ACRIN NCORP RESEARCH BASE - CT	93.395		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	1UG1CA189828-01-UPA1	\$9,893
ECOG-ACRIN OPERATIONS CENTER	93.395		FRONTIER SCIENCE & TECHNOLOGY RESEARCH FDN	GIPO39PO-00	\$13,204
A UNIVERSAL APPROACH TO PERSONALIZED ADOPTIVE T CELL THERAPY OF CANCER	93.395	4-R01-CA-168900-05			\$13,822
INTEGRATIVE INNOVATION: THE 12TH SOCIETY FOR INTEGRATIVE ONCOLOGY ANNUAL CONFERENCE	93.395	1-R13-CA-203369-01			\$15,000
ECOG-ACRIN OPERATIONS CENTER	93.395		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	SUB TO U10-CA-180820	\$18,400
ECOG-ACRIN OPERATIONS CENTER	93.395		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	ECOG-ACRIN	\$18,673
ECOG-ACRIN OPERATIONS CENTER	93.395		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	SUB TO U10CA180820-01-UPA7	\$18,947
IMMUNO/IMMUNO-GENE THERAPIES FOR THORACIC MALIGNANCIES	93.395	4-P01-CA-066726-19			\$19,165
ECON-ACRIN NICORP RESEARCH BASE	93.395		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	1-UG-1CA-189828-01-UPA2	\$20,064
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	\$25,314
FRONTIER SCIENCE AND TECHNOLOGY/CGOP OUTREACH	93.395		FRONTIER SCIENCE & TECHNOLOGY RESEARCH FDN	ECOG PURCHASE SERVICE	
COG: NCTN SCIENTIFIC LEADERSHIP WORK ORDER (JOFFE)	93.395		CHILDREN'S HOSPITAL OF PHILADELPHIA	AGREEMENT	\$25,376
MECHANISM OF ACTIVITY OF LONIDAMINE	93.395	4-R01-CA-172820-04		961650-RSUB	\$29,035
ECOG-ACRIN NCORP RESEARCH BASE - CCCR	93.395		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	1UG1CA189828-01-UPA3	\$29,842
ECOG-ACRIN OPERATIONS CENTER	93.395		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	U10CA180820-01-UPA5	\$36,329
					\$37,969
MODELS TO PREDICT PROGNOSIS AND BENEFIT FROM ADJUVANT THERAPY IN RENAL CELL CARCINOMA	93.395		YALE UNIVERSITY	M12A11106 (A08276)	\$48,930
IMMUNOBIOLOGY AND IMMUNOTHERAPY OF PANCREATIC CANCER	93.395	4-R01-CA-169123-05			\$49,713
ECOG-ACRIN OPERATIONS CENTER	93.395		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	U10CA180820-01-UPA8	\$49,999
FRONTIER SCIENCE & TECHNOLOGY RESEARCH FOUNDATION	93.395		FRONTIER SCIENCE & TECHNOLOGY RESEARCH FDN	UPA039SL-00	\$50,000
NANOSCALE ENCAPSULATION FOR FRAGMENT BASED DRUG DISCOVERY	93.395	1-R21-CA-206958-01			\$52,338
DENDRITIC CELL-MEDIATED ORAL ANTIGEN TOLERANCE AND THE LUNG	93.395	1-R21-AI-123771-01			\$54,830
TARGETED THERAPIES IN MELANOMA	93.395		WISTAR INSTITUTE	24921-13-314; NATHANSON	\$56,247
ECOG-ACRIN OPERATIONS CENTER	93.395		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	SUB TO U10CA180820-01 UPA3	\$56,546
HSP70 AND MELANOMA	93.395		WISTAR INSTITUTE	24672-02-366	\$62,240
ECOG-ACRIN OPERATIONS CENTER	93.395		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	U10CA180820-02-UPA10	\$74,599
INHIBITION OF SENESENCE TO INCREASE CANCER CELL DEATH: A NEW PARADIGM	93.395		ALBERT EINSTEIN COLLEGE OF MEDICINE, INC	310917	\$77,911
IMAGING & RADIATION ONCOLOGY CORE - PHILADELPHIA IMAGING CORE LAB DIRECTOR	93.395		AMERICAN COLLEGE OF RADIOLOGY	1616	\$103,622
ACCOUNTABILITY AND THE ROLE OF THE PRINCIPAL INVESTIGATOR IN MULTICENTER TRIALS	93.395	7-R01-CA-152110-04			\$126,827
CD19 DIRECTED CAR THERAPY	93.395	4-R01-CA-165206-05			\$128,813
HOW DOES FLT3 MUTATION REGULATE MYELOID DIFFERENTIATION IN ACUTE MYELOID LEUKEMIA	93.395	1-R21-CA-198621-01			\$134,371
IMAGE-GUIDED TREATMENT PLANNING FOR PLEURAL PHOTODYNAMIC THERAPY	93.395	1-R01-CA-154562-01A1			\$138,480
TARGETED THERAPIES IN MELANOMA	93.395		WISTAR INSTITUTE	24921-11-314; XU	\$146,553
INTIMACY-ENHANCING COUPLES' INTERVENTION FOR LOCALIZED PROSTATE CANCER	93.395		RUTGERS UNIVERSITY	8028	\$147,048
(PQA2) MAMMALIAN REGENERATION, HIGH FAT DIETS, AND BREAST CANCER: A COMMON LINK?	93.395		LANKENAU INSTITUTE FOR MEDICAL RESEARCH	06297-0791	\$155,775
CD19 DIRECTED CAR THERAPY	93.395	1-R01-CA-165206-01			\$155,806
PIPERLONGUMINE AS A NOVEL RADIOSENSITIZER FOR LUNG CANCER	93.395		NORTH DAKOTA STATE UNIVERSITY	FAR0024666	\$157,603
IMAGE-GUIDED TREATMENT PLANNING FOR PLEURAL PHOTODYNAMIC THERAPY	93.395	4-R01-CA-154562-05			\$170,017
TARGETED THERAPIES IN MELANOMA	93.395		WISTAR INSTITUTE	24921-06-314; GEORGE	\$180,909
ESTROGEN DEPRIVATION AND AROMATASE INHIBITOR ASSOCIATED ARTHRALGIA	93.395	1-R01-CA-158243-01			\$183,844
ECOG-ACRIN OPERATIONS CENTER	93.395		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	U10CA180820-01-UPA1	\$185,907
IROC - IMAGING & RADIATION ONCOLOGY CORE - CORE LAB PHYSICIST	93.395		AMERICAN COLLEGE OF RADIOLOGY	SUB TO U24-CA-180803	\$187,059
THE COURAGE TRIAL: COLON RECURRENCE AND AEROBIC EXERCISE: A FEASIBILITY STUDY	93.395	1-R21-CA-182767-01A1			\$188,313

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Cluster Name/Program Title	Federal CFDA Number	Additional Award Identification	Pass-Through Entity Name	Pass-Through Entity Identifying Number	Federal Expenditures
A FACILE METHOD FOR PRODUCING BISPECIFIC ANTIBODIES FROM FULL-LENGTH IGG TARGETED THERAPIES IN MELANOMA	93.395	1-R21-CA-187657-01			\$201,717
MOLECULAR MECHANISMS OF BRAF INHIBITOR INDUCED UPR AND AUTOPHAGY	93.395		WISTAR INSTITUTE	24921-07-314; MARMORSTEIN	\$239,681
COMBINED CD40 ACTIVATION AND CTLA4 BLOCKADE IN MELANOMA	93.395	1-R01-CA-198015-01			\$253,223
ANTITUMOR AGENTS: STRUCTURE AND SYNTHESIS	93.395	1-R01-CA-158186-01			\$254,389
HIFS AND VEGF IN SARCOMA PROGRESSION, METASTASIS, AND RADIATION RESPONSE	93.395	2-R01-CA-019033-37A1			\$257,224
IMMUNOTHERAPY WITH CAR T CELLS	93.395	1-R01-CA-158301-01			\$257,807
A RANDOMIZED TRIAL OF INCENTIVES FOR RESEARCH PARTICIPATION	93.395	2-R01-CA-120409-06			\$262,958
ECOG-ACRIN OPERATIONS CENTER	93.395	1-R01-CA-197332-01			\$265,866
	93.395		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	U10CA180820-01-UPA2	\$276,785
IMPROVING RADIATION RESPONSE BY TARGETING O2 METABOLISM VIA THE PI3K/MTOR PATHWAY	93.395	1-R01-CA-182747-01A1			\$285,165
A UNIVERSAL APPROACH TO PERSONALIZED ADOPTIVE T CELL THERAPY OF CANCER	93.395	1-R01-CA-168900-01			\$298,664
INHIBITION OF HETEROMERIC ERBB KINASES	93.395	1-R01-CA-149425-01A1			\$315,284
EFFECTS OF PHOTODYNAMIC THERAPY ON TUMOR OXYGENATION AND BLOOD FLOW	93.395	2-R01-CA-085831-11A1			\$319,460
HUMAN MELANOMA - ETIOLOGY, PROGRESSION AND THERAPY	93.395		WISTAR INSTITUTE	24623-05-314; MARMORSTEIN	\$328,378
USING 18F-EF5 PET TO MEASURE HYPOXIA MODULATION BY Nelfinavir in Larynx Cancer	93.395	1-R01-CA-174976-01A1			\$435,458
MECHANISM OF ACTIVITY OF LONIDAMINE	93.395	1-R01-CA-172820-01A1			\$470,145
RADIATION AND RECEPTOR TARGETED RADIOTHERANOSTIC NANOPARTICLES FOR GLIOBLASTOMA	93.395	1-R01-CA-181429-01A1			\$524,095
TARGETED THERAPIES IN MELANOMA	93.395		WISTAR INSTITUTE	2-P01-CA114046	\$543,816
IMMUNOBIOLOGY AND IMMUNOTHERAPY OF PANCREATIC CANCER	93.395	1-R01-CA-169123-01			\$596,261
IMMUNO/IMMUNO-GENE THERAPIES FOR THORACIC MALIGNANCIES	93.395	2-P01-CA-066726-15A1			\$882,210
BIOLOGICAL MECHANISMS INVOLVED WITH PDT IN THE TREATMENT OF MPM	93.395	2-P01-CA-087971-11A1			\$1,490,439
MECHANISMS OF ESOPHAGEAL CARCINOGENESIS	93.396	2-P01-CA-098101-01A1			-\$20,927
(POA2) MAMMALIAN REGENERATION, HIGH FAT DIETS, AND BREAST CANER: A COMMON LINK?	93.396		WISTAR INSTITUTE	24821-02-312	-\$60
ROLE OF MITOCHONDRIAL RESPIRATORY STRESS SIGNALING IN CANCER PROGRESSION	93.396	2-R01-CA-022762-29A1			-\$25
CANCER CELL ADAPTATION TO METABOLIC STRESS	93.396	2-P01-CA-104838-06			-\$22
REVERSE CHIP: SEQUENCE-SPECIFIC EXTRACTION OF DNA-BOUND HISTONES FOR ANALYSIS OF POST-TRANSLATIONAL MODIFICATION	93.396		GENERATION BIOTECH	SUB TO 1R43CA159883-01A1	\$1
INFLAMMATION AND THE ESOPHAGEAL TUMOR MICROENVIRONMENT	93.396	1-U01-CA-143056-01			\$106
ROLE OF SNF1 KINASE HUNK IN BREAST CANCER PROGRESSION	93.396	1-R01-CA-127917-01A1			\$11,179
IDENTIFYING MECHANISMS OF P53 AND RB TUMOR SUPPRESSION IN SMALL CELL LUNG CANCER	93.396	1-R21-CA-205340-01			\$11,192
ROLE OF ELF2A PHOSPHORYLATION AND ER STRESS IN HYPOXIA TOLERANCE AND TUMOR GROWTH	93.396	4-R01-CA-094214-14			\$25,485
HUMAN MELANOMA - ETIOLOGY, PROGRESSION AND THERAPY	93.396		WISTAR INSTITUTE	24621-03-314; GIMOTTY	\$31,535
PROLACTIN PATHWAYS AND METASTATIC PROGRESSION OF ER-POSITIVE BREAST CANCER	93.396		MEDICAL COLLEGE OF WISCONSIN	SUB TO 7R01CA188575	\$32,373
HUMAN MELANOMA - ETIOLOGY, PROGRESSION AND THERAPY	93.396		WISTAR INSTITUTE	24621-02-314; XU	\$37,250
HUMAN MELANOMA: ETIOLOGY, PROGRESSION AND THERAPY	93.396		WISTAR INSTITUTE	24625-07-314; WINKLER	\$39,643
MECHANISMS OF BREAST CANCER PROGRESSION	93.396	2-U01-CA105490-06			\$43,120
GENETICALLY ENCODED PROBES OF RNA LOCALIZATION	93.396		UNIVERSITY OF SOUTHERN CALIFORNIA	57916791	\$46,996
THE ROLE OF DCLK1 IN THE INITIATION OF PANCREATIC DUCTAL ADENOCARCINOMA	93.396		UNIVERSITY OF OKLAHOMA	RS20150916-01	\$49,495
HAT INHIBITION TO IMPAIR FOXp3+ TREG FUNCTION AND BOOST ANTI-TUMOR IMMUNITY	93.396		CHILDREN'S HOSPITAL OF PHILADELPHIA	320922-01-01 / PO #951078RSUB	\$51,774
RPTP DOMAINS REGULATING HOMODIMERIZATION AND EGFR ACTIVITY VIA HETERODIMERIZATION	93.396		LEHIGH UNIVERSITY	543339-78001	\$52,130
RAG-INDUCED DNA DAMAGE: MECHANISMS AND RESPONSES	93.396	7-R01-CA-104588-08			\$61,057
SURVIVAL AND RECURRENCE OF DORMANT CANCER CELLS	93.396	1-R01-CA-148774-01A1			\$64,089
SIGNALING MECHANISMS OF RTKS WITH MEMBRANE-PROXIMAL FIBRONECTIN TYPE III DOMAINS	93.396	1-R03-CA-187021-01			\$67,894
FIBROBLAST ACTIVATION PROTEIN IN THE TUMOR MICROENVIRONMENT IN LUNG CANCER	93.396	7-R01-CA-141144-05			\$72,289
ANALYSIS OF ACTIVE AND INACTIVE EGFR CONFORMATIONS	93.396	2-R01-CA-112552-06A1			\$75,519
QUANTITATIVE ANALYSES OF TUMOR CELL EXTRAVASATION	93.396		MASSACHUSETTS INSTITUTE OF TECHNOLOGY	5710004020	\$75,599
REGULATION OF HEMATOPOIETIC STEM CELL AND PROGENITOR CELL PROLIFERATION BY RUNX1	93.396	1-R01-CA-149976-01A1			\$80,110
(PQC2) LOCALIZATION AS A DETERMINANT OF CANCER DORMANCY	93.396		MASSACHUSETTS GENERAL HOSPITAL	226262	\$83,608
(PQ5) MITOCHONDRIA ARE ENDOCELLULAR SYMBIONTS THAT SERVE AS TARGETS FOR IMMUNE RECOGNITION	93.396	1-R01-CA-206012-01			\$83,732
INHIBITION OF A TREG DEUBIQUITINASE, USP7, PROMOTES ANTI-TUMOR IMMUNITY	93.396		CHILDREN'S HOSPITAL OF PHILADELPHIA	ACTIVITY 321068(PO#961564RSUB	\$86,100
ROLE OF HOS IN CELL TRANSFORMATION AND APOPTOSIS	93.396	5-R01-CA-092900-14			\$98,276
PROSTATE CARCINOGENESIS AND PKC SIGNALING	93.396	2-R01-CA-089202-11			\$117,806
Deregulation of MSI RNA-binding proteins promotes intestinal tumorigenesis	93.396	4-R01-CA-168654-05			\$123,700

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THE INTERACTION BETWEEN TRNA AND CYTOCHROME C IN APOPTOSIS OF CANCER CELLS	93.396	1-R21-CA-178581-01A1			\$126,471
ROLE OF MALIC ENZYMES IN TUMORIGENESIS	93.396	1-R21-CA-177048-01A1			\$126,873
ESTABLISHING THERAPEUTIC EFFICACY AND UNCOVERING MECHANISMS OF TUMOR SUPPRESSION	93.396	4-R00-CA-158581-03			\$127,917
EFFECTORS OF PROTEIN KINASE C-MEDIATED TUMOR PROGRESSION	93.396	1-R01-CA-196232-01A1			\$130,711
MINIMAL RESIDUAL DISEASE AND MECHANISMS OF BREAST CANCER RECURRENCE	93.396	1-R01-CA143296-01A1			\$144,871
IN VIVO ONCOGENE-INDUCED TUMORIGENESIS AND ESCAPE	93.396	2-R01-CA-098371-06			\$153,448
TUMOR-ASSOCIATED NEUTROPHILS IN HUMAN LUNG CANCER	93.396	1-R01-CA-187392-01A1			\$184,223
RECEPTOR MEDIATED BREAST CANCER THERAPY	93.396	2-R01-CA-089481-09A2			\$202,565
SPECIFICITY OF THE UBIQUITIN SYSTEM IN LYMPHOID MALIGNANCIES	93.396	4-R00-CA-166181-02			\$210,356
ONCOGENIC NOTCH SIGNALING - PROJECT 2	93.396		BRIGHAM AND WOMEN'S HOSPITAL	P01-CA-119070	\$239,461
ANDROGEN RECEPTOR ACTION IN CASTRATION RESISTANT PROSTATE CANCER-CORE C	93.396		BETH ISRAEL MEDICAL CENTER	01026711	\$259,375
P53 AND TUMOR CELL METABOLISM	93.396	1R01CA182675-01A1			\$264,067
SIGNALING MODULATORS IN EPIDERMAL CARCINOGENESIS	93.396	1-R01-CA-163566-01			\$271,087
ROLE OF ELF2A PHOSPHORYLATION AND ER STRESS IN HYPOXIA TOLERANCE AND TUMOR GROWTH	93.396	2-R01-CA-094214-10			\$289,534
UNDERSTANDING WNT5A REGULATION OF PROTEIN DEPALMITOYLATION DURING CELL MIGRATION	93.396	1-R01-CA-181633-01A1			\$296,555
Deregulation of MSI RNA-Binding Proteins Promotes Intestinal Tumorigenesis	93.396	1-R01-CA-168654-01			\$306,655
ROLE OF P53 FAMILY PROTEINS IN GLUCOSE METABOLISM	93.396	1-R01-CA-184867-01			\$330,405
CXCL13: A MEDIATOR OF PROSTATE CANCER PROGRESSION	93.396	1-R01-CA-189765-01A1			\$352,529
CALCINEURIN-NFAT REGULATES ENDOTHELIAL ACTIVATION IN PRE-METASTATIC SITES	93.396	2-R01-CA-118374-07A1			\$360,811
P53-MEDIATED TUMOR IMMUNE SURVEILLANCE	93.396	1-R01-CA-193602-01A1			\$386,132
UNDERSTANDING AND TARGETING CHEMOTHERAPY RESISTANCE IN ACUTE MYELOID LEUKEMIA	93.396	1-R01-CA-198089-01			\$416,810
METHODS FOR GENOMIC DATA WITH GRAPHICAL STRUCTURES	93.396	2-R01-CA-127334-05			\$442,732
CANCER IMAGING PHENOMICS SOFTWARE SUITE: APPLICATION TO BRAIN AND BREAST CANCER	93.396	1-U24-CA-189523-01A1			\$487,660
STEM CELLS, DIFFERENTIATION AND THERAPEUTIC RESISTANCE IN AML	93.396	1-R01-CA-149566-01A1			\$605,223
THE UNFOLDED PROTEIN RESPONSE IN CANCER	93.396	1-P01-CA-165997-01A1			\$1,027,138
CANCER CELL ADAPTATION TO METABOLIC STRESS	93.396	2-P01-CA-104838-11			\$1,469,382
MECHANISMS OF ESOPHAGEAL CARCINOGENESIS	93.396	2-P01-CA-098101-11			\$1,536,961
SPORE IN OVARIAN CANCER	93.397		FOX CHASE CANCER CENTER	FCCC 17107-12	-\$312
FCCC-PENN SPORE IN OVARIAN CANCER, PROJECT 4	93.397		FOX CHASE CANCER CENTER	FCCC #17107-15/PO #SQ1405805	-\$2
COMBINATION ACTIVATED T-CELL AND VACCINE THERAPY IN MYELOMA	93.397		UNIVERSITY OF TEXAS	PO #35959-2000/29859/98018081	\$14,078
PACIFIC OVARIAN CANCER RESEARCH CONSORTIUM/ SPORE IN OVARIAN CANCER	93.397		HUTCHINSON (FRED) CANCER RESEARCH CENTER	HUTCHINSON(NIH)	\$27,202
SPORE IN SKIN CANCER	93.397		WISTAR INSTITUTE	24961-02-314	\$67,675
HYPOFRACTIONATED RADIOTHERAPY AS A VACCINE FOR PATIENTS WITH METASTATIC MELANOMA	93.397		WISTAR INSTITUTE	24961-12-314; MAITY	\$75,372
WEIGHT LOSS-INDUCED MICROBIOME AND ADIPOKINE CHANGES IN BARRETT'S ESOPHAGUS	93.397		COLUMBIA UNIVERSITY	4(GG0006360-15)	\$162,576
OPTIMIZING COLONOSCOPY & FECAL IMMUNOCHEMICAL TESTS FOR COMMUNITY-BASED SCREENING	93.397		KAISER PERMANENTE	115-9064-05	\$173,943
SPORE IN SKIN CANCER	93.397		WISTAR INSTITUTE	24961-04-314	\$224,191
SPORE IN SKIN CANCER	93.397		WISTAR INSTITUTE	24961-10-314	\$245,995
STEM CELLS AND THE ORIGINS OF BARRETT'S ESOPHAGUS	93.397		COLUMBIA UNIVERSITY	1 (ACCT #5-30761)	\$294,516
SPORE IN SKIN CANCER	93.397		WISTAR INSTITUTE	24961-06-314	\$300,428
SPORE IN SKIN CANCER	93.397		WISTAR INSTITUTE	24961-05-314	\$337,934
SPORE IN SKIN CANCER	93.397		WISTAR INSTITUTE	24961-09-314	\$353,904
BOTSWANA-UPENN: RESEARCH CONSORTIUM OF HPV-RELATED CERVICAL CANCER IN HIV PATIENT	93.397	1-U54-CA-190158-01			\$551,901
PENN CENTER FOR INNOVATION IN PERSONALIZED BREAST SCREENING	93.397	1-U54-CA-163313-01			\$1,226,155
PENN TREC SURVIVOR CENTER	93.397	1-U54-CA-155850-01			\$1,413,213
LIVER CANCER: PRE-MALIGNANT STIFFENING, MEMBRANE TRANSDUCTION, & NUCLEAR RHEOLOGY	93.397	1-U54-CA-193417-01			\$1,887,100
ABRAMSON CANCER CENTER CORE SUPPORT GRANT	93.397	2-P30-CA-016520-35			\$3,538,872
ABRAMSON CANCER CENTER SUPPORT GRANT	93.397	2-P30-CA-016520-40			\$3,628,300
ROLE OF NOTCH 1 SIGNALING IN ESOPHAGEAL CARCINOGENESIS	93.398	1-F32-CA-174146-01			-\$492
SUMMER UNDERGRADUATE PROGRAM TO EDUCATE RADIATION SCIENTISTS (SUPERS)	93.398	5-R25-CA-140116-03			-\$268
SEX STEROID REGULATION OF MELANOCYTE HOMEOSTASIS	93.398	1-F31-CA-206325-01			\$1,948
CYCLIN D3 AND DNA DOUBLE STRAND BREAKS: GENOME STABILITY ANDLYMPHOMAGENESIS	93.398	1-F31-CA-177092-01			\$2,439
A NOVEL HEMATOPOIETIC STEM CELL POPULATION	93.398	4-F31-CA-180604-03			\$5,844

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CN/NFAT SIGNALING IN FIBROBLAST ACTIVATION AND METASTASIS	93.398	1-F30-CA-196079-01A1			\$7,792
MUTANT P53 HAS GAIN-OF-FUNCTION MECHANISMS TO MEDIATE TUMOR INVASION	93.398	1-F30-CA-174133-01			\$8,378
GENOMIC LANDSCAPE OF PANCREATIC CANCER METASTASIS	93.398	1-F32-CA-192761-01			\$8,431
SENSITIZATION OF CANCERS TO ATR INHIBITION VIA ELEVATED AURORA A-PLK1 ACTIVITY	93.398	1-F32-CA-171911-01A1			\$8,698
PROBING THE ROLE OF TUMOR SUPPRESSIVE FUNCTIONS OF ELF5 IN BREAST CANCER	93.398	1-K22-CA-193661-01A1			\$10,825
IFNARI DOWNREGULATION IN MELANOMA CELLS AND STROMAL CELLS PROMOTES MELANOMA PROGRESSION AND PULMONARY METASTASIS	93.398	1-F32-CA-206431-01			\$12,375
THE ROLE OF P120CTN IN PANCREATIC DUCTAL MORPHOGENESIS AND ADENOCARCINOMA	93.398	4-F30-CA-180601			\$13,370
CANCER CENTER RESEARCH TRAINING PROGRAM	93.398	2-T32-CA-009615-21			\$14,751
MUTANT P53 HAS GAIN-OF-FUNCTION MECHANISMS TO MEDIATE TUMOR INVASION	93.398	4-F30-CA-174133-03			\$15,168
THE ROLE OF ATF4 IN PROMOTING C-MYC INDUCED LYMPHOMAGENESIS	93.398	1-F31-CA-183569-01			\$18,090
THE ROLE OF P120CTN IN PANCREATIC DUCTAL MORPHOGENESIS AND ADENOCARCINOMA	93.398	1-F30-CA-180601-01			\$18,114
TRANSCRIPTIONAL COREGULATION IN PANCREATIC ADENOCARCINOMA PROGRESSION	93.398	1-F30-CA-177123-01			\$19,946
THE ROLE OF ATF4 IN PROMOTING C-MYC INDUCED LYMPHOMAGENESIS	93.398	4-F31-CA-183569-03			\$22,335
ROLE OF INTEGRIN ALPHA V IN HUMAN EPIDERMIS AND SQUAMOUS CELL CARCINOMA	93.398	1-F31-CA-186446-01			\$22,940
HIF-2ALPHA MEDIATED MITOPHAGY AND LIPOGENESIS IN CLEAR CELL RENAL CELL CARCINOMA	93.398	1-F30-CA-177106-01			\$23,015
DESIGNER ANTIGEN RECEPTORS TO RE-DIRECT T CELLS TO THE NY-ESO-A TUMOR ANTIGEN	93.398	1-K08-CA-166039-01			\$25,272
ROLE OF MLL1 AND MLL1 LEUKEMOGENIC FUSIONS IN MAINTAINING TRANSCRIPTIONAL MEMORY	93.398	1-F30-CA-189553-01			\$25,444
THE CENP-A COMPLEX AND CENTROMERE IDENTITY	93.398	1-F30-CA-186430-01			\$28,138
RECOMBINATION-BASED MECHANISMS FOR REPAIR OF DAMAGED DNA REPLICATION TEMPLATES	93.398	1-F31-CA189800-01			\$28,192
INVESTIGATING NON-CODING MECHANISMS OF FUNCTIONAL DYSREGULATION IN NEUROBLASTOMA	93.398	1-F30-CA-192831-01A1			\$29,367
ELUCIDATING THE ROLE AND REGULATION OF EPITHELIAL PLASTICITY IN METASTASIS	93.398	1-F31-CA177163-01A1			\$29,760
COMPLICATIONS OF JAW OSTEORADIONECROSIS IN CANCER MANAGEMENT	93.398	1-K22-CA-169089-01			\$33,953
MTOR INHIBITION AS A THERAPEUTIC STRATEGY FOR ACUTE MYELOID LEUKEMIA	93.398	1-K23-CA-141054-01A1			\$36,096
A NOVEL HEMATOPOIETIC STEM CELL POPULATION	93.398	1-F31-CA-180604-01			\$39,697
THE ROLE OF REPLISOME DEGRADATION IN REPLICATION FORK COLLAPSE AND DSB FORMATION	93.398	1-F31-CA-189737-01			\$40,803
TRIB1 IN NF-KAPPAB SIGNALING: INSIGHTS INTO MALT1 REGULATION AND LEUKEMIA	93.398	1-F31-CA-189661-01			\$42,403
ROLE OF AKT-REGULATED ACETYL-COA METABOLISM IN ALTERING THE CANCER CELL EPIGENOME	93.398	1-F31-CA-189744-01A1			\$42,465
ONCOGENE-INDUCED CYTOPLASMIC AND NUCLEAR EVENTS LEADING TO REPLICATION STRESS	93.398	1-F31-CA-186412-01			\$42,526
THE MOLECULAR BASIS FOR HOW ACETYL-COENZYME A LINKS METABOLISM TO GENE EXPRESSION	93.398	1-F31-CA-189559-01			\$43,025
MECHANISMS AND FUNCTION OF SUPPRESSED RAG EXPRESSION BY DNA DOUBLE STRAND BREAKS	93.398	1-F31-CA-183551-01A1			\$43,906
STROMA-MEDIATED MECHANISMS OF BREAST CANCER TREATMENT RESISTANCE	93.398	1-F31-CA-189707-01			\$44,270
TIP60-CHROMATIN INTERACTIONS AT DNA DOUBLE-STRAND BREAKS	93.398	1-F30-CA-196115-01			\$46,324
MOLECULAR BASIS FOR SMALL MOLECULE STAT3 INHIBITION	93.398	7-F32-CA-180298-02			\$46,475
A ROLE FOR MACROPHAGE PHENOTYPE IN REGULATING METASTASIS IN PANCREATIC CARCINOMA	93.398	1-F30-CA-196106-01			\$47,254
MUTATIONS IN RUNX1 AND EPIGENETIC MODIFIERS COOPERATE IN LEUKEMOGENESIS	93.398	1-F30-CA-196123-01			\$47,255
BIOCHEMICAL REGULATION AND GENOMIC TARGETING OF TET-CATALYZED CYTOSINE OXIDATION	93.398	1-F30-CA-196097-01			\$47,757
DISRUPTION OF CIRCADIAN RHYTHM IN HYPOXIA	93.398	1-F30-CA-200347-01			\$47,943
A CELL-BASED LIQUID BIOPSY APPROACH FOR EARLY PANCREATIC CANCER DETECTION	93.398	1-F32-CA-196120-01			\$49,051
TUMOR SUPPRESSIVE FUNCTIONS OF THE UREA CYCLE IN RENAL CELL CARCINOMA	93.398	1F32CA192758-01			\$52,350
UNDERSTANDING GLUTAMINASE ALTERNATIVE SPLICING IN CANCER METABOLISM	93.398	1-F32-CA-174148-01A1			\$52,471
MOLECULAR BASIS FOR JARID1B DEMETHYLASE ACTIVITY	93.398	1-F32-CA180504-01A1			\$54,308
EXPLOITING MTORC1-DRIVEN CANCER CELL VULNERABILITIES	93.398	1F32CA177108-01A1			\$59,756
PRO- AND ANTI-PHAGOCYTIC SIGNALS ON PANCREATIC CANCER REGULATE TUMOR MACROPHAGES	93.398	1-F30-CA-196124-01			\$60,801
ONCOGENIC DISRUPTION OF CIRCADIAN RHYTHM AND CHRONOTHERAPY	93.398	1F32CA180370-01A1			\$61,199
EFFECTS OF EXERCISE ON VISCERAL ADIPOSITY & HYPERINSULINEMIA IN COLON CANCER SURVIVOR	93.398	1-F31-CA-192560-01			\$65,228
COPPER REDUCTION AS A NOVEL THERAPY IN BRAF-MUTANT POSITIVE CANCERS	93.398	7-K01-CA-178145-03			\$77,966
SOCIAL DETERMINANTS OF BREAST CANCER SURVIVORSHIP	93.398	1-K01-CA-184288-01			\$82,075

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TRAINING COMMUNITY NURSES AND ADMINISTRATORS TO IMPLEMENT CANCER CLINICAL TRIALS	93.398		MOUNT SINAI MEDICAL CENTER	0253-6571-4609	\$115,143
CHIMERIC ANTIGEN RECEPTOR T CELL THERAPY FOR ACUTE MYELOID LEUKEMIA (AML)	93.398	1-K08-CA-194256-01			\$139,527
EFFECTIVENESS OF RADIOTHERAPY FOR PROSTATE CANCER	93.398	1-K07-CA-163616-01A1			\$144,508
INSULIN RESISTANCE IN THE DEVELOPMENT AND PROGRESSION OF INVASIVE BLADDER CANCER	93.398	1-K23-CA-187185-01A1			\$152,336
CANCER CLINICAL EPIDEMIOLOGY TRAINING GRANT	93.398	2-T32-CA-009679-21			\$171,670
TARGETING SRC SIGNALING PATHWAYS TO PROMOTE CELL CYCLE ARREST IN OVARIAN CANCER	93.398	K08-CA-151892			\$177,121
CD40 PATHWAY IN PANCREATIC ADENOCARCINOMA	93.398	1-K08-CA-138907-01A2			\$179,521
AUGMENTING CHIMERIC ANTIBODY RECEPTOR DIRECTED T CELL THERAPY FOR CANCER	93.398	1-K08-CA-163941-01			\$183,878
IMMUNOBIOLOGY OF NORMAL AND NEOPLASTIC LYMPHOCYTES	93.398	2-T32-CA-009140-36			\$212,875
CHARACTERIZATION OF EPIGENETIC TARGETS IN PROSTATE CANCER	93.398	4-R00-CA-187664-03			\$254,897
SUMMER UNDERGRADUATE PROGRAM TO EDUCATE RADIATION SCIENTISTS (SUPERS)	93.398	2-R25-CA-140116-06			\$257,244
TRAINING IN TUMOR VIROLOGY	93.398	2-T32-CA-115299-06			\$265,723
IMMUNOBIOLOGY OF NORMAL AND NEOPLASTIC LYMPHOCYTES	93.398	2-T32-CA-009140-41A1			\$282,715
CANCER CENTER RESEARCH TRAINING PROGRAM	93.398	2-T32-CA-009615-26			\$288,840
CELLULAR MOLECULAR BIOLOGICS IN CLINICAL CANCER RESEARCH	93.398	2-K12-CA-076931-16A1			\$399,844
ALLIANCE NCORP RESEARCH BASE	93.399		DANA-FARBER CANCER INSTITUTE	4540802	\$32,298
CENTER FOR INTERDISCIPLINARY RESEARCH ON NICOTINE ADDICT	93.399	1-P50-CA-143187-01			\$41,470
GENETIC DETERMINANTS OF BARRETT'S ESOPHAGUS AND ESOPHAGEAL ADENOCARCINOMA	93.399		CASE WESTERN RESERVE UNIVERSITY	RES506508	\$43,250
NRG ONCOLOGY CAPITATION FUND	93.399		NRG ONCOLOGY	NRC ONCOLOGY FOUNDATION	\$113,607
EXPANDING PUBLIC HEALTH EXPERIENTIAL LEARNING IN PRE-DOCTORAL DENTAL EDUCATION	93.403	D85HP20034-01-00			\$158,374
REGULATION OF NEUROGENESIS AND BEHAVIOR BY GSK-3	93.424	1-R01-MH-100923-01A1			\$645,331
AFFORDABLE CARE ACT: PRIMARY CARE RESIDENCY EXPANSION	93.510	1-T89-HP-21071-01-00			\$505,837
EXPANDING ENROLLMENT IN NP AND NMW PROGRAMS	93.513	1-T57-HP-20598-01-00			\$960
MEDICAID INCENTIVES FOR PREVENTION OF CHRONIC DISEASE IN NEW YORK STATE	93.536		NEW YORK STATE	C-027854	\$90,167
HEALTH CARE INNOVATION CHALLENGE	93.610	1C1CMS331016-01-00			\$63,564
HEALTH CARE INNOVATION CHALLENGE	93.610	1-C1C-MS-331009-01-00			\$648,684
ARRA - A RANDOMIZED TRIAL OF BEHAVIORAL ECONOMIC INTERVENTIONS TO REDUCE CVD RISK	93.701	1-RC4-AG-039114-01			-\$3,359
ARRA - NEURO-OPHTHALMOLOGY RESEARCH DISEASE INVESTIGATOR CONSORTIUM (NORDIC) NETWORK	93.701		ST LUKE'S ROOSEVELT HOSPITAL	3-U10-EY-017281-01A1S1	-\$1,174
PROTON AND ELECTRON TRANSFER AND ENERGY COUPLING IN SITE I	93.701	2-R01-GM-030736-11			\$46
MENTAL AND BEHAVIORAL HEALTH TRAINING FOR SOCIAL WORK (AKA P.E.A.R.L.S.) PROGRAM IN MENTAL	93.732	1 M01HP25197-01-00			\$172,781
HEALTH EDUCATION ASSESSMENT, RECOVERY, AND LEADERSHIP FOR SOCIAL WORKERS	93.767		CHILDREN'S HOSPITAL OF PHILADELPHIA	9239000215	\$9,820
CHIPRA QUALITY DEMONSTRATION	93.821	2-T32-GM-007517-21			\$105
98-493:GRADUATE TRAINING IN SYSTEMS AND INTEGRATIVE BIOLOGY.	93.827	2-T32-HL-007843-16			\$401,037
TRAINING PROGRAM IN CARDIOVASCULAR BIOLOGY AND MEDICINE	93.837	1-R01-HL-109489-01			-\$65,009
INTERROGATION OF NOVEL PATHWAYS REGULATING VLDL PRODUCTION AND PLASMA LIPIDS	93.837	2-P01-HL-059407-11			-\$34,769
DNA VIRUS AS VECTORS FOR CARDIOVASCULAR DISEASES	93.837	1-K23-HL-116656-01			-\$19,926
LUNG TRANSPLANT DONOR: PREDICTION, EVALUATION, AND MECHANISM	93.837	1-K23-HL-112903-01			-\$10,202
IMPROVING THE DIAGNOSIS OF HEPARIN-INDUCED THROMBOCYTOPENIA	93.837	1-K23-HL-102254-01			-\$8,426
GENETIC VARIATION IN THE ANGPT-TIE PATHWAY AND RISK FOR ACUTE LUNG INJURY	93.837	1-R01-HL-086864-01A2			-\$6,467
EFFECTS OF NIACIN ON LP(A), OXIDIZED LDL, AND INFLAMMATION IN THE AIM-HIGH TRIAL	93.837		DUKE UNIVERSITY	193603	-\$1,910
FUNCTIONAL IMPACT OF GLP-1 FOR HEART FAILURE TREATMENT (FIGHT)	93.837	1-K23-HL-093366-01A1			-\$1,686
PREDICTORS OF THERAPEUTIC RESPONSIVENESS TO LESTAUTINIB IN MYELOFIBROSIS	93.837	1-T32-HL-098054-01A1			-\$1,378
TRAINING IN CRITICAL CARE HEALTH POLICY RESEARCH	93.837		UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT HOUSTON	0009085A	-\$1,240
MUTATIONS IN SMOOTH MUSCLE CONTRACTILE PROTEINS: PATHWAYS TO VASCULAR DISEASES	93.837		CINCINNATI CHILDREN'S HOSPITAL MEDICAL CENTER	131950	\$256
GENETICS, MECHANISMS AND CLINICAL PHENOTYPES OF ARRHYTHMOGENIC CARDIOMYOPATHY	93.837	1-R01-HL-105734-01A1			\$331
THE CONTRIBUTION OF MELANOCYTE-LIKE CELLS TO ATRIAL FUNCTION AND DEVELOPMENT	93.837		DUKE UNIVERSITY	200464	\$669
ORAL IRON REPLETION EFFECTS ON OXYGEN UPTAKE IN HEART FAILURE: IRONOUT-HF	93.837		ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI	0255-3107-4605	\$777
NEUROPROTECTION IN PATIENTS UNDERGOING AORTIC VALVE REPLACEMENT	93.837	- 2R01HL063954-14A1			\$1,334
SURGERY TO PREVENT POST INFARCTION VENTRICULAR REMODELING	93.837	1-K12-HL-083772-01A1			\$1,574
RESEARCH CAREER TRAINING IN VASCULAR MEDICINE	93.837				
NITRATE'S EFFECT ON ACTIVITY TOLERANCE IN HEART FAILURE WITH PRESERVED EJECTION FRACTION:					
NEAT-HFPEF	93.837		DUKE UNIVERSITY	HFN-NEAT-NT052	\$1,682
INFLAMMATION PROMOTING RESPIRATORY TRACT INFECTION	93.837	1-F30-HL-119030-01			\$1,873
HIPPO SIGNALING IN PULMONARY ARTERIAL HYPERTENSION	93.837		UNIVERSITY OF PITTSBURGH	SUB TO 1-R01-HL-130261-01	\$2,671
USE OF REAL TIME MRI FOR EVALUATION OF REGIONAL MYOCARDIAL FUNCTION	93.837	1F31HL120580-01A1			\$3,414

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DETERMINING OPTIMUM MEDICAL THERAPY FOR ITP	93.837		CORNELL UNIVERSITY	12040498-2 / PO #4100193331	\$3,586
CARDIOVASCULAR INFLAMMATION REDUCTION TRIAL (CIRT): A RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED, EVENT-DRIVEN OF WEEKLY LOW-DOSE METHOTREXATE (LDM) IN THE PREVENTION OF RECURRENT CARDIOVASCULAR EVENTS AMONG STABLE POST-MYOCARDIAL INFARCTION PATIENTS WITH TYPE 2 DIABETES OR METABOLIC SYNDROME	93.837		BRIGHAM AND WOMEN'S HOSPITAL	CIRT - UNDER U01HL101422 #1	\$4,120
PHASE II RANDOMIZED, PLACEBO-CONTROLLED, DOUBLE BLIND CLINICAL TRIAL OF VALSARTAN FOR ATTENUATING DISEASE EVOLUTION IN EARLY SARCOMERIC HCM (VANISH)	93.837		BRIGHAM AND WOMEN'S HOSPITAL	SUB TO 5-P50-HL-1123349-02	\$4,340
REGULATION OF DISTAL LUNG EPITHELIAL REGENERATION BY MICRORNA-HIPPO PATHWAY	93.837		TEMPLE UNIVERSITY	361262-04710-02	\$4,381
PEDIATRIC HEART TRANSPLANTATION: TRANSITIONING TO ADULT CARE	93.837		CHILDREN'S MEMORIAL HOSPITAL	901477-PENN	\$4,682
PREDICTION AND ASSESSMENT OF COPD LUNG VOLUME REDUCTION OUTCOMES WITH POLARIZED MRI	93.837	1-R01-HL-129805-01A1			\$5,303
EXERCISE AND STEM CELL ENGRAFTMENT IN THE HEART FOLLOWING MYOCARDIAL INFARCTION	93.837	1-R21-HL-113777-01A1			\$5,848
ALDOSTERONE TARGETED NEUROHORMONAL COMBINED WITH NATRIURESIS THERAPY - HF (ATHENA-HF)	93.837		DUKE UNIVERSITY	SUB TO U10HL084904	\$6,087
CLINICAL AND GENETIC PREDICTORS OF UNSTABLE WARFARIN RESPONSE	93.837	1-F30-HL-115992-01			\$6,263
SURGICAL ABLATION VERSUS NO SURGICAL ABLATION FOR PATIENTS WITH PERSISTENT OR LONGSTANDING PERSISTENT ATRIAL FIBRILLATION UNDERGOING MITRAL VALVE SURGERY.	93.837		MOUNT SINAI MEDICAL CENTER	0255-3101-4609	\$6,292
NHLBI PROGENITOR CELL BIOLOGY CONSORTIUM ADMINISTRATIVE COORDINATING CENTER	93.837		UNIVERSITY OF MARYLAND	8382 / PO #SR00002870	\$7,005
THE BIOLOGY OF THE ABCA3 LIPID TRANSPORTER IN HEALTH AND DISEASE	93.837	1-R01-HL-129150-01A1			\$7,074
MULTISCALE ANALYSIS OF TRAUMA	93.837	1-U01-HL-131053-01A1			\$7,248
NOVEL METHODS FOR THE CONDUCT OF CLINICAL TRIALS	93.837	4-R01-HL-115041-04			\$7,651
TARGETING NF-KB IN ATHEROSCLEROSIS	93.837	1-R01-HL-096642-01A2			\$7,759
LIPIDOMIC SCREENING FOR FUNCTIONAL SURFACTANT GENE MUTATIONS	93.837		WASHINGTON UNIVERSITY IN ST. LOUIS	WU-16-181	\$8,848
CEREBRAL ANATOMY, HEMODYNAMICS AND METABOLISM IN SINGLE VENTRICLES: RELATIONSHIP TO NEURODEVELOPMENT	93.837		CHILDREN'S HOSPITAL OF PHILADELPHIA	3207950619	\$10,222
MULTIDISCIPLINARY TRAINING IN CARDIOVASCULAR BIOLOGY	93.837	2-T32-HL-007954-11A1			\$10,599
DETERMINANTS OF MIDLIFE & LONGITUDINAL CHANGE IN COGNITIVE FUNCTION: CARDIA STUDY	93.837		KAISER PERMANENTE	RNG200103-PENN	\$10,679
GLYCOMICS OF HEART AND LUNG DISEASE IN THE GENOMIC ERA	93.837	1-U01-HL-108636-01			\$11,190
REGULATION OF CARDIAC POWER OUTPUT IN HEALTH AND DISEASE	93.837	1-K99-HL-123623-01			\$12,293
LVAD THERAPY: EXPLORING THE EFFECT OF INTRAMYOCARDIAL INJECTION OF MESENCHYMAL PRECURSOR CELLS ON MYOCARDIAL FUNCTION	93.837		MOUNT SINAI MEDICAL CENTER	MT SINANI LVAD	\$13,314
SAFETY & EFFICACY OF INTRAMYOCARDIAL INJECTION OF MESENCHYMAL PRECURSOR CELLS ON MYOCARDIAL FUNCTION IN LVAD RECIPIENTS	93.837		ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI	0255-3106-4605	\$13,329
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	\$13,842
CARDIOVASCULAR DISEASES RESEARCH	93.837		UNIVERSITY OF PENNSYLVANIA	5R01HL118195-02 REVISED	\$14,017
TRANS-AGENCY RESEARCH CONSORTIUM FOR TRAMA INDUCED COAGULOPATHY-(TACTIC- UM1)	93.837		OKLAHOMA MEDICAL RESEARCH FOUNDATION	SUB TO UM1 OMRF	\$14,762
LYMPHANGIOGENESIS IN PULMONARY LYMPHANGIOLEIOMYOMATOSIS (LAM)	93.837	1-R01-HL-131626-01			\$14,975
ENDOTHELIAL TARGETING OF ANTIOXIDANTS	93.837	1-R01-HL-126874-01A1			\$16,128
PRECISION MEDICINE FOR DILATED CARDIOMYOPATHY IN EUROPEAN AND AFRICAN ANCESTRY	93.837		OHIO STATE UNIVERSITY	6008444	\$18,664
EXERCISE AND VASCULAR FUNCTION IN CHRONIC KIDNEY DISEASE	93.837		UNIVERSITY OF DELAWARE	R01-HL-1135104	\$18,947
SURROGATE MEASURES OF ENDOTHELIAL DYSFUNCTION WITH INTEGRATED MRI	93.837	4-K25-HL-111422-05			\$23,665
MOLECULAR MECHANISMS OF CCM SIGNALING	93.837	1-R01-HL-102138-01			\$26,142
PULMONARY HYPERTENSION BREAKTHROUGH INITIATIVE	93.837		UNIVERSITY OF COLORADO	SUB TO R24-HL-123767	\$28,031
INFANT GROWTH AND MICROBIOME STUDY 2	93.837		CHILDREN'S HOSPITAL OF PHILADELPHIA	3200040820	\$28,296
INVESTIGATING THE ROLE OF HOPX IN CARDIAC PROGENITOR PROLIFERATION	93.837	4-K08-HL-119553-04			\$28,522
PATHOGENESIS OF THROMBOTIC MICROANGIOPATHY	93.837		UNIVERSITY OF ALABAMA AT BIRMINGHAM	SUB TO R01-HL-126724-01 ADV ACCT	\$28,729
WEST PHILADELPHIA ASTHMA CARE IMPLEMENTATION PROGRAM	93.837		CHILDREN'S HOSPITAL OF PHILADELPHIA	3210880816	\$29,036
REVERSAL OF DIRECT FXA INHIBITORS USING ZYMOGEN-LIKE VARIANTS OF FXA	93.837	1-F30-HL-120487-01			\$30,515
SHORT-TERM RESEARCH EDUCATION PROGRAM TO INCREASE DIVERSITY IN HEALTH-RELATED RESEARCH	93.837	2-R25-HL-084665-11			\$30,576
CARDIOVASCULAR DISEASES RESEARCH	93.837		UNIVERSITY OF ROCHESTER	U01HL096607	\$31,162
HCMR - NOVEL PREDICTORS OF OUTCOME IN HYPERTROPHIC CARDIOMYOPATHY	93.837		UNIVERSITY OF VIRGINIA	SUB TO U01HL117006-01A1	\$31,634
TRAINING IN SLEEP AND SLEEP DISORDERS	93.837	2-T32-HL-007953-11A1			\$32,970
G-CSF, A KEY REGULATOR OF NEUTROPHILS, PROMOTES ALVEOLAR REPAIR	93.837	1-F32-HL-131079-01			\$33,412
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	\$33,852
SYSTEM FOR MEASURING TISSUE OXYGENATION	93.837		ADVANCED MEDICAL ELECTRONICS	SUB TO 1R43HL127578	\$36,045

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KLOTHO AND THE PATHOGENESIS OF CARDIOVASCULAR DISEASE	93.837		JOHNS HOPKINS UNIVERSITY	2001676026	\$38,489
ATRIAL FIBRILLATION BURDEN, VASCULAR DISEASE OF THE BRAIN AND CARDIAC MRI IN MESA	93.837		UNIVERSITY OF WASHINGTON	UWSC8520	\$39,825
STRATEGIES FOR TRANSCATHETER MITRAL VALVE REPLACEMENT	93.837	4-R01-HL-115323-04			\$40,437
DEFINING MECHANISMS THAT REGULATE DIET-INDUCED WAKE IMPAIRMENTS	93.837	1-F31-HL-128124-01			\$41,210
APOC-III: STRUCTURE-FUNCTION AND REGULATION OF TRIGLYCERIDE METABOLISM	93.837	1-F30-HL-124967-01			\$42,251
CEREBRAL ANATOMY, HEMODYNAMICS AND METABOLISM IN SINGLE VENTRICLES: RELATIONSHIP TO NEURODEVELOPMENT	93.837		CHILDREN'S HOSPITAL OF PHILADELPHIA	3207950619	\$43,125
PREGNANCY AS A WINDOW TO FUTURE CARDIOVASCULAR HEALTH	93.837	1-U10-HL-119993-01			\$44,879
UNDERSTANDING THE SLEEP APNEA/INSOMNIA INTERACTION: A CPAP/SHAM-CPAP TRIAL	93.837	1-R34-HL-109462-01A1			\$45,194
SEROTONIN SIGNALING IN MITRAL VALVE HOMEOSTASIS MAINTENANCE AND RESTORATION	93.837		CHILDREN'S HOSPITAL OF PHILADELPHIA	3200120320	\$46,655
THE ROLE OF NEUREGULIN IN HUMAN CARDIAC REMODELING AND HEART FAILURE	93.837	1-K23-HL095661-01A1			\$47,335
FULLY AUTOMATED 4D ECHOCARDIOGRAPHIC MITRAL VALVE ANALYSIS FOR SURGICAL REPAIR	93.837	1-F32-HL-119010-01			\$47,411
IMPROVED STENT DESIGN THROUGH HEMODYNAMICS AND VASCULAR BIOLOGY	93.837	1-K25-HL-107617-01A1			\$49,302
THE ROLE OF NUCLEAR ARCHITECTURE IN CARDIAC DEVELOPMENT	93.837	1-R01-HL-131611-01			\$50,369
RANDOMIZED TRIAL TO PREVENT VASCULAR EVENTS IN HIV – REPRIEVE (A5332)	93.837		BRIGHAM AND WOMEN'S HOSPITAL	SUB TO 1U01HL23336/A5332/A5333	\$55,002
DEVELOPMENTAL PATHWAYS REGULATING ADULT LUNG QUIESCENCE	93.837	1-R01-HL-132349-01			\$56,718
COMMUNITY VOICES (3): COMMUNITY VOICES ON INFORMED CONSENT IN EMERGENCY SITUATION	93.837		MOUNT SINAI MEDICAL CENTER	0255-9033-4609	\$58,093
AN INTERVENTION TO IMPROVE ICD DEACTIVATION CONVERSATIONS	93.837		MOUNT SINAI MEDICAL CENTER	0255-3111-4609	\$58,107
HFPEF: MORE THAN JUST THE HEART - WHY THE MITOCHONDRIA AND CAPILLARIES MATTER	93.837	1-K23-HL-130551-01			\$59,490
METHODS FOR HIGH-DIMENSIONAL DATA IN HIV/CVD RESEARCH	93.837		MOUNT HOLYOKE COLLEGE	HIV/CVD(MT. HOLYOKE)	\$59,686
PATHOGENESIS OF THROMBOTIC MICROANGIOPATHY	93.837		UNIVERSITY OF ALABAMA AT BIRMINGHAM	000510232	\$66,566
A NOVEL TREATMENT FOR OBESE DEPRESSED PATIENTS AT RISK FOR CARDIOVASCULAR DISEASE	93.837	1-K23-HL-109235-01			\$69,697
NUMOM2B HEART HEALTH STUDY CAPITATION FUNDING	93.837		RESEARCH TRIANGLE INSTITUTE	NUMOM2B-HHS / U10HL1199930215	\$73,163
BIODEGRADABLE POLYMETAL NANOPARTICLE CT CONTRAST AGENTS FOR VASCULAR IMAGING	93.837	1-R01-HL-131557-01			\$75,038
SURROGATE MEASURES OF ENDOTHELIAL DYSFUNCTION WITH INTEGRATED MRI	93.837	1-K25-HL-111422-01			\$75,339
GENOMICS OF MYOCARDIAL TRANSCRIPTION FACTORS IN CARDIAC	93.837	1-R01-HL-088577-01			\$85,853
NEUROLOGICAL AND COGNITIVE EFFECTS OF HYPEROXIA AFTER CARDIAC ARREST	93.837		COOPER MEDICAL CNTR	311500191PENN	\$94,260
MENTORED PATIENT ORIENTED RESEARCH IN CARDIOMETABOLIC DISEASE	93.837	1-K24-HL-107643-01			\$97,514
ST RESEARCH EDUCATION PROGRAM TO INCREASE DIVERSITY IN HEALTH RELATED RESEARCH	93.837	2-R25-HL-084665-06			\$107,163
CHRONIC HYPERTENSION AND PREGNANCY (CHAP)	93.837		UNIVERSITY OF ALABAMA AT BIRMINGHAM	SUB TO U01-HL-120338	\$108,697
MENTORED PATIENT ORIENTED RESEARCH IN LUNG TRANSPLANTATION	93.837	1-K24-HL-115354-01			\$109,861
NUCLEAR MECHANICS VARIES WITH TISSUE MECHANICS & REGULATES CYTOSKELETON	93.837	1-R21-HL-128187-01			\$110,172
IMPLEMENTATION OF CARDIOPULMONARY RESUSCITATION TRAINING FOR AT-RISK FAMILIES	93.837	1-R18-HL-107217-01			\$111,130
ROLE OF CCB1 IN LYMPHATIC VASCULAR DEVELOPMENT AND GROWTH	93.837	4-R01-HL-111553-04			\$112,292
ALPHA-DEFENSINS IN PERIOPERATIVE THROMBOSIS	93.837	1-R56-HL-123912-01			\$113,032
GENETICS OF LIPOPROTEIN METABOLISM AND CVD IN CKD	93.837	1-R01-HL-092209-01A2			\$115,415
INVESTIGATING THE ROLE OF HOPX IN CARDIAC PROGENITOR PROLIFERATION	93.837	1-K08-HL-119553-01			\$116,254
THE ROLE OF ABO GLYCOSYLTRANSFERASES IN THE ACUTE RESPIRATORY DISTRESS SYNDROME	93.837	1-K23-HL-125723-01A1			\$116,583
DEVELOPMENT OF A HIGH PERFORMANCE CLINICAL CARDIAC SPECT/TCT SYSTEM	93.837	7-R01-HL-108119-05			\$122,891
LONG PENTRAXIN-3 GENOMICS AND OUTCOMES AFTER LUNG TRANSPLANTATION	93.837	1-K23-HL-121406-01A1			\$123,350
QUANTITATIVE FORCE MEASUREMENTS TO OPTIMIZE VALVE REPAIR FOR ISCHEMIC MR	93.837	4-R01-HL-113216-04			\$124,863
ENGINEERED STEM CELL MICROENVIRONMENTS CONTROLLED VASCULOGENESIS	93.837		JOHNS HOPKINS UNIVERSITY	2001253216	\$127,979
TRANSLATIONAL STUDIES OF ADAMTS7 A NOVEL GWAS LOCUS FOR CORONARY ATHEROSCLEROSIS	93.837	1-R01-HL-111694-01A1			\$129,976
UNDERSTANDING THE DRIVERS OF HOSPITAL PERFORMANCE FOR IN-HOSPITAL CARDIAC ARREST	93.837	1-K23-HL-109083-01			\$138,468
LOCALIZED TARGETING OF MATRIX PROTEASES FOLLOWING MYOCARDIAL INFARCTION	93.837		UNIVERSITY OF SOUTH CAROLINA	13-2022 / PO #51636	\$149,024
ANALYSIS AND CHARACTERIZATION OF TRAUMA-INDUCED COAGULOPATHY	93.837		UNIVERSITY OF VERMONT	SUB51510 U OF PENN	\$152,173
OPTIMIZING HEART AND BRAIN COOLING DURING CARDIAC ARREST	93.837	2-R01-HL-067630-06			\$157,651
DEVELOPMENT OF A HIGH-PERFORMANCE CLINICAL CARDIAC SPECT/TCT SYSTEM	93.837		RUSH-PRESBYTERIAN-ST. LUKE'S MEDICAL CENTER	SUB TO 1R01HL108119-01A1	\$164,249
DYNAMIC MRI IMAGE ANALYSIS FOR STUDYING THORACIC INSUFFICIENCY SYNDROME	93.837	1-R21-HL-124462-01A1			\$166,012
A TRIAL TO DETERMINE THE EFFECT OF PSORIASIS TREATMENT ON CARDIOMETABOLIC DISEASE	93.837	1-R01-HL-111293-01			\$167,658
NEUROPROTECTION IN PATIENTS UNDERGOING AORTIC VALVE REPLACEMENT TRIAL	93.837		MOUNT SINAI MEDICAL CENTER	0225-3107-4609	\$170,817
BONE MARROW TRANSPLANT CLINICAL NETWORK	93.837	2-U10-HL-069286-11			\$173,053
AROMATASE INHIBITORS IN PULMONARY VASCULAR COMPLICATIONS OF LIVER DISEASE	93.837	1-K24-HL-103844-01A1			\$175,361
STEM CELLS MODELS OF FAMILIAL COMBINED HYPOLIPIDEMIA	93.837	7-R01-HL-118744-04			\$184,604

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INTEGRATIVE GENOMICS APPROACHES TO MODEL THE GENETIC ARCHITECTURE OF ASTHMA	93.837	7-R00-HL-105663-04			\$203,832
ELUCIDATION OF TISSUE-SPECIFIC TRANSCRIPTOMIC PROFILES IN CARDIOMETABOLIC DISEASE	93.837	1-R01-HL-113147-01			\$224,002
PROFILIN-1 PHOSPHORYLATION IN NEOVASCULARIZATION	93.837	4-R00-HL-103792-04			\$231,003
TARGETING NF-KB IN ATHEROSCLEROSIS	93.837	2-R56-HL-096642-05			\$232,638
NUCLEAR MAGNETIC TIRHO RELAXATION IN ACUTE AND CHRONIC MYOCARDIAL INFARCTIONS	93.837	4-R00-HL-108157-03			\$241,116
EFFICACY OF POTASSIUM NITRATE IN HEART FAILURE WITH PRESERVED EJECTION FRACTION	93.837	1-R01-HL-121510-01A1			\$247,493
MITRAL SADDLE SHAPE PRESERVATION IMPROVES VALVULOPLASTY	93.837	2-R01-HL-073021-05A2			\$251,469
MINDFULNESS-BASED STRESS REDUCTION FOR HIGH BLOOD PRESSURE: A TWO-SITERCT	93.837		KENT STATE UNIVERSITY	403013-UPENN	\$254,607
HIGH ALTITUDE ADAPTATION: A MODEL FOR CHRONIC HYPOXIA	93.837	1-R21-HL-120751-01			\$256,247
ROLE OF RAGE AND NECROPTOSIS IN TRANSFUSION MEDIATED LUNG INFLAMMATION	93.837	1-R01-HL-126788-01A1			\$256,751
STRETCH-DEPENDENT X-ROS SIGNALING: IMPLICATIONS FOR CARDIOMYOPATHY	93.837	4-R00-HL-114879-03			\$256,904
ROLE OF CCB1 IN LYMPHATIC VASCULAR DEVELOPMENT AND GROWTH	93.837	1-R01-HL-111553-01A1			\$261,410
PULMONARY HYPERTENSION BREAKTHROUGH INITIATIVE	93.837		INDIANA UNIVERSITY	SUB TO R24-HL-123767	\$263,419
MRI ASSESSMENT OF VASCULAR REACTIVITY	93.837	1-R01-HL-109545-01			\$266,494
REDUCING HEART FAILURE RE-ADMISSIONS BY ENHANCING SLEEP APNEA TREATMENT ADHERENCE	93.837		RIGHTCARE SOLUTIONS	SUB TO 1R44HL124923	\$296,488
TARGETING CENTRAL PULSATILE HEMODYNAMICS IN CHRONIC KIDNEY DISEASE	93.837	1-R56-HL-124073-01A1			\$296,964
CARDIOLOGY AND PULMONARY CLINICAL RESEARCH TRAINING PROGRAM	93.837	2-T32-HL-007891-16			\$298,442
ECHOCARDIOGRAPHY TO PREDICT RECURRENT IMR AFTER SURGICAL MITRAL VALVE REPLACEMENT	93.837	1-R01-HL-103723-01A1			\$300,973
A TRIAL TO DETERMINE THE EFFECT OF PSORIASIS TREATMENT ON CARDIOMETABOLIC DISEASE	93.837	4-R01-HL-111293-04			\$307,478
MID-ATLANTIC HEART FAILURE NETWORK	93.837	1-U10-HL-110338-01			\$318,114
A NOVEL APPROACH FOR THE DESIGN SIMULATION OF VALVULAR REPLACEMENT BIOMATERIALS	93.837		UNIVERSITY OF TEXAS AT AUSTIN	UTA12-000569	\$319,868
THE MICROCIRCULATION IN CLAUDICATION AND EXERCISE REHABILITATION	93.837	2-R01-HL-075649-06A2			\$323,639
MULTISCALE MODELING AND EMPIRICAL STUDY OF A MECHANISM LIMITING BLOOD CLOT GROWTH	93.837		UNIVERSITY OF NOTRE DAME	202403	\$329,440
DISCOVERY AND VALIDATION OF NOVEL LOCI ASSOCIATED WITH HDL FUNCTION	93.837	4-R01-HL-111398			\$352,641
NOVEL METHODS FOR THE CONDUCT OF CLINICAL TRIALS	93.837	1-R01-HL-115041-01			\$365,967
MULTI-INSTITUTIONAL TRAINING IN GENETIC/GENOMIC APPROACHES TO SLEEP DISORDERS	93.837	1-T32-HL-110952-01A1			\$377,519
TRAINING IN CRITICAL CARE HEALTH POLICY RESEARCH	93.837	2-T32-HL-098054-096A1			\$378,641
HDL METABOLISM: INFLUENCE OF EXTRACELLULAR LIPASES	93.837	4-R37-HL-055323-18			\$384,289
TRAINING IN SLEEP AND SLEEP DISORDERS	93.837	2-T32-HL-007953-16			\$391,378
HEG-CCM SIGNALING IN CARDIOVASCULAR DEVELOPMENT AND DISEASE	93.837	2-R01-HL-094326-06			\$394,530
CARDIAC SURGICAL TECHNIQUES TO TREAT VENTRICULAR AND AORTIC REMODELING	93.837	2-UM1-HL-088957-06			\$398,429
ANALYSIS OF A NOVEL HOMEODOMAIN GENE IN CV DEVELOPMENT	93.837	2-R01-HL-071546-10			\$423,580
SEMAPHORIN3D AND ANOMALOUS PULMONARY VENOUS RETURN	93.837	1-R01-HL-118768-01A1			\$432,987
APOE, ARTERIAL BIOMECHANICS, AND CARDIOVASCULAR DISEASE	93.837	1-R01-HL-119346-01A1			\$450,161
DISCOVERY AND VALIDATION OF NOVEL LOCI ASSOCIATED WITH HDL FUNCTION	93.837	1-R01-HL-111398-01			\$503,330
STIFFNESS, CADHERINS, AND INTEGRINS IN MECHANOCHEMICAL SIGNALING	93.837	1-R01-HL-115553-01A1			\$536,565
ENGINEERING AND VISUALIZING GENOME FOLDING AT HIGH SPATIOTEMPORAL RESOLUTION	93.837	1-U01-HL-129998-01			\$545,246
MULTIDISCIPLINARY TRAINING IN CARDIOVASCULAR BIOLOGY	93.837	2-T32-HL-007954-16			\$587,539
TWITTER AND CARDIOVASCULAR HEALTH	93.837	1-R01-HL-122457-01A1			\$620,403
QUANTITATIVE FORCE MEASUREMENTS TO OPTIMIZE VALVE REPAIR FOR ISCHEMIC MR	93.837	1-R01-HL-113216-01A1			\$647,824
INTEGRATIVE GENOMICS OF HUMAN HEART FAILURE	93.837	1-R01-HL-105993-01A1			\$654,331
STRATEGIES FOR TRANSCATHETER MITRAL VALVE REPLACEMENT	93.837	1-R01-HL-115323-01A1			\$676,426
TRAINING PROGRAM IN RESPIRATORY NEUROBIOLOGY AND SLEEP	93.837	2-T32-HL-007713-21			\$680,334
PRECLINICAL CARDIAC IMAGING PACKAGE FOR CLINICAL SPECT SYSTEMS	93.837	1-R01-HL-111883-01A1			\$694,743
BLOOD SYSTEMS BIOLOGY	93.837	2-R01-HL-103419-06A1			\$704,483
RCT OF AUTOMATED HOVERING FOR CONGESTIVE HEART FAILURE MANAGEMENT	93.837	1-R01-HL-128465-01			\$721,642
ENABLING MEDICAL RESEARCH GROWTH IN EMERGENCY MEDICINE (EMERGE)	93.837	1-K12-HL-109009-01			\$734,144
MOLECULAR MECHANISMS LINKING THE CXCL12 PATHWAY TO ATHEROSCLEROSIS	93.837	1-R01-HL-122843-01A1			\$772,607
COMPARATIVE EFFECTIVENESS OF PROCESS AND OUTCOMES INCENTIVES FOR LIPID MANAGEMENT	93.837	1-R01-HL-118195-01A1			\$819,778
SORAFENIB IN HEPATOPULMONARY SYNDROME	93.837	1-UM1-HL-116886-01A1			\$857,532
PGC-1 COACTIVATORS IN MUSCLE ANGIOGENESIS AND ISCHEMIA	93.837	2-R01-HL-094499-06			\$870,684
MULTIMARKER RISK PREDICTION IN CANCER THERAPY CARDIOTOXICITY	93.837	1-R01-HL-118018-01A1			\$919,312
EXPANSION OF CARDIAC AND HEMATOPOIETIC PROGENITORS BY WNT AND NOTCH	93.837	1-U01-HL-100405-01			\$1,039,033
ICOMPARE-CCC	93.837	1-U01-HL-125388-01A1			\$1,122,480

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<i>Cluster Name/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification</i>	<i>Pass-Through Entity Name</i>	<i>Pass-Through Entity Identifying Number</i>	<i>Federal Expenditures</i>
AAV GENE THERAPY FOR LIPID DISORDERS	93.837	2-P01-HL-059407-16A1			\$1,379,619
PERSONALIZATION OF THERAPEUTIC EFFICACY AND RISK	93.837	1-U54-HL-117798-01			\$3,085,873
TRAINING IN LUNG, CELL, AND MOLECULAR BIOLOGY	93.838	2-T32-HL-007748-16 REVISED			-\$1,290
THE ROLE OF TSC2 AND RHO GTPASES IN LAM	93.838	1-R01-HL-090829-01A1			-\$18
IDIOPATHIC PULMONARY FIBROSIS CLINICAL RESEARCH NETWORK (IPFNET)	93.838		DUKE UNIVERSITY	STEP IPF 119	-\$1
SEDATION MANAGEMENT IN PEDIATRIC PATIENTS WITH ACUTE RESPIRATORY FAILURE	93.838	1-U01-HL-086622-01A1			\$1
A PATIENT ADVOCATE TO IMPROVE REAL-WORLD ASTHMA MANAGEMENT FOR INNER CITY ADULTS	93.838	4-R18-HL-116285-04			\$969
BIOSYNTHESIS AND TRAFFICKING OF SURFACTANT PROTEIN C IN HEALTH AND DISEASE	93.838	4-R01-HL-119436-04			\$1,723
GRADS CLINICAL CENTER: STUDIES IN SARCOIDOSIS AND MICROBIOMICS RESEARCH	93.838	1-U01-HL-112712-01			\$7,659
COR PULMONALE PARVUS IN SEVERE COPD	93.838		COLUMBIA UNIVERSITY	SUB TO 2-R01-HL-093081-05	\$16,331
A NOVEL ROLE FOR THE ADAPTER MOLECULE NHERF1 IN REGULATING ASTHMA AND ALLERGIC RESPONSES	93.838	1-K99-HL-121073-01			\$18,322
MECHANISMS OF LUNG HOMEOSTASIS BY F BOX PROTEINS	93.838		UNIVERSITY OF PITTSBURGH	0038410(124605-1)	\$21,579
MAPGEN PENN CENTER (G TO G) COLLABORATING AUXILIARY	93.838		UNIVERSITY OF SOUTHERN CALIFORNIA	USC MAPGEN	\$24,184
MTOR COORDINATES CELL METABOLISM, GROWTH AND SURVIVAL IN PULMONARY HYPERTENSION	93.838		UNIVERSITY OF PITTSBURGH	0037735 (I23597-1)	\$24,939
ESTROGEN SIGNALING IN PORTOPULMONARY HYPERTENSION	93.838	4-R01-HL-113988-05			\$27,060
SARCOIDOSIS AND A1AT GENOMICS & INFORMATICS CENTER	93.838		UNIVERSITY OF PITTSBURGH	9008508(123014-4)	\$31,037
TARGETED DRUG DELIVERY FOR ACUTE RESPIRATORY DISTRESS SYNDROME	93.838	1-F32-HL-129665-01			\$35,387
INVESTIGATING THE FUNCTION AND MECHANISM OF NNCI ACTIVITY DURING LUNG DEVELOPMENT	93.838	1-F31-HL-129683-01			\$36,550
ICOMPARE—DCC	93.838		JOHNS HOPKINS UNIVERSITY	2002773100	\$38,334
HALF-PINT: HEART AND LUNG FAILURE - PEDIATRIC INSULIN TITRATION TRIAL - CCC	93.838		CHILDREN'S HOSPITAL BOSTON	74159 / PO #0000414068	\$39,662
ROLE OF ANTI-COL (V) IMMUNITY IN PRIMARY GRAFT DYSFUNCTION	93.838	1-R01-HL-096845-01A1			\$43,913
METHODS TO IMPROVE THE DETECTION OF TREATMENT EFFECTS IN ARDS CLINICAL TRIALS	93.838	1-F31-HL-127947-01			\$46,801
LUNG TRANSPLANT MICROBIOME AND CHRONIC ALLOGRAFT DYSFUNCTION	93.838	4-R01-HL-113252-04			\$51,098
FOXP3+ TREG CELLS AND PRIMARY GRAFT DYSFUNCTION IN CLINICAL LUNG TRANSPLANT RECEIPIENTS	93.838		CHILDREN'S HOSPITAL OF PHILADELPHIA	320960 / PO #960222RSUB	\$52,925
THE ROLE OF LYSOPHOSPHATIDIC ACID SIGNALING IN LUNG ISCHEMIA/REPERFUSION INJURY	93.838	1 F32HL127972-01			\$54,669
FORKHEAD REPRESSORS AND LUNG DEVELOPMENT	93.838	2-R01-HL-071589-10			\$72,467
LUNG TRANSPLANT DONOR: PREDICTION, EVALUATION, AND MECHANISM	93.838	4-K23-HL-116656-04			\$76,898
PATHOLOGY OF ASTHMA	93.838		CLEVELAND CLINIC FOUNDATION	CLEVELAND CLINIC	\$100,999
THE ROLE OF PHYSICIAN EXPERIENCE IN OUTCOMES OF PATIENTS WITH ACUTE RESPIRATORY FAILURE	93.838	1-K08-HL-116771-01A1			\$129,882
HUMAN RESPIRATORY TRACT MICROBIOME IN HEALTH, HIV INFECTION AND HIV LUNG DISEASE	93.838	1-U01-HL-098957-01			\$132,420
IMAGING-BASED CHARACTERIZATION OF THE COPDGENE COHORT	93.838	1 R01 HL127969-01A1			\$171,876
QUANTITATIVE STRUCTURAL AND FUNCTIONAL IMAGING OF THE LUNG	93.838	1-R01-HL-089064-01A1			\$201,809
MOLECULAR IMAGING OF THE LUNG USING HYPERPOLARIZED CARBON-13 COMPOUNDS	93.838	1-R01-HL-116342-01			\$215,125
OBESITY, INFLAMMATION, AND LUNG INJURY AFTER LUNG TRANSPLANTATION	93.838		COLUMBIA UNIVERSITY	4(GG007576)	\$242,907
ROLE OF PRDX6 IN THE ACTIVATION OF NADPH OXIDASE	93.838	1-R01-HL-105509-01			\$245,850
A NOVEL PLATFORM TO ASSESS GENE FUNCTION IN HUMAN AIRWAY BASAL CELLS	93.838		DUKE UNIVERSITY	5-U01-HL-110967-04	\$283,636
A NEW APPROACH FOR THE ASSESSMENT OF PULMONARY INFLAMMATION	93.838	1-R01-HL-124986-01A1			\$303,533
REGULATION OF AIRWAY MORPHOGENESIS AND DIFFERENTIATION BY WNT SIGNALING	93.838	5-R01-HL-087825-08			\$330,377
TRAINING IN PULMONARY IMMUNOLOGY	93.838	2-T32-HL-007586-26			\$343,773
BIOSYNTHESIS AND TRAFFICKING OF SURFACTANT PROTEIN C IN HEALTH AND DISEASE	93.838	1-R01-HL-119436-01			\$357,359
ROLE OF FOLLICULIN (FLCN) IN LUNG CELL SURVIVAL	93.838	1-R01-HL-110551-01A1			\$414,829
TSC SIGNALING AND PULMONARY LAM	93.838	1-R01-HL-114085-01			\$435,122
GENETIC INVESTIGATION OF PULMONARY LYMPHATIC DEVELOPMENT AND FUNCTION	93.838	1-R01-HL-120872-01A1			\$458,108
EPIGENETIC REGULATION OF LUNG PROGENITOR REPAIR AND REGENERATION	93.838	1-U01-HL-110942-01			\$465,338
ROLE OF PEROXIREDOXIN 6 IN THE REPAIR OF PEROXIDIZED CELL MEMBRANES	93.838	2-R01-HL-102016-05A1			\$532,456
TARGETING NOVEL BIOTHERAPEUTICS TO ENDOTHELIUM	93.838	1-R01-HL-128398-01			\$536,888
PROBING THE PHYSICS OF CHRONIC LUNG DISEASE USING MICROPHYSIOLOGICAL BIOMIMICRY	93.838	1-DP2-HL-127720-01			\$537,312
TARGETED NANOMEDICINE FOR ALI AND I/R	93.838	1-R01-HL-125462-01A1			\$569,168
A PATIENT ADVOCATE TO IMPROVE REAL-WORLD ASTHMA MANAGEMENT FOR INNER CITY ADULTS	93.838	1-R18-HL-116285-01			\$611,906
FUNCTION OF THE INCRNA TRANSCRIPTOME IN LUNG DEVELOPMENT AND REGENERATION	93.838	1-R01-HL-122993-01A1			\$615,524
LUNG TRANSPLANT MICROBIOME AND CHRONIC ALLOGRAFT DYSFUNCTION	93.838	1-R01-HL-113252-01A1			\$679,306

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DATA COORDINATING CENTER FOR THE PREMATURITY AND RESPIRATORY OUTCOMES PROGRAM	93.838	1-U01-HL-101794-01			\$774,233
ESTROGEN SIGNALING IN PORTOPULMONARY HYPERTENSION	93.838	1-R01-HL-113988-01			\$778,736
CLINICAL RISK FACTORS FOR PRIMARY GRAFT DYSFUNCTION	93.838	2-R01-HL-087115-06A1			\$1,092,691
NOVEL MOLECULAR MECHANISMS PROMOTE GPCR-INDUCED BRONCHODILATION IN ASTHMA	93.838	1-P01-HL-114471-01A1			\$1,187,653
GENETIC AND ENVIRONMENTAL DETERMINANTS OF WARFARIN RESPONSE	93.839		UNIVERSITY OF ALABAMA AT BIRMINGHAM	000308405-005	-\$920
SUBCELLULAR MECHANISMS OF PLATELET ACTIVATION	93.839	1-R01-HL-119070-01			-\$208
MANAGEMENT PRACTICES AND THE RISK OF INFECTIONS FOLLOWING CARDIAC SURGERY	93.839		MOUNT SINAI MEDICAL CENTER	0255-3102-4605	\$838
A TRIAL OF SINGLE AUTOLOGOUS TRANSPLANT WITH OR WITHOUT CONSOLIDATION THERAPY VERSUS TANDEN AUTOLOGOUS TRANSPLANT WITH LENALIDOMIDE MAINTENANCE FOR PATIENTS WITH MULTIPLE MYELOMA (BMT CTN PROTOCOL #0702)	93.839		BLOOD AND MARROW TRANSPLANTATION CLINICAL TRIALS NETWORK	PROTOCOL RIDER #0702	\$4,911
PREVENTION AND MANAGEMENT OF PERIOPERATIVE PULMONARY EMBOLISM	93.839	4-R01-HL-116916-04			\$5,011
GENE THERAPY FOR HEMOPHILIA	93.839		CHILDREN'S HOSPITAL OF PHILADELPHIA	20469-03-01/PO #951203RSUB	\$12,924
PATHOGENESIS AND MANAGEMENT OF HEPARIN-INDUCED THROMBOCYTOPENIA	93.839		CHILDREN'S HOSPITAL OF PHILADELPHIA	330183-02-01/PO #960541RSUB	\$17,443
LNK REGULATORY FUNCTIONS IN HEMATOPOIETIC STEM CELLS	93.839		CHILDREN'S HOSPITAL OF PHILADELPHIA	3208231218	\$19,372
EASY-TO-READ INFORMED CONSENT FOR HCT CLINICAL TRIAL	93.839		MEDICAL COLLEGE OF WISCONSIN	SUB U10-HL069294-02	\$20,084
PLATELET GRANULE FORMATION AND FUNCTION IN HEALTH AND DISEASE	93.839		CHILDREN'S HOSPITAL OF PHILADELPHIA	321034	\$24,218
ECTOPIC RUNX1 EXPRESSION IN NON-HEMOGENIC ENDOTHELIUM INDUCES BLOOD FORMATION	93.839	1-F31-HL-120615-01			\$26,381
BLOOD SYSTEMS BIOLOGY	93.839	1-R01-HL-103419-01			\$47,842
PROJECT 1: MECHANO-DYNAMICS OF THE TRANSITION TO FIRM ADHESION AND MOTILITY IN NEUTROPHILS	93.839		UNIVERSITY OF ROCHESTER	415341-G	\$50,151
COMBINED HIF DEFICIENCY IN INFLAMMATION-ASSOCIATED COLORECTAL TUMORIGENESIS	93.839	4-R01-HL-066310-17			\$55,871
PATHOGENESIS AND MANAGEMENT OF HEPARIN-INDUCED THROMBOCYTOPENIA	93.839		THOMAS JEFFERSON UNIVERSITY	080-18060-Z64601	\$56,635
MIGRATION OF HEMATOPOIETIC PROGENITORS TO THE THYMUS	93.839	1-R01-HL-110741-01			\$65,238
COMPARATIVE EFFECTIVENESS OF ENOXAPARIN VS. DALTEPARIN FOR THROMBOPROPHYLAXIS AFTER TRAUMA	93.839	1-F32-HL-124914-01			\$72,742
REGULATING HEMATOPOIETIC STEM CELL HOMEOSTASIS THROUGH GSK-3	93.839	1-R01-HL-110806-01			\$77,433
BIOCHEMISTRY OF LEUKEMIA VIRUS CORE BINDING FACTOR	93.839	4-R01-HL-091724-23			\$79,175
MENTORED CAREER DEVELOPMENT IN CLINICAL RESEARCH IN NON-MALIGNANT HEMATOLOGY & TRANSFUSION MEDICINE.	93.839	4-K12-HL-087064-10			\$79,914
ROLE OF PIKFYVE IN PLATELET-MEDIATED INFLAMMATION AND THROMBOSIS	93.839	1-K08-HL-119597-01A1			\$118,524
TRANSFUSION MEDICINE RESEARCH TRAINING PROGRAM	93.839	2-T32-HL-007775-21			\$120,167
PATHOGENESIS AND MANAGEMENT OF HEPARIN-INDUCED THROMBOCYTOPENIA	93.839		CHILDREN'S HOSPITAL OF PHILADELPHIA	330183-03-01/PO #960544RSUB	\$134,361
THE ROLE OF THE T CELL RECEPTOR IN REGULATORY T CELL HOMEOSTASIS AND EXPANSION	93.839	4-R01-HL-111501-05			\$149,505
STRUCTURAL ORIGIN OF FIBRIN CLOT MECHANICAL PROPERTIES	93.839	2-R56-HL-090774-05A1			\$151,397
THE ROLE OF THE T CELL RECEPTOR IN REGULATORY T CELL HOMEOSTASIS AND EXPANSION	93.839	1-R01-HL-111501-01			\$179,398
ORAL THERAPY FOR HEMOPHILIA A	93.839		UNIVERSITY OF FLORIDA	UF13086/00090658	\$210,913
BIOCHEMISTRY OF LEUKEMIA VIRUS CORE BINDING FACTOR	93.839	2-R01-HL-091724-20A1			\$270,604
STRUCTURAL ANALYSIS OF THE HIT IMMUNE COMPLEX	93.839	1-R01-HL-128895-01			\$287,207
PROXIMAL SIGNALING COMPLEXES IN NK CELL EFFECTOR FUNCTION AND DEVELOPMENT	93.839	1-R01-HL-107589-01			\$319,083
PREVENTION AND MANAGEMENT OF PERIOPERATIVE PULMONARY EMBOLISM	93.839	1-R01-HL-116916-01			\$340,100
SPATIAL REGULATION OF PLATELET ACTIVATION BY PODOPLANIN-CLEC2 SIGNALING	93.839	1-R01-HL-121650-01A1			\$356,095
ORAL IMMUNE MODULATORY THERAPY USING ANTIGENS BIOENCAPSULATED IN PLANT CELLS	93.839	7-R01-HL-107904-03			\$366,779
MENTORED CAREER DEVELOPMENT IN CLINICAL RESEARCH IN NON-MALIGNANT HEMATOLOGY & TRANSFUSION MEDICINE.	93.839	2-K12-HL-087064-06			\$370,409
ALPHA-DEFENSINS IN PERIOPERATIVE THROMBOSIS	93.839	1-R01-HL-123912-01A1			\$381,301
COMBINED HIF DEFICIENCY IN INFLAMMATION-ASSOCIATED COLORECTAL TUMORIGENESIS	93.839	2-R01-HL-066310-14A1			\$423,916
NANOSCIENCE OF 'SELF' - REDUCTIONIST APPROACHES TO HCD47 INHIBITION OF PHAGOCYTES	93.839	1-R01-HL-124106-01			\$460,137
TRAINING GRANT IN HEMOSTASIS AND THROMBOSIS	93.839	2-T32-HL-007971-11			\$482,676
PATHOGENESIS AND MANAGEMENT OF HEPARIN-INDUCED THROMBOCYTOPENIA	93.839		CHILDREN'S HOSPITAL OF PHILADELPHIA	330183-01-01/PO #960543RSUB	\$588,009
DRUG DELIVERY BY CARRIER ERYTHROCYTES	93.839	1-R01-HL-121134-01			\$605,833
HEMATOLOGY CLINICAL RESEARCH TRAINING PROGRAM	93.839	2-T32-HL-007439-36			\$624,351
POST-TRANSCRIPTIONAL CONTROLS IN MAMMALIAN ERYTHROID DIFFERENTIATION	93.839	2-R01-HL-065449-15A1			\$720,856
REGULATION OF PLATELET AND ENDOTHELIAL CELL FUNCTION	93.839	2-P01-HL-040387-26A1			\$2,048,049
PLATELET SIGNALS AND THEIR INTERFACE WITH EXTERNAL ENVIRONMENT	93.839	1-P01-HL-120846-01A1			\$2,480,943
ROLE OF AUTOANTIBODY ISOTYPE IN PEMPHIGUS PATHOGENESIS	93.846	1-R01-AR-057001-01A2			-\$48,974
MECHANISMS UNDERLYING MYOSTATIN REGULATION AND ACTIVITY	93.846		JOHNS HOPKINS UNIVERSITY	2001045371	-\$4,753
BONE WATER AND MINERALIZATION MEASURED BY NUCLEAR MAGNETIC RESONANCE	93.846	2-R01-AR-050068-05			-\$184
DYNAMIC FIBROUS SCAFFOLDS FOR ENGINEERING DENSE CONNECTIVE TISSUES	93.846	1-R01-AR-056624-01A1			-\$10

The accompanying notes are an integral part of this schedule

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STIMULATION OF TENDON REPAIR BY RETINOID NUCLEAR RECEPTOR AGONISTS	93.846		CHILDREN'S HOSPITAL OF PHILADELPHIA	3210090615/PO #960855RSUB	\$4
NIAMS: CORT	93.846		BOSTON UNIVERSITY	4500001681	\$40
STREAMLINING TRAUMA RESEARCH EVALUATION WITH ADVANCED MEASUREMENT (STREAM STUDY)	93.846		JOHNS HOPKINS UNIVERSITY	STREAM IR01AR064066-01	\$2,501
HIP FRACTURE EVALUATION ALTERNATIVES OF TOTAL HIP VS HEMI-ARTHROPLASTY (HEALTH)	93.846		BOSTON UNIVERSITY	4500001240	\$3,180
ROLES OF DECORIN AND BIGLYCAN IN CARTILAGE NANOMECHANICS AND OSTEOARTHRITIS	93.846		DREXEL UNIVERSITY	1-R21-AR-066824-01A1	\$4,848
MECHANICS AND PERFORMANCE OF TRACEABLE UHMWPE IMPLANTS	93.846		DREXEL UNIVERSITY	11012367	\$7,543
FIXATION USING ALTERNATIVE IMPLANTS FOR THE TREATMENT OF HIP FRACTURES (FAITH)	93.846		UNIVERSITY OF MINNESOTA	N000188527	\$12,934
MECHANOSENSING IN THE BONE LACUNAR-CANALICULAR SYSTEM	93.846		UNIVERSITY OF DELAWARE	39762	\$13,458
THE TOLL-LIKE RECEPTOR PATHWAY IN MENISCAL INJURY AND OSTEOARTHRITIS	93.846	7-K08-AR-057859-04			\$13,659
NOTOCHORDAL CELL DERIVED THERAPIES FOR PAINFUL DISC DEGENERATION	93.846		ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI	1 R01 AR064157-01A1	\$18,191
THE CELLULAR AND MOLECULAR BASIS OF FOP LESIONS	93.846	2-R01-AR-041916-12			\$19,796
EGFR SIGNALING IN GROWTH PLATE DEVELOPMENT	93.846	1-R03-AR-060991-01A1			\$20,612
PSORIASIS AND THE RISK OF DIABETES	93.846	4-K24-AR-064310-04			\$25,579
REGULATORS OF ISCHEMIC FRACTURE HEALING	93.846		UNIVERSITY OF MICHIGAN	RC105700UPENN	\$26,285
SYNERGISTIC MOLECULE DELIVERY USING HYDROGELS FOR BONETISSUE REPAIR	93.846	1-F32-AR-063598-01A1			\$27,441
DISC MECHANICS AND ALTERED LOADING IN DEGENERATION	93.846		UNIVERSITY OF DELAWARE	27360	\$28,149
MRI OF PROXIMAL FEMUR MICROARCHITECTURE AS A BIOMARKER OF BONE QUALITY	93.846		NEW YORK UNIVERSITY	14-A1-00-001693-01	\$28,369
R-SPONDIN-2 MODULATES WNT SIGNALING TO INCREASE BONE MASS	93.846	1-F31-AR-065858-01			\$29,437
NOCICEPTIVE MECHANISMS IN WHIPLASH INJURY	93.846	1-R01-AR056288-01A1			\$30,818
DISRUPTION OF OSMOREGULATION PROMOTES DEGENERATIVE DISC DISEASE	93.846		THOMAS JEFFERSON UNIVERSITY	080-23000-S13301	\$30,973
INTEGRATIVE ANALYSIS OF GENOMIC RISK FACTORS IN JUVENILE IDIOPATHIC ARTHRITIS	93.846	1-F30-AR-066486-01			\$32,454
STRUCTURE AND FUNCTION OF HUMAN PEMPHIGUS AUTOANTIBODIES	93.846	1-R56-AR-064220-01A1			\$34,315
TRAINING IN MUSCLE BIOLOGY AND MUSCLE DISEASE	93.846	2-T32-AR-053461-11			\$34,663
RELATIONSHIPS BETWEEN AUTOIMMUNE IGG1 AND IGG4 REPERTOIRES IN PEMPHIGUS VULGARIS	93.846	1-F30-AR065870-01			\$35,312
DEFINING COMMON MECHANISMS OF AUTOIMMUNITY IN PEMPHIGUS VULGARIS	93.846	1-F31-AR066456-01A1			\$37,659
AFRICAN-AMERICANS WITH ATOPIC DERMATITIS: SKIN BARRIER AND IMMUNE	93.846	1-R01-AR-069062-01			\$41,294
ESRP REGULATED PROGRAMS OF ALTERNATIVE SPLICING IN SKIN DEVELOPMENT AND FUNCTION	93.846	1-R56-AR-066741-01			\$45,278
RACIAL DISPARITY IN THE UTILIZATION OF JOINT REPLACEMENT FOR OSTEOARTHRITIS	93.846	2-K24-AR-055259-07			\$64,723
BONE STRUCTURE AND STRENGTH RECOVERY AND THE ROLE OF PTHRP POST LACTATION	93.846	1-R03-AR-065145-01A1			\$65,715
ROLE OF LOCAL STRAIN IN OSTEOGENIC RESPONSE TO VIBRATION THERAPY IN HUMANS	93.846	1-R03-AR-064577-01			\$67,310
MECHANISMS OF VERTEBRAL BONE DISEASE IN MUCOPOLYSACCHARIDOSIS VII	93.846	1-R03-AR-065142-01A1			\$68,516
MECHANISMS OF JOINT DAMAGE FOLLOWING TENDON INJURY	93.846	1-R01-AR-056658-01A2			\$76,581
THE CHARACTERISTICS OF SELF-RECOGNIZING CD4 T CELLS IN RHEUMATOID ARTHRITIS	93.846	7-K08-AR-059760-05			\$76,820
CELL ADHESION REGULATION OF OSTEOCLAST MATURATION	93.846	1-R01-AR-069546-01			\$87,795
RACIAL DISPARITIES IN THE TREATMENT OF PSORIASIS: A MIXED METHODS APPROACH	93.846	1-K23-AR-068433-01			\$89,703
UNCOVERING THE MOLECULAR BASIS OF MALIGNANT HYPERTHERMIA	93.846		UNIVERSITY OF CALIFORNIA, DAVIS	201223252-02	\$99,728
UNDERSTANDING APPENDAGE REGENERATION IN MICE	93.846	7-K08-AR-066661-01			\$124,683
TREATMENT OF DERMATOMYOSITIS WITH AJULEMIC ACID, A NON-PSYCHOACTIVE CANNABINOID	93.846	1-R21-AR-066286-01			\$125,695
IDENTIFICATION OF EARLY PSORIATIC ARTHRITIS	93.846	1-K23-AR-063764-01A1			\$126,540
PSORIASIS AND THE RISK OF DIABETES	93.846	1-K24-AR-064310-01			\$128,025
THE EFFECT OF PARATHYROID HORMONE ON MODELING-BASED BONE FORMATION	93.846	1-K01-AR-066743-01A1			\$129,229
HDAC FUNCTIONS IN SKIN DEVELOPMENT, RENEWAL AND DISEASE	93.846	4-R01-AR-063146-04			\$134,166
EFFECT OF CHRONIC PROTON PUMP INHIBITOR THERAPY ON BONE MINERAL DENSITY AND BONE	93.846	1-R01-AR-057102-01A1			\$154,103
TRAINING IN MUSCULOSKELETAL RESEARCH	93.846	2-T32-AR-007132-37			\$182,297
TRAINING IN MUSCLE BIOLOGY AND MUSCLE DISEASE	93.846	2-T32-AR-053461-06			\$183,139
BEHAVIORAL & SOCIAL SCIENCE RESEARCH ON UNDERSTANDING AND REDUCING HEALTH DISPART	93.846	1-R01-AR-059615-01			\$188,240
DIABETIC FRACTURE HEALING	93.846	1-R01-AR-060055-01A1			\$197,653
CLINICAL ASSESSMENT OF HIP FRACTURE BIOMECHANICS USING MRI	93.846	1-R01-AR-068382-01			\$200,447
HDAC FUNCTIONS IN SKIN DEVELOPMENT, RENEWAL AND DISEASE	93.846	1-R01-AR-063146-01A1			\$207,632
CCR7 AND ITS LIGANDS IN OSTEOARTHRITIS	93.846	1-R21-AR-067916-01			\$212,276
DERMATOLOGY RESEARCH TRAINING GRANT	93.846	2-T32-AR-007465-31			\$226,867
MECHANISM OF RADIOTHERAPY-INDUCED OSTEOPOROSIS AND ITS TREATMENT	93.846	1-R01-AR-066098-01A1			\$247,591
ADAPTION AND VALIDATION OF PROMIS FOR USE IN VASCULITIS	93.846	1-R01-AR-064153-01			\$275,533

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CLONING AND GENETICS OF HUMAN PEMPHIGUS AUTOANTIBODIES	93.846	2-R01-AR-052672-06			\$279,337
HAIR FOLLICLE NEOGENESIS IN RESPONSE TO WOUNDING	93.846	2-R01-AR-055309-06A1			\$291,476
MOUSE MODELS FOR SLRP ROLES IN TENDON AGING AND IMPAIRED HEALING IN AGING	93.846	1-R01-AR-068057-01A1			\$291,789
AHR AND OSTEOPOROSIS	93.846		MOUNT SINAI MEDICAL CENTER	0255-7261-4609	\$302,273
INTRINSIC AND EXTRINSIC REGULATION OF EPIDERMAL STEM CELLS	93.846	1-R01-AR-066755-01			\$321,627
SKIN MICROBIOME INTERACTIONS WITH COMPLEMENT	93.846	1-R01-AR-066663-01A1			\$323,853
TRAINING PROGRAM/RHEUMATIC DISEASES	93.846	4-T32-AR-007442-29			\$331,736
MOLECULAR GENETICS OF PROGRESSIVE OSSEOUS HETEROPLASIA	93.846	2-R01-AR-046831-09A1			\$333,364
MOLECULAR REGULATION OF OSTEOCLAST MATURATION	93.846	1-R01-AR-067726-01			\$335,484
INJURY RESPONSE IN NORMAL AND EDS TENDONS: REGULATORY ROLES OF COLLAGEN V	93.846	1-R01-AR-065995-01			\$355,564
ENGINEERING DISEASE-SPECIFIC T CELLS FOR PEMPHIGUS THERAPY	93.846	1-R01-AR-068288-01			\$368,919
WNT SIGNALS IN SKIN AND HAIR DEVELOPMENT AND HAIR GROWTH	93.846	2-R37-AR-047709-11			\$371,612
DYNAMIC FIBROUS SCAFFOLDS FOR REPAIRING DENSE CONNECTIVE TISSUES	93.846	2-R01-AR-056624-06			\$379,833
CHALLENGING TREATMENT PARADIGMS FOR ACHILLES TENDON RUPTURES IN AN ANIMAL MODEL	93.846	1-R01-AR-064216-01A1			\$393,305
OSTEOPOROSIS TREATMENT RESPONSE ASSESSED BY MICROMECHANICAL MODELING OF MRI DATA.	93.846	2-R01-AR-055647-05			\$421,685
ESRP REGULATED PROGRAMS OF ALTERNATIVE SPLICING IN SKIN DEVELOPMENT AND FUNCTION	93.846	1-R01-AR-066741-01A1			\$433,529
FAILED REGENERATION IN THE MUSCULAR DYSTROPHIES	93.846	2-U54-AR-052646-06			\$553,935
CORE CENTER FOR MUSCULOSKELETAL DISORDERS	93.846	2-P30-AR-050950-06			\$564,330
VASCULITIS CLINICAL RESEARCH CONSORTIUM	93.846	2-U54-AR-057319-13			\$1,042,421
THE INTESTINAL STEM CELL NICHE	93.847	1-U01-DK-085551-01			-\$32,633
FORMATION OF ENDOCRINE PANCREAS PROGENITORS	93.847	1-U01-DK-089540-01			-\$28,194
AN INTEGRATIVE APPROACH TO CONSTRUCT A REGULATORY NETWORK EFFECTED BY TDZS	93.847	1-R21-DK-098769-01			-\$9,920
LIMITED COMPETITION OF THE MAPP RESEARCH NETWORK DATA COORDINATING CORE (U01)	93.847	2-U01-DK-082316-06			-\$7,410
HUMAN HEMATOPOIETIC STEM CELL CENTER OF EXCELLENCE	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA	320905-07-01/PO #951186RSUB	-\$4,571
TRANSCRIPTIONAL CONTROL OF BROWN ADIPOSE METABOLISM BY HDAC3	93.847	1-F32-DK-095563-01A1			-\$4,085
RENAL AND UROLOGIC BIOSTATISTICS TRAINING GRANT	93.847	2-T32-DK-060455-06A1			-\$3,803
A RANDOMIZED TRIAL OF INCENTIVES AND PEER MENTORS TO IMPROVE DIABETIC OUTCOMES	93.847	1-R01-DK-087874-01			-\$3,777
RENAL RESEARCH TRAINING PROGRAM	93.847	2-T32-DK-007006-37			-\$1,538
EPIGENETIC REGULATION OF INTESTINAL HOMEOSTASIS	93.847	1-K08-DK-093784-01			-\$1,078
MESENCHYMAL STROMAL FIBROBLASTS AND THE ESOPHAGEAL TUMOR	93.847	5-F32-DK-082149-02			-\$1,071
MAPP RESEARCH NETWORK	93.847	1-U01-DK-082316-01 REVISED			-\$606
MECHANISMS OF BILE DUCT MORPHOGENESIS	93.847	1-R01-DK-083355-01			-\$371
TOLL-LIKE RECEPTOR SIGNALING IN THE ESOPHAGEAL EPITHELIUM	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA	PO #961190-RSUB	-\$177
CLINICAL RESEARCH TRAINING IN KIDNEY DISEASE	93.847	2-T32-DK-007785-11			-\$138
BIOPHYSICAL PROPERTIES OF RENAL GLOMERULI AND PODOCYTES	93.847		UNIVERSITY OF TEXAS	GMO140908 / RGC0000000436	-\$61
ADULT TO ADULT LIVING DONOR LIVER TRANSPLANTATION COHORT STUDY(AZALL)(U01)	93.847	2-U01-DK-062494-08			-\$38
THE LIN28B-LET7 AXIS IN INTESTINAL EPITHELIAL BIOLOGY	93.847	2-R56-DK-056645-14			-\$31
EPIGENETIC STRATEGIES FOR THE IN VITRO GENERATION OF REPLACEMENT BETA CELLS	93.847		UNIVERSITY OF CALIFORNIA, SAN DIEGO	PO #10313247 - SUB	-\$1
GENETIC CONTROL OF PANCREATIC ENDOCRINE CELL DEVELOPMENT	93.847		VANDERBILT UNIVERSITY	VUMC 37462	-\$1
NEUROGENIC BLADDER DYSFUNCTIONS IN NEUROLOGICAL DISORDERS	93.847	1-P20-DK-097819-01			\$57
96-1467: SIGNALLING PATHWAYS IN THE REGENERATING LIVER	93.847	1-F32-DK-009597-01			\$310
NEPHROTIC SYNDROME RARE DISEASE CLINICAL RESEARCH NETWORK	93.847		UNIVERSITY OF MICHIGAN	PO #3001321364	\$378
A MULTI-CENTER GROUP TO STUDY ACUTE LIVER FAILURE	93.847		UNIVERSITY OF TEXAS	120306	\$762
MUSCLE ACCRUAL AND FUNCTION IN CYSTIC FIBROSIS-IMPACT OF GLUCOSE INTOLERANCE	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA	3258760720	\$1,080
PRENATAL CONDITIONS AND THE PATHWAY TO OBESITY AND DIABETES IN CHILDREN	93.847		UNIVERSITY OF OKLAHOMA	RS20100590-06	\$1,198
COLLABORATIVE ISLET TRANSPLANT REGISTRY (CITR)	93.847		EMMES CORPORATION	3383	\$1,210
BLOOD PRESSURE IN ADVANCED CHRONIC KIDNEY DISEASE	93.847		UNIVERSITY OF WASHINGTON	UWSC7208	\$1,461
PATTERNS AND IMPLICATIONS OF FUNCTIONAL DECLINE AMONG KIDNEY TRANSPLANT CANDIDATES	93.847		DREXEL UNIVERSITY	SUB TO K23DK105207	\$1,661
MODELS FOR OPTIMAL LIVER TRANSPLANT OUTCOMES	93.847		STANFORD UNIVERSITY	60896108-116817	\$1,901
B-LYMPHOCYTE IMMUNOTHERAPY IN ISLET TRANSPLANTATION	93.847	2-U01-DK-070430-06			\$2,173
STRUCTURE/FUNCTION OF STEROID TRANSFORMING AKR'S	93.847	2-R01-DK-047015-14A1			\$2,363
DIABETES, ENDOCRINE AND METABOLIC DISEASE	93.847	2-T32-DK-007314-36			\$2,648
TUBULAR SECRETION IN CHRONIC KIDNEY DISEASE	93.847		UNIVERSITY OF WASHINGTON	SUB TO R01DK107931	\$3,217
FGF-23 AND CLINICAL OUTCOMES IN ADPKD PATIENTS	93.847		NORTHWESTERN UNIVERSITY	60037057 UP	\$3,331

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PERFORMANCE OF VITAMIN D - BINDING PROTEIN (DBP) ELISA BY GENOTYPE: VALIDATION USING MASS SPECTROMETRY	93.847		STANFORD UNIVERSITY	60844304-117234	\$3,803
HUMAN HEMATOPOIETIC STEM CELL CENTER OF EXCELLENCE	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA	320905-01-02 / PO #950997RSUB	\$4,041
MEDIATORS & PROGNOSTIC VALUE OF MUSCLE MASS & FUNCTION IN CHRONIC KIDNEY DISEASE	93.847		YALE UNIVERSITY	M15A12103(A10152	\$4,288
ESRP REGULATED ALTERNATIVE SPLICING IN EMT/MET AND KIDNEY DEVELOPMENT	93.847	1-F32-DK-098917-01			\$4,552
HEARING IMPAIRMENT IN LONG-TERM TYPE 1 DIABETES	93.847		CASE WESTERN RESERVE UNIVERSITY	RES508603	\$5,044
LINK OF BETA CELL PROLIFERATION AND TYPE 2 DIABETES TO EPIGENETIC REGULATION	93.847	1-R01-DK-085121-01A1			\$5,250
CONTROL OF INTESTINAL REGENERATION BY AN MSI-MTORC1 SIGNALING AXIS	93.847	1-R01-DK-106309-01A1			\$5,503
NET ACID EXCRETION AND MORBIDITY IN CKD	93.847		DUKE UNIVERSITY	3020704	\$6,665
DETERMINANTS OF HEMODIALYSIS AV FISTULA MATURATION	93.847	7-U01-DK-082232-05			\$6,943
HEALTH LITERACY IN HISPANICS WITH CHRONIC KIDNEY DISEASE	93.847		UNIVERSITY OF ILLINOIS	2012-00004-01-00	\$7,134
MECHANISMS BY WHICH OBESITY IN PREGNANCY LEADS TO OBESITY IN OFFSPRING	93.847	1-R01-DK078761-01A2			\$7,235
NEUROENDOCRINOLOGY OF ENERGY BALANCE CONTROL	93.847	4-R01-DK-096139-05			\$7,742
DOES A NEW SUPERMARKET IMPROVE THE DIET AND FOOD ENVIRONMENT OF RESIDENTS	93.847		UNIVERSITY OF DELAWARE	38843	\$8,330
VISCERAL ADIPOSITY AND PHYSICAL FITNESS IN CKD	93.847		CLEVELAND CLINIC FOUNDATION	536-SUB	\$8,623
MITOTIC CHROMATIN AND IMPLICATIONS IN ERYTHROID TRANSCRIPTIONAL REGULATION	93.847	FDK108469A			\$9,550
HEALTH DISPARITIES IN CHRONIC KIDNEY DISEASE	93.847		UNIVERSITY OF ILLINOIS	2011-06727-01-00	\$9,951
REGULATION OF BROWN AND BEIGE ADIPOGENESIS BY THE HISTONE READER DPF3	93.847	1-F31-DK-108507-01			\$10,012
GENDER DISPARITIES AND VASCULAR FUNCTION IN CHRONIC KIDNEY DISEASE OUTCOMES	93.847		UNIVERSITY OF ILLINOIS	SUB TO 1-K23-DK-094829-01A1	\$10,743
IS THERE A DIGITAL DIVIDE IN CHRONIC KIDNEY DISEASE (CKD)	93.847		DUKE UNIVERSITY	3020695	\$10,970
INTERSTITIAL CYSTITIS-EXAMINATION OF THE CENTRAL AUTONOMIC NETWORK (ICECAN)	93.847		MEDICAL COLLEGE OF WISCONSIN	SUB TO 2R01DK083538	\$11,090
INTEGRATIVE GENOMIC, EPIGENETIC AND FUNCTIONAL STUDIES IN DIABETIC KIDNEY DISEASE	93.847		BROAD INSTITUTE OF MIT AND HARVARD	SUB TO R01DK105154	\$12,112
PATIENT ORIENTED RESEARCH IN KIDNEY DISEASE	93.847		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	7521SC	\$12,168
TRAINING PROGRAM IN GASTROINTESTINAL SCIENCES	93.847	2-T32-DK-007066-36			\$12,737
THE ROLE OF THE TYROSINE KINASE TYK2 IN REGULATION OF OBESITY	93.847		VIRGINIA COMMONWEALTH UNIVERSITY	PD303498-SC105185	\$13,696
EPIDEMIOLOGY AND PATHOPHYSIOLOGY OF ELEVATED NIGHTTIME BLOOD PRESSURE IN CKD	93.847		UNIVERSITY OF MINNESOTA	N003151601	\$14,538
AMYLIN MODULATES FOOD REWARD	93.847	1-R01-DK-105155-01A1			\$14,722
RESIDUAL BETA CELL FUNCTION IN PATIENTS WITH LONG-TERM TYPE1 DIABETES (C-PEPTIDE)	93.847		CASE WESTERN RESERVE UNIVERSITY	RES509457	\$14,853
ENHANCING APPRECIATION OF THE CLINICAL SIGNIFICANCE OF ACUTE KIDNEY INJURY	93.847		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	8233SC	\$15,786
CONTINUATION OF CLINICAL ISLET TRANSPLANTATION CONSORTIUM: DATA COORDINATING CENTER	93.847		UNIVERSITY OF IOWA	PO #1001235745/W000521064	\$16,625
MIND THE KIDNEYS	93.847		STANFORD UNIVERSITY	60233474-51126-G	\$16,935
DIACOMP PILOT AND FEASIBILITY STUDY 'THE EPIGENOME MAPS OF HUMAN DIABETIC KIDNEY DISEASE'	93.847		GEORGIA REGENTS UNIVERSITY	25732-29	\$17,121
CHANGES IN NEURAL RESPONSE TO EATING AFTER BARIATRIC SURGERY: MRI RESULTS	93.847	1-R01-DK085615-01			\$17,555
DOES GEOGRAPHIC ACCESS TO CARE IMPACT PEDIATRIC ESRD OUTCOMES?	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA	321046	\$19,250
RENIN-ANGIOTENSIN-ALDOSTERONE SYSTEM AND CARDIAC ARRHYTHMIAS IN PEOPLE WITH CHRONIC KIDNEY DISEASE	93.847	1-K23-DK-089118-01			\$21,248
NEURAL HIERARCHY IN THE MODULATION OF INGESTIVE BEHAVIOR	93.847	4-R01-DK-021397-39			\$21,400
OXALATE AND THE PROGRESSION AND COMPLICATIONS OF CKD	93.847		BRIGHAM AND WOMEN'S HOSPITAL	113077	\$22,358
PULSE WAVE VELOCITY IN CHRONIC KIDNEY DISEASES	93.847	2-R01-DK-067390-06A1			\$22,904
ROLE OF EGFR SIGNALING IN BONE FORMATION AND THE ANABOLIC ACTIONS OF PTH	93.847	4-R01-DK-095803-04			\$23,027
MASS SPECTROMETRY-BASED PROTEOME MAPS FOR HUMAN ISLET CELLS	93.847		BECKMAN RESEARCH INSTITUTE OF THE CITY OF HOPE	51504.2000556.669305	\$27,000
VISCERAL ADIPOSITY AND FITNESS AMONG CRIC PARTICIPANTS	93.847		CLEVELAND CLINIC	SUB TO 1-R01-DK-101500-01A1	\$27,756
CONTROL OF BROWN ADIPOSE PHYSIOLOGY VIA GENOMIC RECRUITMENT OF HISTONE DEACETYLASE 3	93.847	1-F30-DK-104513-01			\$28,265
NOVEL BIOMARKER VALIDATION AND DOSING ALGORITHMS FOR ANEMIA MANAGEMENT IN ESRD	93.847		UNIVERSITY OF LOUISVILLE	OICB111041Z03	\$30,107
METABOLIC DEFECTS IN MICE WITH ADIPOCYTE-SPECIFIC DELETION OF AKT2	93.847	1-F30-DK-100123-01			\$30,319
COGNITIVE DECLINE IN CHRONIC RENAL INSUFFICIENCY	93.847		NORTHERN CALIFORNIA INSTITUTE FOR RESEARCH AND EDUCATION	YAF1637-02 / 081782	\$30,751
MECHANISMS OF BILE DUCT REPROGRAMMING	93.847	2-R01-DK-083355-06A1			\$31,090
NEPHROTIC SYNDROME RARE DISEASE CLINICAL RESEARCH NETWORK II	93.847		UNIVERSITY OF MICHIGAN	3003289619	\$31,680
FUNCTIONAL STUDIES OF KLF-14, A PUTATIVE MASTER REGULATOR OF METABOLISM	93.847	7-R01-DK-099571-02			\$32,209
TRANSCRIPTIONAL AND EPIGENOMIC CONTROL OF ADIPOSE TISSUE DEVELOPMENT AND FUNCTION	93.847	4-R01-DK-098542-04			\$32,606
A TRIAL OF EXPANDED CHOICE SETS IN ADVANCE DIRECTIVES FOR HEMODIALYSIS PATIENTS	93.847	1-F32-DK-107109-01			\$33,011
MOTOR PROTEIN MYO1C PARTICIPATES IN NEPHRIN AND NEPH1 SIGNALING	93.847	2-R01-DK-087956-06A1			\$33,819
TOWARDS PRECISION MEDICINE IN CHILDHOOD ACQUIRED APLASTIC ANEMIA	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA	ACTIVITY #3210590715/PO# 961757 - R	\$35,432

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NUCLEAR HORMONE RECEPTORS IN ADIPOCYTE DIFFERENTIATION	93.847	4-R01-DK-049780-25			\$36,626
AMYLIN RECEPTORS IN THE LATERAL DORSAL TEGMENTAL AREA REGULATE FOOD INTAKE	93.847	1-F31-DK-105858-01A1			\$37,217
FUEL METABOLISM AND INSULIN SECRETION IN KATP-HYPERINSULINISM HUMAN ISLETS	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA	321019 / PO #960980RSUB	\$37,488
WHOLE-EXOME SEQUENCING STUDY OF DIABETIC NEPHROPATHY	93.847		TULANE UNIVERSITY	TUL-HSC-553788-15/16	\$37,601
DETERMINING THE FUNCTION OF TRIM58 IN TERMINAL ERYTHROPOIESIS	93.847	1-F30-DK-102291-01			\$37,913
COORDINATING CENTER FOR BETA CELL BIOLOGY CONSORTIUM AKA "EPCONDB GROUP" AKA "BIOINFORMATICS"	93.847		VANDERBILT UNIVERSITY	VUMC-33758	\$40,164
NEPHROTIC SYNDROME RARE DISEASE CLINICAL RESEARCH NETWORK II	93.847		UNIVERSITY OF MICHIGAN	SUB TO 1U54DK083912	\$40,573
GENETIC AND ENVIRONMENTAL REGULATION OF LIVER FAT METABOLISM	93.847	1-F32-DK-108555-01			\$40,840
UNLOCKING HETEROCHROMATIN TO POTENTIATE CELL CONVERSION TO THE HEPATOCYTE FATE	93.847	1-F31-DK-107183-01			\$40,841
OBESITY, RENIN-ANGIOTENSIN-ALDOSTERONE BLOCKADE, AND CHRONIC KIDNEY DISEASE	93.847	1-F32-DK-103484-01			\$42,510
DETERMINATION OF MYELOID CELL SUBPOPULATIONS DURING INTESTINAL CELL INVASION	93.847	1-F32-DK-101166-01A1			\$42,702
VITAMIN D CATABOLISM IN CHRONIC KIDNEY DISEASE	93.847		UNIVERSITY OF WASHINGTON	762370	\$42,767
VISCERAL ADIPOSITY AND FITNESS AMONG CRIC PARTICIPANTS (PHASE 3)	93.847		BAYLOR COLLEGE OF MEDICINE	SUB TO R01DK101500	\$42,940
INTERPLAY OF IMP1 AND AUTOPHAGY IN INTESTINAL BARRIER FUNCTION AND TUMORIGENESIS	93.847	1-F32-DK-107052-01			\$43,969
THERAPEUTIC POTENTIAL AND BROADER APPLICABILITY OF FORCED CHROMATIN LOOPING	93.847	1-F30-DK-107055-01			\$45,204
INSULIN REGULATION OF GLUCOSE METABOLISM INDEPENDENT OF HEPATIC AKT	93.847	1-F32-DK-101175-01			\$45,907
ACTION FOR HEALTH IN DIABETES BRAIN MAGNETIC RESONANCE IMAGING ANCILLARY STUDY	93.847		WAKE FOREST UNIVERSITY	WFUHS 10475	\$46,653
INVESTIGATING THE ROLE OF PDX1 IN COORDINATING TRANSLATIONAL REGULATION IN PANCREATIC BETA CELLS	93.847	1-F30-DK-105758-01			\$46,777
ISOLATION, IDENTIFICATION AND CHARACTERIZATION OF A TOXIN CAUSING BILIARY ATRESIA	93.847	1-R01-DK-092111-01A1			\$48,200
PATHOPHYSIOLOGICAL ROLE OF PRORENIN IN CKD	93.847		UNIVERSITY OF UTAH	10030258-00	\$51,118
DO PATIENT SAFETY EVENTS ACCOUNT FOR ADVERSE OUTCOMES IN CKD?	93.847		UNIVERSITY OF MARYLAND	SR00002162	\$51,135
GENDER AND HORMONAL INFLUENCES ON LIVER FIBROSIS AFTER TRANSPLANT FOR HEPATITIS C	93.847	4-K23-DK-090209-05			\$51,445
THE REGULATION OF ADIPOCYTE LIPOLYSIS BY INSULIN	93.847	1-R01-DK-093959-01			\$51,704
THE ROLE OF PRDM16 IN MAINTAINING SMALL INTESTINAL CRYPT INTEGRITY	93.847	1-F32-DK-105743-01			\$51,815
DYNAMIC HYDROGELS FOR PROBING HEPATIC STELLATE CELL BEHAVIOR DURING FIBROSIS	93.847	1-F32-DK103463-01			\$52,125
HEART FAILURE AND ATRIAL ARRHYTHMIAS IN CKD	93.847		UNIVERSITY OF WASHINGTON	UWSC8765	\$52,289
THE ROLE OF FOXL1 IN THE DIFFERENTIATION OF HEPATOCYTES AND CHOLANGIOCYTES	93.847	1-F32-DK-104592-01			\$53,962
MECHANISMS BY WHICH IUGR LEADS TO DIABETES	93.847	2-R01-DK-055704-09A2			\$55,074
ATF5 IN THE DEVELOPING PANCREAS AND SURVIVAL FUNCTIONS IN THE MATURE BETA CELL	93.847	1-F32-DK103454-01			\$56,291
CATALYTIC INDEPENDENT FUNCTIONS OF HISTONE DEACETYLASE 3 IN METABOLISM	93.847	1-F32-DK-102284-01			\$56,471
FUEL METABOLISM AND INSULIN SECRETION IN KATP-HYPERINSULINISM HUMAN ISLETS	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA	321019 / PO #960981RSUB	\$58,181
TRANSLATING HUMAN PPARγ BINDING REGIONS TO GENE REGULATION AND METABOLIC DISEASE	93.847	4-K08-DK-094968-05			\$63,793
MICROVASCULAR DISEASE, STATINS, ACE-INHIBITORS AND POST-OPERATIVE SBO	93.847	1-K08-DK-095951-01			\$68,748
ISLET DYSREGULATION IN INFANTS WITH CONGENITAL HYPERINSULINISM	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA	204200419	\$69,418
CLINICAL ISLET TRANSPLANTATION: DATA COORDINATING CENTER LIMITED COMPETITION: CONTINUATION OF CLINICAL ISLET TRANSPLANTATION (CIT) CONSORTIUM (U01) B-LYMPHOCYTE IMMUNOTHERAPY IN ISLET TRANSPLANTATION	93.847		UNIVERSITY OF IOWA	W000685190	\$72,277
ACUTE ADIPOSE INFLAMMATION AS A CONTRIBUTOR TO ACUTE KIDNEY INJURY AFTER TRAUMA	93.847	1-K23-DK-097307-01			\$72,511
VALIDATION OF NOVEL CKD BIOMARKERS IN CRIC	93.847		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	5972SC	\$76,970
VISCERAL ADIPOSITY AND PHYSICAL FITNESS IN CKD	93.847		BAYLOR COLLEGE OF MEDICINE	BAYLORSUB	\$77,338
NOVEL KIDNEY INJURY TOOLS IN DECEASED ORGAN DONATION TO PREDICT GRAFT OUTCOME	93.847		YALE UNIVERSITY	M13A11472 (AO8744)	\$77,777
APOL1 ASSOCIATED KIDNEY DISEASE	93.847	1-R01-DK-105821-01A1			\$79,233
SELECTIVE AND FUTURE IGNORABILITY IN CAUSAL INFERENCE	93.847	1-R01-DK-090385-01			\$86,943
NIDDK MENTORED RESEARCH SCIENTIST DEVELOPMENT AWARD	93.847	7-K01-DK-102868-02			\$91,774
ACUTE ADIPOSE INFLAMMATION AS A CONTRIBUTOR TO ACUTE KIDNEY INJURY AFTER TRAUMA	93.847	1-K23-DK-097307-01			\$92,862
BIOSTATISTICS FOR RENAL AND UROLOGIC DISEASES	93.847	2-T32-DK-060455-11A1			\$93,204
PSYCHOPATHOLOGY, DISORDERED EATING, AND IMPULSIVITY AS PREDICTORS OF OUTCOMES OF BARIATRIC SURGERY	93.847		TEMPLE UNIVERSITY	258377-UPENN	\$102,524
METHOTREXATE RESPONSE IN TREATMENT OF UC-MERIT	93.847		UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL	5-31695	\$104,448
MIND THE KIDNEYS	93.847		STANFORD UNIVERSITY	60120672-51126-B	\$104,605
10/16 ACTION FOR HEALTH IN DIABETES EXTENSION STUDY RESEARCH PROJECT	93.847	2-U01-DK-057135-17			\$106,517
THE FUNCTIONAL ROLE OF MITOPHAGY IN ESOPHAGEAL CELL BIOLOGY	93.847	1-K01-DK-103953-01A1			\$107,944
MOLECULAR BASIS OF ATYPICAL ANTIPSYCHOTIC DRUGS-INDUCED WEIGHT GAIN	93.847	1-R01-DK-084336-01A1			\$111,219
UNDERGRADUATE TRAINING IN GASTROINTESTINAL SCIENCES	93.847	2-R25-DK-066028-11			\$112,438
TRANSLATING HUMAN PPARγ BINDING REGIONS TO GENE REGULATION AND METABOLIC DISEASE	93.847	1-K08-DK-094968-01			\$119,689

The accompanying notes are an integral part of this schedule

UNIVERSITY OF PENNSYLVANIA
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SUMMARY OF PROGRAM CLUSTERS
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<i>Cluster Name/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification</i>	<i>Pass-Through Entity Name</i>	<i>Pass-Through Entity Identifying Number</i>	<i>Federal Expenditures</i>
TRANSCRIPTIONAL COREGULATORS IN PANCREAS DEVELOPMENT	93.847	2-R01-DK-068157-06			\$120,567
THE ROLE OF IMP1 MRNA BINDING PROTEIN IN INTESTINAL EPITHELIAL BIOLOGY	93.847	1-K01-DK-100485-01A1			\$125,192
HISTONE/PROTEIN DEACETYLASE INHIBITORS MINIMIZE RENAL ISCHEMIA-REPERFUSION INJURY	93.847	1-K08-DK-092282-01			\$126,588
INTEGRATIVE METABOLIC ADAPTIONS TO ENVIRONMENTAL AND NUTRITIONAL CHALLENGE	93.847	4-P01-DK-049210-20			\$128,801
HUMAN HEMATOPOIETIC STEM CELL CENTER OF EXCELLENCE	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA	320901-01-04 / PO #950999RSUB	\$128,831
DEVELOPMENT AND FUNCTIONAL ANALYSIS OF A HUMAN ADIPOSE TISSUE CHIP	93.847		GEORGIA REGENTS UNIVERSITY	30367-2	\$135,284
MODIFIABLE AND BIOCHEMICAL PREDICTORS AND CONSEQUENCES OF ACUTE KIDNEY INJURY	93.847	1-K01-DK-092353-01			\$135,617
AMYLIN-MEDIATED CONTROL OF ENERGY BALANCE IN THE MESOLIMBIC REWARD SYSTEM	93.847	1-K01-DK-103804-01			\$138,795
SLIT DIAPHRAGM AND ACTIN DYNAMICS	93.847	2-R01-DK-080751-07			\$144,325
GENETIC BASIS OF LIVER REPOPULATION	93.847	1-K08-DK-106478-01			\$146,473
GENDER AND HORMONAL INFLUENCES ON LIVER FIBROSIS AFTER TRANSPLANT FOR HEPATITIS C	93.847	1-K23-DK-090209-01A1			\$146,673
DIETARY PATTERNS AND THE COURSE OF INFLAMMATORY BOWEL DISEASE	93.847	2-K24-DK-078228-06			\$147,373
AGE, FUNCTIONAL STATUS, AND SURVIVAL BENEFIT FROM KIDNEY TRANSPLANTATION	93.847	1-R01-DK-090388-01A1			\$148,613
A POPULATION-BASED COHORT TO STUDY OUTCOMES IN END-STAGE LIVER DISEASE PATIENTS	93.847	1-K08-DK-098272-01A1			\$148,973
MENIN/MLL PROMOTES CELL SURVIVAL IN THE SETTING OF EGFR INHIBITION	93.847	1-K08-DK-106489-01			\$151,614
REGULATION OF T CELL DIFFERENTIATION DURING ENTERIC VIRAL INFECTION	93.847	1-K08-DK-097301-01			\$158,143
DEFINING THE ROLE OF DRIP27, A NOVEL LONG NONCODING RNA, IN ERYTHROPOIESIS	93.847	1-K08-DK-102533-01A1			\$160,683
SLIT DIAPHRAGM AND ACTIN DYNAMICS	93.847	4-R01-DK-080751-10			\$164,710
NONINVASIVE SUBHARMONIC AIDED PRESSURE ESTIMATION OF PORTAL HYPERTENSION	93.847		THOMAS JEFFERSON UNIVERSITY	080-30000-S09201	\$166,118
JOINT ANALYSIS OF LONGITUDINAL OUTCOMES AND CLINICAL EVENTS IN CHRONIC KIDNEY DISEASE COHORTS	93.847		UNIVERSITY OF UTAH	10017651-01	\$167,570
IMMUNE REGULATION AND CO-STIMULATION IN TREATMENT OUTCOME OF CHRONIC HEPATITIS B	93.847	5-U01-DK-082866-06			\$168,322
RANDOMIZED STUDY OF DAYTIME VS. DELAYED EATING: EFFECT ON WEIGHT AND METABOLISM	93.847	1-R21-DK-100787-01			\$168,456
EPIDEMIOLOGY OF DIABETES INTERVENTIONS AND COMPLICATIONS (EDIC)	93.847		CASE WESTERN RESERVE UNIVERSITY	RES507516	\$174,468
SKELETAL DEVELOPMENT AND THE HEMATOPOIETIC NICHE	93.847	1-R01-DK-088334-01A1			\$176,878
GLUCOSE COUNTERREGULATION IN LONG STANDING TYPE 1 DIABETES	93.847	1-R01-DK-091331-01			\$177,141
HISPANIC CHRONIC RENAL INSUFFICIENCY COHORT (CRIC) STUDY	93.847		UNIVERSITY OF ILLINOIS	489983 E3922	\$193,717
NEURONAL PROTEIN TYROSINE PHOSPHATASES IN METABOLISM	93.847	2-R01-DK-082417-06A1			\$202,812
THE PRRX-1 TRANSCRIPTION FACTOR IN PANCREATIC DUCTAL BIOLOGY	93.847	2-R01-DK-060694-11			\$205,887
CLINICAL RESEARCH TRAINING IN KIDNEY DISEASE	93.847	2-T32-DK-007785-16			\$207,911
FGF-23 AND CARDIOVASCULAR DISEASE IN CKD	93.847		NORTHWESTERN UNIVERSITY	60036902 UP	\$209,969
FORMATION AND MATURATION OF ENDOCRINE PANCREAS PROGENITORS	93.847	1-R01-DK-105689-01A1			\$210,064
REGULATION OF DIFFERENTIATION IN ESOPHAGEAL EPITHELIA	93.847	2-R01-DK-069984-06A1			\$214,411
EPIGENETIC DRIVERS AND BIOMARKERS OF DIABETIC KIDNEY DISEASE	93.847	1-DP3-DK-108220-01			\$232,929
EVALUATION OF ENTERO-INSULAR (INCRETIN) AXIS IN CYSTIC FIBROSIS	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA	320981 / PO #960506RSUB	\$243,023
NEUROENDOCRINOLOGY OF ENERGY BALANCE CONTROL	93.847	1-R01-DK-096139-01A1			\$247,326
DIABETES, ENDOCRINE AND METABOLIC DISEASE	93.847	2-T32-DK-007314-31			\$253,667
BIOCHEMISTRY AND GENETICS OF IRON TRANSPORT IN MITOCHONDRIA AND RELATED PROCESSES	93.847	4-R37-DK-053953-16			\$254,321
STEM CELL MOBILIZATION AND DIABETIC SKIN ULCERS	93.847		UNIVERSITY OF MARYLAND	8875	\$255,296
CONTROL OF ERYTHROPOIESIS BY THE OXYGEN SENSOR PHD2	93.847	1-R01-DK-104796-01A1			\$259,906
MEASURES OF FIBROSIS AND CLINICAL OUTCOMES IN CHRONIC KIDNEY DISEASE	93.847	1-R01-DK-104730-01			\$260,977
TGF-BETA, MATRIX, AND MYOFIBROBLASTS IN HEPATIC FIBROSIS	93.847	2-R01-DK-058123-11A1			\$270,979
RENAL RESEARCH TRAINING PROGRAM	93.847	2-T32-DK-007006-42			\$287,107
ROLE OF THE NOTCH PATHWAY IN KIDNEY INJURY	93.847	2-R01-DK-076077-06			\$287,134
INTERLEUKIN-1 RECEPTOR ANTAGONIST IN ARDS	93.847	1-R56-HL-122474-01A1			\$291,023
REGULATORY CASCADES IN GASTROINTESTINAL PROLIFERATION	93.847	2-R37-DK-053839-15			\$291,404
TRACING TRANSCRIPTOMIC CHANGES TO UNCOVER UNKNOWN ROLES OF TZDS	93.847	1-R01 DK-106027-01			\$304,356
INTEGRATIVE NUTRIGENOMIC AND METABOLOMIC ANALYSES OF AFRICANS WITH VARIABLE DIETS	93.847	1-R01-DK-104339-1			\$307,724
LOOK AHEAD: ACTION FOR HEALTH IN DIABETES	93.847	2-U01-DK-057135-15			\$308,306
ISOLATION, IDENTIFICATION AND CHARACTERIZATION OF A TOXIN CAUSING BILIARY ATRESIA	93.847	2R56DK092111-05			\$310,715
INTEGRATED ISLET DISTRIBUTION PROGRAM	93.847		BECKMAN RESEARCH INSTITUTE OF THE CITY OF HOPE	50578.914951.6560	\$315,271
CLINICAL EPIDEMIOLOGY TRAINING IN GASTROENTEROLOGY	93.847	2-T32-DK-007740-16			\$324,427
HEMATOPOIESIS TRAINING GRANT	93.847	2-T32-DK-007780-16			\$326,980
ROLE OF EGFR SIGNALING IN BONE FORMATION AND THE ANABOLIC ACTIONS OF PTH	93.847	1-R01-DK-095803-01A1			\$327,567
UNIVERSITY OF PENNSYLVANIA DIABETES RESEARCH CENTER	93.847	4-P30-DK-019525-40			\$349,391

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Cluster Name/Program Title	Federal CFDA Number	Additional Award Identification	Pass-Through Entity Name	Pass-Through Entity Identifying Number	Federal Expenditures
TRANSCRIPTIONAL AND EPIGENOMIC CONTROL OF ADIPOSE TISSUE DEVELOPMENT AND FUNCTION	93.847	1-R01-DK-098542-01			\$350,703
FRACTALKINE IN ADIPOSE INFLAMMATION AND INSULIN RESISTANCE	93.847	1-R01-DK-090505-01A1			\$361,890
THE LIN28B-LET7 AXIS IN INTESTINAL EPITHELIAL BIOLOGY	93.847	2-R01-DK-056645-14A1			\$362,551
REGULATION OF ESOPHAGEAL GENE EXPRESSION AND FUNCTION BY KLF5 AND P53	93.847	1-R01-DK-101294-01			\$392,813
ALGORITHMS TO IDENTIFY NON-CODING MUTATIONAL BURDEN AND DISEASE-RELEVANT PATHWAYS	93.847	1-R01-DK-101478-02			\$402,340
CHRONIC KIDNEY DISEASE (CKD) BIOMARKERS CONSORTIUM DATA COORDINATING CENTER	93.847	1-U01-DK-103225-01			\$426,064
INNOVATIVE GENETIC APPROACHES FOR HEPATIC REPOPULATION	93.847	1-R01-DK-102667-01A1			\$430,967
TRAINING PROGRAM IN GASTROINTESTINAL SCIENCES	93.847	2-T32-DK-007066-41			\$436,047
BIOLOGY OF THE ORPHAN RECEPTOR REV-ERB ALPHA	93.847	2-R01-DK-045586-19			\$446,697
TARGETING NAD METABOLISM TO IMPROVE GLUCOSE HOMEOSTASIS IN OBESITY AND AGING	93.847	1-R01-DK-098656-01A1			\$446,951
BETA CELL REGENERATION BY AN EPIGENETIC PATHWAY	93.847	1-R01-DK-097555-01A1			\$455,693
EATING PHENOTYPES FOR CHILDHOOD OBESITY IN THE CONTEXT OF FAMILIAL OBESITY RISK	93.847	1-R01-DK-101480-01A1			\$471,850
NUCLEAR HORMONE RECEPTORS IN ADIPOCYTE DIFFERENTIATION	93.847	5-R01-DK-049780-21			\$486,249
EPIGENETIC LANDSCAPE OF CHRONIC KIDNEY DISEASE	93.847	2-R01-DK-087635-06			\$495,810
THYROID HORMONE RECEPTORS - REGULATION AND FUNCTION	93.847	4-R37-DK-043806-23			\$501,662
NEURAL HIERARCHY IN THE MODULATION OF INGESTIVE BEHAVIOR	93.847	2-R01-DK-021397-36A1			\$550,123
GENE THERAPY FOR MUCOPOLYSACCHARIDOSIS	93.847	2-R01-DK054481-18A1			\$553,597
THE IMPACT OF HEALTHY FOOD MARKETING STRATEGIES IN SUPERMARKETS	93.847	1-R01-DK-101629-01A1			\$553,722
UNIVERSITY OF PENNSYLVANIA+ PLUS CLINICAL CENTER (PENN+PLUS CC)	93.847	1-U01-DK-106892-01			\$560,163
PRIMARY OUTCOMES IN GLOMERULONEPHRITIS STUDY (PROGRESS)	93.847	1-UM1-DK-100846-01			\$623,628
REGULATION AND FUNCTION OF THE MEG3 LOCUS IN HUMAN BETA-CELLS	93.847	2-R01-DK-088383-05			\$631,620
MOLECULAR THERAPY FOR CYSTIC FIBROSIS	93.847	2-P30-DK-047757-21			\$657,408
REGULATION OF BROWN AND BEIGE ADIPOCYTE DEVELOPMENT THROUGH EBF2	93.847	1-R01-DK-103008-01			\$685,984
DRUG-DRUG INTERACTIONS INVOLVING ANTIDIABETIC AGENTS	93.847	1-R01-DK-102694-01			\$756,450
DATA COORDINATING CENTER FOR HEMODIALYSIS PILOT STUDIES CONSORTIUM	93.847	1-U01-DK-099919-01			\$800,974
PROSPECTIVE RENAL INSUFFICIENCY COHORT EVALUATION: PRICE	93.847	2-U01-DK-060984-13			\$867,775
EPIGENETIC REJUVENATION OF HUMAN BETA-CELLS	93.847	1-UC4-DK-104119-01			\$995,990
CENTER FOR DIGESTIVE AND LIVER DISEASES	93.847	2-P30-DK-050306-16			\$1,123,868
A VASCULARIZED 3D BIOMIMETIC FOR ISLET FUNCTION AND PHYSIOLOGY	93.847	1-UC4-DK-104196-01			\$1,134,718
UNIVERSITY OF PENNSYLVANIA DIABETES RESEARCH CENTER	93.847	2-P30-DK-019525-36			\$1,579,301
MAPP RESEARCH NETWORK	93.847	2-U01-DK-082316-07			\$1,712,254
INTEGRATIVE METABOLIC ADAPTIONS TO ENVIRONMENTAL AND NUTRITIONAL CHALLENGE	93.847	5-P01-DK-049210-19			\$2,280,136
CONTINUATION OF THE CHRONIC RENAL INSUFFICIENCY COHORT (CRIC) STUDY	93.847	2-U01-DK-060990-13			\$3,380,663
		1-R01-DK-080738-01-			
DIETARY INTAKE AND EATING BEHAVIOR IN ADOLESCENTS WHO UNDERGO BARIATRIC SURGERY	93.848	01REVISED			\$33,581
SCIENTIFIC AND DATA COORDINATING CENTER (SDCC) FOR THE PROSPECTIVE COHORT STUDY OF CHRONIC RENAL...	93.849	1-U01-DK-060990-01			-\$157
95-493: PROTEIN BONDING, STABILITY, AND FUNCTION	93.849	2-R01-DK-011295-29A1			\$91
CROSS-SENSITIZATION IN THE PELVIS AND NEUROGENIC BLADDER	93.849	7-R01-DK-077699-02			\$328
THE EPILEPSY BIOINFORMATICS STUDY (EPBIOS) - ADMINISTRATIVE SUPPLEMENTAL	93.853		UNIVERSITY OF CALIFORNIA, LOS ANGELES	1580 G QE281	-\$13,378
OPTOGENETIC APPROACHES TO NEUROMUSCULAR SYNAPSE ELIMINATION	93.853	1-R21-NS-076899-01A1			-\$12,000
INHERITED NEUROPATHIES CONSORTIUM	93.853		UNIVERSITY OF IOWA	1001455729	-\$4,592
NTS NEURONS INTEGRATE LEPTIN AND SATIATION SIGNALS TO INFLUENCE REWARD SIGNALING	93.853	1-F31-NS-084633-01A1			-\$778
REGULATION OF SLEEP-LIKE BEHAVIOR IN C. ELEGANS	93.853	1-R01-NS-064030-01A1			-\$260
TRANSCRIPTIONAL CONTROL OF SONIC HEDGEHOG SIGNALING	93.853	2-R01-NS-039421-10A2			-\$190
CAROTID REVASCULARIZATION AND MEDICAL MANAGEMENT FOR ASYMPTOMATIC CAROTID STENOSIS TRIAL (CREST-2) TRIAL	93.853		MAYO CLINIC JACKSONVILLE	SUB TO 5-U01NS080168-02	\$2,000
EXPLORING AND ENHANCING KARYOPHERIN BETA-2 DISAGGREGATE ACTIVITY	93.853	1-R21-NS-090205-01A1			\$2,505
ROLE OF DNA DAMAGE IN THE EARLY STEPS OF HSV INFECTION AND LATENCY IN NEURONS	93.853		CHILDREN'S HOSPITAL OF PHILADELPHIA	321012 / PO #960927RSUB	\$3,144
COMBINATION THERAPY, BIOMARKERS, AND IMAGING IN CANINE KRABBE DISEASE	93.853	1-R01-NS-096087-01			\$3,995
NEURAL BASIS OF GENERALIZED QUANTIFIERS	93.853	2-R01-NS-044266-06A1			\$4,357
THE SYNAPTIC PROTEIN ECONOMY IN HIV/AIDS AND AGING	93.853		UNIVERSITY OF TEXAS AT GALVESTON	10-082	\$4,988
EXAMINING THE ROLE OF NEURONAL INJURY IN CONCUSSION-RELATED COGNITIVE DYSFUNCTION	93.853	1-F32-NS-083284-01A1			\$5,162
ACHIEVING SUCCESS FOR WOMEN & ACADEMIC MEDICINE: A RANDOMIZED MULTI-LEVEL TRIAL	93.853	1-R01-NS-069793-01 REVISED			\$5,347
ROLE OF CELL CYCLE PROTEINS IN HIV ENCEPHALITIS	93.853	2-R01-NS-041202-09A1			\$5,416

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UNIVERSITY OF PENNSYLVANIA
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<i>Cluster Name/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification</i>	<i>Pass-Through Entity Name</i>	<i>Pass-Through Entity Identifying Number</i>	<i>Federal Expenditures</i>
PROOF OF PRINCIPLE FOR A DIAGNOSTIC BLOOD TEST OF RECURRENT SEIZURES	93.853		COGNIZANCE BIOMARKERS	1-R43-NS-079029-01A1	\$5,879
CORTICAL SYNAPTIC BALANCE AND GAMMA-BAND ACTIVITY AFTER TRAUMATIC BRAIN INJURY	93.853	1-F31-NS-083243-01A1			\$7,010
C.R.E.S.T. (CAROTID REVASCLARIZATION ENDARTERECTOMY VX. STENT TRIAL)	93.853		RUTGERS UNIVERSITY	SUB TO R01-NS38384	\$7,434
EVAL OF OUTCOMES FOLLOWING MVR IN SEVERE CHRONIC ISCHEMIC MITRAL REGURGITATION	93.853		MOUNT SINAI MEDICAL CENTER	SUB TO 7U01 HL088942-02	\$7,640
SURGICAL INTERVENTIONS FOR MODERATE ISCHEMIC MITRAL REGURGITATION	93.853		MOUNT SINAI MEDICAL CENTER	0255-3104-4605	\$8,353
CIRCUIT CONTRIBUTIONS OF ADULT AND SEIZURE-INDUCED NEUROGENESIS IN THE DENTATE GYRUS	93.853	1-F31-NS-080403-01A1			\$9,888
SPATIOTEMPORAL MODELING OF MRI GRAIN LESION TRAJECTORIES OF BIOMARKER DISCOVERY	93.853	1-R21-NS-093349-01A1			\$10,664
LENTIVIRAL-MEDIATED HEMATOPOIETIC STEM CELL GENE THERAPY FOR CANINE GLOBOID CELL LEUKODYSTROPHY	93.853	1-F32-NS-093898-01A1			\$13,068
SODIUM LEAK CHANNELS AND REGULATION BY NEUROTRANSMITTERS	93.853	4-R01-NS-055293-09			\$13,243
LONGITUDINAL EVALUATION OF FAMILIAL FRONTOTEMPORAL DEMENTIA SUBJECTS (LEFFTDS)	93.853		MAYO CLINIC ROCHESTER	63788299	\$13,428
CONTROLLING NEURAL CIRCUITS WITH SINGLE-CELL RESOLUTION IN BEHAVING ANIMALS	93.853	4-R01-NS-084835-04			\$14,148
EARLY LIFE SEIZURES DISRUPT CRITICAL PERIOD PLASTICITY	93.853	4-R01-NS-080565-04			\$14,319
MOLECULAR MECHANISMS IN CONTROLLING DEVELOPMENT OF TOUCH-SENSING NEURONS	93.853	4-R01-NS-083702-04			\$15,115
THE GENETIC REGULATION AND DISEASE FUNCTION OF THE FRONTOTEMPORAL DEMENTIA PROTEIN TMEM106B	93.853	4-R01-NS-082265-04			\$15,979
MURINE CORONAVIRUS NEUROVIRULENCE: ROLE OF TYPE I INTERFERON RESPONSE	93.853	4-R01-NS-081008-05			\$16,776
MODELING SYNAPTIC VESICLES: HOW DOES 2-SYNUCLEIN INHIBIT FUSION	93.853		UNIVERSITY OF MINNESOTA	A003585702	\$16,943
THE NKCC1 INHIBITOR BUMETANIDE AS A NOVEL THERAPY IN TSC	93.853	1-R21-NS-080268-01A1			\$17,433
UNDERSTANDING THE CONCEPTUAL-MOTOR INTERFACE	93.853		MOSS REHABILITATION RESEARCH INSTITUTE	SUB TO 1-R01-NS065049-01A2	\$18,365
MOLECULAR NEUROPATHOLOGY OF TDP-43 PROTEINOPATHIES	93.853	1-R21-NS-087749-01			\$18,705
AUTOIMMUNE MECHANISMS IN A NOVEL AIRE-DEFICIENT MODEL OF PERIPHERAL NEUROPATHY	93.853		UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL	5-33303	\$19,759
RATIONAL DESIGN OF TMS FOR NEUROMODULATION	93.853		DUKE UNIVERSITY	203-5257	\$20,113
UNDERSTANDING THE PATHOGENIC MECHANISMS OF RETT SYNDROME	93.853	4-R01-NS-081054-04			\$21,124
METABOLIC APPROACHES TO FRIEDREICH ATAXIA	93.853		CHILDREN'S HOSPITAL OF PHILADELPHIA	R21-NS087343	\$21,889
GREATER PHILADELPHIA SOUTHERN NEW JERSEY NETT NETWORK ESETT TRIAL	93.853		UNIVERSITY OF MICHIGAN	SUBK00004105-ESETT	\$21,892
GREATER-PHILADELPHIA-SOUTHERN NEW JERSEY NETT: PROTECT	93.853		UNIVERSITY OF MICHIGAN	3001300019-PIII	\$22,159
VASOACTIVE AGENTS AND CEREBRAL OUTCOMES IN BRAIN INJURY	93.853		UNIVERSITY OF WASHINGTON	UWSC8805	\$22,395
A PHASE 3 DOUBLE-BLIND PLACEBO-CONTROLLED PARALLEL GROUP STUDY IF ISRADAPINE AS A DISEASE					
MODIFYING AGENT IN PATIENTS WITH EARLY PARKINSON'S DISEASE. STEADY PD	93.853		NORTHWESTERN UNIVERSITY	60036745 UPA	\$23,537
THE EPILEPSY BIOINFOMRATICS STUDY (EPIBIOS)	93.853		UNIVERSITY OF CALIFORNIA, LOS ANGELES	1580 G QE281	\$26,282
MECHANISMS OF SEMA-1A DEPENDENT MIDLINE CROSSING IN THE DROSOPHILA CNS	93.853	1-F31-NS-086340-01			\$27,108
FUTILITY STUDY OF DEFEROXAMINE MESYLATE IN INTRACEREBRAL HEMORRHAGE (HI-DEF)	93.853		BETH ISRAEL MEDICAL CENTER	SUB TO U01-NS-074425-01	\$27,859
DISSECTING THE ROLE OF DISEASE-ASSOCIATED VARIANTS IN THE REGULATION OF TMEM106B	93.853	1-F31-NS-090892-01			\$28,993
GREATER PHILADELPHIA SOUTHERN NEW JERSEY NETT NETWORK ATACH II TRIAL	93.853		UNIVERSITY OF MICHIGAN	SUB TO 5-U01-NS-062091-04	\$29,920
MECHANISMS AND MODIFIERS OF HNRNPA1 AND HNRNPA2 MISFOLDING AND TOXICITY	93.853	1-F31-NS-087676-01A1			\$30,825
EPIGENETICS IN NEURODEGENERATIVE DISEASE: TARGETING HISTONE MODIFICATIONS IN ALS	93.853	1-K22-NS-091314-01			\$30,843
ALPHA SYNUCLEIN OLIGOMER TOXICITY AND THE PATHOGENIC INTERACTION WITH DOPAMINE	93.853	1-F31-NS-087779-01A1			\$31,725
RECANALIZATION THERAPIES AND MARKERS OF STROKE OUTCOME (SPOTRIAS, STOP-IT)	93.853		UNIVERSITY OF CINCINNATI	SUB TO 2-P50-NS-044283-06	\$32,221
MITOCHONDRIAL DYNAMICS IN ASTROCYTIC PROCESSES AFTER TRANSIENT ISCHEMIA	93.853	1-F31-NS-086255-01A1			\$35,163
THE EPILEPTOGENIC EFFECT OF PERINATAL HYPOXIA	93.853	2-R56-NS-031718-02A1			\$35,506
THE FRONTOTEMPORAL LOBAR DEGENERATION CLINICAL RESEARCH CONSORTIUM	93.853		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	8567	\$36,526
RATE CONTROL VERSUS RHYTHM CONTROL FOR POSTOPERATIVE ATRIAL FIBRILLATION	93.853		MOUNT SINAI MEDICAL CENTER	SUB TO 5U01HL088942	\$36,534
		1-P01-NS-056202-01A2			
MILD TRAUMATIC BRAIN INJURY AND DIFFUSE AXONAL INJURY	93.853	REVISED			\$36,894
NEUSTART II STUDY	93.853		COLUMBIA UNIVERSITY	6 (GG006906-11)	\$38,322
LOCALIZING EPILEPTIC NETWORKS USING NOVEL 7T MRI GLUTAMATE IMAGING	93.853	1-K23-NS-092973-01A1			\$39,461
MOLECULAR MECHANISMS CONTROLLING SOMATOSENSORY NEURON DEVELOPMENT	93.853	1-F31-NS-086168-01A1			\$40,287
PATHOGENIC MECHANISMS OF REDUCED TRANSPORT INITIATION IN PERRY SYNDROME	93.853	1-F30-NS-092227-01			\$42,562
PERSISTENT MEASLES VIRUS IN THE BRAIN AFTER RESOLUTION OF ACUTE INFECTION	93.853	1-F31-NS-092307-01			\$43,117
SCHWANN CELL MORPHOLOGY AND FUNCTION IN PERIPHERAL NERVE REGENERATION	93.853	1-F31-NS-089250-01			\$43,153
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	\$47,128
DISSEMINATED AAV VECTOR TRANSPORT IN THE BRAIN VIA NEURONAL PATHWAYS	93.853		CHILDREN'S HOSPITAL OF PHILADELPHIA	20479-10-01 / PO #951200RSUB	\$47,546
CONNECTOMICS MEETS NEURO-ONCOLOGY: MAPPING THE BRAIN FOR TREATMENT PLANNING	93.853	1-R01-NS-096606-01			\$49,941
THE INTERNATIONAL EPILEPSY ELECTROPHYSIOLOGY DATABASE	93.853	1-U24-NS-063930-01A1			\$52,250
AXON INITIAL SEGMENT MADE SIMPLE: ARCHITECTURE OF THE CYTOSKELETAL NETWORK	93.853	1-K22-NS-091189-01A1			\$52,481
INTEGRATION OF SLEEP-REGULATING SIGNALS BY THE DROSOPHILA PARS INTERCEREBRALIS	93.853	1-F32-NS-090811-01A1			\$53,004

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EPIGENETIC MECHANISMS OF TDP43-MEDIATED NEURODEGENERATION	93.853	1-F32-NS-084667-01			\$54,636
MOTOR CIRCUIT MODULATION AND ITS REGULATION	93.853	2-R37-NS-029436-19			\$58,060
TARGETING TUMORS WITH NF1 LOSS	93.853		DARTMOUTH COLLEGE	R837 N936909 SUBTO 1-U01-NS-062091-01A1	\$58,524
ANTIHYPERTENSIVE TREATMENT OF ACUTE CEREBRAL HEMORRHAGE (ATACH II)	93.853		UNIVERSITY OF MINNESOTA		\$59,088
PARANEOPLASTIC DISORDERS OF THE CNS: AUTOANTIGEN PROFILING	93.853	9-R01-NS-077851-05A2			\$60,454
THE ROLE OF CONNEXIN32 IN THE PATHOGENSIS OF CMTX	93.853	2-R01-NS-055284-05A1			\$60,823
A LONGITUDINAL MULTI-MODAL NEUROIMAGING INVESTIGATION OF FUNCTIONAL RECOVERY AFTER DIFFUSE TRAUMATIC BRAIN INJURY	93.853		CITY COLLEGE OF NEW YORK	41903-A	\$69,147
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	\$72,601
EPIGENETIC EDITING OF MUTANT C9ORF72	93.853	1-R01-NS-095793-01			\$73,252
MECHANISMS OF AUTOPHAGOSOME BIOGENESIS AND MATURATION IN PRIMARY NEURONS	93.853	4-R00-NS-082619-03			\$76,873
EXPANSION OF INTRACRANIAL HEMORRHAGE BY TPA AFTER TRAUMATIC BRAIN INJURY	93.853	1-R21-NS-080014-01A1			\$77,399
NEUROPATHOLOGICAL CHARACTERIZATION OF 'CTE'	93.853	1-R01-NS-094003-01A1			\$78,038
TWO-PHOTON MICROSCOPY OF OXYGEN CONSUMPTION IN THE BRAIN	93.853		MASSACHUSETTS GENERAL HOSPITAL	226626	\$90,843
NEURONAL CIRCUIT MECHANISMS	93.853		CHILDREN'S HOSPITAL OF PHILADELPHIA	20459 / PO #960209RSUB	\$96,433
TDP43 MRNA COMPLEX TRANSPORT IN PHYSIOLOGIC AND PATHOLOGIC STATES	93.853	1-K08-NS-094744-01			\$97,445
				3001413184-PNT/SUB TO U01-NS-062835	\$98,396
GREATER PHILADELPHIA SOUTHERN NEW JERSEY NETT TRIAL POINT	93.853		UNIVERSITY OF MICHIGAN		
MECHANISMS LINKING INSULIN RESISTANCE TO BRAIN STRUCTURE, PATHOLOGY, AND FUNCTION	93.853		RUSH UNIVERSITY	SUB TO 1-R01-NS-084965-01A1	\$98,999
STROKE HYPERGLYCEMIA INSULIN NETWORK EFFORT (SHINE) TRIAL	93.853		UNIVERSITY OF MICHIGAN	3002111996-SHN	\$108,454
MECHANISMS OF REMODELING CIRCUIT CONNECTIVITY AFTER TRAUMATIC BRAIN INJURY	93.853	1-R56-NS-088176-01			\$112,406
SODIUM LEAK CHANNELS AND REGULATION BY NEUROTRANSMITTERS	93.853	2-R01-NS-055293-06A1			\$115,539
FEASIBILITY OF DIRECT QUANTITATIVE MAGNETIC RESONANCE IMAGING OF MYELIN	93.853	1-R21-NS-082953-01A1			\$118,327
ALPHA-SYNUCLEIN BIOMARKERS IN PARKINSON DISEASE	93.853	1-K08-NS-093127-01			\$120,506
TRAINING IN NEUROVIROLOGY	93.853	2-T32-NS-007180-32			\$126,751
INHERITED NEUROPATHIES CONSORTIUM	93.853		UNIVERSITY OF IOWA	W000750292	\$127,896
TEMPORAL LOBE EPILEPSY AND RETROTRANSPOSONS	93.853	1-R21-NS-095756-01			\$148,135
OPTICAL STUDY OF SECRETION IN MAMMALIAN NERVE TERMINALS	93.853	4-R01-NS-040966-12			\$153,981
DEVELOPMENTAL ENDOTHELIAL LOCUS-1 (DEL-1) IS A HEMOSTATIC FACTOR IN THROMBOTIC STROKE	93.853	1-R21-NS-091793-01			\$154,770
IDENTIFICATION OF ENDOPHENOTYPES IN THE BEHAVIORAL-VARIANT OF FRONTOTEMPORAL DEMENTIA	93.853	1-K23-NS-088341-01			\$155,786
INTERPLAY OF THE MICROBIOME AND THE BRAIN IN NEURODEGENERATIVE DISEASE	93.853	1-R21-NS-088370-01			\$156,253
SAFETY AND EFFICACY OF SYSTEMIC GENE THERAPY IN INFORMATIVE MODELS FOR DMD	93.853	1-R01-NS-094705-01			\$157,746
EFFECTS OF APPARENT BODY SIZE ON MOTOR FUNCTION	93.853	1-R21-NS-089084-01A1			\$157,763
MEKK3-ERK5-KLF SIGNALING IN CCM PATHOGENESIS	93.853		DUKE UNIVERSITY MEDICAL CENTER	2034906	\$163,134
MECHANISMS OF REMODELING CIRCUIT CONNECTIVITY AFTER TRAUMATIC BRAIN INJURY	93.853	1-R01-NS-088176-01A1			\$165,066
TBI: UNCOVERING MECHANISMS OF AD-LIKE PATHOLOGY	93.853	2-R01-NS-038104-10A1			\$167,066
SYSTEMIC MOLECULAR THERAPY FOR MUSCULAR DYSTROPHY	93.853	2-R01-NS-042874-06A2			\$167,093
BRAIN INJURY TRAINING GRANT	93.853	2-T32-NS-043126-11			\$167,894
TRAINING PROGRAM IN NEUROENGINEERING AND MEDICINE	93.853	1-T32-NS-091006-01			\$172,763
ROLE OF BRAIN MECHANOSENSORS ON OUTCOME AFTER TRAUMATIC BRAIN INJURY	93.853	1-R21-NS-093293-01			\$178,241
EPIGENETIC CHANGES ASSOCIATED WITH NEURODEGENERATIVE DISEASES	93.853	4-R01-NS-078283-05			\$183,381
IDENTIFICATION NEURONS CONTROLLING SLEEP/WAKE IN THE NEMATODE C. ELEGANS	93.853	1-R21-NS-091500-01			\$186,133
TRANSCRIPTIONAL CONTROL OF GLIOMA DEVELOPMENT	93.853	1-R01-NS-093120-01			\$205,180
TARGETED MODULATION OF THE DEATH RECEPTOR AS A THERAPEUTIC STRATEGY FOR GLIOMA	93.853	1-K08-NS-076548-01			\$205,495
PARKINSON DISEASE DISPARITIES AND OUTCOMES	93.853	7-K23-NS-081087-02			\$214,678
A CRITICAL PERIOD OF SLEEP REQUIRED FOR NORMAL BRAIN DEVELOPMENT	93.853	1-K08-NS-090461-01			\$217,113
MECHANISMS OF CASPR2 ANTIBODIES	93.853	1-K08-NS-075142-01A1			\$231,940
INTRATHECAL CYCLODEXTRIN THERAPY OF FELINE NIEMANN-PICK TYPE C DISEASE	93.853	1-R01-NS-073661-01			\$232,457
REGULATION OF NEURONAL EXCITABILITY BY EXTRACELLULAR CALCIUM	93.853	1-R01-NS-074257-01			\$234,729
NEUROLOGIC CLINICAL EPIDEMIOLOGY TRAINING GRANT	93.853	2-T32-NS-061779-06			\$236,787
MOLECULAR, CELLULAR AND PHYSIOLOGICAL MECHANISMS OF THE MAMMALIAN CIRCADIAN CLOCK	93.853	2-R01-NS-054794-06			\$245,444
ENABLING WIDESPREAD USE OF HIGH RESOLUTION IMAGING OF OXYGEN IN THE BRAIN	93.853	1-R24-NS-092986-01			\$248,175
THE ROLE OF CONNEXIN32 IN THE PATHOGENSIS OF CMTX	93.853	4-R01-NS-055284-9			\$251,650

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MURINE CORONAVIRUS NEUROVIRULENCE: ROLE OF TYPE I INTERFERON RESPONSE	93.853	1-R01-NS-081008-01			\$253,520
PRECLINICAL CYCLOSPORIN A THERAPY TRIALS FOR PEDIATRIC TBI	93.853	1-U01-NS-069545-01A1			\$258,482
SEMI-SYNTHETIC A-SYNUCLEIN FOR TRACKING AGGREGATION AND CELL-TO-CELL TRANSMISSION	93.853	1-R01-NS-081033-01			\$267,287
CONTROLLING NEURAL CIRCUITS WITH SINGLE-CELL RESOLUTION IN BEHAVING ANIMALS	93.853	1-R01-NS-084835-01			\$268,408
UNDERSTANDING THE PATHOGENIC MECHANISMS OF RETT SYNDROME	93.853	1-R01-NS-081054-01A1			\$274,732
GREATER PHILADELPHIA-SOUTHERN NEW JERSEY NETT NETWORK	93.853	2-U10-NS-058960-06			\$284,652
ENDOTHELIAL PLASTICITY IN GLIOMA VASCULARIZATION AND THERAPY RESISTANCE	93.853	1-R01-NS-094533-01			\$285,295
ROBO RECEPTOR SIGNALING AND REGULATION DURING AXON GUIDANCE IN DROSOPHILA	93.853	2-R01-NS-046333-10A1			\$289,632
PRESSOR CHOICE INFLUENCES PROTECTION OF AUTOREGULATION IN BRAIN INJURY	93.853	1-R01-NS-090998-01A1			\$292,313
PHARMACOTHERAPY TO COUNTERACT PARATHION-INDUCED NMJ DYSFUNCTION	93.853		UNIVERSITY OF MASSACHUSETTS	1-U01-NS083452-01	\$295,157
MECHANISTIC ANALYSIS OF AXONAL TRANSPORT DEFECTS IN NEURODEGENERATIVE DISEASE	93.853	2-R01-NS-060698-06A1			\$301,084
A NOVEL METHOD FOR GLUTAMATE IMAGING	93.853	1-R01-NS-087516-01			\$311,289
OPTICAL STUDY OF SECRETION IN MAMMALIAN NERVE TERMINALS	93.853	2-R01-NS-040966-08A1			\$313,862
NEUROPEPTIDERGIC REGULATION OF SLEEP IN C. ELEGANS	93.853	1-R01-NS-088432-01A1			\$316,878
UNBIASED APPROACHES TO NOVEL BIOMARKER DISCOVERY IN PARKINSON'S DISEASE	93.853	1-U01-NS-082134-01			\$327,154
THE GENETIC REGULATION AND DISEASE FUNCTION OF THE FRONTOTEMPORAL DEMENTIA PROTEIN TMEM106B	93.853	1-R01-NS-082265-01			\$329,899
CYCLING IN A CIRCADIAN CIRCUIT	93.853	2-R37-NS-048471-10			\$331,440
OXIDATIVE LIPID STRESS IN THE BRAIN	93.853	1-R01-NS-074178-01A1			\$333,868
RESEARCH TRAINING PROGRAM IN DISEASE-ORIENTED NEUROSCIENCE	93.853	2-R25-NS-065745-06			\$344,837
MOLECULAR MECHANISMS IN CONTROLLING DEVELOPMENT OF TOUCH-SENSING NEURONS	93.853	1-R01-NS-083702-01			\$354,025
TRANSCRIPTIONAL MECHANISMS COORDINATING MIDLINE AND MOTOR AXON GUIDANCE	93.853	2-R01-NS-054739-05A1			\$358,388
STATISTICAL METHODS FOR LARGE AND COMPLEX DATABASES OF ULTRA-HIGH-DIMENSIONAL	93.853	1-R01-NS-085211-01			\$366,361
PROPAGATION OF LEWY PATHOLOGY IN PARKINSONS DISEASE	93.853	1-R01-NS-088322-01A1			\$376,926
DETECTION AND MECHANISMS OF MILD TRAUMATIC BRAIN INJURY	93.853	1-R01-NS-092398-01			\$399,177
DICTYOSTATIN AND RELATED PRODRUGS AS CANDIDATES FOR TAUOPATHY TREATMENT	93.853	1-R21-NS-087059-01A1			\$401,394
THE PHILADELPHIA REGIONAL STROKE TRIALS NETWORK COORDINATING CENTER (PRSTNCC)	93.853	1-U10-NS-086474-01			\$413,974
ATAXIN-2 AS A GENETIC RISK FACTOR FOR ALS: NEW INSIGHTS INTO NEURODEGENERATION	93.853	1-R01-NS-073660-01A1			\$419,933
EPIGENETIC CHANGES ASSOCIATED WITH NEURODEGENERATIVE DISEASES	93.853	1-R01-NS-078283-01			\$422,225
TRANSCRIPTIONAL CONTROL OF SONIC HEDGEHOG SIGNALING	93.853	2-R01-NS-039421-15			\$432,810
SELF-ASSOCIATION AND MEMBRANE BINDING OF ALPHA-SYNUCLEIN	93.853	7-R01-NS079955-04			\$433,937
DIFFUSE OPTICS FOR ACUTE STROKE MANAGEMENT	93.853	2-R01-NS-060653-06			\$467,285
BIOLOGICAL 'LIVING ELECTRODES' USING TISSUE ENGINEERED AXONAL TRACTS TO PROBE AND MODULATE THE NERVOUS SYSTEM	93.853	1-U01-NS-094340-01			\$487,909
NICOTINIC & DOPAMINERGIC MECHANISMS REGULATING IN VIVO PLASTICITY	93.853	7-R01-NS-021229-29			\$516,979
PREDICTING BRAIN TUMOR PROGRESSION VIA MULTIPARAMETRIC IMAGE ANALYSIS AND MODELIN	93.853	2-R01-NS-042645-11A1			\$577,450
DETECTION OF CEREBRAL ISCHEMIA WITH A NONINVASIVE NEUROMETABOLIC OPTICAL MONITOR	93.853	1-R01-NS-082309-01A1			\$620,530
NEUROSCIENCE NEUROIMAGING CENTER	93.853	2-P30-NS-045839-11A1			\$704,345
EARLY LIFE SEIZURES DISRUPT CRITICAL PERIOD PLASTICITY	93.853	1-R01-NS-080565-01A1			\$721,197
PARKINSON'S DISEASE AND DEMENTIA	93.853	2-P50-NS-053488-06			\$1,952,172
SHAPING ANTIVIRAL IMMUNITY BY THE INFLAMMATORY, REGULATORY AND TISSUE ENVIRONMENT	93.855	7-U19-AL-083022-02			-\$14,391
OPTIMIZING HIV ENV IMMUNOGENS FOR T AND B CELL VACCINE RESPONSES	93.855	1-R01-AI-090788-01			-\$8,460
GLOBAL INNATE IMMUNE RESPONSES TO HIV-1 INFECTION	93.855		SALK INSTITUTE	PO #P0040250	-\$6,060
ROLE OF NOTCH SIGNALING IN THE DIFFERENTIATION AND FUNCTION OF INFLAMMATORY DCS	93.855	1-R21-AI-099651-01A1			-\$5,658
UNIVERSITY OF PENNSYLVANIA CENTER FOR AIDS RESEARCH:	93.855	2-P30-AI-045008-06			-\$5,520
CENTER FOR AIDS RESEARCH	93.855	2-P30-AI-045008-11			-\$3,199
MECHANISMS OF IMMUNE FAILURE IN CHRONIC INFECTION: HEPATITIS C AS A KEY PARADIGM, PROJECT 3	93.855		MASSACHUSETTS GENERAL HOSPITAL	214829	-\$1,901
ELUCIDATING THE CHEMISTRY AND BIOLOGY OF NUCLEIC ACID CYTIDINE DEAMINASES IN HIV	93.855	7-K08-AI-089242-02			-\$1,028
PROJECT I-5: INHIBITION OF DNA MODIFYING ENZYMES OF CATEGORY A-C AGENTS	93.855		UNIVERSITY OF MARYLAND	SR00001120 MOD #4	-\$921
ALLELIC VARIANTS OF SALMONELLA FIMBRIAL ADHESINS	93.855	1-R21-AI-098041-01A1			-\$851
G-PROTEIN COUPLED RECEPTOR KINASE-2 ON IGE SIGNALING IN MAST CELLS	93.855	1-R21-AI-094896-01			-\$420
CONTROL OF B CELL DEVELOPMENT BY YY1	93.855	1-R01-AI-079002-01A2			-\$320
THERAPEUTICS THAT TARGET PROCESSIVITY COMPLEX PROTEINS OF POX AND OTHER VIRUSES	93.855	1-U01-AI-082211-01			-\$266
HOST-PARASITE INTERACTIONS DURING TOXOPLASMOSIS	93.855	1-R21-AI-104998-01			-\$237

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A MURINE MODEL FOR HUMAN FACTOR H R1210C MUTATION-RELATED DISEASES	93.855	1-R21-AI-105455-01			-\$86
DISSECTING THE MECHANISM OF RIPK1 KINASE-DEPENDENT CELL DEATH IN CONTROL OF YERSINIA INFECTION	93.855	1-R21-AI-125924-01			\$27
EARLY DETECTION OF CONGENITAL CHAGAS DISEASE	93.855		JOHNS HOPKINS UNIVERSITY	SUB TO R01-AI-087776	\$56
FULLY-INTEGRATED, NON-INSTRUMENTED DEVICE FOR MOLECULAR DIAGNOSTICS	93.855	4-K25-AI-099160-05			\$310
GENE THERAPY FOR CANINE X-LINKED SCID	93.855	4-R01-AI-043745-13			\$481
IL-33 BLOCKADE AS A NOVEL THERAPEUTIC FOR T-CELL MEDIATED HYPERCYTOKINEMIA SYNDROMES	93.855		CHILDREN'S HOSPITAL OF PHILADELPHIA	SUB TO R01AI121250	\$1,466
RESTARTT - IMMUNOSUPPRESSION WITH ANTITHYMOCYTE GLOBULIN, RITUXIMAB, TACROLIMUS, MYCOPHENOLATE MOFETIL AND SIROLIMUS, FOLLOWED BY IMMUNOSUPPRESSION WITHDRAWAL IN LIVING-DONOR RENAL TRANSPLANT RECIPIENTS	93.855		BENAROYA RESEARCH INSTITUTE	1-UM1-AI-109565-01	\$1,894
LONG NONCODING RNAS IN INNATE LYMPHOID CELL BIOLOGY	93.855	1-F31-AI-124538-01A1			\$1,948
BIOMEDICAL COMPUTING AND INFORMATICS STRATEGIES FOR INFECTIOUS DISEASE RESEARCH	93.855	1-R01-AI-116794-01A1			\$2,221
MECHANISMS OF PNEUMOCOCCAL PERSISTENCE DURING CARRIAGE.	93.855	2-R01-AI-038446-16			\$2,535
HIV CURE STUDIES: RISK, RISK PERCEPTION, AND ETHICS	93.855		HARVARD MEDICAL SCHOOL	116543-5079901	\$2,914
MODIFIED HIV EVNS FOR STRUCTURE FUNCTION & VACCINE STUDI	93.855	4-R37-AI-045378-11			\$3,525
ROLE OF APOBEC3 IN IN VIVO RESTRICTION OF RETROVIRUS INFECTION	93.855	1-R01-AL-085015-01A1			\$3,831
FUNCTIONAL CURE AND VIRUS ERADICATION BY EARLY HAART PLUS VACCINATION WITH LIVE ATTENUATED RUBELLA VIRUS VECTORS IN MACAQUE INFANTS AND NEONATES	93.855		TEXAS BIOMEDICAL RESEARCH INSTITUTE	15-4547-001	\$4,169
SCHISTOSOME TRP ION CHANNELS AS POTENTIAL DRUG TARGETS	93.855	1-R21-AI-100505-01A1			\$4,178
ROS RESPONSES DURING VIBRIO CHOLERAEE INFECTION	93.855	1-R01-AI-120489-01A1			\$4,215
INFECTIOUS DISEASES EPIDEMIOLOGY TRAINING GRANT	93.855	2-T32-AI-055435-06A1			\$4,380
SPlicing AND NUCLEAR TRANSPORT OF INFLUENZA VIRUS MRNA	93.855	1-R01-AI-125524-01			\$4,392
GENETIC DETERMINANTS OF SYSTEMIC HOST-ADAPTED SALMONELLA	93.855	1-R21AI-117135-01A1			\$4,647
BIANNUAL INTERNATIONAL TOXOPLASMOSIS	93.855	1-R13-AI-120914-01			\$4,658
UTILITY OF DEEP SEQUENCING FOR DETECTING HETERORESISTANT MYCOBACTERIUM TUBERCULOSIS					
INFECTIONS AMONG HIV-INFECTED PERSONS	93.855		UNIVERSITY OF CALIFORNIA, LOS ANGELES	1935 G TA238	\$5,063
HIV CURE STUDIES: RISK, RISK PERCEPTIONS, AND ETHICS	93.855		HARVARD MEDICAL SCHOOL	152785.5079901.0007	\$5,199
ALTERNATIVE MHCII PROCESSING OF INFLUENZA VIRUS PROTEINS	93.855		THOMAS JEFFERSON UNIVERSITY	080-03000-S14401	\$5,753
GLOBAL INNATE IMMUNE RESPONSES TO HIV-1INFECTION	93.855		SANFORD-BURNHAM MEDICAL RESEARCH INSTITUTE	55648-12645-UPENN	\$6,698
TARGETING THE PERSISTENT HIV-1 VIRAL RESERVOIR USING ENGINEERED T CELLS	93.855	1-R21-AI-104280-01			\$6,751
HIV PREVENTION TRIALS NETWORK (HPTN)	93.855		DREXEL UNIVERSITY	239643	\$6,960
CONTROL AND MANIPULATION OF HIV-SPECIFIC CD8 T-CELL EFFECTOR RESPONSES	93.855	1-F32-AI-100495-01A1			\$7,595
ROLE OF SCHISTOSOME ABC TRANSPORTERS IN MODULATION OF HOST IMMUNE RESPONSES	93.855	1-R21-AI-106268-01			\$7,897
NUCLEOSIDE MODIFIED MRNA BASED HIV VACCINE	93.855	1-R01-AI-124429-01			\$8,100
ENGINEERING PROTEIN VESICLES FOR DRUG DELIVERY APPLICATIONS	93.855	1-F32-GM-119430-01			\$8,408
TH17 AUTOIMMUNITY TO TYPE V COLLAGEN IN HEART AND LUNG TRANSPLANT	93.855		INDIANA UNIVERSITY	IN-4685530-UP	\$8,976
ANALYSIS OF GENE REGULATION OF VIBRIO CHOLERAEE DURING INFECTION	93.855	2-R56-AI-072479-06A1			\$9,340
CARBAPENEM-RESISTANT KLEBSIELLA PNEUMONIAE IN LONG-TERM ACUTE CARE HOSPITALS	93.855	4-K01-AI-103028-04			\$9,368
STUDIES OF HERPES SIMPLEX VIRUS GLYCOPROTEINS	93.855	4-R37-AI-018289-29			\$9,463
AIDS CLINICAL TRIALS GROUP (ACTG) - PROTOCOL CHAIR SUPPORT	93.855		BRIGHAM AND WOMEN'S HOSPITAL	110236	\$9,465
TOWARDS ERADICATION: REDUCING PROVIRAL HIV DNA WITH INTERFERON-&INFIN; IMMUNOTHERAPY	93.855		WISTAR INSTITUTE	24971-06-324	\$9,787
MECHANISMS OF NEURONAL SPREAD OF NEUROTROPIC MOUSE HEPATITIS VIRUS	93.855	4-K08-AI-098503-05			\$9,858
CHROMOSOME TRANSLOCATION IN PRE B CELLS: THE ROLE OF AN ALTERNATE DNA STRUCTURE	93.855	1-R21-AI-097825-01			\$10,110
ARLG - EIS - TAMMA	93.855		DUKE CLINICAL RESEARCH INSTITUTE	2038787	\$10,136
FOXO1-DEPENDENT PROGRAMME IN THE CONTROL OF REGULATORY T CELL FUNCTION	93.855		MEMORIAL SLOAN-KETTERING CANCER CENTER	BD516327	\$10,632
STRUCTURE AND FUNCTION OF HIV-1 INTEGRASE	93.855		OHIO STATE UNIVERSITY	60050510	\$11,213
AIDS CLINICAL TRIAL GROUP (ACTG) - COMMITTEE MEMBERSHIP SUPPORT	93.855		BRIGHAM AND WOMEN'S HOSPITAL	108085	\$11,552
IDENTIFYING RARE SUBTYPES OF CD8 T-CELLS USING SINGLE CELL REACTORS	93.855	1-R21-AI-124057-01			\$12,642
DISRUPTING VECTOR-BORNE DISEASE TRANSMISSION IN COMPLEX URBAN ENVIRONMENTS	93.855	4-R01-AI-101229-04			\$13,361
RESIDENT MEMORY T CELLS IN LEISHMANIASIS	93.855	1-R01-AI-125265-01			\$17,098
CTOT-11 NOVEL THERAPIES TO IMPROVE RENAL AND CARDIAC ALLOGRAFT OUTCOMES	93.855		BRIGHAM AND WOMEN'S HOSPITAL	PS #105087 / CTOT-11	\$17,169
T CELL FUNCTIONALITY AND CONTROL OF HIV INFECTION	93.855	4-R01-AI-076066-09			\$17,668
CORONAVIRUS ANTAGONISM OF THE OAS-RNASE L PATHWAY	93.855	1-F32-AI-114143-01A1			\$18,298
URINARY INFECTIONS DUE TO ESCHERICHIA COLI WITH REDUCED QUINOLONE SUSCEPTIBILITY	93.855	1-R21-AI-103497-01A1			\$18,695
DARE: DELANEY AIDS RESEARCH ENTERPRISE TO FIND A CURE	93.855		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	8419SC	\$19,273
CLASS II PROCESSING AND PRESENTATION DURING SECONDARY RESPONSES TO INFLUENZA	93.855		CHILDREN'S HOSPITAL OF PHILADELPHIA	3210960000/PO#961957-RSUB	\$19,463
DIVERSITY OF CD4+ TH SUBSETS IN TB IMMUNITY: IMPACT OF HIV INFECTION	93.855		UNIVERSITY OF CAPE TOWN	SUB TO R21-AI-115977	\$21,328

The accompanying notes are an integral part of this schedule

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A FOXP3 COMPLEX THAT CONTROLS HUMAN REGULATORY T CELL FUNCTION	93.855		BENAROYA RESEARCH INSTITUTE	1-R56-AL-112323-01	\$21,475
MOLECULAR BASIS FOR ACTIVITY BY MEMBRANE BOUND O-ACYLTRANSFERASES	93.855	1-R21-AI-119892-01A1			\$22,139
ANTI IL-5 AND CHURG STRAUSS SYNDROME: A DOUBLE BLIND, PLACEBO CONTROLLED STUDY	93.855		NATIONAL JEWISH HEALTH	1-U01-AI-097073-01A1	\$22,980
CLASS II PROCESSING AND PRESENTATION DURING SECONDARY RESPONSES TO INFLUENZA	93.855		THOMAS JEFFERSON UNIVERSITY	080-03000-S16401	\$23,857
ANTIBACTERIAL RESISTANCE LEADERSHIP GROUP OR ALRG (PROJECT)	93.855		DUKE UNIVERSITY	203-9727	\$23,931
INNATE LYMPHOID CELL REGULATION OF METABOLIC HOMEOSTASIS	93.855	1-F30-AI-112023-01			\$24,696
INTERACTIONS OF EBOLA VIRUS GLYCOPROTEINS WITH HOST CELLS	93.855	1-R01-AI-081913-01A1			\$24,849
TREATMENT AS PREVENTION FOR INJECTION DRUG USERS: A PILOT STUDY FOR A NETWORK-BASED RANDOMIZED PREVENTION TRIAL	93.855		FAMILY HEALTH INTERNATIONAL	FCO 790/ID 0080.0224	\$25,358
ALTERNATIVE MHCII PROCESSING OF INFLUENZA VIRUS PROTEINS	93.855		CHILDREN'S HOSPITAL OF PHILADELPHIA	3210970000	\$25,976
ASTHMA, ANXIETY AND GR ABNORMALITIES IN NON-HUMAN PRIMATES	93.855		UNIVERSITY OF CALIFORNIA, DAVIS	201503774-01	\$26,055
RISK OF LIVER COMPLICATIONS WITH HBV AND HIV VIREMIA DURING TENOFOVIR-BASED ART	93.855	1-R21-AI-124868-01			\$26,865
CD8+ T CELL EFFECTOR TRANSCRIPTIONAL PROGRAMMING IN SIV INFECTION	93.855	1-R56-AI-106481-01			\$27,499
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	\$28,976
RAPID AND HIGHLY SENSITIVE INFLUENZA DETECTION WITH RNA FISH	93.855	1-F30-AI-114475-01A1			\$29,220
PROBING MECHANISMS OF REDUCED HIV RESERVOIRS IN AN INTERFERON-A CLINICAL TRIAL	93.855	1-R21-AI-106557-01A1			\$29,328
SINGLE MOLECULE FRET STUDY OF VIRAL PROGRAMMED RIBOSOMAL FRAMESHIFTING	93.855	1-F30-AI114187-01			\$29,728
DISCOVERY OF A NOVEL IMMUNE RESPONSE TO THE 5' LEADER OF HIV-1	93.855	1-F30-AI-112426-01			\$30,311
UNDERSTANDING THE ROLE OF IL-22 IN CUTANEOUS LEISHMANIASIS	93.855	1-F31-AI-114227-01			\$32,882
NATURAL TH17 CELLS IN ALLERGIC AIRWAY DISEASE	93.855	1-R21-AI-105046-01			\$34,230
BLOCKING IMMUNE EVASION AS A NOVEL IMMUNOTHERAPY FOR RECURRENT HSV-2 INFECTION	93.855	1-R21-AI-105959-01			\$37,602
NOVEL APPROACHES TO PROPAGATE MOLLUSCUM CONTAGIOSUM VIRUS IN CELL CULTURE	93.855	1-R21-AI-117100-01			\$38,015
CONCEPT WORKING GROUP	93.855		HUTCHINSON (FRED) CANCER RESEARCH CENTER	0000851168	\$38,588
CENTER FOR HIV/AIDS VACCINE IMMUNOLOGY AND IMMUNOGEN DISCOVERY	93.855		DUKE UNIVERSITY	2034081	\$39,530
A FOXP3 COMPLEX THAT CONTROLS HUMAN REGULATORY T CELL FUNCTION	93.855		BENAROYA RESEARCH INSTITUTE	0112701501	\$40,000
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	\$41,703
MOLECULAR EPIDEMIOLOGY AND NATURAL HISTORY OF SIVCPZ	93.855	7-R01-AI-058715-09			\$42,975
TREFOIL FACTORS REGULATE TH2 IMMUNITY	93.855	7-R01-AI-095289-07			\$43,035
DEVELOPMENT OF SMALL MOLECULE THERAPEUTICS AGAINST RNA VIRUSES	93.855		FOX CHASE CHEMICAL DIVERSITY CENTER	1R41AI113952-UPENN SUB TO NIH-STTR-1 R41AI104418- 01A1	\$44,493
POINT OF CARE DEVICE FOR MOLECULAR DETECTION OF HIV	93.855		AC DIAGNOSTICS, INC.		\$44,713
AUTOIMMUNE ENCEPHALOMYELITIS AND C-REL	93.855	4-R01-AI-050059-12			\$45,953
TRAINING IN HIV PATHOGENESIS	93.855	2-T32-AI-007632-11			\$46,707
EARLY T LINEAGE PROGENITORS	93.855	2-R56-AI-059621-11			\$48,081
AUTOIMMUNE ENCEPHALOMYELITIS AND REGULATORY T CELLS	93.855	4-R01-AI-099216-04			\$52,624
NOVEL MECHANISMS OF CALCIUM SIGNALING IN B LYMPHOCYTES	93.855	2-R01-AI-060921-06A1			\$52,868
MECHANISMS OF SYSTEMIC IGA INDUCTION BY COMMENSAL BACTERIA	93.855	1F32AI114089-01A1			\$53,334
DEFINING THE DETERMINANTS ON THE ALPHAVIRUS RECEPTOR NRAMP REQUIRED FOR VIRUS BINDING AND ENTRY	93.855	1-R21-AI-103441-01			\$57,927
THE ROLE OF MYELOID LINEAGE CELLS IN LEISHMANIASIS	93.855	1-F32-AI-114080-01			\$59,599
IMMUNE-BASED DETECTION OF RIFAMPICIN-RESISTANCE IN HIV/TB	93.855	1-R21-AI-108436-01			\$60,538
EVOLUTION OF CRYPTOCOCCUS NEOFORMANS STRAINS FROM PATIENTS WITH HIV/AIDS	93.855		DUKE UNIVERSITY	203-1433	\$63,879
MODELING AND CORRECTING HUMAN SCID USING PATIENT-DERIVED IPS CELLS	93.855		CHILDREN'S HOSPITAL BOSTON	88725 / PO #0000477740	\$64,000
MOLECULAR BIOLOGY OF CORONAVIRUS INDUCED DEMYELINATION	93.855	2-R01-AI-060021-19A1			\$64,618
MECHANISMS OF INFLAMMASOME INHIBITION BY SALMONELLA	93.855	1-R21-AI-105346-01			\$65,010
THE EPIDEMIOLOGY OF CARBAPENEM-RESISTANT KLEBSIELLA PNEUMONIAE IN LONG-TERM ACUTE CARE HOSPITALS (LTACHS)	93.855		DUKE CLINICAL RESEARCH INSTITUTE	203-8691	\$66,998
GENE TRANSFER FOR SCID-X1 USING SELF-INACTIVATING GAMMARETROVIRAL VECTOR	93.855		CHILDREN'S HOSPITAL BOSTON	0000369947	\$70,410
ASSOCIATION BETWEEN VIRAL HEPATITIS INFECTION AND LOW MUSCLE MASS AMONG HIV-POSITIVE INDIVIDUALS	93.855	1-F32-AI-120363-01			\$71,352
BIOLOGY OF DECAY ACCELERATING FACTOR	93.855	2-R01-AI-044970-11			\$71,919
A-WISH - GRADUAL WITHDRAWAL OF IMMUNE SYSTEM SUPPRESSING DRUGS IN PATIENTS RECEIVING A LIVER TRANSPLANT	93.855		BENAROYA RESEARCH INSTITUTE	1-UM-1AL-109565-01	\$72,732
LEUKOCYTE ACTIVATION AND MIGRATION IN AUTOIMMUNE ENCEPHALOMYELITIS	93.855	1-R01-AI-121166-01			\$75,781
INNATE IMMUNE REGULATION OF INTRACELLULAR PATHWAYS INVOLVED IN FILOVIRUS BUDDING	93.855	1-R21-AI-103785-01A1			\$76,105

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ROLE OF BETA-ARRESTIN-2 ON IGE-MEDIATED COFILIN DEPHOSPHORYLATION AND MAST CELL ACTIVATION	93.855	1-R21-AI-115688-01A1			\$76,759
CONSORTIUM FOR AIDS VACCINE RESEARCH IN NONHUMAN PRIMATES - CORE D: VIROLOGY CORE	93.855		BETH ISRAEL MEDICAL CENTER	01025093-CORED	\$78,790
CENTER FOR HIV/AIDS VACCINE IMMUNOLOGY (CHAVI)-ID	93.855		DUKE UNIVERSITY	5-UM1-AI-100645-04	\$85,603
TOWARDS ERADICATION: REDUCING PROVIRAL HIV DNA WITH INTERFERON-OL IMMUNOTHERAPY	93.855		WISTAR INSTITUTE	SUB TO 1-U01-AI-110434-01	\$86,807
AIDS CLINICAL TRIALS GROUP (ACTG) - EOY - ANTI TB AGENTS	93.855		BRIGHAM AND WOMEN'S HOSPITAL	2UM1AI068636	\$89,768
STUDIES OF NATURAL SIV INFECTION OF SOOTY MANGABEYS	93.855		EMORY UNIVERSITY	S648454	\$89,863
IMMUNE ACTIVATION AND ISONIAZID METABOLISM IN HIV TB	93.855	1-R21-AI-104441-01			\$90,880
DEFINING HUMAN NONCANONICAL INFLAMMASOME RESPONSES TO LEGIONELLA PNEUMOPHILA	93.855	1-R01-AI-123243-01			\$94,615
FULLY-INTEGRATED, NON-INSTRUMENTED DEVICE FOR MOLECULAR DIAGNOSTICS	93.855	1-K25-AI-099160-01A1			\$96,813
TRANSMITTED/FOUNDER HCV CLONES AS TARGETS FOR TREATMENT AND ERADICATION.	93.855	1-R21-AI-106000-01			\$99,144
TARGETING 5' LEADER-ENCODED DEFECTIVE RIBOSOMAL PRODUCTS FOR HIV T CELL VACCINES	93.855	1-R01-AI-118549-01A1			\$113,170
(CORE) SYNERGIES AMONG INHIBITORY RECEPTORS IN TOLERANCE CANCER AND ANTIVIRAL IMMUNITY	93.855		UNIVERSITY OF PITTSBURGH	9011702 (126206-1)	\$114,447
INTEGRATED MULTI-SCALE ADHESIVE DYNAMICS MODELING OF T-LYMPHOCYTE HOMING	93.855	4-R01-AI-082292-06			\$114,802
MECHANISMS OF NEURONAL SPREAD OF NEUROTROPIC MOUSE HEPATITIS VIRUS	93.855	1-K08-AI-098503-01A1			\$117,255
TRAF6 AND THE FATE OF CD8 T CELLS	93.855	2-R01-AI-064909-06A1			\$127,279
CARBAPENEM-RESISTANT KLEBSIELLA PNEUMONIAE IN LONG-TERM ACUTE CARE HOSPITALS	93.855	1-K01-AI-103028-01A1			\$127,675
FAVORED SITES FOR HIV CDNA INTEGRATION IN THE HUMAN GENOME	93.855	4-R01-AI-052845-15			\$130,178
HUMAN MAST CELL-SPECIFIC MAS-RELATED GENE-X2 (MRGX2) IN ANAPHYLAXIS AND ASTHMA	93.855	1-R21-AI-108585-01A1			\$134,437
SUPER-ENHANCER STRUCTURE DEFINES A SIGNATURE OF INFLAMMATORY BOWEL DISEASE (IBD)	93.855	1-K22-AI-112570-01			\$135,772
VMD-PHD TRAINING IN INFECTIOUS DISEASE-RELATED RESEARCH	93.855	2-T32-AI-070077-06			\$136,009
THE DEVELOPMENT AND FUNCTION OF CD8+ INNATE-LIKE LYMPHOCYTES	93.855	1-K08-AI-101008-01			\$140,989
DETERMINATION OF EXHALED BIOMARKERS FOR LOW-COST DIAGNOSIS AND MONITORING OF TB	93.855	1-R21-AI-105611-01A1			\$146,130
STUDIES OF THE PRECURSOR OF THE HUMAN AIDS VIRUS IN ITS NATURAL CHIMPANZEE HOST	93.855	1-R01-AI-120810-01A1			\$149,809
HVTN PROTOCOL FUNDING (PF)	93.855		HUTCHINSON (FRED) CANCER RESEARCH CENTER	0000853385	\$150,770
ANTIVIRAL IMMUNITY IN THE GUT: HOW THE INTESTINAL EPITHELIUM AND MICROBIOTA REGULATE INFECTION	93.855	1-R01-AI-122749-01			\$152,513
ACETATE METABOLISM IN HUMAN CYTOMEGALOVIRUS INFECTION.	93.855	1-R21-AI-105679-01			\$153,882
ROLE OF CASPASE-8 IN YERSINIA VIRULENCE AND HOST DEFENSE	93.855	1-R21-AI-109267-01			\$155,164
TRAF6 AND THE FATE OF CD8 T CELLS	93.855	4-R01-AI-064909-09			\$159,996
THIOL-BASED SWITCHES IN VIBRIO CHOLERAEE PATHOGENESIS	93.855	1-R21-AI-109316-01A1			\$164,640
FOXP TRANSCRIPTION FACTORS IN REGULATORY T CELL DEVELOPMENT AND HOMEOSTASIS	93.855	1-R56-AI-108786-01			\$165,039
CONTROL OF CORONAVIRUS PATHOGENESIS BY ANTAGONISM OF RNASE L	93.855	1-R21-AI-114920-01A1			\$165,223
HVTN 703 SITE READINESS	93.855		HUTCHINSON (FRED) CANCER RESEARCH CENTER	0000841667	\$167,886
METABOLIC CONTROL OF TISSUE SPECIFIC MACROPHAGE DIFFERENTIATION	93.855	7-K08-AI-106953-03			\$168,142
HARNESSING TYPE 1 IFN-STIMULATED ANTIVIRAL MECHANISMS FOR HIV VACCINE DESIGN	93.855	1-R01-AI-111789-01			\$169,254
EPIGENETIC CONTROL OF PLASMA CELL DIFFERENTIATION	93.855	1-R21-AI-116317-01			\$170,621
IMMUNE SYSTEM DEVELOPMENT AND REGULATION	93.855	2-T32-AI-055428-11A1			\$176,773
TRAINING IN VIROLOGY	93.855	2-T32-AI-007324-21A1			\$177,108
PHYLOGEOGRAPHIC DYNAMICS OF A VECTOR AND PATHOGEN IN A NATURAL ENVIRONMENT	93.855	1-R01-AI-097137-01			\$179,327
TRAINING IN EMERGING INFECTIOUS DISEASES	93.855	2-T32-AI-055400-11			\$180,274
AN EX VIVO MODEL TO PREDICT OUTCOMES AND PROBE MECHANISM OF ANTI-RESERVOIR AGENTS	93.855	1-R21-AI-116216-01			\$181,722
ROLE OF APOBEC3 IN IN VIVO RESTRICTION OF RETROVIRUS INFECTION	93.855	2-R01-AI-085015-06A1			\$185,549
SIGNALS AFFECTING HOMESTASIS AND TOLERANCE IN MEMORY T CELLS	93.855	1-R01-AI-085160-01			\$186,424
CONTROL OF PLASMA CELL LONGEVITY BY THE IRE1 PATHWAY	93.855	1-R21-AI-115710-01			\$188,594
VIBRIO CHOLERAEE-HOST INTERACTION AT THE INTESTINAL INTERFACE	93.855	1-R01-AI-080654-01A2			\$191,754
FAVORED SITES FOR HIV CDNA INTEGRATION IN THE HUMAN GENOME	93.855	2-R01-AI-052845-12			\$192,432
EFFECTS OF AGING ON THE T FOLLICULAR HELPER RESPONSE TO INFLUENZA VACCINE	93.855	1-K08-AI-114852-01			\$193,641
IL-10 PRODUCING NEUTROPHILS DURING RESPIRATORY VIRUS INFECTION	93.855	1-R21-AI-109472-01A1			\$198,478
REGULATION OF PROTECTIVE IMMUNITY FOLLOWING ENTERIC VIRAL INFECTION	93.855		CORNELL UNIVERSITY	SUB TO U01AI095608	\$198,785
RESIDENT MEMORY T CELLS IN LEISHMANIASIS	93.855	1-R21-AI-110869-01			\$201,601
CONTROL OF B CELL DEVELOPMENT BY YY1	93.855	2-R01-AI-079002-06			\$202,321
MYELOID-LINEAGE CELLS AND IMMUNOPATHOLOGY IN LEISHMANIA BRAZILIENSIS	93.855	1-U01-AI-088650-01			\$202,600

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SEPARATION OF GVHD AND GVT EFFECTS BY A TCR SIGNALING MUTATION	93.855	1-R21-AI-117282-01			\$203,157
INTERACTION BETWEEN MICROBIOTA AND DENDRITIC CELLS IN MUCOSAL TOLERANCE	93.855	1-R21-AI-108627-01A1			\$203,779
TOWARDS ERADICATION: REDUCING PROVIRAL HIV DNA WITH INTERFERON-A IMMUNOTHERAPY	93.855		WISTAR INSTITUTE	24971-04-324	\$206,432
UNCOVERING THE REGULATORY ROLE OF GH/GL IN HSV FUSION	93.855	2-R01-AI-056045-06			\$208,617
CLONING, CHARACTERIZATION AND IN VIVO TESTING OF MUCOSALLY TRANSMITTED SIV	93.855	7-R21-AI-087383-03			\$212,482
REVERSAL OF IMMUNE FAILURE WITH VIRAL ANTIGEN REMOVAL IN CHRONIC HCV INFECTION, PROJECT 2	93.855		MASSACHUSETTS GENERAL HOSPITAL	224470	\$212,837
PARASITOLOGY: MODERN APPROACHES	93.855	5T32AI007532-17			\$220,563
PHYLOGEOGRAPHIC DYNAMICS OF A VECTOR AND PATHOGEN IN A NATURAL ENVIRONMENT	93.855	4-R01-AI-097137-05			\$223,866
T CELL FUNCTIONALITY AND CONTROL OF HIV INFECTION	93.855	2-R01-AI-076066-06A1			\$226,543
A STRATEGY FOR POINT-OF-CARE MOLECULAR DETECTION OF PARASITIC HELMINTH INFECTIONS	93.855	1-R21-AI-112713-01			\$233,325
MICROBIAL PATHOGENESIS AND GENOMICS	93.855	2-T32-AI-060516-06			\$235,195
IL-27 AND TREG CELLS	93.855	1-R01-AI-110201-01			\$239,195
VIRAL AND IMMUNE DYNAMICS OF REBOUND VIREMIA AFTER VRC01 ADMINISTRATION	93.855	1-R21-AI-118431-01			\$242,092
MECHANISMS AND IMMUNOLOGICAL CONSEQUENCES OF HOST-VIRUS INTERACTIONS	93.855		HARVARD MEDICAL SCHOOL	152384.5077707.0006	\$245,479
INFECTIOUS DISEASES CLINICAL EPIDEMIOLOGY TRAINING PROGRAM	93.855	2-T32-AI-055435-11A1			\$248,767
THE ROLE OF INNATE CELLS IN THE PATHOGENESIS OF LEISHMANIA BRAZILIENSIS INFECTION	93.855	2-U01-AI-088650-06			\$257,464
THE ROLE OF AUTOPHAGY IN INNATE ANTI-VIRAL IMMUNITY IN DROSOPHILA	93.855	2-R01-AI0-74951-06A1			\$274,357
DONOR ORGAN-SPECIFIC EXOSOME PLATFORM FOR MONITORING TRANSPLANT ORGAN REJECTION	93.855	1-R21-AI-111010-01			\$275,469
INNATE IMMUNE-MEDIATED CONTROL OF PULMONARY LEGIONELLA PNEUMOPHILA INFECTION	93.855	1-R01-AI-118861-01A1			\$275,573
DEFINING THE ROLE OF MICRORNAS IN CD8 T CELL EXHAUSTION	93.855	1-R21-AI-117718-01			\$277,589
CONTROL OF VIRAL PATHOGENESIS BY REGULATION OF 2-5A LEVELS	93.855	4-R01-AI-104887-04			\$278,142
THE REL GENE AND HUMAN AUTOIMMUNE DISEASES	93.855	1-R21-AI-113220-01A1			\$282,098
CD4+ T AND B CELL MECHANISMS OF INFLUENZA VACCINE	93.855		CASE WESTERN RESERVE UNIVERSITY	RES508678	\$284,395
FUNCTIONS OF HSV GLYCOPROTEINS IN VIRUS ENTRY AND THE HUMORAL IMMUNE RESPONSE	93.855	2-R01-AI-018289-34			\$286,584
TRIM2, A NOVEL HOST FACTOR THAT RESTRICTS NEW WORLD ARENAVIRUS INFECTION	93.855	1R21-AI-112696-01			\$300,531
CENTER FOR HIV/AIDS VACCINE IMMUNOLOGY AND IMMUNOGEN DISCOVERY SUPPLEMENT (UM1AI100663)	93.855		SCRIPPS RESEARCH INSTITUTE	SUB TO 5UMAI100663-04	\$301,655
THE ROLE OF AUTOPHAGY IN INNATE ANTI-VIRAL IMMUNITY IN DROSOPHILA	93.855	4-R01-AI0-74951-09			\$302,981
GP340 AND SYNDECAN INHIBITION BASED MICROBICIDE FOR HIV	93.855	1-R21-AI-082701-01			\$309,694
NATURAL SIV RESERVOIRS AND HUMAN ZOONOTIC RISK	93.855	4-R37-AI-050529-13			\$311,302
AIDS CLINICAL TRIALS GROUP; PROTOCOL FUNDS (COST REIMBURSEMENT)	93.855		BRIGHAM AND WOMEN'S HOSPITAL	SUB TO UM1 AI068636/111674	\$318,648
REVERSAL OF IMMUNE FAILURE WITH VIRAL ANTIGEN REMOVAL IN CHRONIC HCV INFECTION, PROJECT 3	93.855		MASSACHUSETTS GENERAL HOSPITAL	224471	\$328,515
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	\$339,004
MECHANISMS AND TREATMENT OF CHRONIC, LATENT HUMAN STRONGYLOIDIASIS	93.855	1-R21-AI-105856-01			\$344,622
HARNESSING INFLAMMASOME ACTIVATION TO ENHANCE EFFICACY OF SALMONELLA VACCINES	93.855	1-R21-AI-117365-01			\$345,305
DEVELOPMENT OF SMALL MOLECULE THERAPEUTICS AGAINST SMALLPOX AND OTHER POXVIRUSES	93.855		FOX CHASE CHEMICAL DIVERSITY CENTER	SUB TO 1R44AI115759-01	\$345,754
TRAINING IN HIV PATHOGENESIS	93.855	2-T32-AI-007632-16			\$349,096
IMMUNOPATHOGENESIS OF TOXOPLASMIC ENCEPHALITIS	93.855	2-R01-AI-041158-15			\$355,692
VIRAL MODULATION OF EPIGENETIC MECHANISMS	93.855	1-R01-AI-118891-01			\$363,549
AIDS CLINICAL TRIALS GROUP; PROTOCOL FUNDS	93.855		BRIGHAM AND WOMEN'S HOSPITAL	SUB TO UM1AI068636/FUND 110215	\$363,700
AUTOIMMUNE ENCEPHALOMYELITIS AND C-REL	93.855	2-R01-AI-050059-08A1			\$367,840
INTEGRATED MULTI-SCALE ADHESIVE DYNAMICS MODELING OF T-LYMPHOCYTE HOMING	93.855	2-R01-AI-082292-03A1			\$367,869
PENILE TRANSMISSION AND NEUTRALIZATION OF PATHOGENIC SIVSMM	93.855	7-R01-AI-094604-02			\$372,303
ORIGINS OF SERUM IGA ANTIBODIES	93.855	1-R01-AI-113543-01			\$374,389
NOTCH REGULATION OF HEMATOPOIC CELL FATES	93.855	2-R01-AI-047833-11A1			\$374,889
LONG-LIVED CD19-POSITIVE PLASMA CELLS	93.855	1-R01-AI-097590-01A1			\$375,389
NATURAL SIV RESERVOIRS AND HUMAN ZOONOTIC RISK	93.855	4-R37-AI-050529-12			\$385,559
INSULIN-LIKE SIGNALING IN PARASITIC NEMATODE DEVELOPMENT	93.855	2-R01-AI-050668-09A1			\$387,197
DISRUPTING VECTOR-BORNE DISEASE TRANSMISSION IN COMPLEX URBAN ENVIRONMENTS	93.855	1-R01-AI-101229-01A1			\$390,449
A NOVEL VIRUS-DERIVED ADJUVANT	93.855	2-R01-AI-083284-06			\$391,014
DISSECTING THE ALPHAVIRUS ENTRY RECEPTOR NRAMP	93.855	1-R01-AI-095500-01A1			\$400,625
HOST-ORIENTED THERAPEUTICS TARGETING FILOVIRUS BUDDING	93.855	4-R33-AI-102104-01			\$403,349
RAPID IMMUNE RESTORATION AND LUNG INJURY IN HIV/TB	93.855	1-R01-AI-120821-01			\$412,392

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STRUCTURAL ANALYSIS OF THE THIRD COMPONENT OF COMPLEMENT	93.855	2-R01-AI-030040-16			\$426,501
HSV-2 IMMUNE EVASION AS A VIRULENCE FACTOR	93.855	1-R01-AI-104854-01A1			\$427,552
DEVELOPMENT OF A NOVEL ADJUVANT FOR VACCINE SPARRING	93.855		NEW YORK BLOOD CENTER	SUB TO 1R01-AI105431-01	\$434,023
(PROJECT) SYNERGIES AMONG INHIBITORY RECEPTORS IN TOLERANCE CANCER AND ANTIVIRAL IMMUNITY	93.855		UNIVERSITY OF PITTSBURGH	9011707 (126211-1)	\$435,695
PROTECTIVE AND PATHOLOGIC ROLES FOR CD8+ T CELLS IN LEISHMANIASIS	93.855	1-R01-AI-106842-01A1			\$456,552
AUTOIMMUNE ENCEPHALOMYELITIS AND REGULATORY T CELLS	93.855	1-R01-AI-099216-01A1			\$456,918
MASSIVELY PARALLEL ANALYSIS OF INTEGRATION IN THERAPEUTIC GENE TRANSFER	93.855	2R01AI082020-05A1			\$462,405
TARGETING THE PERSISTENT HIV-1 VIRAL RESERVOIR USING ENGINEERED T CELLS	93.855	4-R33-AI-104280-03			\$466,031
PATHOGENESIS AND THERAPY OF DENSE DEPOSIT DISEASE IN A MOUSE MODEL	93.855	2-R01-AI-085596-05A1			\$474,206
COMPLEMENT DYSREGULATION AND ATYPICAL HEMOLYTIC UREMIC SYNDROME	93.855	1-R01-AI-117410-01			\$496,531
PHASE II: KL4 SURFACTANT TO MITIGATE RADIATION INDUCED LUNG INJURY	93.855		WINDTREE THERAPEUTICS, INC.	SUB TO 2-R44-A1-102308-03	\$527,114
A FAST ASSAY TO QUANTIFY HIV RESERVOIRS	93.855	1-R01-AI-120011-01			\$528,391
MODULATION OF INFLAMMASOME ACTIVATION BY YERSINIA	93.855	1-R01-AI-103062-01			\$554,730
VIRAL CONTROL MECHANISMS OF HIV-SPECIFIC T CELLS IN HIV-INFECTED LYMPH NODE	93.855	1-R01-AI-118694-01A1			\$566,320
CELLULAR AND TRANSCRIPTIONAL CONTROL OF EXHAUSTED CD8 T CELLS LINEAGE DYNAMICS	93.855	1-R01-AI-105343-01A1			\$566,926
DYNAMICS OF TB AND MDR TB TRANSMISSION IN AREAS WITH HIGH HIV PREVALENCE	93.855	1-R01-AI-097045-01			\$586,752
HVTN PROTOCOL FUNDING	93.855		HUTCHINSON (FRED) CANCER RESEARCH CENTER	0000852931	\$610,726
CONTROL OF VIRAL PATHOGENESIS BY REGULATION OF 2-5A LEVELS	93.855	1-R01-AI-104887-01			\$611,232
GREAT APE RESERVOIRS OF HUMAN MALARIA	93.855	2-R01-AI-091595-04A1			\$646,961
RESTRICTION OF HIV-1 TRANSMISSION BY TYPE 1 INTERFERONS	93.855	1-R01-AI-114266-01			\$657,492
NON-CD4 TROPIC SIV: ENHANCING CD4 T-CELL HELP IN ANTIVIRAL IMMUNE RESPONSES	93.855	1-R01-AI-112456-01			\$707,011
TARGETING BLYS/BAFF IN NON-HUMAN PRIMATE ISLET TRANSPLANTATION	93.855	1-U01-AI-102430-01			\$722,036
MECHANISTIC STUDIES OF BLYS-MEDIATED MODULATION IN HIV-1 ENV-SPECIFIC ANTIBODY RESPONSES	93.855	1-R01-AI-118691-01			\$813,814
PATHOGENIC DETERMINANTS OF THE SIV ENVELOPE TRANSMEMBRANE CYTOPLASMIC DOMAIN	93.855	2-R01-AI-074362-04			\$846,948
PHILADELPHIA HIV THERAPEUTICS AND PREVENTION CLINICAL TRIALS UNIT	93.855	2-UM1-AI-069534-08			\$1,310,590
SYNTHETIC DNA & NOVEL ENV VACCINE FOR HIV	93.855	1-U19-AI-109646-01A1			\$1,657,247
RECONSTRUCTING BERLIN:ROLE OF CO-RECEPTOR MODIFIED CELLS IN HIV AND SIV INFECTION	93.855	1-R01-AI-104400-01			\$1,669,668
NOVEL SIVSMM STRAINS FOR ANALYSIS OF MUCOSAL TRANSMISSION AND VACCINE PROTECTION	93.855	7-P01-AI-088564-03			\$1,967,172
COMPLEMENT IN INFLAMMATORY DISEASES: MECHANISMS & THERAPEUTIC MODULATION	93.855	2-P01-AI-068730-06			\$2,020,158
ENGINEERING T CELLS TO PROVIDE DURABLE CONTROL OF HIV-1 REPLICATION	93.855	1-U19-AI-117950-01			\$2,508,997
CENTER FOR AIDS RESEARCH	93.855	2-P30-AI-045008-16			\$2,676,769
IMPROVING THE CLINICAL UTILITY OF BIOPHYSICAL DOSIMETRY	93.856		DARTMOUTH COLLEGE	SUB TO U19-AI-091173	-\$2
THE EUKARYOTIC PATHOGEN BIOINFORMATICS RESOURCE CENTER (EUPATHDB) (CORE)	93.856	HHSN272201400030C			\$4,230,289
NATURAL ENGINEERING OF MULTI-ELECTRON BIOLOGICAL OXIDATION & REDUCTION	93.859	2-R01-GM-041048-22			-\$1,604
PREDOCTORAL TRAINING PROGRAM IN GENETICS	93.859	2-T32-GM-008216-23			-\$331
MECHANISMS OF CYTOKINESIS IN YEAST	93.859	1-R01-GM-087365-01A2			-\$101
CYTOSKELETAL MECHANISMS OF ENDOCYTOSIS	93.859	4-R01-GM-095977-04			\$480
STRUCTURE-BASED DESIGN OF XE-129 NMR BIOSENSORS FOR MULTIPLEXED CANCER DETECTION	93.859	1-R01-GM-097478-01A1			\$1,885
BACTERIAL CYTOCHROME BC1: STRUCTURE, FUNCTION, BIOGENESIS	93.859	2-R01-GM-038237-23A1			\$2,276
REGULATION OF CALCIUM-ACTIVATED POTASSIUM CHANNELS BY LIPID MESSENGERS	93.859	2-R01-GM-057654-14			\$7,492
ULTRAFAST PROCESSES IN PROTEINS AND OTHER ASSEMBLIES	93.859	2-R01-GM-012592-46A1			\$10,623
STRUCTURAL BIOCHEMISTRY OF PARP-1	93.859		THOMAS JEFFERSON UNIVERSITY	080-02000-S01201	\$12,707
EXPLORING RESPIRATORY CHAIN GLYCOPROTEOMICS IN MITOCHONDRIAL DISEASE	93.859		CHILDREN'S HOSPITAL OF PHILADELPHIA	ACTIVITY 3210930818	\$13,351
MECHANISMS OF SIGNAL-RESPONSIVE ALTERNATIVE SPLICING IN T-CELL ACTIVATION	93.859	1-F31-GM-103255-01			\$14,288
UNDERSTANDING WNT SIGNALING THROUGH ROR AND RYK FAMILY RECEPTOR TYROSINE KINASES	93.859		YALE UNIVERSITY	M16A12424 (A10630)	\$15,237
MECHANISMS FOR REDUCED MACROPHAGE MOTILITY AFTER PRO-INFLAMMATORY ACTIVATION	93.859	1-F32-GM-110961-01A1			\$16,328
COMPUTATIONAL GENOME-WIDE RNA PROFILING USING NEXT-GENERATION SEQUENCING	93.859	4-R01-GM-099962-05			\$20,671
NON-ORGANOMETALLIC PARTNERS AS RADICAL PRECURSORS FOR THE DIVERSIFICATION OF DUAL					
CATALYTIC CROSS-COUPLING PROCESSES	93.859	1-F32-GM-117634-01			\$20,792
COSTIMULATORY LIGAND MOBILITY EFFECTS ON T CELL ACTIVATION	93.859		CHILDREN'S HOSPITAL OF PHILADELPHIA	321004 / PO #960802RSUB	\$21,065
BIOLOGICAL SUPER-RESOLUTION IMAGING USING HIGH-INDEX MICROSPHERES FOR CANCER RESEARCH					
APPLICATION	93.859		SPHEREVIS, LLC	SUB TO R41GM117844	\$22,927
COMPETITION AND MORPHOGENESIS IN TIP CELL-MEDIATED BRANCHING OF TUBULAR NETWORKS	93.859	1-R01-GM-089782-01A1			\$23,079
CHARGE-TRANSFER DYNAMICS RELEVANT TO PROTEIN-MEDIATED ENERGY TRANSDUCTION	93.859		DUKE UNIVERSITY	12-NIH-1016	\$27,146

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EGFR IN A STICKY SITUATION: PROBING STRUCTURAL TRANSITIONS IN DIMERIZED RECEPTORS	93.859	1-F32-GM-109688-01			\$27,969
NEURON SPECIFIC ENOLASE AND OUTCOMES IN SEVERE SEPSIS	93.859	1-F32-GM-116637-01			\$28,556
MOLECULAR MECHANISMS OF PROTEIN ARGINYLATION	93.859	4-R01-GM-104003-04			\$29,161
AN ORDERLY APPROACH TO TOXIC MECHANISM BY DISORDERLY PEPTIDES	93.859		YALE UNIVERSITY	C16A12268(A08906)	\$29,280
MOLECULAR MECHANISMS OF MITOCHONDRIAL DNA DELETION FORMATION	93.859		UNIVERSITY OF PITTSBURGH	0047527 (125989-2)	\$29,322
MOLECULAR MECHANISMS AND SIGNAL-INDUCED REGULATION OF ALTERNATIVE SPLICING	93.859	1-R35-GM-118048-01			\$30,967
INTERACTION OF INHALED ANESTHETICS WITH MACROMOLECULES	93.859	4-P01-GM-055876-17			\$32,457
THE POPULATION GENETICS OF DIVERGENCE	93.859		TEMPLE UNIVERSITY	360959-13120-02	\$33,515
FOSTERING DIVERSITY IN BIOSTATISTICS WORKSHOP	93.859	2-R13-GM-075338-05			\$33,729
SINGLE MOLECULE DYNAMICS OF MRNA TRANSLATION	93.859	4-R01-GM-080376-08			\$33,795
SITE-RESOLVED HYDRATION DYNAMICS OF PDZ DOMAINS	93.859	1-F31-GM-116520-01			\$37,787
MECHANISM OF CHROMATIN ACCESSIBILITY MEDIATED BY PIONEER TRANSCRIPTION FACTORS	93.859	1-F31-GM-112417-01A1			\$38,460
REGULATION OF MEIOSIS IN MICE	93.859	1-R35-GM-118052-01			\$38,861
ROLE OF THE ESRP'S IN PLURIPOTENT STEM CELL BIOLOGY	93.859	1-F32-GM-109630-01A1			\$39,197
ANALYSIS TOOLS AND SOFTWARE FOR SECOND GENERATION SEQUENCING DATA	93.859		DANA-FARBER CANCER INSTITUTE	1228005	\$41,172
MECHANISMS OF BALBIANI BODY-GENERATED EARLY OOCYTE POLARITY IN ZEBRAFISH	93.859	1-F31-GM-115066-01			\$42,563
BMP MORPHOGEN GRADIENT SPATIOTEMPORAL MODULATION BY METALLOPROTEASE ACTIVITY	93.859	1-F31-GM-113362-01			\$43,310
INVESTIGATING A MECHANISM FOR LOSS OF COMPETENCE DURING EMBRYONIC DEVELOPMENT	93.859	1-F31-GM-116588-01			\$43,362
GWAS USING INTEGRATED CNV AND SNP INFORMATION	93.859	1-R01-GM-088566-01A1			\$46,859
ALTERNATIVE MACROPHAGE ACTIVATION LIMITS IMMUNOPATHOLOGY	93.859	7-R01-GM-083204-09			\$48,387
DNA DOUBLE STRAND BREAK CHROMATIN ALTERATIONS AND GENOME INTEGRITY	93.859	4-R01-GM-101149-04			\$50,088
EFFECTS OF TRANSLATIONAL PAUSING ELEMENTS ON THE RHYTHM OF PROTEIN SYNTHESIS	93.859	1-F32-GM110955-01A1			\$50,884
INVESTIGATING KA1 DOMAIN-MEDIATED REGULATION OF MARK/PAR1 KINASES	93.859	1-F32-GM-115098-01			\$53,017
INVESTIGATING THE REGULATION OF AURORA B LEVELS AT THE CENTROMERE	93.859	1-F32-GM-108360-01A1			\$54,754
PHYSICIAN POSTDOCTORAL RESEARCH TRAINING IN PERIOPERATIVE MEDICINE (PPRTPM)	93.859	1-T32-GM-112596-01			\$59,905
MECHANISMS GOVERNING CONTEXT-DEPENDENT WNT ACTIVITY IN C. ELEGANS EMBRYOGENESIS	93.859	1-K99-GM-111825-01			\$59,997
STEM CELL RENEWAL AND DIFFERENTIATION IN SPERMATOGENESIS	93.859	2-R01-GM-060804-17			\$69,196
COMPUTATIONAL METHODS FOR SELECTIVE CATALYSIS	93.859	2-R01-GM087605-04A1			\$72,901
MOLECULAR ANALYSIS OF METHYLATED P53	93.859		UNIVERSITY OF COLORADO	SUB TO 3 R01-GM101664	\$74,040
DYNAMICS & energetics of P38A KINASE REGULATION BY LIGANDS	93.859	4-R01-GM-100910-04			\$84,919
CYTOSKELETAL EFFECTS ON MITOCHONDRIAL DYNAMICS THROUGH THE ER-BOUND FORMIN INF2	93.859		DARTMOUTH COLLEGE	1261	\$93,984
HIGH-THROUGHPUT SCREENING AND STEM CELL MODELING OF CAUSAL EQTL VARIANTS	93.859	7-R01-GM-104464-04			\$94,641
NEURONAL BASIS UNDERLYING VOLATILE ANESTHETIC INDUCED HYPNOSIS	93.859	1-R01-GM-088156-01A1			\$102,946
HOST-MICROBIAL INTERACTIONS IN THE GUT OXYGEN EQUILIBRIUM	93.859	1-R01-GM-103591-01			\$103,841
ELECTROPHYSIOLOGY OF NUCLEAR MEMBRANE INSP3 RECEPTOR	93.859	4-R37-GM-056328-18			\$107,024
EXAMINING THE ROLE OF CBK1/NDK KINASE IN REGULATING MRNA LOCALIZATION	93.859	1-R01-GM-097327-01A1			\$109,237
MOLECULAR FUNCTION OF MYOSIN-I	93.859	2-R01-GM-057247-14			\$119,463
THE IMPACT OF VASOPRESSIN ON MITOCHONDRIAL DYSFUNCTION IN HEMORRHAGIC SHOCK	93.859	1-K08-GM-097614-01			\$123,434
SPECTROSCOPIC STUDY OF PROTEIN FOLDING DYNAMICS	93.859	2-R01-GM-065978-10			\$124,585
HOST-MICROBIAL INTERACTIONS IN THE GUT OXYGEN EQUILIBRIUM	93.859	4-R01-GM-103591-04			\$126,613
THE ROLE OF THE EXOCYST IN CELL MIGRATION	93.859	4-R01-GM-085146-09			\$129,764
RAS SIGNALING AND TUBULOGENESIS IN THE C. ELEGANS EXCRETORY (RENAL) SYSTEM	93.859	2-R01-GM-058540-14			\$129,901
REGULATION AND FUNCTION OF INTERMEDIATE FILAMENTS IN CELL MECHANICS	93.859		NORTHWESTERN UNIVERSITY	60029186UP	\$138,194
DEFINING THE STRUCTURAL AND MECHANISTIC BASIS OF A PRION DISAGGREGASE	93.859	1-R01-GM-099836-01A1			\$138,209
DUAL-ACTION VIROLYTIC ENTRY INHIBITORS AGAINST HIV-1	93.859		DREXEL UNIVERSITY	232511	\$139,222
DYNAMICS & energetics of P38A KINASE REGULATION BY LIGANDS	93.859	1-R01-GM-100910-01A1			\$158,978
ADAPTATION IN 6 DIMENSIONS	93.859		STANFORD UNIVERSITY	60078513-52304-A	\$170,141
SYNTHESIS OF BIOACTIVE NATURAL PRODUCTS	93.859	2-R01-GM-029028-28A1			\$176,497
MOLECULAR MECHANISMS OF ER LUMINAL [CA2+] MODULATION OF INSP3R CHANNEL ACTIVITY	93.859	1-R01-GM-114042-01A1			\$182,867
MITOCHONDRIA-CYTOPLASM INTERACTIONS FOR CYTOSOLIC FE-S CLUSTER ASSEMBLY	93.859		UNIVERSITY OF MEDICINE AND DENTISTRY OF NJ	8159	\$183,668
DEFINING THE STRUCTURAL AND MECHANISTIC BASIS OF A PRION DISAGGREGASE	93.859	4-R01-GM-099836-04			\$187,079
CATALYTIC OXIDATIVE FRAGMENT COUPLING REACTIONS	93.859	1-R01-GM-112684-01A1			\$188,756
SENSITIVITY ENHANCEMENT IN SOLUTION NMR THROUGH DYNAMIC NUCLEAR POLARIZATION	93.859	1-R21-GM-07829-01			\$192,381
RAS SIGNALING AND TUBULOGENESIS IN THE C. ELEGANS EXCRETORY (RENAL) SYSTEM	93.859	2-R01-GM-058540-01A1			\$193,190
SPATIAL CONTROL OF ACTIN ASSEMBLY BY PHOSPHOINOSITIDES	93.859	1-R01-GM-111942-01A1			\$194,005
OPTOANESTHESIA	93.859	1-R01-GM-107117-01A1			\$198,636
STRUCTURAL DYNAMICS OF ACTOMYOSIN MOTILITY	93.859	2-R01-GM-086352-32			\$199,625

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DNA DOUBLE STRAND BREAK CHROMATIN ALTERATIONS AND GENOME INTEGRITY	93.859	1-R01-GM-101149-01A1			\$202,810
STEM CELL RENEWAL AND DIFFERENTIATION IN SPERMATOGENESIS	93.859	2-R01-GM060804-13			\$205,202
FUNCTIONS OF TEX11 AND ITS ASSOCIATED PROTEINS IN MICE AND HUMANS	93.859	2-R01-GM-076327-05			\$208,974
SIGNALING BY GROWTH FACTOR RECEPTORS WITH INTRACELLULAR PSEUDOKINASE DOMAINS	93.859	1-R01-GM-099891-01			\$211,570
MOLECULAR FUNCTION OF MYOSIN-L	93.859	2-R01-GM-057247-18			\$216,602
STRUCTURAL DYNAMICS OF ACTOMYOSIN MOTILITY	93.859	4-R01-GM-086352-35			\$221,064
NOVEL SUBSTRATES OF THE TCR KINASE	93.859	4-R37-GM-053256-18			\$221,814
STRUCTURE DETERMINATION BY VIBRATIONAL SPECTROSCOPY	93.859	2-R01-GM-076201-08A1			\$223,810
CHROMATIN REGULATORY MECHANISMS IN EUKARYOTIC GAMETOGENESIS	93.859	2-R01-GM-055360-14A1			\$226,158
SINGLE MOLECULE DYNAMICS OF MRNA TRANSLATION	93.859	2-R01-GM-080376-05A1			\$232,713
EXAMINING THE ROLE OF CBK1/NDR KINASE IN REGULATING MRNA LOCALIZATION	93.859	4-R01-GM-097327-04			\$234,109
REGULATION OF NONCODING RNA BIOGENESIS AND FUNCTION	93.859	4-R00-GM-104166-02			\$236,130
PREDOCTORAL TRAINING AT THE CHEMISTRY-BIOLOGY INTERFACE	93.859	2-T32-GM-071339-11			\$239,066
REGULATION OF BACTERIAL TWO-COMPONENT SIGNALING BY SMALL MEMBRANE PROTEINS	93.859	2-R01-GM-080279-05A1			\$250,509
REGULATION OF MEIOTIC RECOMBINATION IN MICE	93.859	2-R01-GM-089893-05			\$250,737
NON-PARAMETRIC BAYESIAN METHODS FOR CAUSAL INFERENCE	93.859	1-R01-GM-112327-01			\$251,951
TRANS-ACTING FACTORS CAUSING CELL SPECIFIC GENE CONTROL	93.859	2-R01-GM-036477-33			\$255,222
THE ROLE OF YY1 IN CONSTITUTIVE AND INDUCIBLE DNA LOOP FORMATION	93.859	1-R01-GM-111384-01			\$256,641
EVOLUTIONARY AND FUNCTIONAL DIVERSIFICATION OF CHROMATIN PROTEINS	93.859	4-R00-GM-107351-03			\$261,128
ENGAGEMENT OF HETEROTRIMERIC G PROTEINS BY SONIC HEDGEHOG	93.859	2-R01-GM-080396-05A1			\$264,490
MECHANISMS OF SIGNAL-INDUCED ALTERNATIVE SPLICING: CD45	93.859	2-R01-GM-067719-10			\$268,540
MECHANISMS AND CONSEQUENCES OF CELF2 REGULATION IN T CELL DEVELOPMENT	93.859	1-R01-GM-103383-01			\$268,694
FLUCTUATIONS AND ENTROPY IN THE ENERGETICS AND FUNCTION OF PROTEIN COMPLEXES	93.859	1-R01-GM-102447-01			\$274,471
MECHANISMS OF SPINDLE FORMATION	93.859	1-R01-GM-102215-01			\$274,494
BASIS FOR GENOTOXIC STRESS RELIEF BY ATP-DEPENDENT CHROMATIN REMODELERS	93.859	1-R01-GM-115888-01			\$275,608
NOVEL BORAZINES: SYNTHESIS AND ELABORATION	93.859	1-R01-GM-111465-01A1			\$277,647
DORSAL-VENTRAL PATTERN FORMATION IN THE ZEBRAFISH EMBRYO	93.859	2-R01-GM-056326-14			\$282,106
CLINICAL PHARMACOEPIDEMOLOGY TRAINING GRANT	93.859	2-T32-GM-075766-06			\$282,466
REGULATION OF CELL DIVISION BY MITOTIC KINASES	93.859	2-R01-GM-083988-06A1			\$282,491
UNDERSTANDING PROTEIN RADICALS	93.859	2-R01-GM-079190-06A1			\$284,541
STRUCTURAL BASIS OF ACTIN CYTOSKELETON DYNAMICS	93.859	2-R01-GM-073791-10			\$285,247
CG-GRID: COMPUTATIONAL GENETICS GRID RESOURCE FOR INTERACTION DISCOVERY	93.859		PARABON COMPUTATION, INC.	20150301-PCI-STTR-UPENN-051-001	\$286,959
STRUCTURE AND FUNCTION OF METALLOENZYMES	93.859	2-R01-GM-049758-20A1			\$292,517
THE DYNAMIC ASSOCIATION OF AURORA B WITH CENTROMERIC CHROMATIN	93.859	1-R01-GM-105654-01A1			\$292,586
PRIMORDIALLY CONSERVED PRINCIPLES GOVERNING MUCOSAL IMMUNE RESPONSES TO PATHOGENS AND MICROBIOTA	93.859	2-R01-GM-085207-05			\$292,946
PROTON PUMPING MECHANISM IN COMPLEX I	93.859	1-R01-GM-097409-01A1			\$295,410
STRUCTURE-BASED ANTAGONISM OF HIV-1 ENVELOPE FUNCTION IN CELL ENTRY	93.859		DREXEL UNIVERSITY	2-P01-GM-056550-17A1	\$295,890
SEQUENCES CONTROLLING H19 GENE IMPRINTING	93.859	2-R37-GM-051279-18			\$296,323
MECHANISMS OF CURVATURE SENSING AND GENERATION BY PERIPHERAL MEMBRANE PROTEINS	93.859	1-R01-GM-097552-01A1			\$297,284
COMPUTATIONAL GENOME-WIDE RNA PROFILING USING NEXT-GENERATION SEQUENCING	93.859	1-R01-GM-099962-01A1			\$303,082
MECHANISMS OF ANESTHESIA MEDIATED NEUROTOXICITY	93.859	2-R01-GM-084979-06A1			\$308,299
MOLECULAR REGULATION OF EXOCYTOSIS	93.859	1-R01-GM-111128-01			\$309,087
COMPETITION AND MORPHOGENESIS IN TIP CELL-MEDIATED BRANCHING OF TUBULAR NETWORKS	93.859	2-R01-GM-089782-06			\$314,883
RESPIRATORY COMPLEX III: SUPERCOMPLEXES AND ROS, FROM BACTERIA TO HUMAN	93.859	2-R01-GM-038237-27A1			\$315,674
THE ROLE OF THE EXOCYST IN CELL MIGRATION	93.859	2-R01-GM-085146-05			\$318,636
A NOVEL MECHANISTIC PARADIGM FOR CROSS-COUPLING	93.859	1-R01-GM-113878-01			\$322,586
CELL BIOLOGY OF MEIOTIC DRIVE IN MAMMALS	93.859	1-R01-GM-107086-01			\$323,293
TRANS-ACTING FACTORS CAUSING CELL-SPECIFIC GENE CONTROL	93.859	4-R37-GM-036477-28			\$326,685
STATISTICAL METHODS FOR NEXT-GENERATION SEQUENCE DATA	93.859	1-R01-GM-097505-01A1			\$331,025
PREDOCTORAL TRAINING PROGRAM IN GENETICS	93.859	2-T32-GM-008216-28			\$336,141
STRUCTURE AND FUNCTION OF BIOSYNTHETIC ENZYMES	93.859	2-R01-GM-056838-17			\$337,511
STRUCTURE-BASED DESIGN OF XE-129 NMR BIOSENSORS FOR MULTIPLEXED CANCER DETECTION	93.859	2-R01-GM-097478-05			\$337,539
PROTEIN STRUCTURE AND FUNCTION BY HYDROGEN EXCHANGE MASS SPECTROMETRY ANALYSIS	93.859	2-R01-GM031847			\$338,197
CYTOSKELETAL MECHANISMS OF ENDOCYTOSIS	93.859	1-R01-GM-095977-01A1			\$339,747

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SEMI-PARAMETRIC JOINT MODELS FOR LONGITUDINAL AND TIME TO EVENT DATA	93.859	1-R01-GM-104470-01			\$341,348
STATISTICAL METHODS FOR TRANSCRIPTOME PROFILING USING RNA SEQUENCING	93.859	1-R01-GM-108600-01A1			\$346,655
COUPLING KINETOCHORE MICROTUBULE DYNAMICS TO CHROMOSOME MOTION	93.859	1-R01-GM-098389-01A1			\$350,577
LARGE SERINE RECOMBINASE MECHANISMS	93.859	1-R01-GM-108751-01			\$359,087
UPENN POST BACCALAUREATE RESEARCH EDUCATION PROGRAM	93.859	2-R25-GM-071745-10			\$365,120
ARYLATION OF WEAKLY ACIDIC SP3 HYBRIDIZED C-H'S	93.859	1-R01-GM-104349-01			\$371,942
THE INTERACTION OF CYTOPLASMIC DYNEIN AND DYNACTIN	93.859	2-R01-GM-048661-22			\$373,825
STRUCTURAL BIOLOGY & MOLECULAR BIOPHYSICS TRAINING PROGRAM	93.859	2-T32-GM-008275-26			\$374,875
MECHANISMS ESTABLISHING OOCYTE POLARITY	93.859	1-R01-GM-117981-01			\$378,201
MECHANISM OF U1 SNRNPS SUPPRESSION OF PREMATURE CLEAVAGE & POLYADENYLATION	93.859	1-R01-GM-112923-01			\$380,320
UNDERSTANDING THE ROLE OF COMBINATORIAL HISTONE PTM PATTERNS	93.859	1-R01-GM-110174-01			\$384,007
ROLE OF MITOCHONDRIA-TARGETED CYP2D6 IN CHEMICAL TOXICITY	93.859	2-R01-GM-034883-27A1			\$384,785
NOVEL ORGANOBORON CHEMISTRY UTILIZING TETRAHYDROXYDIBORANE	93.859	2-R01-GM-081376-05			\$385,597
MOLECULAR MECHANISMS OF PROTEIN ARGINYLATION	93.859	1-R01-GM-104003-01A1			\$386,187
GENETIC ANALYSIS OF A DEVELOPMENTAL CLOCK IN ARABIDOPSIS THALIANA	93.859	2-R01-GM-051893-16			\$386,574
STRUCTURE AND FUNCTION OF PROTEIN ACETYLTRANSFERASES	93.859	7-R01-GM-060293-15			\$391,226
MECHANISMS INTEGRATING LINEAGE HISTORY WITH FATE SPECIFICATION IN C. ELEGANS	93.859	1-R01-GM-105676-01A1			\$392,792
WATER SOLUBLE VARIANTS OF THE HUMAN MU OPIOID RECEPTOR	93.859	1-R01-GM-111421-01			\$398,885
ELECTROPHYSIOLOGY OF NUCLEAR MEMBRANE INSP3 RECEPTOR	93.859	2-R01-GM-056328-13			\$405,378
MOLECULAR AND ARCHITECTURAL MECHANISMS OF REPROGRAMMING TO PLURIPOTENCY	93.859		UNIVERSITY OF CALIFORNIA, LOS ANGELES	1445 G PB337	\$417,435
FUNCTIONAL CHARACTERIZATION OF PIRNPS	93.859	2-R01-GM-072777-10			\$424,414
REGULATION OF ACTIN DURING CELL MIGRATION	93.859	1-R01-GM-108744-01			\$429,360
UNDERSTANDING WNT SIGNALING THROUGH ROR AND RYK FAMILY RECEPTOR TYROSINE KINASES	93.859	1-R01-GM-107435-01			\$433,123
MECHANISM OF K+ CHANNELS	93.859	2-R01-GM-055560-14A1			\$449,002
USING MICROPOST ARRAYS TO MEASURE TRACTION FORCES DURING DENDRITIC CELL MOTILITY	93.859	1-R01-GM-104287-01A1			\$451,340
TRAINING PROGRAM IN CELL AND MOLECULAR BIOLOGY	93.859	2-T32-GM-007229-38A1			\$452,965
CENTROMERE IDENTITY AND FUNCTION	93.859	2-R01-GM-082989-06			\$471,068
PREDOCTORAL TRAINING GRANT IN PHARMACOLOGY	93.859	2-T32-GM-008076-30			\$475,831
LIGHT-ACTIVATED OLIGONUCLEOTIDES FOR BIOLOGICAL APPLICATIONS	93.859	2-R01-GM-083030-06A1			\$489,143
GRADUATE TRAINING IN SYSTEMS AND INTEGRATIVE BIOLOGY	93.859	4-T32-GM-007517-39			\$507,659
BIOGENESIS OF VOLTRAGE-GATED K+ CHANNELS	93.859	2-R01-GM-052302-17			\$511,652
MECHANISTIC ANALYSIS OF CYTOKINESIS IN EUKARYOTES	93.859	1-R01-GM-115420-01			\$511,753
IN VIVO TRANSLATIONAL ANALYSIS IN NEURONS	93.859	1-R01-GM-110005-01			\$640,786
INTEGRATIVE GENOMICS OF BODY SIZE AND METABOLISM IN ETHNICALLY DIVERSE AFRICANS	93.859	1-R01-GM-113657-01			\$787,029
UNIVERSITY OF PENNSYLVANIA POSTDOCTORAL OPPORTUNITIES IN RESEARCH AND TEACHING	93.859	2-K12-GM-081259-06			\$879,095
ULTRAFAST OPTICAL PROCESSES LABORATORY	93.859	9-P41-GM-104605-31			\$1,165,277
INTERACTION OF INHALED ANESTHETICS WITH MACROMOLECULES	93.859	2-P01-GM-055876-14A1			\$1,667,509
CYTOSKELETAL MOTORS AND SCAFFOLDS IN MEMBRANE DYNAMICS AND MOTILITY	93.859	2-P01-GM-087253-11			\$1,816,397
MEDICAL SCIENTIST TRAINING PROGRAM	93.859	2T32GM007170-39			\$2,264,822
TREATMENT OF HYPERANDROGENISM VS. INSULIN RESISTANCE IN INFERTILE PCOS WOMEN	93.864		PENNSYLVANIA STATE UNIVERSITY	UPA HD056510	-\$13
BARBERSHOP-BASED HIV/STD RISK REDUCTION FOR AFRICAN AMERICAN YOUNG MEN	93.864	1-R01-HD-061061-01			\$234,851
ACTIVATION OF HUMAN PLACENTAL HORMONAL EXPRESSION	93.865	2-R01-HD-046737-06A1			-\$23,460
AXONAL PATHWAY SELECTION IN THE ZEBRAFISH EMBRYO	93.865	2-R01-HD-037975-11A1			-\$5,630
MICRORNA REGULATION OF SPERMATOGENIAL STEM CELL SELF-RENEWAL AND DIFFERENTIATION	93.865	1-R01-HD-071012-01			-\$1,387
THE FETAL ADRENAL GLAND AS A PREDICTOR OF SPONTANEOUS PRETERM BIRTH	93.865		COLUMBIA UNIVERSITY	2 (ACCT #5-30279)/PO #G02789	-\$164
CBPR TO IMPROVE AFRICAN AMERICAN ENVIRONMENTS FOR YOUTH OBESITY PREVENTION	93.865	1-R13-HD-063127-01			-\$1
PLACENTAL MORPHOLOGY AND SERUM BIOMARKERS TO PREDICT ADVERSE PREGNANCY OUTCOME	93.865	1-R03-HD-069742-01A1			\$51
DO AMPUTEES BENEFIT FROM COMPREHENSIVE REHABILITATION SE	93.865	2-R01-HD-042588-05A2			\$3,265
IDDRC	93.865		CHILDREN'S HOSPITAL OF PHILADELPHIA	ACTIVITY 321098 (PO#961915RSUB	\$3,355
IMPROVING THE QUALITY OF IN-HOSPITAL PEDIATRIC RESUSCITATION	93.865		CHILDREN'S HOSPITAL OF PHILADELPHIA	950929RSUB	\$3,965
THE PENN CENTER FOR CAREER DEVELOPMENT IN WOMEN'S HEALTH RESEARCH	93.865	2-K12-HD-001265-11			\$4,520
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	\$5,725
INTELLECTUAL AND DEVELOPMENTAL DISABILITIES RESEARCH CENTER	93.865		CHILDREN'S HOSPITAL OF PHILADELPHIA	203660 / 950908RSUB	\$6,852
CLINICAL CENTER FOR NICHD/NEONATAL RESEARCH NETWORK	93.865	2-UG1-HD-068244-06			\$9,693
IDENTIFYING SOURCES OF HIV INFECTION IN ADOLESCENT GIRLS IN RURAL SOUTH AFRICA	93.865		CAPRISA (CENTER FOR THE AIDS PROGRAMME OF RESEARCH IN SOUTH	SUB TO 1-R01-HD083343	\$10,227

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COMMUNITY/ACADEMIC PARTNERSHIP TO INCREASE ACTIVITY IN YOUTH AND THEIR FAMILIES	93.865	1-R13-HD-085960-01			\$11,173
GENETIC ANALYSIS OF MALE GONADAL DEVELOPMENT	93.865	1-R01-HD-065600-01			\$11,936
ELICITING MATERNAL KNOWLEDGE ABOUT THE TECHNOLOGY OF SKILL FORMATION	93.865	4-R01-HD-073221-04			\$14,003
LONGITUDINAL STUDY OF ADVERSE DRIVING OUTCOMES AMONG ADOLESCENTS WITH ADHD	93.865		CHILDREN'S HOSPITAL OF PHILADELPHIA	3210580717	\$14,440
PFDN CAPITATION FUNDING	93.865		RESEARCH TRIANGLE INSTITUTE	PFDN CAPITATION FUNDING	\$22,572
AMBULATORY CARE ACCESS AND QUALITY	93.865	4-R01-HD-074756-03			\$25,865
NEURAL PREDICTORS OF RISKY DRIVING AND SUSCEPTIBILITY TO PEER INFLUENCES IN ADOLESCENCE	93.865	1-R21-HD-073549-01A1			\$27,136
LCR ACTIVATION OF THE HUMAN GROWTH HORMONE GENE	93.865	2-R01-HD-025147-20A2			\$28,571
INTELLECTUAL AND DEVELOPMENT DISABILITIES RESEARCH CENTER -NEUROIMAGING CORE	93.865		CHILDREN'S HOSPITAL OF PHILADELPHIA	951220RSUB	\$29,867
MAGNETOENCEPHALOGRAPHIC STUDIES OF LEXICAL PROCESSING AND ABSTRACTION IN AUTISM	93.865	4-R01-HD-073258-05			\$30,222
LONGITUDINAL STUDY OF ADOLESCENTS, NEIGHBORHOODS, AND DRINKING	93.865		PACIFIC INSTITUTE FOR RESEARCH AND EVALUATION	SUB TO 1-R01-HD-078415-01A1	\$31,456
NEWBORN IRON DEFICIENCY	93.865		UNIVERSITY OF MINNESOTA	N002524701	\$31,456
CHOP/UPENN INTELLECTUAL AND DEVELOPMENTAL DISABILITIES RESEARCH CENTER	93.865		CHILDREN'S HOSPITAL OF PHILADELPHIA	203661015-S1	\$31,939
OPTIMIZING RESPIRATORY FUNCTION IN DELIVERY ROOM RESUSCITATION: THE INFLATE STUDY (INFANT LUNG AERATION DURING TRANSITION EVENTS)	93.865	1-K23-HD-084727-01A1			\$32,125
A PROGRAM TO PROMOTE DIVERSITY WITHIN THE AMERICAN SOCIETY OF ANDROLOGY	93.865		AMERICAN SOCIETY OF ANDROLOGY	SUB TO 1-R25-DK096957-01	\$34,255
THE CFAR SOCIAL & BEHAVIORAL SCIENCE RESEARCH NETWORK NATIONAL SCIENTIFIC MEETING	93.865	1-R13-HD-074468-01			\$34,391
GENE EXPRESSION IN THE PREIMPLANTATION MOUSE EMBRYO	93.865	4-R01-HD-022681-29			\$35,738
CREATING AN INFECTION-FREE INTRAOSSEUS TRANSCUTANEOUS AMPUTATION PROSTHESIS	93.865		THOMAS JEFFERSON UNIVERSITY	0802300-R96501	\$37,206
OVARIAN RESERVE AFTER CANCER: LONGITUDINAL EFFECTS (THE ORACLE STUDY)	93.865	1-R01-HD062797-01			\$39,177
HOME-BASED MIRROR THERAPY FOR TREATING HEMIPARESIS IN STROKE PATIENTS	93.865		MOSS REHABILITATION RESEARCH INSTITUTE	SUB TO R01-HD068565	\$41,957
THE FUNCTION OF MOV10L1 IN PIRNA BIOGENESIS	93.865	1-F31-HD081892-01			\$43,120
TBI: IGG AUTOANTIBODIES IN SECONDARY NEURONAL INJURY	93.865		UNIVERSITY OF PITTSBURGH	0024922 (125803-11)	\$44,618
NULLIPAROUS PREGNANCY OUTCOME STUDY: MONITORING MOTHERS-TO-BE (NUMOM2B): CAPITATION	93.865		RESEARCH TRIANGLE INSTITUTE	SUB TO 1U10HD063048-01	\$53,375
NICHD MATERNAL FETAL MEDICINE UNITS NETWORK	93.865	1-UG1-HD-087192-01			\$57,669
MALE GERMLINE DEVELOPMENT AND ESTROGENIC EXPOSURES	93.865		WASHINGTON STATE UNIVERSITY	123853-G003469	\$60,198
COMPARATIVE EFFECTIVENESS OF PREGNANCY FAILURE MANAGEMENT REGIMENS (PRE-FAI-R)	93.865	4-R01-HD-071920-04			\$60,440
SYSTEMS ANALYSIS OF BMP REGULATION IN DEVELOPING ZEBRAFISH EMBRYOS	93.865		PURDUE UNIVERSITY	4102-57125	\$69,102
VACCINATION STATUS OF CHILDREN EXEMPTED FROM SCHOOL-ENTRY IMMUNIZATION MANDATES	93.865	1-R03-HD-080732-01			\$93,102
HORMONAL IMPRINTING PREDETERMINES DEVELOPMENTAL EXPRESSION OF CYTOCHROME P450S	93.865	1-R01-HD-061285-01A1			\$100,942
IMMIGRATION AND FERTILITY IN THE U.S.	93.865	1-R01-HD-075560-01A1			\$103,816
US-FRANCE RESEARCH PROPOSAL: MODELING AND PREDICTING BRAIN-COMPUTER INTERFACE LEARNING FROM DYNAMIC NETWORKS	93.865	1-R01-HD-086888-01			\$104,594
NEUROBEHAVIORAL STUDY OF GRAPHIC WARNINGS ON ADOLESCENTS AT RISK FOR NICOTINE DEPENDENCE	93.865	1-K99-HD-084746-01			\$105,752
PRENATAL CYTOGENETIC DIAGNOSIS BY ARRAY-BASED COPY NUMBER ANALYSES: FOLLOW-UP	93.865		COLUMBIA UNIVERSITY	3 (GG006961)/PO #G03619	\$106,134
TRAINING IN SEX AND GENDER DIFFERENCES RESEARCH TO IMPROVE WOMEN'S HEALTH	93.865	1-K12-HD-085848-01			\$115,862
FUNCTIONS OF MOV10L1 IN PIRNA BIOGENESIS AND GERM CELL DEVELOPMENT	93.865	4-R01-HD-069592-01A1			\$125,947
GROWTH RECOVERY, SCHOOLING AND COGNITIVE ACHIEVEMENT: EVIDENCE FROM FOUR COHORTS	93.865	7-R01-HD-070993-04			\$135,964
FUNCTIONS OF MOV10L1 IN PIRNA BIOGENESIS AND GERM CELL DEVELOPMENT	93.865	1-R01-HD-069592-01A1			\$149,051
SPONTANEOUS CODE SWITCHING	93.865	1-R21-HD-078072-01A1			\$149,445
FUNCTIONAL IMPACT OF DIFFERENTIAL EXPRESSION AND DNA METHYLATION IN MOUSE OOCYTES AND EMBRYOS RESULTING FROM MATERNAL DIET-INDUCED OBESITY	93.865		WASHINGTON UNIVERSITY IN ST. LOUIS	UWASH-ST.LOUIS SUB	\$155,452
CHOROID PLEXUS-DIRECTED GENE THERAPY FOR ALPHA-MANNOSIDOSIS	93.865		CHILDREN'S HOSPITAL OF PHILADELPHIA	FP00015905_A1_SUB_01	\$162,268
SMARTOYGYM: SMART DETECTION OF ATYPICAL TOY-ORIENTED ACTIONS IN AT-RISK INFANTS	93.865	1-R01-HD-084327-01			\$165,164
GENE EXPRESSION IN THE PREIMPLANTATION MOUSE EMBRYO	93.865	2-R01-HD-022681-26A1			\$169,362
SINGLE CELL RECONSTRUCTION OF LINEAGES AND VARIABILITY IN C. ELEGANS EMBRYOS	93.865	1-R21-HD-085201-01			\$172,471
NEONATAL AND PEDIATRIC PLATELET FUNCTION AND PHARMACOLOGY	93.865		COLUMBIA UNIVERSITY	1 (GG011666)	\$179,748
BEHAVIORAL EFFECTS OF TEEN EXPOSURE TO MULTIPLE RISK BEHAVIORS IN MEDIA	93.865	1-R21-HD-079615-01A1			\$181,176
AGE AND MOLECULAR MECHANISMS CONTRIBUTING TO ANEUPLOIDY IN OOCYTES	93.865	2-R01-HD-058730-06A1			\$184,993
CONTRIBUTIONS OF INFANT LEARNING TO LANGUAGE ACQUISITION	93.865	2-R01-HD-049681-06A1			\$188,697
CONTRIBUTIONS OF INFANT LEARNING TO LANGUAGE ACQUISITION	93.865	4-R01-HD-049681-09			\$192,813
TRAUMATIC BRIDGING VEIN FAILURE IN INFANTS	93.865	1-R21-HD-078842-01A1			\$200,927

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A NEW PLAYER IN PLACENTAL DYSFUNCTION: MIR210	93.865	1-R21-HD-076271-01A1			\$218,218
EPIGENETIC LANDSCAPES OF EMBRYONIC LYMPHOID PROGENITORS AND HSCS	93.865	1-R21-HD-081054-01A1			\$235,348
MOBILITY, SELECTIVITY, AND THE MIGRANT MORTALITY ADVANTAGE	93.865	1-R01-HD-079475-01A1			\$251,781
SEDATION STRATEGY AND COGNITIVE OUTCOME AFTER CRITICAL ILLNESS IN EARLY CHILDHOOD	93.865		SEATTLE CHILDREN'S HOSPITAL RESEARCH INSTITUTE	UNDER R01HD074757	\$261,493
GENE THERAPY FOR UREA CYCLE DISORDERS	93.865	4-P01-HD-057247-10			\$269,260
GRADUATE TRAINING IN DEMOGRAPHY	93.865	2-T32-HD-007242-31			\$269,376
MAGNETOENCEPHALOGRAPHIC STUDIES OF LEXICAL PROCESSING AND ABSTRACTION IN AUTISM	93.865	1-R01-HD-073258-01			\$284,106
REPRODUCTIVE EPIDEMIOLOGY TRAINING GRANT	93.865	2-T32-HD-007440-16			\$293,983
DEVELOPING AND PILOT TESTING A MOBILE PHONE-BASED HIV/STI PREVENTION INTERVENTION	93.865	1-R01-HD-072825-01A1			\$314,513
CLINICAL CENTER FOR NICHD/NEONATAL RESEARCH NETWORK	93.865	1-U10-HD-068244-01			\$317,765
THE PENN CENTER FOR CAREER DEVELOPMENT IN WOMEN'S HEALTH RESEARCH	93.865	2-K12-HD-001265-16			\$318,618
GRADUATE TRAINING IN DEVELOPMENTAL BIOLOGY	93.865	1-T32-HD-083185-01			\$322,226
THE DEVELOPMENT OF ON-LINE SENTENCE PROCESSING IN CHILDREN	93.865	2-R01-HD-037507-15			\$336,716
A NATIONAL TRAINING PROGRAM IN REPRODUCTIVE MEDICINE	93.865	2-T32-HD-040135-11			\$345,116
IMPROVING PARTICIPATION IN VECTOR CONTROL CAMPAIGNS THROUGH BEHAVIORAL ECONOMICS	93.865	1-R01-HD-075869-01A1			\$357,130
THE ROLE OF TLR SIGNALING IN FETAL BRAIN INJURY FROM PRENATAL INFLAMMATION	93.865	1-R01HD-076032-01A1			\$379,778
AMBULATORY CARE ACCESS AND QUALITY	93.865	1-R01-HD-074756-01A1			\$398,011
OPTIMIZING MANAGEMENT OF THE SECOND STAGE OF LABOR: MULTICENTER RANDOMIZED TRIAL	93.865		WASHINGTON UNIVERSITY IN ST. LOUIS	WU-15-54	\$404,208
COOPERATIVE MULTICENTER REPRODUCTIVE MEDICINE NETWORK	93.865	2-U10-HD-027049-21			\$445,307
PELVIC FLOOR DISORDERS NETWORK CLINICAL SITES (U10)	93.865	1-U10-HD-069010-01			\$445,369
DEVELOPING A MULTI-MODALITY, PARADIGM-SHIFTING APPROACH FOR IN VIVO ASSESSMENT OF THE HUMAN PLACENTA AND THE IMPACT OF MATERNAL NUTRITION ON ITS DEVELOPMENT AND FUNCTION	93.865	1-U01-HD-087180-01			\$460,262
NICHD NEONATAL RESEARCH NETWORK (NRN) CAPITATION FUNDING	93.865		RESEARCH TRIANGLE INSTITUTE	MOU SUB TO U10HD68244-1202	\$474,751
COMPARATIVE EFFECTIVENESS OF PREGNANCY FAILURE MANAGEMENT REGIMENS (PRE-FAI-R)	93.865	1-R01-HD-071920-01A1			\$485,894
EARLY CHILD DEVELOPMENT PROGRAMS: EFFECTIVE INTERVENTIONS FOR HUMAN DEVELOPMENT	93.865	1-R01-HD-065436-01A1			\$490,547
TARGETING THE PIRNA PATHWAY AND MEIOTIC RECOMBINATION FOR MALE CONTRACEPTION	93.865	1-U01-HD-084007-01			\$502,271
POPULATION RESEARCH CENTER GRANT	93.865	2-R24-HD044964-11			\$506,787
ADULT GENOME-WIDE PHENOTYPIC ANALYSIS OF MOLECULARLY DEFINED MUTANT GENES	93.865	1-R01-HD-069321-01			\$542,405
IMPROVING MATH ABILITY VIA PRIMITIVE NUMBER SENSE TRAINING	93.865	7-R01-HD-79106-02			\$597,617
SUSTAINED AERATION OF INFANT LUNGS (SAIL)	93.865		CHILDREN'S HOSPITAL OF PHILADELPHIA	3210050618 / PO #961074RSUB	\$625,641
DEVELOPMENT OF A SERUM BIOSIGNATURE FOR ECTOPIC PREGNANCY	93.865	1-R01-HD-076279-01A1			\$720,278
ELICITING MATERNAL KNOWLEDGE ABOUT THE TECHNOLOGY OF SKILL FORMATION	93.865	1-R01-HD-073221-01A1			\$815,091
GENE THERAPY FOR UREA CYCLE DISORDERS	93.865	2-P01-HD-057247-05			\$1,040,310
PENN CENTER FOR STUDY OF EPIGENETICS IN REPRODUCTION	93.865	1-U54-HD-068157-01			\$1,120,662
EFFICACY OF AN SSRI FOR MENOPAUSAL SYMPTOMS IN PERIMENOPAUSAL WOMEN	93.866	1-U01-AG-032656-01			-\$17,402
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	-\$12,459
THE UNFOLDED PROTEIN RESPONSE AND NEURODEGENERATIVE TAUOPATHIES	93.866	1-F31-AG-043254-01			-\$1,695
EFFECTS OF CHRONIC SLEEP RESTRICTION ON ENERGY HOMEOSTASIS IN HEALTHY ADULTS	93.866	1-F31-AG-044102-01			-\$1,075
TELOMERE MAINTAINANCE BY WERNER SYNDROME FAMILY PROTEINS	93.866	2-R01-AG-021521-06A1			-\$372
HIGH PRIORITY RESEARCH NETWORK ON THE DETERMINANTS OF LIFE COURSE OUTCOME	93.866		UNIVERSITY OF CHICAGO	FP056559	-\$118
MILD COGNITIVE IMPAIRMENT AND OBSTRUCTIVE SLEEP APNEA	93.866		GEORGE MASON UNIVERSITY	E2023761	-\$2
ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE	93.866		UNIVERSITY OF CALIFORNIA, SAN DIEGO	AG024904	\$98
BRAIN INJURY, AGING AND NEURODEGENERATION IN THE RAT	93.866	5-R01-AG-012527-06			\$167
MULTIMODAL BIOMARKERS IN FRONTOTEMPORAL LOBAR DEGENERATION	93.866	4-K01-AG-043503-04			\$487
THE MECHANISMS OF ALTERATIONS IN SLEEP WITH AGE	93.866	2-P01-AG-017628-06A1			\$597
EVALUATING PAY FOR PERFORMANCE AND ITS DESIGN: EVIDENCE FROM NURSING HOMES	93.866	1-R01-AG-034182-01A1			\$1,438
NBER ROYBAL CENTER FOR BEHAVIOR CHANGE IN HEALTH AND SAVINGS: REMINDERS THROUGH ASSOCIATION	93.866		NATIONAL BUREAU OF ECONOMIC RESEARCH, INC.	33-4121-07-01	\$2,987
PREDICTION OF SEVERITY IN ALZHEIMER'S DISEASE	93.866		DUKE UNIVERSITY	14-CU-1082	\$4,000
UNDERSTANDING MULTIMORBIDITY THROUGH MULTIVARIATE TEMPLATE MATCHING	93.866		CHILDREN'S HOSPITAL OF PHILADELPHIA	321095	\$5,816
THE CONTRIBUTION OF WEIGHT STATUS TO BLACK-WHITE DIFFERENCES IN MORTALITY AND DIABETES	93.866		UNIVERSITY OF MICHIGAN	3003722048	\$7,500

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THE ECONOMICS OF HEALTH, WEALTH, AND WELL-BEING PILOT: SAVE MORE LATER AND PARTICULARLY AFTER YOUR NEXT BIRTHDAY: THE EFFECT OF PROCRASTINATION ON RETIREMENT SAVINGS	93.866		NATIONAL BUREAU OF ECONOMIC RESEARCH, INC.	P01-AG-005842	\$9,303
CONNECTOMIC IMAGING IN FAMILIAL AND SPORADIC FRONTOTEMPORAL DEGENERATION	93.866	1-U01-AG-052943-01			\$10,184
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	\$11,041
AGE, HEARING LOSS, AND SENTENCE COMPREHENSION: NEURAL CORRELATES	93.866	4-R01-AG-038490-05			\$12,357
EFFECTS OF MULTI-MODAL EXERCISE INTERVENTION POST HIP FRACTURE	93.866		UNIVERSITY OF MARYLAND	SR00002503	\$12,427
LONG LIFE FAMILY STUDY	93.866		BOSTON MEDICAL CENTER	5-U01-AG-023755-08	\$13,138
CELL-INTRINSIC AND EXTRINSIC FACTORS IN STEM CELL AGING	93.866	1-F31-AG-044995-01A1			\$14,054
HANDLS SCAN SUBSTUDY: RACE, SOCIOECONOMIC STATUS AND THE BRAIN	93.866		UNIVERSITY OF MARYLAND	0000007283	\$15,222
EARLY, DETECTION OF ALZHEIMER'S (MCI STAGE): ANALYSIS OF PLASMA CELL-FREE MIRNAI	93.866		DIAMIR, LLC	SUB TO 2-R44-AG-044860-02	\$15,491
MECHANISMS OF HEALTH DISPARITIES IN PARKINSONISM	93.866	1-K23-AG-034236-01A1			\$16,391
CELL-INTRINSIC AND EXTRINSIC FACTORS IN STEM CELL AGING	93.866	4-F31-AG-044995-03			\$17,303
GENETIC ARCHITECTURE OF MEMORY AND EXECUTIVE FUNCTIONING IN ALZHEIMER'S DISEASE	93.866		UNIVERSITY OF WASHINGTON	763366	\$17,621
ELUCIDATING AD GENOTYPE-PHENOTYPE RELATIONSHIPS USING GENETICS OF HUMAN IPS CELLS	93.866		UNIVERSITY OF CALIFORNIA, SAN DIEGO	55748937	\$18,946
PENN CMU ROYBAL CENTER ON BEHAVIORAL ECONOMICS AND HEALTH	93.866	1-P30-AG-034546-01			\$20,417
MIDCAREER INVESTIGATOR AWARD IN PATIENT-ORIENTED RESEARCH IN AGING	93.866	4-K24-AG-042765-03			\$24,955
INTERNAL ETHICS COMMITTEE	93.866		UNIVERSITY OF CALIFORNIA, SAN DIEGO	37458739	\$25,810
TRAINING IN HEALTHCARE FINANCING, ORGANIZATION AND DELIVERY FOR AGING POPULATIONS	93.866	1-T32-AG-051090-01			\$26,387
DATA AND SAFETY MONITORING BOARD	93.866		UNIVERSITY OF CALIFORNIA, SAN DIEGO	47180199	\$28,076
ANTI-AMYLOID TREATMENT IN ASYMPTOMATIC ALZHEIMER'S DISEASE (STUDY A4)-LILLY	93.866		UNIVERSITY OF CALIFORNIA, SAN DIEGO	46177790	\$28,771
STATISTICAL METHODS FOR VITAMIN D TARGETS FOR FUNCTIONAL OUTCOMES IN OLDER ADULTS	93.866		UNIVERSITY OF MARYLAND	1600268	\$29,237
DISCOVERY OF NOVEL PROTEOMIC TARGETS FOR TREATMENT OF ALZHEIMER'S DISEASE	93.866		EMORY UNIVERSITY	T233735	\$32,000
OPTIMIZED ARTERIAL SPIN LABELING MRI IN MILD COGNITIVE IMPAIRMENT	93.866	4-R01-AG-040271-05			\$33,197
ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE 2 (ADNI2)	93.866		UNIVERSITY OF SOUTHERN CALIFORNIA	65937958	\$34,139
PROBING TRAP150/GSK3-MEDIATED REGULATION OF THE AGING-RELATED PROTEIN PSF	93.866	1-F31-AG-047022-01A1			\$34,148
ORALLY-ABSORBED, SMALL MOLECULE MICROTUBULE-STABILIZERS FOR TAUOPATHY TREATMENT	93.866	4-R01-AG-044332-04			\$34,893
PHOTO-INITIATED DISASSEMBLY OF FIBRILS: APPLICATION TO AMYLOIDS AND HYDROGELS	93.866	1-F31-AG-046010-01A1			\$35,482
PROSPECTIVE ASSESSMENT OF THE ETIOLOGY OF INSOMNIA IN MIDDLE AGED & ELDER ADULTS	93.866	4-R01-AG-041783-04			\$38,045
TARGETING WAVE REFLECTIONS IN HEART FAILURE WITH PRESERVED EJECTION FRACTION	93.866	1-R21-AG-043802-01			\$40,222
SIRTUIN REGULATION OF AGING HUMAN PRIMARY ADIPOSE TISSUE	93.866	4-K08-AG-042496-04			\$41,786
ETHICAL ISSUES IN DEMENTIA RESEARCH INVOLVING SURROGATES AND STUDY PARTNERS	93.866		JOHNS HOPKINS UNIVERSITY	2001440333	\$43,971
IMPACT OF DISCLOSING AMYLOID IMAGING RESULTS TO COGNITIVELY NORMAL INDIVIDUALS	93.866		BRIGHAM AND WOMEN'S HOSPITAL	113049	\$46,120
HOSPITAL CARE ENVIRONMENT, NEIGHBORHOOD, AND RACIAL DISPARITIES IN ELDER OUTCOMES	93.866	1-R01-AG-041099-01			\$50,257
MIDCAREER MENTORING AWARD FOR PATIENT-ORIENTED RESEARCH IN AGING	93.866	1-K24-AG-047908-01			\$58,268
ALZHEIMER'S DISEASE GENETICS CONSORTIUM	93.866	1-U01-AG-032984-01			\$58,735
A RANDOMIZED TRIAL OF FINANCIAL INCENTIVES FOR MAINTENANCE OF WEIGHT LOSS	93.866	4-R01-AG-045045-04			\$62,518
NATIONAL ALZHEIMER'S COORDINATING CENTER (NACC)	93.866		UNIVERSITY OF WASHINGTON	762205	\$63,600
ALZHEIMER'S PREVENTION INITIATIVE APOE4 TRIAL	93.866		BANNER HEALTH	0435-02-42372	\$68,708
METABOLIC NETWORKS AND PATHWAYS IN ALZHEIMERS DISEASE	93.866		DUKE UNIVERSITY MEDICAL CENTER	2034217	\$69,264
METABOLIC SIGNATURES UNDERLYING VASCULAR RISK FACTORS FOR ALZHEIMER-TYPE DEMENTIAS	93.866		DUKE UNIVERSITY	2034990	\$70,695
BRAIN-PENETRANT THROMBOXANE RECEPTOR ANTAGONISTS FOR ALZHEIMER'S DISEASE THERAPY	93.866	1-R01-AG-034140-01A2			\$71,097
COORDINATING CENTER FOR GENETICS AND GENOMICS OF ALZHEIMER'S DISEASE (CGAD)	93.866	1-U54-AG-052427-01			\$76,334
APOBEC3-MEDIATED DAMAGE OF HOST GENOMIC DNA IN VIVO	93.866	1-R21-AG-047114-01A1			\$77,650
CAUSAL ROLE OF PFC IN PERCEPTUAL AND COGNITIVE AUDITORY PROCESSING AND AGE-RELATED PLASTICITY	93.866		UNIVERSITY OF CALIFORNIA, DAVIS	201402652-01	\$80,953
SIRTUIN REGULATION OF AGING HUMAN PRIMARY ADIPOSE TISSUE	93.866	1-K08-AG-042496-01A1			\$99,005
IMMEDIATE FIT USING INNOVATIVE TECHNOLOGY TRANTIBIAL PROSTHESIS	93.866		IFIT PROSTHETICS	SUB TO 2R42AG050430-04	\$100,274
HEALTH AND RETIREMENT STUDY (YEARS 23-28)	93.866		UNIVERSITY OF MICHIGAN	3002222932	\$104,354
PROCESSING SPEED TRAINING TO PRESERVE DRIVING AND FUNCTION COMPETENCIES IN MCI	93.866		UNIVERSITY OF ALABAMA AT BIRMINGHAM	000504619-001	\$107,900
UNDERSTANDING VARIATIONS IN HIP FRACTURE OUTCOMES ACROSS THE CONTINUUM OF CARE	93.866	1-K08-AG-043548-01			\$111,700
MULTIMODAL BIOMARKERS IN FRONTOTEMPORAL LOBAR DEGENERATION	93.866	1-K01-AG-043503-01A1			\$113,322

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UNIVERSITY OF PENNSYLVANIA
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ANEMIA TRIAL OF THE T-TRIAL	93.866		DUKE CLINICAL RESEARCH INSTITUTE	2039905	\$113,844
STAGING ACTIVITY LIMITATION	93.866	4-R01-AG-040105-04			\$113,892
TDP-43 PROTEINOPATHIES IN ALS-DEMENTIA	93.866	1-P01-AG-032953-01A1			\$115,331
CLINICAL IMPORTANCE OF DRUG-DRUG INTERACTIONS	93.866	4-R01-AG-025152-10			\$115,452
MIDCAREER INVESTIGATOR AWARD IN PATIENT-ORIENTED RESEARCH IN AGING	93.866	5-K24-AG-042765-02			\$130,729
COMMUNICATING WITH AFRICAN AMERICANS AT THE END OF LIFE: A CHURCH-BASED MODEL	93.866	1-R21-AG-044677-01A1			\$134,144
ANTI-AMYLOID IN ASYMPTOMATIC ALZHEIMERS DISEASE, ETHICS SUB STUDY	93.866		UNIVERSITY OF CALIFORNIA, SAN DIEGO	39177054	\$138,182
THE ROLE OF LEPTIN IN ALZHEIMER'S DISEASE	93.866	1-K08-AG-039510-01			\$138,247
MOLECULAR MECHANISMS OF RAPAMYCIN'S EFFECTS ON HEALTH AND LONGEVITY.	93.866	4-R01-AG-043483-04			\$138,444
STEM CELL AGING AND THE CONTROL OF ABSCISSION	93.866	1-R21-AG-047915-01A1			\$152,107
YOUNG-ONSET DEMENTIA IN COLOMBIA	93.866	1-R21-AG-046499-01			\$154,684
GENOME WIDE ANALYSIS OF LXR BINDING-METABOLIC AND EPIGENETIC REGULATION IN AD	93.866		UNIVERSITY OF PITTSBURGH	0017484 (122314-1)	\$158,567
TARGETED PROTEOMICS OF RESILIENT COGNITION IN AGING	93.866	1-R01-AG-039478-01			\$171,828
A MODEL-BASED APPROACH TO UNDERSTANDING MEMORY IMPAIRMENTS IN NORMAL AGING	93.866	1-R21-AG-048233-01A1			\$179,743
EARLY MARKERS OF ALZHEIMER'S DISEASE (AD) IN BLSA PARTICIPANTS - STRUCTURAL AND FUNCTIONAL					
BRAIN CHANGES: QUANTITATIVE ANALYSIS OF LONGITUDINAL MR IMAGES	93.866	HHSN271201500049C			\$186,925
ANTI-AMYLOID TREATMENT IN ASYMPTOMATIC ALZHEIMER'S DISEASE (A4 STUDY)-NIH	93.866		UNIVERSITY OF CALIFORNIA, SAN DIEGO	2-U19-AG-010483-22	\$200,043
THE ROLE OF ATR IN PREVENTING AGE-RELATED DISEASES	93.866	2-R01-AG-027376-06			\$201,687
STAGING ACTIVITY LIMITATION	93.866	1-R01-AG-040105-01A1			\$234,615
A RANDOMIZED TRIAL OF FINANCIAL INCENTIVES FOR MAINTENANCE OF WEIGHT LOSS	93.866	1-R01-AG-045045-01			\$240,324
NOVEL IMAGING BIOMARKERS FOR TREATMENT EVALUATION IN NEURODEGENERATIVE DISORDERS	93.866	1-R01-AG-037376-01			\$257,567
MRI-BASED ASSESSMENT OF STRUCTURAL AND MECHANICAL IMPLICATIONS OF OSTEOPOROSIS	93.866	1-R01-AG-038693-01A1			\$319,618
REVERSING IMPACT OF CHILDHOOD ADVERSITY ON MDD & COGNITIVE DECLINE IN MENOPAUSE	93.866	1-R01-AG-048839-01			\$325,609
OPTIMIZED ARTERIAL SPIN LABELING MRI IN MILD COGNITIVE IMPAIRMENT	93.866	1-R01-AG-040271-01A1			\$325,667
THE CONTRIBUTION OF OBESITY TO INTERNATIONAL DIFFERENCES IN LONGEVITY	93.866	1-R01-AG-040212-01			\$340,401
ORALLY-ABSORBED, SMALL MOLECULE MICROTUBULE-STABILIZERS FOR TAUOPATHY TREATMENT	93.866	1-R01-AG-044332-01			\$345,651
SLEEP/WAKE FRAGMENTATION WITH AGE: MOLECULAR MECHANISMS	93.866	4-P01-AG-017628-14			\$357,264
MODELING SPLICING IN NORMAL TISSUES AND NEURODEGENERATIVE DISEASE	93.866	1-R01-AG-046544-01A1			\$361,705
CENTER ON THE DEMOGRAPHY OF AGING	93.866	2P30AG012836-21			\$364,078
CITALOPRAM DECREASES CSF AB: A RANDOMIZED DOSE FINDING TRIAL	93.866	7-R01-AG-041502-03			\$377,806
GROUP LEARNING ACHIEVES DECREASE INCIDENTS OF LOWER URINARY SYMPTOMS (GLADIOLUS)	93.866		BEAUMONT HOSPITAL, ROYAL OAK CAMPUS	PO #100-2940836	\$385,072
USING PATIENT OUTCOMES TO INFORM SURGICAL EDUCATION	93.866	1-R01-AG-049757-01A1			\$385,614
MOLECULAR MECHANISMS OF RAPAMYCIN'S EFFECTS ON HEALTH AND LONGEVITY.	93.866	1-R01-AG-043483-01			\$386,647
AGE, HEARING LOSS, AND SENTENCE COMPREHENSION: NEURAL CORRELATES	93.866	1-R01-AG-038490-01A1			\$443,947
DEFAULT PALLIATIVE CARE CONSULTATION FOR SERIOUSLY ILL HOSPITALIZED PATIENTS	93.866	1-UH2-AG-050311-01			\$462,163
THE BONE TRIAL OF THE TESTOSTERONE TRIAL	93.866	1-R01-AG-037679-01A1			\$465,882
TRAINING IN AGE RELATED NEURODEGENERATIVE DISEASES	93.866	4-T32-AG-000255-19			\$477,756
CLINICAL IMPORTANCE OF DRUG-DRUG INTERACTIONS	93.866	2-R01-AG-025152-06			\$486,708
AGING, GENDER AND ARTERIAL STIFFNESS IN ATHEROSCLEROSIS	93.866	1-R01-AG-047373-01			\$496,597
COMPUTATIONAL NEUROANATOMY OF AGING AND AD VIA PATTERN ANALYSIS	93.866	2-R01-AG-014971-10A1			\$512,410
THE ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE 2 BIOMARKER CORE	93.866		NORTHERN CALIFORNIA INSTITUTE FOR RESEARCH AND EDUCATION	1576 SUB TO U01AG024904-07	\$536,153
LONGITUDINAL EVALUATION OF FAMILIAL FRONTOTEMPORAL DEMENTIA SUBJECTS (LEFFTDS)	93.866		MAYO CLINIC ROCHESTER	PO #63788299	\$569,168
PENN ROYBAL CENTER IN BEHAVIORAL ECONOMICS AND HEALTH	93.866	2-P30-AG-034546-06			\$573,055
PROSPECTIVE ASSESSMENT OF THE ETIOLOGY OF INSOMNIA IN MIDDLE AGED & ELDER ADULTS	93.866	1-R01-AG-041783-03			\$642,886
FRONTOTEMPORAL DEMENTIAS: GENOTYPES AND PHENOTYPES	93.866	2-P01-AG-017586-16			\$700,830
SLEEP/WAKE FRAGMENTATION WITH AGE: MOLECULAR MECHANISMS	93.866	2-P01-AG-017628-11			\$1,057,271
FRONTOTEMPORAL DEMENTIAS: GENOTYPES AND PHENOTYPES	93.866	2-P01-AG-017586-11			\$1,154,829
ALZHIEMER'S DISEASE CORE CENTER	93.866	2-P30-AG-010124-21			\$1,416,725
THE NIA GENETICS OF ALZHEIMER'S DISEASE DATA STORAGE SITE	93.866	1-U24-AG-041689-01			\$1,643,865
EPIGENETICS OF AGING AND AGE-ASSOCIATED DISEASES	93.866	2-P01-AG-031862-06A1			\$1,841,901
TESTOSTERONE TRIAL	93.866	1-U01-AG-030644-01A1			\$1,893,172
CONSORTIUM FOR ALZHEIMERS SEQUENCE ANALYSIS (CASA)	93.866	1-UF1-AG-047133-01			\$2,351,997
ALZHEIMER'S DISEASE GENETICS CONSORTIUM	93.866	5-U01-AG-032984-07			\$4,019,493
NANOMEDICINE CENTER FOR NUCLEOPROTEIN MACHINES	93.867		GEORGIA INSTITUTE OF TECHNOLOGY	R7747- G13	-\$18,197
MECHANISM OF SIRT1 ACTIVATOR MEDIATED NEUROPROTECTION OF RETINAL GANGLION CELLS	93.867	1-R01-EY-019014-01A2			-\$16,332

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NEURO-OPHTHALMOLOGY RESEARCH DISEASE INVESTIGATOR CONSORTIUM (NORDIC-IIHTT) NETWORK	93.867		ST LUKE'S ROOSEVELT HOSPITAL	SUB TO U10-EY017281-01A1	-\$11,105
HERMANSKY PUDLAK SYNDROME & MELANOSOME FORMATION	93.867	2-R01-EY-015625-06A1			-\$111
COMPLEMENT IN AMD: MECHANISMS AND THERAPEUTIC INTERVENTION	93.867	1-R01-EY-020633-01A1			-\$78
VISION, EYE GROWTH RHYTHMS AND RETINAL SIGNALS IN REFRACTIVE DEVELOPMENT	93.867		NEW ENGLAND COLLEGE OF OPTOMETRY	3708-01-01-16UP	\$242
OXIDATIVE DAMAGE AND CONE CELL DEATH IN RP	93.867		JOHNS HOPKINS UNIVERSITY	2001536680	\$1,593
THALAMOCORTICAL MECHANISMS IN PRIMARY VISUAL CORTEX	93.867	1-F32-EY-026463-01			\$2,199
COMPETITIVE RENEWAL FOR MULTICENTER UVEITIS STEROID TREATMENT (MUST) TRIAL	93.867		JOHNS HOPKINS UNIVERSITY	SUB TO 2-U10-EY014660-06	\$7,002
MACULAR EDEMA TREATMENT TRIALS ASSOCIATED WITH MUST (META-MUST)	93.867		JOHNS HOPKINS UNIVERSITY	2002565177	\$12,065
MUST ME CHAIR SECTION	93.867		ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI	0255-7711-4609	\$15,948
MORE COMPLETE ASSESSMENT OF DNA VARIATION IN AGE-RELATED MACULAR DEGENERATION	93.867		UNIVERSITY OF MICHIGAN	3002502378	\$19,535
SCORE2 COMPARATIVE TRIAL (SCT)	93.867		PENNSYLVANIA STATE UNIVERSITY	UPA023533	\$25,965
RETINAL IRON TRANSPORT IN HEALTH AND DISEASE	93.867	4-R01-EY-015240-12			\$25,971
RECYCLING OF METABOLITES FROM INGESTED OUTER SEGMENTS SUPPORTS VISUAL FUNCTION	93.867	1-R01-EY-026525-01			\$35,042
CENTRAL PROCESSING OF VISUAL INFORMATION	93.867		CORNELL UNIVERSITY	15050678	\$36,240
ORAL THERAPY FOR DIABETIC RETINOPATHY USING ACE2/ANG1-7 BIOENCAPSULATED IN PLANT CELLS	93.867		UNIVERSITY OF FLORIDA	UFDSP00010918	\$39,152
AQUEOUS HUMOR OUTFLOW CONTROL AND INTRAOCULAR PRESSURE	93.867	2-R01-EY-013624-08			\$42,348
OCULAR HYPERTENSION TREATMENT STUDY 20-YEAR FOLLOW-UP: CHAIR'S GRANT	93.867		WASHINGTON UNIVERSITY IN ST. LOUIS	WU-16-30	\$45,870
A PILOT STUDY OF LASER PHOTOCOAGULATION FOR DIABETIC MACULAR EDEMA DRCR 1A	93.867		JAEB CENTER FOR HEALTH RESEARCH	EY 14231	\$46,208
COLOR CONSTANCY	93.867	2-R01-EY-010016-18A1			\$51,584
ADAPTATION AND MULTIVOXEL CODES IN HIGH-LEVEL VISUAL CORTEX	93.867	1-R21-EY-022751-01A1			\$52,159
OPTIMIZING GENE THERAPIES IN LARGE ANIMAL MODELS OF RETINAL DEGENERATION	93.867	1-F32-EY-023891-01A1			\$55,350
PENN VISION CLINICAL SCIENTIST PROGRAM	93.867	2-K12-EY-015398-11A1			\$57,980
NEURAL PROCESSING IN THE VENTRAL VISUAL PATHWAY DURING OBJECT SEARCH	93.867	1-R01-EY-020851-01			\$59,041
PLASTICITY OF HUMAN VISUAL SYSTEM IN RESPONSE TO RETINAL GENE THERAPY	93.867	1-R01-EY-025287-01A1			\$65,236
RETINAL CIRCUITRY FOR ROBUST DIRECTION SELECTIVITY	93.867		OREGON HEALTH SCIENCES UNIVERSITY	1001748_UP	\$66,628
SYNAPTIC ORGANIZATION OF SIMPLE CELL RECEPTIVE FIELDS	93.867	1-R01-EY-020765-01A1			\$90,005
MULTICENTER UVEITIS STEROID TREATMENT (MUST) TRIAL - CHAIRMAN'S GRANT	93.867		ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI	0255-1775-4609	\$95,105
HUMAN CONNECTOMES FOR LOW VISION, BLINDNESS, AND SIGHT RESTORATION	93.867		UNIVERSITY OF SOUTHERN CALIFORNIA	67228549	\$95,160
POSTNATAL GROWTH AND RETINOPATHY OF PREMATURITY (G-ROP) STUDIES	93.867		CHILDREN'S HOSPITAL OF PHILADELPHIA	3209850813 / PO #960522RSUB	\$100,722
SECONDARY ANALYSIS OF THE DATA FROM THE TELEMEDICINE APPROACHES TO EVALUATING ACUTE-PHASE ROP (E-ROP)	93.867	1-R21-EY-025686-01			\$105,603
ROLE OF BASAL GANGLIA IN REWARD-BIASED VISUAL DECISIONS	93.867	4-R01-EY-022411-04			\$106,717
VISION IN PRESCHOOLERS - HYPEROPIA IN CHILDREN (VIP-HIP)	93.867		OHIO STATE UNIVERSITY	60025489 / PO #RF01249423	\$114,575
TELEMEDICINE APPROACHES TO EVALUATING ACUTE-PHASE ROP_EROP	93.867		CHILDREN'S HOSPITAL OF PHILADELPHIA	320886-01-02 / PO #950802RSUB	\$114,983
RETINAL CIRCUITS FOR PRECISE SIGNALING	93.867	2-R01-EY-016607-21A1			\$115,357
PLATFORM TECHNOLOGIES FOR MICROSCOPIC RETINAL IMAGING	93.867		MEDICAL COLLEGE OF WISCONSIN	SUB TO U01-EY-025477-01	\$120,770
REGULATION OF LYSOSOMAL PH IN RPE CELLS	93.867	2-R01-EY-013434-11A1			\$129,563
MECHANISM OF SIRT1 ACTIVATOR MEDIATED NEUROPROTECTION OF RETINAL GANGLION CELLS	93.867	2-R01-EY-019014-06A1			\$131,522
P-30 CORE GRANT FOR VISION RESEARCH	93.867	2-P30-EY-001583-36			\$135,911
SECONDARY DATA ANALYSIS OF THE DATA FROM COMPARISON OF AMD TREATMENTS TRIALS	93.867	1-R21-EY-023689-01			\$152,576
GENETIC EPIDEMIOLOGY OF REFRACTIVE ERROR	93.867	1-R01-EY-020483-01			\$163,302
BIOINFORMATICS APPROACHES TO VISUAL DISEASE GENETICS	93.867	7-R01-EY-022300-04			\$169,024
THE ROLE OF SRC-FAMILY TYROSINE KINASES AND SRCASM IN OCULAR SURFACE EPITHELIAL WOUND					
REPAIR AND NEOPLASIA	93.867	1-K08-EY-025742-01			\$173,512
PURINES AND THE HEALTH OF RETINAL GANGLION CELLS	93.867	2-R01-EY-015537-08A1			\$175,109
COLOR CONSTANCY	93.867	2-R01-EY-010016-21A1			\$180,919
PATIENT CENTERED CARE FOR DIABETIC MACULAR EDEMA	93.867	1-K23-EY-025729-01			\$186,295
NDC FOR THE OPTICAL CONTROL OF BIOLOGICAL FUNCTION	93.867		UNIVERSITY OF CALIFORNIA, BERKELEY	00007510/PO #2000038320	\$208,431
COMPLICATIONS OF IMMUNOSUPPRESSION FOR EYE DISEASES	93.867	2-R01-EY-014943-07			\$231,018
TRAINING IN OPHTHALMIC STATISTICAL GENETICS AND BIOINFORMATICS	93.867	1-T32-EY-021451-01			\$232,915
TELEMEDICINE APPROACHES TO EVALUATING ACUTE-PHASE ROP_EROP	93.867		CHILDREN'S HOSPITAL OF PHILADELPHIA	320886-01-01 / PO #950800RSUB	\$234,674
RESEARCH ON NORMAL AND ABNORMAL MECHANISMS OF VISION	93.867	2-T32-EY-007035-36			\$238,487
PENN VISION CLINICAL SCIENTIST PROGRAM	93.867	2-K12-EY-015398-06			\$239,307
CORTICAL STRUCTURE AND FUNCTION IN BLINDNESS AND FOLLOWING RESTORED VISION	93.867	1-R01-EY-020516-01A1			\$242,513
ROLE OF BASAL GANGLIA IN REWARD-BIASED VISUAL DECISIONS	93.867	1-R01-EY-022411-01A1			\$243,479
THERPAUTIC APPROACHES FOR ABCA4-ASSOCIATED DISORDERS	93.867		COLUMBIA UNIVERSITY	2 (ACCT. #5-30209)	\$251,612
PHOTO SWITCHABLE CHANNEL BLOCKERS FOR TREATMENT OF BLINDNESS	93.867		UNIVERSITY OF WASHINGTON	762671	\$281,470

The accompanying notes are an integral part of this schedule

UNIVERSITY OF PENNSYLVANIA
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<i>Cluster Name/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification</i>	<i>Pass-Through Entity Name</i>	<i>Pass-Through Entity Identifying Number</i>	<i>Federal Expenditures</i>
HOW VESICLES SEND INFORMATION TO RETINAL GANGLION CELLS	93.867	2-R01-EY-013333-12A1			\$284,877
MELANOPSIN AND CONE SIGNALS IN HUMAN VISUAL PROCESSING	93.867	1-R01-EY-024681-01A1			\$300,278
THE NEURAL MECHANISMS RESPONSIBLE FOR RECOGNIZING AND REMEMBERING NOVEL OBJECTS AND SCENES	93.867	2-R01-EY-020851-06			\$316,021
NEURAL MECHANISMS FOR LANDMARK-BASED NAVIGATION	93.867	1-R01-EY-022350-01A1			\$319,122
OBJECT CONCEPTS	93.867	1-R01-EY-021717-01			\$319,954
RETINAL CIRCUITS FOR LOCAL SYNAPTIC PROCESSING	93.867	1-R01-EY023766-01A1			\$323,689
CLINICAL TRIALS OF GENE THERAPY FOR LEBER CONGENITAL AMAUROSIS	93.867	2-U10-EY-017280-06			\$327,491
MECHANISMS OF LEARNING A VISUAL DISCRIMINATION	93.867	2-R01-EY-015260-11			\$415,854
GENETIC ANALYSIS OF AXONAL REGENERATION	93.867	1-R01-EY-024861-01			\$444,229
MEMBRANE COMPLEMENT REGULATORS IN RPE DEGENERATION AND RETINAL INJURY	93.867	1-R01-EY-023709-01			\$448,098
RETINAL IRON TRANSPORT IN HEALTH AND DISEASE	93.867	2-R01-EY-015240-09			\$465,604
INTEGRATIVE DATA ANALYSIS FOR REFRACTIVE ERROR	93.867	1-R01-EY-024233-01			\$492,251
RETINAL CIRCADIAN RHYTHMS AND REFRACTIVE DEVELOPMENT	93.867	1-R01-EY-022342-01A1			\$497,274
DEGRADATIVE PROCESSES IN RPE-PHOTORECEPTOR RENEWAL	93.867	2-R01-EY-010420-17A1			\$618,085
PGC-1 COACTIVATORS IN PHOTORECEPTOR DEVELOPMENT AND SURVIVAL	93.867	7-R01-EY-023682-02			\$621,176
P-30 CORE GRANT FOR VISION RESEARCH	93.867	2-P30-EY-001583-41			\$623,660
FOLLOW-UP STUDY: COMPARISON OF AMD TREATMENTS TRIALS (CATT)	93.867	1-U10-EY-023530-01			\$670,457
TRANSLATIONAL RESEARCH FOR RETINAL DEGENERATION THERAPIES	93.867	2-R01-EY-017549-06			\$761,514
MODELS FOR THERAPY OF HEREDITARY RETINAL DEGENERATION	93.867	2-R01-EY-006855-29			\$861,737
TRANSLATIONAL GENE THERAPY FOR RHODOPSIN AUTOSOMAL DOMINANT RETINITIS PIGMENTOSA	93.867	1-R24-EY-022012-01			\$1,352,937
GENETIC EPIDEMIOLOGY OF AGE-RELATED MACULAR DEGENERATION IN THE OLDER ORDER AMISH	93.867	1-R01-EY-023164-01			\$1,407,577
THE DRY EYE EVALUATION AND MANAGEMENT (DREAM) STUDY: COORDINATING CENTER	93.867	1-U10-EY-022879-01			\$1,883,829
PRIMARY OPEN ANGLE AFRICAN-AMERICAN GLAUCOMA GENETICS (POAAGG)	93.867	1-R01-EY-023557-01			\$2,944,296
RESEARCH PLATFORM INTEGRATING PATIENT REPORTED AND CLINICAL OUTCOMES DATA SOURCES	93.879		DYNAMIC CLINICAL SYSTEMS, INC.	SUB TO NIH #1R43LM011408-01	\$2
STATISTICAL METHODS AND SOFTWARE FOR MULTIVARIATE META-ANALYSIS	93.879		UNIVERSITY OF MINNESOTA	P004683901	\$22,854
BIOINFORMATICS STRATEGIES FOR MULTIDIMENSIONAL BRAIN IMAGING GENETICS	93.879		INDIANA UNIVERSITY	IN4687237UP	\$134,279
BIOINFORMATICS STRATEGIES FOR GENOME-WIDE ASSOCIATION STUDIES	93.879	7-R01-LM-010098-06			\$150,398
MACHINE LEARNING PREDICTION OF CANCER SUSCEPTIBILITY	93.879	7-R01-LM-009012-10			\$348,021
POPULATION HEALTH AND PRIMARY CARE: INTEGRATING PUBLIC HEALTH INTO MEDICAL EDUCATION	93.884	1 T85HP24468-01-00			\$299,305
SRSC I-VIRUS BIOLOGY HAHN	93.885		DUKE UNIVERSITY	2031969	\$1,253,008
REMODELING POTENTIAL OF THE MITRAL VALVE FOLLOWING SURGICAL REPAIR	93.937		UNIVERSITY OF TEXAS AT AUSTIN	UTA13-000980	\$758,726
GENOME PERSISTENCE OF KSHV	93.939	4-R01-CA-171979-04			\$130,781
GENOME PERSISTENCE OF KSHV	93.939	1-R01-CA-171979-01A1			\$210,410
HIV/STI PREVENTION AMONG BLACK ADOLESCENTS WITH MENTAL ILLNESSES	93.941	1-U01-PS-003304-01			\$189,607
PENNSYLVANIA FIRST EPISODE PSYCHOSIS TREATMENT INITIATIVE: PROGRAM EVALUATION RESEARCH	93.958		ADAMS COUNTY, PENNSYLVANIA	PERC-SAMHSA	\$7,001
PRACTICE CHANGE IN GERIATRIC CARE	93.969	1-UB4-HP-19214-01-00			\$32,220
TARGETING HIGH CO-INFECTION RATES OF SYPHILIS AND OTHER SEXUALLY TRANSMITTED INFECTIONS (STIS) REPORTED AMONG HIV-INFECTED PATIENTS WHO IDENTIFY AS MSM	93.977		JOHNS HOPKINS UNIVERSITY	2002700015	\$16,792
MEXICAN MIGRATION AND THE ECONOMIC RECESSION: EFFECTS ON HEALTH AND WELL-BEING	93.989	1-R03-TW-008704-01			\$3,266
CHRONIC DISEASE CLINICAL EPIDEMIOLOGY TRAINING IN GUATEMALA AND PERU	93.989	1-D43-TW-008317-01A1			\$33,047
INJURY AND TRAUMA RESEARCH TRAINING FOR GUATEMALA	93.989	1-D43-TW-008972-01			\$213,381
BUILDING LOCAL CAPACITIES IN ETHICS TRAINING AND IRB REVIEW IN GUATEMALA	93.989	1-R25-TW-009738-01			\$252,643
HIV CLINICAL RESEARCH TRAINING FOR BOTSWANA	93.989	1-D43-TW-009781-01			\$276,551
ANTI-AMYLOID TREATMENT IN ASYMPTOMATIC ALZHEIMER'S DISEASE (A4 STUDY)-NIH	93.999		UNIVERSITY OF SOUTHERN CALIFORNIA	SUB TO U19AG010483	\$6,899
MULTI-SCALE OBSERVATION AND MODELING OF IP3/CA SIGNALING	93.999		LOS ALAMOS NATIONAL LABORATORY	278443	\$166,311
HARVARD CLINICAL AND TRANSLATIONAL SCIENCE AWARD	93.RD	HHSN26820070031C	HARVARD MEDICAL SCHOOL	5045815	-\$6,709
TELEMAMMOGRAPHY FOR THE NEXT GENERATION INTERNET (PHASE II)	93.RD	N01-LM-0-3512,AMEND,1,2,3			-\$5,898
RANDOMIZED EVALUATION OF VAD INTERVENTION BEFORE INOTROPIC THERAPY (REVIVE-IT)	93.RD	HHSN268201100026C	UNIVERSITY OF MICHIGAN	3001890360	-\$3,300
BIOINFORMATICS RESOURCE CENTER FOR INFECTIOUS DISEASES	93.RD	HHSN272200900038C			-\$65
VOXEL-BASED ANALYSIS OF THE BRAIN: CARDIA BRAIN STUDY	93.RD	HHSN271201300540P			\$692
CSF BIOMARKERS	93.RD	HHSN271201000487P			\$6,758

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Cluster Name/Program Title	Federal CFDA Number	Additional Award Identification	Pass-Through Entity Name	Pass-Through Entity Identifying Number	Federal Expenditures
PROTOCOL-BASED ASSESSMENT OF THROMBOEMBOLIC EVENTS AFTER IMMUNOGLOBULIN ADMINISTRATION	93.RD	HHSF223200910006I	HARVARD PILGRIM HEALTH CARE	HHSF223200910006T-0003	\$12,651
EVIDENCE-BASED PRACTICE CENTERS V	93.RD	HHSA2902015000051	ECRI	SUB TO HHSA2902015000051	\$18,631
IMPLANTABLE CONSTRUCT FOR ARCHITECTURAL CONTROL OF RE-VASCULARIZATION OF ISCHEMIC TISSUES	93.RD	R43HL118851	INNOLIGN BIOMEDICAL, LLC	SUB TO NIH STTR AWARD	\$29,267
EFFECTIVENESS OF THE PSYCHOSOCIAL TREATMENT FOR BRAZILIAN SYNTHETIC DRUGS USERS	93.RD	CTN RESEARCH FELLOWSHIP			\$30,069
PROSPECTIVE ROUTINE OBSERVATIONAL MONITORING OF MIRABEGRON	93.RD	HHSF223200910006I	HARVARD PILGRIM HEALTH CARE	HHSF223202007T-0013	\$31,146
DETECTION AND ANALYSIS OF ADVERSE EVENTS RELATED TO REGULATED PRODUCTS IN AUTOMATED HEALTHCARE DATA. EFFORTS TO DEVELOP THE SENTINEL INITIATIVE (YEAR 6 INFRASTRUCTURE)	93.RD	HHSF223200910006I	HARVARD PILGRIM HEALTH CARE	HHSF22301016T-0002	\$35,458
RADLEX AND LOINC COLLABORATION PROPOSAL	93.RD	HHSN268200800020C	RADIOLOGICAL SOCIETY OF NORTH AMERICA	HHSN268200800020C MOD 0006 (A)	\$38,852
CENTERS OF EXCELLENCE FOR PAIN EDUCATION (COEPE)	93.RD	HHSN271201500067C			\$39,938
CLINICAL EVALUATION OF NOVEL PRODUCTS FOR FEMALE CONTRACEPTION (MAIN STUDY)	93.RD	HHSN275201300020I			\$44,729
ODSH AS A COUNTERMEASURE FOR RADITION-INDUCED THROMBOCYTOPENIA	93.RD	N01HHSN272201400033C	CHILDREN'S HOSPITAL OF PHILADELPHIA	7300220817	\$45,891
NJ HEALTHCARE INNOVATIONS PROJECT: MODEL DESIGN	93.RD	1-G1C-MS-331386-01-5	RUTGERS UNIVERSITY	5721	\$70,257
ANALYTIC METHODS FOR USING LABORATORY TEST RESULTS IN ACTIVE DATABASE SURVEILLANCE	93.RD	HHSF223200910006I	HARVARD PILGRIM HEALTH CARE	HHSF22301012T-0008	\$72,102
TISSUE COMPARTMENTALIZATION OF HUMAN LYMPHOCYTES	93.RD	P01AI106697	COLUMBIA UNIVERSITY	#5-GG007579-03	\$72,673
NICHD INTERNATIONAL AND DOMESTIC PEDIATRIC AND MATERNAL HIV STUDIES COORDINATING CENTER	93.RD	HHSN275201300003C	CHILDREN'S HOSPITAL OF PHILADELPHIA	8234501114	\$73,531
DEVELOPMENT AND DEMOSTRATIONS OF A SURGICAL UNIT-BASED SAFETY PROGRAM (SUSP) TO REDUCE SURGICAL SITE INFECTIONS (SSI) AND OTHER SURGICAL COMPLICATIONS	93.RD	HHSA2902010000271	JOHNS HOPKINS UNIVERSITY	PO #2001586468 STUDY 1	\$95,936
REGISTRY OF GENETICALLY TRIGGERED THORACIC AORTIC ANEURYSMS AND CARDIOVASCULAR CONDITIONS (GENTAC)	93.RD	HHSN268201000048C/N01-HV-08238	RESEARCH TRIANGLE INSTITUTE	2-312-0212746	\$122,531
CONTRACEPTIVE CLINICAL TRIALS NETWORK - FEMALE SITES	93.RD	HHSN275201300020I			\$130,796
SYSTOLIC BLOOD PRESSURE INTERVENTION TRIAL (SPRINT)	93.RD	HHSN268200900049C	CASE WESTERN RESERVE UNIVERSITY	RES508735	\$144,559
CELL-DERIVED MATERIALS FOR PHYSICAL SCIENCES-ONCOLOGY NETWORK (PS-ON) CELL LINES-PROTOMIC ANALYSIS	93.RD	HHSN261200800001E	LEIDOS, INC.	15X008	\$175,325
		HHSN268200900040C/N01-HC-95240	WAKE FOREST UNIVERSITY	WFUHS 30158	\$192,365
SYSTOLIC BLOOD PRESSURE INTERVENTION TRIAL (SPRINT)	93.RD	95240	WAKE FOREST UNIVERSITY	WFUHS 30158	\$192,365
TISSUE COMPARTMENTALIZATION OF HUMAN LYMPHOCYTES	93.RD	P01AI106697	COLUMBIA UNIVERSITY	#4-GG007579-03	\$198,059
IMPROVED DNA VACCINES	93.RD	N01-AI-80063	VGX PHARMACEUTICALS, INC.	HHSN272200800063C	\$201,274
PROTECTIVE IMMUNITY IN SPECIAL POPULATIONS	93.RD	HHSN272201100018C	WISTAR INSTITUTE	29902-04-307; WHERRY	\$276,016
PHASE 2, MULTI-CENTER TRIAL OF AZD8529 FOR SMOKING CESSATION IN FEMALE SMOKERS	93.RD	AZD8529			\$389,643
IMMUNOSUPPRESSION WITHDRAWAL IN LIVER TRANSPLANT RECIPIENTS INFECTED WITH HEPATITIS C VIRUS	93.RD	N01-AI-15416	UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	ITN00111-00SC	\$401,721
LONGITUDINAL STUDIES OF CORONARY ARTERY RISK DEVELOPMENT IN YOUNG ADULTS (CARDIA) - COORDINATING CENTER	93.RD	HHSN268201300025C	UNIVERSITY OF ALABAMA AT BIRMINGHAM	000501394-SC007	\$434,815
EVALUATION OF SDG AS COUNTERMESAURE TO RADIATION-INDUCED LUNG DAMAGE	93.RD	HHSN27220150000	LIGNAMED	LGM-2605	\$709,492
GTRP PRECLINICAL VECTOR PRODUCTION CORE LABORATORY - RENEWAL	93.RD	HHSN268201200041C			\$1,291,791
SOCIAL SECURITY CLAIMING, LIFE INSURANCE, AND LONG-TERM CARE INSURANCE: THE IMPACT OF NARROW FRAMING AND LOSS AVERSION	96.007		UNIVERSITY OF MICHIGAN	PO #3003326493UM15-05	\$61,308
UNDERSTANDING CULTURE: ASSESSMENT OF SAFETY CLIMATE	97.044		DREXEL UNIVERSITY	215024	\$30,891
ENHANCING COMMUNITY FLOOD RESILIENCE	97.061		UNIVERSITY OF SOUTHERN CALIFORNIA	66148716	\$76,200
CRITICAL INFRASTRUCTURES RESILIENCE CENTER (CIRC)	97.061		NORTHEASTERN UNIV	500001-78050	\$118,125
MONITORING & EVALUATION PLAN FOR HALF THE SKY'S HTS TRANSMEDIA PROJECT	98.012		SHOW OF FORCE, LLC	AID-OAA-A-12-00078	\$105,957
GREATER PHILADELPHIA SOUTHERN NEW JERSEY NETT TRIAL POINT	98.853		UNIVERSITY OF MICHIGAN	3001413184-PNT/SUB TO U01-NS-062835	\$5,304
TOTAL RESEARCH AND DEVELOPMENT AND RESEARCH TRAINING CLUSTER PROGRAMS					<u>\$647,424,551</u>
STUDENT FINANCIAL AID CLUSTER PROGRAMS					
SEOG - SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT	84.007	P007A143720			\$431,540
SEOG - SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT	84.007	P007A153720			\$3,262,660
CWSP - FEDERAL WORK STUDY	84.033	P033A143720			\$175,399
CWSP - FEDERAL WORK STUDY	84.033	P033A153720			\$3,197,724
FEDERAL PERKINS LOANS (FPL)—ADMINISTRATION COSTS	84.038				\$713,327
FEDERAL PERKINS LOANS (FPL)—LOANS ISSUED DURING FY16	84.038				\$12,196,225

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FEDERAL PERKINS LOANS (FPL)—OUTSTANDING BALANCE AS OF JULY 1, 2015	84.038				\$65,322,090
PELL GRANT	84.063	P063P20142158			\$3,777
PELL GRANT	84.063	P063P20152158			\$6,864,628
FEDERAL DIRECT STUDENT LOANS	84.268				\$181,892,282
TEACH GRANT	84.379	P379T152158			\$1,854
TEACH GRANT	84.379	P379T162158			\$42,406
NURSE FACULTY LOAN PROGRAM - LOANS ISSUED DURING FY16	93.264				\$210,940
NURSE FACULTY LOAN PROGRAM - OUTSTANDING BALANCE AS OF JULY 01, 2015	93.264				\$818,893
LOANS FOR DISADVANTAGED STUDENTS - DENTAL - OUTSTANDING BALANCE AS OF JULY 1, 2015	93.342				\$2,201
LOANS FOR DISADVANTAGED STUDENTS - MEDICINE - OUTSTANDING BALANCE AS OF JULY 1, 2015	93.342				\$198,895
HEALTH PROFESSIONS STUDENT LOANS- MEDICAL - OUTSTANDING BALANCE AS JULY 1, 2015	93.342				\$214,854
LOANS FOR DISADVANTAGED STUDENTS - MEDICINE - LOANS ISSUED DURING FY16	93.342				\$335,301
HEALTH PROFESSIONS STUDENT LOANS-VET-LOANS ISSUED DURING FY16	93.342				\$889,182
HEALTH PROFESSIONS STUDENT LOANS - DENTAL - LOANS ISSUED DURING FY16	93.342				\$1,658,301
HEALTH PROFESSIONS STUDENT LOANS-VET-OUTSTANDING BALANCE AS OF JULY 1, 2015	93.342				\$2,387,884
HEALTH PROFESSIONS STUDENT LOANS - DENTAL - OUSTANDING BALANCE AS OF JULY 1, 2015	93.342				\$8,678,764
NURSING STUDENT LOANS-GRAD-LOANS ISSUED DURING FY16	93.364				\$57,000
NURSING STUDENT LOANS-GRAD-OUTSTANDING BALANCE AS OF JULY 1, 2015	93.364				\$481,591
NURSING STUDENT LOANS-UNDER GRAD-LOANS ISSUED DURING FY16	93.364				\$561,859
NURSING STUDENT LOANS-UNDER GRAD-OUTSTANDING BALANCE AS OF JULY 1, 2015	93.364				\$2,176,943
SCHOLARSHIPS FOR DISADVANTAGED STUDENTS (SDS)	93.925	5 T08HP25250-02-00			\$392,853
TOTAL STUDENT FINANCIAL AID CLUSTER PROGRAMS					<u>\$293,169,373</u>
TRIO CLUSTER PROGRAMS					
STUDENT SUPPORT SERVICES	84.042	P042A100716			\$38,856
OFFICE OF POSTSECONDARY EDUCATION (OPE): STUDENT SUPPORT SERVICES PROGRAM CFDA NUMBER 84.042	84.042	P042A150394			\$175,429
TALENT SEARCH PROGRAM	84.044	P044A110225 ACTION 1			\$256,164
UPWARD BOUND MATH AND SCIENCE PROGRAM	84.047	P047M130476			\$214,321
VETERANS UPWARD BOUND PROGRAM	84.047	P047V120006			\$351,860
UPWARD BOUND	84.047	P047A131651 ACTION 1			\$457,515
EDUCATIONAL OPPORTUNITY CENTER	84.066	P066A120055			\$217,666
TOTAL TRIO CLUSTER PROGRAMS					<u>\$1,711,811</u>

Schedule of Expenditures of Federal Awards
Part C, Federal Loan Program Year End Balances

UNIVERSITY OF PENNSYLVANIA
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS
FEDERAL LOAN PROGRAMS
Year Ended 6/30/2016

<i>Federal Grantor/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification</i>	<i>Outstanding Balance at 6/30/2016</i>
DEPARTMENT OF EDUCATION LOAN PROGRAMS			
FEDERAL PERKINS LOANS (FPL)—OUTSTANDING BALANCE AS OF JUNE 30, 2016	84.038		\$64,424,932
DEPARTMENT OF HEALTH AND HUMAN SERVICES LOAN PROGRAMS			
NURSE FACULTY LOAN PROGRAM - OUTSTANDING BALANCE AS OF JUNE 30, 2016	93.264		\$999,211
LOANS FOR DISADVANTAGED STUDENTS - DENTAL - OUTSTANDING BALANCE AS OF JUNE 30, 2016	93.342		\$2,201
HEALTH PROFESSIONS STUDENT LOANS- MEDICAL - OUTSTANDING BALANCE AS OF JUNE 30, 2016	93.342		\$207,180
LOANS FOR DISADVANTAGED STUDENTS - MEDICINE - OUTSTANDING BALANCE AS OF JUNE 30, 2016	93.342		\$534,196
HEALTH PROFESSIONS STUDENT LOANS - DENTAL - OUSTANDING BALANCE AS OF JUNE 30, 2016	93.342		\$9,133,931
HEALTH PROFESSIONS STUDENT LOANS-VET-OUTSTANDING BALANCE AS OF JUNE 30, 2016	93.342		\$2,844,750
NURSING STUDENT LOANS-GRAD-OUTSTANDING BALANCE AS OF JUNE 30, 2016	93.364		\$407,527
NURSING STUDENT LOANS-UNDER GRAD-OUTSTANDING BALANCE AS OF JUNE 30, 2016	93.364		\$2,420,765

The accompanying notes are an integral part of this schedule

University of Pennsylvania
Notes to Schedule of Expenditures of Federal Awards
June 30, 2016

1. DATA Act Section 5 Pilot Single Audit Test Model

The University of Pennsylvania is participating in the DATA Act Pilot Single Audit Test Model program (‘the Pilot’) and that the accompanying Schedule of Expenditures of Federal Awards Part A, Award Expenditure Detail, Part B, Summary of Program Clusters, Part C, Federal Loan Program Year End Balances (the “Schedule”) for the year ended June 30, 2016. The Schedule’s format is based upon the output of the Pilot program process and templates.

2. Basis of Presentation

The Schedule has been prepared to present a summary of those activities of the University of Pennsylvania for the year ended June 30, 2016, 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 Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance).

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.

The University applies its predetermined approved facilities and administrative rate when charging indirect costs to federal awards rather than the 10% de minimis cost rate as described in Section 200.414 of the Uniform Guidance.

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.

3. Federal Student Financial Assistance

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 consolidated financial statements. Included within the Schedule Part A are the loan beginning balances, new loans and administrative cost allowance from the Perkins Loan Program. Included within the Schedule Part C are the loan balances for the year ended June 30, 2016.

II. Internal Control and Compliance



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

To the 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, 2016, 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 September 23, 2016.

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

September 23, 2016



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

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 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, 2016. 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 federal statutes, regulations and the terms and conditions of its federal awards 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 the audit requirements of Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Those standards and the Uniform Guidance require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about the University's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances.

We believe that our audit provides a reasonable basis for our opinion on compliance for each major federal program. However, our audit does not provide a legal determination of 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, 2016.



Other Matters

The results of our auditing procedures disclosed instances of noncompliance, which are required to be reported in accordance with the Uniform Guidance and which are described in the accompanying schedule of findings and questioned costs as items 2016-002 through 2016-008. 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 the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly we do not express an opinion on the effectiveness of the University's internal control over compliance.

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

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, we identified a deficiency in internal control, described in the accompanying schedule of findings and questioned costs as item 2016-001, 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 the Uniform Guidance. Accordingly, this report is not suitable for any other purpose.

PricewaterhouseCoopers LLP

January 30, 2017

III. Schedule of Findings and Questioned Costs

University of Pennsylvania
Schedule of Findings and Questioned Costs
June 30, 2016

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
2 CFR 200.516(a)? X yes no
- (vii) Identification of major programs:

CFDA Number(s)	Name of Federal Program or Cluster
Various	Research and Development Cluster
59.037	Small Business Administration
84.015	National Resource Center

- (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

University of Pennsylvania
Schedule of Findings and Questioned Costs
June 30, 2016

Section II – Financial Statement Findings

None noted.

Section III – Federal Awards Findings and Questioned Costs

Finding 2016-001 Cost Transfers

Grantor: Various
Program: Research and Development Cluster
CFDA#: Various
Title: Various
Award Year: 07/2015 – 06/2016
Award Number: Various

Criteria

Section 200.333 of the Uniform Guidance states that – “Financial records, supporting documents, statistical records, and all other non-Federal entity records pertinent to a Federal award must be retained for a period of three years from the date of submission of the final expenditure report or, for Federal awards that are renewed quarterly or annually, from the date of the submission of the quarterly or annual financial report, respectively, as reported to the Federal awarding agency or pass-through entity in the case of a subrecipient.”

Section 200.403 of the Uniform Guidance, Factors affecting allowability of costs says, “Except where otherwise authorized by statute, costs must meet the following general criteria in order to be allowable under Federal awards... (g) Be adequately documented.”

DHHS Grants Policy Statement – “Permissible cost transfers should be made promptly after the error occurs but no later than 90 days following occurrence unless a longer period is approved in advance by the GMO. The transfer must be supported by documentation that fully explains how the error occurred and a certification of the correctness of the new charge by a responsible official of the recipient, subrecipient, or contractor. An explanation merely stating that the transfer was made “to correct error” or “to transfer to correct project” is not sufficient.”

University Policy 2113 – Cost Transfers and Payroll Reallocations: “The principal investigator is responsible for ensuring that transfers of cost to sponsored projects, which may represent corrections of errors, are made promptly. Transfers must be supported by documentation which contains a full explanation of the need for the transfer and a correlation of the charge to the project to which the transfer is being made. Explanations such as “to correct an error” or “to transfer to correct project” are unacceptable. Documentation of the cost transfer should be provided at the time the transfer is prepared, using the Cost Transfer Justification Form. “

“The cost transfer form must be completed and sent to the Office of Research Services (‘ORS’) [email inbox] at the time the cost transfer is completed in [the financial system].”

“Cost transfers must be prepared and submitted within 90 days from month end in which the transaction appears on the fund. Any cost transfers made after this period require ORS approval and will only be allowed under extenuating circumstances.”

The responsibility to review cost transfer justification forms submitted to the central email inbox lies with ORS.

University of Pennsylvania
Schedule of Findings and Questioned Costs
June 30, 2016

Condition

During April 2016, the University enhanced their existing cost transfer policy to standardize the documentation for all cost transfers by mandating the use of a cost transfer justification form which addresses reasons for the transfer and other information per the University's policy. Additionally, such forms were required to be submitted centrally to the Office of Research Services.

For 60 R&D cost transfer selections from throughout the year, PwC requested the original invoice, evidence of original invoice approval, journal entry detail, evidence of Principal Investigator approval of the cost transfer, copy of the original or amended grant budget with identification of the cost transfer budget category and documentation at the time of transfer of a descriptive explanation of the reason for the transfer and a correlation of the charge to the project to which the transfer was made. We also requested the cost transfer form for all transfers made after the implementation of the new policy. 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 35 selections.

We noted inconsistent interpretation and treatment of transfers at the University.

This is a repeat of finding 2015-003 in the prior year audit report.

Table Legend

- A The principal investigator must authorize all original direct cost expenditures or project funds.
- B Transfers must be supported by documentation at the time of transfer which contains a full explanation of the need for the transfer.
- C Documentation must contain an explanation at the time of transfer of the correlation of the charge to the project to which the transfer is being made and PI certification.
- 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 requiring the Office of Research Services "ORS" approval.
- E The cost transfer form must be completed and sent to the ORS for review at the time the cost transfer is completed.

CFDA #	Award Number	Transfer Amount (\$)	Questioned Cost (\$)	Missing Adequate Support	Other Documentation Noted
93.866 93.859	2-P01-AG-017628-11 2-R01-GM-085146-05	750	0	A, B, C	
93.226	1-K99-HS-022406-01	1,290	0	B, C	
93.837	1-R01-HL-118768-01A1	1,075	0	A, B, C	

University of Pennsylvania
Schedule of Findings and Questioned Costs
June 30, 2016

CFDA #	Award Number	Transfer Amount (\$)	Questioned Cost (\$)	Missing Adequate Support	Other Documentation Noted
12.910	0205-G-SB098	1,134	o	B, C	Documentation included two effort forms, which were reviewed and approved approximately 4 months after the University's deadline for the completion of the Fall 2014 effort reports.
15.945	P14AC00921	1,128	o	D	The transfer was not processed using the correct journal type; as a result, the transfer was processed without ORS review.
93.286	2-P41-EB-015893-31	200	o	B, C	
93.103	1-R01-FD-003520-01	122	o	A, B, C	
93.103	1-R01-FD-003520-01	1,620	o	A, B, C	
93.103	1-R01-FD-003520-01	1,530	o	A, B, C	
93.857	HHSN272201400030C	3,187	o	C	
93.242	1-P30-MH-097488-01A1	4,754	o	A, B, C	
12.910	N66001-14-4032	279	o	B, C	An explanation of the transfer was included but the transfer did not include PI certification at time of transfer
12.XXX	316106	498	o	B, C	An explanation of the transfer was included but the transfer did not include PI certification at time of transfer
93.837	SUB TO 1U01HL23336/A5332/A5333	6784	o	B, C	
93.846	1-R01-AR-066098-01A1	91	o	A, B, C	An explanation of the transfer was included but the transfer did not include PI certification at time of transfer
93.853	1-R21-NS-087059-01A1	98	o	B, C	
93.279 93.279 93.279	1-U01-DA-033368-01A1 1-U01-DA-032629-01A1 1-U54-DA-039002-01	900	o	C	An explanation of the transfer was included but the transfer did not include PI certification at time of transfer
47.050	EAR-1204780	1592	o	B, C	

University of Pennsylvania
Schedule of Findings and Questioned Costs
June 30, 2016

CFDA #	Award Number	Transfer Amount (\$)	Questioned Cost (\$)	Missing Adequate Support	Other Documentation Noted
93.242	1-R37-MH-108286-01	2,852	0	B, C	
93.846	1-R01-AR-066098-01A1	2,338	0	A, B, C	An explanation of the transfer was included but the transfer did not include PI certification at time of transfer
93.846	1-R01-AR-066098-01A1	273	0	A, B, C	An explanation of the transfer was included but the transfer did not include PI certification at time of transfer
93.837	1-R01-HL-131557-01	325	0	A, C	Email documentation noted reason for transfer was the original grant was overspent.
12.XXX	HR0011516904	224	0	B	
47.070	CCF-1541646	3,536	0	A, C	Reason for the transfer is that the fund was not open until 4 months after receipt of the Notice of Award.
93.855	1-R01-AI-120011-01	4,501	0	C	
93.121	1-R01-DE-024570-01	1,829	0	A, B, C	
93.867	2-R01-EY-017549-06	10,044	0	C, E	The Penn cost transfer form was completed and approved by PI 115 days after transfer was processed.
93.351	2-P40-OD-010939-29	3,865	0	A, C, E	The Penn cost transfer form was completed and approved by PI 107 days after the transfer was processed.
93.855 93.855	RES508678 2-R01-AI-076066-06A1	28,711	0	A, C	An explanation of the transfer was included but the transfer did not include PI certification at time of transfer
93.394	1-R01-CA-193556-01A1	2,157	0	A, B, C, E	
93.859	1-R01-GM-108744-01	14	0	A, B, C, E	An explanation of the transfer was included but the transfer did not include PI certification at time of transfer. The Penn cost transfer justification form was completed and approved by PI 85 days after transfer occurred.
93.173	1-R01-DC-012854-01A1	144	0	B, C, E	
93.847 93.859 93.397	4-P30-DK-019525-40 4-R01-GM-103591-04 1 (ACCT #5-30761)	130	0	B, C, E	The Penn cost transfer justification form was completed and approved by PI 289 days after the transfer occurred.

University of Pennsylvania
Schedule of Findings and Questioned Costs
June 30, 2016

CFDA #	Award Number	Transfer Amount (\$)	Questioned Cost (\$)	Missing Adequate Support	Other Documentation Noted
93.846	1-R01-AR-066098-01A1	1,742	0	B, E	
93.847 93.847 93.847	4-P01-DK-049210-20 1-R01-DK-103008-01 4-P30-DK-019525-40	3,338	0	A, B, C, E	The Penn cost transfer form was completed 150 days after transfer occurred.

Management was able to provide some level of appropriate documentation for each cost transfer selection, although not necessarily documented at the time of transfer. The documentation received supports the allowability and appropriateness of the cost transfer.

Cause

The University has educated their research community on the need to complete the required cost transfer form. 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. As the revised policy was implemented in the last quarter of FY2016, business and grant administrators did not transition quickly to the new requirements.

Effect

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 and submitting reports on those costs which may then need to be modified.

Questioned Costs

None

Recommendation

We recommend that the University continue to emphasize to all employees and departments its policies and procedures regarding the documentation requirements for grant expenditure's to help ensure that all expenses charged to federal awards are properly documented and allowable in order to mitigate the volume of cost transfers. We recommend management enhance their monitoring control over cost transfers to ensure that all cost transfers are submitted and documentation is sufficient per University policy.

Management's View and Corrective Action Plan

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

University of Pennsylvania
Schedule of Findings and Questioned Costs
June 30, 2016

Finding 2016-002 Equipment Management

Grantor: National Institute of Health
Program: Research and Development Cluster
CFDA#: 93.859, 93.279
Title: Ras signaling and tubulogenesis in the C. elegans excretory (renal) system, Integrated Interdisciplinary Training in Computational Neuroscience
Award Year: 06/2015-07/2016
Award Number: 2-R01-GM-058540-01A1, 5-R90-DA023424-05

Criteria

Section 200.313 of the Uniform Guidance states that, "Procedures for managing equipment (including replacement equipment), whether acquired in whole or in part under a Federal award, until disposition takes place will, as a minimum, meet the following requirements:

- (1) Property records must be maintained that include a description of the property, a serial number or other identification number, the source of funding for the property (including the FAIN), who holds title, the acquisition date, and cost of the property, percentage of Federal participation in the project costs for the Federal award under which the property was acquired, the location, use and condition of the property, and any ultimate disposition data including the date of disposal and sale price of the property.
- (2) A physical inventory of the property must be taken and the results reconciled with the property records at least once every two years.

Additionally, per University Policy 11.06.5 - Property Management: "The Asset Administrators are responsible for updating the fixed asset system for changes in location, description, model number, serial number, manufacturer, custodian and phone number, tagging contact and phone number, tag numbers, tagging date and taggable status. Additional, responsibility for recording retirements within the fixed asset system has been delegated to Senior Asset Administrators."

Condition

From a sample of 40 items tested on the equipment inventory three items were not retired on a timely basis.

- Equipment with a net book value of \$3,102 as of June 30, 2016 purchased with funds from award 2-R01-GM-058540-01A1 (93.859; NIH/DHHS), with recorded book value as of June 30, 2016 was \$3,102, was replaced without being updated in the fixed asset system.
- Equipment with a net book value of \$0 as of June 30, 2016 partially purchased with funds from award-R90-DA023224-02 (93.279, NIH/DHHS) with a net book value of \$0 at June 30, 2016 was decommissioned in 2015 but not updated in the inventory system.

Untimely retirement of certain equipment is a repeat of finding 2015-004 in the prior year audit report.

Cause

In each case above the equipment stopped working prematurely and the system records were not updated to reflect its discontinued use.

Effect

Uniform Guidance Section 200.313 documentation requirements regarding the condition of the equipment and ultimate disposition has not been met in a timely manner.

University of Pennsylvania
Schedule of Findings and Questioned Costs
June 30, 2016

Questioned costs

None

Recommendation

We recommend that the University reinforce the need for accurate asset management of equipment purchased with Federal funds, including timely recording of disposal transactions and ensuring equipment is inventoried within the two-year required period and follow-up action is taken, as necessary, as a result of the inventory.

Management's View and Corrective Action Plan

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

University of Pennsylvania
Schedule of Findings and Questioned Costs
June 30, 2016

Finding 2016-003 Subrecipient Monitoring

Grantor: Department of Defense, National Institute of Health
Program: Research and Development Cluster
CFDA#: 12.300
Title: SPARCS: Synthesis of Platform-Weave Attache-Resilient Control Systems; New Paradigms for Scalable Online Decentralized Optimization;
Award Year: 06/2015-07/2016
Award Number: FA8760-12-2-0247, N00014-12-1-0997

Criteria

University Policy 2131 Compliance with Subrecipient Standards of OMB Uniform Guidance – “The principal investigator is responsible for monitoring the activities of subrecipients, as necessary, to ensure that Federal awards are being used for their authorized purpose and that performance goals are achieved. In doing so, the principal investigator is required to review and approve all technical and financial reports (including invoices.)”

Condition

From a sample of 25 R&D subrecipient invoices selected for testing, 2 invoices did not have documentation demonstrating Principal Investigator (PI) approval. A summary of the exceptions noted by award are as follows:

CFDA#	Award #	Exception
12.300	FA8760-12-2-0247	No PI approval of invoice 2200021064 for \$1,482
12.300	N00014-12-1-0997	No PI approval of invoice 90251983 for \$3,858

Cause

While principal investigators monitor the activities of their subrecipients in various ways, one aspect of that is the review and approval of technical and financial reports. The subrecipient invoices can be approved in conjunction with periodic prime award financial reviews; however, documentation of such financial reviews may not always be retained in a sufficient manner.

Effect

The University’s policy cited above was not followed to ensure compliance with Federal regulations.

Questioned costs

None

Recommendation

Management should implement a review control to ensure that all subrecipient invoices charged to a Federal award have been reviewed and authorized by the principal investigator.

Management’s View and Corrective Action Plan

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

University of Pennsylvania
Schedule of Findings and Questioned Costs
June 30, 2016

Finding 2016-004 Procurement

Grantor: National Institute of Aging of National Institutes of Health
Program: Research and Development Cluster
CFDA#: 93.866
Title: The NIA Genetics of Alzheimer's Disease Data Storage Site
Award Year: 06/2015 - 07/2016
Award Number: 1-U24-AG-041689-01

Criteria

University Policy 2308 Competitive Bidding states that, "All purchases with an aggregate value of \$5,000 or more must be competitively bid. Regardless of the dollar amount, competitive bids are not required for purchases from University Contract Suppliers and Penn Marketplace Suppliers designated as such. Normally, a minimum of three bids from qualified sources of supply will be required. However, circumstances may exist when fewer than three bids or more than three bids may be appropriate:

- a. Purchasing Services will accept fewer than three bids only in cases where the normal competitive bidding process cannot be conducted. Purchase orders for which at least three bids cannot be obtained must be accompanied a written Request to Waive the Competitive Bidding Process, in which the circumstances are explained.
- b. Purchasing Services is authorized to determine when more than three bids will be required."

Circular A-110 subpart C – Post-Award Requirements section .44 part (e) notes the following: "Recipients shall, on request, make available for the Federal awarding agency, pre-award review and procurement documents, such as request for proposals or invitations for bids, independent cost estimates, etc., when any of the following conditions apply.

- (1) A recipient's procurement procedures or operation fails to comply with the procurement standards in the Federal awarding agency's implementation of this Circular.
- (2) The procurement is expected to exceed the small purchase threshold fixed at 41 U.S.C. 403 (11) (currently \$25,000) and is to be awarded without competition or only one bid or offer is received in response to a solicitation.
- (3) The procurement, which is expected to exceed the small purchase threshold, specifies a "brand name" product.
- (4) The proposed award over the small purchase threshold is to be awarded to other than the apparent low bidder under a sealed bid procurement.
- (5) A proposed contract modification changes the scope of a contract or increases the contract amount by more than the amount of the small purchase threshold.

Condition

The Penn Marketplace purchasing mechanism provides a process for faculty and staff to order commonly required products and specific services from University suppliers by promoting utilization of preferred supplier relationships, and automatically provides Penn-negotiated pricing on Marketplace purchases with preferred contract suppliers.

During our testing of procurement, we selected 25 Research and Development (R&D) purchases and one Small Business Development Administration (SBA) grant expenditures greater than \$25,000 and noted 2 selections that were not from a Penn Marketplace Supplier that did not have contemporaneous documentation at the time of purchase as to the reasons these vendors were sole source providers and therefore, no competitive bids were necessary.

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A summary of the exceptions noted by award are as follows:

CFDA#	Award #	Invoice #	Invoice amount (\$)	Expenditure category
93.866	1-U24-AG-041689-01	63998	\$117,547	Equipment and other Capital Expenditures; Materials and Supplies
93.866	1-U24-AG-041689-01	3984	\$135,762	Equipment and other Capital Expenditures

Cause

The documentation to support the approved Purchase Orders was not adequately retained due to confusion over the policy requirements.

Effect

The documentation does not comply with the procurement policy and standards. Additionally, items purchased with federal funds may be at increased risk for purchase at a higher rate if the University is not evaluating competitive bids.

Questioned costs

None

Recommendation

As part of management's policy update for the new Uniform Guidance procurement Standards, CFR sections 200.317 through 200.326, effective in fiscal year 2018 we recommend that management educate the various schools and centers on vendor documentation requirements and include documentation retention requirements in the new policy.

Management's View and Corrective Action Plan

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

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Findings 2016-005, 2016-006 and 2016-007 are additional findings included in the report based upon the results of the 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 2016-005 Eligibility

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

Program: Ryan White HIV/AIDS

CFDA: 93.914

Title: HIV Emergency Relief Project Grants

Award Year: 2015-2016; 2016-2017

Award Number: RM5757 and R5731; RM6757 and R6731

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. The City of Philadelphia Audit Guide section 6130.04 provides a list of documents to be maintained and states “case management service providers are required to keep a file on each client served”.

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.

Finally, per the 2016 Compliance Supplement, providers may impose charges for the provision of services to patients in accordance with the individual's income level not exceeding in aggregate specific thresholds based on the individual's income level. The term aggregate applies to the annual charges imposed for all without regard to whether they are characterized as enrollment fees, premiums, deductibles, cost sharing, co-payments, coinsurance, or other charges for services.

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 level. These requirements were sent to the University of Pennsylvania (“the University”) by the City of Philadelphia as part of its contract to provide services.

Additionally, in cases in which the service provider charges individuals for service performed under the Ryan White program, the service provider is required to ensure that the aggregate amount of charges for the year do not exceed the income level related thresholds within the criteria below.

For the AACO Medical awards, of the 60 patient files selected for eligibility testing, 14 patients did not have all the required eligibility documentation for the Ryan White program. For the AACO Dental awards, of the 25 patient files selected for testing, 2 patients did not have all the required eligibility documentation for the Ryan White program. This is a repeat of finding 2015-001 in the prior year audit report.

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Additionally, of the 60 AACO Medical 60 patient files testing for eligibility, 55 were leveraged for program income testing, and 7 of these individuals had co-payments charged, totaling \$263. For all 7 transactions, it was unable to be determined whether the institution met the program income billing criteria stated below.

Exception	Medical/Dental	Location	Co-Payment Made (\$)	Exceptions Noted	Questioned Cost (\$)
1	Medical	Presbyterian Medical Center		A	
2	Medical	Presbyterian Medical Center	\$58	D, E	\$58
3	Medical	Presbyterian Medical Center		A	
4	Medical	Presbyterian Medical Center		A	
5	Medical	Presbyterian Medical Center	\$15	D	\$15
6	Medical	Presbyterian Medical Center		A	
7	Medical	Presbyterian Medical Center		A	
8	Medical	Presbyterian Medical Center		C	
9	Medical	Presbyterian Medical Center		B, C	
10	Medical	Presbyterian Medical Center		A	
11	Medical	Presbyterian Medical Center	\$60	A, B, D, E	\$60
12	Medical	Presbyterian Medical Center	\$45	A, B, C, D, E	\$45
13	Medical	Presbyterian Medical Center	\$40	A, B, D, E	\$40
14	Medical	Presbyterian Medical Center	\$10	A, B, D, E	\$10
15	Medical	Presbyterian Medical Center	\$35	A, B, D, E	\$35
16	Medical	Presbyterian Medical Center		A, B	
17	Dental	Dental School of Medicine		C	
18	Dental	Dental School of Medicine		A	
Total			\$263		\$263

- A** Missing evidence of Ryan White certification card for eligibility determination
- B** Missing evidence of income verification for eligibility determination
- C** Missing evidence of personal identification for eligibility determination
- D** Missing evidence of payments from patient for fiscal year for income level threshold determination
- E** Missing evidence of income level for income level threshold determination

Cause

Management does not have an adequate system in place to identify individuals who are part of the Ryan White Program to ensure that all documentation is obtained and retained in the patient's file specifically for Ryan White patients.

Additionally, the program administration did not have a process in place to ensure that each Ryan White designated patient is not charged more than the allowable amount based on their income level.

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Effect

Patient care may be provided to ineligible patients and uninsured/underinsured patients may have been inappropriately billed for services provided.

Questioned Costs

\$263

Recommendation

Although the University implemented new processes for medical record completeness, they should continue to ensure proper documentation is retained supporting all eligibility requirements. Additionally, management should create and maintain a listing of all individuals eligible to be covered by the Ryan White program and have a separate individual performing a file review of each patient to ensure compliance that only eligible patients receive Ryan White services. Finally, the AACO programs should implement a process to ensure each patient's income verification is collected and retained and should implement a process to certify that each patient is not overcharged for services received throughout the year. The University should reconcile total program income reported to the Ryan White patient detail.

Management's View and Corrective Action Plan

Following this finding are management's views and corrective action plan for both the Dental and Medical programs.

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Finding 2016-006 Employee Fringe Benefits

Grantor: Pass-through City of Philadelphia, Office of Behavioral Health and Intellectual Disability Services

Program: Mental Health

CFDA: 93.667

Title: Mental Health Base Unitary

Award Year: 2015-2016

Award Number: 12-20104-03

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.

Condition

Per review of the total salary amounts and fringe benefit amounts charged to the Mental Health award 12-20104-03, during Fiscal Year 2016, the engagement team notes that the fringe benefit rate of 34.06% applied to the award for the Social Rehabilitation Program and the 32.79% applied to the award for the Transitional and Community Integration Services Program, were higher than the federal allowable rate of 32.20% per the University’s Department of Health and Human Services (“DHHS”) negotiated fringe benefit rate agreement in effect during FY16. The engagement team noted total questioned costs of \$4,859, equal to the difference between the actual fringe benefits charged and the cost of fringe benefits recalculated using the DHHS negotiated fringe benefit rate of 32.20%. The Mental Health Program was not a major program in the prior year, however a similar finding was reported on a different major program in prior year (2015-002).

Cause

In submitting their total payroll budget, UPHS used their own 34.37% fringe rate amount in their calculation when submitting a budget to the City of Philadelphia which was approved. On August 26, 2016 UPHS was notified of the categorical change from City/State Funding to Federal Funding, after the fiscal year was completed. This would necessitate lowering the allowable fringe rate retrospectively or otherwise cause the fringe rate of 34.37% to be overstated.

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 FY16.

Questioned Costs

\$4,859

Recommendation

The Mental Health Program should obtain and retain written communication from the City of Philadelphia prior to the contract acceptance to indicate whether the source of funding could be determined in order for Penn to abide by the correct rate. Additionally, the Mental Health program should implement a process to ensure they are aware of the University’s negotiated federal rate and any rates charged to a federal award meet both the City of Philadelphia and any other 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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Finding 2016-007 Unallowable Costs

Grantor: Pass-through City of Philadelphia, Office of Behavioral Health and Intellectual disability Services

Program: Mental Health

CFDA: 93.667

Title: Mental Health Base Unitary

Award Year: 2015-2016

Award Number: 12-20104-03

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 the obligations incurred during the funding period.”

2 CFR 200.333 Retention Requirements for Records – “Financial records, supporting documents, statistical records, and all other non-Federal entity records pertinent to a Federal award must be retained for a period of three years from the date of submission of the final expenditure report or, for Federal awards that are renewed quarterly or annually, from the date of the submission of the quarterly or annual financial report, respectively, as reported to the Federal awarding agency or pass-through entity in the case of a subrecipient.”

2 CFR 200.403 – “Except where otherwise authorized by statute, costs must meet the following general criteria in order to be allowable under Federal awards... (g) Be adequately documented.”

Condition

The Mental Health awards have a one year duration beginning July 1st each year. During testing over the period of availability, we noted one invoice, totaling \$541, charged to the award for service dates prior to the start of the 2015-2016 grant. The invoice was related to gas for vehicles used during the month of June 2015. As these expenses were related to the period prior to the start of the current award, they were outside the grant’s period of availability. The Mental Health Program was not a major program in the prior year, however a similar finding was reported on a different major program in prior year (2015-003).

Furthermore, during testing of 17 selections for allowability of direct costs, we selected four monthly telephone expenditures totaling \$796 for which management was unable to provide the supporting documentation, such as purchase orders or invoices, necessary to validate the existence and allowability of the charges.

Cause

With regards to the expenditure that was noted to be outside of the award’s period of performance, the grant closeout process did not identify expenditures incurred without a received invoice.

In relation to the other direct cost expenditures, management did not ensure that all documentation is obtained and retained as required per the guidance above.

Effect

The expenditures charged to the grant did not match the proper grant period allowed by the award.

Additionally, the other direct costs expenditures may have been unallowed as they were charged to the award without evidence of meeting the requirements of the criteria above.

Questioned Costs

\$1,337

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Recommendation

The period end close out procedures should be reviewed to ensure a complete list of expenditures is prepared and that costs charged to the grant have service dates within the grant period. The Mental Health program should accrue for any expenditures incurred that have not yet been invoiced to the program.

Additionally, management should improve their record retention process to sure ensure that all expenditures invoiced to the sponsor are supported by clear documentation indicating the charge exists, was approved by management and allowed per terms of the grant.

Management's View and Corrective Action Plan

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

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The following finding is an additional finding included in our report based upon the results of our audit of the University of Pennsylvania Consolidated Financial Statements. Although SFA was not a major program, as these programs include Federal monies, this finding has have also been included within this report because it met all of the criteria to be designated a low risk Type A program.

Finding 2016-008 Return of Title IV Funds

Grantor: Department of Education

Program: Student Financial Aid

CFDA: 84.007, 84.063, 84.268

Title: Federal SEOG, Pell Loan, Federal Direct Loans

Award Year: 7/2015 – 6/2016

Award Number: Various

Criteria

In accordance with 34 CFR 668.22 and 34 CFR 668.164 the University must return the amount of Title IV funds for which it is responsible as soon as possible but no later than 45 days after the date the institution's determination that the student withdrew. The prescribed calculation of the amount of title IV assistance to be returned is determined based on 34 CFR 668.22 (e) which states that the school must perform a return of funds calculation using the number of days the student attended class.

Condition

If a recipient of Title IV grant or loan funds withdraws from a school after beginning attendance, the amount of Title IV grant or loan assistance earned by the student must be determined as the student may no longer be eligible for the full amount of Title IV funds that the student was originally scheduled to receive.

Of the 25 refund calculations tested, we noted that for 10 students, the refund form was calculated incorrectly or the return of funds occurred untimely. The incorrect calculations either used the wrong number of days in the semester or the wrong student withdrawal date, which led to over or under refunds to the Direct Loan, Pell Grant and Supplemental Educational Opportunity Grant (SEOG) programs in addition to certain students being over or under refunded. There were 7 late returns ranging from 4 to 208 days late with an average of 90 days past the 45 day timeframe to return funds. Additionally 3 selections totaling \$5,208 showed the funds were not returned to the Department of Education as of the end of the University's fiscal year. Finally, one fund had funds returned in the incorrect order. The net amounts of these exceptions of \$1,866 and \$3,342 is payable to the Department of Education and to the students, respectively, as of June 30, 2016.

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#	School of Enrollment	Aid Type Returned by 6/30/16 but after 45 day window	Amount Returned by 6/30/16 but after 45 days window	Days late (Returned by 6/30/16 but after 45 days window)	Aid Type Not Returned by 6/30/16	Amount Under (Over) Returned to Dpt. of Education as of 6/30/16	Under Returned to Student as of 6/30/16
1	Arts and Sciences	Sub and Unsub Direct Loan	3,711	208	Sub Direct Loan	(1,421)	1,421
2	Business	Unsub and Grad Plus Direct Loan	25,596	20	Grad Plus Direct Loan	(87)	87
3	Arts and Sciences	N/A	N/A	N/A	SEOG	1,357	N/A
4	Engineering and Applied Science	N/A	N/A	N/A	Pell	(319)	319
5	Business	N/A	N/A	N/A	Unsub Direct Loan	3,300	N/A
6	Dental	Unsub and Grad Plus Direct Loan	48,536	4	Grad Plus Direct Loan	(789)	789
7	Arts and Sciences	Unsub Direct Loan	2,345	43	Unsub Direct Loan	(507)	507
8	Arts and Sciences	SEOG	2000	152	Pell	551	N/A
9	Arts and Sciences	Unsub and Sub Direct Loan	1,407	56	Sub Direct Loan	(22)	22
10	Business	Unsub Direct Loan	990	148	Unsub Direct Loan	(197)	197

Cause

Management did not have a review process in place to ensure that calculations were being performed adequately and that returns were made timely.

Effect

A late and/or incorrect refund of the Title IV funds to the respective recipient occurred.

Questioned costs

\$1,866

Recommendation

Management should ensure that all refunds are returned to the respective recipient (individual student or government program) on a timely basis. We recommend that management institute a formal control to review the reported listing of students who withdrew on a monthly basis and verify that all applicable refunds have been calculated and sent in a timely manner.

Management's View and Corrective Action Plan

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

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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

Summary

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. Of 25 students selected for testing by PwC, three instances were noted where documentation of Perkins Loan notification could not be provided. 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.

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 by PwC for due diligence procedures testing, one instance was noted by PwC where one student with a delinquent Perkins Loan did not have due diligence procedures performed, due to a mistakenly placed suspense status on the student's loan account.

Status Update

Student Registration and Financial Services confirmed with the Medical School that they provided email notification of loan awards to Federal Perkins Loan borrowers. As the Federal Perkins Loan Program is phased out, student notification will not be required.

Collection staff members implemented the recommendations regarding suspense codes and loan servicer reporting. Suspense codes have been changed to a numeric value. In addition, a monthly report from the ACS CAP system is reviewed to search for any Federal Perkins Loan with a suspended billing status. Staff determines whether the status is valid (under review for total disability) or should be adjusted in order to resume billing.

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

Summary

From a PwC sample of 25 students selected for testing Federal Work Study compliance requirements, two instances were noted by PwC 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, one instance was noted 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. The exceptions were caused by an oversight from the supervisors to ensure that the reported time was certified and appropriate time records were maintained.

Status Update

Penn now uses e-timesheets for all Federal Work Study students except those employed off campus.

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Finding 2015-003 Cost Transfers and Allowable Costs, 2014-002 Cost Transfers, 2013-004 Cost Transfers

Grantor: Various

Program: Research and Development Cluster

CFDA#: Various

Title: Various

Award Year: 07/2014 – 06/2015

Award Number: Various

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. From a PwC sample of R&D cost transfer selections, PwC noted 21 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.

Additionally, from a sample of 60 direct cost selections, one direct cost expenditure for \$105 was mistakenly charged to Federal award number N66001-14-4032, related to CFDA#12.910 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.

Questioned Costs

\$105

Status Update

Allowable Costs

At the time the FY15 Audit Report was issued, the \$105 questioned cost had already been resolved. It was removed from the award. The grant manager was reminded to review all costs charged to sponsored awards for allowability.

Cost Transfers

As a result of repeated findings on Cost Transfers, the University of Pennsylvania recognized the need to improve the quality and consistency of the documentation for cost transfers. This need was also echoed in the report of the internal audit review on cost transfers, finalized shortly after this FY15 audit was issued. In order to address the internal controls deficiency over cost transfers, the University of Pennsylvania implemented several key changes as part of its multi-faceted plan to improve these internal controls.

In February 2016, the University of Pennsylvania revised its cost transfer policy to implement the use of a standardized form for documenting cost transfers. This revised policy was communicated through electronic announcements to the university research community and on the Office of Research Services website, information sessions within each of the schools, as well as updated training modules. In addition to using the standardized form, Departments now submit copies of the form to a dedicated Office of Research Services email address. This policy change and the standardized form were designed to give the research community a more explicit and uniform method of recording all the elements required for documenting cost transfers properly.

Also in February 2016, the BEN Financials group successfully added a customization to the BEN financial system to prevent usage of the "02" journal category (Adjustment to Previous Transaction) on sponsored

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program funds, as this was allowing some administrators to accomplish cost transfers in this non-transparent mechanism. This control mechanism has enhanced the University's ability to capture, report and monitor cost transfers. This restriction has also improved compliance with the requirement for approval from the Office of Research Services for over-90-day cost transfers.

The Office of Research Services began to include 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 as of July 2016.

See the responses to the current year finding 2016-001 on cost transfers for additional corrective actions.

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

Summary

From a PwC sample of 25 pieces of equipment partially or fully purchased with Federal funds selected for equipment observation testing, three exceptions were noted by PwC. One piece of equipment was located at another institution as the Principal Investigator left the University during 2015 and transferred the asset to that institution along with the related awards, with book value as of year-end of \$630. Another piece of equipment with recorded book value at June 30, 2015 of \$10,273 was unable to be found. A third piece of equipment, which was fully depreciated as of June 30, 2015, was incorrectly capitalized into the asset system instead of being expensed, and subsequently retired during the audit.

Additionally, for five of seven disposals tested by PwC, 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.

Status Update

The Comptroller's Office of the University of Pennsylvania, in conjunction with the Office of Research Services, reviewed and revised its Asset Retirement Policy to streamline the process for the community by increasing flexibility in how the information is reported, in order to reduce some of the administrative burden for asset retirements. The new "Financial Policy 1106.3 Plant Assets – Retirements" was revised August 2016 with an effective target date of October 2016. Key changes were 1) reduction of tiered approval for the retirement of moveable equipment assets and 2) rollout of electronic spreadsheet retirement communications in lieu of manually signed single-asset PDF/hardcopy forms. This revised policy allows department asset administrators to record retirements in a more timely and efficient manner.

In coordination with the revised policy and audit findings, the Comptroller's Office and the Office of Research Services have been reinforcing and continue to reinforce the need for proper management of

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equipment purchased with federal funds, including disposal documentation through senior school management and business administrator meetings. See the responses to the current year finding 2016-002 on equipment for additional corrective actions.

The following prior year audit findings are additional findings included in the PwC report based upon the results of PwC's 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 2015-005 Eligibility, 2014-005 Eligibility, 2013-006 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

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. Of the 40 patient files selected for testing by PwC, two files were noted by PwC as missing support for proof of income verification.

Status Update

Eligibility at all sites of service has been a focus in FY16. Through our efforts we were able to achieve 100% compliance on this year's audit at HUP. PPMC did have significant turnover during the year which resulted in inconsistency in staff and the current year findings. See the current year Management's View and Corrective Action Plan for eligibility.

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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

Summary

Per PwC's 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 fringe benefit rates applied to the awards, ranging from 32.6% to 35.3%, were higher than the allowable rate of 32% per the University's DHHS negotiated fringe benefit rate agreement in effect during FY15.

Status Update

As a resolution the University issued a notice dated 06/30/2015 limiting the amount of benefits costs charged to federally-sponsored awards to no more than the university's federally-negotiated rates. For FY16 the rate for full time employee was 32.2% and 9.7% for part time employees. These were the rates that were used when invoicing. The unit performed an analysis to calculate the overcharged fringe benefits and credit it back to the sponsor through an adjustment to the October 2015 invoice.

2015-007 Period of Availability, 2014-006 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

Summary

The AACO Medical awards have a one year duration beginning March 1st of each year. PwC noted three invoices totaling \$1,367 charged to the award were for service dates prior to the start of the 2015-2016 grant.

Status Update

Expenditures were closely monitored by the Senior Finance Operations Manager and Senior Accountant. In FY16, there were no cost transfers between the award years the ended on February 28, 2016 and began on March 1, 2016. For the period of March 1, 2016 to February 28, 2017 it is expected that all costs for this time period to be appropriately captured within the funding period.



Office of Research Services

Management's View and Corrective Action Plan

Finding 2016-001 Cost Transfers

Grantor: Various
Program: Research and Development Cluster
CFDA#: Various
Title: Various
Award Year: 07/2015 – 06/2016
Award Number: Various

Management previously implemented several changes to improve controls over cost transfers. The transition to the new process was not complete during FY16. While the new process was designed to facilitate capturing the needed explanations and PI approvals, a number of transfers were not documented in a timely manner and in some cases the documentation was incomplete. In all cases, the transfers were appropriate.

We have a multi-faceted plan to further improve controls over cost transfers, as follows:

- While research administration management has been actively engaged in enhancing the controls and process, including working with the Schools and Centers, School and Center leadership is now more fully engaged in process improvement and accountability. We will work more actively with them to facilitate the documentation process on the front end.
- A Research Compliance Shared Governance Board has been created to more actively communicate, train and engage on compliance policy, training, and best practices for policy implementation. This Board has representation from across Schools and Centers and will meet as necessary but at least quarterly.
- The University policy and procedures will be revised to ensure that cost transfers are identified in accordance with Federal Rules and Guidelines and that related documentation substantiation objectives are met.
- We plan to develop an electronic cost transfer process that will incorporate the electronic attachment of supporting documentation. This will facilitate documentation reviews and help ensure the related documentation is appropriate and timely.
- A Measuring and Monitoring Process will be developed and implemented. This process will include compliance reporting tools to enable Schools and Centers to more efficiently and effectively perform de-centralized monitoring pursuant to a shared governance process defined by the aforementioned Board.

Finding 2016-002 Equipment Management

Grantor: National Institute of Health
Program: Research and Development Cluster
CFDA#: 93.859, 93.279
Title: Ras signaling and tubulogenesis in the C. elegans excretory (renal) system, Integrated Interdisciplinary Training in Computational Neuroscience
Award Year: 06/2015-07/2016
Award Number: 2-R01-GM-058540-01A1, 5-R90-DA023424-05

All such equipment is subject to inventory verification every two years. This limits the potential impact of untimely equipment disposals and documentation thereof.

In the two unusual situations identified, the equipment was recently purchased and stopped working prematurely.

The aforementioned Research Compliance Shared Governance Board will be utilized to actively communicate and engage on the requirement for timely reporting and documentation of equipment disposals including consideration of developing a school/center reminder notification process

Finding 2016-003 Subrecipient Monitoring

Grantor: Department of Defense, National Institute of Health
Program: Research and Development Cluster
CFDA#: 12.300
Title: SPARCS: Synthesis of Platform-Weave Attache-Resilient Control Systems; New Paradigms for Scalable Online Decentralized Optimization
Award Year: 06/2015-07/2016
Award Number: FA8760-12-2-0247, N00014-12-1-0997

In January 2017, the business unit managing the associated awards was reminded of the need to formally document its compliance with PI approval for sub-recipient invoices, as well as the need to retain such documentation in compliance with Sponsored program policies.

Finding 2016-004 Procurement

Grantor: National Institute of Aging of National Institutes of Health
Program: Research and Development Cluster
CFDA#: 93.866
Title: The NIA Genetics of Alzheimer's Disease Data Storage Site
Award Year: 06/2015 - 07/2016
Award Number: 1-U24-AG-041689-01

Reinforced training will be provided to those Purchasing Services staff responsible for Purchase Order approvals. This training will address policy awareness, process responsibilities, and the impact of lapsed oversight. A communication will also be issued by the Purchasing Services department to senior administrators reiterating the University's policy as it pertains to competitive bidding and authorized exemptions to the competitive bidding process, and the required documentation as well as the retention of such documentation.

Finding 2016-008 Return of Title IV Funds

Grantor: Department of Education
Program: Student Financial Aid
CFDA: 84.007, 84.063, 84.268
Title: Federal SEOG, Federal Direct Loans, Federal Perkins Loan
Award Year: 7/2015 – 6/2016
Award Number: Various

This finding is the result of changes in staff in Student Financial Services during FY16. The University performed a thorough review of all Return to Title IV (R2T4) cases for FY16. It was determined what amounts need to be returned to the appropriate sources. SFS is working to finalize this during the current academic year.

Going forward, SFS will monitor all R2T4 cases and perform its due diligence as has been performed in the past.



Elizabeth D. Peloso

Associate Vice President / Associate Vice Provost Research Services

epeloso@upenn.edu

215-898-7293



Office of Research Services

Management View and Corrective Action Plan

Two different Management Views and Corrective Action Plans are being provided in response to the findings due to the fact that awards under the findings are under two different responsibility centers.

Finding 2016-005 Eligibility - Dental

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; 2016-2017

Award Number: R5731 and R6731

While this is a repeat finding for our institution overall, we note that the AACO Dental programs (1320714 / R5731 & R6731) were tested for eligibility last year, resulting in no exceptions for that clinic. This year, the testing resulted in one patient file missing support for proof of Ryan White certification and another patient file missing support for proof of identification.

Under the AACO program, the dental clinic staff conscientiously work to ensure that eligible patients complete Ryan White certification in a timely manner and receive the needed services, per the aim of the award.

Clinic management will continue to remind project staff of the importance of complete client files and the need to take action when documentation is not complete. For the case of the missing identification, the clinic will make sure to obtain and retain proof of this patient's identification at his/her next clinic visit. Regarding the patient file with the missing RW certification card, we note that a copy of the patient's new certification card was subsequently obtained and retained in the file.

A handwritten signature in black ink, reading "Elizabeth D. Peloso".

Elizabeth D. Peloso

Associate Vice President / Associate Vice Provost Research Services

epeloso@upenn.edu

215-898-7293



Management View and Corrective Action Plan

Finding 2016-05 Eligibility - Medical

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; 2016-2017

Award Number: RM5757 and RM6757

Eligibility at all sites of service has been a focus in FY16 as well as FY17. Through our efforts we were able to achieve 100% compliance on this year's audit at the Hospital of the University of Pennsylvania unit of UPHS. The Penn Presbyterian Medical Center unit of UPHS did have significant turnover during the year which resulted in inconsistency in staff. As both a process and control improvement measure, steps have already been taken to ensure that all staff are aware of the required documentation and we have instituted a streamlined and electronic certification card that is being used by all sites. This will help us to be compliant while making it easier for those who are certifying patients to be efficient and certain they reviewed all pertinent information. We look forward to engaging all staff and full compliance moving forward.

Regarding the HRSA Sliding Fee Scale, this requirement was only recently brought to the attention of our clinics by AACO after the close of FY16, if at all. During FY17, clinic management will investigate the Sliding Fee Scale and its requirements to establish a plan for controls, compliance and implementation.

Finding 2016-006 Employee Fringe Benefits

Grantor: Pass-through City of Philadelphia, Office of Behavioral Health and Intellectual disability Services

Program: Mental Health

Title: Mental Health Base Unitary

CFDA: 93.667

Award Year: 2015-2016

Award Number: 12-20104-03

Based on new information reported for FY16 CFDA, the Hall Mercer unit of UPHS will assume these programs will remain Federally funded in FY17. In turn, Hall Mercer will only reflect up to the Federal % for allowable fringe benefit cost moving forward.



Finding 2016-007 Unallowable Costs

Grantor: Pass-through City of Philadelphia, Office of Behavioral Health and Intellectual disability Services

Program: Mental Health

Title: Mental Health Base Unitary

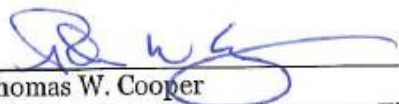
CFDA: 93.667

Award Year: 2015-2016

Award Number: 12-20104-03

Due to a change in accounting personnel the necessary accrual was an oversight. The staff member has been re-educated. When program financial management reviews invoices around award begin and end dates, it will check for period of availability.

Regarding the other direct cost expenditures, program financial and administrative management will work with the corporate office to obtain all necessary supporting documentation for direct cost expenditures for FY17.



Thomas W. Cooper
Vice President / UPHS Corporate Finance
thomas.cooper@uphs.upenn.edu
267-414-2344