

# **University of Pennsylvania**

**Philadelphia, Pennsylvania**

**Reports on Federal Awards in**

**Accordance with OMB Uniform Guidance**

**June 30, 2022**

**Federal Entity Identification**

**Number 23-1352685**

**University of Pennsylvania  
Reports on Federal Awards in  
Accordance with OMB Uniform Guidance  
Index  
June 30, 2022**

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## **I. Financial**



## **Report of Independent Auditors**

To the Trustees of the University of Pennsylvania

### **Report on the Audit of the Consolidated Financial Statements**

#### ***Opinion***

We have audited the accompanying consolidated financial statements of the University of Pennsylvania (the "University"), which comprise the consolidated statement of financial position as of June 30, 2022 and 2021, and the related consolidated statements of activities, and of cash flows for the years then ended, including the related notes (collectively referred to as the "consolidated financial statements").

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the University of Pennsylvania as of June 30, 2022 and 2021, 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.

#### ***Basis for Opinion***

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

#### ***Responsibilities of Management for the Consolidated Financial Statements***

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

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

#### ***Auditors' Responsibilities for the Audit of the Consolidated Financial Statements***

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with US GAAS and *Government Auditing Standards*, will always detect a material misstatement when it exists. The risk of not detecting a

material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

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

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the University's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the consolidated financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the University's ability to continue as a going concern for a reasonable period of time.


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

### ***Supplemental Information***

Our audit was conducted for the purpose of forming an opinion on the consolidated financial statements as a whole. The accompanying schedule of expenditures of federal awards for the year ended June 30, 2022 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 taken as a whole.

**Other Reporting Required by *Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued our report dated September 22, 2022 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, 2022. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing and not to provide an opinion on the effectiveness of internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Company's internal control over financial reporting and compliance.

A handwritten signature in black ink that reads "PricewaterhouseCoopers LLP". The signature is written in a cursive style and is centered horizontally within a light gray rectangular box.

Philadelphia, PA  
September 22, 2022

## CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

University of Pennsylvania

(in thousands)

	June 30,	
	2022	2021
<b>ASSETS</b>		
Cash and cash equivalents	\$ 3,163,942	\$ 2,406,233
Accounts receivable, net	1,925,027	1,729,614
Contributions receivable, net	513,788	473,580
Loans receivable, net	59,809	60,953
Other assets	1,011,588	951,435
Investments, at fair value	22,484,283	23,039,002
Property, plant and equipment, net	9,391,124	9,176,028
<b>TOTAL ASSETS</b>	<b>\$ 38,549,561</b>	<b>\$ 37,836,845</b>
<b>LIABILITIES</b>		
Accounts payable	\$ 393,273	\$ 384,829
Accrued expenses and other liabilities	3,847,063	4,126,911
Deferred income	200,658	190,697
Deposits and advances	234,653	215,936
Federal student loan advances	39,894	47,039
Accrued retirement benefits	466,605	1,314,769
Debt obligations	4,492,228	4,607,594
<b>TOTAL LIABILITIES</b>	<b>9,674,374</b>	<b>10,887,775</b>
<b>NET ASSETS</b>		
Without donor restrictions	17,808,212	15,903,927
With donor restrictions	11,066,975	11,045,143
<b>TOTAL NET ASSETS</b>	<b>28,875,187</b>	<b>26,949,070</b>
<b>TOTAL LIABILITIES AND NET ASSETS</b>	<b>\$ 38,549,561</b>	<b>\$ 37,836,845</b>

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, 2022 and 2021  
(in thousands)

	2022	2021
<b>WITHOUT DONOR RESTRICTIONS:</b>		
<b>REVENUE AND OTHER SUPPORT</b>		
Tuition and fees, net	\$ 1,310,603	\$ 1,105,104
Commonwealth appropriations	35,144	35,144
Sponsored programs	1,270,036	1,150,055
Contributions and donor support	210,892	202,184
Investment income	873,500	853,555
Net patient service revenue	8,094,673	7,536,453
Other income	2,632,107	1,774,703
<b>TOTAL REVENUE AND OTHER SUPPORT</b>	<b>14,426,955</b>	<b>12,657,198</b>
<b>EXPENSES</b>		
Compensation and benefits	7,209,286	6,713,886
Depreciation and amortization	623,457	552,935
Interest on indebtedness	127,997	88,036
Other operating expenses	4,807,895	4,246,611
<b>TOTAL EXPENSES</b>	<b>12,768,635</b>	<b>11,601,468</b>
<b>INCREASE IN NET ASSETS FROM OPERATIONS</b>	<b>1,658,320</b>	<b>1,055,730</b>
<b>NONOPERATING ACTIVITIES</b>		
Return on investments, net of amounts classified as operating revenue	(662,663)	2,704,552
Pension, OPEB and other, net	854,025	740,871
Contributions and donor support for capital related activities	54,603	36,413
<b>TOTAL NONOPERATING ACTIVITIES</b>	<b>245,965</b>	<b>3,481,836</b>
<b>INCREASE IN NET ASSETS WITHOUT DONOR RESTRICTIONS</b>	<b>1,904,285</b>	<b>4,537,566</b>
<b>WITH DONOR RESTRICTIONS:</b>		
Contributions	582,712	460,862
Return on investments, net	3,302	2,903,720
Net assets released from restrictions	(564,182)	(519,347)
<b>INCREASE IN NET ASSETS WITH DONOR RESTRICTIONS</b>	<b>21,832</b>	<b>2,845,235</b>
<b>INCREASE IN TOTAL NET ASSETS</b>	<b>1,926,117</b>	<b>7,382,801</b>
Total net assets, beginning of year	26,949,070	19,566,269
<b>TOTAL NET ASSETS, END OF YEAR</b>	<b>\$ 28,875,187</b>	<b>\$ 26,949,070</b>

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, 2022 and 2021  
(in thousands)

	2022	2021
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>		
Increase in total net assets	\$ 1,926,117	\$ 7,382,801
Adjustments to reconcile increase in total net assets to net cash provided by operating activities:		
Depreciation and amortization	601,252	533,111
Provision for bad debts	10,655	9,793
Loss (gain) on investments, net	367,312	(5,940,709)
Loss (gain) on disposal of property, plant and equipment	6,338	(13,029)
Donated equipment	(1,113)	(318)
Receipt of contributed securities	(132,109)	(109,309)
Proceeds from contributed securities	31,810	28,426
Receipt of contributions designated for the acquisition of long-lived assets and long-term investment	(285,814)	(246,724)
Pension, OPEB and other, net	(854,025)	(740,871)
Changes in operating assets and liabilities:		
Accounts and loans receivable	(205,196)	(504,074)
Contributions receivable	(39,936)	4,801
Other assets	(49,730)	(24,912)
Accounts payable, accrued expenses and accrued retirement benefits	(356,240)	532,585
Deposits and advances	19,141	(5,880)
Deferred income	9,961	777
<b>NET CASH PROVIDED BY OPERATING ACTIVITIES</b>	<b>1,048,423</b>	<b>906,468</b>
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>		
Purchase of investments	(18,713,752)	(16,837,731)
Proceeds from sale of investments	18,958,408	16,734,521
Purchase of property, plant and equipment	(868,238)	(957,675)
<b>NET CASH USED BY INVESTING ACTIVITIES</b>	<b>(623,582)</b>	<b>(1,060,885)</b>
<b>CASH FLOWS FROM FINANCING ACTIVITIES:</b>		
Proceeds from contributions received designated for the acquisition of long-lived assets and long-term investment	285,815	246,723
Proceeds from contributed securities received designated for the acquisition of long-lived assets and long-term investment	101,799	79,748
Federal student loan advances	(7,145)	(4,783)
Repayment of debt obligations	(214,892)	(234,545)
Proceeds from issuances of debt obligations	125,129	407,000
<b>NET CASH PROVIDED BY FINANCING ACTIVITIES</b>	<b>290,706</b>	<b>494,143</b>
<b>NET INCREASE IN CASH AND CASH EQUIVALENTS</b>	<b>715,547</b>	<b>339,726</b>
Cash and cash equivalents, beginning of year	2,457,705	2,117,979
<b>CASH AND CASH EQUIVALENTS, END OF YEAR</b>	<b>\$ 3,173,252</b>	<b>\$ 2,457,705</b>
<b>RECONCILIATION TO CONSOLIDATED STATEMENTS OF FINANCIAL POSITION:</b>		
Cash and cash equivalents, Consolidated Statements of Financial Position	\$ 3,163,942	\$ 2,406,233
Cash included in Investments, at fair value	9,310	51,472
<b>CASH AND CASH EQUIVALENTS, END OF YEAR</b>	<b>\$ 3,173,252</b>	<b>\$ 2,457,705</b>
<b>SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION:</b>		
Cash paid for interest, net of amounts capitalized	\$ 138,357	\$ 97,375
Decrease in accrued plant, property and equipment	(25,198)	(6,946)
Operating cash flows for operating leases	76,260	72,127
Right-of-use assets obtained in exchange for lease liabilities	70,727	64,950

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

## 1. SIGNIFICANT ACCOUNTING POLICIES

### Organization

The University of Pennsylvania (“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 in accordance with accounting principles generally accepted in the United States of America (“U.S. GAAP”) 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 measurement alternative – at cost adjusted for impairment, if any, unless an observable transaction for an identical or similar security occurs.

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

Without donor restrictions – includes net assets that are not subject to donor-imposed restrictions.

With donor restrictions – includes net assets that are (i) subject to legal or donor-imposed restrictions that will be met by actions of the University and/or the passage of time, and (ii) the original values 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 net assets without donor restrictions. Gains and losses associated with property, plant and equipment disposals are included in Other income and Other operating expenses, respectively. Gains and losses on investments are included in Return on investments, net and are reported as increases or decreases in net assets without donor restrictions unless their use is restricted by explicit donor stipulation or by law. Gains or losses associated with all other activities, such as debt retirements and pension and postretirement plan actuarial valuation adjustments, are reported in Pension, other postretirement employee benefits (OPEB) and other, net. Donor-restricted resources intended for the acquisition or construction of long-lived assets are initially reported as net assets with donor restrictions and released from restrictions to net assets without donor restrictions when the asset is placed in service or in accordance with donor-specified terms.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Expirations of 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):

<b>Net Assets Without Donor Restrictions</b>	<b>2022</b>	<b>2021</b>
Contributions and donor support	\$ 125,506	\$ 120,760
Investment income	384,073	362,174
Contributions and donor support for capital related activities	54,603	36,413
<b>Net assets released from restrictions</b>	<b>\$ 564,182</b>	<b>\$ 519,347</b>

<b>Net Assets With Donor Restrictions</b>	<b>2022</b>	<b>2021</b>
Net assets released from restrictions	\$ (564,182)	\$ (519,347)

### 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 Notes to Consolidated 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 U.S. GAAP. The University holds investments in its portfolio which are generally valued based on the most current NAV. This

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

amount represents fair value of these investments at June 30, 2022 and 2021. Investments reported at NAV, as a practical expedient, are not included within levels 1, 2, or 3 in the fair value hierarchy.

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 demand deposits and liquid investments available for current operations with maturities of three months or less, which would be considered Level 1 investments under the fair value hierarchy. All short-term, highly liquid investments, otherwise qualifying as cash equivalents or restricted cash equivalents, included in the University's investments are treated as Investments, at fair value and are therefore excluded from Cash and cash equivalents in the Statements of Cash Flows.

### **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 of the University of Pennsylvania (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 Return on investments, net 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 mutual funds and private funds. The securities held in managed accounts, along with mutual 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. Private funds are valued at NAV.

#### *Debt*

Debt investments consist of direct holdings of securities in managed accounts and private funds. 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 and sovereign bonds, 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. Private funds are valued at NAV.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

### *Absolute Return*

Absolute return investments are made up of allocations to private funds. The fund managers of these private funds invest in a variety of securities, based on the strategy of the fund, which may or may not be quoted in an active market. Private funds are valued at NAV.

### *Real Estate*

Investments in real estate are primarily in the form of private funds. The fund managers of these private funds primarily invest in investments for which there is no readily determinable market value. The fund managers may value the underlying investments based on an appraised value, discounted cash flow, industry comparables or some other method. Private funds are valued at NAV.

### *Private Equity*

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

### *Natural Resources*

Investments in natural resources are made up of private funds and securities in managed accounts. The fund managers of these private funds primarily invest in investments for which there is no readily determinable market value. The fund managers may value the underlying investments based on an appraised value, discounted cash flow, industry comparables or some other method. Private funds are valued at NAV. The securities held in 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.

### *Derivative Instruments*

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. The University 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).

## NOTES TO CONSOLIDATED 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 7,486 donor-restricted endowment funds and 981 quasi-endowment funds established by management for a variety of purposes. The University reports all endowment investments at fair value. Most of the endowment funds of the University have been pooled in the University's AIF. 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 the following as net assets with donor restrictions for reporting purposes: (i) the original value of donated assets required to be invested in perpetuity; (ii) the original value of subsequent donated assets required to be invested in perpetuity; (iii) accumulations to the donated assets invested in perpetuity made in accordance with the direction of the applicable donor gift instrument at the time the accumulation is added to the fund; and (iv) donated assets and accumulations that are subject to legal or donor-imposed restrictions that will be met by actions of the University and/or the passage of time. The Pennsylvania Act allows a nonprofit to elect to appropriate for expenditure between 2% and 7% (increased to 10% for fiscal years 2020 through 2022) of the endowment fair value, determined at least annually and averaged over a period of three or more preceding years, including funds whose fair value is less than the original donated value.

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, including funds whose fair value is less than the original donated value, is designed to manage annual spending levels and is independent of the cash yield and appreciation of investments for the year. For fiscal year 2022, the spending rule payout is 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 a 6% target spending rate for all funds. The payout or allocation to operations exceeded actual income, net of expenses, by \$876,619,000 and \$797,492,000 in 2022 and 2021, respectively.

### **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. 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 for leased assets. Contributions of library materials, as well as 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.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

### Split-Interest Agreements

The University's split-interest agreements with donors consist 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 Financial Position and Return on investments, net 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 Accrued expense and other liabilities on the Consolidated Statements of Financial Position and Return on investments, net 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 Financial 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 Financial Position and Return on investments, net 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.

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 Financial 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 Financial Position and Return on investments, net 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.

The University reports charitable lead trust 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 Financial 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 Financial Position and Return on investments, net 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.

### 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 are subject to federal "Unrelated Business Income Tax."

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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**

Tuition and fees includes tuition, room and board, and other student fees which are recognized as revenue over time during the fiscal year in which the related academic services are rendered. Tuition and fees received in advance of services to be rendered are reported as Deferred income on the Consolidated Statements of Financial Position. The University maintains a policy of offering qualified undergraduate applicants admission to the University without regard to financial circumstance, as well as meeting in full the demonstrated financial need of those admitted. Tuition and fees have been reduced by certain grants and scholarships in the amount of \$375,596,000 and \$349,592,000 in 2022 and 2021, respectively.

### **Sponsored Programs**

Sponsored programs includes revenue from exchange and conditional non-exchange agreements with governments, foundations and private sources, generally for research activities. Revenue from exchange agreements is generally recognized at a point in time when performance obligations are met, and revenue from conditional non-exchange agreements is generally recognized as the related costs are incurred. Non-exchange agreements are considered conditional if the terms of the agreement include both a right of return/release of assets received/promised and a barrier. These agreements become unconditional as barriers are met. At June 30, 2022, the University has unrecorded conditional agreements of \$2,638,553,000. In 2022 and 2021, sponsored programs revenue earned from governmental sources totaled \$927,666,000 and \$833,004,000, respectively. 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. The University negotiates its federal indirect rates with its cognizant federal agency. 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**

Contributions are revenues from unconditional non-exchange agreements with private sources and foundations. Contributions are recognized in the period received and reported as increases in the appropriate net asset category based on the presence or absence of donor-imposed restrictions. Non-exchange agreements are considered conditional if the terms of the agreement include both a right of return/release of assets received/promised and a barrier. These agreements become unconditional as barriers are met. Contributions and donor support without donor restrictions also includes net assets released as a result of corresponding expenditures which met donor-imposed restrictions. Contributions designated for the acquisition of long-lived assets and long-term investment are reported in Nonoperating activities.

The University reports unconditional pledges at fair value by discounting future cash flows using current market rates at the measurement date, ranging from 3.62% to 4.51%, 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. Changes in the fair value of the University's Contributions receivable due to fluctuations in the discount rate are reported as Contribution revenue on the Consolidated Statements of Activities.



## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

### Net Patient Service Revenue

Net patient service revenue is derived from contracts with patients of UPHS in which its performance obligation is to provide health care services. Net patient service revenue is recorded over time during the period these performance obligations are satisfied and at the determined transaction price, which represents the estimated net realizable amounts due from patients, third-party payers and others for health care services rendered. Estimated net realizable amounts represent amounts due, net of implicit and explicit price concessions. Implicit price concessions are based on management's assessment of expected net collections considering economic conditions, historical experience, trends in health care coverage and other collection indicators. 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. Patient receivables are written off after collection efforts have been followed in accordance with UPHS' policy. Certain revenue received from third-party payers 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 U.S. GAAP 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.

### COVID-19

In response to the COVID-19 pandemic, the federal government passed the Coronavirus Aid, Relief, and Economic Stimulus Act of 2020 (CARES Act) and the American Rescue Plan Act of 2021 (ARP) which made funds available to UPHS and the Academic Component through various provisions of the legislation. The following table summarizes the related impact on the Consolidated Financial Statements as of June 30, 2022 and 2021, and for the years then ended (in thousands):

	Line Item	2022	2021
<b>Consolidated Statements of Activities:</b>			
UPHS CARES Act Provider relief funding	Other income	\$ 18,654	\$ 201,281
UPHS ARP PA DHS Act 2 funding	Other income	19,239	
Higher Education Emergency Relief funding	Other income	22,494	
Higher Education Emergency Relief funding	Sponsored programs	17,847	
<b>Consolidated Statements of Financial Position:</b>			
UPHS Centers for Medicare and Medicaid Services Accelerated and Advanced Payments Program	Accrued expenses and other liabilities	\$ 116,304	\$ 535,787
Deferral of Social Security taxes	Accrued expenses and other liabilities	84,991	180,763

### Recent Authoritative Pronouncements

Periodically, the FASB issues updates to the Accounting Standards Codification (ASC) which impacts the University's financial reporting and related disclosures. The paragraph that follows summarizes a relevant update.

In March 2020, January 2021, and April 2022, the FASB issued standard updates on Reference Rate Reform in response to the planned discontinuation of the London Inter-Bank Offered Rate (LIBOR), a key interbank reference rate. The standard provides accounting relief to contract modifications and optional expedients for applying U.S. GAAP to contracts and other transactions that reference LIBOR or other reference rates that are expected to be discontinued because of rate reform. The University has determined that the standard will have no material impact on the University's results of operations or financial position.

## 2. UNIVERSITY OF PENNSYLVANIA HEALTH SYSTEM - SUMMARIZED FINANCIAL AND RELATED INFORMATION

The Trustees formed Penn Medicine, the governance structure which oversees the activities of UPHS and the University of Pennsylvania Perelman School of Medicine (PSOM) in order to operate, oversee and coordinate its academic, research and clinical missions.

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; Lancaster General Health (LGH); Wissahickon Hospice of the University of Pennsylvania Health System; Princeton HealthCare System (PHCS); 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).

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 \$148,317,000 and \$181,414,000 in 2022 and 2021, respectively, to further the research and educational activities of PSOM, and \$11,027,000 and \$61,008,000 in 2022 and 2021, respectively, for other activities. In addition, UPHS recognized operating expenses of \$20,588,000 and \$21,583,000 in 2022 and 2021, respectively, to support academic operating activities in the clinical departments of PSOM.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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, 2022 and 2021 (in thousands):

	2022	2021
Net patient service revenue	\$ 8,104,389	\$ 7,545,629
Other revenue and support	1,100,018	1,132,479
Total expenses	(9,056,929)	(8,067,225)
Excess of revenue over expenses from operations	147,478	610,883
Nonoperating, net	361,326	1,725,343
<b>Increase in net assets</b>	<b>\$ 508,804</b>	<b>\$ 2,336,226</b>
Total current assets	\$ 2,240,024	\$ 2,478,737
Assets whose use is limited:		
Held by trustees	165,219	186,258
RRG/ Captive	304,256	283,865
Donor restricted and other	820,548	867,329
Designated	4,094,937	3,946,161
Property and equipment, net	5,949,333	5,700,083
Investments and other assets	821,977	1,580,799
<b>Total assets</b>	<b>\$ 14,396,294</b>	<b>\$ 15,043,232</b>
Total current liabilities	\$ 1,603,575	\$ 1,977,367
Long-term debt, net of current portion	2,541,850	2,617,838
Other liabilities	1,634,578	2,340,540
<b>Total liabilities</b>	<b>\$ 5,780,003</b>	<b>\$ 6,935,745</b>
Net assets		
Without donor restrictions	\$ 7,761,326	\$ 7,217,776
With donor restrictions	854,965	889,711
<b>Total net assets</b>	<b>\$ 8,616,291</b>	<b>\$ 8,107,487</b>
<b>Total liabilities and net assets</b>	<b>\$ 14,396,294</b>	<b>\$ 15,043,232</b>

### Net Patient Service Revenue

Net Patient Service Revenue (NPSR) for the years ended June 30, 2022 and 2021 is derived from the following payers:

	2022	2021
Medicare (including Managed Medicare)	33%	32%
Medicaid (including Managed Medicaid)	13%	12%
Managed care	33%	35%
Independence Blue Cross (IBC)	16%	16%
Commercial	4%	4%
Self pay	1%	1%
	100%	100%

### Third-party payers

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

#### Medicare and Medicaid

Inpatient acute care services and outpatient services rendered to Medicare program beneficiaries are paid at prospectively determined rates. These rates vary according to a patient classification system that is

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

based on clinical, diagnostic, and other factors. Inpatient psychiatric services and medical education costs related to Medicare beneficiaries are paid based on a cost reimbursement methodology. UPHS is reimbursed for cost reimbursable items at a tentative rate with final settlement determined after submission of annual cost reports by each hospital and audits thereof by the Medicare fiscal intermediary.

Inpatient and outpatient services rendered to Medicaid program beneficiaries are paid at prospectively determined rates. Additional amounts are allocated to each hospital for training residents and serving a disproportionate indigent population.

Laws and regulations governing the Medicare and Medicaid programs are extremely complex and subject to interpretation. As a result, there is at least a reasonable possibility that recorded estimates will change by a material amount in the near term.

### *IBC and Commercial*

During 2017, UPHS and IBC reached agreement on terms of a five-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. On September 10, 2021, this agreement was extended from June 30, 2022 to June 30, 2025.

During 2015, UPHS and Aetna reached agreement on terms of a five-year agreement. A one-year bridge agreement was initiated effective July 1, 2020, and UPHS and Aetna subsequently extended this agreement through June 30, 2025. The new agreement consolidated all prior existing agreements across all UPHS regions and entities. Further, extensive new value-based payment models were layered on top of the existing fee-for-service framework.

UPHS also has reimbursement agreements with other 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 for these patients, 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 \$31,336,000 and \$27,335,000 were incurred as a result of providing services to charity patients for the years ended June 30, 2022 and 2021, respectively.

### **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), various commercial insurance companies and risk retention programs.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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 Statements of Financial Position in Accounts receivable, net 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, 2022 and 2021. The gross liability recorded under this program is \$797,620,000 and \$765,755,000 at June 30, 2022 and 2021, respectively, with a corresponding receivable of \$119,795,000 and \$113,343,000 at June 30, 2022 and 2021, respectively.

### 3. ACCOUNTS RECEIVABLE

Accounts receivable are reported at their net realizable value. The major components of receivables, net of allowances for doubtful accounts of \$31,546,000 and \$29,040,000 at June 30, 2022 and 2021, respectively, are as follows (in thousands):

	2022	2021
Patient	\$ 1,012,942	\$ 927,009
Intellectual property	350,346	321,287
Sponsored research	175,259	149,303
Malpractice	119,795	113,343
Trade	66,726	44,884
Student	33,973	29,150
Other	165,986	144,638
<b>TOTAL ACCOUNTS RECEIVABLE, NET</b>	<b>\$ 1,925,027</b>	<b>\$ 1,729,614</b>

### 4. LOANS RECEIVABLE

Loans receivable, and related allowances for doubtful accounts, consist of the following at June 30, 2022 and 2021 (in thousands):

2022	Receivable	Allowance	Net
Student Loans:			
Federally-sponsored	\$ 35,478		\$ 35,478
Other	11,860	\$ 2,897	8,963
Total Student loans	\$ 47,338	\$ 2,897	\$ 44,441
Other	15,787	419	15,368
<b>TOTAL</b>	<b>\$ 63,125</b>	<b>\$ 3,316</b>	<b>\$ 59,809</b>

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

<b>2021</b>	<b>Receivable</b>	<b>Allowance</b>	<b>Net</b>
Student Loans:			
Federally-sponsored	\$ 36,974		\$ 36,974
Other	12,547	\$ 2,902	9,645
Total Student loans	\$ 49,521	\$ 2,902	\$ 46,619
Other	15,001	667	14,334
<b>TOTAL</b>	<b>\$ 64,522</b>	<b>\$ 3,569</b>	<b>\$ 60,953</b>

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 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; 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 Financial 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 expected 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, 2022 and 2021, is as follows (in thousands):

	<b>2022</b>	<b>2021</b>
Unconditional promises expected to be collected in:		
Less than one year	\$ 192,660	\$ 164,432
One year to five years	282,350	232,207
Over five years	126,151	138,684
	601,161	535,323
Less: Discount	(57,500)	(31,618)
Less: Allowances for doubtful amounts	(29,873)	(30,125)
<b>TOTAL CONTRIBUTIONS RECEIVABLE, NET</b>	<b>\$ 513,788</b>	<b>\$ 473,580</b>

At June 30, 2022 and 2021, the University has outstanding unrecorded conditional promises to give, including non-legally binding bequests, of \$516,618,000 and \$512,434,000, respectively. When conditional promises to give become unconditional or non-legally binding bequests cash payments are received, they are recorded and are generally restricted for operations, endowment and capital projects as stipulated by the donors.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

### 6. INVESTMENTS, AT FAIR VALUE

A summary of investments, including the AIF, as of June 30, 2022 and 2021, categorized in accordance with the fair value hierarchy, is as follows (in thousands):

2022	Investments at				Total
	Level 1	Level 2	Level 3	NAV	
Short-term:	\$ 1,325,507				\$ 1,325,507
Equity:					
US equities	647,907			\$ 1,265,830	1,913,737
International equities	183,787			1,153,652	1,337,439
Emerging market equities				1,457,588	1,457,588
Total Equity	831,694			3,877,070	4,708,764
Debt:					
US treasuries	822,001	\$ 37,217			859,218
Corporate bonds	101,929	150,064			251,993
Total Debt	923,930	187,281			1,111,211
Split-interest agreements	84,635		\$ 350,812		435,447
Absolute return				4,332,605	4,332,605
Real estate		59		1,485,654	1,485,713
Private equity			20,234	7,891,341	7,911,575
Natural resources	148,845		3,547	983,745	1,136,137
Derivative instruments		34,680			34,680
Other			2,644		2,644
<b>TOTAL INVESTMENTS, AT FAIR VALUE</b>	<b>\$ 3,314,611</b>	<b>\$ 222,020</b>	<b>\$ 377,237</b>	<b>\$ 18,570,415</b>	<b>\$ 22,484,283</b>

2021	Investments at				Total
	Level 1	Level 2	Level 3	NAV	
Short-term	\$ 1,237,141				\$ 1,237,141
Equity:					
US equities	1,193,240			\$ 1,803,025	2,996,265
International equities	225,447			1,240,442	1,465,889
Emerging market equities	178,608			1,524,253	1,702,861
Total Equity	1,597,295			4,567,720	6,165,015
Debt:					
US treasuries	1,378,651	\$ 23,746			1,402,397
Corporate bonds	87,678	236,088			323,766
Total Debt	1,466,329	259,834			1,726,163
Split-interest agreements	103,128		\$ 395,694		498,822
Absolute return				4,423,435	4,423,435
Real estate		2,059		1,042,564	1,044,623
Private equity			21,754	6,995,732	7,017,486
Natural resources	175,758			747,025	922,783
Derivative instruments		667			667
Other			2,867		2,867
<b>TOTAL INVESTMENTS, AT FAIR VALUE</b>	<b>\$ 4,579,651</b>	<b>\$ 262,560</b>	<b>\$ 420,315</b>	<b>\$ 17,776,476</b>	<b>\$ 23,039,002</b>

Included in Short-term investments is \$24,380,000 and \$23,259,000 of amounts held by trustees under indenture and escrow agreements at June 30, 2022 and 2021, respectively.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

At June 30, 2022 and 2021, Short-term investments include \$50,264,000 and \$284,569,000, respectively, of outstanding receivables from trading activities. At June 30, 2022 and 2021, Short-term investments also include \$23,803,000 and \$64,517,000, respectively, of outstanding payables from trading activities.

Liabilities related to equity short positions of \$492,721,000 and \$389,222,000 at June 30, 2022 and 2021, respectively, are reported in Accrued expenses and other liabilities on the Consolidated Statements of Financial Position. These liabilities are valued using observable market data and are categorized as Level 1 based on quoted market prices in active markets.

Split-interest agreement investments included in Level 1 above are readily marketable assets invested by the University separately from the AIF where the University serves as trustee. These amounts include assets related to the University Academic Component charitable gift annuities totaling \$41,332,000 and \$49,757,000 at June 30, 2022 and 2021, respectively. Included in these split-interest agreement investments are amounts held to meet legally mandated annuity reserves of \$25,853,000 and \$28,009,000 as of June 30, 2022 and 2021, respectively, as required by the laws of the following states where certain individual donors reside: California, Maryland, New Jersey and New York. Level 3 split-interest agreement investments are managed and invested outside of the University by external trustees.

A summary of Level 3 assets included in split-interest agreement investments, where the University is not trustee, measured at fair value, as of June 30, 2022 and 2021 is as follows (in thousands):

	2022	2021
Charitable remainder trusts	\$ 18,197	\$ 18,874
Charitable lead trusts	4,266	6,523
Perpetual trusts	328,349	370,297
<b>Total</b>	<b>\$ 350,812</b>	<b>\$ 395,694</b>

Changes to the reported amounts of split-interest agreement investments measured at fair value using unobservable (Level 3) inputs as of June 30, 2022 and 2021 are as follows (in thousands):

	Charitable Remainder Trusts	Charitable Lead Trusts	Perpetual Trusts	Total
June 30, 2021	\$ 18,874	\$ 6,523	\$ 370,297	\$ 395,694
Net realized gains (losses)			9,830	9,830
Net unrealized gains (losses)	730	(1,931)	(53,298)	(54,499)
Acquisitions			1,520	1,520
Liquidations	(1,407)	(326)		(1,733)
June 30, 2022	\$ 18,197	\$ 4,266	\$ 328,349	\$ 350,812

	Charitable Remainder Trusts	Charitable Lead Trusts	Perpetual Trusts	Total
June 30, 2020	\$ 19,487	\$ 5,763	\$ 300,451	\$ 325,701
Net realized gains (losses)			10,170	10,170
Net unrealized gains (losses)	(571)	812	59,647	59,888
Acquisitions			29	29
Liquidations	(42)	(52)		(94)
June 30, 2021	\$ 18,874	\$ 6,523	\$ 370,297	\$ 395,694



## NOTES TO CONSOLIDATED 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, 2022 and 2021 (in thousands):

<b>2022</b>	<b>Notional Amount</b>	<b>Gross Derivative Assets</b>	<b>Gross Derivative Liabilities</b>	<b>Derivative Gains (Losses)</b>
Foreign currency contracts	\$ 145,227		\$ 13,948	\$ (24,855)
Futures contracts	(529,474)	\$ 30,032		75,133
Options contracts	153,941	4,648	446	(533)
<b>Total</b>	<b>\$ (230,306)</b>	<b>\$ 34,680</b>	<b>\$ 14,394</b>	<b>\$ 49,745</b>

<b>2021</b>	<b>Notional Amount</b>	<b>Gross Derivative Assets</b>	<b>Gross Derivative Liabilities</b>	<b>Derivative Gains (Losses)</b>
Foreign currency contracts	\$ 132,341	\$ 309	\$ 723	\$ (5,078)
Futures contracts	(431,857)	166		(225,995)
Options contracts	(101,311)	192	333	4,553
<b>Total</b>	<b>\$ (400,827)</b>	<b>\$ 667</b>	<b>\$ 1,056</b>	<b>\$ (226,520)</b>

The notional amount is representative of the volume and activity of the respective derivative type during the years ended June 30, 2022 and 2021.

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

## NOTES TO CONSOLIDATED 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 at June 30,		Outstanding Commitments	Redemption Terms	Redemption Restrictions
	2022	2021			
<b>Short-term</b>	\$ 1,325,507	\$ 1,237,141		Daily	None
Equity:					
Managed accounts	650,227	1,259,520		Daily and semi-annually with varying notice periods	None
Mutual funds	181,468	337,776		Daily	None
Private funds (1)	3,877,069	4,567,719	\$ 108,246	Weekly to annually with varying notice periods	Lock-up provisions ranging from 0 to 5 years and side pocket investments (2)
<b>Total Equity</b>	<b>4,708,764</b>	<b>6,165,015</b>	108,246		
Debt:					
Managed accounts	1,111,211	1,726,163		Daily	None
<b>Total Debt</b>	<b>1,111,211</b>	<b>1,726,163</b>			
<b>Absolute return</b>	<b>4,332,605</b>	<b>4,423,435</b>	290,229	Range from monthly to annually and close- ended funds not available for redemption	Lock-up provisions ranging from 0 to 5 years with earlier redemptions subject to redemption fee, close- ended funds not available for redemption, and side pocket investments (2)
<b>Real estate</b>	<b>1,485,713</b>	<b>1,044,623</b>	1,215,843	Close-ended funds not available for redemption	Close-ended funds not available for redemption
<b>Private equity</b>	<b>7,911,575</b>	<b>7,017,486</b>	3,244,748	Close-ended funds not available for redemption	Close-ended funds not available for redemption
Natural Resources:					
Managed accounts	152,392	175,758		Daily	None
Private funds (1)	983,745	747,025	249,311	Close-ended funds not available for redemption	Close-ended funds not available for redemption
<b>Total Natural Resources</b>	<b>1,136,137</b>	<b>922,783</b>	249,311		
<b>Total</b>	<b>\$ 22,011,512</b>	<b>\$ 22,536,646</b>	<b>\$ 5,108,377</b>		

(1) Private funds consist of close-ended and open-ended funds generally in the form of limited partnerships. Close-ended funds have varying remaining fund terms between 1 to 17 years.

(2) Side pocket investments represent investments designated by a manager that are not available for liquidity in an otherwise liquid fund vehicle.

Invested in the AIF with an aggregate fair value of \$217,928,000 and \$226,422,000 at June 30, 2022 and 2021, 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.

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 \$5,108,377,000 which represents 25.3% of the AIF value as of June 30, 2022.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

A summary of the University's total investment return, net of external and direct internal investment expenses, for the years ended June 30, 2022 and 2021 is presented below (in thousands):

	2022	2021
AIF investment income	\$ 146,425	\$ 55,780
AIF realized and unrealized gains (losses)	(99,940)	5,781,692
Total return on AIF	46,485	5,837,472
Other investment gains (losses)	(216,419)	262,182
<b>Total return on investments, net</b>	<b>\$ (169,934)</b>	<b>\$ 6,099,654</b>

## 7. ENDOWMENT

The composition and changes to the amount of the University's endowment at June 30, 2022 are as follows (in thousands):

	Without Donor Restrictions	With Donor Restrictions	Total
Donor-restricted endowment funds		\$ 10,051,459	\$ 10,051,459
Quasi-endowment funds	\$ 10,672,892		10,672,892
<b>June 30, 2022</b>	<b>\$ 10,672,892</b>	<b>\$ 10,051,459</b>	<b>\$ 20,724,351</b>

	Without Donor Restrictions	With Donor Restrictions	Total
Net assets, June 30, 2021	\$ 10,337,266	\$ 10,186,280	\$ 20,523,546
Investment return	(26,114)	(57,799)	(83,913)
New gifts	9,498	319,291	328,789
Allocation of endowment assets for expenditure	(876,619)		(876,619)
Other investment allocation	(10,097)		(10,097)
Transfers to create board designated funds	810,005		810,005
Donor-imposed income reinvestments		26,629	26,629
Other transfers	41,567	(35,556)	6,011
Released from restriction	387,386	(387,386)	-
<b>Net assets, June 30, 2022</b>	<b>\$ 10,672,892</b>	<b>\$ 10,051,459</b>	<b>\$ 20,724,351</b>

The composition and changes to the amount of the University's endowment as of June 30, 2021 are as follows (in thousands):

	Without Donor Restrictions	With Donor Restrictions	Total
Donor-restricted endowment funds		\$ 10,186,280	\$ 10,186,280
Quasi-endowment funds	\$ 10,337,266		10,337,266
<b>June 30, 2021</b>	<b>\$ 10,337,266</b>	<b>\$ 10,186,280</b>	<b>\$ 20,523,546</b>

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

	Without Donor Restrictions	With Donor Restrictions	Total
Net assets, June 30, 2020	\$ 7,363,736	\$ 7,513,627	\$ 14,877,363
Investment return	2,974,220	2,848,798	5,823,018
New gifts	7,385	209,055	216,440
Allocation of endowment assets for expenditure	(797,492)		(797,492)
Other investment allocation	(4,239)		(4,239)
Transfers to create board designated funds	380,634		380,634
Donor-imposed income reinvestments		11,371	11,371
Other transfers	50,007	(33,556)	16,451
Released from restriction	363,015	(363,015)	-
<b>Net assets, June 30, 2021</b>	<b>\$ 10,337,266</b>	<b>\$ 10,186,280</b>	<b>\$ 20,523,546</b>

At June 30, 2022 and 2021, the aggregate amount of funds reported in Net assets with donor restrictions for which the fair value was below historic value was \$5,636,000 and \$0, respectively.

### 8. PROPERTY, PLANT AND EQUIPMENT, NET

The components of PPE at June 30, 2022 and 2021 are as follows (in thousands):

	Estimated Useful Life in years	2022	2021
Land and land improvements	N/A to 20	\$ 447,993	\$ 446,746
Buildings and fixed equipment	5 to 50	13,255,569	11,100,395
Moveable equipment and other	4 to 20	2,543,589	2,294,762
Construction-in-progress		420,071	2,043,096
		16,667,222	15,884,999
Less: Accumulated depreciation		(7,276,098)	(6,708,971)
<b>TOTAL PROPERTY, PLANT AND EQUIPMENT, NET</b>		<b>\$ 9,391,124</b>	<b>\$ 9,176,028</b>

The University recorded \$622,720,000 and \$552,221,000 of depreciation expense for the years ended June 30, 2022 and 2021, respectively.

The University capitalized \$26,203,000 and \$65,649,000 of interest costs for the years ended June 30, 2022 and 2021, respectively.

## 9. SPLIT-INTEREST AGREEMENTS

Changes in the value of assets, liabilities and net assets pursuant to split-interest agreements as of June 30, 2022 and 2021 are as follows (in thousands):

<b>2022</b>	<b>Assets</b>		<b>Liabilities</b>		<b>Net Assets</b>	
June 30, 2021	\$	498,822	\$	(53,017)	\$	445,805
New contributions		2,705		(1,903)		802
Investment income		1,957		(1,611)		346
Realized and unrealized loss, net		(57,840)				(57,840)
Payments and settlements		(10,197)		8,374		(1,823)
Actuarial adjustment				1,749		1,749
<b>Net change</b>		<b>(63,375)</b>		<b>6,609</b>		<b>(56,766)</b>
June 30, 2022	\$	435,447	\$	(46,408)	\$	389,039
<b>2021</b>						
June 30, 2020	\$	412,786	\$	(50,836)	\$	361,950
New contributions		2,505		(4,385)		(1,880)
Investment income		1,984		(1,446)		538
Realized and unrealized gain, net		89,903				89,903
Payments and settlements		(8,356)		9,124		768
Actuarial adjustment				(5,474)		(5,474)
<b>Net change</b>		<b>86,036</b>		<b>(2,181)</b>		<b>83,855</b>
June 30, 2021	\$	498,822	\$	(53,017)	\$	445,805

## 10. 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 \$17,101,000 and \$15,341,000 at June 30, 2022 and 2021, respectively. Upon default by the borrower, the University is required to pay all or a portion of the outstanding loan balance. The University recognized a liability totaling \$2,648,000 and \$2,826,000 at June 30, 2022 and 2021, respectively, to cover both the fair value of the guarantee and any expected defaults in the portfolio of guaranteed loans.

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, 2022, approximately \$547,594,000 has been committed by the University.

## 11. PENSION AND OTHER POSTRETIREMENT BENEFITS 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 \$266,373,000 and \$247,158,000 as of June 30, 2022 and 2021, 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 and part-time entrants effective July 1, 2018. UPHS' primary plan was frozen to new entrants effective July 1, 2010; the benefit accruals for all participants of the LGH and PHCS plans were frozen effective June 30, 2013 and December 31, 2011, respectively. During the year ended June 30, 2021, UPHS paid \$25,814,000, from plan assets to insurance companies to buy out the total pension benefit for a portion of its retired participants.

The University also has faculty retirement incentive plans which are included in Other retirement programs shown below. The net liability under these plans is \$55,413,000 and \$95,139,000 as of June 30, 2022 and 2021, respectively, with the decrease primarily attributable to the University's offering of a special one-time faculty retirement plan during the year ended June 30, 2021.

Additionally, the University provides certain healthcare and life insurance benefits (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.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

### Change in Plan Assets/Obligation and Funded Status

The funded status of the plans is measured as the difference between the plan assets at fair value and the projected benefit obligation (PBO) for Pension Benefits or accumulated postretirement benefit obligation (APBO) for Other Postretirement Benefits. The resulting net liability is recorded in Accrued retirement benefits on the Statements of Financial Position. The following shows changes in the benefit obligation, plan assets and funded status for the years ended June 30, 2022 and June 30, 2021 (in thousands):

<b>2022</b>	<b>Pension Benefits</b>	<b>Other Postretirement Benefits</b>	<b>Total</b>
<b>Change in Benefit Obligation:</b>			
Benefit obligation, beginning of year (PBO/APBO)	\$ 4,177,955	\$ 1,096,142	\$ 5,274,097
Service cost	76,716	43,127	119,843
Interest cost	124,362	35,617	159,979
Plan participants' contributions	156	11,186	11,342
Net actuarial (gain)/loss	(880,613)	(307,658)	(1,188,271)
Benefits paid	(117,908)	(35,594)	(153,502)
Benefit obligation, end of year (PBO/APBO)	\$ 3,380,668	\$ 842,820	\$ 4,223,488
<b>Change in Plan Assets:</b>			
Fair value of plan assets, beginning of year	\$ 3,486,533	\$ 717,335	\$ 4,203,868
University contributions	35,045	32,056	67,101
Plan participants' contributions	156	11,186	11,342
Actual return on plan assets	(165,058)	(12,612)	(177,670)
Benefits paid	(117,908)	(35,594)	(153,502)
Fair value of plan assets, end of year	\$ 3,238,768	\$ 712,371	\$ 3,951,139
<b>Funded status, end of year</b>	<b>\$ 141,900</b>	<b>\$ 130,449</b>	<b>\$ 272,349</b>
Other retirement programs			170,889
			443,238
Plan with fair value of plan assets in excess of PBO*			23,367
<b>ACCRUED RETIREMENT BENEFITS</b>			<b>\$ 466,605</b>

\* Included in Other assets on the Consolidated Statements of Financial Position

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

<b>2021</b>	<b>Pension Benefits</b>	<b>Other Postretirement Benefits</b>	<b>Total</b>
<b>Change in Benefit Obligation:</b>			
Benefit obligation, beginning of year (PBO/APBO)	\$ 4,121,716	\$ 1,090,300	\$ 5,212,016
Service cost	79,683	41,638	121,321
Interest cost	122,483	35,292	157,775
Plan participants' contributions	144	9,133	9,277
Settlements	(13,366)		(13,366)
Net actuarial (gain)/loss	(12,159)	(38,799)	(50,958)
Benefits paid	(120,546)	(41,422)	(161,968)
Benefit obligation, end of year (PBO/APBO)	\$ 4,177,955	\$ 1,096,142	\$ 5,274,097
<b>Change in Plan Assets:</b>			
Fair value of plan assets, beginning of year	\$ 2,792,335	\$ 554,951	\$ 3,347,286
University contributions	143,707	30,875	174,582
Plan participants' contributions	144	9,133	9,277
Settlements	(13,366)		(13,366)
Actual return on plan assets	684,259	163,798	848,057
Benefits paid	(120,546)	(41,422)	(161,968)
Fair value of plan assets, end of year	\$ 3,486,533	\$ 717,335	\$ 4,203,868
<b>Funded status, end of year</b>	<b>\$ 691,422</b>	<b>\$ 378,807</b>	<b>\$ 1,070,229</b>
Other retirement programs			227,551
			1,297,780
Plans with fair value of plan assets in excess of PBOs*			16,989
<b>ACCRUED RETIREMENT BENEFITS</b>			<b>\$ 1,314,769</b>

\* Included in Other assets on the Consolidated Statements of Financial Position

The Accumulated Benefit Obligation for the Pension Benefits was \$3,137,299,000 and \$3,827,175,000 at June 30, 2022 and 2021, respectively.

For the year ended June 30, 2022, the primary drivers of the net actuarial gains in the Benefit Obligations were increases in the weighted average discount rates from 3.04% to 4.74% for Pension and from 3.29% to 4.96% for Other Postretirement. For the year ended June 30, 2021, the primary drivers of the net actuarial gains in the Benefit Obligations were a change in mortality assumptions for Pension and a change in per capita healthcare cost and trend rate assumptions for Other Postretirement.



## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

### Net Periodic Benefit Cost

The components of net periodic benefit cost for pension benefits and other postretirement benefits are detailed below (in thousands). In the Consolidated Statements of Activities, service cost is reported as Compensation and benefits while the remaining components of net periodic benefit cost are reported as Pension, OPEB and other, net.

<b>2022</b>	<b>Pension Benefits</b>	<b>Other Postretirement Benefits</b>	<b>Total</b>
Service cost	\$ 76,716	\$ 43,127	\$ 119,843
Interest cost	124,362	35,617	159,979
Expected return on plan assets	(208,682)	(53,884)	(262,566)
Amortization of:			
Net prior service cost/(credit)		(339)	(339)
Net losses	22,643	311	22,954
<b>Net periodic benefit cost</b>	<b>\$ 15,039</b>	<b>\$ 24,832</b>	<b>\$ 39,871</b>

<b>2021</b>	<b>Pension Benefits</b>	<b>Other Postretirement Benefits</b>	<b>Total</b>
Service cost	\$ 79,683	\$ 41,638	\$ 121,321
Interest cost	122,483	35,292	157,775
Expected return on plan assets	(173,940)	(41,671)	(215,611)
Settlement/Curtailment Expense	1,000		1,000
Amortization of:			
Net prior service cost/(credit)		(387)	(387)
Net losses	77,169	9,765	86,934
<b>Net periodic benefit cost</b>	<b>\$ 106,395</b>	<b>\$ 44,637</b>	<b>\$ 151,032</b>

### Net Assets Without Donor Restrictions

The University recorded the following year-end valuation adjustments to its Pension and Other Postretirement Benefit Plans in Pension, OPEB and other, net in the Consolidated Statements of Activities (in thousands):

<b>2022</b>	<b>Pension Benefits</b>	<b>Other Postretirement Benefits</b>	<b>Total</b>
<b>Net Assets Without Donor Restrictions:</b>			
Net actuarial (gain)/loss	\$ 121,815	\$ (172,280)	\$ (50,465)
Net prior service cost/(credit)		(1,647)	(1,647)
Total	\$ 121,815	\$ (173,927)	\$ (52,112)
<b>Adjustment to net assets without donor restrictions (gain)/loss</b>	<b>\$ (529,518)</b>	<b>\$ (241,137)</b>	<b>\$ (770,655)</b>

<b>2021</b>	<b>Pension Benefits</b>	<b>Other Postretirement Benefits</b>	<b>Total</b>
<b>Net Assets Without Donor Restrictions:</b>			
Net actuarial (gain)/loss	\$ 651,333	\$ 69,196	\$ 720,529
Net prior service cost/(credit)		(1,986)	(1,986)
Total	\$ 651,333	\$ 67,210	\$ 718,543
<b>Adjustment to net assets without donor restrictions (gain)/loss</b>	<b>\$ (600,589)</b>	<b>\$ (170,303)</b>	<b>\$ (770,892)</b>

## NOTES TO CONSOLIDATED 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	
<b>Weighted-Average Assumptions Used to Determine Benefit Obligations at Year End</b>	<b>2022</b>	<b>2021</b>	<b>2022</b>	<b>2021</b>
Discount rate	4.74%	3.04%	4.96%	3.29%
Salary increase	3.17%	3.20%	N/A	N/A
<b>Weighted-Average Assumptions Used to Determine Net Periodic Benefit Cost</b>				
Discount rate	3.12%	3.05%	3.32%	3.27%
Expected long-term return on plan assets	6.77%	7.14%	7.50%	7.50%
Salary increase	3.21%	3.23%	N/A	N/A
<b>Assumed Health Care Cost Trend Rates</b>				
Initial trend rate	N/A	N/A	6.20%	6.20%
Ultimate trend rate	N/A	N/A	4.70%	4.72%
Fiscal year end that ultimate trend rate is reached	N/A	N/A	2046	2037

### Expected Contributions

The University expects to contribute \$17,121,000 and \$31,831,000 for pension benefits and other postretirement benefits, respectively, during the fiscal year ending June 30, 2023.

### Expected Benefits Payments (in thousands):

<b>Expected benefit payments for the year ending:</b>	Other Postretirement Benefits before Medicare Part D Subsidy		Medicare Part D Subsidy			
	Pension Benefits					
June 30, 2023	\$	148,248	\$	31,247	\$	78
June 30, 2024		153,507		33,081		80
June 30, 2025		162,021		35,019		82
June 30, 2026		170,674		36,786		84
June 30, 2027		178,892		38,757		86
June 30, 2028 to June 30, 2032		1,007,162		221,584		439

### Plan Assets and Allocations

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.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The University's Office of Investments is responsible for the day-to-day management of the majority 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.

A summary of plan assets, measured at fair value, as of June 30, 2022 and 2021, is as follows (in thousands):

### Pension Benefits:

2022	Level 1	Level 2	Level 3	Investments at NAV	Total
<b>Assets:</b>					
Short-term	\$ 267,580				\$ 267,580
Equity:					
US equities	43,294			\$ 133,219	176,513
International equities	28,495			196,037	224,532
Emerging market equities	901			166,740	167,641
Debt:					
US treasuries	893,167				893,167
Corporate bonds	106,109	\$ 21			106,130
Absolute return				662,583	662,583
Real estate				125,024	125,024
Private equity				520,834	520,834
Natural resources	47,628		\$ 1,419	45,717	94,764
<b>Fair value of plan assets, end of year</b>	<b>\$ 1,387,174</b>	<b>\$ 21</b>	<b>\$ 1,419</b>	<b>\$ 1,850,154</b>	<b>\$ 3,238,768</b>

2021	Level 1	Level 2	Level 3	Investments at NAV	Total
<b>Assets:</b>					
Short-term	\$ 155,966				\$ 155,966
Equity:					
US equities	288,098	\$ 564		\$ 224,600	513,262
International equities	159,911			246,411	406,322
Emerging market equities	1,373			224,024	225,397
Debt:					
US treasuries	329,630	7,923			337,553
Corporate bonds	131,152	125,821		230,796	487,769
Absolute return				764,295	764,295
Real estate				88,727	88,727
Private equity	438			382,274	382,712
Natural resources	94,163			30,502	124,665
Total assets	\$ 1,160,731	\$ 134,308	\$ -	\$ 2,191,629	\$ 3,486,668
<b>Liabilities:</b>					
Derivative instruments		\$ 135			\$ 135
Total liabilities	\$ -	\$ 135	\$ -	\$ -	\$ 135
<b>Fair value of plan assets, end of year</b>	<b>\$ 1,160,731</b>	<b>\$ 134,173</b>	<b>\$ -</b>	<b>\$ 2,191,629</b>	<b>\$ 3,486,533</b>

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

### Other Postretirement Benefits:

<b>2022</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Investments at NAV</b>	<b>Total</b>
<b>Assets:</b>					
Short-term	\$ 41,712				\$ 41,712
Equity:					
US equities	6,235			\$ 52,670	58,905
International equities				82,149	82,149
Emerging market equities				49,845	49,845
Debt:					
US treasuries	17,436				17,436
Corporate bonds					-
Absolute return				213,457	213,457
Real estate				56,894	56,894
Private equity				150,704	150,704
Natural resources	26,751		455	14,192	41,398
<b>Total assets</b>	<b>\$ 92,134</b>	<b>\$ -</b>	<b>\$ 455</b>	<b>\$ 619,911</b>	<b>\$ 712,500</b>
<b>Liabilities:</b>					
Derivative instruments		\$ 129			\$ 129
<b>Total liabilities</b>	<b>\$ -</b>	<b>\$ 129</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 129</b>
<b>Fair value of plan assets, end of year</b>	<b>\$ 92,134</b>	<b>\$ (129)</b>	<b>\$ 455</b>	<b>\$ 619,911</b>	<b>\$ 712,371</b>
<b>2021</b>					
	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Investments at NAV</b>	<b>Total</b>
<b>Assets:</b>					
Short-term	\$ 44,598				\$ 44,598
Equity:					
US equities	12,503			\$ 81,196	93,699
International equities				92,334	92,334
Emerging market equities				65,903	65,903
Debt:					
US treasuries	19,821				19,821
Corporate bonds				11,514	11,514
Absolute return				215,675	215,675
Real estate				38,665	38,665
Private equity				95,435	95,435
Natural resources	31,284			8,452	39,736
<b>Total assets</b>	<b>\$ 108,206</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 609,174</b>	<b>\$ 717,380</b>
<b>Liabilities:</b>					
Derivative instruments		\$ 45			\$ 45
<b>Total liabilities</b>	<b>\$ -</b>	<b>\$ 45</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 45</b>
<b>Fair value of plan assets, end of year</b>	<b>\$ 108,206</b>	<b>\$ (45)</b>	<b>\$ -</b>	<b>\$ 609,174</b>	<b>\$ 717,335</b>

As of June 30, 2022, the University has unfunded commitments to limited partnerships totaling \$503,612,000, which are expected to be called over the next 5 years.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Plan asset allocations by category are as follows:

2022 Allocation of Plan Assets	Pension Benefits		Other Postretirement Benefits	
	Target	Actual	Target	Actual
Short-term	0.0%	8.3%	0.0%	5.9%
Equity:				
US equities	11.1%	5.4%	10.0%	8.3%
International equities	11.6%	6.9%	12.0%	11.5%
Emerging markets equities	6.5%	5.2%	10.0%	7.0%
Debt:				
US treasuries	21.3%	27.6%	6.0%	2.4%
Corporate bonds	2.5%	3.3%	0.0%	0.0%
Absolute return	26.7%	20.4%	35.0%	30.0%
Real estate	3.2%	3.9%	6.0%	8.0%
Private equity	12.4%	16.1%	15.0%	21.1%
Natural resources	4.7%	2.9%	6.0%	5.8%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## 12. DEBT OBLIGATIONS

Debt obligations at June 30, 2022 and 2021 are as follows (in thousands):

	Final Maturity	Effective Interest Rate at June 30, 2022	2022	2021
<b>Academic Component:</b>				
<u>Fixed rate debt obligations:</u>				
The Trustees of the University of Pennsylvania				
Series A of 2020 Taxable Bonds	10/2050	2.40%	\$ 300,000	\$ 300,000
Series A of 2019 revenue bonds	02/2119	3.61%	300,000	300,000
Series 2012 Taxable Bonds	09/2112	4.67%	300,000	300,000
Pennsylvania Higher Educational Facilities Authority (PHEFA)				
Series B of 2019 revenue bonds	08/2045	2.40% - 2.97%	213,585	213,585
Series A of 2018 revenue bonds	02/2048	2.17% - 4.70%	176,410	183,145
Series A of 2017 revenue bonds	08/2046	2.26% - 3.72%	178,395	178,395
Series A of 2016 revenue bonds	08/2041	1.42% - 2.93%	118,360	119,435
Series A of 2015 revenue bonds	10/2045	1.82% - 2.63%	38,775	43,640
Series B of 2015 revenue bonds	10/2038	1.82% - 3.38%	145,110	153,595
Series C of 2015 revenue bonds	10/2035	3.680%	8,020	8,020
Series A of 2011 revenue bonds	09/2021		-	3,885
Other loans	05/2031	4.50% - 5.53%	19,659	20,703
<u>Variable rate debt obligation:</u>				
Washington County Authority Series of 2004	07/2034	0.80%	43,700	46,500
Total Academic Component outstanding bonds payable			1,842,014	1,870,903
Unamortized issuance costs, premiums and discounts, net			52,562	58,518
Total Academic Component debt obligations			\$ 1,894,576	\$ 1,929,421
<b>UPHS:</b>				
<u>Fixed rate debt obligations:</u>				
Lancaster County Hospital Authority (LCHA)				
Series A of 2016 revenue bonds	08/2042	1.66% - 3.52%	\$ 147,640	\$ 152,150
Series B of 2016 revenue bonds	08/2046	1.61% - 3.58%	119,485	128,050
PHEFA				
Series A of 2021 revenue bonds	08/2044	1.61% - 2.11%	79,810	79,810
Series B of 2021 revenue bonds	08/2042	0.82% - 2.70%	109,735	
Series A of 2019 revenue bonds	08/2049	1.67% - 3.22%	534,870	534,870
Series A of 2017 revenue bonds	08/2047	2.60% - 3.68%	400,000	400,000
Series C of 2016 revenue bonds	08/2041	1.29% - 3.08%	127,800	128,125
Series A of 2015 revenue bonds	08/2045	2.01% - 4.00%	209,870	235,055
Series A of 2012 revenue bonds	08/2042	2.69%	8,305	132,140
Series A of 2009 revenue bonds	08/2021		-	1,545
New Jersey Health Care Facilities Financing Authority (NJHCFFA)				
Princeton Healthcare System Series A of 2016	07/2039	2.04% - 3.88%	162,875	168,400
University of Pennsylvania Health System Taxable Note	08/2047	4.01%	200,000	200,000
Lancaster General Hospital 2015 Taxable Note	08/2022	2.66%	62,518	65,193
Mortgages, notes and other	Various	Various	96,591	110,429
<u>Variable rate debt obligations:</u>				
PHEFA Series A of 2008 revenue bonds	01/2038	0.81%	69,995	69,995
NJHCFFA Princeton Healthcare System Series B of 2016	07/2045	1.37%	65,000	65,000
NJHCFFA Princeton Healthcare System Series C of 2016	07/2045	1.38%	20,000	20,000
Total UPHS outstanding bonds payable			2,414,494	2,490,762
Unamortized issuance costs, premiums and discounts, net			183,158	187,411
Total UPHS debt obligations			2,597,652	2,678,173
<b>TOTAL DEBT OBLIGATIONS</b>			<b>\$ 4,492,228</b>	<b>\$ 4,607,594</b>

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Contractual maturities of debt obligations are as follows (in thousands):

Fiscal Year	Academic		Total
	Component	UPHS	
2023	\$ 23,720	\$ 55,802	\$ 79,522
2024	35,151	60,638	95,789
2025	29,128	64,328	93,456
2026	44,541	67,071	111,612
2027	30,923	69,298	100,221
Thereafter	1,678,551	2,097,357	3,775,908
Total Principal	1,842,014	2,414,494	4,256,508
Unamortized issuance costs, premiums & discounts	52,562	183,158	235,720
<b>TOTAL DEBT OBLIGATIONS</b>	<b>\$ 1,894,576</b>	<b>\$ 2,597,652</b>	<b>\$ 4,492,228</b>

To secure certain self-insured liabilities, the University has letters of credit with various financial institutions totaling \$12,557,000 and \$12,535,000 at June 30, 2022 and 2021, respectively, of which \$4,709,000 and \$3,065,000 were issued under a line of credit. The letters of credit have evergreen provisions for automatic renewal. There have been no draws under the letters of credit.

### Academic Component

On July 14, 2020, the Trustees of the University of Pennsylvania (the "University") issued Taxable Bonds, Series A of 2020 in the aggregate principal amount of \$300,000,000. The proceeds of the sale of the Series A of 2020 Bonds will be used by the University for its general corporate purposes, including the financing or refinancing of capital projects and the payment of the cost of issuing the Series A of 2020 Bonds. Interest on the Series A of 2020 is fixed with coupons of 2.396%.

The University has variable rate debt in the amount of \$43,700,000 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.

On June 14, 2021, the University entered into a new five-year agreement with a financial institution to provide a line of credit in the amount of \$100,000,000 for general purposes of the University. The University pays a fee annually on the unused amount of the line of credit. There were no outstanding balances as of June 30, 2022 and 2021.

### UPHS

The PHEFA Revenue Bonds, Lancaster County Hospital Authority (LCHA) Revenue Bonds and New Jersey Health Care Facilities Financing Authority (NJHCFFA) 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

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

sufficient cash flow to pay total operating expenses and debt service for the fiscal year. In both 2022 and 2021, UPHS met its debt service coverage requirement under the MTI. Additionally, UPHS has pledged its gross revenues to secure its obligation under the MTI.

On May 18, 2022, Pennsylvania Higher Educational Facilities Authority (PHEFA) issued Series B of 2021 Refunding Revenue Bonds (PHEFA 2021B bonds), which was a forward delivery, with an aggregate principal amount of \$109,735,000. The proceeds were used to fund an escrow which was used to refund \$122,275,000 from the PHEFA Series A of 2012 revenue bonds. The refunded bonds were legally defeased and are no longer included among UPHS' reported liabilities. Interest on the PHEFA 2021B bonds is fixed with coupons ranging between 0.82% and 2.70%. As a result of the legal defeasance of debt associated with the issuance of PHEFA 2021B bonds, the University reported a gain on early extinguishment of debt in Pension, OPEB and other, net on the Consolidated Statement of Activities in the amount of \$3,398,000 for the year ended June 30, 2022.

On April 13, 2021, Pennsylvania Higher Educational Facilities Authority (PHEFA) issued Series A of 2021 Refunding Revenue Bonds (PHEFA 2021A bonds) with an aggregate principal amount of \$79,810,000. The proceeds were immediately used to fully redeem \$100,000,000 from the PHEFA Series A of 2014 revenue bonds. The redeemed bonds are no longer included among UPHS' reported liabilities. Interest on the PHEFA 2021A bonds is fixed with coupons ranging between 1.61% and 2.11%. As a result of the redemption of debt associated with the issuance of PHEFA 2021A 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 \$310,000 for the year ended June 30, 2021.

On February 25, 2022, the University executed a commitment letter and rate-lock agreement to facilitate the extension of the Lancaster General Hospital ("LGH") 2015 Taxable Note with an aggregate principal amount not to exceed \$62,525,000. As of August 1, 2022, the LGH 2015 Taxable Note has been extended for a ten-year period with a maturity date of August 1, 2032, with a fixed interest rate of 2.25%.

UPHS has variable rate debt in the amount of \$69,995,000 which is subject to optional tender by the holders upon seven days' notice. These bonds are reflected in the debt obligations maturity table above based on original scheduled maturities. In the event that UPHS 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, UPHS has in place a renewable direct pay letter of credit issued by Bank of America with an expiration date of April 15, 2023. In the event that the letter of credit cannot be drawn upon, UPHS would have the general obligation to purchase the bonds.

UPHS maintains a \$100,000,000 line of credit with a maturity date of April 12, 2025 to supplement liquidity and issue letters of credit to cover balances due on construction projects and reinsurance agreements. There were no outstanding balances as of June 30, 2022 and 2021.

### Interest Rate Swap Agreements

The University enters 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. Accordingly, the University considers this to be a Level 2 measurement. The quotes provided also represent the amount the University 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 also takes into account the risk of nonperformance.



## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The following table summarizes the terms of the University's remaining interest rate swap agreements (in thousands):

	Academic Component	UPHS		
Notional Amounts	\$ 101,950	\$ 7,225	\$ 7,225	\$ 20,225
Trade Date	11/6/2007	7/15/2009	1/7/2010	7/28/2006
Maturity Date	7/1/2034	8/15/2023	8/15/2023	7/1/2041
Rates:				
Receive	67% of 1-Month LIBOR	3.184%	2.902%	70% of 1-Month LIBOR
Pay	3.573%	SIFMA Index	SIFMA Index	3.980%

The following table summarizes the fair value of the interest rate swap agreements, not designated as hedging instruments, as of June 30, 2022 and 2021, and the related gains on the interest rate swap agreements, both realized and unrealized, for the years ended June 30, 2022 and 2021 (in thousands):

Line Item		2022	2021
<b>Consolidated Statements of Financial Position:</b>			
Asset interest rate swaps:			
UPHS	Other assets	\$ 110	\$ 757
<b>Total asset interest rate swaps</b>		<b>\$ 110</b>	<b>\$ 757</b>
Liability interest rate swaps:			
Academic Component	Accrued expenses and other liabilities	\$ 10,248	\$ 21,372
UPHS	Accrued expenses and other liabilities	3,506	6,517
<b>Total liability interest rate</b>		<b>\$ 13,754</b>	<b>\$ 27,889</b>
<b>Consolidated Statements of Activities:</b>			
Academic Component	Return on investments, net	\$ 7,934	\$ 3,583
UPHS	Return on investments, net	2,264	2,334
<b>Total</b>		<b>\$ 10,198</b>	<b>\$ 5,917</b>

### 13. NET ASSETS

The major components of net assets at June 30, 2022 and 2021 are as follows (in thousands):

2022	Without donor restrictions	With donor restrictions	Total
General operating	\$ 7,075,269	\$ 744,870	\$ 7,820,139
Sponsored programs	53,805		53,805
Capital		216,955	216,955
Student loans	6,246		6,246
Planned giving agreements		53,691	53,691
Quasi-endowment	10,672,892		10,672,892
Endowment, subject to spending rule		5,099,668	5,099,668
Endowment, held in perpetuity		4,951,791	4,951,791
<b>TOTAL NET ASSETS</b>	<b>\$ 17,808,212</b>	<b>\$ 11,066,975</b>	<b>\$ 28,875,187</b>

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

<b>2021</b>	<b>Without donor restrictions</b>	<b>With donor restrictions</b>	<b>Total</b>
General operating	\$ 5,489,628	\$ 612,678	\$ 6,102,306
Sponsored programs	69,896		69,896
Capital		179,635	179,635
Student loans	7,137		7,137
Planned giving agreements		66,550	66,550
Quasi-endowment	10,337,266		10,337,266
Endowment, subject to spending rule		5,552,009	5,552,009
Endowment, held in perpetuity		4,634,271	4,634,271
<b>TOTAL NET ASSETS</b>	<b>\$ 15,903,927</b>	<b>\$ 11,045,143</b>	<b>\$ 26,949,070</b>

### 14. OTHER INCOME

The components of Other income for the years ended June 30, 2022 and 2021, are as follows (in thousands):

	<b>2022</b>	<b>2021</b>
Commercialization of intellectual property*	\$ 1,258,637	\$ 451,736
UPHS ambulatory pharmacy	717,287	594,050
Government relief funding	60,387	201,281
Other	595,796	527,636
<b>TOTAL OTHER INCOME</b>	<b>\$ 2,632,107</b>	<b>\$ 1,774,703</b>

\*Net of distributions to external parties

### 15. LEASES

The University leases research labs and office space under operating leases expiring through December 2043. On the Consolidated Statements of Financial Position, lessees are required to record Right-of-Use assets, representing the right to use the underlying assets for the lease term, and Lease liabilities, representing the obligation to make lease payments arising from the lease based on the present value of lease payments over the lease term. The University has made the following elections: (1) to adopt a package of practical expedients relating to reassessment, (2) to exclude leases with a term of less than one year, and (3) to use an incremental borrowing rate for discounting leases, as applicable. At June 30, 2022 and 2021, Right-of-Use assets recorded in Other assets were \$489,323,000 and \$482,065,000, respectively, and Lease liabilities recorded in Accrued expenses and other liabilities were \$503,880,000 and \$488,329,000, respectively. At June 30, 2022, the weighted average remaining lease term was 9.2 years and the weighted average discount rate was 2.3%. Rental expense, for the years ended June 30, 2022 and 2021, totaled \$148,595,000 and \$137,693,000 (including amortizations related to Right-of-Use assets and Lease liabilities of \$75,758,000 and \$35,931,000), respectively. Rental expense is included in Other operating expenses on the Consolidated Statements of Activities.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Future maturities of lease liabilities at June 30, 2022 are as follows (in thousands):

Year ending June 30,		
2023	\$	77,752
2024		79,311
2025		72,742
2026		60,316
2027		49,601
Thereafter		235,515
Total lease payments	\$	575,237
Less imputed interest		(71,359)
<b>Total Future lease payments</b>	<b>\$</b>	<b>503,878</b>

## 16. FUNCTIONAL CLASSIFICATION OF EXPENDITURES

Expenses for the years ended June 30, 2022 and 2021 are categorized on a functional basis as follows (in thousands):

	Instruction, student services & academic support		Hospital & physician practices		Research		Institutional support		Enterprises & independent operations		Total	
<b>2022</b>												
Compensation and benefits	\$	1,108,535	\$	5,053,976	\$	551,364	\$	279,727	\$	215,684	\$	7,209,286
Depreciation and amortization		96,489		387,958		50,769		21,325		66,916		623,457
Interest on indebtedness		17,387		69,468		26,925		185		14,032		127,997
Other operating expense		594,544		3,528,636		422,024		76,664		186,027		4,807,895
Total operating expense		1,816,955		9,040,038		1,051,082		377,901		482,659		12,768,635
Non-service net periodic benefit cost		(12,301)		(56,060)		(6,118)		(3,103)		(2,391)		(79,973)
<b>Total</b>	<b>\$</b>	<b>1,804,654</b>	<b>\$</b>	<b>8,983,978</b>	<b>\$</b>	<b>1,044,964</b>	<b>\$</b>	<b>374,798</b>	<b>\$</b>	<b>480,268</b>	<b>\$</b>	<b>12,688,662</b>
	Instruction, student services & academic support		Hospital & physician practices		Research		Institutional support		Enterprises & independent operations		Total	
<b>2021</b>												
Compensation and benefits	\$	1,194,264	\$	4,526,333	\$	519,713	\$	282,704	\$	190,872	\$	6,713,886
Depreciation and amortization		91,631		333,710		46,595		21,546		59,453		552,935
Interest on indebtedness		15,844		35,597		23,912		184		12,499		88,036
Other operating expense		517,571		3,155,502		382,350		52,108		139,080		4,246,611
Total operating expense		1,819,310		8,051,142		972,570		356,542		401,904		11,601,468
Non-service net periodic benefit cost		5,285		20,031		2,300		1,251		844		29,711
<b>Total</b>	<b>\$</b>	<b>1,824,595</b>	<b>\$</b>	<b>8,071,173</b>	<b>\$</b>	<b>974,870</b>	<b>\$</b>	<b>357,793</b>	<b>\$</b>	<b>402,748</b>	<b>\$</b>	<b>11,631,179</b>

Operation and maintenance of PPE and depreciation are allocated to functional classifications based on square footage. Interest expense is generally allocated to functional classifications of the activity that directly benefited from the proceeds of the debt. Non-service net periodic benefit cost is allocated to functional classifications based on compensation and benefits.

**17. LIQUIDITY AND AVAILABILITY**

As of June 30, 2022 and 2021, respectively, financial assets and liquidity resources available within one year for general expenditure, such as operating expenses, scheduled principal payments on debt and capital construction costs not financed with debt, were as follows (in thousands):

	<b>2022</b>	<b>2021</b>
Financial assets:		
Cash & cash equivalents	\$ 3,163,942	\$ 2,406,233
Receivables, net	1,809,271	1,591,996
Pledge payments available for operations	79,634	65,743
Investments	7,657,637	8,823,927
<b>Total financial assets available within one year</b>	<b>12,710,484</b>	<b>12,887,899</b>
Liquidity resources:		
Bank lines of credit	195,291	196,935
<b>Total financial assets and liquidity resources available within one year</b>	<b>\$ 12,905,775</b>	<b>\$ 13,084,834</b>

The University's cash flows have seasonal variations during the year attributable to tuition billing, patient service reimbursement and a concentration of contributions received at calendar and fiscal year-end. To manage liquidity, the University maintains lines of credit with several banks that are drawn upon as needed during the year to manage cash flows. Management has the discretion to utilize the full amount of quasi-endowment funds for general expenditures.

**18. SUBSEQUENT EVENTS**

The University has evaluated subsequent events for the period from June 30, 2022 through September 22, 2022, the date the consolidated financial statements were issued.

## **Schedule of Expenditures of Federal Awards**

**UNIVERSITY OF PENNSYLVANIA**  
**SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS**  
**Fiscal Period 7/1/2021 - 6/30/2022**

Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
<b>DEPARTMENT OF AGRICULTURE</b>									
AGRICULTURAL RESEARCH BASIC AND APPLIED RESEARCH	10.001		CRDF GLOBAL	59-0210-8-184		\$20,082	\$319,071	RESEARCH AND DEVELOPMENT	\$859,489,045
AGRICULTURAL RESEARCH BASIC AND APPLIED RESEARCH	10.001		CRDF GLOBAL	59-0210-6-004		\$35,040	\$319,071	RESEARCH AND DEVELOPMENT	\$859,489,045
AGRICULTURAL RESEARCH BASIC AND APPLIED RESEARCH	10.001	58-8072-0-016				\$78,988	\$319,071	RESEARCH AND DEVELOPMENT	\$859,489,045
AGRICULTURAL RESEARCH BASIC AND APPLIED RESEARCH	10.001	58-8072-1-023				\$84,140	\$319,071	RESEARCH AND DEVELOPMENT	\$859,489,045
AGRICULTURAL RESEARCH BASIC AND APPLIED RESEARCH	10.001	58-8072-1-022				\$100,821	\$319,071	RESEARCH AND DEVELOPMENT	\$859,489,045
PLANT AND ANIMAL DISEASE, PEST CONTROL, AND ANIMAL CARE	10.025	AP20VSD&B000C048				\$9,007	\$111,513	RESEARCH AND DEVELOPMENT	\$859,489,045
PLANT AND ANIMAL DISEASE, PEST CONTROL, AND ANIMAL CARE	10.025	AP21VSD&B000C049				\$102,506	\$111,513	RESEARCH AND DEVELOPMENT	\$859,489,045
ANIMAL HEALTH AND DISEASE RESEARCH	10.207	NI19AHDRXXXXG046				\$3,897	\$56,854	RESEARCH AND DEVELOPMENT	\$859,489,045
ANIMAL HEALTH AND DISEASE RESEARCH	10.207	NI20AHDRXXXXG015				\$15,875	\$56,854	RESEARCH AND DEVELOPMENT	\$859,489,045
ANIMAL HEALTH AND DISEASE RESEARCH	10.207	NI21AHDRXXXXG067				\$37,082	\$56,854	RESEARCH AND DEVELOPMENT	\$859,489,045
AGRICULTURE AND FOOD RESEARCH INITIATIVE (AFRI)	10.310	2018-67015-27494				-\$7,324	\$783,432	RESEARCH AND DEVELOPMENT	\$859,489,045
AGRICULTURE AND FOOD RESEARCH INITIATIVE (AFRI)	10.310	2022-68014-36664				\$2,611	\$783,432	RESEARCH AND DEVELOPMENT	\$859,489,045
AGRICULTURE AND FOOD RESEARCH INITIATIVE (AFRI)	10.310	2022-68014-37275				\$3,172	\$783,432	RESEARCH AND DEVELOPMENT	\$859,489,045
AGRICULTURE AND FOOD RESEARCH INITIATIVE (AFRI)	10.310		PENNSYLVANIA STATE UNIVERSITY	S002633-USDA		\$19,833	\$783,432	RESEARCH AND DEVELOPMENT	\$859,489,045
AGRICULTURE AND FOOD RESEARCH INITIATIVE (AFRI)	10.310	2022-67021-36856				\$28,186	\$783,432	RESEARCH AND DEVELOPMENT	\$859,489,045
AGRICULTURE AND FOOD RESEARCH INITIATIVE (AFRI)	10.310	2017-67015-26910				\$30,242	\$783,432	RESEARCH AND DEVELOPMENT	\$859,489,045
AGRICULTURE AND FOOD RESEARCH INITIATIVE (AFRI)	10.310	2022-67015-36338				\$55,219	\$783,432	RESEARCH AND DEVELOPMENT	\$859,489,045
AGRICULTURE AND FOOD RESEARCH INITIATIVE (AFRI)	10.310	2017-67021-26601				\$136,753	\$783,432	RESEARCH AND DEVELOPMENT	\$859,489,045
AGRICULTURE AND FOOD RESEARCH INITIATIVE (AFRI)	10.310	2021-67015-34830				\$147,717	\$783,432	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - AGRICULTURE AND FOOD RESEARCH INITIATIVE (AFRI)	10.310		TEXAS A&M UNIVERSITY	M2003104		\$178,069	\$783,432	RESEARCH AND DEVELOPMENT	\$859,489,045
AGRICULTURE AND FOOD RESEARCH INITIATIVE (AFRI)	10.310	2021-67015-33385			\$23,898	\$188,954	\$783,432	RESEARCH AND DEVELOPMENT	\$859,489,045
STATE ADMINISTRATIVE MATCHING GRANTS FOR THE SUPPLEMENTAL NUTRITION ASSISTANCE PROGRAM	10.561		PENNSYLVANIA STATE UNIVERSITY	5741-UNI-COP-9151		-\$31	\$951,781	SNAP CLUSTER	\$951,781
STATE ADMINISTRATIVE MATCHING GRANTS FOR THE SUPPLEMENTAL NUTRITION ASSISTANCE PROGRAM	10.561		PENNSYLVANIA STATE UNIVERSITY	S000426-COP-UN		\$211,595	\$951,781	SNAP CLUSTER	\$951,781
STATE ADMINISTRATIVE MATCHING GRANTS FOR THE SUPPLEMENTAL NUTRITION ASSISTANCE PROGRAM	10.561		PENNSYLVANIA STATE UNIVERSITY	S002470-COP-UNI		\$740,217	\$951,781	SNAP CLUSTER	\$951,781
<b>TOTAL DEPARTMENT OF AGRICULTURE</b>						\$23,898	\$2,222,651		
<b>DEPARTMENT OF COMMERCE</b>									
MEASUREMENT AND ENGINEERING RESEARCH AND STANDARDS	11.609		IOWA STATE UNIVERSITY	022284H		\$73,684	\$73,684	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - ARRANGEMENTS FOR INTERDISCIPLINARY RESEARCH INFRASTRUCTURE	11.619		UNIVERSITY OF DELAWARE	UDR0000086		\$2,069	\$67,773	RESEARCH AND DEVELOPMENT	\$859,489,045
ARRANGEMENTS FOR INTERDISCIPLINARY RESEARCH INFRASTRUCTURE	11.619		UNIVERSITY OF DELAWARE	PC3.L-121		\$65,704	\$67,773	RESEARCH AND DEVELOPMENT	\$859,489,045
<b>TOTAL DEPARTMENT OF COMMERCE</b>							\$141,457		
<b>DEPARTMENT OF DEFENSE</b>									
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300	N00014-17-1-2574				-\$5,785	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300	N00014-16-1-2195				-\$4,436	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300	FA8750-19-2-3334				-\$1,954	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300		DUKE UNIVERSITY	SUB TO ONR ADV ACCT		\$3,619	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300	N00014-16-1-2539				\$4,797	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300	N00014-21-1-2843				\$8,286	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300		(UNASSIGNABLE) UNIVERSITY OF MASSACHUSETTS-AMHERST	17-009730 A 00		\$24,267	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300	N00015-16-1-2010				\$25,592	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300	FA8750-19-2-3334			\$31,332	\$31,332	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300	W9126G-20-2-0033				\$36,402	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300	N00014-22-1-2157				\$40,658	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300	N00014-17-1-2012			-\$6,166	\$46,948	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300	N00014-21-1-2772				\$59,999	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300	N00014-22-1-2255				\$75,413	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300	N00014-19-1-2253				\$81,072	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300	N00014-15-1-2029				\$145,487	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300	N00014-17-1-2093				\$164,925	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300	N00014-20-1-2701				\$176,530	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300	N00014-19-1-2353				\$191,659	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300	N00014-19-1-2620				\$214,581	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300	N00014-21-1-2703				\$218,827	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300	N00014-20-1-2115			\$13,358	\$235,737	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300		STANFORD UNIVERSITY	62145214-107484		\$244,875	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300	N00014-18-1-2618				\$259,827	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300	N00014-19-1-2248				\$270,052	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300	N00014-20-1-2822				\$281,656	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300		UNIVERSITY OF ILLINOIS	099963-17889		\$291,589	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300	N00014-20-1-2635				\$298,865	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300	N00014-18-1-2557				\$299,026	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300	N00014-20-1-2372				\$336,126	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300	N00014-20-1-2744				\$357,769	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300		RENSELAEER POLYTECHNIC INSTITUTE	A20-0047-5002		\$392,556	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300	N00014-17-1-2643			\$399,851	\$409,675	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300	N00014-16-1-2817				\$592,260	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300	N00014-17-1-2661			\$672,732	\$1,017,279	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300	N00014-18-1-2021				\$1,112,436	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC AND APPLIED SCIENTIFIC RESEARCH	12.300	N00014-18-1-2497			\$817,652	\$1,346,141	\$9,284,088	RESEARCH AND DEVELOPMENT	\$859,489,045
SCIENTIFIC RESEARCH - COMBATING WEAPONS OF MASS DESTRUCTION	12.351		AMERICAN TYPE CULTURE COLLECTION	2021-HOSTBASED-10003-03		\$1,069	\$450,302	RESEARCH AND DEVELOPMENT	\$859,489,045
SCIENTIFIC RESEARCH - COMBATING WEAPONS OF MASS DESTRUCTION	12.351	HDTRA12110014				\$449,233	\$450,302	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY CONSTRUCTION, NATIONAL GUARD	12.400	W81XWH2110422				\$84,523	\$84,523	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH-15-1-0555				-\$15,000	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH1810635				-\$4,267	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH-16-1-0796			-\$732	-\$732	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH-15-1-0466				-\$332	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH2210503				\$417	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420		OREGON HEALTH & SCIENCE UNIVERSITY	1008339_UPA		\$1,077	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420		UNIVERSITY OF ILLINOIS AT CHICAGO	17094		\$3,016	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420		CHILDREN'S RESEARCH INSTITUTE	30004908-01		\$3,237	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH2210151				\$3,440	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420		UNIVERSITY OF WASHINGTON	UWSC9138		\$6,044	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420		WISTAR INSTITUTE	35611-02-370		\$7,338	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420		JOHNS HOPKINS UNIVERSITY	SUB TO W81XWH-15-2-0074		\$8,499	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH-18-1-0082				\$8,573	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420		UNIVERSITY OF MASSACHUSETTS	19-010887-A 00		\$10,889	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH1820067				\$11,085	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH-17-1-0595				\$13,146	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH2210287				\$13,744	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420		DANA-FARBER CANCER INSTITUTE	3086701		\$13,888	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH2210312				\$14,449	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420		CITIZENS UNITED FOR RESEARCH IN EPILEPSY	CURE	\$1,511	\$20,238	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
CLOTT STUDY	12.420		NATIONAL TRAUMA INSTITUTE	NTI-CLOTT17-04		\$22,326	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH2210069				\$23,444	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH18C0163				\$24,540	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420		UNIVERSITY OF MARYLAND	F302347-17		\$25,032	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420		MOFFITT CANCER CTR	12-18717-99-1-G2		\$27,433	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420		VANDERBILT UNIVERSITY MEDICAL CENTER	VUMC86814		\$27,613	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420		HENRY M. JACKSON FOUNDATION	5526		\$29,166	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420		THOMAS JEFFERSON UNIVERSITY	080-27000-X18001		\$29,340	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420		CASE WESTERN RESERVE UNIVERSITY	RESS15708		\$37,776	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH2110561				\$44,906	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420		GEORGE WASHINGTON UNIVERSITY	20-M20		\$50,237	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420		MICHIGAN STATE UNIVERSITY	RC110291UP		\$51,084	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00000254		\$53,495	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00000404		\$57,560	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420		GEORGETOWN UNIVERSITY	413814_GR413762-UPENN		\$63,649	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	113305C		\$66,935	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420		FOX CHASE CANCER CENTER	22782-01		\$71,650	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH-15-1-0555			\$71,734	\$71,734	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH2210008				\$73,527	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH2110567				\$78,214	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH-17-1-0594				\$78,938	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH2110757				\$82,426	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH2010009				\$93,290	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH2110622				\$103,597	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH2110590			\$49,836	\$129,121	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH-17-1-0092				\$129,558	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH2110621				\$133,295	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH2110860				\$163,665	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH2110643				\$166,414	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH2010417				\$182,076	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH2010206				\$183,948	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH-17-1-0404				\$200,815	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH2020022				\$206,369	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH2110436				\$218,263	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH2110592				\$263,154	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH2110509				\$268,667	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH2010242			\$99,537	\$279,878	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH2010838				\$283,007	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH-20-PRMRP-IIIRA				\$284,381	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420		DENVER RESEARCH INSTITUTE	MSRC-FY19-02	\$11,962	\$296,073	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH2010901				\$321,220	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH1910829			\$18,412	\$343,215	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH2110420			\$22,818	\$345,141	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH1910461			\$54,999	\$350,912	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH2010490			\$27,987	\$386,005	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH2010856				\$396,397	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH2010025				\$398,955	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH2110508			\$17,617	\$412,103	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH2110528				\$473,506	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH1910861			\$96,372	\$498,790	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH1920002				\$606,052	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.



<i>Federal Awarding Agency/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification (Optional)</i>	<i>Name of Funder Pass-Through Entity</i>	<i>Identifying Number Assigned By Funder Pass-Through Entity</i>	<i>Total Amount Provided to Sub-Recipients</i>	<i>Federal Expenditures</i>	<i>Federal Program Total</i>	<i>Cluster Name</i>	<i>Cluster Total</i>
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH1810503				\$612,269	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH2010531				\$671,234	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
MILITARY MEDICAL RESEARCH AND DEVELOPMENT	12.420	W81XWH2010008				\$1,102,113	\$11,713,257	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC SCIENTIFIC RESEARCH	12.431	W911NF-17-1-0229			-\$48,548	\$40,164	\$6,036,041	RESEARCH AND DEVELOPMENT	\$859,489,045
<i>BASIC SCIENTIFIC RESEARCH</i>	12.431		NORTHEASTERN UNIV	504139-78050		\$48,470	\$6,036,041	RESEARCH AND DEVELOPMENT	\$859,489,045
<i>BASIC SCIENTIFIC RESEARCH</i>	12.431		CALIFORNIA INSTITUTE OF TECHNOLOGY	52-1097908		\$63,078	\$6,036,041	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC SCIENTIFIC RESEARCH	12.431	W911NF1910087				\$70,242	\$6,036,041	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC SCIENTIFIC RESEARCH	12.431	W911NF1910109				\$86,950	\$6,036,041	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC SCIENTIFIC RESEARCH	12.431	W911NF-17-1-0436				\$88,209	\$6,036,041	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC SCIENTIFIC RESEARCH	12.431	W911NF2110076				\$90,590	\$6,036,041	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC SCIENTIFIC RESEARCH	12.431	W911NF1910342				\$96,649	\$6,036,041	RESEARCH AND DEVELOPMENT	\$859,489,045
<i>BASIC SCIENTIFIC RESEARCH</i>	12.431		UNIVERSITY OF CALIFORNIA, SANTA BARBARA	KK1711		\$120,084	\$6,036,041	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC SCIENTIFIC RESEARCH	12.431	W911NF2110148				\$121,078	\$6,036,041	RESEARCH AND DEVELOPMENT	\$859,489,045
<i>BASIC SCIENTIFIC RESEARCH</i>	12.431		UNIVERSITY OF ROCHESTER	417358 / URFAO: GR510801		\$130,920	\$6,036,041	RESEARCH AND DEVELOPMENT	\$859,489,045
<i>BASIC SCIENTIFIC RESEARCH</i>	12.431		DREXEL UNIVERSITY	940002		\$137,012	\$6,036,041	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC SCIENTIFIC RESEARCH	12.431	W911NF1910263			\$164,966	\$165,246	\$6,036,041	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC SCIENTIFIC RESEARCH	12.431	W911NF1910503				\$173,923	\$6,036,041	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC SCIENTIFIC RESEARCH	12.431	W911NF2120088				\$193,814	\$6,036,041	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC SCIENTIFIC RESEARCH	12.431	W911NF1910249				\$201,677	\$6,036,041	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC SCIENTIFIC RESEARCH	12.431	W911NF2110131				\$240,000	\$6,036,041	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC SCIENTIFIC RESEARCH	12.431	W911NF2010113				\$266,630	\$6,036,041	RESEARCH AND DEVELOPMENT	\$859,489,045
<i>BASIC SCIENTIFIC RESEARCH</i>	12.431		JOHNS HOPKINS UNIVERSITY	2004717370		\$273,924	\$6,036,041	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC SCIENTIFIC RESEARCH	12.431	W911NF1810327			\$618,592	\$932,948	\$6,036,041	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC SCIENTIFIC RESEARCH	12.431	W911NF1810244			\$19,467	\$1,112,514	\$6,036,041	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC SCIENTIFIC RESEARCH	12.431	W911NF2010080			\$92,589	\$1,381,919	\$6,036,041	RESEARCH AND DEVELOPMENT	\$859,489,045
<i>BASIC, APPLIED, AND ADVANCED RESEARCH IN SCIENCE AND ENGINEERING</i>	12.630		AUBURN UNIVERSITY	21-ARCPAL-203229-UPENN		\$41,078	\$7,879,176	RESEARCH AND DEVELOPMENT	\$859,489,045
<i>BASIC, APPLIED, AND ADVANCED RESEARCH IN SCIENCE AND ENGINEERING</i>	12.630		UNIVERSITY OF MASSACHUSETTS	55133000044313		\$63,873	\$7,879,176	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC, APPLIED, AND ADVANCED RESEARCH IN SCIENCE AND ENGINEERING	12.630	HQ00342110001				\$389,507	\$7,879,176	RESEARCH AND DEVELOPMENT	\$859,489,045
BASIC, APPLIED, AND ADVANCED RESEARCH IN SCIENCE AND ENGINEERING	12.630	W911NF-17-2-0181			\$958,113	\$7,384,718	\$7,879,176	RESEARCH AND DEVELOPMENT	\$859,489,045
AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM	12.800	FA9550-18-1-0133				-\$5,246	\$2,822,490	RESEARCH AND DEVELOPMENT	\$859,489,045
AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM	12.800	FA9550-21-1-0376				\$8,032	\$2,822,490	RESEARCH AND DEVELOPMENT	\$859,489,045
AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM	12.800	FA9550-22-1-0095				\$11,732	\$2,822,490	RESEARCH AND DEVELOPMENT	\$859,489,045
AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM	12.800	FA9550-19-1-0326				\$40,013	\$2,822,490	RESEARCH AND DEVELOPMENT	\$859,489,045
AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM	12.800	FA2386-18-1-4083			\$24,414	\$43,713	\$2,822,490	RESEARCH AND DEVELOPMENT	\$859,489,045
<i>AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM</i>	12.800		DUKE UNIVERSITY	313-1122		\$56,711	\$2,822,490	RESEARCH AND DEVELOPMENT	\$859,489,045
<i>AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM</i>	12.800		UNIVERSITY OF ROCHESTER	SUB00000305		\$63,619	\$2,822,490	RESEARCH AND DEVELOPMENT	\$859,489,045
AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM	12.800	FA9550-22-1-0163				\$63,825	\$2,822,490	RESEARCH AND DEVELOPMENT	\$859,489,045
<i>AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM</i>	12.800		WRIGHT STATE UNIVERSITY	669737-1		\$66,996	\$2,822,490	RESEARCH AND DEVELOPMENT	\$859,489,045
AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM	12.800	FA9550-18-1-0497				\$69,606	\$2,822,490	RESEARCH AND DEVELOPMENT	\$859,489,045
AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM	12.800	FA2386-21-1-4063				\$78,274	\$2,822,490	RESEARCH AND DEVELOPMENT	\$859,489,045
<i>AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM</i>	12.800		PURDUE UNIVERSITY	13001075-010		\$79,485	\$2,822,490	RESEARCH AND DEVELOPMENT	\$859,489,045
<i>AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM</i>	12.800		UNIVERSITY OF TEXAS AT AUSTIN	UTA16-001254		\$83,815	\$2,822,490	RESEARCH AND DEVELOPMENT	\$859,489,045
AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM	12.800	FA2386-20-1-4074				\$110,023	\$2,822,490	RESEARCH AND DEVELOPMENT	\$859,489,045
AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM	12.800	FA9550-21-1-0313				\$110,711	\$2,822,490	RESEARCH AND DEVELOPMENT	\$859,489,045
AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM	12.800	FA-9550-21-1-0035				\$122,393	\$2,822,490	RESEARCH AND DEVELOPMENT	\$859,489,045
AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM	12.800	FA9550-21-1-0334				\$132,396	\$2,822,490	RESEARCH AND DEVELOPMENT	\$859,489,045
AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM	12.800	FA9950-19-1-0285				\$140,459	\$2,822,490	RESEARCH AND DEVELOPMENT	\$859,489,045
AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM	12.800	FA9550-20-1-0111				\$160,484	\$2,822,490	RESEARCH AND DEVELOPMENT	\$859,489,045
<i>AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM</i>	12.800		EMORY UNIVERSITY	A007760		\$171,073	\$2,822,490	RESEARCH AND DEVELOPMENT	\$859,489,045
AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM	12.800	FA9550-20-1-0345				\$184,414	\$2,822,490	RESEARCH AND DEVELOPMENT	\$859,489,045
AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM	12.800	FA9550-20-1-0060				\$188,314	\$2,822,490	RESEARCH AND DEVELOPMENT	\$859,489,045
<i>AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM</i>	12.800		TULANE UNIVERSITY	TUL-SCC-553957-15/16		\$206,820	\$2,822,490	RESEARCH AND DEVELOPMENT	\$859,489,045
AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM	12.800	FA9550-19-1-0265				\$313,581	\$2,822,490	RESEARCH AND DEVELOPMENT	\$859,489,045
AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM	12.800	FA9550-18-1-0194			\$54	\$321,247	\$2,822,490	RESEARCH AND DEVELOPMENT	\$859,489,045

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RESEARCH AND TECHNOLOGY DEVELOPMENT	12.910		CENTER FOR OPEN SCIENCE	SCORE AWARD		\$4,352	\$7,574,831	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH AND TECHNOLOGY DEVELOPMENT	12.910	HR0011-19-2-0013				\$183,264	\$7,574,831	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH AND TECHNOLOGY DEVELOPMENT	12.910	W911NF2110340				\$213,722	\$7,574,831	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH AND TECHNOLOGY DEVELOPMENT	12.910		NEW YORK UNIVERSITY	F1400-03		\$218,540	\$7,574,831	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH AND TECHNOLOGY DEVELOPMENT	12.910	W911NF2010278				\$288,862	\$7,574,831	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH AND TECHNOLOGY DEVELOPMENT	12.910	FA8650-21-1-7011				\$481,244	\$7,574,831	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH AND TECHNOLOGY DEVELOPMENT	12.910	FA8650-21-1-7010				\$564,289	\$7,574,831	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH AND TECHNOLOGY DEVELOPMENT	12.910	HR00112220013			\$37,398	\$593,535	\$7,574,831	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - RESEARCH AND TECHNOLOGY DEVELOPMENT	12.910		WISTAR INSTITUTE	36000-01-374-UPENN		\$594,721	\$7,574,831	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH AND TECHNOLOGY DEVELOPMENT	12.910	FA8750-19-2-0201			\$284,987	\$809,425	\$7,574,831	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH AND TECHNOLOGY DEVELOPMENT	12.910	HR0011-19-2-0016			\$349,724	\$824,020	\$7,574,831	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH AND TECHNOLOGY DEVELOPMENT	12.910	FA8750-18-2-0117			\$2,112,917	\$2,798,857	\$7,574,831	RESEARCH AND DEVELOPMENT	\$859,489,045
SONICVIPER	12.RD	H98230-15-C-0825				-\$2,440	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
NON-INVASIVE MONITORING OF TRAUMATIC BRAIN INJURY PROGRESSION USING TH	12.RD	W81XWH-15-9-0001	UNIVERSITY OF ALABAMA AT BIRMINGHAM	000529527-SC006		\$186	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - US ARMY COMBAT CAPABILITIES DEVELOPMENT COMMAND - CHEMICAL BIOLOGICAL	12.RD	N/A	EXCET, INC	9638		\$4,151	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
SOLUTION-BASED RECEPTORS FOR LARGE SURFACE OPIOIDS CONTAMINATION IDENT	12.RD	W911SR21C0025	ZYMERON CORPORATION	Z116/UPENN		\$14,298	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
AUTOMATED RAPID CERTIFICATION OF SOFTWARE (ARCOS) - ARGUMENT COMPREHEN	12.RD	FA875020C0515 (AF44)	JOHNS HOPKINS APPLIED PHYSICS LABORATORY	163906		\$18,933	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTCAT: AUTONOMIC RESPONSE TO DISRUPTIVE CYBER-ATTACKS	12.RD	N68335-19-C-0200	GRAMMATECH	GT S19-01		\$23,801	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
CONTOUR BASED IMAGE SEGMENTATION STTR PHASE II	12.RD	FA8750-20-C-0524	VY CORPORATION	SUB TO FA8750-20-C-0524		\$37,846	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
LIQUID-FUEL THERMIONIC BATTLEFIELD GENERATORS	12.RD	W911QX22C0011	SPARK THERMIONICS	SUB TO W911QX22C0011		\$41,733	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
TRANSFORMING RESEARCH AND CLINICAL KNOWLEDGE IN TRAUMATIC BRAIN INJURY	12.RD	N/A	UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	111845C		\$48,068	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
BIO-FABRICATED NERVE-MUSCLE COMPLEXES TO AUGMENT REGENERATION AND FACI	12.RD	N/A	PHILADELPHIA RESEARCH AND EDUCATION FOUNDATION	JPA		\$68,410	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
ALUMINUM SCANDIUM NITRIDE MEMS PDK	12.RD	HR0011-21-9-0004	AKOUSTIS	SUB TO HR0011-21-9-0004		\$76,452	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
COLLECTIVE LIFELONG LEARNING BY DISTRIBUTED AGENTS	12.RD	HR00112190133			\$11,491	\$84,508	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
HR001121S0007-08 : THIRD-PARTY VERIFICATION OF COTS SOFTWARE COMPLIANC	12.RD	W31P4Q-22-C-0010	LALAITH ASTOR TECHNICAL CONSULTING HOUSE, LLC	SUB TO W31P4Q-22-C-0010		\$85,481	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
LINKING INVESTIGATIONS IN TRAUMA AND EMERGENCY SERVICES (LITES)	12.RD	W81XWH-16-D-0024-0002	UNIVERSITY OF PITTSBURGH	0058514-2		\$94,925	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
DESIGNER OPTICAL SUPERLATICES FROM EXCITRON MATERIALS	12.RD	FA8650-15-D-5405	UES, INC.	S-111-06G-001		\$101,450	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
POST-CMOS COMPATIBLE ALUMINUM SCANDIUM NITRIDE FERROELECTRIC FIELD EFF	12.RD	HR00112090046				\$105,143	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
SECURE HANDLING OF ISOLATED EXECUTABLES WITHOUT LEAKING (CLOSURE).	12.RD	HR00111950017	PERATON LABS	PO-0018618	\$13,471	\$109,032	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
ELECTROMECHANICAL COMPONENTS FOR EFFICIENT, SMALL SCALE POWER CONVERSI	12.RD	2019-19090900002				\$129,257	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
THERMIONIC POWER GENERATION FOR INDIVIDUAL SOLDIER	12.RD	W91CRB-21-C-0032	SPARK THERMIONICS	SUB TO W91CRB-21-C-0032		\$144,759	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
SELF-RECONFIGURABLE MODULAR GROUND ROBOTS	12.RD	W912CG-21-C-0011	TRITON SYSTEMS, INC	TSI-2749-21-20205599		\$150,799	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
FOCUS - FORECASTING COUNTERFACTUALS IN UNCONTROLLED SETTINGS	12.RD	140D0419C0049				\$155,066	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
CROSS-DOMAIN TRANSFER LEARNING	12.RD	N/A	LOCKHEED MARTIN CORPORATION	4105246480		\$197,965	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
TOP GATED 2D/ALSCN/SIC STRUCTURES FOR SURFACE ACOUSTIC WAVE AMPLIFIERS	12.RD	HR0011-21-9-0055				\$200,959	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
HYPOTHESIS-GUIDED MODEL REVISION OVER MULTIPLE ALIGNED REPRESENTATIONS	12.RD	HR001120C0040	PALO ALTO RESEARCH CENTER	P315541		\$206,393	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
ENERGY-EFFICIENT VISION-BASED NAVIGATION THROUGH EVENT-BASED SENSING A	12.RD	13001103-096	PURDUE UNIVERSITY	13001103-096		\$229,950	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
SYSTEMIC GENERATIVE ENGINEERING	12.RD	FA8750-20-C-0542	SIEMENS CORPORATE RESEARCH, INC.	198-01		\$239,508	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
DEVELOPMENT OF AI TOOLS FOR ANTIBIOTIC DISCOVERY	12.RD	HDTRA11810041	GEORGE MASON UNIVERSITY	E2050662		\$241,400	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
CIRCULATING CFDNA FRAGMENTS FOR THE DETECTION AND DIAGNOSIS OF TRAUMAT	12.RD	W81XWH-15-9-0001	CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00000206		\$257,481	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045

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TASK-AND-USER AWARE REPRESENTATION LEARNING FOR FINE GRAINED CROSSLING	12.RD	2019-19051600004	BROWN UNIVERSITY	00001475		\$263,159	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
DOD PHASE II STTR 12.A, TOPIC NO. A12A-T009	12.RD	140D0419C0093	CHARLES RIVER ANALYTICS, INC.	SC1906402		\$303,064	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
BEHAVIORAL CHARACTERIZATION OF ODOR DETECTION DOGS FOR SELECTION OF PO	12.RD	70RSAT19CB0000014	BATTELLE MEMORIAL INSTITUTE	769331		\$313,245	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
ROBUST AUTONOMY IN UAVS ON A CONVERGENT DIGITAL-ANALOG FERROELECTRONIC	12.RD	2022-21100600004	GEORGIA TECH RESEARCH INSTITUTE	AWD-003001-S4		\$366,605	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
SCUTLE (SOCIOCULTURAL UNDERSTANDING THROUGH LINGUISTIC EXPRESSION)	12.RD	HR001122C0033				\$382,669	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
BETTER EXTRACTION FROM TEXT TOWARDS ENHANCED RETRIEVAL (BETTER)	12.RD	2019-19051600006	BBN SYSTEMS AND TECHNOLOGIES	SUB TO 2019-19051600006		\$513,461	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
STARKPEPPER	12.RD	H98230-21-D-0013				\$573,081	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
MULTIFERROIC VECTOR MAGNETOMETER (MFVM)	12.RD	HR001120C0098	LEIDOS, INC.	P010242159		\$677,864	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
INTEGRATED STATIC AND DYNAMIC APPROACHES TO HIGH-ASSURANCE FOR LEARNIN	12.RD	FA8750-18-C-0090			\$92,187	\$1,034,150	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
CORPORA OF ANNOTATED EVENTS REPRESENTED UNDER SCHEMAS (CAERUS)	12.RD	FA8750-19-C-0203			\$17,147	\$1,241,742	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
CAIRO-MS: CONFLICTING ACCOUNT INFORMATION RESOURCES IN OMNIVOROUS MEDI	12.RD	FA8750-18-C-0013			\$235,342	\$1,632,496	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
RESTORING MEMORY WITH TASK-INDEPENDENT SEMI-CHRONIC CLOSED-LOOP DIRECT	12.RD	W81XWH-20-9-0020	MEDICAL TECHNOLOGY ENTERPRISE CONSORTIUM (MTEC)	2020-639	\$696,697	\$1,897,005	\$12,264,055	RESEARCH AND DEVELOPMENT	\$859,489,045
DARPA IPA #0246 J.M. SMITH	12.U01	IPA 0246				\$83,443	\$83,443	OTHER PROGRAMS	\$284,328,981
<b>TOTAL DEPARTMENT OF DEFENSE</b>						<b>\$8,081,820</b>	<b>\$58,192,206</b>		
<b>DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT</b>									
COMMUNITY DEVELOPMENT BLOCK GRANTS/ENTITLEMENT GRANTS	14.218		COUNTY OF LANCASTER REDEVELOPMENT AUTHORITY OF	CDBG-CV PROGRAM FUNDS		\$64,080	\$64,080	CDBG - ENTITLEMENT GRANTS CLUSTER	\$64,080
EMERGENCY SOLUTIONS GRANT PROGRAM	14.231		COUNTY OF LANCASTER	ESG CV COUNTY		\$207,046	\$795,735	OTHER PROGRAMS	\$284,328,981
EMERGENCY SOLUTIONS GRANT PROGRAM	14.231		CITY OF LANCASTER	ESG CV CITY		\$588,689	\$795,735	OTHER PROGRAMS	\$284,328,981
CONTINUUM OF CARE PROGRAM	14.267	N/A				\$563,134	\$563,134	OTHER PROGRAMS	\$284,328,981
<b>TOTAL DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT</b>							<b>\$1,422,949</b>		
<b>DEPARTMENT OF THE INTERIOR</b>									
YOUTH ENGAGEMENT, EDUCATION, AND EMPLOYMENT	15.676	F19AC00830				\$50,756	\$50,756	OTHER PROGRAMS	\$284,328,981
COOPERATIVE RESEARCH AND TRAINING PROGRAMS RESOURCES OF THE NATIONAL PARK SYSTEM	15.945	P19AC01226				\$22	\$356,966	RESEARCH AND DEVELOPMENT	\$859,489,045
COOPERATIVE RESEARCH AND TRAINING PROGRAMS RESOURCES OF THE NATIONAL PARK SYSTEM	15.945	P18AC00253				\$301	\$356,966	RESEARCH AND DEVELOPMENT	\$859,489,045
COOPERATIVE RESEARCH AND TRAINING PROGRAMS RESOURCES OF THE NATIONAL PARK SYSTEM	15.945	P20AC01060				\$2,029	\$356,966	RESEARCH AND DEVELOPMENT	\$859,489,045
COOPERATIVE RESEARCH AND TRAINING PROGRAMS RESOURCES OF THE NATIONAL PARK SYSTEM	15.945	P21AC12156-00				\$2,171	\$356,966	RESEARCH AND DEVELOPMENT	\$859,489,045
COOPERATIVE RESEARCH AND TRAINING PROGRAMS RESOURCES OF THE NATIONAL PARK SYSTEM	15.945	P18AC00737				\$4,681	\$356,966	RESEARCH AND DEVELOPMENT	\$859,489,045
COOPERATIVE RESEARCH AND TRAINING PROGRAMS RESOURCES OF THE NATIONAL PARK SYSTEM	15.945	P19AC00896-02				\$5,909	\$356,966	RESEARCH AND DEVELOPMENT	\$859,489,045
COOPERATIVE RESEARCH AND TRAINING PROGRAMS RESOURCES OF THE NATIONAL PARK SYSTEM	15.945	P19AC00896				\$14,546	\$356,966	RESEARCH AND DEVELOPMENT	\$859,489,045
COOPERATIVE RESEARCH AND TRAINING PROGRAMS RESOURCES OF THE NATIONAL PARK SYSTEM	15.945	P20AC01062				\$15,044	\$356,966	RESEARCH AND DEVELOPMENT	\$859,489,045
COOPERATIVE RESEARCH AND TRAINING PROGRAMS RESOURCES OF THE NATIONAL PARK SYSTEM	15.945	P20AC00859				\$16,322	\$356,966	RESEARCH AND DEVELOPMENT	\$859,489,045
COOPERATIVE RESEARCH AND TRAINING PROGRAMS RESOURCES OF THE NATIONAL PARK SYSTEM	15.945	P18AC00666				\$18,120	\$356,966	RESEARCH AND DEVELOPMENT	\$859,489,045

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Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
COOPERATIVE RESEARCH AND TRAINING PROGRAMS RESOURCES OF THE NATIONAL PARK SYSTEM	15.945	PC21AC12076				\$25,356	\$356,966	RESEARCH AND DEVELOPMENT	\$859,489,045
COOPERATIVE RESEARCH AND TRAINING PROGRAMS RESOURCES OF THE NATIONAL PARK SYSTEM	15.945	P20AC00850				\$29,930	\$356,966	RESEARCH AND DEVELOPMENT	\$859,489,045
COOPERATIVE RESEARCH AND TRAINING PROGRAMS RESOURCES OF THE NATIONAL PARK SYSTEM	15.945	P19AC01178				\$32,409	\$356,966	RESEARCH AND DEVELOPMENT	\$859,489,045
COOPERATIVE RESEARCH AND TRAINING PROGRAMS RESOURCES OF THE NATIONAL PARK SYSTEM	15.945	P21AC11754				\$32,648	\$356,966	RESEARCH AND DEVELOPMENT	\$859,489,045
COOPERATIVE RESEARCH AND TRAINING PROGRAMS RESOURCES OF THE NATIONAL PARK SYSTEM	15.945	P21AC11369-00				\$33,289	\$356,966	RESEARCH AND DEVELOPMENT	\$859,489,045
COOPERATIVE RESEARCH AND TRAINING PROGRAMS RESOURCES OF THE NATIONAL PARK SYSTEM	15.945	P21AC11755				\$34,020	\$356,966	RESEARCH AND DEVELOPMENT	\$859,489,045
COOPERATIVE RESEARCH AND TRAINING PROGRAMS RESOURCES OF THE NATIONAL PARK SYSTEM	15.945	P21AC11869-00				\$38,897	\$356,966	RESEARCH AND DEVELOPMENT	\$859,489,045
COOPERATIVE RESEARCH AND TRAINING PROGRAMS RESOURCES OF THE NATIONAL PARK SYSTEM	15.945	P18AC00723				\$51,272	\$356,966	RESEARCH AND DEVELOPMENT	\$859,489,045
PROJECT WRITE ONLINE (JULY 20,2021 - JULY 30, 2021)	15.U15	PROJECT WRITE ONLINE				\$900	\$900	OTHER PROGRAMS	\$284,328,981
<b>TOTAL DEPARTMENT OF THE INTERIOR</b>							<u>\$408,622</u>		
<b>DEPARTMENT OF JUSTICE</b>									
NATIONAL INSTITUTE OF JUSTICE RESEARCH, EVALUATION, AND DEVELOPMENT PROJECT GRANTS	16.560	2017-MU-MU-K021				\$105,381	\$521,436	RESEARCH AND DEVELOPMENT	\$859,489,045
NATIONAL INSTITUTE OF JUSTICE RESEARCH, EVALUATION, AND DEVELOPMENT PROJECT GRANTS	16.560	2017-CK-BX-0016			\$317,376	\$416,055	\$521,436	RESEARCH AND DEVELOPMENT	\$859,489,045
VICTIMS OF CRIME ACT (VOCA) - LANCASTER COUNTY CHILD VICTIMS CONTINUITY OF CARE	16.575		COUNTY OF LANCASTER	2018/2019/2020-VF-05-33169		\$23,678	\$106,960	OTHER PROGRAMS	\$284,328,981
VICTIMS OF CRIME ACT (VOCA) - LANCASTER COUNTY CHILD VICTIMS PROGRAM ENHANCEMENT	16.575		COUNTY OF LANCASTER	2017-VF-05-28107		\$83,282	\$106,960	OTHER PROGRAMS	\$284,328,981
CRIME VICTIM ASSISTANCE/DISCRETIONARY GRANTS	16.582	2019-V3-GX-0036				\$246,166	\$246,166	OTHER PROGRAMS	\$284,328,981
PROJECT SAFE NEIGHBORHOODS	16.609		CALIFORNIA PARTNERSHIP FOR SAFE COMMUNITIES	SUB TO 2018-GP-BX-4023		\$112,753	\$112,753	RESEARCH AND DEVELOPMENT	\$859,489,045
EDWARD BYRNE MEMORIAL JUSTICE ASSISTANCE GRANT PROGRAM	16.738		INTERNATIONAL ASSOCIATION OF CHIEFS OF POLICE	SUB TO 2017-VI-BX-K001		\$425,469	\$425,469	JAG PROGRAM CLUSTER	\$425,469
CAPITAL CASE LITIGATION INITIATIVE	16.746	2018-FA-BX-K003				\$393,300	\$393,300	RESEARCH AND DEVELOPMENT	\$859,489,045
OJDP PASSED THROUGH NATIONAL CHILDREN'S ALLIANCE	16.758		NATIONAL CHILDREN'S ALLIANCE	LANC-PA-CORE21		\$29,959	\$29,959	OTHER PROGRAMS	\$284,328,981
VICTIMS OF CRIME ACT (VOCA) - LANCASTER COUNTY PARTNERSHIP FOR PREVENTION - OPIOID MISUSE	16.838		COUNTY OF LANCASTER	2018-CO-01-30255		\$136,468	\$136,468	OTHER PROGRAMS	\$284,328,981
EVALUATION OF THE POLICE ASSISTED DIVERSION PILOT IN PHILADELPHIA	16.RD	N/A	CITY OF PHILADELPHIA	PAD PROGRAM		\$62,787	\$62,787	RESEARCH AND DEVELOPMENT	\$859,489,045
<b>TOTAL DEPARTMENT OF JUSTICE</b>						<u>\$317,376</u>	<u>\$2,035,298</u>		
<b>DEPARTMENT OF LABOR</b>									
WIOA YOUTH ACTIVITIES	17.259		DELAWARE COUNTY WORKFORCE DEVELOPMENT BOARD (DCWDB)	WIOA		\$40,145	\$40,145	WIOA CLUSTER	\$40,145
<b>TOTAL DEPARTMENT OF LABOR</b>							<u>\$40,145</u>		
<b>DEPARTMENT OF STATE</b>									
INVESTING IN PEOPLE IN THE MIDDLE EAST AND NORTH AFRICA	19.021	SIZ10019GR0033			\$119,768	\$152,897	\$1,048,517	RESEARCH AND DEVELOPMENT	\$859,489,045
INVESTING IN PEOPLE IN THE MIDDLE EAST AND NORTH AFRICA	19.021	SIZ-100-19-GR0021			\$353,548	\$895,620	\$1,048,517	RESEARCH AND DEVELOPMENT	\$859,489,045
EDUCATIONAL AND CULTURAL EXCHANGE PROGRAMS APPROPRIATION OVERSEAS GRANTS	19.022		FHI 360	PO21001656		\$7,671	\$7,671	OTHER PROGRAMS	\$284,328,981
U.S. AMBASSADORS FUND FOR CULTURAL PRESERVATION	19.025	SNEAAC18CA0043			\$8	\$386,773	\$386,773	OTHER PROGRAMS	\$284,328,981
PUBLIC DIPLOMACY PROGRAMS	19.040	STU15019GR0080				\$90,000	\$90,000	OTHER PROGRAMS	\$284,328,981

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INTERNATIONAL PROGRAMS TO SUPPORT DEMOCRACY, HUMAN RIGHTS AND LABOR	19.345		INTERNATIONAL ORGANIZATION FOR MIGRATION	IOM/CM-CPC2019		\$57,126	\$57,126	RESEARCH AND DEVELOPMENT	\$859,489,045
<b>TOTAL DEPARTMENT OF STATE</b>					\$473,324	\$1,590,087			
<b>DEPARTMENT OF TRANSPORTATION</b>									
HIGHWAY RESEARCH AND DEVELOPMENT PROGRAM	20.200	693JJ31750012			\$359	\$154,492	\$154,492	RESEARCH AND DEVELOPMENT	\$859,489,045
HIGHWAY TRAINING AND EDUCATION	20.215	693JJ32245061				\$4,946	\$25,126	RESEARCH AND DEVELOPMENT	\$859,489,045
HIGHWAY TRAINING AND EDUCATION	20.215	693JJ32145004				\$8,513	\$25,126	RESEARCH AND DEVELOPMENT	\$859,489,045
HIGHWAY TRAINING AND EDUCATION	20.215	693JJ32245009				\$11,667	\$25,126	RESEARCH AND DEVELOPMENT	\$859,489,045
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION (NHTSA) DISCRETIONARY SAFETY GRANTS AND COOPERATIVE AGREEMENTS	20.614		AMERICAN COLLEGE OF EMERGENCY PHYSICIANS	SUB TO 693JJ91850017		\$23,345	\$23,345	RESEARCH AND DEVELOPMENT	\$859,489,045
UNIVERSITY TRANSPORTATION CENTERS PROGRAM	20.701		UNIVERSITY OF TEXAS AT AUSTIN	UTA17-000185		\$250,940	\$744,093	RESEARCH AND DEVELOPMENT	\$859,489,045
UNIVERSITY TRANSPORTATION CENTERS PROGRAM	20.701		CARNEGIE MELLON UNIVERSITY	1080376-379208		\$493,153	\$744,093	RESEARCH AND DEVELOPMENT	\$859,489,045
NATIONAL SLEEP STUDY TECHNICAL SUPPORT	20.RD	692M15-19-T-00020				\$722,320	\$722,320	RESEARCH AND DEVELOPMENT	\$859,489,045
<b>TOTAL DEPARTMENT OF TRANSPORTATION</b>					\$359	\$1,669,376			
<b>DEPARTMENT OF TREASURY</b>									
COVID-19 - PA ACT II FUNDING - AMERICAN RESCUE ACT	21.027		COMMONWEALTH OF PA	N/A		\$3,661,108	\$3,661,108	OTHER PROGRAMS	\$284,328,981
<b>TOTAL DEPARTMENT OF TREASURY</b>						\$3,661,108			
<b>LIBRARY OF CONGRESS</b>									
UPDATING MEASURES OF LOW-VALUE CARE IN MEDICARE USING PRIMARY SOURCES TO SUPPORT CIVICALLY ENGAGED ARGUMENT WRITING IN	42.RD	MED21P0075				\$12,677	\$12,677	RESEARCH AND DEVELOPMENT	\$859,489,045
	42.U18	GA21C0112				\$13,905	\$13,905	OTHER PROGRAMS	\$284,328,981
<b>TOTAL LIBRARY OF CONGRESS</b>						\$26,582			
<b>NATIONAL AERONAUTICS &amp; SPACE ADMINISTRATION</b>									
SCIENCE	43.001		PLANETARY SCIENCE INSTITUTE	1565 UNIV OF PA		-\$27,679	\$1,164,914	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - SCIENCE	43.001	1650126				\$6,982	\$1,164,914	RESEARCH AND DEVELOPMENT	\$859,489,045
SCIENCE	43.001	1666893				\$42,400	\$1,164,914	RESEARCH AND DEVELOPMENT	\$859,489,045
SCIENCE	43.001	80NSSC18K0765				\$69,525	\$1,164,914	RESEARCH AND DEVELOPMENT	\$859,489,045
SCIENCE	43.001	80NSSC20K0497				\$100,741	\$1,164,914	RESEARCH AND DEVELOPMENT	\$859,489,045
SCIENCE	43.001	80NSSC18K0694				\$161,011	\$1,164,914	RESEARCH AND DEVELOPMENT	\$859,489,045
SCIENCE	43.001		UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN	097657-17658		\$183,340	\$1,164,914	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - SCIENCE	43.001	80NSSC18K0481			\$26,892	\$306,232	\$1,164,914	RESEARCH AND DEVELOPMENT	\$859,489,045
SCIENCE	43.001	80NSSC18K0481			\$53,588	\$322,362	\$1,164,914	RESEARCH AND DEVELOPMENT	\$859,489,045
AERONAUTICS	43.002	80NSSC18M0155				\$210,036	\$210,036	RESEARCH AND DEVELOPMENT	\$859,489,045
EXPLORATION	43.003		MASSACHUSETTS GENERAL HOSPITAL	236754		\$19,136	\$1,159,235	RESEARCH AND DEVELOPMENT	\$859,489,045
EXPLORATION	43.003		BAYLOR COLLEGE OF MEDICINE	7000001550		\$59,944	\$1,159,235	RESEARCH AND DEVELOPMENT	\$859,489,045
EXPLORATION	43.003		BAYLOR COLLEGE OF MEDICINE	7000001348		\$84,649	\$1,159,235	RESEARCH AND DEVELOPMENT	\$859,489,045
EXPLORATION	43.003	80NSSC21K1698				\$86,067	\$1,159,235	RESEARCH AND DEVELOPMENT	\$859,489,045
EXPLORATION	43.003	80NSSC19K1046				\$99,143	\$1,159,235	RESEARCH AND DEVELOPMENT	\$859,489,045
EXPLORATION	43.003	NNX15AK76A			\$38,834	\$141,699	\$1,159,235	RESEARCH AND DEVELOPMENT	\$859,489,045
EXPLORATION	43.003	80NSSC22K0648				\$143,140	\$1,159,235	RESEARCH AND DEVELOPMENT	\$859,489,045
EXPLORATION	43.003	80NSSC17K0644				\$525,457	\$1,159,235	RESEARCH AND DEVELOPMENT	\$859,489,045
SPACE OPERATIONS	43.007	80NSSC20K0513			\$1,498	\$91,697	\$532,425	RESEARCH AND DEVELOPMENT	\$859,489,045
SPACE OPERATIONS	43.007	80NSSC19K0348				\$96,618	\$532,425	RESEARCH AND DEVELOPMENT	\$859,489,045
SPACE OPERATIONS	43.007	80NSSC19K1602				\$344,110	\$532,425	RESEARCH AND DEVELOPMENT	\$859,489,045

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OFFICE OF STEM ENGAGEMENT (OSTEM)	43.008		PENNSYLVANIA STATE UNIVERSITY	S001610-NASA		\$9,850	\$9,850	RESEARCH AND DEVELOPMENT	\$859,489,045
SPACE TECHNOLOGY	43.012	80NSSC19K1179				\$59,400	\$216,830	RESEARCH AND DEVELOPMENT	\$859,489,045
SPACE TECHNOLOGY	43.012	80NSSC19K0214				\$78,463	\$216,830	RESEARCH AND DEVELOPMENT	\$859,489,045
SPACE TECHNOLOGY	43.012	80NSSC20K1191				\$78,967	\$216,830	RESEARCH AND DEVELOPMENT	\$859,489,045
FOAM OPTICS AND MECHANICS	43.RD	80NSSC21K0898				\$107,977	\$107,977	RESEARCH AND DEVELOPMENT	\$859,489,045
<b>TOTAL NATIONAL AERONAUTICS &amp; SPACE ADMINISTRATION</b>						\$120,812	\$3,401,267		
<b>INSTITUTE OF MUSEUM AND LIBRARY SERVICES OR NATIONAL ENDOWMENT FOR THE ARTS OR NATIONAL ENDOWMENT FOR THE HUMANITIES</b>									
PROMOTION OF THE ARTS GRANTS TO ORGANIZATIONS AND INDIVIDUALS	45.024	1862782-38-C-20				\$4,713	\$138,775	OTHER PROGRAMS	\$284,328,981
PROMOTION OF THE ARTS GRANTS TO ORGANIZATIONS AND INDIVIDUALS	45.024	1807815-34-18				\$9,900	\$138,775	OTHER PROGRAMS	\$284,328,981
PROMOTION OF THE ARTS GRANTS TO ORGANIZATIONS AND INDIVIDUALS	45.024	1862714-44-20				\$19,999	\$138,775	OTHER PROGRAMS	\$284,328,981
PROMOTION OF THE ARTS GRANTS TO ORGANIZATIONS AND INDIVIDUALS	45.024	1884932-44-21				\$25,000	\$138,775	OTHER PROGRAMS	\$284,328,981
PROMOTION OF THE ARTS GRANTS TO ORGANIZATIONS AND INDIVIDUALS	45.024		HENRY M. JACKSON FOUNDATION	5759		\$79,163	\$138,775	OTHER PROGRAMS	\$284,328,981
PROMOTION OF THE ARTS PARTNERSHIP AGREEMENTS	45.025		PENNSYLVANIA COUNCIL ON THE ARTS	C960003946		\$3,671	\$60,671	OTHER PROGRAMS	\$284,328,981
PROMOTION OF THE ARTS PARTNERSHIP AGREEMENTS	45.025		PENNSYLVANIA COUNCIL ON THE ARTS	2021-2022 FUNDING		\$5,000	\$60,671	OTHER PROGRAMS	\$284,328,981
PROMOTION OF THE ARTS PARTNERSHIP AGREEMENTS	45.025		PENNSYLVANIA COUNCIL ON THE ARTS	C960002962		\$13,000	\$60,671	OTHER PROGRAMS	\$284,328,981
PROMOTION OF THE ARTS PARTNERSHIP AGREEMENTS	45.025		PENNSYLVANIA COUNCIL ON THE ARTS	C960003529		\$13,000	\$60,671	OTHER PROGRAMS	\$284,328,981
PROMOTION OF THE ARTS PARTNERSHIP AGREEMENTS	45.025		PENNSYLVANIA COUNCIL ON THE ARTS	C960003527		\$13,000	\$60,671	OTHER PROGRAMS	\$284,328,981
PROMOTION OF THE ARTS PARTNERSHIP AGREEMENTS	45.025		PENNSYLVANIA COUNCIL ON THE ARTS	C960003529		\$13,000	\$60,671	OTHER PROGRAMS	\$284,328,981
PROMOTION OF THE HUMANITIES RESEARCH	45.161	RZ-266119-19				\$994	\$46,675	RESEARCH AND DEVELOPMENT	\$859,489,045
PROMOTION OF THE HUMANITIES RESEARCH	45.161	RZ-266063-19				\$12,239	\$46,675	RESEARCH AND DEVELOPMENT	\$859,489,045
PROMOTION OF THE HUMANITIES RESEARCH	45.161	RZ-266202-19				\$33,442	\$46,675	RESEARCH AND DEVELOPMENT	\$859,489,045
PROMOTION OF THE HUMANITIES OFFICE OF DIGITAL HUMANITIES	45.169	HAA-258754-18				\$16,057	\$33,531	OTHER PROGRAMS	\$284,328,981
PROMOTION OF THE HUMANITIES OFFICE OF DIGITAL HUMANITIES	45.169	HAA-280669-21				\$17,474	\$33,531	OTHER PROGRAMS	\$284,328,981
MUSEUMS FOR AMERICA	45.301	MA-30-19-0708-19				\$16,094	\$110,933	OTHER PROGRAMS	\$284,328,981
MUSEUMS FOR AMERICA	45.301	MA-245681-OMS-20				\$94,839	\$110,933	OTHER PROGRAMS	\$284,328,981
NATIONAL LEADERSHIP GRANTS	45.312	LG-246396-OLS-20				\$29,710	\$29,710	OTHER PROGRAMS	\$284,328,981
ALISA MELLON BRUCE SENIOR FELLOW AT THE CENTER FOR ADVANCED STUDY IN T	45.RD	MELLON BRUCE SENIOR FELLOW				\$24,600	\$24,600	RESEARCH AND DEVELOPMENT	\$859,489,045
AIA-NEH LAGASH ARCHAEOLOGICAL PROJECT: SECOND SEASON OF EXCAVATION	45.U05	N/A	ARCHAEOLOGICAL INSTITUTE OF AMERICA	N/A		\$30,000	\$30,000	OTHER PROGRAMS	\$284,328,981
<b>TOTAL INSTITUTE OF MUSEUM AND LIBRARY SERVICES OR NATIONAL ENDOWMENT FOR THE ARTS OR NATIONAL ENDOWMENT FOR THE HUMANITIES</b>							\$474,895		
<b>NATIONAL SCIENCE FOUNDATION</b>									
CIF: SMALL: COLLABORATIVE RESEARCH: COMMUNICATIONS IN ULTRA-LOW-RATE R	47.040	1910056				\$49,772	\$49,772	RESEARCH AND DEVELOPMENT	\$859,489,045
ENGINEERING	47.041	ECCS-1542153				-\$55,923	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045
ENGINEERING	47.041	CBET-1604536				-\$10,976	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045
ENGINEERING	47.041	IIP-1430216				-\$7,778	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045
ENGINEERING	47.041	CBET-1706014				-\$3,943	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045

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ENGINEERING	47.041	1728360				-\$2,538	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	CMMI-1308396				-\$1,451	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	EEC-1359107				-\$1,096	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	CBET-1437482				-\$193	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	1827673				\$410	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	1903673				\$432	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041		WEST CHESTER UNIVERSITY	2021-2129183-01		\$451	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	ECCS-1651433				\$1,765	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041		ROCHESTER INSTITUTE OF TECHNOLOGY	32684-02		\$2,812	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	1804523				\$3,278	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	EFMA-1542707				\$3,669	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	1933704				\$4,665	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	1804145				\$6,075	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	CMMI-2121887				\$8,686	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041		NAAMIRA BIOMEDICALS, LLC	1		\$9,043	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	1661858				\$9,898	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	1663037				\$11,542	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	CBET-2145491				\$12,441	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	2145699				\$14,518	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	1727717				\$15,517	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041		UNIVERSITY OF HOUSTON	R-19-0095		\$16,127	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	CBET-2110611				\$17,922	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041		COGWEAR	SUB TO 2110037		\$19,600	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	1937031				\$19,729	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	IIP-2132672				\$22,222	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	2145738				\$25,203	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	1944248				\$25,496	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041		DREXEL UNIVERSITY	920153		\$27,339	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	CBET-1920156				\$31,178	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	ECCS-1846766				\$37,247	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	1662101				\$39,758	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041		UNIVERSITY OF MINNESOTA	A006382201		\$41,356	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	CMMI-2047506				\$49,094	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	CBET-1845933				\$61,907	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	CBET-1943945				\$62,765	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	1839535				\$63,594	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	CMMI-1662695				\$66,059	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	CBET-2010890				\$67,793	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041		UNIVERSITY OF MARYLAND	104752-Z3822204		\$68,199	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	2023780				\$72,674	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	1830475				\$73,404	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041		NORTH CAROLINA STATE UNIVERSITY	2017-1-718-02		\$73,871	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	1932803				\$75,765	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	CBET-2149547				\$82,315	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	1943394				\$88,251	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	CBET-2047271				\$90,428	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	CMMI-2041662				\$91,932	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	CMMI-2041410				\$96,026	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	CBET-1705891				\$97,779	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041		AMERICAN SOCIETY FOR ENGINEERING EDUCATION	769-2068		\$100,190	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	1830218				\$100,596	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	ECCS-2045834				\$105,229	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	1943243				\$105,471	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	CMMI-1761874				\$106,372	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	2026906				\$111,954	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	CMMI-2047851				\$112,187	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045	
ENGINEERING	47.041	2132141				\$716	\$115,132	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
ENGINEERING	47.041	1944691				\$117,197	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045
ENGINEERING	47.041	CBET-1554200				\$121,752	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045
ENGINEERING	47.041	CMMI-1653216				\$123,843	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045
ENGINEERING	47.041	2034122				\$128,469	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045
ENGINEERING	47.041		UNIVERSITY OF MICHIGAN	3004604526		\$129,665	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045
ENGINEERING	47.041	CBET-1652646				\$141,069	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045
ENGINEERING	47.041	1761726				\$141,673	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045
ENGINEERING	47.041	1734355				\$142,774	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045
ENGINEERING	47.041	1945841				\$147,041	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045
ENGINEERING	47.041	CMMI-1548571				\$147,726	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045
ENGINEERING	47.041	ECCS-1842655			\$33,385	\$157,546	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045
ENGINEERING	47.041	EEC-1950720				\$162,885	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045
ENGINEERING	47.041		GEORGIA INSTITUTE OF TECHNOLOGY	RJ375-G1		\$168,303	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045
ENGINEERING	47.041	ECCS-1842612			\$78,796	\$221,380	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045
ENGINEERING	47.041	1837253				\$253,378	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045
ENGINEERING	47.041	2002477				\$275,832	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045
ENGINEERING	47.041	2036881				\$335,146	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045
ENGINEERING	47.041		CARNEGIE MELLON UNIVERSITY	1122380-424804		\$345,410	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045
ENGINEERING	47.041	1933400				\$415,400	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045
ENGINEERING	47.041	1935294			\$15,543	\$430,250	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045
ENGINEERING	47.041	2038873				\$457,136	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045
ENGINEERING	47.041	2037097			\$239,193	\$570,737	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045
ENGINEERING	47.041	ECCS-2025608			\$14,787	\$1,052,693	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045
ENGINEERING	47.041	EEC-1941529			\$15,862	\$3,144,684	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - ENGINEERING	47.041	CMMI-1548571			\$13,663	\$4,348,643	\$16,164,100	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	CHE-1764365				-\$3,670	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	DMS-0636606				-\$3,075	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	DMS-1200271				-\$1,043	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	DMS-1603526				-\$113	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	1764143				-\$50	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	2200856				\$877	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	1609784				\$1,262	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	2203909				\$3,006	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	CHE-1709518				\$3,318	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	1916245				\$3,372	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	2213891				\$4,650	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	2027986				\$12,320	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	CHE-2216766				\$15,699	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	DMR-1904776				\$16,523	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049		UNIVERSITY OF PUERTO RICO	DMR-1523463		\$16,997	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	1854148				\$17,369	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	DMS-1805439				\$23,646	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049		STONY BROOK	76749/1136652/2/2R7D		\$27,229	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	2113072				\$30,248	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	DMR-1659512				\$31,464	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	DMS-2054379				\$31,660	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	2147546				\$32,311	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	2042144				\$33,181	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	2055008				\$34,873	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	2112988				\$38,574	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	DMS-2046393				\$39,879	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049		PRINCETON UNIVERSITY	SUB0000223		\$42,197	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	MCB-2207050				\$42,621	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	CHE-1665339				\$44,377	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	2202068				\$44,912	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	1901876				\$44,946	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	1709763				\$49,478	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	1910496				\$52,542	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	AST-2007232				\$55,099	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.



<i>Federal Awarding Agency/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification (Optional)</i>	<i>Name of Funder Pass-Through Entity</i>	<i>Identifying Number Assigned By Funder Pass-Through Entity</i>	<i>Total Amount Provided to Sub-Recipients</i>	<i>Federal Expenditures</i>	<i>Federal Program Total</i>	<i>Cluster Name</i>	<i>Cluster Total</i>
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	1851640				\$56,706	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	2009210				\$57,338	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	1953848				\$59,073	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	DMR-1844514				\$63,934	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	1905203				\$66,517	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	DMS-1953572				\$66,625	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	DMS-1554130				\$67,264	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	2015259				\$67,766	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	DMS-2046874				\$69,048	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	DMR-2050863				\$71,669	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	PHY-1915174				\$72,933	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	2104554				\$73,522	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	CHE-2102626				\$74,183	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	1808065				\$75,570	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	1764298				\$76,432	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
<i>MATHEMATICAL AND PHYSICAL SCIENCES</i>	<i>47.049</i>		<i>UNIVERSITY OF DELAWARE</i>	<i>58081</i>		<i>\$78,626</i>	<i>\$13,011,821</i>	<i>RESEARCH AND DEVELOPMENT</i>	<i>\$859,489,045</i>
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	DMS-2046514				\$79,006	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	DMR-2005749				\$81,088	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	1952583				\$82,567	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	DMS-1847415				\$88,771	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
<i>MATHEMATICAL AND PHYSICAL SCIENCES</i>	<i>47.049</i>		<i>PRINCETON UNIVERSITY</i>	<i>SUB0000032</i>		<i>\$91,413</i>	<i>\$13,011,821</i>	<i>RESEARCH AND DEVELOPMENT</i>	<i>\$859,489,045</i>
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	2054602				\$91,745	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	DMS-2001673				\$95,203	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	CHE-1708759				\$97,164	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	CHE-1856547				\$102,188	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	AST-1816330				\$110,654	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	2055271				\$113,835	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	DMR-2104841				\$113,868	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	2124558			\$62,628	\$115,379	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	1943925				\$116,019	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	1838456				\$122,147	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	AST-1907610				\$123,410	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	CHE-2047614				\$126,468	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	1905912				\$134,379	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	PHY-1554887				\$137,250	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	2132591				\$138,164	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	DMS-2031895				\$138,212	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	DMS-2102987				\$141,830	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	DMR-1809398				\$144,589	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	1952877				\$156,981	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
<i>MATHEMATICAL AND PHYSICAL SCIENCES</i>	<i>47.049</i>		<i>TEXAS A&amp;M UNIVERSITY</i>	<i>M2002925</i>		<i>\$158,015</i>	<i>\$13,011,821</i>	<i>RESEARCH AND DEVELOPMENT</i>	<i>\$859,489,045</i>
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	1904767				\$171,218	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	DMR-2003659				\$175,894	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	1905853				\$176,540	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	DMR-1945966				\$180,151	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	CHE-2102402				\$181,276	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	1922278				\$193,928	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	DMR-2134715			\$55,185	\$203,325	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	1955068				\$205,652	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	1902509				\$213,857	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	CHE-1953701				\$229,869	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	1955724				\$242,708	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
<i>MATHEMATICAL AND PHYSICAL SCIENCES</i>	<i>47.049</i>		<i>UNIVERSITY OF WASHINGTON</i>	<i>UWSC12986</i>		<i>\$267,045</i>	<i>\$13,011,821</i>	<i>RESEARCH AND DEVELOPMENT</i>	<i>\$859,489,045</i>
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	1905045				\$280,290	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	1945265				\$331,673	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	OMA-1936276			\$218,167	\$341,802	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	1925708			\$229,697	\$532,722	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	DMR-2117775				\$720,000	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
MATHEMATICAL AND PHYSICAL SCIENCES	47.049	DMR-1720530			\$12,455	\$3,579,641	\$13,011,821	RESEARCH AND DEVELOPMENT	\$859,489,045
GEOSCIENCES	47.050	EAR-1502472				-\$22	\$782,931	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Program		Cluster Name	Cluster Total
						Federal Expenditures	Federal Program Total		
GEOSCIENCES	47.050	EAR-2023058				\$9,183	\$782,931	RESEARCH AND DEVELOPMENT	\$859,489,045
GEOSCIENCES	47.050	OCE-2102989				\$14,512	\$782,931	RESEARCH AND DEVELOPMENT	\$859,489,045
GEOSCIENCES	47.050	1855461				\$18,196	\$782,931	RESEARCH AND DEVELOPMENT	\$859,489,045
GEOSCIENCES	47.050	2020880				\$18,366	\$782,931	RESEARCH AND DEVELOPMENT	\$859,489,045
GEOSCIENCES	47.050	1624504				\$55,937	\$782,931	RESEARCH AND DEVELOPMENT	\$859,489,045
GEOSCIENCES	47.050	OCE-1756808				\$65,384	\$782,931	RESEARCH AND DEVELOPMENT	\$859,489,045
GEOSCIENCES	47.050	1846777				\$80,502	\$782,931	RESEARCH AND DEVELOPMENT	\$859,489,045
GEOSCIENCES	47.050	1939913				\$83,682	\$782,931	RESEARCH AND DEVELOPMENT	\$859,489,045
GEOSCIENCES	47.050	1951462				\$83,944	\$782,931	RESEARCH AND DEVELOPMENT	\$859,489,045
GEOSCIENCES	47.050		RUTGERS UNIVERSITY	2063		\$144,165	\$782,931	RESEARCH AND DEVELOPMENT	\$859,489,045
GEOSCIENCES	47.050	1923743				\$209,082	\$782,931	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	CNS-1035715				-\$40,000	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	CNS-1513694				-\$30,862	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	CCF-1353927				-\$15,000	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	CCF-1138996				-\$7,348	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	CNS-1059257				-\$6,466	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	IIS-1651389				-\$5,277	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	2011168				-\$4,807	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	IIS-1514882				-\$4,107	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	CNS-1065060				-\$3,181	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	IIS-1231547				-\$2,175	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	1525457				-\$1,500	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	CNS-1302222				-\$836	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	CCF-1319880				-\$629	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	CCF-0905464				-\$146	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	CNS-0931239				-\$95	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	1703319				\$743	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	CNS-1955670				\$834	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	IIS-2147212				\$1,297	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	CNS-1845749				\$6,130	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	CNS-1925587				\$9,298	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070		CARNEGIE MELLON UNIVERSITY	1123580-448452		\$9,898	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	1717120				\$10,484	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	IIS-1717290				\$10,489	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	CNS-2043858				\$11,074	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	CNS-1703541				\$11,651	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	2218773				\$12,370	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	2221009				\$12,370	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	CNS-1513108				\$12,985	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	CCF-1617851				\$13,802	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	2145164				\$14,092	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	CNS-2042216				\$18,160	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	2040463				\$19,229	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	1943064				\$22,780	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	2218713				\$24,741	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	1917545				\$27,156	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	CNS-1513854				\$27,168	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	1926872				\$28,886	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	2107147				\$32,897	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	CNS-2125561				\$33,256	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	CNS-2104882				\$34,471	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	IIS-1827472			\$23,884	\$34,978	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	IIS-1910108				\$37,498	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070		UNIVERSITY OF WISCONSIN-MADISON	0000000973		\$47,389	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	1703835				\$50,453	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	1955565				\$51,120	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	1703791				\$51,270	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

<i>Federal Awarding Agency/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification (Optional)</i>	<i>Name of Funder Pass-Through Entity</i>	<i>Identifying Number Assigned By Funder Pass-Through Entity</i>	<i>Total Amount Provided to Sub-Recipients</i>	<i>Federal Expenditures</i>	<i>Federal Program Total</i>	<i>Cluster Name</i>	<i>Cluster Total</i>
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	1829197				\$53,266	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	CNS-1939132				\$54,949	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	2008305				\$57,618	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	CCF-2047482				\$59,641	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	1910534				\$65,084	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	CCF-2107429				\$66,260	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	2008284				\$79,448	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	IIS-1812319				\$82,600	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	2016943				\$90,496	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	IIS-1926757				\$92,812	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	CCF-1733794				\$97,007	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	1910308				\$101,235	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	1837964				\$101,825	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	1837210				\$104,383	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	2024692				\$104,904	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	1763314				\$109,685	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	2008456				\$110,582	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	CNS-1730377				\$112,505	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	IIS-1910864				\$114,562	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	1845339				\$115,291	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	CNS-1701785				\$116,425	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	IIS-2020312			\$48,297	\$118,879	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
			COMPUTING RESEARCH ASSOCIATION	CIF2020-UP-35					
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	2031244				\$120,277	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	1513671			\$87,912	\$121,041	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	1912232				\$121,472	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	1912232				\$123,680	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	CNS-2045861				\$128,705	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	2006535				\$135,989	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	1513679				\$136,982	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	1915398				\$141,728	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	1910594				\$153,626	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
			UNIVERSITY OF CALIFORNIA, SAN DIEGO	KR 704614					
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	CCF-1910769				\$169,902	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	2124184				\$173,519	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	1931419				\$183,231	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	1931419			\$874	\$196,990	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	1931419	PRINCETON UNIVERSITY	SUB0000480		\$200,016	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	CCF-1917852				\$208,634	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	1934960				\$209,667	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	1934960	UNIVERSITY OF MEMPHIS	1640813		\$227,353	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	CCF-1934876				\$244,507	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	CCF-1521539				\$245,735	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	CNS-1703936				\$248,934	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	1563873				\$249,117	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	1763307				\$324,432	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	1763514				\$334,180	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	47.070	2133256				\$349,474	\$7,315,188	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOLOGICAL SCIENCES	47.074	IOS-1443767				-\$5,715	\$3,113,133	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOLOGICAL SCIENCES	47.074	MCB-1652003				\$40	\$3,113,133	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOLOGICAL SCIENCES	47.074	2135914				\$19,693	\$3,113,133	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOLOGICAL SCIENCES	47.074	2118397				\$21,805	\$3,113,133	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOLOGICAL SCIENCES	47.074	2118397	UNIVERSITY CORPORATION, THE	A16-0018-S001		\$29,148	\$3,113,133	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOLOGICAL SCIENCES	47.074	DEB-1926114				\$39,985	\$3,113,133	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOLOGICAL SCIENCES	47.074	1926114	BAYLOR UNIVERSITY	1001318-01		\$44,451	\$3,113,133	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOLOGICAL SCIENCES	47.074	1926114	PURDUE UNIVERSITY	10001908-017		\$85,291	\$3,113,133	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOLOGICAL SCIENCES	47.074	1926114	BOYCE THOMPSON INSTITUTE	20-01		\$156,476	\$3,113,133	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOLOGICAL SCIENCES	47.074	1929671				\$158,451	\$3,113,133	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOLOGICAL SCIENCES	47.074	MCB-2044613				\$165,084	\$3,113,133	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOLOGICAL SCIENCES	47.074	MCB-1916431				\$168,816	\$3,113,133	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

<i>Federal Awarding Agency/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification (Optional)</i>	<i>Name of Funder Pass-Through Entity</i>	<i>Identifying Number Assigned By Funder Pass-Through Entity</i>	<i>Total Amount Provided to Sub-Recipients</i>	<i>Federal Expenditures</i>	<i>Federal Program Total</i>	<i>Cluster Name</i>	<i>Cluster Total</i>
BIOLOGICAL SCIENCES	47.074	MCB-1856292				\$197,442	\$3,113,133	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOLOGICAL SCIENCES	47.074	1817518				\$230,989	\$3,113,133	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOLOGICAL SCIENCES	47.074	IOS-1953279				\$236,395	\$3,113,133	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOLOGICAL SCIENCES	47.074	1856587				\$242,578	\$3,113,133	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOLOGICAL SCIENCES	47.074	IOS-1853719				\$255,284	\$3,113,133	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOLOGICAL SCIENCES	47.074	1905062				\$422,696	\$3,113,133	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOLOGICAL SCIENCES	47.074	IOS-1849708			\$3,523	\$644,224	\$3,113,133	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	BCS-1225620				-\$1,567	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	SES-1260782				-\$1,510	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	BCS-1917900				-\$342	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	BCS-1317217				-\$319	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	BCS-2017086				-\$114	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	SES-1729469				\$990	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	BCS-2029098				\$5,014	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	SES-2147313				\$5,759	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	SES-2117004				\$6,419	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	1726976				\$6,581	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	SES-1918173				\$7,432	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	1849495				\$8,166	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	SES-1921325				\$8,829	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	1749397				\$13,162	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	BCS-2022977				\$13,408	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	1751863				\$13,682	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	BCS-1946882				\$14,764	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	1825583				\$15,577	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	1459353				\$18,972	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	2049764				\$19,051	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	BCS-2141114				\$20,552	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	2043724				\$22,946	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	1827876				\$24,538	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	1729412				\$25,598	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	SES-1919029				\$26,898	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	1824520				\$29,086	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	SES-2204924				\$37,036	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	SES-1758653				\$40,625	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	2032598			\$3,121	\$45,545	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	1823521				\$45,717	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	1729185				\$48,507	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	1851707				\$49,088	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	1851634				\$49,851	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075		ARIZONA STATE UNIVERSITY	ASUB00001004		\$55,695	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	SES-2017655				\$56,172	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	SES-2116928				\$59,696	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	BCS-2122443				\$62,994	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	BCS-1852987				\$67,176	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	1756738			\$51,732	\$67,470	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	1917573			\$4,458	\$71,195	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	2043255				\$72,765	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	2049099				\$74,124	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	1851629				\$79,301	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	BCS-1755237				\$86,782	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	1948943			\$3,584	\$86,966	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	BCS-1824826				\$90,661	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	BCS-2123627				\$91,259	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	1847598				\$120,809	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	SES-1851449				\$128,659	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	SMA-2050803				\$131,894	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	BCS-2026850				\$139,306	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	1847794				\$140,949	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	1947096			\$1,993	\$145,886	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045

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Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	BCS-2041171				\$167,715	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	SMA-1917608				\$168,897	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	BCS-1942917				\$179,190	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	1851879				\$179,816	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	BCS-1941006				\$186,674	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	47.075	2124355				\$286,204	\$3,618,196	RESEARCH AND DEVELOPMENT	\$859,489,045
EDUCATION AND HUMAN RESOURCES	47.076	DGE-0966142				-\$2,190	\$8,126,255	RESEARCH AND DEVELOPMENT	\$859,489,045
EDUCATION AND HUMAN RESOURCES	47.076	DRL-1316527				-\$783	\$8,126,255	RESEARCH AND DEVELOPMENT	\$859,489,045
EDUCATION AND HUMAN RESOURCES	47.076	DGE-1937490				\$9,152	\$8,126,255	RESEARCH AND DEVELOPMENT	\$859,489,045
EDUCATION AND HUMAN RESOURCES	47.076		PURDUE UNIVERSITY	10001863-009		\$15,995	\$8,126,255	RESEARCH AND DEVELOPMENT	\$859,489,045
EDUCATION AND HUMAN RESOURCES	47.076	1721003				\$21,015	\$8,126,255	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - EDUCATION AND HUMAN RESOURCES	47.076	2031748			\$4,892	\$33,232	\$8,126,255	RESEARCH AND DEVELOPMENT	\$859,489,045
EDUCATION AND HUMAN RESOURCES	47.076		UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL	5119693		\$33,819	\$8,126,255	RESEARCH AND DEVELOPMENT	\$859,489,045
EDUCATION AND HUMAN RESOURCES	47.076	1839686				\$42,170	\$8,126,255	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - EDUCATION AND HUMAN RESOURCES	47.076	DUE-2038507			\$1,715	\$45,846	\$8,126,255	RESEARCH AND DEVELOPMENT	\$859,489,045
EDUCATION AND HUMAN RESOURCES	47.076		DREXEL UNIVERSITY	920085		\$48,604	\$8,126,255	RESEARCH AND DEVELOPMENT	\$859,489,045
EDUCATION AND HUMAN RESOURCES	47.076	DRL-2101163			\$54,559	\$67,244	\$8,126,255	RESEARCH AND DEVELOPMENT	\$859,489,045
EDUCATION AND HUMAN RESOURCES	47.076	DRL-1907437				\$68,327	\$8,126,255	RESEARCH AND DEVELOPMENT	\$859,489,045
EDUCATION AND HUMAN RESOURCES	47.076	1928474				\$95,800	\$8,126,255	RESEARCH AND DEVELOPMENT	\$859,489,045
EDUCATION AND HUMAN RESOURCES	47.076	1946150				\$100,592	\$8,126,255	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - EDUCATION AND HUMAN RESOURCES	47.076		MEEDAN INC	FACTCHAMP/2021/103		\$100,808	\$8,126,255	RESEARCH AND DEVELOPMENT	\$859,489,045
EDUCATION AND HUMAN RESOURCES	47.076	1661153				\$109,177	\$8,126,255	RESEARCH AND DEVELOPMENT	\$859,489,045
EDUCATION AND HUMAN RESOURCES	47.076	2000405				\$111,427	\$8,126,255	RESEARCH AND DEVELOPMENT	\$859,489,045
EDUCATION AND HUMAN RESOURCES	47.076	DRL-1742140				\$143,195	\$8,126,255	RESEARCH AND DEVELOPMENT	\$859,489,045
EDUCATION AND HUMAN RESOURCES	47.076	DRL-1812738				\$182,384	\$8,126,255	RESEARCH AND DEVELOPMENT	\$859,489,045
EDUCATION AND HUMAN RESOURCES	47.076	DRL-2045095				\$229,018	\$8,126,255	RESEARCH AND DEVELOPMENT	\$859,489,045
EDUCATION AND HUMAN RESOURCES	47.076	DUE-1760867				\$309,828	\$8,126,255	RESEARCH AND DEVELOPMENT	\$859,489,045
EDUCATION AND HUMAN RESOURCES	47.076	DRL-2009803			\$112,253	\$311,058	\$8,126,255	RESEARCH AND DEVELOPMENT	\$859,489,045
EDUCATION AND HUMAN RESOURCES	47.076	DRL-1813048				\$683,156	\$8,126,255	RESEARCH AND DEVELOPMENT	\$859,489,045
EDUCATION AND HUMAN RESOURCES	47.076	DGE-1845298				\$5,367,381	\$8,126,255	RESEARCH AND DEVELOPMENT	\$859,489,045
POLAR PROGRAMS	47.078	ANT-1043554				-\$16,812	-\$16,812	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF INTERNATIONAL SCIENCE AND ENGINEERING	47.079	OISE-1545884			\$18,885	\$225,296	\$225,296	RESEARCH AND DEVELOPMENT	\$859,489,045
SINGLE WEARABLE PATCH FOR COST-EFFECTIVE, RELIABLE, AND ACCURATE HOME	47.RD	2016158	HUXLEY MEDICAL, INC.	SUB TO 2016158		\$231	\$208,582	RESEARCH AND DEVELOPMENT	\$859,489,045
MULTIPLEXED CRISPR EDITING OF T CELLS THROUGH LARGE CARGO DELIVERY VIA	47.RD	EEC-1648035	GEORGIA INSTITUTE OF TECHNOLOGY	AWD-102507-G1		\$17,600	\$208,582	RESEARCH AND DEVELOPMENT	\$859,489,045
GIVING CREDIT WHERE CREDIT IS DUE: CAUSAL IMPACTS OF REVERSE TRANSFER	47.RD	N/A	AMERICAN EDUCATIONAL RESEARCH ASSOCIATION	AERA		\$25,000	\$208,582	RESEARCH AND DEVELOPMENT	\$859,489,045
IPA AGREEMENT - PROGRAM DIRECTOR IN THE ROBUST INTELLIGENCE PROGRAM	47.RD	IPA ELENI MILTASAKAKI				\$33,149	\$208,582	RESEARCH AND DEVELOPMENT	\$859,489,045
SBIR PHASE II: SINGLE WEARABLE PATCH FOR COST-EFFECTIVE, RELIABLE, AND	47.RD	2136470	HUXLEY MEDICAL, INC.	SUB TO 2136470		\$35,421	\$208,582	RESEARCH AND DEVELOPMENT	\$859,489,045
MUSTANG 2 OPERATIONS ON THE GREEN BANK TELESCOPE	47.RD	N/A	NATIONAL RADIO ASTRONOMY OBSERVATORY	372870		\$36,019	\$208,582	RESEARCH AND DEVELOPMENT	\$859,489,045
HARNESSING EVOLUTION TO REVEAL THE MOLECULAR LOGIC OF KINETOCHORE WIRI	47.RD	N/A	WHITEHEAD INSTITUTE FOR BIOMEDICAL RESEARCH	SUB TO NSF ADV ACCT		\$61,162	\$208,582	RESEARCH AND DEVELOPMENT	\$859,489,045
<b>TOTAL NATIONAL SCIENCE FOUNDATION</b>						<b>\$1,416,401</b>	<b>\$52,598,462</b>		
<b>DEPARTMENT OF VETERANS AFFAIRS</b>									
IPA SHIMRIT KEDDEM	64.000	IPA AGREEMENT				-\$8,660	-\$8,660	RESEARCH AND DEVELOPMENT	\$859,489,045
LIZBETH NOVELO SPIRE IPA	64.RD	IPA LIZBETH NOVELO				-\$4,333	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
CHART REVIEW OF THE INSOMNIA TELEHEALTH PROGRAM (IPA: JAMES FINDLEY)	64.RD	IPA JAMES FINDLEY				-\$187	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
TRANSPLANTABLE MICRO-TISSUE ENGINEERED NEURAL NETWORKS TO RESTORE THE	64.RD	IPA AGREEMENT				-\$34	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
NOVEL METABOLITES ASSOCIATED WITH RENAL OUTCOMES	64.RD	IPA	STANFORD UNIVERSITY	SUB TO VETERANS AFFAIRS		\$21	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
LYNCH IPA - TOP	64.RD	IPA AGREEMENT				\$1,219	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045

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IPA FOR KRISTIN LINN	64.RD	KRISTIN LINN				\$1,723	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
TRAUMATIC AND TREATABLE VASCULAR PATHOLOGY IN THE OUTCOME OF TBI	64.RD	IPA AGREEMENT				\$1,902	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
COGNITIVE BEHAVIORAL THERAPY (CBT-I) AUGMENTATION OF TOPIRAMATE IN PRO	64.RD	IPA AGREEMENT				\$1,945	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
GORDON IPA- GABRIELA KHAZANOV PROJECT	64.RD	IPA AGREEMENT				\$3,433	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
IPA - KEITH BREDEMEIER	64.RD	IPA - KEITH BREDEMEIER				\$3,605	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
IPA - LEONARD PPO 15-143	64.RD	IPA CHARLES E LEONARD				\$4,203	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
DEVELOPING PERSONALIZED MEDICINE STRATEGIES TO INCREASE PHYSICAL ACTIV	64.RD	N/A	PHILADELPHIA RESEARCH AND EDUCATION FOUNDATION	JPA AGREEMENT		\$4,799	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
THE INTRA-INDIVIDUAL CHANGES IN AMBULATION AND FUNCTIONAL OUTCOMES AMO	64.RD	IPA PAMELA CACCHIONE				\$4,904	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
IPA-TIMOTHY POND	64.RD	IPA AGREEMENT				\$5,817	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
LEA WILLIAMS IPA - VA MERIT	64.RD	IPA AGREEMENT				\$7,102	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
IPA # 3 DAMRAUER DOE (M. VUJKOVIC)	64.RD	IPA MARIJANA VUJKOVIC				\$7,695	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
DOWNING IPA-TOP	64.RD	IPA - LAURIE DOWNING				\$8,068	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
IPA AGREEMENT FOR SOFIA LIZZA	64.RD	IPA AGREEMENT				\$8,536	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
IPA: SHIMRIT KEDDEM (PROJECT: CHERP)	64.RD	IPA AGREEMENT				\$9,380	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
IPA # 4, MVP035COVID VUJKOVIC	64.RD	IPA AGREEMENT				\$9,648	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
IPA - REBECCA HUBBARD PPO 15-143	64.RD	IPA AGREEMENT				\$9,963	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
ACCELERATED AGING AS A CAUSE OF CHRONIC LUNG ALLOGRAFT DYSFUNCTION	64.RD	IPA AGREEMENT				\$11,046	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
INCORPORATING VETERANS' PREFERENCES INTO LUNG CANCER SCREENING DECISIO	64.RD	IPA AGREEMENT				\$11,178	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
IPA FOR DAWEI XIE	64.RD	IPA DAWEI XIE				\$11,247	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
VA IPA AGREEMENT FOR ALEX BURDZY	64.RD	IPA ALEXANDER E BURDZY				\$11,419	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
BROWN,LILY - SAYERS: SUICIDE PREVENTION SERVICES INTEGRATION IN COACHI	64.RD	IPA - LILY BROWN				\$11,544	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
VUJKOVIC IPA #2 YEAR 2	64.RD	IPA AGREEMENT				\$11,924	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
VA IPA FOR DANIEL TRAUM	64.RD	IPA DANIEL TRAUM				\$12,002	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
TAMMY XU IPA	64.RD	IPA AGREEMENT				\$12,146	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
VA IPA: CATHERINE CHADWICK (COMMUNITY HEALTH WORKER PROJECT)	64.RD	IPA CATHEINE CHADWICK				\$12,615	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
IPA-SHIMRIT KEDDEM (PROJECT: SAGE)	64.RD	IPA AGREEMENT				\$12,986	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
VA IPA: PHOEBE WHITESIDE (VA QUERI GRANT)	64.RD	IPA: PHOEBE WHITESIDE (VA QUERI GRANT)				\$14,398	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
RESURFACING OF THE THUMB JOINT WITH A BIOLOGIC TISSUE ENGINEERED IMPLA	64.RD	IPA AGREEMENT				\$14,750	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
IPA LYNCH MIRECC	64.RD	IPA - KEVIN LYNCH				\$14,798	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
NEUROMODULATION AS A THERAPY FOR PTSD FOLLOWING CHRONIC TBI	64.RD	IPA AGREEMENT				\$15,001	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
IPA KEMBER-MVP004	64.RD	IPA - RACHEL KEMBER				\$17,963	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
COGNITIVE BEHAVIORAL THERAPY (CBT-I) AUGMENTATION OF TOPIRAMATE IN PRO	64.RD	IPA AGREEMENT				\$18,053	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
IPA FOR MARY VALIGA - MILLION VETERAN PROGRAM (MVP)	64.RD	IPA AGREEMENT				\$18,166	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
VA IPA: JINGYI WU (CARDIOVASCULAR CARE AND OUTCOMES FOR VETERANS EXPER	64.RD	IPA-JINGYI WU				\$18,609	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - LEA WILLIAMS COVID-19 IPA	64.RD	IPA AGREEMENT				\$18,949	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
IPA AGREEMENT FOR DANIEL TRAUM	64.RD	IPA DANIEL TRAUM				\$19,063	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
LIVING ELECTRODES FOR AUDITORY REHABILITATION	64.RD	IPA AGREEMENT				\$19,635	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
IPA - RICHARD CRIST (GAMMA)	64.RD	IPA - RICHARD CRIST				\$20,330	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
MECHANO-ACTIVE ANNULAR REPAIR DEVICE FOR TREATING DISC HERNIATION	64.RD	GEORGE DODGE				\$21,784	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
VA IPA AGREEMENT FOR RICHARD MASON	64.RD	IPA RICHARD MASON				\$22,039	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - CALEIGH DOHERTY CSP VA IPA	64.RD	IPA CALEIGH DOHERTY				\$22,129	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
PRECISION CARDIO-METABOLIC PHENOTYPING FOR GENETIC DISCOVERY AND RISK	64.RD	IPA AGREEMENT				\$22,850	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
NEUROMODULATION AS A THERAPY FOR PTSD FOLLOWING CHRONIC TBI	64.RD	IPA OCEANE FRUCHET				\$23,723	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
VA IPA: MOLLY KNOWLES (COMMUNITY HEALTH WORKER PROJECT)	64.RD	IPA MOLLEY KNOWLES				\$23,752	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045

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<i>Federal Awarding Agency/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification (Optional)</i>	<i>Name of Funder Pass-Through Entity</i>	<i>Identifying Number Assigned By Funder Pass-Through Entity</i>	<i>Total Amount Provided to Sub-Recipients</i>	<i>Federal Expenditures</i>	<i>Federal Program Total</i>	<i>Cluster Name</i>	<i>Cluster Total</i>
IPA #1, CHANG-MVP (M. VUJKOVIC)NO RESTRICTS NON-U.S. ENTITY PARTICIPAT	64.RD	IPA AGREEMENT				\$23,975	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
IPA - HOLLY BARILLA TO DELIVER CBT FOR INSOMNIA IN PATIENTS WITH SERIO	64.RD	IPA AGREEMENT				\$24,091	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
DESIGNING NEURONAL TISSUE CONSTRUCTS THAT MIMIC BRAIN-SPECIFIC ARCHITE	64.RD	IPA AGREEMENT				\$24,195	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
CALEIGH DOHERTY VA SPIRE IPA	64.RD	IPA CALEGIGH DOHERTY				\$24,521	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
IPA FOR NAYELI NUNEZ CRUZ ON "COGNITIVE BEHAVIORAL THERAPY FOR INSOMNI	64.RD	IPA - NAYELI NUNEZ CRUZ				\$24,842	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
VA IPA AGREEMENT FOR SOFIA LIZZA	64.RD	IPA AGREEMENT				\$25,609	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
LYNCH PRIME IPA	64.RD	IPA KEVIN LYNCH				\$25,886	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
TISSUE ENGINEERED NIGROSTRIATAL PATHWAY AS A TESTBED FOR EVALUATING AX	64.RD	IPA AGREEMENT				\$26,475	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
TRANSLATIONAL MODELING OF BRAIN INJURY REHABILITATION TO MAXIMIZE RECO	64.RD	IPA AGREEMENT				\$27,454	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
VA IPA: JINGYI WU (RACIAL AND ETHNIC DIFFERENCES IN PRESENTATION AND Q	64.RD	IPA-JINGYI WU				\$27,914	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
THE ROLE OF DISC NUTRITION IN THE ETIOLOGY AND CLINICAL TREATMENT OF D	64.RD	IPA AGREEMENT				\$28,161	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
COGNITIVE BEHAVIORAL THERAPY (CBT-I) AUGMENTATION OF TOPIRAMATE IN PRO	64.RD	IPA KNASHAWN MORALES				\$29,361	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
IPA FOR SAEWHAN PARK - RACIAL BIAS IN A VA ALGORITHM FOR HIGH-RISK VET	64.RD	IPA FOR SAEWHAN PARK				\$29,666	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
YEAR 1 IPAS FOR MAUCK/BURDICK VA SPIRE PROJECT: "HYDROGEL DELIVERY OF	64.RD	IPA - BURDICK AND HENNING				\$30,189	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
IPA AGREEMENTS FOR ALEX BURDZY AND PATRIK GARREN	64.RD	IPA ALEXANDER E BURDZY				\$31,351	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
PATHOGENESIS OF CHRONIC RHINOSINUSITIS	64.RD	IPA MICHAEL DODSON				\$31,819	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
EVIDENCE BASED PSYCHOTHERAPY PROGRAM	64.RD	IPA GREGORY K BROWN				\$32,134	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
OPTIMIZATION OF ENGINEERED ENDPLATES TO IMPROVE IN VIVO INTEGRATION OF	64.RD	IPA - SARAH GULLBRAND ADV ACCT				\$32,211	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
IPA FOR K. LINN AND J. YAN	64.RD	IPA AGREEMENT				\$32,370	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
VA MERIT AWARD: IMMUNE AND GENETIC CONTROLS OF TISSUE REGENERATION IN	64.RD	IPA AGREEMENT				\$33,779	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
VA COMPREHENSIVE END-OF-LIFE CARE'S PROMISE CENTER	64.RD	IPA AGREEMENT				\$34,170	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
VA IPA BAOFENG HU & VU NGUYEN - VA MERIT	64.RD	IPA AGREEMENT				\$34,342	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
PHENOTYPIC AND GENOMIC ARCHITECTURE OF CARDIOVASCULAR DISEASE SUBTYPES	64.RD	IPA ANURAG VERMA				\$34,346	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - TAMMY XU FY22 COVID IPA	64.RD	IPA AGREEMENT				\$36,439	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
IPA - STATINS AND CIRRHOSIS: REDUCING EVENTS OF DECOMPENSATION (SACRED	64.RD	IPA AGREEMENT				\$37,686	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
VA IPA: DENERALE JONES (COMMUNITY HEALTH WORKER PROJECT)	64.RD	IPA DENERALE JONES				\$41,012	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
IPA AGREEMENT FOR MELISSA NASCHEK	64.RD	IPA AGREEMENT				\$43,153	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
QUERI SAGE IPA	64.RD	IPA AGREEMENT				\$43,546	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
NEURAL PROCESSING OF MULTISENSORY SPEECH AT MILLISECOND AND MILLIMETER	64.RD	IPA JOHN MAGNOTTI				\$44,558	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
IMMUNOLOGIC MECHANISMS FOR HETEROGENEITY OF CUTANEOUS LUPUS ERYTHEMATO	64.RD	JPA AGREEMENT				\$44,695	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
VA IPA: LAURAELEN ASHCRAFT	64.RD	IPA: LAURAELEN ASHCRAFT				\$46,219	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
PHENOTYPIC AND GENOMIC ARCHITECTURE OF CARDIOVASCULAR DISEASE SUBTYPES	64.RD	IPA AGREEMENT				\$47,080	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
CHRONIC FOCAL AND DIFFUSE TRAUMATIC BRAIN INJURY: MECHANISMS UNDERLYIN	64.RD	IPA AGREEMENT				\$48,389	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
VA IPA: RANDY HASTINGS (COMMUNITY HEALTH WORKER PROJECT)	64.RD	IPA RANDY HASTINGS				\$52,652	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
VA IPA: ANTHONY DAVIS (COMMUNITY HEALTH WORKER PROJECT)	64.RD	IPA ANTHONY DAVIS				\$52,652	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
NEUROMODULATION AS A THERAPY FOR PTSD FOLLOWING CHRONIC TBI	64.RD	IPA EMMA HALTER				\$53,766	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
PATHOLOGIC SIGNALING PATHWAYS IN AML CELLS	64.RD	IPA - S. WONG & S. JIN				\$54,166	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
PROBLEM SOLVING THERAPY PROGRAM IPA: GREGORY BROWN AND KELLY GREEN	64.RD	IPA KELLY L. GREEN				\$55,159	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045

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<i>Federal Awarding Agency/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification (Optional)</i>	<i>Name of Funder Pass-Through Entity</i>	<i>Identifying Number Assigned By Funder Pass-Through Entity</i>	<i>Total Amount Provided to Sub-Recipients</i>	<i>Federal Expenditures</i>	<i>Federal Program Total</i>	<i>Cluster Name</i>	<i>Cluster Total</i>
PHENOTYPIC AND GENOMIC ARCHITECTURE OF CARDIOVASCULAR DISEASE SUBTYPES	64.RD	IPA GABRIELLE SHAKT				\$58,745	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
BEERS - VA MERIT AWARD	64.RD	IPA SURAFEL MULUGETA				\$61,472	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
THE ROLE OF FUNCTIONAL IRON DEFICIENCY IN SYSTEMIC COMPLICATIONS OF CK	64.RD	36C24E19P0068				\$61,561	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
IPA	64.RD	IPA - MARY VALIGA				\$72,919	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
TISSUE ENGINEERED NIGROSTRIATAL PATHWAY AS A TESTBED FOR EVALUATING AX	64.RD	IPA JUSIN BURRELL				\$73,132	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
PHENOTYPIC AND GENOMIC ARCHITECTURE OF CARDIOVASCULAR DISEASE SUBTYPES	64.RD	IPA RENAE L JUDY				\$74,002	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
PHENOTYPIC AND GENOMIC ARCHITECTURE OF CARDIOVASCULAR DISEASE SUBTYPES	64.RD	IPA BENJAMIN F VOIGHT				\$74,438	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
TISSUE ENGINEERED TOTAL DISC REPLACEMENT IN A LARGE ANIMAL MODEL	64.RD	IPA - HENNING AND KIM				\$74,785	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
SDR: GENOMIC ANALYSIS OF BLAST TUBE INDUCED TBI IN MICE	64.RD	IPA AGREEMENT-GEORGES				\$75,749	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
SDR: GENOMIC ANALYSIS OF BLAST TUBE INDUCED TBI IN MICE	64.RD	IPA MICHAEL GROVOLA				\$78,114	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - COVID-19: ELUCIDATING THE ROLE OF THE NASAL EPITHELIUM IN SARS-COV-2 I	64.RD	IPA AGREEMENT				\$82,714	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
GROUP (PROJECT LIFE FORCE) VS. INDIVIDUAL SUICIDE SAFETY PLANNING RC	64.RD	IPA AGREEMENT				\$84,662	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
PREFERENCES ELICITED AND RESPECTED FOR SERIOUSLY ILL VETERANS THROUGH	64.RD	IPA AGREEMENT				\$93,376	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
VA IPA-ANEEZA AGHA	64.RD	IPA AGREEMENT				\$99,963	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
SDR: GENOMIC ANALYSIS OF BLAST TUBE INDUCED TBI IN MICE	64.RD	IPA AGREEMENT				\$100,247	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - COVID-19: UNDERSTANDING THE ROLE OF CORONA VIRUS INDUCED DISRUPTION OF	64.RD	IPA AGREEMENT				\$101,008	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
TRANSPLANTABLE MICRO-TISSUE ENGINEERED NEURAL NETWORKS TO RESTORE THE	64.RD	IPA JUSIN BURRELL				\$110,784	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
TISSUE ENGINEERED TOTAL DISC REPLACEMENT IN A LARGE ANIMAL MODEL	64.RD	IPA J LACHLAN SMITH				\$121,642	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
CHRONIC FOCAL AND DIFFUSE TRAUMATIC BRAIN INJURY: MECHANISMS UNDERLYIN	64.RD	IPA AGREEMENT				\$123,345	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
DEVELOPMENT OF A UNIQUE IN VITRO TEST BED MODEL TO EXPLORE MECHANISMS	64.RD	IPA JEAN-PIERRE DOLLE				\$203,813	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
KNEE JOINT RESURFACING WITH ANATOMIC TISSUE ENGINEERED OSTEOCHONDRAL I	64.RD	IPA AGREEMENT				\$208,214	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOACTIVE INJECTABLE IMPLANTS FOR FUNCTIONAL INTERVERTERBRAL DISC REGE	64.RD	IPA AGREEMENT				\$215,461	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
VA MERIT AWARD: IMMUNE AND GENETIC CONTROLS OF TISSUE REGENERATION IN	64.RD	IPA AGREEMENT				\$275,085	\$4,448,772	RESEARCH AND DEVELOPMENT	\$859,489,045
CBT-SP TELE-HUB PROJECT	64.U02	IPA GREGORY K BROWN				\$1,522	\$1,522	OTHER PROGRAMS	\$284,328,981
SUICIDE PREVENTION PROGRAMMATIC CONSULTATION	64.U03	IPA SHARI JAGER-HYMAN				\$5,481	\$5,481	OTHER PROGRAMS	\$284,328,981
VA/IPA AGREEMENTS FOR MARY VALIGA, JAMES KEITH AND XIAOWANG QU	64.U06	IPA MARY VALIGA				-\$34,260	-\$34,260	OTHER PROGRAMS	\$284,328,981
IPA - LAURIE DOWNING	64.U07	IPA LAURIE DOWNING				\$3,894	\$3,894	OTHER PROGRAMS	\$284,328,981
VA IPA FOR KEVIN LYNCH	64.U09	IPA - KEVIN LYNCH				\$12,474	\$12,474	OTHER PROGRAMS	\$284,328,981
COGNITIVE BEHAVIORAL THERAPY (CBT-I) AUGMENTATION OF TOPIRAMATE IN PRO	64.U13	IPA AGREEMENT				\$13,334	\$13,334	OTHER PROGRAMS	\$284,328,981
VA/IPA AGREEMENTS FOR MARY VALIGA, JAMES KEITH AND XIAOWANG QU	64.U16	IPA MARY VALIGA				\$38,702	\$38,702	OTHER PROGRAMS	\$284,328,981
VA IPA FOR KEVIN LYNCH	64.U17	IPA - KEVIN LYNCH				\$13,626	\$13,626	OTHER PROGRAMS	\$284,328,981
COGNITIVE BEHAVIORAL THERAPY (CBT-I) AUGMENTATION OF TOPIRAMATE IN PRO	64.U20	IPA AGREEMENT				\$27,503	\$27,503	OTHER PROGRAMS	\$284,328,981
<b>TOTAL DEPARTMENT OF VETERANS AFFAIRS</b>							<b>\$4,522,388</b>		
<b>ENVIRONMENTAL PROTECTION AGENCY</b>									
<i>ENVIRONMENTAL FINANCE CENTER GRANTS</i>	<i>66.203</i>		<i>UNIVERSITY OF MARYLAND</i>	<i>108979-Q3641201</i>		<i>\$5,314</i>	<i>\$5,314</i>	<i>OTHER PROGRAMS</i>	<i>\$284,328,981</i>

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Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
OFFICE OF RESEARCH AND DEVELOPMENT CONSOLIDATED RESEARCH/TRAINING/FELLOWSHIPS	66.511		VIRGINIA POLYTECHNIC INSTITUTE & STATE UNIVERSITY	451533-19314		\$2,201	\$2,201	RESEARCH AND DEVELOPMENT	\$859,489,045
ENVIRONMENTAL POLICY AND INNOVATION GRANTS	66.611		UNIVERSITY OF CALIFORNIA, BERKELEY	00010712		\$4,375	\$4,375	RESEARCH AND DEVELOPMENT	\$859,489,045
<b>TOTAL ENVIRONMENTAL PROTECTION AGENCY</b>						<u>\$11,890</u>			
<b>NATIONAL GALLERY OF ART</b>									
NATIONAL GALLERY OF ART EXTENSION SERVICE	68.RD	N/A				\$217,402	\$217,402	RESEARCH AND DEVELOPMENT	\$859,489,045
<b>TOTAL NATIONAL GALLERY OF ART</b>						<u>\$217,402</u>			
<b>DEPARTMENT OF ENERGY</b>									
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049	DE-SC0007901				-\$15,624	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049	DE-FG02-05ER46199				-\$3,564	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049	DE-SC0007063				\$7,121	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049	DE-SC0016043				\$17,518	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049		STONY BROOK	86736/1158349/2		\$22,853	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049	DE-FG02-91ER20052				\$24,833	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049	DE-SC0019282				\$27,476	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049	DE-SC0019397				\$39,144	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049		FLORIDA STATE UNIVERSITY UNIVERSITY OF CALIFORNIA, BERKELEY	R01865		\$39,565	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049			00010484		\$50,899	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049		UNIVERSITY OF TEXAS AT ARLINGTON	2019GC4293		\$77,473	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049		JOHNS HOPKINS UNIVERSITY	2004571414		\$84,239	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049		CORNELL UNIVERSITY	85989-11289		\$93,820	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049	DE-FG02-88ER40479				\$98,948	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049		STONY BROOK	63761/1108376/2		\$108,163	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049	DE-SC0021997				\$112,779	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049	DE-SC0019781				\$131,088	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049	DE-FG02-84ER45118				\$132,041	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049	ADVANCE ACCOUNT				\$132,455	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049		UNIVERSITY OF DELAWARE	58370		\$134,174	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049	DE-SC0019116				\$139,249	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049	DE-SC0018057				\$141,134	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049	DE-SC0019281				\$170,267	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049	DE-SC0019397				\$175,431	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049	DE-SC0021241				\$175,885	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049	DE-SC0020963				\$195,914	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049	DE-SC0009440				\$212,111	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049	DE-FG02-07ER46431				\$231,401	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049	DE-FG02-87ER13792				\$231,922	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049	DE-SC0016421				\$269,456	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049	DE-SC0022240			\$13,282	\$277,633	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049	DE-SC0021066				\$295,797	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049	DE-SC0017259				\$345,220	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049	DE-SC0007063				\$379,971	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049	DE-SC0022238			\$94,927	\$383,926	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049	DE-SC0020169			\$123,418	\$406,194	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049	DE-SC0013528				\$450,975	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049	DE-FG02-88ER40479				\$629,114	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049	DE-SC0020360			\$253,873	\$712,808	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049		UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL	5118794		\$1,205,854	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	81.049	DE-SC0007901				\$2,496,654	\$10,842,317	RESEARCH AND DEVELOPMENT	\$859,489,045
CONSERVATION RESEARCH AND DEVELOPMENT	81.086	DE-EE0008314			\$38,481	\$38,481	\$230,318	RESEARCH AND DEVELOPMENT	\$859,489,045

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Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
CONSERVATION RESEARCH AND DEVELOPMENT	81.086		PIXELLIGENT TECHNOLOGIES	SUB TO DE-EE0009120		\$191,837	\$230,318	RESEARCH AND DEVELOPMENT	\$859,489,045
FOSSIL ENERGY RESEARCH AND DEVELOPMENT	81.089	DE-FE0031673			\$49,878	\$78,448	\$78,448	RESEARCH AND DEVELOPMENT	\$859,489,045
ADVANCED RESEARCH PROJECTS AGENCY - ENERGY	81.135		COLORADO STATE UNIVERSITY	G-85115-02		\$144,865	\$317,567	RESEARCH AND DEVELOPMENT	\$859,489,045
ADVANCED RESEARCH PROJECTS AGENCY - ENERGY	81.135		COMMUNITY ENERGY VENTURES	SUB TO DE-AR0001237		\$172,702	\$317,567	RESEARCH AND DEVELOPMENT	\$859,489,045
HIGH-PERFORMANCE COMPUTING MODEL OF POWDER-SCALE MELTING AND SOLIDIFIC	81.RD	DE-AC05-00OR22725	UT-BATTELLE, LLC	4000171342		-\$776	\$1,706,591	RESEARCH AND DEVELOPMENT	\$859,489,045
DEEP UNDERGROUND NEUTRINO EXPERIMENT (DUNE)	81.RD	668259				\$5,663	\$1,706,591	RESEARCH AND DEVELOPMENT	\$859,489,045
SHAPE CHANGING OF RESPONSIVE ELASTOMER STRUCTURES (SCORES)	81.RD	DE-AC52-07NA27344	LAWRENCE LIVERMORE NATIONAL LABORATORY	B650723		\$8,039	\$1,706,591	RESEARCH AND DEVELOPMENT	\$859,489,045
DEEP UNDERGROUND NEUTRINO EXPERIMENT (DUNE) - DAPHNE	81.RD	685308				\$15,710	\$1,706,591	RESEARCH AND DEVELOPMENT	\$859,489,045
ITK STRIPS ASSEMBLY AND TESTING	81.RD	405040				\$18,081	\$1,706,591	RESEARCH AND DEVELOPMENT	\$859,489,045
ADVANCED INSTRUMENTATION TESTBED-NEUTRINO EXPERIMENT ONE (AIT-NEO)	81.RD	DE-AC52-07NA27344	LAWRENCE LIVERMORE NATIONAL LABORATORY	B649082	\$325	\$23,229	\$1,706,591	RESEARCH AND DEVELOPMENT	\$859,489,045
IN OPERANDO EVALUATION OF CATALYST MORPHOLOGY AND ACTIVITY UNDER CO2 R	81.RD	DE-AC52-07NA27344	LAWRENCE LIVERMORE NATIONAL LABORATORY	B645062		\$33,724	\$1,706,591	RESEARCH AND DEVELOPMENT	\$859,489,045
NON-PROLIFERATION ANTI-NEUTRINO RESEARCH	81.RD	DE-AC52-07NA27344	LAWRENCE LIVERMORE NATIONAL LABORATORY	B651369		\$34,307	\$1,706,591	RESEARCH AND DEVELOPMENT	\$859,489,045
WATCHMAN PDR EFFORT	81.RD	DE-AC52-07NA27344	LAWRENCE LIVERMORE NATIONAL LABORATORY	B634739	\$813	\$50,459	\$1,706,591	RESEARCH AND DEVELOPMENT	\$859,489,045
DEEP UNDERGROUND NEUTRINO EXPERIMENT (DUNE)	81.RD	670531				\$51,569	\$1,706,591	RESEARCH AND DEVELOPMENT	\$859,489,045
DESIGN OF A TARGET AND DICHOICON FOR PHOTON SORTING AT CHESS	81.RD	7528806				\$67,520	\$1,706,591	RESEARCH AND DEVELOPMENT	\$859,489,045
WFIRST SCIENCE INVESTIGATION TEAMS AND ADJUTANT SCIENTISTS	81.RD	7372918				\$76,052	\$1,706,591	RESEARCH AND DEVELOPMENT	\$859,489,045
PIPELINE INFRASTRUCTURE OPERATIONS PERSONNEL EFFORT FOR THE LSST DARK	81.RD	DE-AC02-76SF00515	STANFORD LINEAR ACCELERATOR CENTER	SUB TO DE-AC02-76SF00515		\$91,904	\$1,706,591	RESEARCH AND DEVELOPMENT	\$859,489,045
MULTI-SOURCE LEARNING-ACCELERATED DESIGN OF HIGH-EFFICIENCY MULTI-STAG	81.RD	DE-AR0001201	UNITED TECHNOLOGIES RESEARCH CENTER	1256545		\$92,520	\$1,706,591	RESEARCH AND DEVELOPMENT	\$859,489,045
HIGH PERFORMANCE ELECTROMECHANICAL FILTERS REALIZED IN HIGHLY DOPED AL	81.RD	N/A	SANDIA NATIONAL LABORATORY	2093801		\$108,465	\$1,706,591	RESEARCH AND DEVELOPMENT	\$859,489,045
CENTER FOR 3D FERROELECTRIC MICROELECTRONICS	81.RD	DE-SC0021118	PENNSYLVANIA STATE UNIVERSITY	S001327-USDOE		\$138,094	\$1,706,591	RESEARCH AND DEVELOPMENT	\$859,489,045
HYBRID QUANTUM/CLASSICAL ALGORITHMS FOR PHOTOCHEMISTRY AND NONADIABATI	81.RD	DE-AC02-76SF00515	STANFORD LINEAR ACCELERATOR CENTER	200073		\$168,161	\$1,706,591	RESEARCH AND DEVELOPMENT	\$859,489,045
TAILORING PHOTOPHYSICAL ENERGY TRANSFER FOR SELECTIVE SEPARATIONS OF C	81.RD	DE-AC36-08GO28308	NATIONAL RENEWABLE ENERGY LABORATORY	SUB-2021-10494		\$256,765	\$1,706,591	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH FOR ATLAS EXPERIMENT	81.RD	80472				\$467,105	\$1,706,591	RESEARCH AND DEVELOPMENT	\$859,489,045
<b>TOTAL DEPARTMENT OF ENERGY</b>						<b>\$574,997</b>	<b>\$13,175,241</b>		

**DEPARTMENT OF EDUCATION**

FEDERAL SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANTS	84.007	P007A203720				\$17,707	\$3,353,707	STUDENT FINANCIAL ASSISTANCE CLUSTER	\$257,653,947
FEDERAL SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANTS	84.007	P007A213720				\$3,336,000	\$3,353,707	STUDENT FINANCIAL ASSISTANCE CLUSTER	\$257,653,947
NATIONAL RESOURCE CENTERS PROGRAM FOR FOREIGN LANGUAGE AND AREA STUDIES OR FOREIGN LANGUAGE AND INTERNATIONAL STUDIES PROGRAM AND FOREIGN LANGUAGE AND AREA STUDIES FELLOWSHIP PROGRAM	84.015	P015B180147				\$170,376	\$1,699,941	OTHER PROGRAMS	\$284,328,981
NATIONAL RESOURCE CENTERS PROGRAM FOR FOREIGN LANGUAGE AND AREA STUDIES OR FOREIGN LANGUAGE AND INTERNATIONAL STUDIES PROGRAM AND FOREIGN LANGUAGE AND AREA STUDIES FELLOWSHIP PROGRAM	84.015	P015A180057/P015B180057			\$1,582	\$471,493	\$1,699,941	OTHER PROGRAMS	\$284,328,981
NATIONAL RESOURCE CENTERS PROGRAM FOR FOREIGN LANGUAGE AND AREA STUDIES OR FOREIGN LANGUAGE AND INTERNATIONAL STUDIES PROGRAM AND FOREIGN LANGUAGE AND AREA STUDIES FELLOWSHIP PROGRAM	84.015	P015A180144/P015B180144				\$475,352	\$1,699,941	OTHER PROGRAMS	\$284,328,981

<i>Federal Awarding Agency/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification (Optional)</i>	<i>Name of Funder Pass-Through Entity</i>	<i>Identifying Number Assigned By Funder Pass-Through Entity</i>	<i>Total Amount Provided to Sub-Recipients</i>	<i>Federal Expenditures</i>	<i>Federal Program Total</i>	<i>Cluster Name</i>	<i>Cluster Total</i>
NATIONAL RESOURCE CENTERS PROGRAM FOR FOREIGN LANGUAGE AND AREA STUDIES OR FOREIGN LANGUAGE AND INTERNATIONAL STUDIES PROGRAM AND FOREIGN LANGUAGE AND AREA STUDIES FELLOWSHIP PROGRAM	84.015	P015A180141			\$4,721	\$582,720	\$1,699,941	OTHER PROGRAMS	\$284,328,981
OVERSEAS PROGRAMS - GROUP PROJECTS ABROAD	84.021	P021A180010				\$118,484	\$118,484	OTHER PROGRAMS	\$284,328,981
OVERSEAS PROGRAMS - DOCTORAL DISSERTATION RESEARCH ABROAD	84.022	P022A190008				\$16,640	\$105,899	RESEARCH AND DEVELOPMENT	\$859,489,045
OVERSEAS PROGRAMS - DOCTORAL DISSERTATION RESEARCH ABROAD	84.022	P022A200009				\$28,618	\$105,899	RESEARCH AND DEVELOPMENT	\$859,489,045
OVERSEAS PROGRAMS - DOCTORAL DISSERTATION RESEARCH ABROAD	84.022	P022A210028				\$60,641	\$105,899	RESEARCH AND DEVELOPMENT	\$859,489,045
<i>SPECIAL EDUCATION GRANTS TO STATES</i>	<i>84.027</i>		<i>SCHOOL DISTRICT OF PHILADELPHIA</i>	<i>2335/F20</i>		<i>\$446,756</i>	<i>\$446,756</i>	<i>SPECIAL EDUCATION CLUSTER (IDEA)</i>	<i>\$446,756</i>
FEDERAL WORK-STUDY PROGRAM	84.033	P033A203720				\$279,231	\$3,212,932	STUDENT FINANCIAL ASSISTANCE CLUSTER	\$257,653,947
FEDERAL WORK-STUDY PROGRAM	84.033	P033A213720				\$2,933,701	\$3,212,932	STUDENT FINANCIAL ASSISTANCE CLUSTER	\$257,653,947
PERKINS LOAN OUTSTANDING LOANS ISSUED AS JULY 1, 2021	84.038					\$20,970,171	\$20,970,171	STUDENT FINANCIAL ASSISTANCE CLUSTER	\$257,653,947
TRIO STUDENT SUPPORT SERVICES	84.042	P042A200318				\$258,494	\$258,494	TRIO CLUSTER	\$2,092,746
TRIO TALENT SEARCH	84.044	P044A160227				\$165,558	\$374,916	TRIO CLUSTER	\$2,092,746
TRIO TALENT SEARCH	84.044	P044A210519				\$209,358	\$374,916	TRIO CLUSTER	\$2,092,746
TRIO UPWARD BOUND	84.047	P047M180267				\$259,713	\$1,459,336	TRIO CLUSTER	\$2,092,746
TRIO UPWARD BOUND	84.047	P047A180557				\$573,192	\$1,459,336	TRIO CLUSTER	\$2,092,746
TRIO UPWARD BOUND	84.047	P047V170188				\$626,431	\$1,459,336	TRIO CLUSTER	\$2,092,746
FEDERAL PELL GRANT PROGRAM	84.063	P063P202158				\$149,559	\$9,128,067	STUDENT FINANCIAL ASSISTANCE CLUSTER	\$257,653,947
FEDERAL PELL GRANT PROGRAM	84.063	P063P212158				\$8,978,508	\$9,128,067	STUDENT FINANCIAL ASSISTANCE CLUSTER	\$257,653,947
<i>SCHOOL SAFETY NATIONAL ACTIVITIES (FORMERLY, SAFE AND DRUG-FREE SCHOOLS AND COMMUNITIES-NATIONAL PROGRAMS)</i>	<i>84.184</i>		<i>SCHOOL DISTRICT OF PHILADELPHIA</i>	<i>2290/F20</i>		<i>\$37,098</i>	<i>\$37,098</i>	<i>RESEARCH AND DEVELOPMENT</i>	<i>\$859,489,045</i>
GRADUATE ASSISTANCE IN AREAS OF NATIONAL NEED	84.200	P200A160282				\$18,428	\$18,428	OTHER PROGRAMS	\$284,328,981
FEDERAL DIRECT LOANS	84.268					\$195,486,647	\$195,486,647	STUDENT FINANCIAL ASSISTANCE CLUSTER	\$257,653,947
<i>TWENTY-FIRST CENTURY COMMUNITY LEARNING CENTERS</i>	<i>84.287</i>		<i>PENNSYLVANIA DEPARTMENT OF EDUCATION</i>	<i>FC #4100071658</i>	<i>\$95</i>	<i>\$211,466</i>	<i>\$1,037,276</i>	<i>OTHER PROGRAMS</i>	<i>\$284,328,981</i>
<i>TWENTY-FIRST CENTURY COMMUNITY LEARNING CENTERS</i>	<i>84.287</i>		<i>PENNSYLVANIA DEPARTMENT OF EDUCATION</i>	<i>FC4100053524</i>	<i>\$1,000</i>	<i>\$378,461</i>	<i>\$1,037,276</i>	<i>OTHER PROGRAMS</i>	<i>\$284,328,981</i>
<i>TWENTY-FIRST CENTURY COMMUNITY LEARNING CENTERS</i>	<i>84.287</i>		<i>PENNSYLVANIA DEPARTMENT OF EDUCATION</i>	<i>SUB TO S287C170038</i>	<i>\$25,000</i>	<i>\$447,349</i>	<i>\$1,037,276</i>	<i>OTHER PROGRAMS</i>	<i>\$284,328,981</i>
<i>EDUCATION RESEARCH, DEVELOPMENT AND DISSEMINATION</i>	<i>84.305</i>		<i>CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)</i>	<i>3272530622</i>		<i>\$17,147</i>	<i>\$2,425,501</i>	<i>RESEARCH AND DEVELOPMENT</i>	<i>\$859,489,045</i>
<i>EDUCATION RESEARCH, DEVELOPMENT AND DISSEMINATION</i>	<i>84.305</i>		<i>CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)</i>	<i>20093819-RSUB</i>		<i>\$29,190</i>	<i>\$2,425,501</i>	<i>RESEARCH AND DEVELOPMENT</i>	<i>\$859,489,045</i>
<i>EDUCATION RESEARCH, DEVELOPMENT AND DISSEMINATION</i>	<i>84.305</i>		<i>FLORIDA STATE UNIVERSITY</i>	<i>R011963</i>		<i>\$35,858</i>	<i>\$2,425,501</i>	<i>RESEARCH AND DEVELOPMENT</i>	<i>\$859,489,045</i>
EDUCATION RESEARCH, DEVELOPMENT AND DISSEMINATION	84.305	R305A190523			\$15,138	\$49,299	\$2,425,501	RESEARCH AND DEVELOPMENT	\$859,489,045
<i>EDUCATION RESEARCH, DEVELOPMENT AND DISSEMINATION</i>	<i>84.305</i>		<i>AMERICAN INSTITUTE FOR RESEARCH</i>	<i>0440200001</i>		<i>\$71,108</i>	<i>\$2,425,501</i>	<i>RESEARCH AND DEVELOPMENT</i>	<i>\$859,489,045</i>
EDUCATION RESEARCH, DEVELOPMENT AND DISSEMINATION	84.305	R305B200034			\$55,862	\$164,835	\$2,425,501	RESEARCH AND DEVELOPMENT	\$859,489,045
EDUCATION RESEARCH, DEVELOPMENT AND DISSEMINATION	84.305	R305D210014			\$59,612	\$190,870	\$2,425,501	RESEARCH AND DEVELOPMENT	\$859,489,045
EDUCATION RESEARCH, DEVELOPMENT AND DISSEMINATION	84.305	R305C150007			\$79,786	\$275,409	\$2,425,501	RESEARCH AND DEVELOPMENT	\$859,489,045
EDUCATION RESEARCH, DEVELOPMENT AND DISSEMINATION	84.305	R305T210087			\$43,578	\$347,412	\$2,425,501	RESEARCH AND DEVELOPMENT	\$859,489,045
EDUCATION RESEARCH, DEVELOPMENT AND DISSEMINATION	84.305	R305A160109			\$2,722	\$461,020	\$2,425,501	RESEARCH AND DEVELOPMENT	\$859,489,045
EDUCATION RESEARCH, DEVELOPMENT AND DISSEMINATION	84.305	R305B200035				\$783,353	\$2,425,501	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH IN SPECIAL EDUCATION	84.324	R324A200233			\$17,884	\$83,923	\$182,533	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH IN SPECIAL EDUCATION	84.324	R324B180017				\$98,610	\$182,533	RESEARCH AND DEVELOPMENT	\$859,489,045
<i>GAINING EARLY AWARENESS AND READINESS FOR UNDERGRADUATE PROGRAMS</i>	<i>84.334</i>		<i>SCHOOL DISTRICT OF PHILADELPHIA</i>	<i>005/F16</i>	<i>\$47,839</i>	<i>\$51,666</i>	<i>\$51,666</i>	<i>OTHER PROGRAMS</i>	<i>\$284,328,981</i>

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
SUPPORTING EFFECTIVE INSTRUCTION STATE GRANTS (FORMERLY IMPROVING TEACHER QUALITY STATE GRANTS)	84.367		SCHOOL DISTRICT OF PHILADELPHIA	582910		-\$15,660	\$69,291	OTHER PROGRAMS	\$284,328,981
SUPPORTING EFFECTIVE INSTRUCTION STATE GRANTS (FORMERLY IMPROVING TEACHER QUALITY STATE GRANTS)	84.367		PENNSYLVANIA DEPARTMENT OF EDUCATION	4100084635		\$84,951	\$69,291	OTHER PROGRAMS	\$284,328,981
TEACHER EDUCATION ASSISTANCE FOR COLLEGE AND HIGHER EDUCATION GRANTS (TEACH GRANTS)	84.379	9379T212158				-\$1,886	\$7,544	STUDENT FINANCIAL ASSISTANCE CLUSTER	\$257,653,947
TEACHER EDUCATION ASSISTANCE FOR COLLEGE AND HIGHER EDUCATION GRANTS (TEACH GRANTS)	84.379	P379T222158				\$9,430	\$7,544	STUDENT FINANCIAL ASSISTANCE CLUSTER	\$257,653,947
COVID-19 - EDUCATION STABILIZATION FUND	84.425E	P425E205890				\$17,847,154	\$17,847,154	OTHER PROGRAMS	\$284,328,981
COVID-19 - HEERF FUNDING - INSTITUTIONAL	84.425F	N/A				\$22,493,927	\$22,493,927	OTHER PROGRAMS	\$284,328,981
<b>TOTAL DEPARTMENT OF EDUCATION</b>					\$354,819	\$280,785,768			
<b>DEPARTMENT OF HEALTH AND HUMAN SERVICES</b>									
SERVICES IN SUPPORT OF THE PERINATOLOGY RESEARCH BRANCH	93.000		WAYNE STATE UNIVERSITY	SUB TO HHSN275201300006C		\$2,397	\$2,397	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - NATIONAL ORGANIZATIONS OF STATE AND LOCAL OFFICIALS	93.011	1 G32HS42684-01-00				\$590,542	\$590,542	RESEARCH AND DEVELOPMENT	\$859,489,045
AMERICAN INDIAN CHRONIC RENAL INSUFFICIENCY COHORT STUDY AI-CRIC	93.047		UNIVERSITY OF NEW MEXICO HEALTH SCIENCES CENTER	3RGL2		\$171,453	\$171,453	RESEARCH AND DEVELOPMENT	\$859,489,045
TRAINING IN GENERAL, PEDIATRIC, AND PUBLIC HEALTH DENTISTRY	93.059	1 D87HP321430100				\$132,949	\$704,852	OTHER PROGRAMS	\$284,328,981
TRAINING IN GENERAL, PEDIATRIC, AND PUBLIC HEALTH DENTISTRY	93.059	1 D88HP390330100				\$271,400	\$704,852	OTHER PROGRAMS	\$284,328,981
TRAINING IN GENERAL, PEDIATRIC, AND PUBLIC HEALTH DENTISTRY	93.059	1 D85HP30830-01-00				\$300,503	\$704,852	OTHER PROGRAMS	\$284,328,981
FAMILY SMOKING PREVENTION AND TOBACCO CONTROL ACT REGULATORY RESEARCH	93.077		RUTGERS UNIVERSITY	SUB00002392		\$18,887	\$5,805,550	RESEARCH AND DEVELOPMENT	\$859,489,045
FAMILY SMOKING PREVENTION AND TOBACCO CONTROL ACT REGULATORY RESEARCH	93.077		UNIVERSITY OF NEVADA, RENO	UNR-22-39		\$45,697	\$5,805,550	RESEARCH AND DEVELOPMENT	\$859,489,045
FAMILY SMOKING PREVENTION AND TOBACCO CONTROL ACT REGULATORY RESEARCH	93.077	1-R01-HL-155243-01A1				\$112,742	\$5,805,550	RESEARCH AND DEVELOPMENT	\$859,489,045
FAMILY SMOKING PREVENTION AND TOBACCO CONTROL ACT REGULATORY RESEARCH	93.077	1R21DA050789-01A1				\$153,998	\$5,805,550	RESEARCH AND DEVELOPMENT	\$859,489,045
FAMILY SMOKING PREVENTION AND TOBACCO CONTROL ACT REGULATORY RESEARCH	93.077	1-R21-HL-144673-01A1				\$224,169	\$5,805,550	RESEARCH AND DEVELOPMENT	\$859,489,045
FAMILY SMOKING PREVENTION AND TOBACCO CONTROL ACT REGULATORY RESEARCH	93.077	1R21DA052421-01				\$263,481	\$5,805,550	RESEARCH AND DEVELOPMENT	\$859,489,045
FAMILY SMOKING PREVENTION AND TOBACCO CONTROL ACT REGULATORY RESEARCH	93.077		WAKE FOREST UNIVERSITY	WFUHS 119379		\$339,124	\$5,805,550	RESEARCH AND DEVELOPMENT	\$859,489,045
FAMILY SMOKING PREVENTION AND TOBACCO CONTROL ACT REGULATORY RESEARCH	93.077	1-R01-CA-260448-01				\$386,627	\$5,805,550	RESEARCH AND DEVELOPMENT	\$859,489,045
FAMILY SMOKING PREVENTION AND TOBACCO CONTROL ACT REGULATORY RESEARCH	93.077	1-R01-DA-047743-01A1			\$244,936	\$734,686	\$5,805,550	RESEARCH AND DEVELOPMENT	\$859,489,045
FAMILY SMOKING PREVENTION AND TOBACCO CONTROL ACT REGULATORY RESEARCH	93.077	1-U54-CA-229973-01			\$1,793,586	\$3,526,139	\$5,805,550	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISORDER PROGRAM: PREVENTION, SURVEILLANCE, AND RESEARCH	93.080		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	8901210000		\$29,316	\$29,316	RESEARCH AND DEVELOPMENT	\$859,489,045
PREVENTION OF DISEASE, DISABILITY, AND DEATH BY INFECTIOUS DISEASES	93.084	1-U54-CK-000485-01			\$1,755	\$52,460	\$592,658	RESEARCH AND DEVELOPMENT	\$859,489,045
PREVENTION OF DISEASE, DISABILITY, AND DEATH BY INFECTIOUS DISEASES	93.084		RUSH UNIVERSITY	15122902-SUB02		\$66,101	\$592,658	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - PREVENTION OF DISEASE, DISABILITY, AND DEATH BY INFECTIOUS DISEASES	93.084	1 U54CK000610-01-00				\$474,097	\$592,658	RESEARCH AND DEVELOPMENT	\$859,489,045
FOOD AND DRUG ADMINISTRATION RESEARCH	93.103	2-U18-FD-006158-06				\$560	\$364,748	RESEARCH AND DEVELOPMENT	\$859,489,045
FOOD AND DRUG ADMINISTRATION RESEARCH	93.103	1U18FD007496-01				\$2,190	\$364,748	RESEARCH AND DEVELOPMENT	\$859,489,045
FOOD AND DRUG ADMINISTRATION RESEARCH	93.103		BRIGHAM AND WOMEN'S HOSPITAL	124939		\$8,124	\$364,748	RESEARCH AND DEVELOPMENT	\$859,489,045
FOOD AND DRUG ADMINISTRATION RESEARCH	93.103	1-U18-FD-006856-01				\$11,049	\$364,748	RESEARCH AND DEVELOPMENT	\$859,489,045
FOOD AND DRUG ADMINISTRATION RESEARCH	93.103	1U18FD006984-01				\$12,722	\$364,748	RESEARCH AND DEVELOPMENT	\$859,489,045
FOOD AND DRUG ADMINISTRATION RESEARCH	93.103	1-U18-FD-006855-01				\$19,873	\$364,748	RESEARCH AND DEVELOPMENT	\$859,489,045
FOOD AND DRUG ADMINISTRATION RESEARCH	93.103	1U18FD007517-01				\$22,301	\$364,748	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
COVID-19 - FOOD AND DRUG ADMINISTRATION RESEARCH	93.103		GEORGE MASON UNIVERSITY	E2057171		\$32,217	\$364,748	RESEARCH AND DEVELOPMENT	\$859,489,045
FOOD AND DRUG ADMINISTRATION RESEARCH	93.103	1U18FD007506-01				\$32,417	\$364,748	RESEARCH AND DEVELOPMENT	\$859,489,045
FOOD AND DRUG ADMINISTRATION RESEARCH	93.103	1-U18-FD-006158-01				\$37,963	\$364,748	RESEARCH AND DEVELOPMENT	\$859,489,045
FOOD AND DRUG ADMINISTRATION RESEARCH	93.103		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	FP23610_SUB01_01		\$45,788	\$364,748	RESEARCH AND DEVELOPMENT	\$859,489,045
FOOD AND DRUG ADMINISTRATION RESEARCH	93.103	1U18FD006669-01				\$58,903	\$364,748	RESEARCH AND DEVELOPMENT	\$859,489,045
FOOD AND DRUG ADMINISTRATION RESEARCH	93.103	1U18FD006987-01				\$80,641	\$364,748	RESEARCH AND DEVELOPMENT	\$859,489,045
MATERNAL AND CHILD HEALTH FEDERAL CONSOLIDATED PROGRAMS	93.110		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3258990618		-\$1,328	\$133,067	OTHER PROGRAMS	\$284,328,981
MATERNAL AND CHILD HEALTH FEDERAL CONSOLIDATED PROGRAMS	93.110		UNIVERSITY OF CALIFORNIA, LOS ANGELES	2000 G TC248		-\$675	\$133,067	OTHER PROGRAMS	\$284,328,981
MATERNAL AND CHILD HEALTH FEDERAL CONSOLIDATED PROGRAMS	93.110		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3204510622		\$5,092	\$133,067	OTHER PROGRAMS	\$284,328,981
MATERNAL AND CHILD HEALTH FEDERAL CONSOLIDATED PROGRAMS	93.110		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3258990618		\$26,039	\$133,067	OTHER PROGRAMS	\$284,328,981
MATERNAL AND CHILD HEALTH FEDERAL CONSOLIDATED PROGRAMS	93.110		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	320961-06-01		\$37,308	\$133,067	OTHER PROGRAMS	\$284,328,981
MATERNAL AND CHILD HEALTH FEDERAL CONSOLIDATED PROGRAMS	93.110		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3201890820		\$66,631	\$133,067	OTHER PROGRAMS	\$284,328,981
ENVIRONMENTAL HEALTH	93.113	2-P30-ES-013508-10				-\$572	\$6,163,323	RESEARCH AND DEVELOPMENT	\$859,489,045
ENVIRONMENTAL HEALTH	93.113		CINCINNATI CHILDREN'S HOSPITAL MEDICAL CENTER	137605		\$2,824	\$6,163,323	RESEARCH AND DEVELOPMENT	\$859,489,045
ENVIRONMENTAL HEALTH	93.113	1-R01-ES-026023-01				\$6,928	\$6,163,323	RESEARCH AND DEVELOPMENT	\$859,489,045
ENVIRONMENTAL HEALTH	93.113		JT-MESH DIAGNOSTICS	SUB TO R41ES031778		\$9,089	\$6,163,323	RESEARCH AND DEVELOPMENT	\$859,489,045
ENVIRONMENTAL HEALTH	93.113		JOHNS HOPKINS UNIVERSITY	2005397363		\$15,638	\$6,163,323	RESEARCH AND DEVELOPMENT	\$859,489,045
ENVIRONMENTAL HEALTH	93.113	2R25ES021649-06				\$111,428	\$6,163,323	RESEARCH AND DEVELOPMENT	\$859,489,045
ENVIRONMENTAL HEALTH	93.113		RUTGERS UNIVERSITY	1398		\$115,324	\$6,163,323	RESEARCH AND DEVELOPMENT	\$859,489,045
ENVIRONMENTAL HEALTH	93.113	1P2CES033428-01				\$133,688	\$6,163,323	RESEARCH AND DEVELOPMENT	\$859,489,045
ENVIRONMENTAL HEALTH	93.113	2R56ES026023-06				\$154,717	\$6,163,323	RESEARCH AND DEVELOPMENT	\$859,489,045
ENVIRONMENTAL HEALTH	93.113	1-R21-ES-031243-01A1			\$33,491	\$179,069	\$6,163,323	RESEARCH AND DEVELOPMENT	\$859,489,045
ENVIRONMENTAL HEALTH	93.113	1-R01-ES-028114-01A1				\$346,464	\$6,163,323	RESEARCH AND DEVELOPMENT	\$859,489,045
ENVIRONMENTAL HEALTH	93.113	1-R01-ES-033054-01			\$122,361	\$352,652	\$6,163,323	RESEARCH AND DEVELOPMENT	\$859,489,045
ENVIRONMENTAL HEALTH	93.113	1-R01-ES-028206-01				\$367,167	\$6,163,323	RESEARCH AND DEVELOPMENT	\$859,489,045
ENVIRONMENTAL HEALTH	93.113	2-T32-ES-019851-06				\$427,178	\$6,163,323	RESEARCH AND DEVELOPMENT	\$859,489,045
ENVIRONMENTAL HEALTH	93.113	1-R01-ES-029294-01A1			\$17,755	\$431,010	\$6,163,323	RESEARCH AND DEVELOPMENT	\$859,489,045
ENVIRONMENTAL HEALTH	93.113	7-R01-ES-028277-04			\$328,517	\$484,785	\$6,163,323	RESEARCH AND DEVELOPMENT	\$859,489,045
ENVIRONMENTAL HEALTH	93.113	2-P30-ES-013508-15			\$21,161	\$3,025,934	\$6,163,323	RESEARCH AND DEVELOPMENT	\$859,489,045
PREVENTIVE MEDICINE RESIDENCY	93.117	1 D33HP31673-01-00				\$458,134	\$458,134	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	4-R00-DE-026807-02				-\$36,215	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	1-R21-DE-026700-01				-\$34,872	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	7-R01-DE-025037-06				-\$182	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121		VIRTUALLY BETTER, INC.	SUB TO 1R42DE030040		\$8,092	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	1-R01-DE-024160-01A1				\$10,635	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121		VIRGINIA COMMONWEALTH UNIVERSITY	FP00010440_SA002		\$11,887	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	1-R03-DE-028026-01A1				\$12,522	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121		TEXAS A&M UNIVERSITY	M2101600		\$16,318	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	2-R01-DE-017732-07A1				\$27,528	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	1-F31-DE-029361-01				\$30,266	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	1-R01-DE-024749-01			\$24,371	\$32,682	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	1-F31-DE-030365-01				\$43,435	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	2-R01-DE-018023-07A1			\$13,393	\$45,933	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121		DREXEL UNIVERSITY	900101		\$54,438	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121		NEW YORK UNIVERSITY	F0671-01		\$55,964	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121		LOUISIANA STATE UNIVERSITY	SOD-20-136-002		\$59,416	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121		NEW YORK UNIVERSITY	F1433-01		\$64,434	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	1R01DE031023-01A1				\$66,704	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121		ADA SCIENCE AND RESEARCH INSTITUTE, LLC	LC005412		\$67,219	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	1-F32-DE-029407-01				\$68,926	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
ORAL DISEASES AND DISORDERS RESEARCH	93.121	1-R21-DE-028417-01				\$76,119	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	2R01DE017732-12A1				\$84,144	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	1-R01-DE-025220-01				\$86,512	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	1-R01-DE-025848-01A1				\$101,285	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
<i>ORAL DISEASES AND DISORDERS RESEARCH</i>	93.121		UNIVERSITY OF ROCHESTER MEDICAL CENTER	417864-G / UR FAO GR511139		\$102,292	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	1R03DE030120-01A1				\$105,735	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	7R01DE028979-03				\$107,814	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	1-R21-DE-030294-01A1				\$112,348	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	1-T90-DE-030854-01				\$128,166	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	1-K08-DE-027129-01				\$128,809	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	1R21DE029926-01				\$144,000	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
<i>ORAL DISEASES AND DISORDERS RESEARCH</i>	93.121		LANKENAU INSTITUTE FOR MEDICAL RESEARCH	06297-0793		\$167,767	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	1-R01-DE-024153-01A1				\$178,204	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	4-R00-DE-025915-03				\$194,923	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	1R01DE031206-01				\$202,509	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	1-R01-DE-027901-01			\$1,416	\$214,658	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	1R56DE029985-01A1				\$256,321	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	1-R01-DE-030415-01				\$258,438	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	1-R01-DE-027970-01				\$271,240	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	2-R01-DE-019108-06A1			\$178	\$277,416	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	7-R01-DE-026772-05			\$7,248	\$283,513	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	2-R01-DE-006014-34A1				\$314,851	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	1-R01-DE-027185-01A1				\$324,660	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	2-R01-DE-021921-06				\$333,073	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	2-R01-DE-025848-05				\$338,808	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	7-R01-DE-026279-05			\$132,919	\$341,191	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	1-R01-DE-028561-01A1			\$65,847	\$353,137	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	1-R37-DE-026152-01			\$118,991	\$384,845	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	1R01DE029436-01				\$412,862	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	7R01DE027374-03				\$535,581	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	2-R01-DE-023071-06A1				\$558,328	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	1-R01-DE-026603-01A1			\$4,788	\$626,517	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	1-R01-DE-029648-01				\$688,841	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
ORAL DISEASES AND DISORDERS RESEARCH	93.121	7-U01-DE-027637-02			\$161,533	\$1,101,897	\$10,401,934	RESEARCH AND DEVELOPMENT	\$859,489,045
CENTERS FOR RESEARCH AND DEMONSTRATION FOR HEALTH PROMOTION AND DISEASE PREVENTION	93.135	1-U48-DP-005053-01				-\$3,341	\$969,004	RESEARCH AND DEVELOPMENT	\$859,489,045
<i>CENTERS FOR RESEARCH AND DEMONSTRATION FOR HEALTH PROMOTION AND DISEASE PREVENTION</i>	93.135		PENNSYLVANIA DEPARTMENT OF HUMAN SERVICES	4100091732		\$972,345	\$969,004	RESEARCH AND DEVELOPMENT	\$859,489,045
INJURY PREVENTION AND CONTROL RESEARCH AND STATE AND COMMUNITY BASED PROGRAMS	93.136	1-R49-CE-002474-01				-\$1	\$2,171,578	RESEARCH AND DEVELOPMENT	\$859,489,045
<i>INJURY PREVENTION AND CONTROL RESEARCH AND STATE AND COMMUNITY BASED PROGRAMS</i>	93.136		UNIVERSITY OF MICHIGAN	SUBK00013120		\$87,228	\$2,171,578	RESEARCH AND DEVELOPMENT	\$859,489,045
INJURY PREVENTION AND CONTROL RESEARCH AND STATE AND COMMUNITY BASED PROGRAMS	93.136	1 R01CE003347-01-00			\$18,332	\$232,883	\$2,171,578	RESEARCH AND DEVELOPMENT	\$859,489,045
INJURY PREVENTION AND CONTROL RESEARCH AND STATE AND COMMUNITY BASED PROGRAMS	93.136	1 R01CE003049-01-00			\$149,256	\$290,824	\$2,171,578	RESEARCH AND DEVELOPMENT	\$859,489,045
INJURY PREVENTION AND CONTROL RESEARCH AND STATE AND COMMUNITY BASED PROGRAMS	93.136	1 R01CE003143-01-00			\$3,732	\$615,181	\$2,171,578	RESEARCH AND DEVELOPMENT	\$859,489,045
INJURY PREVENTION AND CONTROL RESEARCH AND STATE AND COMMUNITY BASED PROGRAMS	93.136	1 R49CE003083-01-00			\$16,537	\$945,463	\$2,171,578	RESEARCH AND DEVELOPMENT	\$859,489,045
<i>HUMAN GENOME RESEARCH</i>	93.172		UNIVERSITY OF CHICAGO	FP061089-01-C		-\$2,386	\$6,821,844	RESEARCH AND DEVELOPMENT	\$859,489,045
<i>HUMAN GENOME RESEARCH</i>	93.172		BROAD INSTITUTE OF MIT AND HARVARD	5000950-5500001052		-\$1,136	\$6,821,844	RESEARCH AND DEVELOPMENT	\$859,489,045
<i>HUMAN GENOME RESEARCH</i>	93.172		ALTIUS INSTITUTE FOR BIOMEDICAL SCIENCES	PF4172		\$599	\$6,821,844	RESEARCH AND DEVELOPMENT	\$859,489,045
HUMAN GENOME RESEARCH	93.172	1K01HG010903-01A1			\$3,536	\$15,029	\$6,821,844	RESEARCH AND DEVELOPMENT	\$859,489,045
HUMAN GENOME RESEARCH	93.172	1-K99-HG-011898-01A1				\$15,835	\$6,821,844	RESEARCH AND DEVELOPMENT	\$859,489,045
HUMAN GENOME RESEARCH	93.172	2-T32-HG-009496-06				\$22,973	\$6,821,844	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
HUMAN GENOME RESEARCH	93.172		CASE WESTERN RESERVE UNIVERSITY	RESS16307		\$25,473	\$6,821,844	RESEARCH AND DEVELOPMENT	\$859,489,045
HUMAN GENOME RESEARCH	93.172	1F31HG012312-01				\$27,627	\$6,821,844	RESEARCH AND DEVELOPMENT	\$859,489,045
HUMAN GENOME RESEARCH	93.172	2-T32-HG-009495-06				\$27,633	\$6,821,844	RESEARCH AND DEVELOPMENT	\$859,489,045
HUMAN GENOME RESEARCH	93.172	1-F31-HG-011185-01				\$30,713	\$6,821,844	RESEARCH AND DEVELOPMENT	\$859,489,045
HUMAN GENOME RESEARCH	93.172	1-F30-HG-010442-01				\$30,911	\$6,821,844	RESEARCH AND DEVELOPMENT	\$859,489,045
HUMAN GENOME RESEARCH	93.172		GEISINGER HEALTH SYSTEM	646017UP		\$32,207	\$6,821,844	RESEARCH AND DEVELOPMENT	\$859,489,045
HUMAN GENOME RESEARCH	93.172	1-F31-HG-011429-01				\$37,406	\$6,821,844	RESEARCH AND DEVELOPMENT	\$859,489,045
HUMAN GENOME RESEARCH	93.172		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00001464		\$38,284	\$6,821,844	RESEARCH AND DEVELOPMENT	\$859,489,045
HUMAN GENOME RESEARCH	93.172	1-F30-HG-011578-01				\$40,768	\$6,821,844	RESEARCH AND DEVELOPMENT	\$859,489,045
HUMAN GENOME RESEARCH	93.172	1F31HG011813-01A1				\$43,666	\$6,821,844	RESEARCH AND DEVELOPMENT	\$859,489,045
HUMAN GENOME RESEARCH	93.172	1-R21-HG-010536-01				\$54,376	\$6,821,844	RESEARCH AND DEVELOPMENT	\$859,489,045
HUMAN GENOME RESEARCH	93.172		STANFORD UNIVERSITY	R01 HG010476 62166731-137013		\$86,102	\$6,821,844	RESEARCH AND DEVELOPMENT	\$859,489,045
HUMAN GENOME RESEARCH	93.172	1K99HG010905-01A1				\$105,740	\$6,821,844	RESEARCH AND DEVELOPMENT	\$859,489,045
HUMAN GENOME RESEARCH	93.172		UNIVERSITY OF CHICAGO	AWD102193 (SUB00000515)		\$200,673	\$6,821,844	RESEARCH AND DEVELOPMENT	\$859,489,045
HUMAN GENOME RESEARCH	93.172	1-T32-HG-009496-01				\$227,387	\$6,821,844	RESEARCH AND DEVELOPMENT	\$859,489,045
HUMAN GENOME RESEARCH	93.172		UNIVERSITY OF COLORADO	FY22.1124.004		\$243,275	\$6,821,844	RESEARCH AND DEVELOPMENT	\$859,489,045
HUMAN GENOME RESEARCH	93.172	R25-HG-010323				\$244,732	\$6,821,844	RESEARCH AND DEVELOPMENT	\$859,489,045
HUMAN GENOME RESEARCH	93.172	1-R01-HG-009655-01				\$273,989	\$6,821,844	RESEARCH AND DEVELOPMENT	\$859,489,045
HUMAN GENOME RESEARCH	93.172	1-T32-HG-009495-01				\$319,629	\$6,821,844	RESEARCH AND DEVELOPMENT	\$859,489,045
HUMAN GENOME RESEARCH	93.172	1R35HG011959-01				\$336,825	\$6,821,844	RESEARCH AND DEVELOPMENT	\$859,489,045
HUMAN GENOME RESEARCH	93.172	2-T32-HG-000046-21				\$390,765	\$6,821,844	RESEARCH AND DEVELOPMENT	\$859,489,045
HUMAN GENOME RESEARCH	93.172	1-U24-HG-010862-01A1			\$3,527	\$481,942	\$6,821,844	RESEARCH AND DEVELOPMENT	\$859,489,045
HUMAN GENOME RESEARCH	93.172	2-R01-HG-006137-10			\$17,569	\$510,490	\$6,821,844	RESEARCH AND DEVELOPMENT	\$859,489,045
HUMAN GENOME RESEARCH	93.172	1-R01-HG-010646-01			\$97,733	\$601,097	\$6,821,844	RESEARCH AND DEVELOPMENT	\$859,489,045
HUMAN GENOME RESEARCH	93.172	1U01HG012047-01			\$18,696	\$686,338	\$6,821,844	RESEARCH AND DEVELOPMENT	\$859,489,045
HUMAN GENOME RESEARCH	93.172	1-RM1-HG-010023-01			\$269,118	\$1,672,882	\$6,821,844	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH RELATED TO DEAFNESS AND COMMUNICATION DISORDERS	93.173		NORTHWESTERN UNIVERSITY	60044484 PENN		\$4,834	\$6,845,017	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH RELATED TO DEAFNESS AND COMMUNICATION DISORDERS	93.173	2-R13-DC-010549-11				\$8,218	\$6,845,017	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH RELATED TO DEAFNESS AND COMMUNICATION DISORDERS	93.173	1-F31-DC-017054-01A1				\$8,853	\$6,845,017	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH RELATED TO DEAFNESS AND COMMUNICATION DISORDERS	93.173		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	10858SC		\$9,519	\$6,845,017	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH RELATED TO DEAFNESS AND COMMUNICATION DISORDERS	93.173		MONELL CHEMICAL SENSES CENTER	NIH074		\$13,324	\$6,845,017	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH RELATED TO DEAFNESS AND COMMUNICATION DISORDERS	93.173		NORTHWESTERN UNIVERSITY	60049678 UP		\$20,727	\$6,845,017	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH RELATED TO DEAFNESS AND COMMUNICATION DISORDERS	93.173	1-K99-DC-019504-01A1				\$24,104	\$6,845,017	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH RELATED TO DEAFNESS AND COMMUNICATION DISORDERS	93.173	2-R01-DC-015527-06				\$27,900	\$6,845,017	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH RELATED TO DEAFNESS AND COMMUNICATION DISORDERS	93.173	1-F31-DC-018473-01A1				\$32,287	\$6,845,017	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH RELATED TO DEAFNESS AND COMMUNICATION DISORDERS	93.173	1-F31-DC-020111-01				\$41,568	\$6,845,017	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH RELATED TO DEAFNESS AND COMMUNICATION DISORDERS	93.173		MONELL CHEMICAL SENSES CENTER	NIH033B06MENNE		\$42,147	\$6,845,017	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH RELATED TO DEAFNESS AND COMMUNICATION DISORDERS	93.173		TEMPLE UNIVERSITY	262389 UPENN		\$81,812	\$6,845,017	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH RELATED TO DEAFNESS AND COMMUNICATION DISORDERS	93.173	1R01DC019405-01A1				\$113,491	\$6,845,017	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH RELATED TO DEAFNESS AND COMMUNICATION DISORDERS	93.173	1-R01-DC-015527-01A1				\$117,149	\$6,845,017	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH RELATED TO DEAFNESS AND COMMUNICATION DISORDERS	93.173	7-R01-DC-016598-06				\$125,778	\$6,845,017	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH RELATED TO DEAFNESS AND COMMUNICATION DISORDERS	93.173	1-R21-DC-019193-01				\$136,132	\$6,845,017	RESEARCH AND DEVELOPMENT	\$859,489,045

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Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
RESEARCH RELATED TO DEAFNESS AND COMMUNICATION DISORDERS	93.173	1-T32-DC-016903-01				\$140,821	\$6,845,017	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH RELATED TO DEAFNESS AND COMMUNICATION DISORDERS	93.173		MEDICAL COLLEGE OF WISCONSIN	SUB TO R01DC016622		\$148,993	\$6,845,017	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH RELATED TO DEAFNESS AND COMMUNICATION DISORDERS	93.173		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00000478		\$153,655	\$6,845,017	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH RELATED TO DEAFNESS AND COMMUNICATION DISORDERS	93.173	1R01DC018525-01				\$218,969	\$6,845,017	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH RELATED TO DEAFNESS AND COMMUNICATION DISORDERS	93.173	1-R01-DC-015359-01A1				\$241,385	\$6,845,017	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH RELATED TO DEAFNESS AND COMMUNICATION DISORDERS	93.173	1-R01-DC-016309-01A1				\$361,060	\$6,845,017	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH RELATED TO DEAFNESS AND COMMUNICATION DISORDERS	93.173	1-R01-DC-018278-01A1				\$396,380	\$6,845,017	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH RELATED TO DEAFNESS AND COMMUNICATION DISORDERS	93.173	2-R01-DC-014479-06A1				\$416,726	\$6,845,017	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH RELATED TO DEAFNESS AND COMMUNICATION DISORDERS	93.173	1-R01-DC-017144-01A1			\$15,595	\$443,001	\$6,845,017	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - RESEARCH RELATED TO DEAFNESS AND COMMUNICATION DISORDERS	93.173	1-R01-DC-018075-01A1			\$9,844	\$453,141	\$6,845,017	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH RELATED TO DEAFNESS AND COMMUNICATION DISORDERS	93.173	2-R01-DC-006254-16A1				\$505,435	\$6,845,017	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH RELATED TO DEAFNESS AND COMMUNICATION DISORDERS	93.173	2-R01-DC-006213-16A1				\$518,815	\$6,845,017	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH RELATED TO DEAFNESS AND COMMUNICATION DISORDERS	93.173	1R01DC017690-01A1				\$590,272	\$6,845,017	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH RELATED TO DEAFNESS AND COMMUNICATION DISORDERS	93.173	2-R01-DC-012854-06				\$657,747	\$6,845,017	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH RELATED TO DEAFNESS AND COMMUNICATION DISORDERS	93.173	1-R01-DC-016800-01A1			\$125,975	\$790,774	\$6,845,017	RESEARCH AND DEVELOPMENT	\$859,489,045
NATIONAL RESEARCH SERVICE AWARD IN PRIMARY CARE MEDICINE	93.186	6 T32HP10026-23-01				\$22,659	\$22,659	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH AND TRAINING IN COMPLEMENTARY AND INTEGRATIVE HEALTH	93.213		NEW YORK UNIVERSITY	17-AO-00-008501		\$20,979	\$293,943	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH AND TRAINING IN COMPLEMENTARY AND INTEGRATIVE HEALTH	93.213	1F31AT011280-01A1				\$39,781	\$293,943	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH AND TRAINING IN COMPLEMENTARY AND INTEGRATIVE HEALTH	93.213		UNIVERSITY OF MINNESOTA FAMILY HEALTH COUNCIL OF CENTRAL PA	A0006743902		\$233,183	\$293,943	RESEARCH AND DEVELOPMENT	\$859,489,045
FAMILY PLANNING SERVICE	93.217			FPPHA036160		\$75,812	\$75,812	OTHER PROGRAMS	\$284,328,981
HEALTH CENTER PROGRAM (COMMUNITY HEALTH CENTERS, MIGRANT HEALTH CENTERS, HEALTH CARE FOR THE HOMELESS, AND PUBLIC HOUSING PRIMARY CARE)	93.224		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	131935C		\$22,460	\$22,460	HEALTH CENTER PROGRAM CLUSTER	\$22,460
NATIONAL RESEARCH SERVICE AWARDS HEALTH SERVICES RESEARCH TRAINING	93.225	1-T32-HS-026116-01				\$552,321	\$552,321	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH ON HEALTHCARE COSTS, QUALITY AND OUTCOMES	93.226	1-R01-HS-028427-01A1				\$1,841	\$1,788,361	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - RESEARCH ON HEALTHCARE COSTS, QUALITY AND OUTCOMES	93.226		JOHNS HOPKINS UNIVERSITY	2004496574		\$6,524	\$1,788,361	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH ON HEALTHCARE COSTS, QUALITY AND OUTCOMES	93.226	1-R01-HS-024918-01				\$7,336	\$1,788,361	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH ON HEALTHCARE COSTS, QUALITY AND OUTCOMES	93.226		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3201800422		\$10,799	\$1,788,361	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH ON HEALTHCARE COSTS, QUALITY AND OUTCOMES	93.226		UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES	51981 - UPENN		\$15,534	\$1,788,361	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH ON HEALTHCARE COSTS, QUALITY AND OUTCOMES	93.226		VISITING NURSE SERVICE OF NEW YORK	4629_2020_PENN		\$20,106	\$1,788,361	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH ON HEALTHCARE COSTS, QUALITY AND OUTCOMES	93.226		EMORY UNIVERSITY	A015673		\$29,858	\$1,788,361	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH ON HEALTHCARE COSTS, QUALITY AND OUTCOMES	93.226		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	ACTIVITY#320133072		\$32,515	\$1,788,361	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH ON HEALTHCARE COSTS, QUALITY AND OUTCOMES	93.226		JOHNS HOPKINS UNIVERSITY	2004496574		\$47,546	\$1,788,361	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH ON HEALTHCARE COSTS, QUALITY AND OUTCOMES	93.226		UNIVERSITY OF IOWA	S00848-01		\$85,843	\$1,788,361	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.



Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
RESEARCH ON HEALTHCARE COSTS, QUALITY AND OUTCOMES	93.226		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00000523		\$90,033	\$1,788,361	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH ON HEALTHCARE COSTS, QUALITY AND OUTCOMES	93.226		YALE UNIVERSITY	GR107704 (CON-80001950)		\$110,189	\$1,788,361	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH ON HEALTHCARE COSTS, QUALITY AND OUTCOMES	93.226	1-R01-HS-027600-01A1	EMORY UNIVERSITY	A242409		\$141,193	\$1,788,361	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH ON HEALTHCARE COSTS, QUALITY AND OUTCOMES	93.226					\$176,643	\$1,788,361	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH ON HEALTHCARE COSTS, QUALITY AND OUTCOMES	93.226	1-R18-HS-026862-01A1			\$5,318	\$348,001	\$1,788,361	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH ON HEALTHCARE COSTS, QUALITY AND OUTCOMES	93.226	1-K12-HS-026372-01				\$664,400	\$1,788,361	RESEARCH AND DEVELOPMENT	\$859,489,045
NATIONAL CENTER ON SLEEP DISORDERS RESEARCH	93.233	1F31HL160451-01A1				\$2,196	\$5,993,708	RESEARCH AND DEVELOPMENT	\$859,489,045
NATIONAL CENTER ON SLEEP DISORDERS RESEARCH	93.233	2-T32-HL-007953-19				\$11,365	\$5,993,708	RESEARCH AND DEVELOPMENT	\$859,489,045
NATIONAL CENTER ON SLEEP DISORDERS RESEARCH	93.233	1-K99-HL-147212-01				\$19,536	\$5,993,708	RESEARCH AND DEVELOPMENT	\$859,489,045
NATIONAL CENTER ON SLEEP DISORDERS RESEARCH	93.233		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3201930820		\$29,831	\$5,993,708	RESEARCH AND DEVELOPMENT	\$859,489,045
NATIONAL CENTER ON SLEEP DISORDERS RESEARCH	93.233	1-F31-HL-154855-01				\$44,980	\$5,993,708	RESEARCH AND DEVELOPMENT	\$859,489,045
NATIONAL CENTER ON SLEEP DISORDERS RESEARCH	93.233		UNIVERSITY OF NEVADA, LAS VEGAS	GR09951		\$66,005	\$5,993,708	RESEARCH AND DEVELOPMENT	\$859,489,045
NATIONAL CENTER ON SLEEP DISORDERS RESEARCH	93.233	2-T32-HL-007953-21A1				\$241,930	\$5,993,708	RESEARCH AND DEVELOPMENT	\$859,489,045
NATIONAL CENTER ON SLEEP DISORDERS RESEARCH	93.233	1-R01-HL-134015-01			\$127,571	\$363,896	\$5,993,708	RESEARCH AND DEVELOPMENT	\$859,489,045
NATIONAL CENTER ON SLEEP DISORDERS RESEARCH	93.233	1R01HL149133-01				\$542,554	\$5,993,708	RESEARCH AND DEVELOPMENT	\$859,489,045
NATIONAL CENTER ON SLEEP DISORDERS RESEARCH	93.233	2-T32-HL-007713-26A1				\$598,556	\$5,993,708	RESEARCH AND DEVELOPMENT	\$859,489,045
NATIONAL CENTER ON SLEEP DISORDERS RESEARCH	93.233	2-T32-HL-110952-06			\$62,833	\$628,321	\$5,993,708	RESEARCH AND DEVELOPMENT	\$859,489,045
NATIONAL CENTER ON SLEEP DISORDERS RESEARCH	93.233	1-R01-HL-143790-01			\$292,912	\$631,707	\$5,993,708	RESEARCH AND DEVELOPMENT	\$859,489,045
NATIONAL CENTER ON SLEEP DISORDERS RESEARCH	93.233	1-R01-HL-142981-01A1			\$31,921	\$828,338	\$5,993,708	RESEARCH AND DEVELOPMENT	\$859,489,045
NATIONAL CENTER ON SLEEP DISORDERS RESEARCH	93.233	1-R01-HL-144859-01				\$936,204	\$5,993,708	RESEARCH AND DEVELOPMENT	\$859,489,045
NATIONAL CENTER ON SLEEP DISORDERS RESEARCH	93.233	2-P01-HL-094307-06A1			\$163,855	\$1,048,289	\$5,993,708	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	4-R00-MH-111836-03				-\$37,994	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		DREXEL UNIVERSITY	232616		-\$8,600	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R01-MH-109260-01A1				-\$3,811	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R01-MH-109498-01				-\$2,884	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R01-MH-111886-01				-\$508	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		OHIO STATE UNIVERSITY	GR122043/SPC-1000004737		-\$341	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	2-T32-MH-065218-11				-\$97	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R21-MH-108996-01A1				-\$91	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	2-R01-MH-061975-12A1				-\$70	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1F32MH113334-01A1				\$2,028	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1F31MH130159-01				\$2,153	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1F31MH128135-01A1				\$2,196	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		PENNSYLVANIA STATE UNIVERSITY	UPENNMMH124605		\$2,947	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	10288SC		\$3,140	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		UNIVERSITY OF ALABAMA AT BIRMINGHAM	000518108-003		\$3,937	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		VANDERBILT UNIVERSITY	VUMC86227		\$4,114	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3201571123		\$7,548	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1F31MH126576-01A1				\$7,964	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	13421SC		\$8,639	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		YALE UNIVERSITY	GR111808 (CON-80002838)		\$9,337	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		TEMPLE UNIVERSITY	260864-PENN		\$13,888	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		YALE UNIVERSITY	GR104299 (CON-80001421)		\$15,096	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-T32-MH-106442-01A1				\$15,605	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		RESEARCH FOUNDATION FOR MENTAL HYGIENE, INC.	149042		\$17,672	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		THOMAS JEFFERSON UNIVERSITY	080-19250-S36601		\$17,872	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		HENRY FORD HEALTH SYSTEM	B11175_UPENN		\$18,193	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-F30-MH-118871-01				\$18,766	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00001135		\$18,831	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
MENTAL HEALTH RESEARCH GRANTS	93.242		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3210640821		\$19,111	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-F31-MH-125539-01				\$19,748	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		UNIVERSITY OF CALIFORNIA, SAN DIEGO	118744601		\$21,051	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		UNIVERSITY OF WASHINGTON	UWSC9095		\$21,164	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R01-MH-109382-01A1			\$2,726	\$22,045	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		MICHIGAN STATE UNIVERSITY	RC112111B		\$22,048	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		ARIZONA STATE UNIVERSITY	18-285		\$22,227	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1K99MH127293-01A1				\$24,007	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00000301		\$25,565	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-F32-MH-115434-01				\$28,034	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1R01MH125904-01A1				\$28,503	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		UNIVERSITY OF WASHINGTON	UWSC10949		\$28,691	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3201790521		\$28,775	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R01-MH-107571-01A1				\$34,317	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		BOISE STATE UNIVERSITY	8424-PO133997		\$35,680	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		COLUMBIA UNIVERSITY	1(GG011969-01)		\$37,261	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-F30-MH-122076-01				\$38,088	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		NOUS IMAGING, INC.	R44MH121276_SUB3		\$40,048	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		RESEARCH FOUNDATION FOR MENTAL HYGIENE, INC.	26657		\$41,036	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-F31-MH-126569-01				\$46,148	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		RESEARCH FOUNDATION FOR THE STATE UNIVERSITY OF NEW YORK	90077/2/1165626		\$46,210	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3201740321-S1		\$46,787	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		SEATTLE CHILDREN'S HOSPITAL RESEARCH INSTITUTE	12684SUB		\$46,968	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		DUKE UNIVERSITY	A035002		\$46,973	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-F32-MH-123002-01				\$47,458	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1R01MH124760-01A1				\$48,206	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-F31-MH-123033-01				\$48,278	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		STANFORD UNIVERSITY	62723868-144480		\$51,016	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-F31-MH-124372-01A1				\$52,140	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-F31-MH-123063-01A1				\$53,618	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-F31-MH-125542-01A1				\$55,030	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R21-MH-120739-01			\$1,233	\$57,403	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	7-F32-MH127859-02				\$58,046	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-F32-MH-127788-01				\$63,186	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	116965C		\$63,689	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00001093		\$64,850	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-F32-MH-125600-01				\$65,938	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		NOUS IMAGING, INC.	R44MH124567_SUB3		\$67,439	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - MENTAL HEALTH RESEARCH GRANTS	93.242	7-K08-MH-112120-04				\$71,018	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-F32-MH-120890-01				\$73,657	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1R21MH125262-01A1				\$77,432	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1K99MH127296-01				\$80,152	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R01-MH-115557-01			\$3,628	\$80,835	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R21-MH-118489-01A1				\$80,911	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1R21MH126257-01A1				\$87,330	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		UNIVERSITY OF CALIFORNIA, LOS ANGELES	2000 G VA473		\$88,825	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R01-MH-108551-01			\$773	\$93,446	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		BOISE STATE UNIVERSITY	9445-PO138437		\$115,934	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-K99-MH-126427-01				\$118,925	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

<i>Federal Awarding Agency/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification (Optional)</i>	<i>Name of Funder Pass-Through Entity</i>	<i>Identifying Number Assigned By Funder Pass-Through Entity</i>	<i>Total Amount Provided to Sub-Recipients</i>	<i>Federal Expenditures</i>	<i>Federal Program Total</i>	<i>Cluster Name</i>	<i>Cluster Total</i>	
MENTAL HEALTH RESEARCH GRANTS	93.242		BAYLOR COLLEGE OF MEDICINE	7000001418		\$126,961	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242	1-K01-MH-125144-01				\$128,349	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242		DREXEL UNIVERSITY	800172		\$133,712	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242		VALA SCIENCES, INC.	SUB TO R44MH119621		\$140,679	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242	1-K01-MH-127306-01				\$143,646	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242	1 R21 MH123851-01A1				\$148,514	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242		UNIVERSITY OF MARYLAND	3001271		\$150,167	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242	1R21MH124121-01				\$168,766	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242		LYSSN.IO, INC	128101-PENNO1		\$169,671	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242	1-K01-MH-120509-01A1				\$171,493	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R01-MH-108627-01			\$163,288	\$171,732	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242		WASHINGTON UNIVERSITY IN ST. LOUIS	WU-20-422		\$173,795	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242		COLUMBIA UNIVERSITY	1(GG014372-01)		\$175,601	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R01-MH-125544-01				\$177,656	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242		NORTHWESTERN UNIVERSITY	60047194 UP		\$177,722	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242	1R61MH128492-01			\$18,488	\$178,821	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242		ALLEN INSTITUTE FOR BRAIN SCIENCE	2017-0567		\$179,764	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R21-MH-123888-01A1				\$183,475	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242		PALO ALTO VETERANS INSTITUTE FOR RESEARCH	WIS0003-05		\$197,706	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242	2-T32-MH014654-40				\$197,834	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242	1R21MH122239-01				\$202,336	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R21-MH-123841-01A1				\$204,589	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242	1-K23-MH-118580-01A1				\$204,866	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R01-MH-111389-01			\$137,919	\$215,193	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R21-MH-118170-01				\$218,017	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242	2-R01-MH-087950-06A1				\$220,172	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242	1-T32-MH-109433-01A1				\$220,960	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242		UNIVERSITY OF FLORIDA	SUB00002369		\$225,569	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242	1-K01-MH-121777-01				\$247,763	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242		UNIVERSITY OF WASHINGTON	UWSC11446		\$259,844	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242		RUTGERS UNIVERSITY	1962		\$261,312	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R25-MH-119043-01				\$265,913	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242	R01MH111602			\$116,742	\$267,408	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242	1-U01-MH-107276-01A1			\$67,798	\$284,313	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242	1R01MH126895-01			\$67,158	\$293,026	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242	1RF1MH123979-01				\$306,746	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242		EMORY UNIVERSITY	A051228		\$312,895	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242	2-T32-MH-019112-29A1				\$324,949	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242	1R01MH121608-01A1			\$748	\$329,889	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R01-MH-115030-01				\$359,136	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242		UNIVERSITY OF MINNESOTA	P008726301		\$361,493	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242	7-R01-MH-116914-05				\$371,362	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R01-MH-111719-01A1				\$381,728	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242	2-R01-MH-108627-06			\$189,143	\$418,056	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R01-MH-112847-01				\$419,992	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242	1R01MH118203-01A1			\$19,618	\$422,876	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242		NEW YORK UNIVERSITY GROSSMAN SCHOOL OF MEDICINE	19-A0-00-1003623		\$437,769	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242	1-RF1-MH-116920-01				\$443,507	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R01-MH-107452-01A1			\$36,213	\$460,260	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R01-MH-116884-01A1			\$22,881	\$471,113	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R01-MH-124897-01				\$18,793	\$496,265	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	7-R01-MH-114847-04				\$1,797	\$498,410	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R01-MH-118369-01A1			\$95,192	\$505,698	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242		YALE UNIVERSITY	GR110979 (CON-80002775)		\$519,940	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R01-MH-113565-01A1				\$519,991	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045	

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Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R01-MH-123550-01				\$521,768	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R01-MH-119185-01A1			\$131,814	\$557,092	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R01-MH-120482-01			\$362,616	\$571,482	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R01-MH-117807-01A1			\$179,398	\$589,767	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R01-MH-110939-01A1				\$594,599	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-P50-MH-113840-01			\$691	\$640,383	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R01-MH-112070-01A1			\$25	\$641,364	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R01-MH-120269-01				\$647,919	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - MENTAL HEALTH RESEARCH GRANTS	93.242	1-R01-MH-127686-01				\$648,967	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R37-MH-109728-01			\$9,933	\$651,617	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R01-MH-113550-01A1				\$679,501	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242		YALE UNIVERSITY	GR107872 (CON-80002099)		\$687,972	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R01-MH-128155-01			\$317,149	\$712,317	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R01-MH-119219-01A1			\$2,661	\$733,758	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R01-MH-120811-01				\$737,528	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-U01-MH-119738-01				\$745,367	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-DP1-MH-129957-01				\$776,662	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R01-MH-120174-01A1				\$825,733	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R01-MH-117014-01A1				\$830,949	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	2-R01-MH-098742-06A1			\$645,778	\$962,272	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R01-MH-126773-01			\$53,354	\$985,298	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-P50-MH-127511-01			\$93,622	\$1,099,092	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1-R01-MH-123491-01			\$747,653	\$1,108,707	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	7-U19-MH-106434-02			\$301,629	\$1,212,965	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	2-P30-MH-097488-06			\$205,280	\$1,506,377	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL HEALTH RESEARCH GRANTS	93.242	1UF1MH121944-01			\$95,435	\$2,456,551	\$40,046,204	RESEARCH AND DEVELOPMENT	\$859,489,045
SUBSTANCE ABUSE AND MENTAL HEALTH SERVICES PROJECTS OF REGIONAL AND NATIONAL SIGNIFICANCE	93.243		DELAWARE, STATE OF	0417124		-\$14	\$1,401,626	OTHER PROGRAMS	\$284,328,981
MH BASE UNITARY	93.243		CITY OF PHILADELPHIA	2120005-01		\$14,580	\$1,401,626	OTHER PROGRAMS	\$284,328,981
SUBSTANCE ABUSE AND MENTAL HEALTH SERVICES PROJECTS OF REGIONAL AND NATIONAL SIGNIFICANCE	93.243		CITY OF PHILADELPHIA	1720535		\$23,284	\$1,401,626	OTHER PROGRAMS	\$284,328,981
SUBSTANCE ABUSE AND MENTAL HEALTH SERVICES PROJECTS OF REGIONAL AND NATIONAL SIGNIFICANCE	93.243	1-H79-FG-000102-01				\$24,386	\$1,401,626	OTHER PROGRAMS	\$284,328,981
SUBSTANCE ABUSE AND MENTAL HEALTH SERVICES PROJECTS OF REGIONAL AND NATIONAL SIGNIFICANCE	93.243		DREXEL UNIVERSITY	900163		\$47,959	\$1,401,626	OTHER PROGRAMS	\$284,328,981
SUBSTANCE ABUSE AND MENTAL HEALTH SERVICES PROJECTS OF REGIONAL AND NATIONAL SIGNIFICANCE	93.243	1-H79-TI-083984-01				\$74,200	\$1,401,626	OTHER PROGRAMS	\$284,328,981
SUBSTANCE ABUSE AND MENTAL HEALTH SERVICES ADMINISTRATION (SAMHSA) - FIRST RESPONDERS - COMPREHENSIVE NALOXONE DISTRIBUTION AND RECOVERY SERVICE INITIATIVE	93.243	H79SM084445-01				\$88,582	\$1,401,626	OTHER PROGRAMS	\$284,328,981
SUBSTANCE ABUSE AND MENTAL HEALTH SERVICES PROJECTS OF REGIONAL AND NATIONAL SIGNIFICANCE	93.243	1H79TI081596-01				\$147,616	\$1,401,626	OTHER PROGRAMS	\$284,328,981
SUBSTANCE ABUSE AND MENTAL HEALTH SERVICES PROJECTS OF REGIONAL AND NATIONAL SIGNIFICANCE	93.243		CITY OF PHILADELPHIA	SUB TO SAMHSA		\$312,966	\$1,401,626	OTHER PROGRAMS	\$284,328,981
SUBSTANCE ABUSE AND MENTAL HEALTH SERVICES PROJECTS OF REGIONAL AND NATIONAL SIGNIFICANCE	93.243		LANCASTER COUNTY DRUG & ALCOHOL COMMISSION	1H79SPO080317-01		\$330,011	\$1,401,626	OTHER PROGRAMS	\$284,328,981
SUBSTANCE ABUSE AND MENTAL HEALTH SERVICES PROJECTS OF REGIONAL AND NATIONAL SIGNIFICANCE	93.243		ADAMS COUNTY, PENNSYLVANIA	SUB TO 1H79SM081196-01		\$338,056	\$1,401,626	OTHER PROGRAMS	\$284,328,981
OCCUPATIONAL SAFETY AND HEALTH PROGRAM	93.262	2 T03OH008628-15-00				\$147,039	\$147,039	RESEARCH AND DEVELOPMENT	\$859,489,045
NURSE FACULTY LOAN PROGRAM ISSUED DURING FY22	93.264					\$432,709	\$2,664,993	STUDENT FINANCIAL ASSISTANCE CLUSTER	\$257,653,947
NURSE FACULTY LOAN PROGRAM OUTSTANDING AS OF 07/01/21	93.264					\$2,232,284	\$2,664,993	STUDENT FINANCIAL ASSISTANCE CLUSTER	\$257,653,947
HEALTH SYSTEMS STRENGTHENING AND HIV/AIDS PREVENTION, CARE AND TREATMENT UNDER THE PRESIDENT'S EMERGENCY PLAN FOR AIDS RELIEF	93.266	7-R01-EB-022574-03				-\$1,476	\$343,964	RESEARCH AND DEVELOPMENT	\$859,489,045
HEALTH SYSTEMS STRENGTHENING AND HIV/AIDS PREVENTION, CARE AND TREATMENT UNDER THE PRESIDENT'S EMERGENCY PLAN FOR AIDS RELIEF	93.266		UNIVERSITY OF BOTSWANA	555958		-\$639	\$343,964	RESEARCH AND DEVELOPMENT	\$859,489,045

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Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
HEALTH SYSTEMS STRENGTHENING AND HIV/AIDS PREVENTION, CARE AND TREATMENT UNDER THE PRESIDENT'S EMERGENCY PLAN FOR AIDS RELIEF	93.266	7-R01-EB-022574-03				-\$149	\$343,964	RESEARCH AND DEVELOPMENT	\$859,489,045
HEALTH SYSTEMS STRENGTHENING AND HIV/AIDS PREVENTION, CARE AND TREATMENT UNDER THE PRESIDENT'S EMERGENCY PLAN FOR AIDS RELIEF	93.266	1-R01-HS-027595-01A1			\$2,966	\$346,228	\$343,964	RESEARCH AND DEVELOPMENT	\$859,489,045
ALCOHOL RESEARCH PROGRAMS	93.273	1-F31-AA-026766-01A1				-\$1,754	\$4,639,809	RESEARCH AND DEVELOPMENT	\$859,489,045
ALCOHOL RESEARCH PROGRAMS	93.273	1-K23-AA-023894-01				\$7,448	\$4,639,809	RESEARCH AND DEVELOPMENT	\$859,489,045
ALCOHOL RESEARCH PROGRAMS	93.273		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	105095C		\$19,686	\$4,639,809	RESEARCH AND DEVELOPMENT	\$859,489,045
ALCOHOL RESEARCH PROGRAMS	93.273		RESEARCH FOUNDATION FOR MENTAL HYGIENE, INC.	PO# 140111		\$23,853	\$4,639,809	RESEARCH AND DEVELOPMENT	\$859,489,045
ALCOHOL RESEARCH PROGRAMS	93.273		UNIVERSITY OF ROCHESTER	417591G / URFAO: GR510935		\$44,067	\$4,639,809	RESEARCH AND DEVELOPMENT	\$859,489,045
ALCOHOL RESEARCH PROGRAMS	93.273		YALE UNIVERSITY	CON-80003377(GR114506)		\$46,638	\$4,639,809	RESEARCH AND DEVELOPMENT	\$859,489,045
ALCOHOL RESEARCH PROGRAMS	93.273	1-R01-AA-026302-01				\$106,079	\$4,639,809	RESEARCH AND DEVELOPMENT	\$859,489,045
ALCOHOL RESEARCH PROGRAMS	93.273	1-K01-AA-028292-01A1				\$115,790	\$4,639,809	RESEARCH AND DEVELOPMENT	\$859,489,045
ALCOHOL RESEARCH PROGRAMS	93.273		UNIVERSITY OF NEW MEXICO	028372-874D		\$128,699	\$4,639,809	RESEARCH AND DEVELOPMENT	\$859,489,045
ALCOHOL RESEARCH PROGRAMS	93.273	1-K99-AA-028577-01A1				\$147,377	\$4,639,809	RESEARCH AND DEVELOPMENT	\$859,489,045
ALCOHOL RESEARCH PROGRAMS	93.273		YALE UNIVERSITY	GR104469 (CON-80001475)		\$202,051	\$4,639,809	RESEARCH AND DEVELOPMENT	\$859,489,045
ALCOHOL RESEARCH PROGRAMS	93.273		STONY BROOK	88624/2/1162469		\$286,629	\$4,639,809	RESEARCH AND DEVELOPMENT	\$859,489,045
ALCOHOL RESEARCH PROGRAMS	93.273	4-R00-AA-026892-02				\$293,540	\$4,639,809	RESEARCH AND DEVELOPMENT	\$859,489,045
ALCOHOL RESEARCH PROGRAMS	93.273	1-U01-AA-025931-01A1				\$448,842	\$4,639,809	RESEARCH AND DEVELOPMENT	\$859,489,045
ALCOHOL RESEARCH PROGRAMS	93.273	1-R01-AA-024941-01			\$21,673	\$465,440	\$4,639,809	RESEARCH AND DEVELOPMENT	\$859,489,045
ALCOHOL RESEARCH PROGRAMS	93.273	1-R01-AA-027202-01A1				\$482,722	\$4,639,809	RESEARCH AND DEVELOPMENT	\$859,489,045
ALCOHOL RESEARCH PROGRAMS	93.273	1-R01-AA-026267-01A1				\$483,900	\$4,639,809	RESEARCH AND DEVELOPMENT	\$859,489,045
ALCOHOL RESEARCH PROGRAMS	93.273	1-DP1-AA-028409-01				\$1,338,802	\$4,639,809	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279		LIGHTSPIN TECHNOLOGIES	SUB TO 2R4DA028813		-\$15,773	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1-R21-DA-046364-01A1				-\$501	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1-R01-DA-037289-01A1				-\$17	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1-R36-DA-050877-01				\$1,135	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279		SUNNYBROOK RESEARCH INSTITUTE	2017-1218		\$1,666	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279		NEW YORK UNIVERSITY	19-A0-00-1002274		\$17,605	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279		UNIVERSITY OF ROCHESTER	417660G / URFAO:GR510990		\$18,258	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279		EMBERA NEURO THERAPEUTICS, INC.	SUB TO U01DA038879		\$20,881	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279		UNIVERSITY OF CONNECTICUT	420072		\$22,374	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1-F31-DA-053111-01				\$37,168	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279		SOBER GRID, INC.	SUB TO 5R44DA044062-03		\$44,126	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1F31DA054001-01				\$46,036	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00001582		\$46,421	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279		COLUMBIA UNIVERSITY	12(GG015428-03)		\$52,481	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1F32DA053763-01				\$53,803	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279		UNIVERSITY OF FLORIDA	SUB00002214		\$60,357	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279		SIMON FRASER UNIVERSITY	SUB TO 3R01DA041747		\$63,044	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279		EMORY UNIVERSITY	A305847		\$63,409	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1-R34-DA-050297-01				\$65,040	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1-F32-DA-053099-01				\$67,283	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279		UNIVERSITY OF WASHINGTON	UWSC11619		\$69,951	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279		GEISINGER HEALTH SYSTEM	626510UPO1		\$73,056	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279		CORNELL UNIVERSITY	183469-2		\$74,638	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1-U18-DA-052513-01			\$1,467	\$76,188	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1-R01-DA-040670-01A1				\$79,226	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1R61DA051625-01A1				\$85,312	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279		UNIVERSITY OF MICHIGAN	SUBK00011012		\$88,341	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279		WISTAR INSTITUTE	25631-02-324		\$91,817	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	2-K24-DA-029062-06				\$103,685	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1-R01-DA-039215-01A1				\$109,805	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1-R21-DA-051737-01A1				\$111,335	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

<i>Federal Awarding Agency/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification (Optional)</i>	<i>Name of Funder Pass-Through Entity</i>	<i>Identifying Number Assigned By Funder Pass-Through Entity</i>	<i>Total Amount Provided to Sub-Recipients</i>	<i>Federal Expenditures</i>	<i>Federal Program Total</i>	<i>Cluster Name</i>	<i>Cluster Total</i>
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279		YALE UNIVERSITY	CON-80002920 (GR111857)		\$113,075	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	4-R00-DA-043609-03				\$116,003	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1-U18-DA-052399-01				\$120,558	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	5-U34-DA-045177-01A1				\$126,859	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	7-K99-DA-048748-03				\$130,577	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1-K24-DA-045244-01A1				\$146,075	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1-K01-DA-051709-01A1				\$152,173	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1-R21-DA-050761-01				\$152,453	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1K01DA051348-01				\$156,598	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1-K23-DA-038726-01A1				\$156,787	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1-K23-DA-048167-01				\$159,454	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	7-K01-DA-049900-02				\$163,755	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1-K01-A047417-01A1				\$169,456	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1-R01-DA-041402-01				\$172,875	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1-R21-DA-045792-01A1				\$174,680	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1-R01-DA-040972-01A1			\$477	\$221,357	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279		WEILL CORNELL MEDICAL COLLEGE	SUB TO NIH ADV ACCT		\$257,315	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	2-R01-DA-029840-06A1			\$9,364	\$262,103	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279		UNIVERSITY OF TEXAS AT SAN ANTONIO	1000004419		\$268,546	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1-DP1-DA-044250-01				\$282,254	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279		WISTAR INSTITUTE	25621-02-324		\$314,920	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1-R01-DA-042682-01				\$351,734	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1-R01-DA-044906-01				\$372,844	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1-R01-DA-044205-01A1				\$388,837	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279		YALE UNIVERSITY	GR109740 (CON-80002398)		\$392,856	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	2-T32-DA-028874-08				\$418,947	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1-R01-DA-041409-01A1				\$425,849	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1-R01-DA-054374-01			\$233,854	\$426,357	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	2-R01-DA-037897-05A1				\$473,722	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1-R01-DA-048001-01			\$17,789	\$483,315	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1-R01-DA-049545-01			\$148,282	\$533,388	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	2-R01-DA-035868-04A1			\$22,465	\$536,656	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1R01DA045604-01A1			\$15,984	\$550,090	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	7-DP1-DA-048570-04			\$27,946	\$557,447	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1-R01-DA-053296-01				\$602,867	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1-R01-DA-052465-01A1				\$604,060	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1-R01-DA-049514-01			\$23,627	\$634,811	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1-UG1-DA-050209-01				\$651,989	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1-R01-DA-054236-01			\$174,676	\$715,270	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1-R01-DA-052826-01			\$4,786	\$715,571	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1DP1DA051620-01				\$860,816	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1-UG3-DA-049694-01			\$57,878	\$1,268,052	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	93.279	1-P30-DA-046345-01A1			\$479,683	\$2,036,581	\$19,448,082	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286	1-R01-EB-022612-01				-\$17,094	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286	1-U01-EB-016027-01A1				-\$358	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286	2-P41-EB-015893-31				\$1,720	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286	1-R21-EB-027397-01			\$5,865	\$5,865	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286		ALPHATHERA	SUB TO R44 EB023750-02		\$6,353	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286	1-T32-EB-020087-01A1				\$7,087	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286		UNIVERSITY OF CONNECTICUT HEALTH CENTER	UCHC7-117331099		\$10,269	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

<i>Federal Awarding Agency/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification (Optional)</i>	<i>Name of Funder Pass-Through Entity</i>	<i>Identifying Number Assigned By Funder Pass-Through Entity</i>	<i>Total Amount Provided to Sub-Recipients</i>	<i>Federal Expenditures</i>	<i>Federal Program Total</i>	<i>Cluster Name</i>	<i>Cluster Total</i>
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286		UNIVERSITY OF MIAMI	SPC-000724		\$13,133	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286		NEW YORK MEDICAL COLLEGE	124020		\$22,978	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286	1-R03-EB-030663-01A1				\$25,414	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00001531		\$27,993	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286	1-F31-EB-029309-01				\$29,796	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286		INDIANA UNIVERSITY	8165-UP		\$44,580	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286		ALPHATHERA	SUB TO 3R44EB023750-0351		\$48,663	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286	1-R21-EB-027407-01				\$72,444	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286	1K99EB028838-01A1				\$83,588	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286	1-R03-EB-031157-01A1				\$92,549	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286	1-R01-EB-026945-01				\$144,393	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286	2-T32-EB-020087-06				\$162,174	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286	1-R21-EB-030373-01A1				\$164,363	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286	1-R21-EB-029556-01A1				\$174,372	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286	2-T32-EB-004311-16				\$219,364	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286	1-R01-EB-023274-01				\$226,689	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286	1-R01-EB-028162-01				\$260,335	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286	1-U24-EB-028941-01			\$856	\$264,021	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286	1-R21-EB-032027-01				\$288,861	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286	2-T32-EB-009384-11				\$294,740	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286	1-R01-EB-029363-01				\$297,636	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286	1-R01-EB-029238-01A1				\$373,706	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286	1-R01-EB-031806-01				\$384,790	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286	1-R01-EB-030494-01A1			\$89,213	\$423,678	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286	1-R01-EB-030876-01A1			\$38,442	\$458,328	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286	1R01EB028858-01A1				\$472,739	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286	2-R01-EB-022573-05				\$485,328	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286	1-R01-EB-029767-01				\$504,020	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286	1-R01-EB-028764-01				\$513,187	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045

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Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286	1-R01-EB-028320-01				\$514,012	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286	1-R01-EB-028778-01A1			\$22,916	\$629,001	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286	2-R01-EB-017753-05				\$836,864	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286	1-R01-EB-026892-01				\$882,531	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	93.286	1-P41-EB-029460-01A1				\$1,012,122	\$10,462,234	RESEARCH AND DEVELOPMENT	\$859,489,045
MINORITY HEALTH AND HEALTH DISPARITIES RESEARCH	93.307		ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI	0255-7401-4609		\$3,449	\$4,412,680	RESEARCH AND DEVELOPMENT	\$859,489,045
MINORITY HEALTH AND HEALTH DISPARITIES RESEARCH	93.307		WASHINGTON UNIVERSITY IN ST. LOUIS	WU-20-107		\$7,110	\$4,412,680	RESEARCH AND DEVELOPMENT	\$859,489,045
MINORITY HEALTH AND HEALTH DISPARITIES RESEARCH	93.307		UNIVERSITY OF PITTSBURGH CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	CNVA00047269 (127145-6)		\$9,306	\$4,412,680	RESEARCH AND DEVELOPMENT	\$859,489,045
MINORITY HEALTH AND HEALTH DISPARITIES RESEARCH	93.307			3201001122		\$36,231	\$4,412,680	RESEARCH AND DEVELOPMENT	\$859,489,045
MINORITY HEALTH AND HEALTH DISPARITIES RESEARCH	93.307	1-R01-MD-011518-01A1				\$89,263	\$4,412,680	RESEARCH AND DEVELOPMENT	\$859,489,045
MINORITY HEALTH AND HEALTH DISPARITIES RESEARCH	93.307		MASSACHUSETTS GENERAL HOSPITAL	SUB TO R01MD014023		\$108,784	\$4,412,680	RESEARCH AND DEVELOPMENT	\$859,489,045
MINORITY HEALTH AND HEALTH DISPARITIES RESEARCH	93.307	1-R01-MD-011679-01			\$67,486	\$112,907	\$4,412,680	RESEARCH AND DEVELOPMENT	\$859,489,045
MINORITY HEALTH AND HEALTH DISPARITIES RESEARCH	93.307		RAND CORPORATION	9920170019		\$147,257	\$4,412,680	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - MINORITY HEALTH AND HEALTH DISPARITIES RESEARCH	93.307	1R01MD016029-01			\$23,349	\$282,343	\$4,412,680	RESEARCH AND DEVELOPMENT	\$859,489,045
MINORITY HEALTH AND HEALTH DISPARITIES RESEARCH	93.307	1-R01-MD-015055-01A1			\$52,969	\$348,760	\$4,412,680	RESEARCH AND DEVELOPMENT	\$859,489,045
MINORITY HEALTH AND HEALTH DISPARITIES RESEARCH	93.307	7-R01-MD-013558-03			\$278,776	\$455,051	\$4,412,680	RESEARCH AND DEVELOPMENT	\$859,489,045
MINORITY HEALTH AND HEALTH DISPARITIES RESEARCH	93.307	1-R01-MD-013859-01			\$187,237	\$510,093	\$4,412,680	RESEARCH AND DEVELOPMENT	\$859,489,045
MINORITY HEALTH AND HEALTH DISPARITIES RESEARCH	93.307	1-U01-MD-011274-01			\$36,573	\$537,163	\$4,412,680	RESEARCH AND DEVELOPMENT	\$859,489,045
MINORITY HEALTH AND HEALTH DISPARITIES RESEARCH	93.307	1-R01-MD-013623-01			\$425,359	\$877,218	\$4,412,680	RESEARCH AND DEVELOPMENT	\$859,489,045
MINORITY HEALTH AND HEALTH DISPARITIES RESEARCH	93.307	1R01MD016029-01			\$424,722	\$887,745	\$4,412,680	RESEARCH AND DEVELOPMENT	\$859,489,045
TRANS-NIH RESEARCH SUPPORT	93.310	1-DP5-OD-021391-01				-\$2,900	\$9,922,434	RESEARCH AND DEVELOPMENT	\$859,489,045
TRANS-NIH RESEARCH SUPPORT	93.310	1-DP5-OD-021352-01				-\$349	\$9,922,434	RESEARCH AND DEVELOPMENT	\$859,489,045
TRANS-NIH RESEARCH SUPPORT	93.310		CARNEGIE MELLON UNIVERSITY CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	1090667-443467		\$5,113	\$9,922,434	RESEARCH AND DEVELOPMENT	\$859,489,045
TRANS-NIH RESEARCH SUPPORT	93.310		CARNEGIE MELLON UNIVERSITY UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	124865C		\$31,364	\$9,922,434	RESEARCH AND DEVELOPMENT	\$859,489,045
TRANS-NIH RESEARCH SUPPORT	93.310		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3200670521-0452		\$34,495	\$9,922,434	RESEARCH AND DEVELOPMENT	\$859,489,045
TRANS-NIH RESEARCH SUPPORT	93.310		DREXEL UNIVERSITY	800134		\$47,173	\$9,922,434	RESEARCH AND DEVELOPMENT	\$859,489,045
TRANS-NIH RESEARCH SUPPORT	93.310	1-R03-TR-003299-01				\$48,514	\$9,922,434	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - TRANS-NIH RESEARCH SUPPORT	93.310		UNIVERSITY OF CALIFORNIA, SANTA BARBARA	SUB TO R01DK130067		\$84,107	\$9,922,434	RESEARCH AND DEVELOPMENT	\$859,489,045
TRANS-NIH RESEARCH SUPPORT	93.310		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3201240619		\$211,972	\$9,922,434	RESEARCH AND DEVELOPMENT	\$859,489,045
TRANS-NIH RESEARCH SUPPORT	93.310	1-DP5-OD-026386-01				\$319,561	\$9,922,434	RESEARCH AND DEVELOPMENT	\$859,489,045
TRANS-NIH RESEARCH SUPPORT	93.310	1DP2MH129985-01				\$339,143	\$9,922,434	RESEARCH AND DEVELOPMENT	\$859,489,045
TRANS-NIH RESEARCH SUPPORT	93.310	1-DP2-HG-012443-01				\$354,611	\$9,922,434	RESEARCH AND DEVELOPMENT	\$859,489,045
TRANS-NIH RESEARCH SUPPORT	93.310	1DP2TR002776-01				\$407,097	\$9,922,434	RESEARCH AND DEVELOPMENT	\$859,489,045
TRANS-NIH RESEARCH SUPPORT	93.310	1-DP5-OD-028144-01				\$409,143	\$9,922,434	RESEARCH AND DEVELOPMENT	\$859,489,045
TRANS-NIH RESEARCH SUPPORT	93.310	1-DP5-OD-026420-01				\$431,605	\$9,922,434	RESEARCH AND DEVELOPMENT	\$859,489,045
TRANS-NIH RESEARCH SUPPORT	93.310	1U01DA052715-01				\$549,661	\$9,922,434	RESEARCH AND DEVELOPMENT	\$859,489,045
TRANS-NIH RESEARCH SUPPORT	93.310	1-R01-AR-075337-01				\$565,747	\$9,922,434	RESEARCH AND DEVELOPMENT	\$859,489,045
TRANS-NIH RESEARCH SUPPORT	93.310	1U01OD033246-01			\$44,249	\$572,132	\$9,922,434	RESEARCH AND DEVELOPMENT	\$859,489,045
TRANS-NIH RESEARCH SUPPORT	93.310	1R01HG012445-01			\$3,175	\$720,931	\$9,922,434	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - TRANS-NIH RESEARCH SUPPORT	93.310	1U18TR003775-01			\$15,237	\$1,075,040	\$9,922,434	RESEARCH AND DEVELOPMENT	\$859,489,045
TRANS-NIH RESEARCH SUPPORT	93.310	7-OT3-OD-025347-02				\$1,167,930	\$9,922,434	RESEARCH AND DEVELOPMENT	\$859,489,045
TRANS-NIH RESEARCH SUPPORT	93.310	1U01DK127405-01			\$540,475	\$1,252,187	\$9,922,434	RESEARCH AND DEVELOPMENT	\$859,489,045
TRANS-NIH RESEARCH SUPPORT	93.310	1-R01-GM-137425-01				\$1,269,065	\$9,922,434	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.



Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
COVID-19 - PROTECTING AND IMPROVING HEALTH GLOBALLY: BUILDING AND STRENGTHENING PUBLIC HEALTH IMPACT, SYSTEMS, CAPACITY AND SECURITY	93.318	1 NU3HCK000015-01-00				\$161,204	\$161,204	RESEARCH AND DEVELOPMENT	\$859,489,045
DIETARY SUPPLEMENT RESEARCH PROGRAM	93.321		UNIVERSITY OF ARIZONA	626464		\$18,571	\$18,571	RESEARCH AND DEVELOPMENT	\$859,489,045
LDS DENTAL OUTSTANDING AS OF 07/01/2021	93.342					\$2,383	\$18,415,585	STUDENT FINANCIAL ASSISTANCE CLUSTER	\$257,653,947
HPL MEDICAL OUTSTANDING AS OF 07/01/2021	93.342					\$142,177	\$18,415,585	STUDENT FINANCIAL ASSISTANCE CLUSTER	\$257,653,947
LDS MEDICAL ISSUD AFTER 07/01/2021	93.342					\$229,169	\$18,415,585	STUDENT FINANCIAL ASSISTANCE CLUSTER	\$257,653,947
HPL VET ISSUED AFTER 07/01/2021	93.342					\$695,500	\$18,415,585	STUDENT FINANCIAL ASSISTANCE CLUSTER	\$257,653,947
LDS MEDICAL OUTSTANDING AS OF 07/01/2021	93.342					\$2,394,214	\$18,415,585	STUDENT FINANCIAL ASSISTANCE CLUSTER	\$257,653,947
HPL VET OUTSTANDING AS OF 07/01/2021	93.342					\$2,722,008	\$18,415,585	STUDENT FINANCIAL ASSISTANCE CLUSTER	\$257,653,947
HPL DENTAL ISSUED AFTER 07/01/2021	93.342					\$3,096,000	\$18,415,585	STUDENT FINANCIAL ASSISTANCE CLUSTER	\$257,653,947
HPL DENTAL OUTSTANDING AS OF 07/01/2021	93.342					\$9,134,134	\$18,415,585	STUDENT FINANCIAL ASSISTANCE CLUSTER	\$257,653,947
NATIONAL CENTER FOR ADVANCING TRANSLATIONAL SCIENCES	93.350	5-TL1-TR-001880-02				-\$86,291	\$13,058,499	RESEARCH AND DEVELOPMENT	\$859,489,045
NATIONAL CENTER FOR ADVANCING TRANSLATIONAL SCIENCES	93.350		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3200680218		-\$28,593	\$13,058,499	RESEARCH AND DEVELOPMENT	\$859,489,045
NATIONAL CENTER FOR ADVANCING TRANSLATIONAL SCIENCES	93.350		DYSTONIA MED RES FD	SUB TO U54TR001456		-\$8,182	\$13,058,499	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - NATIONAL CENTER FOR ADVANCING TRANSLATIONAL SCIENCES	93.350	1-UL1-TR-001879-01				-\$3,800	\$13,058,499	RESEARCH AND DEVELOPMENT	\$859,489,045
NATIONAL CENTER FOR ADVANCING TRANSLATIONAL SCIENCES	93.350	5-TL1-TR-001880-02			-\$8,850	-\$8,850	\$13,058,499	RESEARCH AND DEVELOPMENT	\$859,489,045
NATIONAL CENTER FOR ADVANCING TRANSLATIONAL SCIENCES	93.350		BOSTON UNIVERSITY	4500002228		\$2,081	\$13,058,499	RESEARCH AND DEVELOPMENT	\$859,489,045
NATIONAL CENTER FOR ADVANCING TRANSLATIONAL SCIENCES	93.350		UNIVERSITY OF PITTSBURGH	AWD00001775 (134056-1)		\$10,098	\$13,058,499	RESEARCH AND DEVELOPMENT	\$859,489,045
NATIONAL CENTER FOR ADVANCING TRANSLATIONAL SCIENCES	93.350	R13TR003545-01				\$16,532	\$13,058,499	RESEARCH AND DEVELOPMENT	\$859,489,045
NATIONAL CENTER FOR ADVANCING TRANSLATIONAL SCIENCES	93.350		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3201810721		\$17,887	\$13,058,499	RESEARCH AND DEVELOPMENT	\$859,489,045
NATIONAL CENTER FOR ADVANCING TRANSLATIONAL SCIENCES	93.350		UNIVERSITY OF WISCONSIN-MADISON	0000000860		\$37,756	\$13,058,499	RESEARCH AND DEVELOPMENT	\$859,489,045
NATIONAL CENTER FOR ADVANCING TRANSLATIONAL SCIENCES	93.350		UNIVERSITY OF WISCONSIN-MADISON	0000000859		\$57,201	\$13,058,499	RESEARCH AND DEVELOPMENT	\$859,489,045
NATIONAL CENTER FOR ADVANCING TRANSLATIONAL SCIENCES	93.350	1-UL1-TR-001879-01			\$271,242	\$375,211	\$13,058,499	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - NATIONAL CENTER FOR ADVANCING TRANSLATIONAL SCIENCES	93.350	1-U01-TR-003734-01			\$24,373	\$696,960	\$13,058,499	RESEARCH AND DEVELOPMENT	\$859,489,045
NATIONAL CENTER FOR ADVANCING TRANSLATIONAL SCIENCES	93.350	2-UL1-TR-001878-06			\$164,381	\$11,980,489	\$13,058,499	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH INFRASTRUCTURE PROGRAMS	93.351	1S10OD030413-01				\$25,082	\$2,936,315	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH INFRASTRUCTURE PROGRAMS	93.351	1-S10-OD-026986-01A1				\$407,838	\$2,936,315	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH INFRASTRUCTURE PROGRAMS	93.351	1S10OD030364-01				\$583,374	\$2,936,315	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH INFRASTRUCTURE PROGRAMS	93.351	1S10OD030460-01				\$881,298	\$2,936,315	RESEARCH AND DEVELOPMENT	\$859,489,045
RESEARCH INFRASTRUCTURE PROGRAMS	93.351	2-P40-OD-010939-34A1			\$46,392	\$1,038,723	\$2,936,315	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - 21ST CENTURY CURES ACT - BEAU BIDEN CANCER MOONSHOT	93.353	1-P01-CA-214278-01				-\$40,388	\$8,553,490	RESEARCH AND DEVELOPMENT	\$859,489,045
21ST CENTURY CURES ACT - BEAU BIDEN CANCER MOONSHOT	93.353		(UNASSIGNABLE) HUTCHINSON (FRED) CANCER RESEARCH CENTER	0000916484		-\$7,188	\$8,553,490	RESEARCH AND DEVELOPMENT	\$859,489,045
21ST CENTURY CURES ACT - BEAU BIDEN CANCER MOONSHOT	93.353		(UNASSIGNABLE) HUTCHINSON (FRED) CANCER RESEARCH CENTER	0000920801		\$2,653	\$8,553,490	RESEARCH AND DEVELOPMENT	\$859,489,045
21ST CENTURY CURES ACT - BEAU BIDEN CANCER MOONSHOT	93.353		JOHNS HOPKINS UNIVERSITY	2004621711		\$12,785	\$8,553,490	RESEARCH AND DEVELOPMENT	\$859,489,045
21ST CENTURY CURES ACT - BEAU BIDEN CANCER MOONSHOT	93.353		MORRIS ANIMAL FOUNDATION	D17CA-501		\$12,896	\$8,553,490	RESEARCH AND DEVELOPMENT	\$859,489,045
21ST CENTURY CURES ACT - BEAU BIDEN CANCER MOONSHOT	93.353		WISTAR INSTITUTE	25451-06-314; NATHANSON		\$16,477	\$8,553,490	RESEARCH AND DEVELOPMENT	\$859,489,045
21ST CENTURY CURES ACT - BEAU BIDEN CANCER MOONSHOT	93.353	1-R33-CA-225310-01				\$40,383	\$8,553,490	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
21ST CENTURY CURES ACT - BEAU BIDEN CANCER MOONSHOT	93.353		WISTAR INSTITUTE	25451-05-314; XU		\$53,831	\$8,553,490	RESEARCH AND DEVELOPMENT	\$859,489,045
21ST CENTURY CURES ACT - BEAU BIDEN CANCER MOONSHOT	93.353	1R01CA266234-01				\$61,555	\$8,553,490	RESEARCH AND DEVELOPMENT	\$859,489,045
21ST CENTURY CURES ACT - BEAU BIDEN CANCER MOONSHOT	93.353		(UNASSIGNABLE) HUTCHINSON (FRED) CANCER RESEARCH CENTER	0000921427		\$139,111	\$8,553,490	RESEARCH AND DEVELOPMENT	\$859,489,045
21ST CENTURY CURES ACT - BEAU BIDEN CANCER MOONSHOT	93.353		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3201460819-XX		\$213,443	\$8,553,490	RESEARCH AND DEVELOPMENT	\$859,489,045
21ST CENTURY CURES ACT - BEAU BIDEN CANCER MOONSHOT	93.353		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	SUB TO 1U01CA232563-01		\$270,191	\$8,553,490	RESEARCH AND DEVELOPMENT	\$859,489,045
21ST CENTURY CURES ACT - BEAU BIDEN CANCER MOONSHOT	93.353		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3201460819-XX / PO 20028898-RSUB		\$332,409	\$8,553,490	RESEARCH AND DEVELOPMENT	\$859,489,045
21ST CENTURY CURES ACT - BEAU BIDEN CANCER MOONSHOT	93.353	1-U24-CA-224122-01			\$37,862	\$499,846	\$8,553,490	RESEARCH AND DEVELOPMENT	\$859,489,045
21ST CENTURY CURES ACT - BEAU BIDEN CANCER MOONSHOT	93.353	1-U01-CA-243702-01A1			\$104,194	\$582,943	\$8,553,490	RESEARCH AND DEVELOPMENT	\$859,489,045
21ST CENTURY CURES ACT - BEAU BIDEN CANCER MOONSHOT	93.353	1-P50-CA-244690-01			\$39,500	\$1,002,873	\$8,553,490	RESEARCH AND DEVELOPMENT	\$859,489,045
21ST CENTURY CURES ACT - BEAU BIDEN CANCER MOONSHOT	93.353	1-P01-CA-214278-01			\$85,992	\$1,353,775	\$8,553,490	RESEARCH AND DEVELOPMENT	\$859,489,045
21ST CENTURY CURES ACT - BEAU BIDEN CANCER MOONSHOT	93.353	1-U54-CA-244711-01			\$16,666	\$1,670,543	\$8,553,490	RESEARCH AND DEVELOPMENT	\$859,489,045
21ST CENTURY CURES ACT - BEAU BIDEN CANCER MOONSHOT	93.353	1-P01-CA-210944-01				\$2,335,352	\$8,553,490	RESEARCH AND DEVELOPMENT	\$859,489,045
NURSING RESEARCH	93.361	1-R01-NR-015226-01A1				-\$1,204	\$7,046,118	RESEARCH AND DEVELOPMENT	\$859,489,045
NURSING RESEARCH	93.361		DREXEL UNIVERSITY	800066		-\$823	\$7,046,118	RESEARCH AND DEVELOPMENT	\$859,489,045
NURSING RESEARCH	93.361		UNIVERSITY OF WASHINGTON	UWSC10149		\$529	\$7,046,118	RESEARCH AND DEVELOPMENT	\$859,489,045
NURSING RESEARCH	93.361	1-F31-NR-020137-01A1				\$2,013	\$7,046,118	RESEARCH AND DEVELOPMENT	\$859,489,045
NURSING RESEARCH	93.361	1-F31-NR-019527-01A1				\$2,110	\$7,046,118	RESEARCH AND DEVELOPMENT	\$859,489,045
NURSING RESEARCH	93.361		VISITING NURSE SERVICE OF NEW YORK	4633_2021_PENN		\$8,843	\$7,046,118	RESEARCH AND DEVELOPMENT	\$859,489,045
NURSING RESEARCH	93.361		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3201511123		\$12,867	\$7,046,118	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - NURSING RESEARCH	93.361		VISITING NURSE SERVICE OF NEW YORK	4633_2021_PENN		\$14,148	\$7,046,118	RESEARCH AND DEVELOPMENT	\$859,489,045
NURSING RESEARCH	93.361		RESEARCH FOUNDATION FOR THE STATE UNIVERSITY OF NEW YORK	1163840-89250		\$14,890	\$7,046,118	RESEARCH AND DEVELOPMENT	\$859,489,045
NURSING RESEARCH	93.361		UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL	5111361		\$15,129	\$7,046,118	RESEARCH AND DEVELOPMENT	\$859,489,045
NURSING RESEARCH	93.361		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00001491		\$18,556	\$7,046,118	RESEARCH AND DEVELOPMENT	\$859,489,045
NURSING RESEARCH	93.361		VILLANOVA UNIVERSITY	530079UPENN		\$19,370	\$7,046,118	RESEARCH AND DEVELOPMENT	\$859,489,045
NURSING RESEARCH	93.361		UNIVERSITY OF PITTSBURGH	AWD00004758 (136886-1)		\$20,919	\$7,046,118	RESEARCH AND DEVELOPMENT	\$859,489,045
NURSING RESEARCH	93.361	1-K23-NR-017209-01A1				\$21,842	\$7,046,118	RESEARCH AND DEVELOPMENT	\$859,489,045
NURSING RESEARCH	93.361		UNIVERSITY OF COLORADO	FY23.1160.001		\$26,087	\$7,046,118	RESEARCH AND DEVELOPMENT	\$859,489,045
NURSING RESEARCH	93.361	2R01NR014855-06				\$33,689	\$7,046,118	RESEARCH AND DEVELOPMENT	\$859,489,045
NURSING RESEARCH	93.361	1-F31-NR-019919-01				\$35,619	\$7,046,118	RESEARCH AND DEVELOPMENT	\$859,489,045
NURSING RESEARCH	93.361	1-F31-NR-020140-01				\$45,646	\$7,046,118	RESEARCH AND DEVELOPMENT	\$859,489,045
NURSING RESEARCH	93.361	1-F31-NR-019925-01				\$46,281	\$7,046,118	RESEARCH AND DEVELOPMENT	\$859,489,045
NURSING RESEARCH	93.361		UNIVERSITY OF COLORADO DENVER	FY18.105.016		\$46,815	\$7,046,118	RESEARCH AND DEVELOPMENT	\$859,489,045
NURSING RESEARCH	93.361		COLUMBIA UNIVERSITY	2(GG014705-01)		\$48,882	\$7,046,118	RESEARCH AND DEVELOPMENT	\$859,489,045
NURSING RESEARCH	93.361	1-K99-NR-019862-01				\$92,060	\$7,046,118	RESEARCH AND DEVELOPMENT	\$859,489,045
NURSING RESEARCH	93.361	1-K23-NR-018487-01				\$158,231	\$7,046,118	RESEARCH AND DEVELOPMENT	\$859,489,045
NURSING RESEARCH	93.361	1R21NR019047-01A1				\$219,174	\$7,046,118	RESEARCH AND DEVELOPMENT	\$859,489,045
NURSING RESEARCH	93.361	1-R01-NR-018425-01A1			\$228,822	\$383,592	\$7,046,118	RESEARCH AND DEVELOPMENT	\$859,489,045
NURSING RESEARCH	93.361	2-T32-NR-007104-21				\$407,870	\$7,046,118	RESEARCH AND DEVELOPMENT	\$859,489,045
NURSING RESEARCH	93.361	1R01NR018836-01				\$463,441	\$7,046,118	RESEARCH AND DEVELOPMENT	\$859,489,045
NURSING RESEARCH	93.361	7-R01-NR-012213-05			\$14,622	\$482,445	\$7,046,118	RESEARCH AND DEVELOPMENT	\$859,489,045
NURSING RESEARCH	93.361	2-R01-NR-016014-03			\$91,897	\$508,236	\$7,046,118	RESEARCH AND DEVELOPMENT	\$859,489,045
NURSING RESEARCH	93.361	2-R01-NR-015639-04			\$139,178	\$514,182	\$7,046,118	RESEARCH AND DEVELOPMENT	\$859,489,045
NURSING RESEARCH	93.361	2-T32-NR-009356-11				\$516,751	\$7,046,118	RESEARCH AND DEVELOPMENT	\$859,489,045
NURSING RESEARCH	93.361	1-R01-NR-019753-01				\$611,739	\$7,046,118	RESEARCH AND DEVELOPMENT	\$859,489,045
NURSING RESEARCH	93.361	1-R01-NR-017853-01A1				\$630,715	\$7,046,118	RESEARCH AND DEVELOPMENT	\$859,489,045
NURSING RESEARCH	93.361	1-R01-NR-018196-01				\$776,519	\$7,046,118	RESEARCH AND DEVELOPMENT	\$859,489,045
NURSING RESEARCH	93.361	2-R01-NR-014784-06			\$9,256	\$848,955	\$7,046,118	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
NURSING STUDENT LOAN GRADUATE OUTSTANDING NEW LOANS ISSUED DURING 2022	93.364					\$189,400	\$4,414,301	STUDENT FINANCIAL ASSISTANCE CLUSTER	\$257,653,947
NURSING STUDENT LOAN GRADUATE OUTSTANDING LOANS ISSUED AS OF 07/01/2021	93.364					\$411,918	\$4,414,301	STUDENT FINANCIAL ASSISTANCE CLUSTER	\$257,653,947
NURSING STUDENT LOAN UNDERGRADUATE NEW LOANS ISSUED DURING 2022	93.364					\$740,390	\$4,414,301	STUDENT FINANCIAL ASSISTANCE CLUSTER	\$257,653,947
NURSING STUDENT LOAN UNDERGRADUATE OUTSTANDING LOANS ISSUED AS OF 07/01/2021	93.364					\$3,072,593	\$4,414,301	STUDENT FINANCIAL ASSISTANCE CLUSTER	\$257,653,947
CDC PARTNER CRISIS RESPONSE; COMMUNITY BASED HEALTH DISPARITIES	93.391		PENNSYLVANIA DEPARTMENT OF HEALTH	SAP#4100091089		\$30,370	\$30,370	OTHER PROGRAMS	\$284,328,981
CANCER CAUSE AND PREVENTION RESEARCH	93.393	4-P01-CA-174439-04				-\$59,609	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393		YALE UNIVERSITY	M17A12539(A10702)		-\$9,078	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393		ROCKEFELLER UNIVERSITY	1-P01-CA-196539-01		-\$637	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393		MAYO CLINIC ROCHESTER	THE-188223-04		-\$362	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393	1-R01-CA-184315-01				-\$26	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393		ROCKEFELLER UNIVERSITY	SUB00000171		\$650	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393		FRED HUTCHINSON CANCER CENTER	0001110119		\$1,819	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393		UNIVERSITY OF MICHIGAN	3004298102		\$4,610	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393		OHIO STATE UNIVERSITY	60064995		\$7,564	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393		RESEARCH FOUNDATION FOR THE STATE UNIVERSITY OF NEW YORK	SUB TO 1R01CA206193		\$9,358	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393		WAKE FOREST UNIVERSITY HEALTH SCIENCES	477-101730-114410		\$11,907	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393		UNIVERSITY OF SOUTHERN CALIFORNIA	135979558		14835	\$11,767,235	RESEARCH AND DEVELOPMENT	859489045
CANCER CAUSE AND PREVENTION RESEARCH	93.393		UNIVERSITY OF CALIFORNIA, DAVIS	A18-0177-S014		\$16,948	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393		UNIVERSITY OF SOUTHERN CALIFORNIA	125902890		\$18,321	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393	1-R37-CA-259210-01A1				\$18,884	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393		NEW YORK UNIVERSITY	20-A1-00-1003518		\$20,401	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393		HARVARD UNIVERSITY	115005-5117695		\$27,839	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393		SUNY DOWNSTATE MEDICAL CENTER	100-1168659-91446		\$31,068	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393		HARVARD UNIVERSITY	117202-5111676		\$34,393	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393	1-F99-CA-264315-01				\$36,050	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393	1-R01-CA-206058-01				-\$1,135	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393	1-R01-CA-202262-01A1				\$48,548	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393		WISTAR INSTITUTE	25893-02-384		\$54,062	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393		UNIVERSITY OF CALIFORNIA, LOS ANGELES	1647 G CA089		\$56,111	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393		FOX CHASE CANCER CENTER	FCCC 15086-01		\$59,220	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393	1-R21-CA-227613-01A1				\$64,548	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393		YALE UNIVERSITY	GR108743(CON-80002262)		\$90,842	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393	1-R01-CA-207513-01				\$91,206	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393		WASHINGTON UNIVERSITY IN ST. LOUIS	WU-21-0451		\$100,489	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393	1R01CA258893-01A1				\$112,017	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393		MAYO CLINIC ROCHESTER	UOP-225625		\$152,354	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393	2-R01-CA-092900-15				\$170,705	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393	1R01CA259201-01A1				\$175,383	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393		HARVARD MEDICAL SCHOOL	1057501		\$199,907	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393	1-UE5-CA-246744-01				\$202,976	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393		UNIVERSITY OF CHICAGO	AWD101267 (SUB00000394)		\$204,571	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393	7-R01-CA-178744-06				\$237,977	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393	2R01CA190871-06A1				\$21,225	\$330,804	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393	1-R01-CA-202699-01A1				\$16,167	\$368,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393	1-R01-CA-230800-01A1				\$419,217	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393	2-R01-CA-138835-11				\$3,837	\$439,439	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

<i>Federal Awarding Agency/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification (Optional)</i>	<i>Name of Funder Pass-Through Entity</i>	<i>Identifying Number Assigned By Funder Pass-Through Entity</i>	<i>Total Amount Provided to Sub-Recipients</i>	<i>Federal Expenditures</i>	<i>Federal Program Total</i>	<i>Cluster Name</i>	<i>Cluster Total</i>
CANCER CAUSE AND PREVENTION RESEARCH	93.393	1-R01-CA-215518-01A1			\$1,686	\$446,516	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393	1-R01-CA-243914-01			\$129,496	\$460,532	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393	1-R01-CA-249210-01				\$464,496	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393	2-R01-CA-174904-06A1			\$3,741	\$478,237	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393	2-R01-CA-078831-20				\$487,532	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393	1-R01-CA-227188-01A1			\$1,628	\$519,343	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393	1R01CA215587-01			\$13,413	\$572,463	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393	7R01CA237670-02			\$392,575	\$644,279	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393	1-R01-CA-204193-01A1			\$439,665	\$675,193	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393	1-U01-CA-232836-01A1				\$726,164	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393	1-UM1-CA-239745-01				\$955,390	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CAUSE AND PREVENTION RESEARCH	93.393	2U01CA164947-05A1			\$12,569	\$1,525,538	\$11,767,235	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394		UNIVERSITY OF KANSAS MEDICAL CENTER	GR15769		-\$139,991	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394		MD ANDERSON CANCER CENTER	SUB TO UH2CA207101		-\$20,321	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394		CASE WESTERN RESERVE UNIVERSITY	RESS14087		-\$5,429	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394		UNIVERSITY OF TEXAS SOUTHWESTERN MEDICAL CENTER	GMO200103		-\$3,136	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	1-R01-CA-201328-01A1				-\$85	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394		JBS SCIENCE, INC.	R44CA165312-UP		\$2,911	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394		XEMED LLC	SUB TO R01CA255434-01		\$4,191	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	1-R01-CA-229502-01				\$4,205	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	1-R01-CA-269948-01				\$6,053	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394		RUTGERS UNIVERSITY	0347		\$8,671	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	2U24CA196172-06-UPA1		\$10,000	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	1-R01-CA-197000-01A1				\$10,599	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	1-R01-CA-193556-01A1			-\$6	\$10,860	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394		MD ANDERSON CANCER CENTER	3001900167		\$10,899	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00001548		\$12,362	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394		DANA-FARBER CANCER INSTITUTE	1308603		\$16,734	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	IDGRT-00000367		\$16,920	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	2U24CA196172-06-UPA2		\$20,000	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394		UNIVERSITY OF CONNECTICUT HEALTH CENTER	UCHC7-118312410		\$21,429	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00001548		\$24,606	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394		CASE WESTERN RESERVE UNIVERSITY	RESS11172		\$31,411	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	1-R01-CA-191207-01A1				\$33,314	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	107245C		\$36,101	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394		PENNSYLVANIA STATE UNIVERSITY	5001759-DHHS		\$41,706	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394		NEW YORK UNIVERSITY	19-A1-00-1002648		\$43,844	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394		JOHNS HOPKINS UNIVERSITY	SUB TO U01CA210170		\$48,070	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394		UNIVERSITY OF MARYLAND	1903275 REQUEST: 2658		\$52,617	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	1-R01-CA-266285-01				\$54,974	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394		NORTHWESTERN UNIVERSITY	60058933 PENN		\$61,281	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394		UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL	5114713		\$72,646	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	1-R21-CA-27056-01				\$87,207	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	1R01CA268601-01			\$61,683	\$92,767	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	2-R01-CA-113941-10				\$103,011	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	1R01CA255350-01A1				\$117,221	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	1R21CA236653-01A1				\$128,798	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394		MEDICAL UNIVERSITY OF SOUTH CAROLINA	A20-0088-5002		\$134,408	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394		MAYO CLINIC ROCHESTER	THE-216870		\$163,802	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	1-R33-CA-206907-01A1				\$172,893	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	1-R01-CA-196528-01A1				\$194,363	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	1-R01-CA-207643-01			\$16,187	\$198,779	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	1-R01-CA-193050-01				\$202,126	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	1-R01-CA-204446-01A1				\$216,552	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	1-R01-CA-211337-01				\$225,351	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	1R01CA258715-01A1				\$229,018	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	2R01CA113941-15A1				\$276,991	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	1-R01-CA-226412-01				\$315,187	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	7-R33-CA-225539-03				\$347,347	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	1-U01-CA-242871-01			\$17,223	\$408,800	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	1-R01-CA-204261-01A1			\$298	\$418,086	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	1-R01-CA-255748-01A1				\$426,770	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	1-R01-CA-229502-01			\$97,619	\$438,627	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	1-R01-CA-236362-01				\$446,403	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	1-R01-CA-255655-01			\$54,363	\$468,715	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	1-R01-CA-250102-01				\$479,798	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	1-R01-CA-227142-01			\$117,913	\$506,691	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	1-R01-CA-264835-01				\$507,605	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	1-R01-CA-238552-01A1				\$546,208	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	2-R01-CA-161749-05			\$124,158	\$548,587	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	1R01CA228457-01A1			\$141,411	\$553,642	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	1-R01-CA-227485-01A1			\$364,193	\$587,498	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	1-R01-CA-223816-01A1				\$593,364	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	1-R01-CA-251764-01				\$675,322	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	1-R01-CA-258717-01			\$422,816	\$717,887	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	1-U24-CA-231858-01				\$747,198	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER DETECTION AND DIAGNOSIS RESEARCH	93.394	1-R01-CA-225874-01A1				\$753,702	\$13,518,166	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	U10CA180820-02-UPA10		-\$3,981	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	1-R01-CA-197332-01				-\$2,943	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	1-R01-CA-168900-01				-\$459	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		WISTAR INSTITUTE	24672-02-366		-\$194	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	1-R01-CA-197332-01			-\$89	-\$89	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	1-R01-CA-174976-01A1				-\$54	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		JOHNS HOPKINS UNIVERSITY	ABTC 1501 (BMS# CA209-596)		\$96	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	1-R21-CA-223366-01A1				\$781	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		JOHNS HOPKINS UNIVERSITY	ABTC1401		\$1,000	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		UNIVERSITY OF CHICAGO	AWD102962 (SUB00000685)		\$3,600	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		HARVARD MEDICAL SCHOOL	235481		\$4,583	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	U-10-CA-180820-06UPA5C		\$5,250	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		ONCOSTING LLC	SUB TO 1R44CA261506-01A1		\$6,512	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		(UNASSIGNABLE) MOUNT SINAI MEDICAL CENTER	0254-3503-4605		\$6,571	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		JOHNS HOPKINS UNIVERSITY	ABTC 1801		\$7,081	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		NRG ONCOLOGY	NRG-XIAO-GY6		\$7,145	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		PUBLIC HEALTH INSTITUTE	AR04419		\$7,519	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	9500130220-XX		\$9,398	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	1R13CA257481-01A1				\$10,696	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	U10CA180820-06UPA6C		\$13,333	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		NRG ONCOLOGY	NRG-LANGER-GY6		\$15,000	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		NRG ONCOLOGY	NRG-PRYMA-GY6		\$15,000	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
CANCER TREATMENT RESEARCH	93.395	1R01CA270483-01				\$15,735	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	U10CA180820-06UPA1C		\$16,008	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	U10CA180820-06-UPA2C		\$17,969	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00000465		\$19,019	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	U10CA180820-06-UPA2A		\$20,014	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		BRIGHAM AND WOMEN'S HOSPITAL	121298		\$21,165	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	1-R01-CA-182747-01A1				\$21,688	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		WASHINGTON UNIVERSITY IN ST. LOUIS	WU-22-0269		\$22,765	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	SUB TO UG1CA233249		\$24,073	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		AIDS MALIGNANCY CONSORTIUM UNIVERSITY OF BUFFALO	SUB TO UM1CA121947 R1275689		\$24,091	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	1-R01-CA-198015-01				\$30,223	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		CASE WESTERN RESERVE UNIVERSITY	RESS16736		\$34,698	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	1R01CA260902-01A1				\$35,045	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		UNIVERSITY OF NEW MEXICO HEALTH SCIENCES CENTER	3RFW6		\$37,946	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		LINNAEUS THERAPEUTICS	SUB TO 2R44CA228695		\$41,647	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		GOG FOUNDATION	27469-025		\$44,845	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	1-R21-CA-224267-01A1				\$50,769	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	1R37CA262362-01A1				\$53,812	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	1R01CA266404-01				\$55,520	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		UNIVERSITY OF CALIFORNIA, LOS ANGELES	1670 G WC216		\$65,507	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	1R01CA259037-01A1				\$66,998	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	7R01CA102613-12				\$68,000	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	1-R01-CA-201071-01A1				\$69,492	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		EMMES CORPORATION	7 UM1CA121947-15		\$70,480	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	1R21CA252558-01				\$74,856	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	U10CA180820-06UPA1A		\$94,483	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	1-R21-CA-239127-01A1				\$96,049	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		NRG ONCOLOGY	04-225-0712		\$105,048	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	U10CA180820-06-U PA3A		\$106,770	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	1R21CA238108-01A1				\$116,192	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		ALPHATHERA	SUB TO R44CA221374-02		\$120,438	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		WISTAR INSTITUTE	24926-13-314	\$1,929	\$122,162	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		UNIVERSITY OF NEBRASKA	34-2005-2096-001		\$124,603	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	1R33CA256086-01A1				\$136,497	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		WASHINGTON UNIVERSITY IN ST. LOUIS	WU-22-0114		\$141,609	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		EMMES CORPORATION	SUB TO 2UM1CA121947-14		\$142,164	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		MASSACHUSETTS GENERAL HOSPITAL	231928		\$143,931	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		RTOG FOUNDATION, INC.	UPENN-NCTN-YR6-11		\$163,083	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	4-R00-CA-226399-03				\$197,943	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		TREVARX BIOMEDICAL INC.	SUB TO R41CA261259		\$215,030	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		FRONTIER SCIENCE & TECHNOLOGY RESEARCH FDN	ECOG PURCHASE SERVICE AGREEMENT		\$222,625	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		WISTAR INSTITUTE	SUB TO P01CA114046		\$228,882	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	1-R01-CA-262584-01				\$235,441	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395					\$246,593	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
CANCER TREATMENT RESEARCH	93.395	1-R01-CA-247803-01				\$261,819	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	1-R01-CA-262070-01				\$306,361	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	R37-CA-215436				\$309,720	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	2-P01-CA-087971-11A1				\$315,175	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	1-R01-CA-208273-01A1				\$349,209	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	1-P01-CA-257904-01A1				\$354,027	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		WISTAR INSTITUTE	24926-04-314		\$363,906	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	1-R01-CA-219034-01A1				\$378,328	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	1-R01-CA-244845-01A1			\$28,828	\$404,835	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	2-R01-CA-019033-41				\$410,285	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	1-R01-CA-219871-01A1			\$143,454	\$438,563	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	9-R01-CA-249929-06A1				\$488,042	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395		AMERICAN COLLEGE OF RADIOLOGY	1823		\$488,552	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	1-R01-CA-238237-01A1			\$233,381	\$529,824	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	1-R01-CA-241762-01				\$567,011	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	1-R01-CA-219006-01A1			\$16,116	\$615,210	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	1-R01-CA-229305-01A1			\$1,476	\$699,264	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	1-R01-CA-229803-01				\$700,729	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER TREATMENT RESEARCH	93.395	1-P01-CA-217805-01A1				\$1,702,382	\$13,750,995	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	2-R01-CA-098371-11				-\$96,989	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	1-R01-CA-193602-01A1				-\$1,491	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396		SANFORD BURNHAM PREBYS MEDICAL DISCOVERY INSTITUTE	SUB TO P01CA128814		-\$509	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	1-R01-CA-197916-01A1				-\$105	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396		WISTAR INSTITUTE	25681-02-373		\$1,757	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	1-R01-CA-196232-01A1				\$4,693	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396		WISTAR INSTITUTE	25241-02-370		\$7,376	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396		WISTAR INSTITUTE	25820-03-369		\$7,518	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396		UNIVERSITY OF TEXAS SOUTHWESTERN MEDICAL CENTER LANKENAU INSTITUTE FOR MEDICAL RESEARCH	GMO:200704		\$9,740	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	06301-3431		\$10,376	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396			GRT-00000999		\$10,460	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	2R56CA118374-12A1				\$16,916	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396		BRIGHAM AND WOMEN'S HOSPITAL UNIVERSITY OF ALABAMA AT BIRMINGHAM	118360		\$20,126	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396			000531784-SC003		\$20,416	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	1R01CA248041-01A1				\$21,403	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	1-R01-CA-187392-01A1				\$21,680	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	1R01CA262055-01A1				\$22,151	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	2-P01-CA-104838-11			\$2,636	\$23,238	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396		WISTAR INSTITUTE	25651-02-366		\$23,503	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396		WISTAR INSTITUTE	28994-30-359		\$25,637	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	1-R01-CA-206012-01			\$27	\$28,756	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396		MEMORIAL SLOAN-KETTERING CANCER CENTER	BD526705		\$42,540	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	1R01CA268597-01			\$2,697	\$71,366	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	1R01CA259307-01A1				\$94,817	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	2R01CA197916-06A1				\$98,541	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	1-R01-CA-250173-01A1				\$107,697	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396		UNIVERSITY OF VIRGINIA	GB10749		\$112,065	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	1-R50-CA-221841-01				\$116,860	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	1-R01-CA-198089-01			\$64,299	\$130,202	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	1R01CA258904-01A1				\$152,855	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	2-R01-CA-143296-06A1				\$188,925	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396		WISTAR INSTITUTE	29017-03-382		\$196,162	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to		Federal Program Total	Cluster Name	Cluster Total
					Sub-Recipients	Expenditures			
CANCER BIOLOGY RESEARCH	93.396	1R01CA258113-01A1			\$6,749	\$199,820	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	1-R01-CA-237243-01A1			\$3,276	\$208,070	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	R01CA187718				\$210,745	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396		JOHNS HOPKINS UNIVERSITY	2004720261		\$219,999	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	2-R01-CA-148774-06				\$225,958	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	1-R01-CA-222503-01A1				\$227,147	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	2R01CA207513-06A1				\$232,883	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	1-R01-CA-237200-01A1			\$2,148	\$242,769	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396		WISTAR INSTITUTE	25491-02-363		\$251,383	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	2-R01-CA-158301-06A1			\$17,614	\$267,664	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	1-R01-CA-245323-01				\$274,243	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	1R01CA262619-01A1				\$277,987	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	4-R00-CA-226400-03				\$280,045	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	1-R37-CA-234027-01				\$292,694	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	7-R01-CA-227124-02				\$309,813	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	2-R01-CA-168654-06				\$310,571	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	2R01CA174761-06A1			\$54,622	\$334,990	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	1-R01-CA-235760-01A1				\$340,235	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	1-R01-CA-243520-01A1				\$359,192	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	1-R01-CA-219083-01				\$385,227	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	1-U01-CA-250044-01A1			\$129,532	\$426,140	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	1-R01-CA-228339-01			\$58,221	\$440,469	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	1-R01-CA-231021-01A1				\$454,150	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	1-R01-CA-234005-01A1				\$454,921	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	1-R01-CA-226983-01				\$457,199	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	1R01CA248315-01				\$486,879	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	1-R01-CA-240814-01A1			\$11,735	\$516,137	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	1-R01-CA-229688-01A1				\$553,757	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	1-R01-CA-241501-01A1				\$554,325	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396		KAISER PERMANENTE	RNG209451-PENN-01		\$564,130	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	1-U01-CA-227550-01			\$285,095	\$604,878	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	1U01CA254886-01				\$901,287	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	2-P01-CA-165997-06A1			\$379,398	\$953,985	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER BIOLOGY RESEARCH	93.396	1-R35-CA-220483-01				\$976,273	\$15,284,647	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CENTERS SUPPORT GRANTS	93.397		WISTAR INSTITUTE	24961-05-314		-\$2,472	\$12,418,941	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CENTERS SUPPORT GRANTS	93.397	2-P30-CA-016520-40				-\$1,582	\$12,418,941	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CENTERS SUPPORT GRANTS	93.397		UNIVERSITY OF TEXAS	11111240/98018100		-\$1,312	\$12,418,941	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CENTERS SUPPORT GRANTS	93.397	2-P30-CA-016520-40			-\$236	-\$236	\$12,418,941	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CENTERS SUPPORT GRANTS	93.397	1-U54-CA-193417-01				\$2,493	\$12,418,941	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CENTERS SUPPORT GRANTS	93.397		COLD SPRING HARBOR LABORATORY	25103074		\$2,900	\$12,418,941	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CENTERS SUPPORT GRANTS	93.397		MAYO CLINIC ROCHESTER	UOP-182363		\$12,510	\$12,418,941	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CENTERS SUPPORT GRANTS	93.397		MD ANDERSON CANCER CENTER	SUB TO P50CA221707		\$16,365	\$12,418,941	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CENTERS SUPPORT GRANTS	93.397		COLUMBIA UNIVERSITY	1(GG012789-18) PROJECT 2		\$17,448	\$12,418,941	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CENTERS SUPPORT GRANTS	93.397		WISTAR INSTITUTE	24961-06-314		\$17,551	\$12,418,941	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CENTERS SUPPORT GRANTS	93.397		MD ANDERSON CANCER CENTER	3001631191		\$23,313	\$12,418,941	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CENTERS SUPPORT GRANTS	93.397		WISTAR INSTITUTE	29050-08-314		\$45,092	\$12,418,941	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CENTERS SUPPORT GRANTS	93.397		COLUMBIA UNIVERSITY	3(GG012789-03)		\$49,668	\$12,418,941	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CENTERS SUPPORT GRANTS	93.397		COLUMBIA UNIVERSITY	2(GG012789-04)		\$64,748	\$12,418,941	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CENTERS SUPPORT GRANTS	93.397		JOHNS HOPKINS UNIVERSITY	2003261994		\$111,409	\$12,418,941	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CENTERS SUPPORT GRANTS	93.397		WISTAR INSTITUTE	29050-10-314 CORE C		\$133,414	\$12,418,941	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CENTERS SUPPORT GRANTS	93.397	1-U54-CA-190158-01				\$139,859	\$12,418,941	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CENTERS SUPPORT GRANTS	93.397		WISTAR INSTITUTE	29050-06-314 PROJECT 3		\$139,860	\$12,418,941	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CENTERS SUPPORT GRANTS	93.397		MASSACHUSETTS INSTITUTE OF TECHNOLOGY	55595		\$143,595	\$12,418,941	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CENTERS SUPPORT GRANTS	93.397		WISTAR INSTITUTE	29050-08-314		\$179,669	\$12,418,941	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CENTERS SUPPORT GRANTS	93.397		JOHNS HOPKINS UNIVERSITY	2004131859		\$552,031	\$12,418,941	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CENTERS SUPPORT GRANTS	93.397	2-P30-CA-016520-45			\$966,233	\$10,772,618	\$12,418,941	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-F32-CA-221010-01A1				-\$1,810	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	2-K12-CA-076931-16A1				-\$512	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.



Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Program		Cluster Name	Cluster Total	
						Federal Expenditures	Federal Program Total			
CANCER RESEARCH MANPOWER	93.398	1-F31-CA-239428-01					\$-11	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-F31-CA-239514-01					-\$2	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-F31-CA-232468-01					\$941	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-K08-CA-194256-01					\$4,290	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1F31CA271692-01					\$5,006	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-F32-CA-228285-01					\$6,302	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-F31-CA-254075-01A1					\$8,387	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	4-R00-CA-256353-02					\$14,341	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-F31-CA-232551-01A1					\$14,533	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	4-K00-CA-212437-02					\$16,550	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1F31CA261041-01A1					\$19,676	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1F31CA265257-01					\$23,796	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1F30CA268782-01					\$23,992	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-F31-CA-254329-01					\$30,549	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-F31-CA-247348-01					\$30,610	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-F30-CA-253989-01					\$30,815	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-F31-CA-254405-01					\$32,039	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-F31-CA-254260-01					\$32,606	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-F31-CA-239424-01A1					\$39,104	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-F31-CA-250267-01					\$40,321	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-F31-CA-265218-01					\$41,384	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-F31-CA-260922-01					\$42,571	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-F31-CA-250316-01					\$44,284	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-F31-CA-254244-01					\$44,335	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-F32-CA-261023-01					\$44,818	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1F31CA265323-01					\$45,199	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-F31-CA-265219-01					\$45,350	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-F31-CA-260781-01					\$46,123	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-F30-CA-257287-01					\$47,841	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1F30CA265069-01					\$49,844	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-F31-CA-260918-01					\$50,048	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-F30-CA-261198-01					\$50,585	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1F31CA261124-01					\$52,889	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-F32-CA-250144-01A1					\$52,985	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	: 1 F31 CA261156-01					\$54,845	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1F30CA260944-01					\$60,297	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-K22-CA-214849-01					\$60,602	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-F32-CA-254210-01					\$71,754	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	4-K00-CA-245802-03					\$78,887	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	7-K08-CA-241390-03					\$112,206	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-K07-CA-218366-01A1					\$132,560	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-K08-CA-252619-01A1					\$133,112	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-K99-CA-252153-01A1					\$139,865	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-K08-CA-263541-01					\$177,507	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-K08-CA-234335-01					\$200,080	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-K08-CA-230157-01A1					\$201,416	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-K08-CA-215312-01A1					\$205,751	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-K08-CA-241084-01					\$229,354	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-K08-CA-234326-01					\$236,689	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	2-R25-CA-140116-11					\$241,653	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	2-T32-CA-115299-11					\$278,513	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-K08-CA-230170-01A1					\$312,402	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	1-T32-CA-251063-01					\$364,956	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	2-T32-CA-009615-31					\$413,806	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	2-T32-CA-009679-26A1					\$460,131	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	2-T32-CA-009140-46					\$552,546	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER RESEARCH MANPOWER	93.398	2-K12-CA-076931-21				\$60,116	\$661,573	\$6,410,284	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CONTROL	93.399		NRG ONCOLOGY	NRG ONCOLOGY FOUNDATION			\$475	\$2,751,786	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CONTROL	93.399		OREGON HEALTH & SCIENCE UNIVERSITY	1014562_UPENN			\$15,453	\$2,751,786	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
CANCER CONTROL	93.399		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	UG1CA189828-07-UPA6		\$26,659	\$2,751,786	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CONTROL	93.399		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	UG1CA189828-06-UPA3		\$27,248	\$2,751,786	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CONTROL	93.399		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	UG1CA89828-06-UPA4		\$50,327	\$2,751,786	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CONTROL	93.399		ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	UG1CA189828-06-UPA3		\$57,161	\$2,751,786	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CONTROL	93.399	1-R21-CA-239177-01A1				\$169,045	\$2,751,786	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CONTROL	93.399	1-R01-CA-225929-01A1				\$288,486	\$2,751,786	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CONTROL	93.399	1-R01-CA-241661-01				\$343,316	\$2,751,786	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CONTROL	93.399	1R01CA236468-01A1			\$55,478	\$511,617	\$2,751,786	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CONTROL	93.399	1-R01-CA-244074-01				\$520,803	\$2,751,786	RESEARCH AND DEVELOPMENT	\$859,489,045
CANCER CONTROL	93.399	1-R01-CA-226888-01A1			\$82,883	\$741,196	\$2,751,786	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - STRENGTHENING PUBLIC HEALTH SYSTEMS AND SERVICES THROUGH NATIONAL PARTNERSHIPS TO IMPROVE AND PROTECT THE NATIONS HEALTH	93.421		UNIVERSITY OF VERMONT & STATE AGRICULTURAL COLLEGE	AWD00000288SUB00000140		\$68,358	\$68,358	RESEARCH AND DEVELOPMENT	\$859,489,045
INNOVATIVE STATE AND LOCAL PUBLIC HEALTH STRATEGIES TO PREVENT AND MANAGE DIABETES AND HEART DISEASE AND STROKE-	93.435		CITY OF PHILADELPHIA	2020657		\$205,187	\$205,187	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 TESTING FOR THE UNINSURED	93.461	N/A				\$1,860,273	\$1,860,273	OTHER PROGRAMS	\$284,328,981
PROVIDER RELIEF FUND	93.498	N/A				\$201,281,475	\$201,281,475	OTHER PROGRAMS	\$284,328,981
AFFORDABLE CARE ACT (ACA) MATERNAL, INFANT AND EARLY CHILDHOOD HOME VISITING PROGRAM	93.505		UNITED WAY OF LANCASTER COUNTY PUBLIC HEALTH MANAGEMENT CORPORATION	4100070241		\$1,133,024	\$1,133,024	OTHER PROGRAMS	\$284,328,981
CHILD CARE AND DEVELOPMENT BLOCK GRANT	93.575			8690062213		\$295,949	\$609,322	CCDF CLUSTER	\$609,322
COVID-19 - CHILD CARE AND DEVELOPMENT BLOCK GRANT	93.575		CARING PEOPLE ALLIANCE	RELIEF AWARD		\$313,373	\$609,322	CCDF CLUSTER	\$609,322
SOCIAL SERVICES BLOCK GRANT	93.667		CITY OF PHILADELPHIA	2120005-01		\$156,186	\$156,186	OTHER PROGRAMS	\$284,328,981
CHILD ABUSE AND NEGLECT STATE GRANTS	93.669		LANCASTER COUNTY CHILDREN & YOUTH	N/A		\$49,975	\$49,975	OTHER PROGRAMS	\$284,328,981
HRSA EHE-A PLAN FOR AMERICA	93.686		CITY OF PHILADELPHIA	2120559-02		\$123,311	\$434,769	OTHER PROGRAMS	\$284,328,981
HRSA EHE-A PLAN FOR AMERICA	93.686		CITY OF PHILADELPHIA	2120559-01		\$311,458	\$434,769	OTHER PROGRAMS	\$284,328,981
MENTAL AND BEHAVIORAL HEALTH EDUCATION AND TRAINING GRANTS	93.732	1 M01HP31346-01-00				\$25,235	\$370,613	RESEARCH AND DEVELOPMENT	\$859,489,045
MENTAL AND BEHAVIORAL HEALTH EDUCATION AND TRAINING GRANTS	93.732	2 M01HP31346-05-00				\$345,378	\$370,613	RESEARCH AND DEVELOPMENT	\$859,489,045
IDS BASE UNITARY	93.778		CITY OF PHILADELPHIA	2120440-01		\$165,535	\$165,535	MEDICAID CLUSTER	\$165,535
OPIOID STR	93.788		PENNSYLVANIA DEPARTMENT OF HEALTH	SAP# 4100086433		\$5,091	\$671,993	OTHER PROGRAMS	\$284,328,981
LANC CO. PREVENTION PARTNERSHIP CONTINUATION	93.788		PENNSYLVANIA COMMISSION ON CRIME & DELINQUENCY	2021-OG-OM-35967		\$105,520	\$671,993	OTHER PROGRAMS	\$284,328,981
DDAP - SUPPORT FOR PREGNANT WOMAN WITH OUD	93.788		PENNSYLVANIA DEPARTMENT OF HEALTH	SAP# 4100085564		\$127,027	\$671,993	OTHER PROGRAMS	\$284,328,981
OPIOID STR	93.788		PENNSYLVANIA DEPARTMENT OF HEALTH	SAP# 4100089429		\$134,355	\$671,993	OTHER PROGRAMS	\$284,328,981
DDAP - SUPPORT FOR PREGNANT WOMAN WITH OUD	93.788		PENNSYLVANIA DEPARTMENT OF HEALTH	SAP# 4100090517		\$300,000	\$671,993	OTHER PROGRAMS	\$284,328,981
CARDIOVASCULAR DISEASES RESEARCH	93.837	2-P01-HL-059407-16A1				-\$49,185	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	2-T32-HL-098054-096A1				-\$30,261	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		ONOCOR	SUB TO R41HL139309		-\$20,195	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-133502-01				-\$19,048	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-133080-01				-\$12,609	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	7-R01-HL128349-03				-\$10,869	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		YALE UNIVERSITY	GR105897 (CON-80001728)		-\$10,092	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	2-P01-HL-059407-16A1			-\$8,312	-\$8,312	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		UNIVERSITY OF CINCINNATI	010575-002		-\$4,123	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-111553-01A1				-\$3,214	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		UNIVERSITY OF VIRGINIA	SUB TO U01HL117006-01A1		-\$2,824	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-K23-HL-140176-01				-\$2,561	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
CARDIOVASCULAR DISEASES RESEARCH	93.837	2-T32-HL-007586-31				-\$1,945	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-126788-01A1				-\$1,865	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-141294-01				-\$1,131	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		MCGUIRE RESEARCH INSTITUTE	N/A		-\$1,067	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-105734-01A1				-\$368	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		UNIVERSITY OF TEXAS SOUTHWESTERN MEDICAL CENTER	GMO 190906		-\$51	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	4-R37-HL-055323-18				-\$40	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		UNIVERSITY OF KENTUCKY	3200000734-18-040		\$66	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-141759-01				\$87	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - CARDIOVASCULAR DISEASES RESEARCH	93.837		UNIVERSITY OF FLORIDA	SUB00002544		\$158	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - CARDIOVASCULAR DISEASES RESEARCH	93.837	1U01HL160277-01				\$186	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		LAM FOUNDATION	SUB TO U54HL127672		\$245	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-F31-HL-142160-01				\$1,172	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		UNIVERSITY OF SOUTH CAROLINA ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI	18-3554 0255-A343-4605		\$1,347 \$1,447	\$39,045,043 \$39,045,043	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$859,489,045 \$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-F31-HL-143857-01				\$2,110	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		UNIVERSITY OF DELAWARE CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	59744 GRT-00001011		\$2,719 \$3,817	\$39,045,043 \$39,045,043	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$859,489,045 \$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1F31HL160065-01A1				\$5,626	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-F31-HL-156431-01				\$6,591	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		GEORGE WASHINGTON UNIVERSITY	SUB TO U24HL140168		\$6,953	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		UNIVERSITY OF FLORIDA	SUB00002544		\$7,584	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		UNIVERSITY OF MINNESOTA	N006187419		\$7,982	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		OHIO STATE UNIVERSITY	60077528		\$8,368	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1F31HL160114-01				\$8,612	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		DREXEL UNIVERSITY CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	900181 320823.1222		\$8,618 \$9,817	\$39,045,043 \$39,045,043	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$859,489,045 \$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		UNIVERSITY OF TEXAS SOUTHWESTERN MEDICAL CENTER	SUB TO R01HL153499		\$12,531	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		UNIVERSITY OF CALIFORNIA, SAN DIEGO	KR 704787		\$14,580	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-134853-01				\$15,205	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		UNIVERSITY OF WASHINGTON	UWSC8520		\$15,583	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		RUTGERS UNIVERSITY	8254		\$15,680	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		DUKE UNIVERSITY	2035542		\$16,931	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-145437-01				\$17,141	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		UNIVERSITY OF CONNECTICUT BECKMAN RESEARCH INSTITUTE OF THE CITY OF HOPE	UCHC7-122008437 61695.2007934.669303		\$19,396 \$19,925	\$39,045,043 \$39,045,043	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$859,489,045 \$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		CARDIOSOLV ABLATION TECHNOLOGIES, INC	SUB TO R44HL124901		\$20,239	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1 F32 HL160107-01				\$20,895	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-F31-HL-158217-01				\$21,021	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-131557-01				\$21,999	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		STANFORD UNIVERSITY	62473906-137321		\$24,633	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		UNIVERSITY OF ALABAMA AT BIRMINGHAM	000503570-010		\$24,834	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-F31-HL-147416-01				\$28,819	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	7-R01-HL128349-03			\$29,725	\$29,725	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		NORTHWESTERN UNIVERSITY	60060152 PENN		\$31,866	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-F30-HL-142186-01A1				\$32,552	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		BRIGHAM AND WOMEN'S HOSPITAL	SUB TO 1U01HL23336/A5332/A5333		\$34,749	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
CARDIOVASCULAR DISEASES RESEARCH	93.837		UNIVERSITY OF MICHIGAN	SUBK00012346		\$37,289	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	12851SC		\$38,956	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		UNIVERSITY OF ALABAMA AT BIRMINGHAM	000530812-SC021		\$39,621	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL	5120345		\$45,356	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1F31HL158152-01				\$46,021	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - CARDIOVASCULAR DISEASES RESEARCH	93.837		TULANE UNIVERSITY	TUL-HSC-559479-21/22		\$47,013	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		OHIO STATE UNIVERSITY	GR127216/SPC-1000006756		\$49,978	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1 F30 HL158014-01				\$50,992	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1R01HL161303-01				\$51,325	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-F31-HL-149162-01				\$56,105	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1R01HL162795-01				\$56,462	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-134923-01				\$56,863	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3201690324		\$57,890	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		TULANE UNIVERSITY	TUL-HSC-559478-21/22		\$60,391	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		RESEARCH TRIANGLE INSTITUTE	9-312-0217457-66026L		\$61,821	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		THOMAS JEFFERSON UNIVERSITY	080-18007-536301		\$62,885	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R21-HL-141802-01			\$2,575	\$62,926	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R03-HL-154232-01				\$66,867	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1F32HL158027-01				\$67,864	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-0000005		\$70,960	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		JOHNS HOPKINS UNIVERSITY	2005149449		\$72,432	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	12918SC		\$73,221	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R21-HL-157886-01				\$75,412	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00001011		\$76,151	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI	0255-E031-4609		\$77,136	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI	0255-E641-4609		\$78,586	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	ACTIVITY #3201170622		\$83,507	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-K08-HL-136858-01A1				\$85,886	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		ROCHESTER INSTITUTE OF TECHNOLOGY	31998-01		\$85,999	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-K23-HL-133843-01				\$89,078	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - CARDIOVASCULAR DISEASES RESEARCH	93.837	1-K24-HL-157621-01				\$94,006	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00000659-0822-51		\$94,488	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R21-HL-156234-01				\$95,581	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1R56HL158696-01				\$98,952	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-134904-01				\$99,384	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-133218-01A1			\$764	\$101,062	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	FP1897_SUB01_01		\$101,857	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-K01-HL-141643-01				\$102,925	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - CARDIOVASCULAR DISEASES RESEARCH	93.837	1R01HL157108-01A1				\$105,696	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-K08-HL-132101-01				\$108,767	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		MASSACHUSETTS GENERAL HOSPITAL	SUB TO1R01HL130539-01AL		\$112,342	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-K01-HL-143153-01				\$119,164	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-K08-HL-138269-01				\$124,161	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1U01HL160277-01				\$125,810	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-148103-01A1			\$26,853	\$131,175	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-K08-HL-159344-01				\$132,948	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

<i>Federal Awarding Agency/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification (Optional)</i>	<i>Name of Funder Pass-Through Entity</i>	<i>Identifying Number Assigned By Funder Pass-Through Entity</i>	<i>Total Amount Provided to Sub-Recipients</i>	<i>Federal Expenditures</i>	<i>Federal Program Total</i>	<i>Cluster Name</i>	<i>Cluster Total</i>	
CARDIOVASCULAR DISEASES RESEARCH	93.837		MASSACHUSETTS GENERAL HOSPITAL	234357		\$137,391	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837		YALE UNIVERSITY	GR102136 (CON-80001158)		\$138,981	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837		COLUMBIA UNIVERSITY	1(GG012810-01)		\$140,193	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837		COLUMBIA UNIVERSITY	1(GG015877-01)		\$144,765	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	2 R01 HL133080-06				\$156,843	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-K23-HL-143161-01A1				\$160,777	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837		MEDICAL COLLEGE OF WISCONSIN	SUB TO R01HL142791			\$162,083	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-136719-01			\$3,865	\$163,234	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R34-HL-146927-01			\$7,175	\$164,862	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-K23-HL-153667-01				\$178,029	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837		UNIVERSITY OF TEXAS AT AUSTIN	UTA18-00758		\$181,377	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R21-HL-152148-01			\$52,365	\$187,322	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-121510-01A1			\$16,162	\$187,414	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-K23-HL-153772-01				\$198,459	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R21-HL-150723-01			\$16,132	\$199,188	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837		UNIVERSITY OF ILLINOIS	097337-17723		\$206,431	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-K08-HL-136890-01				\$214,941	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837		PROHIBIX, LLC	SUB TO R44HL140645		\$216,743	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R38-HL-143613-01				\$228,125	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837		UNIVERSITY OF FLORIDA	SUB00003130		\$242,228	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	4-R00-HL-141678-03				\$254,273	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1R01HL157160-01A1			\$13,715	\$259,640	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	7-R01-HL-134647-02			\$28,762	\$261,898	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	2-R01-HL-108119-06A1				\$281,524	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1R01HL152707-01			\$78,653	\$283,272	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-139783-01A1				\$286,836	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-139358-01				\$297,902	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-131613-01A1			\$2,611	\$303,240	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-129805-01A1				\$311,594	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	2-R01-HL-103723-05			\$26,888	\$323,398	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-137232-01A1				\$348,315	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-138306-01A1			\$17,197	\$362,717	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-141462-01A1				\$363,263	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-135090-01A1				\$368,230	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1R01HL151292-01			\$99,583	\$372,938	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1R01HL155198-01				\$375,881	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-149801-01A1				\$391,636	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	2-T32-HL-007891-21A1				\$419,121	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-152446-01				\$430,571	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-137984-01A1			\$8	\$462,854	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-157997-01			\$176,689	\$463,939	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-153646-01				\$468,646	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	2-R01-HL-133502-05A1				\$482,865	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-DP2-HL-142044-01				\$503,897	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-141759-01				\$504,686	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-134905-01			\$24,715	\$506,553	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-152086-01				\$508,972	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	2-T32-HL-098054-11				\$513,416	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-147379-01				\$520,426	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-155599-01			\$32,365	\$537,478	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1R01HL152430-01				\$538,314	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-157264-01			\$29,174	\$545,721	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	2-UM1-HL-088957-11			\$14,296	\$549,385	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-133339-01A1			\$187,693	\$550,263	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	2R01HL058493-23			\$9,222	\$558,173	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-146662-01A1				\$581,496	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-148272-01A1			\$2,356	\$587,293	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-142893-01			\$352,922	\$588,663	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045	

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-141912-01A1				\$602,986	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - CARDIOVASCULAR DISEASES RESEARCH	93.837	1R01HL151292-01			\$18,761	\$622,645	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-151277-01A1			\$366,513	\$640,220	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	2-T32-HL-007843-21				\$650,750	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-153224-01			\$16,837	\$671,102	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-151345-01			\$21,788	\$679,495	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-147256-01			\$34,358	\$705,334	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-DP2-HL-147123-01				\$723,012	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R61-HL-146390-01				\$727,484	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	2-R01-HL-073021-10A1			\$354,622	\$788,086	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		BOSTON UNIVERSITY	4500003022		\$796,993	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-155106-01				\$802,829	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-148769-01				\$826,581	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R35-HL-145203-01				\$827,804	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R61-HL-141440-01				\$838,117	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-141232-01A1				\$838,800	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-149891-01				\$869,728	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R35-HL-140018-01				\$901,020	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	1-R01-HL-141844-01A1			\$15,185	\$954,682	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		UNIVERSITY OF SOUTH FLORIDA	6143-1210-00-B		\$43,315	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837		ATTUNE MEDICAL	SUB TO R44HL158375		\$62,673	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
CARDIOVASCULAR DISEASES RESEARCH	93.837	2R01HL128349-06			\$24,946	\$617,352	\$39,045,043	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838		LIGNAMED	N/A		-\$28	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-F32-HL-151114-01				\$57	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-R03-HL-144890-01				\$107	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838		ALBERT EINSTEIN COLLEGE OF MEDICINE, INC	311072		\$986	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	7R01HL112987-07				\$1,378	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1F30HL162465-01A1				\$2,196	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-F30-HL-145907-01A1				\$3,599	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-K08-HL-136698-01A1				\$3,737	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - LUNG DISEASES RESEARCH	93.838		GEORGE WASHINGTON UNIVERSITY	SUB TO OT2HL161847		\$4,184	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - LUNG DISEASES RESEARCH	93.838		UNIVERSITY OF UTAH	10063508-11-PENN		\$4,430	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-K23-HL-132065-01A1				\$5,420	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838		UNIVERSITY OF MICHIGAN	SUBK00010624		\$9,067	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - LUNG DISEASES RESEARCH	93.838		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	EHR-02-21		\$12,984	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838		ALBANY MEDICAL COLLEGE	515502-01		\$14,955	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838		UNIVERSITY OF COLORADO	FY22.576.002		\$15,857	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838		BIOSPUNNIK LLC	SUB TO 1R41HL156767 - 01A1		\$17,939	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1K99HL151670-01				\$18,575	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838		UNIVERSITY OF CALIFORNIA, DAVIS	A21-2099-S001		\$20,683	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838		CHILDREN'S HOSPITAL OF LOS ANGELES	RGF010323-B		\$20,731	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00000383		\$20,919	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838		UNIVERSITY OF FLORIDA	SUB00002761		\$21,481	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-F32-HL-162425-01				\$24,521	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-F31-HL-149338-01				\$30,756	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-R01-HL-137915-01			\$491	\$33,835	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-F32-HL-154676-01				\$34,089	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-K08-HL-163398-01				\$35,235	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-F32-HL-160166-01				\$35,300	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - LUNG DISEASES RESEARCH	93.838		CINCINNATI CHILDREN'S HOSPITAL			\$35,734	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-F32-HL-160011-01	MEDICAL CENTER	050002265 / PROJECT #311013		\$37,563	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00000816		\$38,772	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
LUNG DISEASES RESEARCH	93.838	1-F32-HL-160037-01				\$39,306	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838		PEROXITECH, LLC	SUB TO 1R41HL145848-01A1		\$46,430	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-F31-HL-152597-01A1				\$47,844	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838		UNIVERSITY OF MICHIGAN	SUBK00012073		\$50,623	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-UG3-HL-152305-01A1				\$56,482	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838		BOSTON UNIVERSITY	4500003055		\$60,248	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-F32-HL-152664-01				\$61,722	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3200850618		\$65,305	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-R56-HL-139559-01A1				\$71,080	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838		YALE UNIVERSITY	CON-80003373 (GR113907)		\$80,074	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	102535C		\$82,331	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - LUNG DISEASES RESEARCH	93.838	1K23HL161353-01				\$88,532	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1K99HL153758-01A1				\$89,630	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838		UNIVERSITY OF VIRGINIA	GB11023.169673		\$89,640	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	2-K24-HL-103844-06				\$89,800	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-K24-HL-155804-01				\$90,532	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-K24-HL-143289-01				\$115,749	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3201040419		\$122,728	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838		BRIGHAM AND WOMEN'S HOSPITAL	122805		\$123,757	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1R01HL160694-01				\$125,442	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	2-K24-HL-115354-06				\$134,360	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1K23HL158068-01				\$141,688	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-K01-HL-149851-01				\$144,598	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838		THOMAS JEFFERSON UNIVERSITY	080-18007-533801		\$148,346	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-U01-HL-129998-01			\$11,523	\$154,000	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-K23-HL-151879-01A1			\$3,216	\$156,345	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	7K23HL150280-02				\$158,265	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-K08-HL-150226-01				\$160,982	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-K08-HL-151911-01A1				\$163,164	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-K23-HL-141639-01				\$170,104	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1R01HL159886-01			\$3,461	\$173,710	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-K23-HL-143181-01				\$176,776	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-R01-HL-142258-01A1				\$177,054	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	7-K01-HL-135459-03				\$180,899	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-K23-HL-140482-01				\$180,996	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-K23-HL-146894-01				\$181,546	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-K23-HL-146970-01			\$434	\$211,452	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-K23-HL-141584-01				\$218,590	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00001474		\$242,283	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838		LIGNAMED	SUB TO R44HL140680		\$246,012	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1R01HL155159-01A1				\$290,513	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-R01-HL-133889-01A1			\$13,723	\$312,085	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-R01-HL-137006-01			\$2,941	\$325,896	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-R61-HL-137063-01				\$338,435	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-R01-HL-155821-01A1			\$83,523	\$350,296	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-R01-HL-155306-01A1			\$155	\$361,486	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1R01HL146386-01A1			\$465	\$382,675	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838		CINCINNATI CHILDREN'S HOSPITAL MEDICAL CENTER	137990		\$384,907	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-R01-HL-153539-01				\$391,729	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	2-R01-HL-087825-11A1				\$412,732	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-R01-HL-133433-01A1			\$188,654	\$419,340	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1R01HL151467-01				\$449,857	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-R01-HL-127969-01A1				\$488,658	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	2-T32-HL-007586-36				\$496,449	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
LUNG DISEASES RESEARCH	93.838	1-R01-HL-159997-01			\$29,144	\$500,916	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-R01-HL-153510-01				\$510,979	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-R01-HL-145408-01A1				\$519,891	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-R01-HL-158737-01			\$29,314	\$542,356	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-R01-HL-152194-01A1				\$554,339	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - LUNG DISEASES RESEARCH	93.838	1-R01-HL-157189-01			\$38,384	\$565,069	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-R01-HL-142269-01			\$227,948	\$566,024	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1R01HL148821-01				\$593,933	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-R01-HL-151153-01A1				\$614,769	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-R01-HL-137389-01A1				\$621,410	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1U01HL152970-01				\$644,958	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-R01-HL-143364-01A1			\$69,676	\$678,502	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-R01-HL-141608-01A1				\$737,146	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	2-R01-HL-132999-05				\$739,357	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-R01-HL-139066-01				\$774,411	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-U01-HL-148857-01			\$92,760	\$958,200	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-UG3-HL-141736-01			\$106,417	\$983,785	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - LUNG DISEASES RESEARCH	93.838		WESTAT, INC.	33-312-0217571-66400L		\$1,010,074	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-R01-HL-150147-01			\$633,567	\$1,315,575	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
LUNG DISEASES RESEARCH	93.838	1-U01-HL-145435-01			\$97,936	\$1,578,750	\$26,038,989	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839		UNIVERSITY OF NEW HAMPSHIRE	18-016		-\$2,239	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	2-T32-HL-007439-36				-\$480	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3200650121		\$99	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	2-R01-HL-091724-24			\$1,316	\$1,532	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839		TEMPLE UNIVERSITY	267434-PENN		\$3,487	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	1-F32-HL-154519-01				\$8,367	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839		HACKENSACK MERIDIAN HEALTH	2205-G10159		\$17,305	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	1-F31-HL-150952-01				\$19,540	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839		RESEARCH TRIANGLE INSTITUTE CORIELL INSTITUTE (CORIELL CELL REPOSITORIES)	MOU SUB TO U24HD095254		\$21,746	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839			A22-0003-S003		\$34,287	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	1-R21-HL-144224-01			\$14,879	\$43,125	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00000690		\$43,160	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	1R01HL163265-01				\$43,315	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839		BOSTON CHILDREN'S HOSPITAL	GENFD0002069091		\$44,803	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839		NORTHWESTERN UNIVERSITY	60056523 PENN		\$46,673	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	1-R01-HL-128895-01				\$51,097	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	1R03HL160678-01				\$51,562	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00000690		\$60,988	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00001857		\$61,662	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	1-R21-HL-153946-01A1			\$26,982	\$63,998	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	1-K99-HL-159230-01				\$64,653	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3200770621/962617-RSUB		\$71,317	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	2-R01-HL-111501-06A1				\$81,303	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3210081122		\$82,910	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3201710624		\$85,986	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839		CLEVELAND CLINIC LERNER COLLEGE OF MEDICINE	1187-SUB		\$88,639	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	1-K99-HL-153696-01A1				\$118,383	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	1-U01-HL-131053-01A1				\$138,711	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00000215		\$140,050	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	1-K25-HL-145092-01A1				\$144,179	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.



Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	2-T32-HL-007775-26				\$155,863	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	2-UG1-HL-069286-17				\$159,025	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	1-R01-HL-135254-01				\$167,807	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839		DUKE UNIVERSITY	A034441		\$173,475	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839		INDIANA UNIVERSITY	IN4687667UPENN		\$226,074	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	2-T32-HL-007971-16A1				\$267,234	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	1-R01-HL-145754-01				\$294,445	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	1-R01-HL-136572-01				\$315,641	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	2-R01-HL-159611-06				\$358,321	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - BLOOD DISEASES AND RESOURCES RESEARCH	93.839	1-R01-HL-139552-01A1				\$428,401	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	1-R01-HL-142122-01			\$12,471	\$456,330	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	2-R01-HL-124106-05A1				\$485,081	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	1-R01-HL-139552-01A1				\$495,475	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	2-R01-HL-091724-28			\$3,912	\$506,393	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - BLOOD DISEASES AND RESOURCES RESEARCH	93.839	1-R01-HL-159256-01			\$75,738	\$528,202	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	1-R01-HL-155144-01				\$541,821	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	1R01HL159175-01			\$2,587	\$545,364	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	1-R01-HL-141408-01			\$46,985	\$550,142	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	1R01HL142976-01				\$557,754	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	1-R01-HL-148227-01A1			\$8,919	\$691,222	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	1-R01-HL-148014-01A1			\$6,798	\$698,125	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	1-R01-HL-143806-01			\$192,588	\$748,458	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	2-T32-HL-007439-41				\$806,127	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	1-R01-HL-134839-01			\$19,178	\$839,267	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	2R01HL107904-09			\$225,954	\$1,012,344	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	1-P01-HL-146373-01A1			\$952,699	\$2,046,818	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOOD DISEASES AND RESOURCES RESEARCH	93.839	2-R25-HL-084665-16				\$107,149	\$15,792,516	RESEARCH AND DEVELOPMENT	\$859,489,045
TRANSLATION AND IMPLEMENTATION SCIENCE RESEARCH FOR HEART, LUNG, BLOOD DISEASES, AND SLEEP DISORDERS	93.840	1R61HL161752-01				\$26,474	\$752,212	RESEARCH AND DEVELOPMENT	\$859,489,045
TRANSLATION AND IMPLEMENTATION SCIENCE RESEARCH FOR HEART, LUNG, BLOOD DISEASES, AND SLEEP DISORDERS	93.840	1-R01-HL-153735-01			\$165,594	\$725,738	\$752,212	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-R01-AR-065995-01				-\$21,150	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-R01-AR-066098-01A1				-\$8,604	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	5-U54-AR-052646-04			-\$3,322	-\$3,322	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846		JOHNS HOPKINS UNIVERSITY	STREAM IR01AR064066-01		-\$2,501	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1R21AR074073-01A1				-\$2,021	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-R21-AR-071559-01A1				-\$1,275	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-F32-AR-076906-01				-\$1,260	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-R01-AR-066741-01A1				-\$680	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-R01-AR-068057-01A1				-\$204	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	7-R01-AR-066101-03				-\$1	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846		UNIVERSITY OF TEXAS SOUTHWESTERN MEDICAL CENTER	GMO180506		\$572	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-K08-AR-070289-01				\$1,025	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846		TEMPLE UNIVERSITY	258416-UP		\$1,812	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1F31AR079852-01A1				\$4,515	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846		UNIVERSITY OF ROCHESTER	SUB00000302/UR FAO:GR532319		\$9,153	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846		UNIVERSITY OF MARYLAND- BALTIMORE COUNTY	1701828-1038		\$9,351	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846		DREXEL UNIVERSITY	900036		\$10,777	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846		CFD RESEARCH CORPORATION (CFDRC)	206970		\$14,297	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3200760422		\$14,845	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

<i>Federal Awarding Agency/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification (Optional)</i>	<i>Name of Funder Pass-Through Entity</i>	<i>Identifying Number Assigned By Funder Pass-Through Entity</i>	<i>Total Amount Provided to Sub-Recipients</i>	<i>Federal Expenditures</i>	<i>Federal Program Total</i>	<i>Cluster Name</i>	<i>Cluster Total</i>
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846		THOMAS JEFFERSON UNIVERSITY	080-23000-S27201		\$15,139	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846		UNIVERSITY OF CALIFORNIA, IRVINE	2021-1479		\$16,065	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846		UNIVERSITY OF SOUTHERN CALIFORNIA	116442662		\$16,148	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-R01-AR-080820-01				\$17,130	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846		DREXEL UNIVERSITY	900024		\$17,172	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-F31-AR-079840-01				\$21,531	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1F31AR079925-01				\$24,971	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-R03-AR-077697-01				\$25,101	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-R34-AR-074733-01A1				\$25,899	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1R01AR079856-01A1				\$36,217	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-K08-AR-075846-01				\$42,118	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-F31-AR-079899-01				\$43,913	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1F31AR079901-01				\$44,224	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-K23-AR-077629-01A1				\$46,980	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-F31-AR-077395-01A1				\$47,544	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1K08AR080266-01				\$48,899	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	2-T32-AR-053461-11				\$49,780	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-R01-AR-071340-01A1				\$51,230	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	7K08AR070918-06				\$52,251	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-R21-AR-074570-01A1				\$54,675	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-P30-AR-069619-01			\$17,829	\$59,610	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846		NEW YORK UNIVERSITY	16-A0-00-005518-01		\$63,558	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846		NEW YORK UNIVERSITY	18-A1-00-1000572		\$66,350	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1R21AR078650-01A1				\$70,419	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846		CADENZAMED LLC	SUB TO R43AR076265		\$74,526	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1R56AR079409-01				\$78,316	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-P30-AR-069589-01				\$100,104	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846		BRIGHAM AND WOMEN'S HOSPITAL	119899		\$108,320	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1R01AR080021-01				\$120,723	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-R01-AR-069546-01				\$124,726	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-K25-AR-078383-01A1				\$127,473	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1R01AR079486-01A1				\$131,187	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-K01-AR-075877-01A1				\$137,530	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1K01AR077087-01				\$142,341	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846		THOMAS JEFFERSON UNIVERSITY	080-23000-S38001		\$147,195	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-K23-AR-071514-01				\$147,747	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	7R01AR075770-02				\$157,300	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	2-T32-AR-007132-42				\$162,535	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-R21-AR-078386-01A1				\$176,867	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	7-R01-AR-074079-03			\$36,989	\$183,001	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-K23-AR-073931-01				\$192,710	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1R21AR078429-01A1				\$197,261	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-R01-AR-068382-01				\$199,150	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-R01-AR-070750-01				\$201,711	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-R01-AR-069062-01			\$47,336	\$212,679	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-R21-AR-077261-01A1				\$227,281	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-R21-AR-077700-01				\$246,942	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-R01-AR-071975-01			\$12,837	\$247,309	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1R01AR078790-01				\$256,695	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00000242		\$261,549	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

<i>Federal Awarding Agency/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification (Optional)</i>	<i>Name of Funder Pass-Through Entity</i>	<i>Identifying Number Assigned By Funder Pass-Through Entity</i>	<i>Total Amount Provided to Sub-Recipients</i>	<i>Federal Expenditures</i>	<i>Federal Program Total</i>	<i>Cluster Name</i>	<i>Cluster Total</i>
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	2-U54-AR-057319-17			\$17,939	\$271,456	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-R01-AR-066567-01A1				\$293,590	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	2T32AR053461-16				\$298,177	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-R01-AR-073809-01A1				\$304,098	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-R01-AR-071399-01A				\$306,464	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-R01-AR-077526-01				\$308,263	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-R01-AR-076766-01A1				\$310,379	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1R01AR075914-01A1				\$314,655	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-R01-AR-078898-01				\$316,052	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	2-R01-AR-050068-09A1				\$319,374	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-R01-AR-071718-01A1			\$5,884	\$339,325	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1R01AR079483-01				\$349,117	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1R01AR077598-01A1				\$366,168	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	7-R01-AR-073022-03				\$367,336	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-U01-AR-079752-01				\$374,388	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	9-R01-AR-077362-09A1				\$401,634	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	2-R01-AR-056624-11			\$15,611	\$411,544	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-R01-AR-073231-01				\$412,204	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-R01-AR-076381-01A1				\$419,918	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-R01-AR-075418-01			\$15,143	\$424,391	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-R01-AR-074948-01			\$12,966	\$436,539	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	2-T32-AR-007465-36				\$444,934	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-R01-AR-077435-01A1			\$3,926	\$450,579	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-R01-AR-075737-01A1			\$89,441	\$463,769	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-R01-AR-077094-01A1				\$467,044	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-R01-AR-077690-01				\$474,179	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1R01AR076392-01			\$18,979	\$474,963	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1T32AR076951-01				\$477,219	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1-R01-AR-070873-01A1			\$2,423	\$495,046	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	1R01AR077615-01				\$516,358	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	2-P30-AR-069589-06				\$769,942	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	93.846	2-P30-AR-069619-06			\$139	\$770,493	\$18,495,029	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-107667-01A1				-\$19,728	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R56-DK-115762-01				-\$16,737	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-118431-01				-\$10,549	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	5-P01-DK-049210-19				-\$9,063	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		AUGUSTA UNIVERSITY	30367-2		-\$4,198	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		UNIVERSITY OF UTAH	10030258-00		-\$3,485	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2-T32-DK-007780-16				-\$2,233	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		BECKMAN RESEARCH INSTITUTE OF THE CITY OF HOPE	61294.2006834.669616		-\$1,515	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-F32-DK-116528-01A1				-\$699	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R03-DK-122191-01				-\$551	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-105155-01A1				-\$496	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2-U01-DK-060990-13				-\$347	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-F30-DK-117546-01				-\$317	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-K08-DK-119475-01				-\$260	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

<i>Federal Awarding Agency/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification (Optional)</i>	<i>Name of Funder Pass-Through Entity</i>	<i>Identifying Number Assigned By Funder Pass-Through Entity</i>	<i>Total Amount Provided to Sub-Recipients</i>	<i>Federal Expenditures</i>	<i>Federal Program Total</i>	<i>Cluster Name</i>	<i>Cluster Total</i>
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-111547-01A1				-\$196	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1U34DK120091-01				-\$190	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-F30-DK-118827-01				-\$13	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-106309-01A1				-\$8	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-K23-DK-116935-01A1				\$10	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-131547-01				\$115	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2-R01-DK-083355-06A1				\$767	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		UNIVERSITY OF MICHIGAN	SUBK00010724		\$1,604	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		MEDICAL COLLEGE OF WISCONSIN	SUB TO 5R01DK083538		\$1,616	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-F32-DK-123948-01				\$1,845	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-F31-DK-118816-01				\$2,110	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1F30DK131829-01A1				\$2,196	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		UNIVERSITY OF MICHIGAN	SUBK00012114		\$2,198	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		JOHNS HOPKINS UNIVERSITY	2004065226		\$3,285	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		UNIVERSITY OF ILLINOIS AT CHICAGO	17709		\$3,791	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-F31-DK-120162-01				\$3,919	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-118431-01			\$3,979	\$3,979	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		UNIVERSITY OF TEXAS SOUTHWESTERN MEDICAL CENTER	GMO220602		\$4,163	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1F31DK125008-01A1				\$5,199	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-105821-01A1				\$5,609	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-132268-01				\$6,300	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	96445C		\$6,333	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		NORTHWESTERN UNIVERSITY	60046420 UPENN		\$7,517	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3200530322		\$7,839	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	107915C		\$8,000	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		UNIVERSITY OF WASHINGTON	UWSC13038		\$8,139	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1F31DK131870-01				\$8,612	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		CASE WESTERN RESERVE UNIVERSITY	RESS16457		\$9,355	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		COLUMBIA UNIVERSITY	1(GG011642-01)		\$10,428	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045

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DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		WASHINGTON UNIVERSITY IN ST. LOUIS	WU-22-0064		\$10,836	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		HARVARD PILGRIM HEALTH CARE	PH000668A		\$10,900	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1F31DK132839-01				\$11,337	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		TEMPLE UNIVERSITY	258377-UPENN		\$12,232	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00001565		\$12,722	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		JOHNS HOPKINS UNIVERSITY	2004016695		\$13,256	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		UNIVERSITY OF ALABAMA AT BIRMINGHAM	000524405-SC003		\$14,053	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	FP21401_A1_SUB02_01		\$15,249	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-F32-DK-132830-01				\$15,426	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2-T32-DK-007785-19				\$15,584	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01 DK-106027-01				\$15,682	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		UNIVERSITY OF MINNESOTA	N008442902		\$15,751	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		NORTHWESTERN UNIVERSITY	60044864		\$16,175	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		WASHINGTON UNIVERSITY IN ST. LOUIS	WU-21-258		\$16,257	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		MASSACHUSETTS GENERAL HOSPITAL	SUB TO U01DK106981		\$17,253	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1R01DK132138-01				\$17,511	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1R01DK132296-01				\$18,119	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		BAYLOR COLLEGE OF MEDICINE	SUB TO R01DK101500		\$18,635	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		GEORGE WASHINGTON UNIVERSITY	20-M122		\$18,970	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1F32DK131892-01A1				\$20,797	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-F30-DK-120062-01				\$21,764	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		MASSACHUSETTS GENERAL HOSPITAL	233274		\$21,850	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-F30-DK-120135-01				\$23,551	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1F30DK130510-01				\$24,668	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		WASHINGTON UNIVERSITY IN ST. LOUIS	WU-20-278		\$26,100	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		UNIVERSITY OF PITTSBURGH	0062023(131994-1)		\$27,807	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		UNIVERSITY OF ILLINOIS AT CHICAGO	17647		\$28,938	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		UNIVERSITY OF MICHIGAN	SUBK00010054		\$29,831	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1F32DK128984-01A1				\$30,641	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-F30-DK-126353-01				\$30,756	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045

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<i>Federal Awarding Agency/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification (Optional)</i>	<i>Name of Funder Pass-Through Entity</i>	<i>Identifying Number Assigned By Funder Pass-Through Entity</i>	<i>Total Amount Provided to Sub-Recipients</i>	<i>Federal Expenditures</i>	<i>Federal Program Total</i>	<i>Cluster Name</i>	<i>Cluster Total</i>
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		COLUMBIA UNIVERSITY	1(GGG011642-03)		\$30,985	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-106243-01A1	UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL	5120534	\$924	\$31,000	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847						\$31,018	\$61,728,872	RESEARCH AND DEVELOPMENT
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R03-DK-120946-01				\$31,055	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1K01DK125602-01				\$31,080	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3210191223		\$32,583	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-F32-DK-120211-01A1				\$33,163	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-F30-DK-120096-01A1				\$33,380	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		JOHNS HOPKINS UNIVERSITY	2004935396		\$33,462	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-F31-DK-122677-01				\$33,625	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		COLUMBIA UNIVERSITY	2(GG015836-01)		\$33,813	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-F31-DK-117577-01A1				\$34,618	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-104796-01A1				\$34,858	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R21-DK-117297-01A1				\$34,873	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-F32-DK-117568-01A1				\$35,564	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		JAEB CENTER FOR HEALTH RESEARCH	SUB TO R01DK121240		\$36,660	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		DUKE UNIVERSITY	SUB TO R01DK118431-04		\$37,393	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-F31-DK-123886-01				\$37,422	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-F32-DK-118818-01A1				\$39,578	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-F31-DK-122649-01				\$39,749	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2-R01-DK-045416-23A1				\$39,859	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	7K01DK129442-02				\$41,052	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		TULANE UNIVERSITY	TUL-HSC-559260-20/21		\$42,421	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-F31-DK-127610-01				\$42,532	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		PENNSYLVANIA STATE UNIVERSITY	5821-UP-DHHS-4888		\$42,538	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-K08-DK-123316-01A1				\$44,964	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1F31DK126404-01				\$44,970	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		JOSLIN DIABETES CENTER, INC	100136		\$44,997	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2-R01-DK049780-23				\$45,059	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-F31-DK-126231-01				\$45,103	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045

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Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-F31-DK-128876-01				\$45,465	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		MD ANDERSON CANCER CENTER	3001370497		\$45,739	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-F31-DK-124956-01A1				\$45,929	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1R03DK123543-01				\$46,303	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		THOMAS JEFFERSON UNIVERSITY	080-30000-509203		\$47,544	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		BECKMAN RESEARCH INSTITUTE OF THE CITY OF HOPE	50578.914951.6560		\$51,250	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		INDIANA UNIVERSITY	8689_PENN		\$54,450	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		EMORY UNIVERSITY	T674972		\$54,851	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		BECKMAN RESEARCH INSTITUTE OF THE CITY OF HOPE	61294.2006834.669303		\$55,856	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		UNIVERSITY OF MIAMI	SPC-001391		\$57,815	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		NEW YORK UNIVERSITY GROSSMAN SCHOOL OF MEDICINE	SUB TO DP3DK114812		\$59,951	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		UNIVERSITY OF SOUTHERN CALIFORNIA	137014491		\$61,551	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3200040820		\$61,998	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		UNIVERSITY OF MARYLAND, BALTIMORE	3001055		\$63,243	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		DUKE UNIVERSITY	A032135		\$63,601	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-F32-DK-127591-01A1				\$63,801	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	22107-GRT-00000441		\$65,467	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1F32DK126385-01A1				\$65,488	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1R01DK132725-01				\$65,524	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-K08-DK-106457-01A1				\$67,808	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		UNIVERSITY OF ILLINOIS AT CHICAGO	17483		\$68,180	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00000382		\$71,422	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2R01DK049780-27A1				\$75,642	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3200370521 I PO# 962245 - RSUB		\$84,328	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00000106		\$84,723	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-114054-01				\$84,754	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3201760420		\$85,897	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		HARVARD UNIVERSITY	124358-5123521		\$90,685	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-UC4-DK-112217-01				\$92,364	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045

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<i>Federal Awarding Agency/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification (Optional)</i>	<i>Name of Funder Pass-Through Entity</i>	<i>Identifying Number Assigned By Funder Pass-Through Entity</i>	<i>Total Amount Provided to Sub-Recipients</i>	<i>Federal Expenditures</i>	<i>Federal Program Total</i>	<i>Cluster Name</i>	<i>Cluster Total</i>
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2-T32-DK-007314-36				\$93,717	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3210191223		\$96,025	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-K01-DK-117970-01				\$98,110	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00001545		\$102,275	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00001565		\$103,261	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		CORNELL UNIVERSITY	203486		\$103,641	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	4-R37-DK-053839-20				\$103,781	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		INDIANA UNIVERSITY	IN4689868 PENN		\$105,746	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2-U01-DK-057135-17				\$110,713	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2-R56-DK-101478-06				\$115,626	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2-R25-DK-066028-16				\$119,736	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-K01-DK-116922-01A1				\$119,921	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-K08-DK-127250-01A1				\$121,014	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R25-DK-108711-01A1				\$131,942	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00001469		\$134,510	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-K08-DK-125880-01				\$138,577	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-K08-DK-124658-01A1				\$140,214	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00000596		\$145,804	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-K08-DK-124577-01A1				\$147,735	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		CASE WESTERN RESERVE UNIVERSITY	RES512857		\$149,784	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	10790SC		\$153,069	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-K23-DK-129770-01				\$154,606	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1K08DK127247-01A1				\$154,881	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	7-K23-DK-114526-02				\$156,813	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		UNIVERSITY OF PITTSBURGH	AWD00001317 (133760-01)		\$157,362	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		UNIVERSITY OF ILLINOIS AT CHICAGO	16587-00		\$158,489	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		UNIVERSITY OF MICHIGAN	SUBK00010278		\$160,452	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		JAEB CENTER FOR HEALTH RESEARCH	SUB TO 1R01DK122603		\$167,242	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-K08-DK-129716-01				\$169,283	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-K08-DK-117013-01				\$172,348	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045

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DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		WASHINGTON UNIVERSITY IN ST. LOUIS	WU-21-140		\$172,910	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		TULANE UNIVERSITY	TUL-HSC-556923-18/19		\$174,078	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-K08-DK-120902-01A1				\$182,729	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	7-K08-DK-127064-02				\$185,555	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-UC4-DK-116271-01			\$141,167	\$189,126	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-U01-DK-099919-01				\$192,889	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-K08-DK-122099-01				\$198,758	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00000685		\$201,701	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-K23-DK-115897-01				\$204,051	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1R01DK131067-01				\$210,143	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-K23-DK-116935-01A1				\$210,275	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00000106		\$229,369	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	K23-DK118198				\$239,774	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	7-R01-DK-070869-12			\$7,551	\$267,877	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3200400817		\$273,160	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2-T32-DK-007780-21				\$274,245	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		SAINT LOUIS UNIVERSITY	ERS #21446-44249		\$274,769	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-120982-01				\$275,810	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		UNIVERSITY OF TEXAS SOUTHWESTERN MEDICAL CENTER	201010		\$276,026	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2-P30-DK-019525-46				\$281,129	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-112812-01			\$19,942	\$284,383	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-114103-01A1				\$291,440	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-125573-01A1				\$293,599	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3209810625		\$298,436	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2-R01-DK-091331-06				\$301,248	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		SCINTILLON INSTITUTE	22241-209-415		\$319,963	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-125521-01				\$324,422	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-111558-01A1			\$112,887	\$330,838	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2-R01-DK-105155-04A1				\$335,103	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045

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DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-125387-01				\$337,174	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2 R01 DK107667-06				\$342,111	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-123528-01				\$345,656	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1R01-DK-128861-01				\$345,971	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-123041-01A1			\$22,759	\$368,066	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-119314-01				\$369,647	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-117124-01A1				\$372,189	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847		WINTHROP-UNIVERSITY HOSPITAL	3500-07429 (PENN)	\$492	\$381,132	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-117208-01A1				\$406,751	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-120757-01A1				\$419,204	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-114104-01				\$436,307	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-113307-01			\$1,217	\$437,388	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2-R01-DK-021397-40A1				\$461,580	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2R01DK043806-28				\$467,373	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2-T32-DK-007314-41				\$469,702	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2-T32-DK-007006-47				\$482,195	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2-T32-DK-007066-46				\$483,043	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2-R01-DK-105821-06				\$487,850	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-119290-01A1				\$490,943	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1R01DK116199-01			\$319,545	\$491,894	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1R01DK130239-01			\$15,178	\$493,265	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2-T32-DK-007740-21A1				\$493,282	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-121801-01A1				\$494,322	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2-U01-DK-106892-06			\$39,428	\$494,727	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2-R01-DK-106309-05				\$504,866	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1U01DK127768-01				\$521,333	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-123624-01A1			\$73,722	\$525,876	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-125497-01A1				\$535,146	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-123252-01				\$553,232	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-128443-01			\$155,858	\$563,698	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045

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<i>Federal Awarding Agency/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification (Optional)</i>	<i>Name of Funder Pass-Through Entity</i>	<i>Identifying Number Assigned By Funder Pass-Through Entity</i>	<i>Total Amount Provided to Sub-Recipients</i>	<i>Federal Expenditures</i>	<i>Federal Program Total</i>	<i>Cluster Name</i>	<i>Cluster Total</i>
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-123356-01				\$581,173	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2-U01-DK-060984-18				\$611,424	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-122039-01				\$611,840	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2-R01-DK-098656-06A1			\$285	\$639,467	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-121175-01				\$647,697	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-117488-01			\$12,185	\$653,737	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2-U01-DK-103225-06			\$173,796	\$655,993	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-115762-01A1			\$15,983	\$657,728	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2-R01-DK-076077-10				\$664,898	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	7-R01-DK-119656-03				\$667,406	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-116005-01A1			\$31,347	\$721,389	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-111638-01A1			\$17,713	\$731,208	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2-R01-DK-045586-28A1				\$740,789	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2-R01-DK-087635-11A1			\$23,769	\$861,518	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-DP1-DK-126167-01				\$875,580	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-R01-DK-114291-01A1				\$895,000	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2-U24-DK-082316-12			\$24,890	\$899,848	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2-U01-DK-100846-07			\$549,704	\$948,162	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2-P30-DK-050306-21				\$1,156,773	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-U01-DK-123813-01			\$169,984	\$1,227,461	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-U01-DK-126654-01			\$849,419	\$1,555,590	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-UG3-DK-122644-01			\$441,104	\$1,615,430	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-UM1-DK-126194-01			\$449,979	\$1,643,011	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2-P30-DK-019525-41			\$436,516	\$1,702,815	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2-U24-DK-060990-18			\$330,600	\$2,547,469	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	1-U01-DK-123594-01				\$2,945,841	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	93.847	2-U01-DK-112217-02A1			\$126,818	\$5,795,221	\$61,728,872	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-090998-01A1				-\$1,668,631	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-082309-01A1				-\$64,230	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-096087-01				-\$24,599	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045

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<i>Federal Awarding Agency/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification (Optional)</i>	<i>Name of Funder Pass-Through Entity</i>	<i>Identifying Number Assigned By Funder Pass-Through Entity</i>	<i>Total Amount Provided to Sub-Recipients</i>	<i>Federal Expenditures</i>	<i>Federal Program Total</i>	<i>Cluster Name</i>	<i>Cluster Total</i>
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-T32-NS-091008-01				-\$10,473	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-F31-NS-115256-01				-\$8,725	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		DUQUESNE UNIVERSITY	G1900015		-\$6,086	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		THE METHODIST HOSPITAL RESEARCH INSTITUTE	AGMT00003622		-\$5,297	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	7-P01-NS-097206-02				-\$3,915	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		MASSACHUSETTS GENERAL HOSPITAL	226626		-\$1,738	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-094224-01A1				-\$1,724	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-F31-NS-111868-01				-\$1,669	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		UNIVERSITY OF CINCINNATI	011266-135731		-\$1,352	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-F32-NS-103219-01				-\$359	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		WASHINGTON UNIVERSITY IN ST. LOUIS	SUB TO U54NS116025		-\$52	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		NORTHWESTERN UNIVERSITY	SP0046269-PROJ0013110		\$19	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		MASSACHUSETTS GENERAL HOSPITAL	SUB TO OT2NS122680		\$489	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		FOX CHASE CANCER CENTER	FCCC 15099-01		\$521	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		UNIVERSITY OF CINCINNATI	012044-135731		\$1,161	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		UNIVERSITY OF MIAMI	SPC-00091		\$1,693	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-099348-01				\$2,004	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00002080		\$2,760	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		MAYO CLINIC JACKSONVILLE	THE-232483		\$3,053	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R56-NS-109435-01A1				\$4,131	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	RSUB/ACTIVITY NO. 3201700420		\$5,192	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		MEDICAL UNIVERSITY OF SOUTH CAROLINA	A20-0051-S005		\$5,264	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		EMORY UNIVERSITY	SUB TO 5-R01-NS-110347-03		\$5,519	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		PENNSYLVANIA STATE UNIVERSITY	S001280-DHHS		\$6,718	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		MASSACHUSETTS GENERAL HOSPITAL	SUB TO U01NS095388 / NN108		\$6,736	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		UNIVERSITY OF IOWA	S01314-01		\$6,797	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		ALBERT EINSTEIN HEALTHCARE NETWORK	4970		\$8,174	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		DUQUESNE UNIVERSITY	G2000093		\$8,376	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-092398-01				\$8,544	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-125137-01				\$8,892	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045

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Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		UNIVERSITY OF CINCINNATI	012340-135731		\$10,062	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		UNIVERSITY OF PITTSBURGH	AWD00002964 (135356-1)		\$10,087	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-K08-NS-112576-01				\$10,409	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		WEILL CORNELL MEDICAL COLLEGE	214405		\$10,467	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3200071217		\$10,833	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		UNIVERSITY OF CINCINNATI	012043-135731		\$11,319	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-094224-01A1			\$11,324	\$11,324	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		NORTHWESTERN UNIVERSITY	60054977 PENN		\$11,325	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		YALE UNIVERSITY	GR110765 (CON-80002733)		\$11,471	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	98195C		\$11,975	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		UNIVERSITY OF CINCINNATI	011337-135731		\$13,850	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		UNIVERSITY OF ALABAMA AT BIRMINGHAM	000510297-006		\$13,870	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		UNIVERSITY OF NEBRASKA	34-5250-2030-001		\$14,065	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-F31-NS-111803-01A1				\$14,385	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		WASHINGTON UNIVERSITY IN ST. LOUIS	WU-22-0340		\$16,435	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		MICHIGAN STATE UNIVERSITY	RC110062UP		\$16,796	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1F31NS125954-01				\$19,490	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		TUFTS MEDICAL CENTER	5017157-SERV		\$20,172	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R21-NS-102838-01				\$20,903	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		UNIVERSITY OF CALIFORNIA, LOS ANGELES	2000 G ZD099		\$21,132	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		UNIVERSITY OF SOUTHERN CALIFORNIA	SCON-00002526		\$21,879	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		VANDERBILT UNIVERSITY	OSA00000110		\$23,484	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-F31-NS-108622-01				\$23,892	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		DUKE UNIVERSITY	A030443		\$24,095	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1F31NS124249-01				\$24,323	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-F31-NS-118808-01A1				\$24,658	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		UNIVERSITY OF CINCINNATI	010785-135731		\$25,922	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		UNIVERSITY OF MIAMI	SPC-001451		\$26,000	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-F31-NS-113481-01A1				\$26,197	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		ALBERT EINSTEIN HEALTHCARE NETWORK	4965UPENN		\$26,215	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

<i>Federal Awarding Agency/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification (Optional)</i>	<i>Name of Funder Pass-Through Entity</i>	<i>Identifying Number Assigned By Funder Pass-Through Entity</i>	<i>Total Amount Provided to Sub-Recipients</i>	<i>Federal Expenditures</i>	<i>Federal Program Total</i>	<i>Cluster Name</i>	<i>Cluster Total</i>
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1R21NS126862-01				\$27,792	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		MAYO CLINIC JACKSONVILLE	SUB TO 5-U01NS080168-02		\$29,127	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		UNIVERSITY OF TEXAS SOUTHWESTERN MEDICAL CENTER	GMO 181204		\$29,499	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1R01NS124698-01A1				\$29,661	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3201870620		\$31,139	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		JOHNS HOPKINS UNIVERSITY	2003724400		\$31,833	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-K99-NS-111736-01A1				\$32,770	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		UNIVERSITY OF ALABAMA AT BIRMINGHAM	000523825-SC001		\$33,555	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	R01NS123054				\$34,452	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-F31-NS-116999-01				\$34,504	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		UNIVERSITY OF CALIFORNIA, DAVIS	A21-1324-S015		\$35,938	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-F31-NS-115345-01				\$38,498	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-F31-NS-111870-01				\$38,687	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-F31-NS-122297-01				\$39,149	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		MASSACHUSETTS GENERAL HOSPITAL	238744		\$39,270	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		WAYNE STATE UNIVERSITY	WSU21088		\$40,779	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-F31-NS-118963-01A1				\$41,009	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1RF1NS125770-01				\$41,577	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-F31-NS-120801-01				\$42,484	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R03-NS-116301-01				\$44,144	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-088432-01A1				\$52,335	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-107550-01A1				\$54,968	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	7-P01-NS-097206-02			\$55,469	\$55,469	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3200071219-XX		\$55,748	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-F32-NS-117785-01				\$61,938	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		UNIVERSITY OF MARYLAND	1802532 REQUEST: 4768		\$62,732	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-F32-NS-108598-01A1				\$63,216	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-094705-01			\$631	\$64,001	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-102324-01			\$31,914	\$64,532	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045

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<i>Federal Awarding Agency/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification (Optional)</i>	<i>Name of Funder Pass-Through Entity</i>	<i>Identifying Number Assigned By Funder Pass-Through Entity</i>	<i>Total Amount Provided to Sub-Recipients</i>	<i>Federal Expenditures</i>	<i>Federal Program Total</i>	<i>Cluster Name</i>	<i>Cluster Total</i>
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-F32-NS-117672-01				\$66,202	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-F32-NS-116205-01				\$66,471	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	7-R01-NS-063399-09				\$66,942	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	4-K00-NS-105210-03				\$69,136	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-U01-NS-114140-01				\$69,608	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		UNIVERSITY OF QUEENSLAND	RM2019002969		\$70,894	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00000086		\$73,467	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1R01NS125408-01				\$82,570	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1K23NS121401-01A1				\$84,191	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		MASSACHUSETTS GENERAL HOSPITAL	235400		\$86,967	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		UNIVERSITY OF CALIFORNIA, LOS ANGELES	2301 G WE215		\$87,077	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-K01-NS-119496-01				\$92,718	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		COLUMBIA UNIVERSITY	4(GG012911-04)		\$93,047	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		UNIVERSITY OF CHICAGO	AWD069821 (SUB00000416)		\$96,972	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	2-T32-NS-091008-06				\$102,958	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-096720-01A1				\$108,247	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R21-NS-109763-01A1				\$110,607	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1K99NS118561-01				\$111,045	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		UNIVERSITY OF ROCHESTER	1417584G/UR FAQ GR10929		\$112,094	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		UNIVERSITY OF MICHIGAN	SUBK00009898		\$116,070	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-K08-NS-110929-01A1				\$125,308	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1R01NS122570-01A1				\$129,630	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		MASSACHUSETTS GENERAL HOSPITAL	236574		\$133,085	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1R61NS111375-01A1			\$6,248	\$136,208	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-K23-NS-114167-01A1				\$142,124	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		UNIVERSITY OF MICHIGAN	SUBK00007465		\$148,291	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		UNIVERSITY OF IOWA	S01108-01		\$149,746	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3201590324		\$150,153	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-K23-NS-104239-01				\$153,261	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-K23-NS-121520-01				\$158,125	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045

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<i>Federal Awarding Agency/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification (Optional)</i>	<i>Name of Funder Pass-Through Entity</i>	<i>Identifying Number Assigned By Funder Pass-Through Entity</i>	<i>Total Amount Provided to Sub-Recipients</i>	<i>Federal Expenditures</i>	<i>Federal Program Total</i>	<i>Cluster Name</i>	<i>Cluster Total</i>
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-K08-NS-120595-01				\$164,858	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	2R01NS048471-17A1				\$171,339	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R56-NS-109144-01A1				\$177,998	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1R21NS122370-01A1				\$183,101	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
<i>EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS</i>	<i>93.853</i>		<i>SECOND SIGHT MEDICAL PRODUCTS, INC.</i>	<i>SUB TO 5UH3NS103442-02</i>		<i>\$183,951</i>	<i>\$46,301,278</i>	<i>RESEARCH AND DEVELOPMENT</i>	<i>\$859,489,045</i>
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R21-NS-112742-01A1				\$184,737	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-K08-NS-121464-01			\$493	\$185,833	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-100892-01A1				\$191,481	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-094003-01A1			\$11,893	\$195,843	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-K23-NS-110993-01A1				\$204,553	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-115995				\$206,545	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1R01NS120979-01				\$208,359	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	2-T32-NS-061779-11A1				\$210,938	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R21-NS-116315-01			\$6,657	\$224,150	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	2-R25-NS-065745-11				\$224,639	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-097914-01A1				\$225,622	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1R01NS122779-01				\$237,075	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-U24-NS-115691-01				\$240,612	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-K08-NS-114106-01A1			\$98,486	\$241,426	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	2-R01-NS-021229-33A1				\$246,483	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	2-R01-NS-038104-15A1			\$11,398	\$250,949	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
<i>EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS</i>	<i>93.853</i>		<i>CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)</i>	<i>GRT-00000131</i>		<i>\$253,386</i>	<i>\$46,301,278</i>	<i>RESEARCH AND DEVELOPMENT</i>	<i>\$859,489,045</i>
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	2-R37-NS-048471-10				\$255,572	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
<i>EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS</i>	<i>93.853</i>		<i>UNIVERSITY OF NEBRASKA</i>	<i>34-5385-2100-002</i>		<i>\$261,710</i>	<i>\$46,301,278</i>	<i>RESEARCH AND DEVELOPMENT</i>	<i>\$859,489,045</i>
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	2-R01-NS-029436-26A1			\$359	\$263,562	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	2-T32-NS-043126-16				\$269,879	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-DP2-NS-111996-01				\$277,192	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-U24-NS-107224-01				\$281,502	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-121219-01			\$116,223	\$291,644	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-101106-01				\$292,274	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.



<i>Federal Awarding Agency/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification (Optional)</i>	<i>Name of Funder Pass-Through Entity</i>	<i>Identifying Number Assigned By Funder Pass-Through Entity</i>	<i>Total Amount Provided to Sub-Recipients</i>	<i>Federal Expenditures</i>	<i>Federal Program Total</i>	<i>Cluster Name</i>	<i>Cluster Total</i>
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-101108-01				\$297,174	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		CLEVELAND CLINIC	1428-SUB		\$298,122	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R21-NS-118280-01A1				\$299,039	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-U24-NS-107199-01			\$185	\$301,277	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	2-R01-NS-094533-06A1				\$310,578	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-096606-01				\$316,202	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	9-R01-NS-118921-06				\$327,856	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-110688-01				\$328,534	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		DUKE UNIVERSITY	A033658		\$338,477	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		AXONOVA MEDICAL, LLC	SUB TO R44NS108869		\$343,245	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-110865-01				\$344,929	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-117756-01A1			\$33,971	\$348,570	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-101156-01A1				\$351,395	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-117061-01A1			\$973	\$356,990	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-113366-01A1				\$369,005	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R37-NS-115439-01A1				\$371,273	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	2-R56-NS-099348-05A1				\$377,444	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-107969-01A1			\$16,655	\$386,112	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	2-T32-NS-091006-06				\$391,367	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-120625-01A1			\$46,176	\$396,901	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R34-NS-118411-01			\$99,914	\$402,429	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1R01NS114226-01			\$178,892	\$404,060	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	2-R01-NS-088322-06A1			\$19,926	\$418,551	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-117757-01A1				\$422,921	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-102435-01A1				\$435,450	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-120960-01				\$437,548	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-119472-01A1			\$463	\$438,648	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-103873-01A1				\$441,675	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	7-UH3-NS-103446-03				\$454,380	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	2-R01-NS-039421-19				\$455,232	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045

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<i>Federal Awarding Agency/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification (Optional)</i>	<i>Name of Funder Pass-Through Entity</i>	<i>Identifying Number Assigned By Funder Pass-Through Entity</i>	<i>Total Amount Provided to Sub-Recipients</i>	<i>Federal Expenditures</i>	<i>Federal Program Total</i>	<i>Cluster Name</i>	<i>Cluster Total</i>
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-095793-01				\$460,269	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	2-R01-NS-060698-13				\$482,286	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	2-R01-NS-081054-06				\$485,682	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-115869-01A1			\$1,935	\$486,168	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-110716-01A1				\$506,653	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-106108-01A1				\$512,654	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	2-R01-NS-082265-06A1				\$515,589	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-102731-01A1			\$185,691	\$519,317	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	2-R01-NS-083702-06A1			\$41,686	\$523,145	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	2R01NS042645-16A1			\$13,226	\$534,516	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-116504-01A1			\$1,193	\$565,446	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-T32-NS-105607-01				\$566,381	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-099129-01A1			\$43,859	\$587,285	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-100949-01			\$86,189	\$608,735	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-112274-01A1			\$68,385	\$620,464	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R35-NS-097340-01				\$648,411	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	7-R35-NS-097370-02				\$675,088	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-111115-01			\$327,163	\$684,842	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-113241-01				\$699,137	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R35-NS-097275-01				\$700,338	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		UNIVERSITY OF CALIFORNIA, LOS ANGELES	2000 G VK 398		\$718,936	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-106611-01A1			\$89,653	\$729,786	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R01-NS-109260-01A				\$774,717	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1R01NS115139-01				\$796,120	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1U01NS114143-01			\$259,544	\$831,903	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	7-U01-NS-113339-03			\$29,222	\$882,300	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-R35-NS-116843-01				\$901,494	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-U01-NS-114140-01			\$521,664	\$904,204	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-DP1-NS-122038-01				\$965,982	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-U01-NS-113198-01			\$512,915	\$1,327,985	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045

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Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-U54-NS-115322-01			\$606,078	\$1,609,941	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853	1-U19-NS-110456-01A1			\$1,004,735	\$3,234,717	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	93.853		UNIVERSITY OF COLORADO DENVER	FY19.996.001		\$9,942	\$46,301,278	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	2-R01-AI-079002-06				-\$87,011	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-125563-01				-\$79,415	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	7-R01-AI-091627-08				-\$36,464	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		WISTAR INSTITUTE	252841-16-324		-\$5,702	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
			(UNASSIGNABLE) HUTCHINSON (FRED) CANCER RESEARCH CENTER	0001029082		-\$5,467	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		UNIVERSITY OF COLORADO DENVER	FY17.600.001		-\$4,991	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
			(UNASSIGNABLE) HUTCHINSON (FRED) CANCER RESEARCH CENTER	0001034943		-\$3,994	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		YALE UNIVERSITY	M17Q12603 (Q01414)		-\$2,012	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
			DANA-FARBER CANCER INSTITUTE	1280903		-\$1,853	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1R56AI132329-01A1				-\$746	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	2-UM1-AI-069534-08				-\$653	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-137062-01			-\$617	-\$617	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		DUKE UNIVERSITY	2031969		-\$551	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
			FOX CHASE CHEMICAL DIVERSITY CENTER	R41AI138630-UP		-\$539	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-118694-01A1				-\$400	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
			UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL	5105566		-\$322	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-097045-01				-\$319	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-F31-AI-124538-01A1				-\$244	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-080337-01A1				-\$207	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R21-AI-135421-01A1				-\$201	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R21-AI-144572-01				-\$114	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
			WEILL CORNELL MEDICAL COLLEGE	183723-13		-\$102	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		BETH ISRAEL MEDICAL CENTER	01025093-CORED		-\$98	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R21-AI-137433-01				-\$86	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
			CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3201750624		-\$18	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-120011-01				-\$1	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	2-R01-AI-112427-07				\$31	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-148249-01				\$31	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-U01-AI-163671-01				\$31	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
			CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3200280521-FP00019478-SUB01-01		\$52	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		FHI 360	SUB TO UM1 AI068619		\$87	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		WEILL CORNELL MEDICAL COLLEGE	183723-13		\$100	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		NATIONAL JEWISH HEALTH	20098204		\$113	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		JOHNS HOPKINS UNIVERSITY	2002973536		\$258	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1R01AI168291-01				\$581	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		WISTAR INSTITUTE	25281-18-324		\$730	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
			AMERICAN GASTROENTEROLOGICAL ASSOCIATION	2016003		\$945	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-150556-01A1				\$1,084	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
			WASHINGTON UNIVERSITY IN ST. LOUIS	WU-21-210		\$1,723	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
COVID-19 - ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R21-AI-143564-01A1				\$1,930	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-118861-01A1				\$2,501	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		STANFORD UNIVERSITY	62773781-151206		\$2,531	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		UNIVERSITY OF CALIFORNIA, LOS ANGELES	1560 G ZB545		\$2,963	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		(UNASSIGNABLE) HUTCHINSON (FRED) CANCER RESEARCH CENTER	0001038749		\$3,007	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R21-AI-143564-01A1				\$3,070	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		AMERICAN GASTROENTEROLOGICAL ASSOCIATION	2016002		\$3,992	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		UNIVERSITY OF CALIFORNIA, LOS ANGELES	1560 G YC895		\$4,055	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		JOHNS HOPKINS UNIVERSITY	2005285933		\$4,334	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R21-AI-166813-01				\$4,448	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-U01-AI-125940-01				\$4,714	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-F31-AI-143387-01A1				\$4,922	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		MAGEE-WOMENS RESEARCH INSTITUTE & FOUNDATION	9629		\$5,569	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		UNIVERSITY OF CALIFORNIA, LOS ANGELES	1560 G WB030		\$5,859	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1R13AI169621-01				\$6,000	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		(UNASSIGNABLE) HUTCHINSON (FRED) CANCER RESEARCH CENTER	0000866273		\$6,339	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		RUTGERS UNIVERSITY	1382		\$6,732	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		WISTAR INSTITUTE	25281-07-324		\$7,816	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		DUKE UNIVERSITY	SUB TO SUM1-AI144371		\$8,051	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		UNIVERSITY OF CALIFORNIA, LOS ANGELES	1560 G XC165		\$8,110	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		WISTAR INSTITUTE	SUB TO UM1AI164570		\$8,506	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-139123-01				\$8,946	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		MAGEE-WOMENS RESEARCH INSTITUTE & FOUNDATION	9492		\$9,158	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-118694-01A1			\$9,751	\$9,751	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		FHI 360	PO20003102		\$9,886	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		FRED HUTCHINSON CANCER CENTER	0001053254		\$10,566	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R03-AI-156551-01				\$10,923	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	2-R01-AI-127798-07				\$12,117	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		BENAROYA RESEARCH INSTITUTE	FY20ITN339		\$12,899	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R21-AI-137283-01				\$12,970	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		WISTAR INSTITUTE	25900-52-324		\$16,007	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-F31-AI-147415-01				\$16,722	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		MASSACHUSETTS GENERAL HOSPITAL	SUB TO U01AI136816		\$16,740	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		MASSACHUSETTS GENERAL HOSPITAL	234438		\$18,014	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		DUKE UNIVERSITY	A034679		\$19,490	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		JOHNS HOPKINS UNIVERSITY	2003649380		\$20,058	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		BENAROYA RESEARCH INSTITUTE	FY21ITN527		\$21,090	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		EMORY UNIVERSITY	A539852		\$21,467	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R21-AI-130665-01A1				\$21,730	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		WEILL CORNELL MEDICAL COLLEGE	212094-05		\$21,854	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1F31AI161962-01A1				\$21,901	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R21-AI-139392-01				\$22,531	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00000464		\$22,683	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045

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Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	127765C		\$22,772	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		JOHNS HOPKINS UNIVERSITY	2005533918		\$24,034	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		UNIVERSITY OF CALIFORNIA, LOS ANGELES	SUB TO 2UM1AI068636		\$24,842	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	7-R01-AI-091627-08			\$24,917	\$24,917	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		GEORGE WASHINGTON UNIVERSITY	21-M97		\$25,850	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R21-AI-144732-01				\$26,107	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-F30-AI-154694-01A1				\$26,329	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R21-AI-138564-01			\$7,374	\$26,531	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		UNIVERSITY OF CALIFORNIA, SAN DIEGO	114143023		\$26,825	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-F30-AI-161873-01				\$28,017	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1U01AI169767-01				\$29,033	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		UNIVERSITY OF ALABAMA AT BIRMINGHAM	000515868-002		\$29,571	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		(UNASSIGNABLE) HUTCHINSON (FRED) CANCER RESEARCH CENTER	0001053254		\$31,521	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		VANDERBILT UNIVERSITY MEDICAL CENTER	VUMC78982		\$31,577	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-F31-AI-150224-01A1				\$31,599	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		LOYOLA UNIVERSITY OF CHICAGO	1-210155		\$32,405	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-F30-AI-149864-01A1				\$33,371	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		CLEVELAND CLINIC LERNER COLLEGE OF MEDICINE	959-SUB		\$34,770	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		(UNASSIGNABLE) HUTCHINSON (FRED) CANCER RESEARCH CENTER	0001033142		\$35,393	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		BENAROYA RESEARCH INSTITUTE	FY20ITN369		\$36,274	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R21-AI-164006-01A1				\$36,979	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R21-AI-144838-01				\$37,207	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		UNIVERSITY OF HOUSTON	R-17-0049		\$38,598	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-F31-AI-140508-01A1				\$38,739	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		EMORY UNIVERSITY	A542882		\$38,893	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	129725C		\$39,803	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-F31-AI-154765-01A1				\$41,730	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		NORTHWESTERN UNIVERSITY	60060177 PENN		\$41,840	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		DUKE UNIVERSITY	203-9727		\$42,389	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		DUKE UNIVERSITY	A033564		\$43,497	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		CINCINNATI CHILDREN'S HOSPITAL MEDICAL CENTER	309363		\$43,572	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1R21AI163596-01A1				\$44,415	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-F31-AI-152354-01A1				\$46,550	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		LIGNAMED	SUB TO R42AI132012		\$48,092	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-F31-AI-160741-01				\$48,162	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		UNIVERSITY OF SOUTHERN CALIFORNIA	SCON-00002341	\$13,356	\$49,256	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-K23-AI-163351-01A1				\$52,847	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		BOSTON CHILDREN'S HOSPITAL	GENFD0001903586		\$53,075	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1F31AI161319-01				\$54,818	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1R01AI168312-01				\$54,942	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R21-AI-129890-01A1				\$55,470	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		DUKE UNIVERSITY	A035447		\$57,620	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		ROCKEFELLER UNIVERSITY	1 U01AI145921		\$57,758	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		BOSTON CHILDREN'S HOSPITAL	GENFD0002094248		\$58,973	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-F32-AI-164655-01				\$59,294	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		CHILDREN'S RESEARCH INSTITUTE	30006393-01		\$59,824	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045

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Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		UNIVERSITY OF CHICAGO	SUB TO U01AI153700		\$61,581	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-122749-01				\$63,468	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-F32-AI-154666-01				\$64,269	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-F32-AI-154797-01				\$66,965	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		CINCINNATI CHILDREN'S HOSPITAL MEDICAL CENTER	309364		\$68,879	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	4-R00-AI-148598-03				\$70,648	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R21-AI-151882-01				\$70,817	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	9260SC		\$71,539	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R21-AI-142162-01A1				\$76,574	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-UM1-AI-144288-01				\$77,140	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-120810-01A1			\$73,372	\$80,862	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		WISTAR INSTITUTE	25900-82-324		\$81,160	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		UNIVERSITY OF MASSACHUSETTS	OSP30517-01		\$81,314	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		DUKE CLINICAL RESEARCH INSTITUTE	A03-5346		\$84,206	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		DUKE UNIVERSITY	2037104		\$84,587	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	2-P01-AI-131251-06				\$84,754	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		TEMPLE UNIVERSITY	268028-UPENN		\$86,865	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R21-AI-134594-01A1				\$88,382	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3201540224		\$90,015	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		EMORY UNIVERSITY	T860086		\$91,712	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		FHI 360	HPTN 091 PO20001123		\$92,447	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R21-AI-151476-01A1				\$96,475	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-K24-AI-146137-01				\$96,503	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		UNIVERSITY OF MICHIGAN	SUBK00012761		\$107,128	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R21-AI-138052-01				\$109,710	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-K01-AI-139284-01A1				\$111,091	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		EMORY UNIVERSITY	A534337		\$114,381	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R21-AI-157147-01A1				\$115,431	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-U19-AI-117950-01				\$117,681	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1R21AI153815-01A1			\$2,682	\$122,741	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	7-R01-AI-127798-02				\$122,937	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-U01-AI-125940-01				\$122,995	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		FRED HUTCHINSON CANCER CENTER	0001038427		\$123,138	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-134834-01A1				\$123,816	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		VANDERBILT UNIVERSITY MEDICAL CENTER	VUMC65908		\$129,389	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		UNIVERSITY OF CALIFORNIA, BERKELEY	00010458		\$136,171	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R21-AI-151334-01A1				\$141,046	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		UNIVERSITY OF MICHIGAN	SUBK00014269		\$141,556	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R21-AI-166778-01				\$143,641	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1R01AI167971-01				\$144,387	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		WISTAR INSTITUTE	25900-52-324		\$144,893	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-K01-AI-137317-01A1				\$148,938	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-123243-01				\$149,313	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		EMORY UNIVERSITY	A291031		\$153,579	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1R01AI149456-01				\$157,183	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	2T32AI055428-16A1				\$158,585	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		FOX CHASE CHEMICAL DIVERSITY CENTER	57-R41AI162385-PENN		\$160,197	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R21-AI-161931-01				\$161,335	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R21-AI-151607-01				\$166,520	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		WISTAR INSTITUTE	25900-62-324		\$169,779	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1R56AI165769-01				\$173,985	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-125265-01				\$174,246	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

<i>Federal Awarding Agency/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification (Optional)</i>	<i>Name of Funder Pass-Through Entity</i>	<i>Identifying Number Assigned By Funder Pass-Through Entity</i>	<i>Total Amount Provided to Sub-Recipients</i>	<i>Federal Expenditures</i>	<i>Federal Program Total</i>	<i>Cluster Name</i>	<i>Cluster Total</i>
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1R21AI142638-01A1				\$174,575	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		WISTAR INSTITUTE	25281-12-324		\$183,211	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		DUKE UNIVERSITY	A030915		\$183,872	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-128530-01			\$6,278	\$188,475	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R21-AI-132971-01A1				\$189,983	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		FHI 360	PO21000094		\$194,039	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1R21AI149761-01A1				\$194,935	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1R21AI164385-01				\$196,228	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1K23AI143925-01A1				\$196,239	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		DUKE UNIVERSITY	A030469		\$197,316	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1R01AI164481-01A1				\$203,878	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-K23-AI-121485-01A1				\$206,621	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
			UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT HOUSTON	0012501A		\$206,739	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	2-T32-AI-070077-11				\$208,174	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	2-T32-AI-007324-26A1				\$209,753	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R21-AI-161678-01				\$212,823	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-125284-01A1				\$220,511	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		UNIVERSITY OF PITTSBURGH	AWD00002849(135384-3)		\$222,584	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-118549-01A1			\$7,415	\$225,986	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-124182-01A1				\$227,690	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-120489-01A1			\$33,461	\$233,882	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
			BETH ISRAEL DEACONESS MEDICAL CENTER	01063718		\$238,237	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-T32-AI-141393-01				\$238,580	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
			(UNASSIGNABLE) HUTCHINSON (FRED) CANCER RESEARCH CENTER	0001062692		\$243,542	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1R21AI154022-01			\$46,473	\$247,217	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
			FOX CHASE CHEMICAL DIVERSITY CENTER	95-R42AI138630-PENN		\$252,569	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	2-T32-AI-007532-21				\$255,302	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-166358-01				\$258,061	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-T32-AI-118684-01A1				\$259,724	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	2-R01-AI-108686-06				\$261,879	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		WISTAR INSTITUTE	25900-12-324		\$264,044	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		DUKE UNIVERSITY	303000026		\$266,972	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	2-R01-AI-112427-07				\$269,809	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
			UNIVERSITY OF COLORADO DENVER	FY21.600.003		\$271,084	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	2-R01-AI-050668-14				\$272,735	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-155540-01A1				\$274,969	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-123173-01A1				\$275,374	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R56-AI-150677-01			\$189,453	\$288,288	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	2-T32-AI-055400-16				\$306,407	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-136945-01				\$315,517	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	2-R01-AI-125524-06			\$99,352	\$316,559	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	2-R01-AI-047833-16A1				\$320,219	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	7-R01-AI127271-03			\$4,474	\$322,496	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
			MASSACHUSETTS GENERAL HOSPITAL	234443		\$324,495	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		DUKE UNIVERSITY	1UM1-AI144371-01		\$334,377	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	7-R01-AI-143982-04				\$334,710	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-131331-01				\$336,747	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	7-R01-AI-123738-02				\$337,502	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
			CINCINNATI CHILDREN'S HOSPITAL MEDICAL CENTER	SUB TO R01-AI-145840		\$347,364	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		WISTAR INSTITUTE	25281-10-324		\$347,642	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-123539-01A1			\$182,266	\$353,754	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-143185-01A1				\$358,149	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		FHI 360	SUB TO UM1 AI068619		\$358,324	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		VANDERBILT UNIVERSITY MEDICAL CENTER	VUMC64583		\$360,586	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		BOSTON CHILDREN'S HOSPITAL	GENFD0001487482		\$362,804	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	2-R01-AI-050529-17				\$363,628	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		DUKE UNIVERSITY	1UM1-AI144371-01		\$365,951	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		DUKE UNIVERSITY	1UM1-AI144371-01		\$370,092	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
COVID-19 - ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		UNIVERSITY OF CALIFORNIA, LOS ANGELES	1560 BWA857		\$372,763	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-148431-01A1				\$373,684	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-129661-01A1				\$376,420	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		SCRIPPS RESEARCH INSTITUTE	5-54493		\$376,666	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	7-R01-AI-147487-04			\$173,427	\$377,803	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	2-T32-AI-055435-16A1				\$380,756	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-124429-01			\$98,433	\$385,147	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-139060-01				\$387,665	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		UNIVERSITY OF CALIFORNIA, LOS ANGELES	1560 BWA857		\$388,071	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-164715-01				\$388,157	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-125524-01			\$325,112	\$392,929	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R61-AI-147406-01				\$396,913	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1U01AI152960-01			\$143,362	\$398,214	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		DUKE UNIVERSITY	2036421		\$410,201	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-120821-01			\$14,337	\$412,460	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
COVID-19 - ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		(UNASSIGNABLE) HUTCHINSON (FRED) CANCER RESEARCH CENTER	0001038427		\$416,862	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-145905-01			\$12,855	\$420,169	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	2R01AI091627-12				\$429,827	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-149487-01				\$431,530	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	2T32AI007632-21				\$436,745	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		CINCINNATI CHILDREN'S HOSPITAL MEDICAL CENTER	SUB TO R01-AI-145840		\$461,552	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-152195-01				\$474,155	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-162879-01				\$474,985	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1R01AI152236-01			\$118,895	\$478,601	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-134834-01A1				\$481,727	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-139123-01			\$63,582	\$482,996	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-158830-01				\$496,951	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-152362-01				\$500,942	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1R01AI152765-01			\$2,811	\$510,772	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		COLUMBIA UNIVERSITY	3 (GG013567-03)		\$510,917	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1R01AI130115-01A1			\$19,438	\$526,800	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-136626-01				\$530,102	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1 U01 AI163062-01				\$57,956	\$534,224	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-142572-01				\$14,883	\$540,957	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		(UNASSIGNABLE) HUTCHINSON (FRED) CANCER RESEARCH CENTER	0001038383		\$547,346	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-143676-01A1				\$551,584	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1R01AI146162-01A1				\$551,674	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-146129-01			\$277,725	\$559,604	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-150556-01A1				\$6,982	\$571,892	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-150590-01			\$5,374	\$575,237	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-U01-AI-163671-01				\$575,648	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-153064-01				\$580,458	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	2-R01-AI-118861-06A1				\$583,706	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855		UNIVERSITY OF PITTSBURGH	AWD00002849(135385-3)		\$588,927	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-139240-01			\$5,296	\$600,457	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	
COVID-19 - ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-140442-01			\$98,175	\$617,892	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045	

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.



Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-162646-01A1				\$637,138	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-134879-01				\$638,469	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-146101-01			\$18,621	\$644,596	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
<i>ALLERGY AND INFECTIOUS DISEASES RESEARCH</i>	93.855		MASSACHUSETTS GENERAL HOSPITAL	234447		\$650,859	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	2-R01-AI-104887-06A1			\$3,628	\$661,440	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-139188-01			\$1,511	\$669,499	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-165080-01				\$672,110	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-160607-01				\$732,198	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1R01AI148797-01A1				\$743,177	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-143790-01			\$7,162	\$755,614	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-139102-01A1				\$757,510	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-150606-01				\$760,522	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-140539-01			\$18,897	\$785,975	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-139618-01A1			-\$39	\$857,972	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R61-AI-133696-01			\$549,112	\$867,977	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1R01AI157106-01			\$525,735	\$882,821	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-157247-01			\$43,928	\$898,667	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-138782-01			\$647,457	\$934,127	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1R01AI144522-01A1			\$483,361	\$940,574	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-155577-01				\$944,705	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-148249-01				\$962,277	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1R01AI154932-01			\$54,868	\$1,001,797	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-U01-AI-163087-01			\$1,451	\$1,022,676	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-P01-AI-131338-01			\$629,944	\$1,072,048	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-R01-AI-150246-01			\$194,545	\$1,079,244	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-U19-AI-131130-01			\$63,816	\$1,338,414	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-U19-AI-149680-01			\$394,136	\$3,056,297	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	1-P01-AI-131251-01			\$1,641,265	\$3,187,920	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	2-UM1-AI-069534-15				\$3,480,816	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
ALLERGY AND INFECTIOUS DISEASES RESEARCH	93.855	2-P30-AI-045008-21			\$425,924	\$4,703,073	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R35-GM-118048-01			-\$9,010	\$45,871,932	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	4-R37-GM-056328-18			-\$7,608	\$45,871,932	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-R01-GM-036477-33			-\$5,525	\$45,871,932	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-R01-GM-100366-05			-\$2,500	\$45,871,932	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	4-R37-GM-051279-23			-\$2,365	\$45,871,932	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R35-GM-118139-01			-\$2,233	\$45,871,932	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-R01-GM-085146-09A1			-\$1,844	\$45,871,932	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-R01-GM-052302-21			-\$1,061	\$45,871,932	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-F31-GM-112417-01A1			-\$712	\$45,871,932	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R35-GM-119735-01			-\$513	\$45,871,932	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-R01-GM-034883-27A1			-\$272	\$45,871,932	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-R01-GM-056326-18			-\$22	\$45,871,932	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R01-GM-118510-01			-\$8	\$45,871,932	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-R01-GM-111128-05			\$889	\$45,871,932	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-R01-GM-038237-27A1			\$1,256	\$45,871,932	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-F32-GM-126639-01			\$1,451	\$45,871,932	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-R01-GM-101149-05			\$1,531	\$45,871,932	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-R01-GM-051893-20			\$1,611	\$45,871,932	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
<i>BIOMEDICAL RESEARCH AND RESEARCH TRAINING</i>	93.859		PURDUE UNIVERSITY	11001041-060		\$1,676	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R01-GM-118501-01A1				\$2,356	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
<i>BIOMEDICAL RESEARCH AND RESEARCH TRAINING</i>	93.859		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	12889SC		\$2,801	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
<i>BIOMEDICAL RESEARCH AND RESEARCH TRAINING</i>	93.859		TUFTS UNIVERSITY	NH9022_UPENN		\$3,213	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-R01-GM-055560-18A1			\$5,692	\$45,871,932	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-T32-GM-075766-11			\$9,252	\$45,871,932	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-K23-GM-120630-01A1			\$9,968	\$45,871,932	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R01-GM-143357-01A1			\$14,813	\$45,871,932	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-R01-GM-101149-09A1			\$15,545	\$45,871,932	\$81,696,449	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859		PENNSYLVANIA STATE UNIVERSITY	6093-UP-DHHS-2653		\$28,601	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-F31-GM-134591-01A1				\$30,640	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R35-GM-118090-01				\$33,279	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-F31-GM-136073-01				\$36,133	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859		BRIGHAM YOUNG UNIVERSITY	20-0552		\$38,873	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859		CARNEGIE MELLON UNIVERSITY	1090631-432700		\$39,842	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-F31-GM-139325-01				\$46,260	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-R01-GM080279-09				\$46,514	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859		RUTGERS UNIVERSITY	1702		\$47,043	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1F31GM140978-01A1				\$47,994	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R01-GM-123783-01A1				\$48,532	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859		SAINT LOUIS UNIVERSITY	ERS#22288-45656		\$48,546	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-F32-GM-133162-01				\$50,570	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859		UNIVERSITY OF MICHIGAN	SUBK00012742		\$50,828	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-F32-GM-137461-01A1				\$52,045	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859		UNIVERSITY OF WISCONSIN-MADISON	0000000933		\$52,357	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	129455C		\$52,673	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-K08-GM-123317-01				\$55,971	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R01-GM-115517-01A1				\$57,674	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2R01GM049758-28				\$63,560	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859		ADVENTUM ENTERPRISES, LLC	7006-001-001-004	\$2,625	\$69,086	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R01-GM-123056-01A1				\$75,100	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1K99GM137076-01A1				\$76,053	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2R35GM122475-06				\$78,678	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859		PARADIGM SURGICAL, LLC	SUB TO R44GM123789		\$90,336	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R35-GM-118052-01				\$91,343	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R01-GM-125811-01A1				\$97,883	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-R01-GM-098389-06				\$111,326	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R01-GM-133172-01				\$115,113	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R01-GM-144377-01				\$120,566	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R21-GM-133060-01				\$142,020	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	7-R01-GM-132668-03			\$63,991	\$146,249	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R21-GM-132831-01				\$150,374	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-T32-GM-112596-06				\$165,226	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-R01-GM-095977-05				\$171,388	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R01-GM-128096-01				\$173,413	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R35-GM-133708-01				\$182,262	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859		NORTHWESTERN UNIVERSITY	60051124 UPENN		\$183,752	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R01-GM-123019-01			\$21,814	\$194,900	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R01-GM-127593-01				\$199,888	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R35-GM-124684-01				\$204,413	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R01-GM-127408-01				\$207,210	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1R35GM140832-01				\$209,220	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-K08-GM-139031-01				\$210,621	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R01-GM-123233-01				\$221,565	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-R35-GM-119735-06				\$233,208	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R01-GM-127374-01				\$237,840	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R35-GM-142712-01				\$238,526	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R01-GM-133154-01				\$238,869	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R35-GM-124749-01				\$242,139	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R01-GM-121375-01				\$242,209	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1R35GM144120-01				\$252,711	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R01-GM-123512-01A1				\$257,602	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1R01GM125301-01			\$21,847	\$262,042	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-T32-GM-133398-01A1				\$271,977	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2R01GM099836-09				\$276,101	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-R01-GM-073791-14				\$291,481	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Program		Cluster Name	Cluster Total
						Federal Expenditures	Federal Program Total		
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R35-GM-133380-01				\$298,437	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-R01-GM-051893-24				\$300,095	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R35-GM-138201-01				\$301,009	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-R25-GM-071745-14A1				\$302,990	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-R01-GM-056838-21				\$303,354	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-R01-GM-108751-05A1				\$310,582	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R01-GM-138908-01A1				\$313,435	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R01-GM-138788-01				\$318,262	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R01-GM-124023-01A1				\$319,652	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R35-GM-128794-01				\$330,968	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1R01GM135633-01			\$71,314	\$331,334	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R01-GM-129357-01			\$1,153	\$331,777	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1R35GM136259-01				\$343,883	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-T32-GM-008216-33				\$344,182	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R35-GM-142678-01				\$346,472	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-T32-GM-132039-01				\$349,541	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R01-GM-133842-01A1				\$357,360	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R01-GM-124111-01			\$27,939	\$371,376	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-R01-GM-088156-06				\$372,279	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-R01-GM-097552-10				\$379,134	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R35-GM-142505-01				\$381,698	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-R01-GM-052302-25A1				\$384,459	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-R01-GM-085207-09			\$6,669	\$385,503	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R35-GM-128903-01				\$385,734	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-R01-GM-049758-24				\$394,444	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R35-GM-128748-01				\$397,998	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R01-GM-124143-01				\$399,045	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R35-GM-133425-01				\$414,004	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-R01-GM-116876-05				\$416,693	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R35-GM-122505-01				\$427,438	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-R01-GM-051279-28				\$433,623	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R35-GM-138035-01				\$446,036	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R35-GM-131902-01				\$446,287	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R35-GM-140975-01				\$453,010	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R35-GM-139541-01				\$455,882	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1R35GM134957-01				\$459,799	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R01-GM-139970-01				\$465,399	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-R01-GM-115420-05				\$468,721	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R01-GM-139211-01A1				\$476,929	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-T32-GM-075766-16				\$478,850	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-T32-GM-007229-43				\$484,621	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R35-GM-133721-01				\$487,744	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R35-GM-127093-01				\$489,175	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R01-GM-124091-01A1			\$16,474	\$494,518	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1DP2GM140923-01				\$497,695	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R01-GM-129781-01				\$499,461	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-R01-GM-103899-07			\$82,137	\$502,794	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-R01-GM-055560-22A1				\$511,067	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R35-GM-122475-01				\$512,456	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R35-GM-130302-01				\$523,475	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R35-GM-131908-01				\$535,065	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1R35GM138211-01				\$543,889	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-R35-GM-118090-06				\$544,612	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R01-GM-137430-01A1			\$23,416	\$556,568	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-T32-GM-008076-35				\$578,756	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-R37-GM-057247-18			\$5,521	\$586,229	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R35-GM-139646-01				\$606,357	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
			UNIVERSITY OF CALIFORNIA, LOS ANGELES	1445 G UE023		\$616,813	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1R35GM136270-01				\$618,682	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R35-GM-141747-01				\$623,218	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R35-GM-141832-01				\$629,539	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2R35GM118048-06				\$630,885	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R35-GM-136315-01				\$662,718	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-R01-GM-036477-37				\$727,501	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1R01GM138597-01			\$73,879	\$743,583	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R35-GM-126950-01				\$779,247	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R35-GM-131907-01				\$850,762	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1-R35-GM-131680-01				\$872,472	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-R35-GM-118139-06				\$886,467	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-K12-GM-081259			\$111,137	\$1,140,361	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	1RM1GM136511-01				\$1,411,613	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
BIOMEDICAL RESEARCH AND RESEARCH TRAINING	93.859	2-T32-GM-007170-44				\$2,826,909	\$45,871,932	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		GEORGE WASHINGTON UNIVERSITY	SUB TO U10HD036801		-\$9,639	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1-F32-HD-089623-01A1				-\$8,367	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1-T32-HD-083185-01				-\$7,287	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1-K12-HD-085848-01				-\$2,371	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	321098 PO #961914RSUB		-\$1,326	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	K12-HD-001265				-\$554	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1-R21-HD-093369-01				\$16	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		GEORGE WASHINGTON UNIVERSITY	SUB TO U10HD036801		\$494	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		GEORGE WASHINGTON UNIVERSITY	SUB TO U10HD036801/MFMU TOPS		\$877	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1F31HD101346-01A1				\$999	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		GEORGE WASHINGTON UNIVERSITY	SUB TO U10HD036801/MFMU40C		\$1,449	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	PROSPECT		\$1,607	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL	5113142		\$1,864	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		UNIVERSITY OF ALABAMA AT BIRMINGHAM	000527889-SC002-MCD		\$3,984	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL	5106229		\$4,119	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00000147		\$6,541	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1-K99-HD-098329-01				\$7,047	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	134995C		\$7,199	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00000601		\$7,233	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	2R13HD089669-04				\$7,640	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1-U01-HD-087180-01			-\$1,228	\$9,357	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		COLUMBIA UNIVERSITY	4(GG011848-01)		\$9,994	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		STANFORD UNIVERSITY	62613539-153996		\$11,872	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		TEMPLE UNIVERSITY	264697-UPENN		\$12,216	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL	5124841		\$13,195	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		UNIVERSITY OF MICHIGAN	SUBK00015994		\$14,062	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3207930625		\$16,012	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		VIRGINIA COMMONWEALTH UNIVERSITY	FP0008368_SA001		\$18,071	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		EMORY UNIVERSITY	A403216		\$18,198	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1-F30-HD-104360-01				\$18,278	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3201440523		\$18,752	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	4-R00-HD-101657-03				\$22,267	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1R03HD105802-01A1				\$27,325	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		GEORGE WASHINGTON UNIVERSITY	SUB TO U10HD036801		\$27,540	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1F32HD107914-01				\$27,743	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		MOSS REHABILITATION RESEARCH INSTITUTE	4934		\$28,585	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1-K23-HD-084727-01A1				\$29,027	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1-F30-HD-098015-01				\$29,391	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		RECUPERO ROBOTICS LLC	SUB TO R42HD104325		\$29,784	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1-F31-HD-102121-01				\$30,503	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1R21HD103927-01A1				\$32,109	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1F30HD103378-01				\$32,794	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	GRT-00000289		\$34,016	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		OHIO STATE UNIVERSITY	60079099		\$34,046	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1-F30-HD-098803-01				\$34,788	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		DREXEL UNIVERSITY	900012		\$34,895	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1F31HD102165-01				\$37,203	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		RESEARCH TRIANGLE INSTITUTE	PFDN CAPITATION FUNDING		\$37,554	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1-F31-HD-102084-01				\$37,680	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		NORTHWESTERN UNIVERSITY	SUB TO K12 ADV ACCT		\$39,630	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	2-R01-HD-058730-06A1				\$40,667	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		NORTHWESTERN UNIVERSITY	60046347 PENN		\$42,193	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3200880522		\$43,694	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1-F31-HD-106718-01				\$43,840	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		JOHNS HOPKINS UNIVERSITY	2004462188		\$44,838	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1F31HD103375-01				\$47,710	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1-K23-HD-090272-01A1				\$53,876	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		GEORGE WASHINGTON UNIVERSITY	SUB TO U10HD036801		\$57,019	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1-F32-HD-101230-01A1				\$61,464	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		YALE UNIVERSITY	GR107889 (CON-80002064)		\$62,403	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		IFIT PROSTHETICS	SUB TO 1R42HD107747-01		\$62,630	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1-R03-HD-104104-01A1				\$63,015	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1-F32-HD-103448-01				\$64,138	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1-F32-HD-106688-01				\$67,277	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1-R03-HD-099667-01A1				\$79,550	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3201250522		\$81,281	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	4R00HD096108-04				\$91,515	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1-R21-HD-097576-01A1			\$61,751	\$94,197	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	7-K01-HD-100222-02				\$100,081	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045

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Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		WEILL CORNELL MEDICAL COLLEGE	212826-16		\$111,143	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		CENTRAL MICHIGAN UNIVERSITY	F63374		\$121,976	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		JOHNS HOPKINS UNIVERSITY	2004123438		\$133,377	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		UNIVERSITY OF MISSOURI	C00075381-4		\$135,000	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	T32-HD-007440				\$140,959	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	2-K12-HD-001265-21				\$179,429	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1K23HD102523-01				\$183,992	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1-R01-HD-092266-01				\$195,026	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	4-R00-HD-098298-03				\$197,080	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		STATE UNIVERSITY OF NEW YORK	77545-1138238-2	\$639	\$213,802	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		PENNSYLVANIA STATE UNIVERSITY	UPENNHD083323		\$217,193	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1-R01-HD-105446-01				\$221,512	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1-R21-HD-101792-01			\$26,251	\$221,936	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3200830522		\$240,972	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3201860524		\$242,007	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1R21HD102801-01				\$251,047	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	2-UG1-HD-069010-06				\$255,102	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1-R61-HD-101937-01A1				\$269,332	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL	5106045		\$273,543	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	2-UG1-HD-087192-06				\$292,926	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	2-T32-HD-007242-36A1				\$294,346	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	2-UG1-HD-068244-06			\$123,681	\$303,681	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1R01HD103563-01A1			\$13,833	\$314,536	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	2-T32-HD-083185-06A1				\$319,875	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1-R01-HD-105819-01				\$340,007	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1-R01-HD-089390-01A1			\$4,728	\$350,673	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	2-R01-HD-069592-06A1				\$356,477	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1-R01-HD-098269-01A1			\$171,959	\$379,342	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1-R01-HD-087485-01A1			\$11,174	\$388,066	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	7R01HD095248-04			\$36,813	\$449,300	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1-R01-HD-091350-0			\$119,821	\$449,884	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	2-P2C-HD-044964-16				\$450,784	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1-R01-HD-102013-01A1				\$456,448	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1-R01-HD-097686-01A1			\$267	\$482,459	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865		UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL	5116605	\$397,381	\$539,173	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1-R01-HD-087391-01A1			\$33,999	\$579,796	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1-R01-HD-090082-01			\$344,066	\$592,190	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1-R01-HD-102318-01			\$11,436	\$731,848	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1R01HD098867-01A1			\$17,183	\$765,284	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	1-U54-HD-104392-01				\$1,257,491	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	93.865	2-P50-HD-068157-06A1			\$142,624	\$1,562,963	\$17,461,432	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		JOHNS HOPKINS UNIVERSITY	2005154626		\$55,908	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		MAYO CLINIC ROCHESTER	PO #63788299		-\$37,320	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		COLUMBIA UNIVERSITY	2(GG013395-01)		-\$34,772	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		NATIONAL BUREAU OF ECONOMIC RESEARCH, INC.	4121C-PILOT 2.2-PENN		-\$33,181	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF SOUTHERN CALIFORNIA	129134561		-\$13,906	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045

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AGING RESEARCH	93.866		ADVANCED MEDICAL ELECTRONICS	SUB TO 1R32AG049524		-\$10,377	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		COGNITION THERAPEUTICS, INC.	SUB TO RF1AG057780		-\$8,333	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	2-P30-AG-012836-21				-\$1,426	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	2-R01-AG-041099-04				-\$1,343	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-U54-AG-052427-01				-\$1,120	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-UH2-AG-050311-01				-\$684	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	ACTIVITY # 3200620420		-\$670	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		DUKE UNIVERSITY	2034990		-\$540	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-UF1-AG-047133-01			-\$165	-\$165	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R21-AG-052905-01				-\$46	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - AGING RESEARCH	93.866		UNIVERSITY OF SOUTHERN CALIFORNIA	105710197		-\$4	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-RF1-AG-053951				\$164	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF MARYLAND, BALTIMORE	1200011D REQUEST:2765		\$2,028	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF MIAMI	OS00000588		\$2,370	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF MIAMI	SPC-001202		\$4,774	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		WAKE FOREST UNIVERSITY HEALTH SCIENCES	101720-114750		\$4,826	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		WAKE FOREST UNIVERSITY HEALTH SCIENCES	WFUHS 551083		\$6,694	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		TEMPLE UNIVERSITY	264720-PENN		\$7,041	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R01-AG-077111-01				\$7,556	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF SOUTHERN CALIFORNIA	129204282		\$9,099	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	110645C		\$10,429	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-F30-AG-074524-01A1				\$10,765	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-RF1-AG-065341-01A1				\$10,831	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		BANNER HEALTH	SUB TO R01AG069453		\$11,377	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI	0255-A864-4609		\$11,958	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF WASHINGTON	UWSC10653/BPO33606		\$12,061	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		COLUMBIA UNIVERSITY	2(GG017543-01)		\$12,823	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1F31AG060672-01				\$13,138	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		WAKE FOREST UNIVERSITY	101720-114751		\$14,416	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		STANFORD UNIVERSITY	62680882-192702		\$14,485	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1R01AG074989-01				\$15,210	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		WAKE FOREST UNIVERSITY	WFUHS 552702		\$15,660	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		SANFORD BURNHAM PREBYS MEDICAL DISCOVERY INSTITUTE	69990-13315-UPENN		\$15,675	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF SOUTHERN CALIFORNIA	130284689		\$16,754	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		BOSTON UNIVERSITY	4500003924		\$16,923	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF OKLAHOMA	RS20202304-01		\$17,018	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - AGING RESEARCH	93.866	1R01AG071610-01A1				\$17,123	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		JOHNS HOPKINS UNIVERSITY	2004835051		\$18,116	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R13-AG-069597-01				\$18,453	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF WISCONSIN-MADISON	0000000888		\$18,653	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF MIAMI	OS00000713		\$19,524	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		DUKE UNIVERSITY	303000063		\$19,691	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		KAISER FOUNDATION RESEARCH INSTITUTE	RNG211397-UPENN		\$20,320	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R56-AG-062293-01				\$22,603	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1R01AG072796-01A1				\$23,500	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		INDIANA UNIVERSITY	8545		\$24,526	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		STANFORD UNIVERSITY	61927487-133778		\$25,169	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
AGING RESEARCH	93.866		UNIVERSITY OF PITTSBURGH	AWD00000729 (133049-01)		\$26,991	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		JACKSON LABORATORY	210386-0123-02		\$27,577	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1R21AG075574-01			\$394	\$27,723	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-K99-AG-066947-01A1				\$28,121	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI	0255-A864-4609		\$28,189	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF SOUTHERN CALIFORNIA	SCON-00002505		\$28,393	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		BROWN UNIVERSITY	00001589		\$28,765	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF WASHINGTON	UWSC13008		\$30,432	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF MICHIGAN	SUBK00007532		\$30,629	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		BROWN UNIVERSITY	00001384		\$30,732	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		BRIGHAM AND WOMEN'S HOSPITAL	115388		\$32,837	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		BRIGHAM AND WOMEN'S HOSPITAL	121337		\$33,116	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-F31-AG-063470-01A1				\$33,980	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R21-AG-064618-01				\$34,094	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		JOHNS HOPKINS UNIVERSITY	2003755014		\$35,284	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF COLORADO DENVER	FY22.1105-001		\$35,618	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		COLUMBIA UNIVERSITY	1(GG015275-01)		\$38,087	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF SOUTHERN CALIFORNIA	117340690		\$38,249	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-F31-AG-074532-01				\$38,980	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1R01AG071725-01A1				\$39,437	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		WASHINGTON UNIVERSITY IN ST. LOUIS	WU-22-0098		\$39,770	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1R25AG069719-01A1				\$40,003	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF SOUTHERN CALIFORNIA	130284689		\$40,675	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		DIAMIR, LLC	SUB TO R44AG044860		\$41,866	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		KAISER FOUNDATION RESEARCH INSTITUTE	RNG211393-UPENN		\$42,346	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF SOUTHERN CALIFORNIA	SCON-00002475		\$42,388	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R01-AG-073384-01A1				\$43,384	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1R01AG071777-01A1				\$43,684	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF WISCONSIN-MADISON	0000000888		\$45,029	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1F31AG069390-01				\$45,625	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		MAYO CLINIC JACKSONVILLE	UPA-282916		\$46,656	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1F30AG074508-01				\$46,723	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF PITTSBURGH	AWD00001198 (133499-1)		\$47,965	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF COLORADO	FY21.1105.001		\$48,723	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-F31-AG-072777-01				\$48,872	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF MIAMI	OS00000815		\$50,013	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	7-K23-AG-062795-03				\$50,265	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		BETH ISRAEL DEACONESS MEDICAL CENTER	01063347		\$50,676	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R21-AG-047915-01A1				\$50,950	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		CASE WESTERN RESERVE UNIVERSITY	RES514121		\$51,940	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		NORTHERN CALIFORNIA INSTITUTE FOR RESEARCH AND EDUCATION	STE2196-18		\$52,267	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-F32-AG-074614-01				\$52,844	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF SOUTHERN CALIFORNIA	138398230		\$53,691	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-U01-AG-066100-01				\$54,408	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.



Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
AGING RESEARCH	93.866		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3200890622		\$54,606	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-F31-AG-069441-01				\$54,675	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		NEW YORK UNIVERSITY	F1995-03		\$55,372	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		BOSTON UNIVERSITY	4500003187		\$56,161	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	P30-AG-010124				\$57,992	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R21-AG-051981-01A1				\$59,771	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF MIAMI	OS00000158		\$62,316	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1F31AG067692-01A1				\$63,114	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-F32-AG-074641-01				\$64,303	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF SOUTHERN CALIFORNIA	107890382		\$64,634	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF WISCONSIN-MADISON	785K492		\$65,777	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		NORTHERN CALIFORNIA INSTITUTE FOR RESEARCH AND EDUCATION	WEI-2015-17		\$68,538	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF MIAMI	OS00000155		\$69,362	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		SEATTLE CHILDREN'S HOSPITAL RESEARCH INSTITUTE	12330SUB		\$70,067	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF MIAMI	SPC-000516		\$70,251	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		MD ANDERSON CANCER CENTER	3001879508		\$72,501	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R21-AG-057380-01				\$73,473	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R03-AG-069817-01				\$74,899	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF MIAMI	OS00000589		\$75,866	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1R03AG069793-01				\$76,142	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF CHICAGO	AWD101518		\$76,461	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF MIAMI	SPC-001376		\$76,488	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-K99-AG-065500-01A1				\$76,631	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF MIAMI	SPC-001233		\$77,834	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		STANFORD UNIVERSITY	61927487-133778		\$77,891	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF PITTSBURGH	0058745(131435-2		\$78,454	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF MIAMI	SPC-001173		\$82,605	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-K99-AG-073510-01				\$82,981	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		RUTGERS UNIVERSITY	1967		\$86,494	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF MIAMI	SPC-001337		\$88,337	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		KAISER FOUNDATION RESEARCH INSTITUTE	RNG211400-UPENN		\$91,289	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-RF1-AG-054104-01				\$92,436	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	4-R00-AG-056054-03				\$92,644	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF SOUTHERN CALIFORNIA	107888795		\$92,653	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-K08-AG-065444-01A1				\$94,068	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R03-AG-063213-01				\$94,303	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1R01AG077692-01				\$94,410	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF SOUTHERN CALIFORNIA	79634962		\$96,020	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF MIAMI	OS00000816		\$97,452	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		COLUMBIA UNIVERSITY	3(GG017449-01)		\$99,163	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF SOUTHERN CALIFORNIA	120113669		\$100,764	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1R21AG074047-0				\$102,406	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		VANDERBILT UNIVERSITY	VUMC71547		\$104,924	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1R01AG069936-01A1				\$105,243	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R21-AG-073173-01A1				\$107,729	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1R21AG073958-01				\$109,464	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-K01-AG-064123-01				\$112,497	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		BANNER HEALTH	0435-06-102819		\$115,759	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R56-AG-061057-01				\$118,647	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1K23AG073512-01				\$120,104	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
AGING RESEARCH	93.866		BOSTON UNIVERSITY	4500003658		\$122,454	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R21-AG-065816-01A1				\$126,831	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R21-AG-068726-01A1				\$127,304	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-K01-AG-055691-01A1				\$134,640	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R21-AG-065854-01				\$135,940	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		BOSTON UNIVERSITY	4500003108		\$136,410	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R21-AG-067114-01			\$33,452	\$136,586	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		COLUMBIA UNIVERSITY	1(GG017425-01)		\$138,813	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF SOUTHERN CALIFORNIA	105710197		\$139,397	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		BOSTON MEDICAL CENTER	7653		\$140,468	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	7-K76-AG-057016-02				\$142,096	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-K23-AG-065442-01				\$142,510	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R01-AG-071730-01A1				\$144,044	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		WAKE FOREST UNIVERSITY	WFUHS 112971		\$144,802	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-U01-AG-052943-01			\$35,583	\$145,866	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		YALE UNIVERSITY	CON-80003041 (GR112866)		\$153,657	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-K24-AG-070459-01				\$154,062	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1R56AG074604-01			\$3,841	\$156,982	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-K01-AG-061277-01				\$162,419	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-K24-AG-055602-01				\$171,458	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	2-K24-AG-042765-06				\$171,983	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	2-K24-AG-047908-06				\$175,260	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-K23-AG-065499-01A1				\$181,458	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF FLORIDA	SUB00002681		\$184,168	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		JOHNS HOPKINS UNIVERSITY	2004028077		\$187,749	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		WAKE FOREST UNIVERSITY	WFUHS-551083		\$189,446	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	9409SC		\$189,774	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF WASHINGTON	UWSC10172		\$194,615	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		CASE WESTERN RESERVE UNIVERSITY	RESS14120		\$197,200	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1R21AG069805-01			\$314	\$198,509	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1R21AG070434-01				\$214,149	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R56-AG-062665-01			\$31,881	\$214,638	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		BANNER HEALTH	0435-02-71562		\$217,186	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		VANDERBILT UNIVERSITY MEDICAL CENTER	VUMC95896		\$221,977	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R01-AG-070885-01A1				\$224,827	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		CASE WESTERN RESERVE UNIVERSITY	RESS14122		\$225,346	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	10387SC		\$228,456	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R01-AG-071707-01A1				\$232,082	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		JOHNS HOPKINS UNIVERSITY	2003994874		\$247,847	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		BANNER HEALTH	0435-06-08001	\$23,818	\$251,343	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF SOUTHERN CALIFORNIA	SUB TO U01AG068057		\$256,233	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R56-AG-066656-01				\$261,918	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF MIAMI	OS00000157		\$262,029	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF MIAMI	SPC-001347		\$267,592	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF MIAMI	SPC-001223		\$267,791	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1RF1AG074328-01			\$8,979	\$308,939	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1R61AG068947-01			\$111,946	\$313,399	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1R01AG073435-01			\$24,534	\$334,787	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R01-AG-055570-01				\$336,989	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R01-AG-057501-01			\$34,237	\$337,480	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R01-AG-054060-01			\$183,126	\$341,800	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	2U24AG041689-11				\$347,999	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		BROWN UNIVERSITY	00001361		\$353,376	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
AGING RESEARCH	93.866	1R01AG068577-01			\$36,611	\$354,420	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R01-AG-071818-01				\$357,792	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1R01AG070944-01			\$8,838	\$361,906	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R01-AG-065276-01			\$97,512	\$366,845	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-RF1-AG-066569-01				\$380,453	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R61-AG-068945-01			\$146,927	\$387,564	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R01-AG-058718-01			\$25,469	\$398,257	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1R01AG067698-01A1			\$57,158	\$401,843	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF SOUTHERN CALIFORNIA	137298061		\$407,968	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF MIAMI	SPC-000472		\$414,419	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-RF1-AG-057197-01A1				\$417,848	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R01-AG-066841-01A1				\$420,086	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-RF1-AG-058065-01				\$430,626	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R01-AG-071470-01				\$436,058	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	2-T32-AG-000255-21				\$445,159	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R01-AG-055005-01				\$445,725	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R01-AG-069401-01A1			\$11,598	\$447,112	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		INDIANA UNIVERSITY	IN4683234UPEN CS		\$450,409	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R01-AG-060115-01			\$57,686	\$452,140	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R01-AG-062140-01A1				\$452,664	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R01-AG-066650-01A1				\$458,647	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		NORTHERN CALIFORNIA INSTITUTE FOR RESEARCH AND EDUCATION	WEI2015-14		\$465,287	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		BOSTON UNIVERSITY	4500003659		\$466,962	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	2-R01-AG-025152-11			\$14,719	\$484,519	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R01-AG-060975-01				\$490,940	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		UNIVERSITY OF MIAMI	SPC001222		\$509,119	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-RF1-AG-069474-01A1				\$512,138	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R01-AG-066114-01			\$558	\$512,238	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866		MAYO CLINIC ROCHESTER	UOP-263134		\$514,263	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R01-AG-062595-01			\$93,976	\$523,748	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-RF1-AG-055477-01				\$562,862	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-P30-AG-059302-01			\$6,096	\$581,401	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	2-P30-AG-012836-26				\$591,367	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1RF1AG066905-01A1				\$592,846	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1R01AG063869-01A1				\$592,966	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R01-AG-056014-01			\$1,369	\$593,439	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R01-AG-066152-01				\$598,169	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-P30-AG-073105-01				\$600,396	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R01-AG-060612-01A1				\$612,179	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R01-AG-054521-01A1			\$3,197	\$642,131	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R01-AG-064589-01			\$67,392	\$648,493	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R01-AG-059763-01A1			\$1,321	\$675,765	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R01-AG-070351-01			\$6,428	\$675,949	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1R01AG061447-01				\$699,912	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-RF1-AG-063481-01A1			\$279	\$705,805	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R56-AG-071777-01				\$709,523	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R01-AG-061945-01			\$28,432	\$743,755	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-DP2-AG-067511-01				\$793,691	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-DP2-AG-067492-01				\$802,017	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R01-AG-054519-01A1				\$828,099	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	2-P30-AG-034546-11			\$34,421	\$885,986	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	2-P01-AG-017586-16				\$886,395	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-RF1-AG-054409-01				\$941,979	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-U01-AG-061173-01			\$511,742	\$951,693	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R01-AG-064231-01A1				\$1,023,737	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-P30-AG-064105-01			\$17,823	\$1,081,695	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R01-AG-062819-01A1			\$815,574	\$1,128,058	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
AGING RESEARCH	93.866	1-R01-AG-054435-01A1			\$519,981	\$1,186,818	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	2-U24-AG-041689-06			\$38,311	\$1,613,189	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-R56-AG-069130-01			\$1,455,688	\$1,803,544	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	2-P01-AG-031862-11			\$973,141	\$1,845,932	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	2-U54-AG-052427-06			\$489,237	\$2,548,376	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	2-U01-AG-032984-11			\$88,711	\$2,592,834	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-P01-AG-066597-01				\$2,650,844	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1-P30-AG-072979-01				\$2,940,702	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
AGING RESEARCH	93.866	1U19AG062418-01A1			\$83,725	\$3,789,058	\$71,621,586	RESEARCH AND DEVELOPMENT	\$859,489,045
			UNIVERSITY OF SOUTHERN CALIFORNIA	67228549		-\$26,255	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	1-R21-EY-029826-01				-\$9,862	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	2-R01-EY-020851-06				-\$2,014	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	1-R01-EY-024861-01				-\$1,237	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867		NORTHWESTERN UNIVERSITY	SP0039783-PROJ0013665		-\$944	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867		BRIGHAM AND WOMEN'S HOSPITAL	119243		-\$493	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867		PENNSYLVANIA STATE UNIVERSITY	UPAEY023533		-\$15	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867					\$0	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	1-R01-EY-024681-01A1				\$2,119	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867		JOHNS HOPKINS UNIVERSITY	2004433095		\$3,632	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867		JOHNS HOPKINS UNIVERSITY	2002565177		\$9,003	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867		BRIGHAM AND WOMEN'S HOSPITAL	126553		\$10,797	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867		NEW YORK UNIVERSITY	SUB TO 1U10EY026869		\$12,112	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	1-R21-EY-029776-01				\$13,054	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	2-R01-EY-019014-06A1				\$14,506	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	2-K12-EY-015398-16				\$16,998	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867		JOHNS HOPKINS UNIVERSITY	2005421250		\$22,126	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	1R21EY032743-01A1				\$23,900	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	1-R21-EY-028273-01A1				\$26,489	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	1-F30-EY-029931-01A1				\$31,024	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867		DUKE UNIVERSITY	A034815		\$35,995	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	1-F30-EY-032339-01				\$36,811	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867		JAEB CENTER FOR HEALTH RESEARCH	EY 14231		\$38,867	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867		FOX CHASE CHEMICAL DIVERSITY CENTER	R41EY030391-UP		\$48,101	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3201580224		\$51,960	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	1K23EY033438-01				\$65,185	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	1R21EY031465-01				\$71,716	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	1R01EY033291-01				\$76,035	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	1-R21-EY-028998-01A1				\$79,519	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867		WAYNE STATE UNIVERSITY	WSU21108		\$81,250	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867		HARVARD MEDICAL SCHOOL	150507.5117091.0003		\$83,450	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	1-R01-EY-025287-01A1				\$86,315	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	1 K99 EY032593-01				\$88,692	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
			VANDERBILT UNIVERSITY MEDICAL CENTER	VUMC91400		\$106,541	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	2-R01-EY-017549-10			\$27,615	\$111,496	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867		COLUMBIA UNIVERSITY	1(GG013355-01)		\$116,382	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	2-T35-OD-010919-21				\$128,752	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	2-T32-EY-007035-41				\$147,587	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	1-R21-EY-031338-01			\$26,921	\$148,163	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	1-R21-EY-032232-01				\$148,850	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	1R21EY031877-01			\$4,237	\$188,442	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867		NEW ENGLAND COLLEGE OF OPTOMETRY	3708-07-01-2020UPENN		\$198,624	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
VISION RESEARCH	93.867	1-K08-EY-031754-01				\$203,811	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	2-R01-EY-013434-12A1				\$235,415	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	1-K08-EY-030163-01				\$253,788	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	4-R00-EY-031137-03				\$254,719	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	1-K08-EY-029765-01A1				\$264,246	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	1-R01-EY-028571-01A1				\$292,096	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	1-R01-EY-032878-01				\$299,988	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	1R01EY030227-01A1			\$19,713	\$308,598	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	1-R01-EY-026972-01			\$34,463	\$336,352	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	1-R01-EY-031286-01A1				\$340,248	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	1-UG1-EY-030419-01				\$364,710	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	1-R01-EY-028601-01A1				\$367,439	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	1-R01-EY-027205-01A1				\$378,922	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	1-R01-EY-030599-01				\$409,327	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	2-R01-EY-026525-05			\$15,974	\$434,731	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	2-R01-EY-022411-05A1				\$444,336	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	1-R01-EY-031209-01A1			\$129,947	\$489,409	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	2-R01-EY-017549-15			\$31,981	\$496,842	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	2-R01-EY-022350-08				\$498,780	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	2-R01-EY-006855-34				\$522,073	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	7R01EY023336-07				\$530,511	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	2-R01-EY-015240-13A1				\$541,582	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	2-R01-EY-105537-12A1			\$3,792	\$604,046	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	2R01EY024861-06				\$628,633	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	1-R01-EY-028916-01A1				\$655,297	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	2-P30-EY-001583-46				\$738,569	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	1-R01-EY-030192-01			\$38,967	\$744,550	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867	2-R01-EY-023557-06			\$111,588	\$1,003,386	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
VISION RESEARCH	93.867		CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3201360819		\$1,031,497	\$15,957,574	RESEARCH AND DEVELOPMENT	\$859,489,045
AUTISM COLLABORATION, ACCOUNTABILITY, RESEARCH, EDUCATION, AND SUPPORT	93.877		UNIVERSITY OF CALIFORNIA, LOS ANGELES	2000 G YC805		\$212,326	\$212,326	RESEARCH AND DEVELOPMENT	\$859,489,045
MEDICAL LIBRARY ASSISTANCE	93.879	1-F31-LM-013403-01				\$34,521	\$2,673,499	RESEARCH AND DEVELOPMENT	\$859,489,045
MEDICAL LIBRARY ASSISTANCE	93.879	1-R21-LM-012763-01A1				\$35,771	\$2,673,499	RESEARCH AND DEVELOPMENT	\$859,489,045
MEDICAL LIBRARY ASSISTANCE	93.879	1-F31-LM-013583-01				\$40,580	\$2,673,499	RESEARCH AND DEVELOPMENT	\$859,489,045
MEDICAL LIBRARY ASSISTANCE	93.879	1-K99-LM-013646-01A1				\$64,938	\$2,673,499	RESEARCH AND DEVELOPMENT	\$859,489,045
MEDICAL LIBRARY ASSISTANCE	93.879	1-R01-LM-012607-01			\$3,375	\$69,265	\$2,673,499	RESEARCH AND DEVELOPMENT	\$859,489,045
MEDICAL LIBRARY ASSISTANCE	93.879		INDIANA UNIVERSITY	IN-4687289-UP		\$108,957	\$2,673,499	RESEARCH AND DEVELOPMENT	\$859,489,045
MEDICAL LIBRARY ASSISTANCE	93.879	1-R01-LM-013519-01			\$5,777	\$179,994	\$2,673,499	RESEARCH AND DEVELOPMENT	\$859,489,045
MEDICAL LIBRARY ASSISTANCE	93.879	1-R01-LM012601-01			\$16,224	\$185,504	\$2,673,499	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - MEDICAL LIBRARY ASSISTANCE	93.879		ARIZONA STATE UNIVERSITY	ASUB00000936		\$205,001	\$2,673,499	RESEARCH AND DEVELOPMENT	\$859,489,045
MEDICAL LIBRARY ASSISTANCE	93.879	1R01LM013361-01A1			\$12,465	\$229,074	\$2,673,499	RESEARCH AND DEVELOPMENT	\$859,489,045
MEDICAL LIBRARY ASSISTANCE	93.879	1R01LM013463-01			\$7,777	\$267,014	\$2,673,499	RESEARCH AND DEVELOPMENT	\$859,489,045
MEDICAL LIBRARY ASSISTANCE	93.879	2-R01-LM-010098-10			\$72,597	\$275,288	\$2,673,499	RESEARCH AND DEVELOPMENT	\$859,489,045
MEDICAL LIBRARY ASSISTANCE	93.879	1-R01-LM-013437-01			\$21,934	\$303,367	\$2,673,499	RESEARCH AND DEVELOPMENT	\$859,489,045
MEDICAL LIBRARY ASSISTANCE	93.879	2-R01-LM-011176-06A1			\$79,758	\$674,225	\$2,673,499	RESEARCH AND DEVELOPMENT	\$859,489,045
GRANTS FOR PRIMARY CARE TRAINING AND ENHANCEMENT	93.884	1 T34HP42132-01-00				\$402,455	\$933,741	RESEARCH AND DEVELOPMENT	\$859,489,045
GRANTS FOR PRIMARY CARE TRAINING AND ENHANCEMENT	93.884	1 T13HP32112-01-00			\$123	\$531,286	\$933,741	RESEARCH AND DEVELOPMENT	\$859,489,045
CARE SERVICES CASE MANAGEMENT	93.914		CITY OF PHILADELPHIA	2120578-01		\$23,187	\$1,369,031	OTHER PROGRAMS	\$284,328,981
OUTPATIENT/AMBULATORY MEDICAL CARE	93.914		CITY OF PHILADELPHIA	2120575-01		\$24,751	\$1,369,031	OTHER PROGRAMS	\$284,328,981
MENTAL HEALTH SERVICES	93.914		CITY OF PHILADELPHIA	2120578-01		\$26,902	\$1,369,031	OTHER PROGRAMS	\$284,328,981
OUTPATIENT/AMBULATORY MEDICAL CARE	93.914		CITY OF PHILADELPHIA	2120575-00		\$38,251	\$1,369,031	OTHER PROGRAMS	\$284,328,981
CARE SERVICES CASE MANAGEMENT	93.914		CITY OF PHILADELPHIA	2120589-01		\$44,694	\$1,369,031	OTHER PROGRAMS	\$284,328,981
MENTAL HEALTH SERVICES	93.914		CITY OF PHILADELPHIA	2120578-00		\$68,524	\$1,369,031	OTHER PROGRAMS	\$284,328,981
HIV EMERGENCY RELIEF PROJECTS GRANTS	93.914		CITY OF PHILADELPHIA	2120589-01		\$92,252	\$1,369,031	OTHER PROGRAMS	\$284,328,981
RYAN WHITE PART A CARE SERVICES-AACO	93.914	2120588-01				\$94,045	\$1,369,031	OTHER PROGRAMS	\$284,328,981
CARE SERVICES CASE MANAGEMENT	93.914		CITY OF PHILADELPHIA	2120589-00		\$94,317	\$1,369,031	OTHER PROGRAMS	\$284,328,981
PART A RW HIV/AIDS MINORITY AIDS INITIATIVE	93.914		CITY OF PHILADELPHIA	2120578-01		\$96,785	\$1,369,031	OTHER PROGRAMS	\$284,328,981
CARE SERVICES CASE MANAGEMENT	93.914		CITY OF PHILADELPHIA	2120578-00		\$98,251	\$1,369,031	OTHER PROGRAMS	\$284,328,981
HIV EMERGENCY RELIEF PROJECTS GRANTS	93.914		CITY OF PHILADELPHIA	2120589-00		\$203,020	\$1,369,031	OTHER PROGRAMS	\$284,328,981

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Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
HIV EMERGENCY RELIEF PROJECT GRANTS	93.914		CITY OF PHILADELPHIA	RW1731/2120588		\$225,250	\$1,369,031	OTHER PROGRAMS	\$284,328,981
PART A RW HIV/AIDS MINORITY AIDS INITIATIVE	93.914		CITY OF PHILADELPHIA	2120578-00		\$238,802	\$1,369,031	OTHER PROGRAMS	\$284,328,981
FEDERAL TUBERCULOSIS CONTROL	93.916		CITY OF PHILADELPHIA	2020284-02		\$116,788	\$116,788	OTHER PROGRAMS	\$284,328,981
GRANTS TO PROVIDE OUTPATIENT EARLY INTERVENTION SERVICES WITH RESPECT TO HIV DISEASE	93.918		DREXEL UNIVERSITY	800100		\$33,027	\$448,195	OTHER PROGRAMS	\$284,328,981
RW PART C HIV EARLY PREVENTION	93.918		CITY OF PHILADELPHIA	2220192-00		\$75,000	\$448,195	OTHER PROGRAMS	\$284,328,981
GRANTS TO PROVIDE OUTPATIENT EARLY INTERVENTION SERVICES WITH RESPECT TO HIV DISEASE	93.918	N/A				\$340,168	\$448,195	OTHER PROGRAMS	\$284,328,981
COOPERATIVE AGREEMENTS FOR STATE-BASED COMPREHENSIVE BREAST AND CERVICAL CANCER EARLY DETECTION PROGRAMS	93.919		FAMILY HEALTH COUNCIL OF CENTRAL PA	4100066441		\$55,739	\$55,739	OTHER PROGRAMS	\$284,328,981
HIV EMERGENCY RELIEF PROJECT GRANTS	93.940		CITY OF PHILADELPHIA	2220528-00		\$36,414	\$173,415	OTHER PROGRAMS	\$284,328,981
HIV EMERGENCY RELIEF PROJECT GRANTS	93.940		CITY OF PHILADELPHIA	1820469-03		\$41,136	\$173,415	OTHER PROGRAMS	\$284,328,981
HIV EMERGENCY RELIEF PROJECT GRANTS	93.940		CITY OF PHILADELPHIA	2220480-00		\$95,865	\$173,415	OTHER PROGRAMS	\$284,328,981
ASSISTANCE PROGRAMS FOR CHRONIC DISEASE PREVENTION AND CONTROL	93.945		CROHN'S & COLITIS FOUNDATION OF AMERICA	SUB TO 1-U01-DP-006369-01-00		\$336,310	\$336,310	RESEARCH AND DEVELOPMENT	\$859,489,045
BLOCK GRANTS FOR COMMUNITY MENTAL HEALTH SERVICES	93.958		ADAMS COUNTY, PENNSYLVANIA	SUB TO SAMHSA ADV ACCT		-\$62,041	\$137,795	OTHER PROGRAMS	\$284,328,981
BLOCK GRANTS FOR COMMUNITY MENTAL HEALTH SERVICES	93.958		ADAMS COUNTY, PENNSYLVANIA	SUB TO SAMHSA		-\$18,125	\$137,795	OTHER PROGRAMS	\$284,328,981
BLOCK GRANTS FOR COMMUNITY MENTAL HEALTH SERVICES	93.958		ADAMS COUNTY, PENNSYLVANIA	SUB TO SAMHSA ADV ACCT	\$10,725	\$10,725	\$137,795	OTHER PROGRAMS	\$284,328,981
BLOCK GRANTS FOR COMMUNITY MENTAL HEALTH SERVICES	93.958		CITY OF PHILADELPHIA	SAMHSA-PERC-FEP		\$1,729	\$137,795	OTHER PROGRAMS	\$284,328,981
BLOCK GRANTS FOR COMMUNITY MENTAL HEALTH SERVICES	93.958		CITY OF PHILADELPHIA	PAC 0100-0294		\$205,507	\$137,795	OTHER PROGRAMS	\$284,328,981
INTERNATIONAL RESEARCH AND RESEARCH TRAINING	93.989		UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	12272SC		\$4,026	\$798,678	RESEARCH AND DEVELOPMENT	\$859,489,045
INTERNATIONAL RESEARCH AND RESEARCH TRAINING	93.989		RESEARCH FOUNDATION FOR MENTAL HYGIENE, INC.	149265		\$13,652	\$798,678	RESEARCH AND DEVELOPMENT	\$859,489,045
INTERNATIONAL RESEARCH AND RESEARCH TRAINING	93.989		DARTMOUTH-HITCHECOCK MEDICAL CENTER	GC10054-00-02		\$29,103	\$798,678	RESEARCH AND DEVELOPMENT	\$859,489,045
INTERNATIONAL RESEARCH AND RESEARCH TRAINING	93.989	1-D43-TW-009781-01				\$34,627	\$798,678	RESEARCH AND DEVELOPMENT	\$859,489,045
INTERNATIONAL RESEARCH AND RESEARCH TRAINING	93.989	1R21TW011260-01			\$1,997	\$54,719	\$798,678	RESEARCH AND DEVELOPMENT	\$859,489,045
INTERNATIONAL RESEARCH AND RESEARCH TRAINING	93.989	1-R21-TW-011496-01A1				\$60,527	\$798,678	RESEARCH AND DEVELOPMENT	\$859,489,045
INTERNATIONAL RESEARCH AND RESEARCH TRAINING	93.989	1-D43-TW-010448-01			\$6,184	\$118,980	\$798,678	RESEARCH AND DEVELOPMENT	\$859,489,045
INTERNATIONAL RESEARCH AND RESEARCH TRAINING	93.989	1-K01-TW-011481-01				\$155,172	\$798,678	RESEARCH AND DEVELOPMENT	\$859,489,045
INTERNATIONAL RESEARCH AND RESEARCH TRAINING	93.989	1-D43-TW-011809-01			\$249,885	\$327,872	\$798,678	RESEARCH AND DEVELOPMENT	\$859,489,045
MATERNAL AND CHILD HEALTH SERVICES BLOCK GRANT TO THE STATES	93.994		PENNSYLVANIA DEPARTMENT OF HEALTH	SAP# 4100080264		\$175,000	\$455,166	RESEARCH AND DEVELOPMENT	\$859,489,045
MATERNAL AND CHILD HEALTH SERVICES BLOCK GRANT TO THE STATES	93.994		PENNSYLVANIA DEPARTMENT OF HEALTH	4100085650	\$14,430	\$280,166	\$455,166	RESEARCH AND DEVELOPMENT	\$859,489,045
MOSAICO PARTICIPANT SURVEY (HVTN 706 SUPPLEMENT)	93.RD	N/A	FRED HUTCHINSON CANCER CENTER	FHCC ADV ACCT		\$731	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
AN EXPLORATION OF BARRIERS AND FACILITATORS TO BUPRENORPHINE ACCESS VI	93.RD	N/A	WEILL CORNELL MEDICAL COLLEGE	P30DA040500		\$1,408	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
NATURAL HISTORY STUDY OF RUBELLA-ASSOCIATED GRANULOMATOUS LESIONS IN A	93.RD	75D30120P07369	UNIVERSITY OF WISCONSIN - MILWAUKEE	SUB TO 75D30120P07369		\$2,175	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
CIRCULATING ANTIBODIES TO ORAL MICROBIOTA AND COLON CANCER RISK	93.RD	N/A	TUFTS UNIVERSITY	N/A		\$2,352	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - MEDICAL IMAGING AND DATA RESOURCE CENTER (MIDRC) FOR RAPID RESPONSE TO	93.RD	75N92020D00018/75N92020 F00001	AMERICAN COLLEGE OF RADIOLOGY	1829		\$4,226	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
UPCC01420: OPEN-LABEL, SINGLE-ARM, MULTICENTER STUDY, OF COMBINATION A	93.RD	N/A	BLOOD AND MARROW TRANSPLANTATION CLINICAL TRIALS NETWORK	BMT CTN 1802		\$5,000	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
UPCC 02717: OPTIMIZING CORD BLOOD AND HAPLOIDENTICAL APLASTIC ANEMIA	93.RD	N/A	BLOOD AND MARROW TRANSPLANTATION CLINICAL TRIALS NETWORK	1502		\$5,429	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
AIDS MALIGNANCY CONSORTIUM (AMC)	93.RD	UM1CA12191947	ECOG-ACRIN MEDICAL RESEARCH FOUNDATION, INC	UM1CA12191947-14-UPA1		\$5,747	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
SECURE DATA MANAGEMENT SYSTEM TO FACILITATE PROSPECTIVE FOLLOW UP OF P	93.RD	HHSN261201400010/HHSN26100006	SOCIAL & SCIENTIFIC SYSTEMS, INC.	PHR-SSS-S-16-004996		\$6,144	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
REVERSE TRANSCRIPTASE INHIBITION AS A NOVEL THERAPEUTIC APPROACH FOR A	93.RD	R21NS123477	CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	SUB TO 1R21NS123477-01		\$6,837	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045

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Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
ACF DATA GOVERNANCE CONSULTING AND SUPPORT EXTENSION CONTRACT	93.RD	47QRAA21D002R/75ACF121F80032	SRI INTERNATIONAL	PO61444		\$7,878	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
CONTRACEPTIVE CLINICAL TRIALS NETWORK - FEMALE SITES	93.RD	HHSN275201300020I				\$8,957	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
ACTIVITY IN WOMEN AT RISK FOR EARLY DELIVERY (AWARE). AN ANCILLARY STU	93.RD	N/A	GEORGE WASHINGTON UNIVERSITY	21020		\$12,257	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
INSTRUCTOR LED TRAINING ON PHARMACOEPIDEMOLOGY	93.RD	75F40122C00044				\$12,450	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
DRCR RETINA NETWORK - PROTOCOL AF	93.RD	N/A	JAEB CENTER FOR HEALTH RESEARCH	EY014231 PROTOCOL AF		\$13,281	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
TASK ORDER 1 - CONTRACEPTIVE DEVELOPMENT PROGRAM NICHD CONTRACEPTIVE C	93.RD	75N94020D00005				\$14,304	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
PK AND SAFETY OF COMMONLY USED DRUGS IN LACTATING WOMEN AND BREASTFED	93.RD	HHSN- 275201000003I	DUKE UNIVERSITY	T051 / SUB TO HHSN-275201000003I		\$15,008	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
CLINICAL EVALUATION OF NOVEL PRODUCTS FOR FEMALE CONTRACEPTION (MAIN S	93.RD	HHSN275201300020I				\$15,034	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
EVALUATE THE SAFETY AND QUALITY OF A 3D PRINTED, SINGLE-USE BIOREACTOR	93.RD	75F40119C10158	SOUTHWEST RESEARCH INSTITUTE	N99005VE2		\$16,947	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - RAPID AND ULTRA-SENSITIVE SARS-COV-2 ANTIGEN DETECTION FOR ACUTE INFC	93.RD	75N92021P00053				\$17,810	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - BUILDING COVID-19 VACCINE CONFIDENCE AMONG NURSING STUDENTS, NURSES, A	93.RD	6 NU360E000009-05-01	AMERICAN ASSOCIATION OF COLLEGES OF NURSING	SUB TO 6 NU360E000009-05-01		\$20,612	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
CEIRS OPTION 16C EA "HT" (2018-20)	93.RD	HHSN272201400005C	UNIVERSITY OF ROCHESTER	417427G/UR FAO GR510845		\$25,222	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
TREATMENT FOR MIXED URINARY INCONTINENCE: MID-URETHRAL SLING VS. BOTOX	93.RD	U24HD069031	RESEARCH TRIANGLE INSTITUTE	0213574/0213581		\$27,374	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - MFMU MATERNAL MORBIDITY AND MORTALITY DURING THE COVID-19 PANDEMIC	93.RD	N/A	GEORGE WASHINGTON UNIVERSITY	21050		\$31,502	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
UPCC35419: CLINICAL TRANSPLANT-RELATED LONG-TERM OUTCOMES OF ALTERNATI	93.RD	N/A	BLOOD AND MARROW TRANSPLANTATION CLINICAL TRIALS NETWORK	PROTOCOL RIDER #1702		\$34,670	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
POPULATION HEALTH RESEARCH SUPPORT - STUDY OF PREGNANCY AND NEONATAL H	93.RD	HHSN2752018000121				\$35,871	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
UPCC08421: PHASE II MULTI-CENTER TRIAL OF ANTI-B CELL MATURATION ANTIG	93.RD	N/A	BLOOD AND MARROW TRANSPLANTATION CLINICAL TRIALS NETWORK	BMT CTN PROTOCOL #1902		\$36,133	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
S. AUREUS STRAIN-LEVEL DIVERSITY IN DIABETIC WOUND NEUTROPHIL PHENOTYP	93.RD	N/A	AUGUSTA UNIVERSITY	SUB TO NIH ADV ACCT		\$44,986	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - MATERNAL 'OMICS TO MAXIMIZE IMMUNITY	93.RD	U19AI167899	MASSACHUSETTS INSTITUTE OF TECHNOLOGY	SUB TO 1U19AI167899-01		\$45,150	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
IPA ASSIGNMENT AGREEMENT	93.RD	IPA AGREEMENT				\$47,060	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - THE IMPACT OF SARS-COV-2 INFECTION DURING PREGNANCY ON OBSTETRIC AND N	93.RD	75D30120C08186	ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI	0258-D383-4609		\$62,760	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
BACTERIAL INTERFERENCE TO PREVENT STAPHYLOCOCCUS AUREUS INFECTION	93.RD	N/A	CHILDREN'S HOSPITAL OF PHILADELPHIA (CHOP)	3201270822		\$70,956	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
MECHANICAL DEVICE FOR THE PREVENTION OF VTE IN HIGH RISK PATIENT POPUL	93.RD	2R44HL145860	OSCIFLEX, LLC	SUB TO 2R44HL145860		\$73,218	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - A MULTICENTER, ADAPTIVE, RANDOMIZED BLINDED CONTROLLED TRIAL OF THE SA	93.RD	75N91019D00024	LEIDOS BIOMEDICAL RESEARCH, INC	20CTA-DM0009		\$91,245	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
DEEP PHENOTYPING OF ANGPTL3, ANGPTL4 AND ANGPTL8 HUMAN KNOCKOUTS AND P	93.RD	R01HL145437	COLUMBIA UNIVERSITY	SUB TO R01HL145437		\$95,326	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
EFFICACY AND MECHANISMS OF VIRTUAL REALITY TREATMENT OF PHANTOM LEG PA	93.RD	N/A	MOSS REHABILITATION RESEARCH INSTITUTE	SUB TO NIH ADV ACCT		\$96,286	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
DEVELOPMENT OF A PROTOTYPE SOFTWARE FOR AUTOMATED PET/CT INTERPRETATIO	93.RD	CA236492	QUANTITATIVE RADIOLOGY SOLUTIONS, LLC	SUB TO CA236492		\$97,706	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
RAPID POINT OF CARE MOLECULAR DIAGNOSTICS OF HCV	93.RD	75N93021C00051	PHOENIX BIOSYSTEMS, INC.	SUB TO 75N93021C00051		\$100,432	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
OPTION 23: MULTIVALENT INFLUENZA MRNA VACCINES	93.RD	75N93019C0005	DUKE UNIVERSITY	A035673		\$102,753	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
DEVELOPING ASSAYS TO CHARACTERIZE ANTIBODIES ELICITED BY NEW UNIVERSAL	93.RD	HHSN272201400005C	UNIVERSITY OF ROCHESTER	417638G/UR FAO GR510969		\$106,269	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - RAPID VALIDATION AND BEHAVIORAL ECONOMICS TO INCREASE ENROLLMENT AND E	93.RD	6 NU50CK000527-01-05	PENNSYLVANIA DEPARTMENT OF HEALTH	4400016165		\$111,204	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - SECONDARY INFECTIONS AND ANTIBIOTIC RESISTANCE IN POST-ACUTE CARE PATI	93.RD	75D30121C10180				\$111,928	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.

Federal Awarding Agency/Program Title	Federal CFDA Number	Additional Award Identification (Optional)	Name of Funder Pass-Through Entity	Identifying Number Assigned By Funder Pass-Through Entity	Total Amount Provided to Sub-Recipients	Federal Expenditures	Federal Program Total	Cluster Name	Cluster Total
CEIRS OPTION 16C EA "HSH7" (2018-20)	93.RD	HHSN272201400005C	UNIVERSITY OF ROCHESTER	417428G/GR510848		\$128,064	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
PROMOTING AND SUPPORTING INNOVATION IN TANF DATA	93.RD	HHSP233201500059I	MDRC	HHSP23337005T		\$155,325	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
INVESTIGATING MULTIDRUG RESISTANCE PREVALENCE IN BOTSWANA - ASSESSING	93.RD	75D30121C11569			\$8,998	\$161,459	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
CLINICAL EVALUATION OF NESTORONE (NES) AND TESTOSTERONE (T) COMBINATIO	93.RD	HHSN275201300025I/HHSN27500006	UNIVERSITY OF WASHINGTON	UWSC11767		\$182,832	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
EVIDENCE-BASED PRACTICE CENTERS - AHRQ EPC VI IDIQ CONTRACT	93.RD	75Q80120D00002	ECRI	SUB TO 75Q80120D00002		\$222,482	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
CEIRS OPTION 12 (2018-19)	93.RD	HHSN272201400005C	UNIVERSITY OF ROCHESTER	417427G/UR FAD GR510845		\$222,553	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
SPORE IN SKIN CANCER (CORE B)	93.RD	P50CA261608	WISTAR INSTITUTE	29050-09-314; CORE B		\$263,049	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - MEDICAL IMAGING AND DATA CONSORTIUM: RAPID RESPONSE TO COVID-19 PANDEM	93.RD	75N92020D00018	UNIVERSITY OF CHICAGO	AWD101462-O		\$266,317	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
CONTINUED ASSESSMENT OF THE EFFICACY OF CHRONIC OPIOID PAIN TREATMENTS	93.RD	75F40120C00175				\$301,418	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
CLINICAL AND MOLECULAR DETERMINANTS OF TRANSMISSION OF ESBLs IN THE CO	93.RD	75D30120C09499			\$6,251	\$306,171	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
REGULATION OF AXON GUIDANCE RECEPTOR TRAFFICKING IN THE DEVELOPING MAM	93.RD	1-R01-HD-105946-01				\$326,790	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
QUANTITATIVE ANALYSIS OF LONGITUDINAL MR IMAGES IN BLSA PARTICIPANTS	93.RD	75N95019C00022				\$335,045	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
AN IMPLANTABLE WIRELESS TACTILE FEEDBACK SYSTEM	93.RD	R01NS107550	OHIO STATE UNIVERSITY	SUB TO R01NS107550		\$382,780	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
SPORE IN SKIN CANCER (PROJECT 1)	93.RD	P50CA261608	WISTAR INSTITUTE	29050-02-314; PROJECT 1		\$400,386	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
COVID-19 - WHOLE-GENOME SEQUENCING TO DEFINE SARS-COV-2 VARIANT POPULATIONS DURIN	93.RD	75D30121C10986				\$682,127	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
A SCALABLE, PATIENT-CENTERED APPROACH FOR "RIGHT-SIZING" OPIOID PRESCR	93.RD	HHSF223201810209C				\$759,186	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
ASSESSMENT OF THE EFFICACY OF ACUTE PAIN TREATMENTS: AN RTC RE-ANALYSI	93.RD	75F40119C10099				\$782,251	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
PRECLINICAL VECTOR PRODUCTION CORE LABORATORY	93.RD	75N92019D00016				\$1,257,804	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
INHALATION TOXICOLOGY OF CHLORINE GAS-ON-A-CHIP	93.RD	75A50120C00134			\$357,854	\$1,554,934	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
CIVICS COMPONENT A	93.RD	75N93019C00050	DUKE UNIVERSITY	A032640		\$1,784,204	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
INTEGRATED INFORMATICS RESOURCES FOR EUKARYOTIC MICROBIAL PATHOGENS AN	93.RD	75N93019C00077			\$33,587	\$5,835,494	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
NIAID CENTERS OF EXCELLENCE FOR INFLUENZA RESEARCH AND RESPONSE	93.RD	75N93021C00015			\$4,013,001	\$7,160,215	\$25,113,524	RESEARCH AND DEVELOPMENT	\$859,489,045
IPA ASSIGNMENT AGREEMENT	93.U08	IPA AGREEMENT				\$36,927	\$36,927	OTHER PROGRAMS	\$284,328,981
PENNSYLVANIA HIGHER EDUCATION SUICIDE PREVENTION COALITION - WELCOME B	93.U19	N/A	THOMAS JEFFERSON UNIVERSITY	HESPC		\$650	\$650	OTHER PROGRAMS	\$284,328,981
<b>TOTAL DEPARTMENT OF HEALTH AND HUMAN SERVICES</b>						\$54,854,744	\$955,631,659		
<b>CORPORATION FOR NATIONAL AND COMMUNITY SERVICE</b>									
AMERICORPS	94.006		COMMONWEALTH OF PENNSYLVANIA	4100084201		-\$17,908	\$635,368	OTHER PROGRAMS	\$284,328,981
AMERICORPS	94.006		COMMONWEALTH OF PENNSYLVANIA	AMERICORP 2021-2022		\$282,880	\$635,368	OTHER PROGRAMS	\$284,328,981
AMERICORPS	94.006	PHENND VISTA PROJECT 2021-2022				\$370,396	\$635,368	OTHER PROGRAMS	\$284,328,981
VOLUNTEERS IN SERVICE TO AMERICA	94.013	18VSAPA005				\$126,190	\$378,471	OTHER PROGRAMS	\$284,328,981
VOLUNTEERS IN SERVICE TO AMERICA	94.013	18VSAPA005				\$252,281	\$378,471	OTHER PROGRAMS	\$284,328,981
NEXT STEPS AMERICORPS 2020/2021	94.U04	N/A	COMMONWEALTH OF PENNSYLVANIA	117579-038		\$58,615	\$58,615	OTHER PROGRAMS	\$284,328,981
<b>TOTAL CORPORATION FOR NATIONAL AND COMMUNITY SERVICE</b>							\$1,072,454		
<b>DEPARTMENT OF HOMELAND SECURITY</b>									
DISASTER GRANTS - PUBLIC ASSISTANCE (PRESIDENTIALLY DECLARED DISASTERS)	97.036	PROJECT# 176545				\$11,561,337	\$22,984,210	OTHER PROGRAMS	\$284,328,981

The accompanying Notes to the Schedule of Expenditures of Federal Awards are an integral part of the schedule.



<i>Federal Awarding Agency/Program Title</i>	<i>Federal CFDA Number</i>	<i>Additional Award Identification (Optional)</i>	<i>Name of Funder Pass-Through Entity</i>	<i>Identifying Number Assigned By Funder Pass-Through Entity</i>	<i>Total Amount Provided to Sub-Recipients</i>	<i>Federal Expenditures</i>	<i>Federal Program Total</i>	<i>Cluster Name</i>	<i>Cluster Total</i>
COVID -19 DISASTER GRANTS - PUBLIC ASSISTANCE (PRESIDENTIALLY DECLARED DISASTERS)	97.036	N/A				\$10,795,235	\$22,984,210	OTHER PROGRAMS	\$284,328,981
<i>COVID-19 DISASTER GRANTS - PUBLIC ASSISTANCE (PRESIDENTIALLY DECLARED DISASTERS)</i>	<i>97.036</i>		STATE OF NEW JERSEY	PW #1108		\$627,638	\$22,984,210	OTHER PROGRAMS	\$284,328,981
<b>TOTAL DEPARTMENT OF HOMELAND SECURITY</b>							<u>\$22,984,210</u>		
<b>U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT</b>									
<i>CULTURAL CHANGE FOR TRANSPARENCY OFFICE OF THE ATTORNEY GENERAL OF THE</i>	<i>98.RD</i>	<i>N/A</i>	<i>DAI GLOBAL, LLC</i>	<i>1004341-101</i>		<i>\$4,150</i>	<i>\$4,150</i>	<i>RESEARCH AND DEVELOPMENT</i>	<i>\$859,489,045</i>
<b>TOTAL U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT</b>							<u>\$4,150</u>		
<b>TOTAL EXPENDITURE OF FEDERAL AWARDS</b>						<u>\$66,218,550</u>	<u>\$1,406,290,267</u>		

**Please Note:**  
*Italicized award lines indicate pass-through funding*

**University of Pennsylvania**  
**Notes to Schedule of Expenditures of Federal Awards**  
**June 30, 2022**

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**1. Basis of Presentation**

The Schedule of Expenditures of Federal Awards (the “Schedule”) has been prepared to present a summary of those activities of the University of Pennsylvania for the year ended June 30, 2022, 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. Assistance Listing and pass-through award numbers are present where available.

**2. Federal Student Financial Assistance**

The federal student loan programs included within the Student Financial Aid Cluster on the Schedule of Expenditures of Federal Awards above, with the exception of Federal Direct Loans, are administered directly by the University and balances and transactions relating to these programs are included in the University’s consolidated financial statements. Loans outstanding at the beginning of the year and loans made during the year are included in the federal expenditures presented in the Schedule. The amounts of Federal Loans outstanding as of June 30, 2022 are shown on below.

<b>Federal Grantor/Program</b>	<b>Assistance Listing Number</b>	<b>Outstanding Balance as of 6/30/2022</b>
<b>Department of Education</b>		
Perkins Loan	84.038	16,573,964
<b>Department of Health and Human Services</b>		
Health Professions Student Loans - Dental	93.342	11,007,366
Health Professions Student Loans - Medical	93.342	133,177
Health Professions Student Loans - Vet	93.342	3,001,896
Loans for Disadvantaged Students - Medical	93.342	2,385,194
Nursing Student Loan - Graduate	93.364	522,103
Nurse Faculty Loan Program	93.264	2,476,472
Nursing Student Loan - Undergraduate	93.364	3,319,826

## **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 statement of financial position as of June 30, 2022, and the related consolidated statements of activities and of cash flows for the year then ended, including the related notes (collectively referred to as the "consolidated financial statements"), and have issued our report thereon dated September 22, 2022.

### **Report on Internal Control Over Financial Reporting**

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

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

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

### **Report on Compliance and Other Matters**

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

**Purpose of this Report**

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the University'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 University's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

A handwritten signature in black ink that reads "PricewaterhouseCoopers LLP". The signature is written in a cursive, flowing style.

Philadelphia, PA  
September 22, 2022



## **Report of Independent Auditors on Compliance for Each Major Program and on Internal Control Over Compliance Required by Uniform Guidance**

To the Trustees of the University of Pennsylvania:

### **Report on Compliance for Each Major Federal Program**

#### ***Opinion on Each Major Federal Program***

We have audited the University of Pennsylvania's (the "University") compliance with the types of compliance requirements identified as subject to audit in the OMB *Compliance Supplement* that could have a direct and material effect on each of the University's major federal programs for the year ended June 30, 2022. 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.

In our opinion, the University complied, in all material respects, with the compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended June 30, 2022.

#### ***Basis for Opinion on Each Major Federal Program***

We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America (US GAAS); the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States; and the audit requirements of Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Our responsibilities under those standards and the Uniform Guidance are further described in the Auditors' Responsibilities for the Audit of Compliance section of our report.

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

#### ***Responsibilities of Management for Compliance***

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

#### ***Auditors' Responsibilities for the Audit of Compliance***

Our objectives are to obtain reasonable assurance about whether material noncompliance with the compliance requirements referred to above occurred, whether due to fraud or error, and express an opinion on the University's compliance based on our audit. Reasonable assurance is a high level of

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

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material noncompliance, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the University's compliance with the compliance requirements referred to above and performing such other procedures as we considered necessary in the circumstances.
- Obtain an understanding of the University's internal control over compliance relevant to the audit in order to design audit procedures that are appropriate in the circumstances and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of the University's internal control over compliance. Accordingly, no such opinion is expressed.

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

### ***Other Matters***

The results of our auditing procedures disclosed 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 2022-001 and 2022-002. Our opinion on each major federal program is not modified with respect to these matters.

*Government Auditing Standards* requires the auditor to perform limited procedures on the University's response to the noncompliance findings identified in our audit described in the accompanying Management's View and Corrective Action Plan. The University's response was not subjected to the other auditing procedures applied in the audit of compliance and, accordingly, we express no opinion on the response.

### **Report on 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 Auditors' Responsibilities for the Audit of Compliance section above and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies in internal control over compliance. Given these limitations, during our audit we did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses, as defined above. However, material weaknesses or significant deficiencies in internal control over compliance may exist that were not identified.

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

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*

Philadelphia, PA  
March 16, 2023



### **III. Schedule of Findings and Questioned Costs**

**University of Pennsylvania**  
**Schedule of Findings and Questioned Costs**  
**June 30, 2022**

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**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  no  
 Significant deficiency(ies) identified that are not considered to be material weaknesses?  yes  none reported
- (iii) Noncompliance material to financial statements noted?  yes  no

***Federal Awards***

- (iv) Internal control over major programs:  
 Material weakness(es) identified?  yes  no  
 Significant deficiency(ies) identified that are not considered to be material weaknesses?  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)?  yes  no
- (vii) Identification of major programs:

<b>Assistance Listing Number(s)</b>	<b>Name of Federal Program or Cluster</b>
Various	Research and Development Cluster
93.498	COVID-19 Provider Relief Fund (PRF)
93.461	COVID-19 HRSA COVID-19 Claims Reimbursement for the Uninsured Program
84.425E, 84.425F	COVID-19 Education Stabilization Fund - Student Aid Portion and Institutional Portion
97.036	COVID-19 Disaster Grants-Public Assistance (Presidentially Declared Disasters)

- (viii) Dollar threshold used to distinguish between Type A and Type B programs: \$4,218,871
- (ix) Auditee qualified as low-risk auditee?  yes  no

**Section II – Financial Statement Findings**

None noted.

**University of Pennsylvania  
Schedule of Findings and Questioned Costs  
June 30, 2022**

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**Section III – Federal Awards Findings and Questioned Costs**

**Finding 2022-001 Cash Management**

**Grantor:** Department of Defense, Department of Human and Health Services, National Science Foundation  
**Program:** Research and Development Cluster  
**Assistance Listing#:** 93.397, 12.630, 93.847, 93.RD, 47.041  
**Title:** Cancer Centers Support Grants; Basic, Applied, and Advanced Research in Science and Engineering; NAID Centers of Excellence for Influenza Research and Response; COVID-19 -Engineering  
**Award Year:** 07/1/2021 – 06/30/2022  
**Award Number:** 5-P30-CA-016520-46, W911NF-17-2-0181, 2-U01-DK-112217-02A1, 75N93021C00015, CMMI-1548571  
**Passthrough number:** Not Applicable

**Criteria**

2 CFR 200.305 (b3): Reimbursement is the preferred method when the requirements in paragraph (b) cannot be met, when the Federal awarding agency sets a specific condition per §200.207 Specific conditions, or when the non-Federal entity requests payment by reimbursement.

Per the OMB Compliance Supplement, the non-Federal entity must disburse funds for program purposes before requesting payment from the Federal awarding agency or pass-through entity.

**Condition**

In testing compliance with the cash management compliance requirement, specifically the reimbursement-method, 40 individual expenditures were tested to compare the date the University made payment to a vendor for a selected expense transaction to the date the University requested sponsor reimbursement for the same transaction. Seven instances were noted in which the University paid the vendor after requesting and receiving reimbursement from the government, as shown in the chart below.

Assistance Listing Number	Award Number	Expenditure Amount	Date of Payment to Vendor	Date of Government Reimbursement	Days Variance
93.397	2-P30-CA-016520-45	\$3,018	12/14/2021	11/16/2021	28
12.630	W911NF-17-2-0181	\$10,751	12/10/2021	11/29/2021	11
93.397	5-P30-CA-016520-46	\$11,017	8/20/2021	8/17/2021	3
93.847	2-U01-DK-112217-02A1	\$25,000	3/04/2022	3/1/2022	3
93.RD	75N93021C00015	\$36,476	5/13/2022	4/8/2022	35
47.041	CMMI-1548571	\$100,000	10/13/2021	8/23/2021	51
93.847	2-U01-DK-112217-02A1	\$194,761	4/08/2022	2/25/2022	42

This is a repeat of finding 2021-001, 2020-001, 2019-001, 2018-002 and 2017-002 in prior year audit reports.

**Cause**

Management’s current process to ensure that the reimbursement of expenditures occurs only after paying the vendor utilizes the assumption that vendors will be paid within 30 days, on average, of incurring the expense.

**Effect**

The University received Federal reimbursement prior to paying the vendors for the selected expenses. The reliance of the 30 day average time-frame allowed certain expenditures to be included in requests for reimbursement prior to being liquidated.

**University of Pennsylvania**  
**Schedule of Findings and Questioned Costs**  
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**Questioned Costs**

None as reimbursement was requested for allowable costs.

**Recommendation**

The University should revisit existing internal control procedures to ensure expenditures are paid in compliance with the Federal reimbursement requirements. We also recommend management discuss current cash management requirements with the OMB and the University's cognizant agency to determine a solution that meets the needs of both parties.

**Management's View and Corrective Action Plan**

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

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**Schedule of Findings and Questioned Costs**  
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**Finding 2022-002 Procurement, Suspension and Debarment**

**Grantor:** Department of Defense  
**Program:** Research and Development Cluster  
**Assistance Listing#:** 12.910  
**Title:** Research and Technology Development  
**Award Year:** 07/01/2021 – 06/30/2022  
**Award Number:** FA8750-18-2-0117  
**Passthrough number:** Not Applicable

**Criteria**

Per 2 CFR section 180.220, non-federal entities are prohibited from contracting with or making subawards under covered transactions, where vendor purchases exceed \$25,000, to parties that are suspended or debarred. When a non-federal entity enters into a covered transaction, the non-federal entity must verify that the vendor is not suspended or debarred or otherwise excluded from participating in the transaction. This verification may be accomplished by (1) checking the System for Award Management (SAM) Exclusions maintained by the General Services Administration (GSA) and available at SAM.gov, (2) collecting a certification from the Vendor, or (3) adding a clause or condition to the covered transaction with that Vendor. University's policies mirror the procurement policies as required by the Federal government, and defines a covered transaction as purchases exceeding \$10,000.

**Condition**

In testing compliance with the suspension and debarment compliance requirement, 1 instance of 25 samples selected for testing was noted where the only evidence available to support the date of the performance of the required suspension and debarment checks was after the transaction date, as shown in the chart below.

ALN#	Award Number	Vendor Name	Transaction amount	Payment Date	Date check performed
12.910	FA8750-18-2-0117	Lambda Labs Inc	\$116,982	01/18/2022	8/10/2022

**Cause**

The University uses Visual Compliance (VC) for suspension and debarment checks, which was implemented in 2019. Vendors onboarded prior to the implementation were registered and checked via a separate manual process within the procurement department. The above vendor was on-boarded and checked prior to the VC implementation; however, management could not provide evidence that a vendor check was performed prior to conducting business with the vendor due to the manual nature of the legacy process. Management has subsequently performed checks on this vendor and retained documentation of the checks to validate that the vendor is not currently suspended or debarred.

**Effect**

If procedures related to vendor suspended and debarred checks are not performed timely, there is a risk that the purchases could be made with a suspended or debarred vendor.

**Questioned Costs**

There are no questioned costs associated with this finding.

**Recommendation**

We recommend the University further enhance related documentation procedures for evaluating suspended or debarred vendors. Prior to making payments to a vendor, the University should document the review of the vendor to ensure checks are performed timely with proper documentation to evidence the outcome of the vendor review process.

**Views of responsible officials and planned corrective actions**

Following this finding is Management's View and Corrective Action Plan.

**University of Pennsylvania**  
**Summary Schedule of Prior Audit Findings**  
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**Finding 2021-001 Cash Management**

**Grantor:** Centers for Disease Control and Prevention (CDC); Eunice Kennedy Shriver National Institute of Child Health and Human Development; National Cancer Institute/NIH/DHHS; National Eye Institute/NIH/DHHS; National Heart, Lung, and Blood Institute; National Institute of Allergy and Infectious Diseases/NIH/DHHS; National Institute of Arthritis and Musculoskeletal and Skin Diseases; National Institute of Dental and Craniofacial Research/NIH/DHHS; National Institute of Diabetes and Digestive and Kidney Diseases/NIH/DHHS; National Institute of General Medical Sciences/NIH/DHHS; National Institute of Mental Health/NIH/DHHS; National Institute of Neurological Disorders and Stroke/NIH/DHHS; National Institute on Aging/NIH/DHHS; National Science Foundation; Office of The Director, National Institutes of Health/NIH/DHHS; Department of Education Research and Development Cluster; Trio Cluster

**Program:** Research and Development Cluster; Trio Cluster

**Assistance Listing#:** 47.041; 93.084; 93.121; 93.242; 93.310; 93.353; 93.395; 93.397; 93.838; 93.846; 93.847; 93.853; 93.855; 93.859; 93.865; 93.866; 93.867; 84.042; 84.044; 84.047

**Title:** Prevention of Disease, Disability, and Death by Infectious Diseases; Child Health and Human Development Extramural Research; 21st Century Cures Act - Beau Biden Cancer Moonshot; Cancer Treatment Research; COVID-19 - Cancer Centers Support Grants; Cancer Treatment Research; Cancer Centers Support Grants; Vision Research; Division of Lung Diseases; Allergy and Infectious Diseases Research; Arthritis, Musculoskeletal and Skin Diseases Research; Oral Diseases and Disorders Research; Diabetes, Digestive, and Kidney Diseases Extramural Research; Biomedical Research and Research Training; Mental Health Research Grants; Extramural Research Programs in the Neurosciences and Neurological Disorders; Aging Research; Engineering; COVID-19 - Engineering; Trans-NIH Research Support; TRIO - Student Support Services; TRIO - Talent Search; TRIO - Upward Bound

**Award Year:** 07/1/2020 – 06/30/2021

**Award Number:** 1933400; 1-R01-AR-076381-01A1; 1-R01-HD-102318-01; 1-R21-NS-112742-01A1; 1-R37-NS-115439-01A1; 1-U54-CA-244711-01; 1-U54-CK-000485-01; 2-R01-DE-023071-06A1; 5-P01-CA-217805-03; 5-P30-CA-016520-42; 5-R01-AG-054521-03; 5-R01-AI-091627-11; 5-R01-AI-139102-03; 5-R01-DE-027970-03; 5-R01-DK-106309-04; 5-R01-DK-107667-04; 5-R01-EY-026525-06; 5-R01-EY-027205-04; 5-R01-GM-085207-11; 5-R01-GM-137425-02; 5-R01-MH-118369-02; 5-R01-NS-113241-02; 5-R01-NS-114226-02; 5-R37-CA-215436-04; 5-U01-HL-148857-02; 5-U19-NS-110456-02; 5-U54-CA-193417-05; CMMI-1548571; P042A150394-16; 9044A160227; P047A180557; P047M180267; P047V170188; P042A200318

**Passthrough number:** Not Applicable

**Summary**

Per the OMB Compliance Supplement, the non-Federal entity must disburse funds for program purposes before requesting payment from the Federal awarding agency or pass-through entity. In testing conformity with the cash management reimbursement-method, 65 individual expenditures were tested to compare the date of University payment to the vendor to the date of Government reimbursement to the University. Thirty-six instances were noted in which the University paid the vendor after requesting and receiving reimbursement from the government.

**Status Update**

See the current year finding 2022-001 and management response for additional information.

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**Finding 2021-002 Enrollment Reporting**

**Grantor:** Department of Education  
**Program:** Student Financial Assistance Cluster  
**Assistance listing#:** 84.063, 84.268  
**Title:** Federal Pell Grant, Federal Direct Loans  
**Award Year:** 07/1/2020 – 06/30/2021  
**Award Number:** P063P202158, P063P20192158  
**Passthrough number:** Not Applicable

**Summary**

The Department of Education’s National Student Loan Data System (NSLDS) Enrollment Reporting Guide requires the accurate reporting of certain enrollment data as well as timely certification of the enrollment data. Of 25 students selected with changes in enrollment status, two changes in enrollment status were reported to the NSLDS more than 60 days after the student left the University. Additionally, information for 4 students included separation date, campus level, or program level information reported to the third-party service provider and NSLDS that did not agree to the student file.

**Status Update**

Student Registration and Financial Services (SRFS) Management has enhanced their monitoring controls over student enrollment status changes to ensure that enrollment information is accurate and agrees to student files prior to completing processing by the National Student Clearinghouse (NSC) (third-party servicer) and NSLDS.

Management has implemented a new Student Information System, Ellucian Banner. Detailed analysis of enrollment data is taking place prior to submission to the NSC as well as during the standard processing steps while completing processing within the NSC. This includes proactively identifying any issues prior to submission and error resolution during processing to ensure accuracy of the information sent.

Management is writing and maintaining detailed process and procedure documentation in the new systems. These materials support the development of standard operating procedures as well as documentation and tracking of issues for specific student records and error types.

**University of Pennsylvania**  
**Summary Schedule of Prior Audit Findings**  
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**2021-003 Eligibility**

**Grantor:** Department of Health and Human Services, Pass-through City of Philadelphia, AIDS Activity Coordinating Office (AACO)

**Program:** Ryan White HIV/AIDS

**Title:** HIV Emergency Relief Project Grants

**Assistance Listing #:** 93.914

**Award Year:** 2020-2021, 2021-2022

**Award Number:** 1720666-03 (RW0968, RW0866, RS0944); 2120578 (RS1944, RW1968, RW1866)

**Passthrough number:** Not Applicable

**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 documentation to support the patient's eligibility for Ryan White funded services, including but not limited to an HIV positive diagnosis, identity, residency, 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. For the AACO Medical awards, 3 of a sample of 60 patient files selected for eligibility testing did not contain sufficient evidence of income level to support the Provider's eligibility determination.

**Status Update**

Since the prior year audit, the clinic staff, especially the financial counselors performing Ryan White certifications, have been made aware of the FY21 audit findings and have worked to improve awareness, training and processes to certify RW in a more timely manner. Additionally, in the fall of 2021, AACO revised the RW certification requirements which reduced some of the frequency and documentation standards for certification.





Office of Research Services

## Management View and Corrective Action Plan

### Finding 2022-001 Cash Management

**Grantor:** Department of Defense, Department of Human and Health Services, National Science Foundation  
**Program:** Research and Development Cluster  
**Assistance Listing#:** 93.397, 12.630, 93.847, 93.RD, 47.041  
**Title:** Cancer Centers Support Grants; Basic, Applied, and Advanced Research in Science and Engineering; NAID Centers of Excellence for Influenza Research and Response; COVID-19 -Engineering  
**Award Year:** 07/1/2021 – 06/30/2022  
**Award Number:** 5-P30-CA-016520-46, W911NF-17-2-0181, 2-U01-DK-112217-02A1, 75N93021C00015, CMMI-1548571  
**Passthrough number:** Not Applicable

The University is currently following and believes it is in compliance with the cash management regulations as written in 2 CFR Part 200.305(b) which require the organization to minimize the time lapse between request for reimbursement from sponsoring agencies and vendor payment.

We understand that variations remain in the interpretation of the cash management compliance requirement. For example, on October 20, 2017, the Council On Governmental Relations (COGR) wrote a letter to the Office of Financial Management expressing concern that the cash management requirement language in the 2017 Compliance Supplement was not aligned with the requirements for cash management as currently written in 2 CFR Part 200.305(b). COGR's position is that the Compliance Supplement should be revised to conform with the cash management requirements as written in 2 CFR 200.305(b). The University agrees with COGR's position and believes the language in the Compliance supplement leads to an unrealistic and unreasonable administrative burden for universities and possibly a reconfiguration of smoothly running electronic process or a complete replacement of electronic processes with an inefficient, manual one in efforts to ensure each vendor has been paid prior to requesting reimbursement from the sponsoring agency.

The University will continue to monitor the OMB interpretation of the Cash Management requirements.

For FY22, we note that the overall number of exceptions has decreased. Furthermore, the payments identified as exceptions in the FY22 audit were almost all made to vendors within our institutional standard terms of net 45 days, with the exception of 1 which was made 51 days after the request for reimbursement.

The Office of Research Services remains committed to ensuring that the federal government is not unfairly disadvantaged by our processes. To that end, during the fall of 2022, the University implemented certain enhancements to further minimize the time lapse between request for reimbursement from sponsoring agencies and vendor payment. A custom process was implemented in the University's financial system to update payment terms to 'immediate' for vendor invoices on Line of Credit sponsored awards. In addition, the University added a new metric to the reporting dashboard for its Procure-to-Pay system to specifically highlight Purchase Order invoices for sponsored awards which were on hold, to assist the university business and grant managers in prioritizing the resolution of those holds preventing

invoices on sponsored awards from being paid immediately. We expect to see the impact of these enhancements in the FY23 audit.

**Finding 2022-002 Procurement, Suspension and Debarment**

**Grantor:** Department of Defense  
**Program:** Research and Development Cluster  
**Assistance Listing#:** 12.910  
**Title:** Research and Technology Development  
**Award Year:** 07/01/2021 – 06/30/2022  
**Award Number:** FA8750-18-2-0117  
**Passthrough number:** Not Applicable

The University uses the Visual Compliance tool to provide dynamic screening of vendors in order to reduce administrative burden, eliminating the need to run screenings periodically, and to provide timely notification of any potential suspension and debarment issues with vendors. Unfortunately, during the transition from manual screening of vendors to the integration of Visual Compliance with our vendor system, the initial screening in Visual Compliance for this particular vendor, Lambda Labs, appears to have been missed.

As the screening for Lambda Labs in VC was run by the procurement office on 8/10/2022, no further action needs to be taken for that vendor. Additionally, in order to address any other vendors which may have missing screening documentation in VC, the University implemented a two-part plan in February 2023. First, the Associate Director of Procurement Systems & Service Operations ran a batch screen on all active vendors missing the screening documentation in VC. Secondly, the procurement office implemented a change in the vendor management tool to place any future supplier transaction on hold where no VC screening exists in the system and prompts Vendor Management to run the screen.



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Elizabeth D. Peloso  
Associate Vice President / Associate Vice Provost Research Services  
[epeloso@upenn.edu](mailto:epeloso@upenn.edu)  
215-898-7293