Mass General Brigham Incorporated and Affiliates

Report on Federal Awards in Accordance with the OMB Uniform Guidance September 30, 2022 EIN 04-3230035

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September 30, 2022 and 2021

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Report of Independent Auditors

To the Board of Directors of Mass General Brigham Incorporated

Opinion

We have audited the accompanying consolidated financial statements of Mass General Brigham Incorporated (the "Company") and its affiliates, which comprise the consolidated balance sheets as of September 30, 2022 and 2021, and the related consolidated statements of operations, of changes in net assets 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 Company and its affiliates as of September 30, 2022 and 2021, and the results of its operations, 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 Company and its affiliates 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 consolidated financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Company and its affiliates' ability to continue as a going concern for one year after the date the consolidated financial statements are issued.

Auditors' Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with 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 consolidated 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 Company and its affiliates' 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 Company and its affiliates' 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 September 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 December 19, 2022 on our consideration of the Company and its affiliates' 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 September 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 and its affiliates' internal control over financial reporting and compliance.

Price Coopus LIP Boston, Massachusetts December 19, 2022

Mass General Brigham Incorporated and Affiliates Consolidated Balance Sheets September 30, 2022 and 2021

(in thousands of dollars)	2022	2021
Assets Current assets		
Cash and equivalents	\$ 193,919	\$ 177,259
Investments	2,390,217	3,395,005
Current portion of investments limited as to use	4,144,531	5,637,637
Patient accounts receivable, net	1,438,412	1,332,404
Research grants receivable, net	215,462	187,193
Other current assets	722,486	684,632
Total current assets	9,105,027	11,414,130
Investments limited as to use, less current portion	4,961,378	6,202,723
Long-term investments	2,582,271	2,950,684
Property and equipment, net	6,442,260	6,261,727
Right-of-use operating lease assets	1,135,787	1,108,275
Other assets	1,981,608	1,027,593
Total assets	\$ 26,208,331	\$ 28,965,132
Liabilities and Net Assets		
Current liabilities		
Current portion of long-term obligations	\$ 519,354	\$ 381,987
Accounts payable and accrued expenses	1,183,843	1,730,310
Accrued medical claims and related expenses	119,237	87,289
Accrued employee compensation and benefits	1,203,729	1,414,036
Current portion of operating lease obligations	206,350	200,706
Unexpended funds on research grants Total current liabilities	355,934 3,588,447	<u>345,403</u> 4,159,731
Accrued professional liability	570,862	588,402
Accrued employee benefits	633,894 156,705	729,924 472,011
Interest rate swaps liability Accrued other	274,931	254,673
Operating lease obligations, less current portion	801,038	782,650
Long-term obligations, less current portion	5,557,177	5,802,238
Total liabilities	11,583,054	12,789,629
	11,000,004	12,709,029
Commitments and contingencies Net assets		
Without donor restrictions	11,577,802	12,806,328
With donor restrictions	3,047,475	3,369,175
Total net assets	14,625,277	16,175,503
Total liabilities and net assets	\$ 26,208,331	\$ 28,965,132

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

Mass General Brigham Incorporated and Affiliates Consolidated Statements of Operations Years Ended September 30, 2022 and 2021

(in thousands of dollars)	2022	2021
Operating revenues		
Net patient service revenue	\$ 11,869,451	\$ 11,432,255
Premium revenue	930,753	910,312
Direct academic and research revenue	1,937,738	1,744,731
Indirect academic and research revenue	569,624	532,213
Other revenue	1,402,801	1,376,792
Total operating revenues	16,710,367	15,996,303
Operating expenses		
Employee compensation and benefit expenses	9,144,470	8,296,031
Supplies and other expenses	4,402,993	3,980,935
Medical claims and related expenses	722,212	645,514
Direct academic and research expenses	1,937,738	1,744,731
Depreciation and amortization expenses	769,783	724,477
Interest expense	164,833	162,128
Total operating expenses	17,142,029	15,553,816
(Loss) income from operations	(431,662)	442,487
Nonoperating (loss) gains		
(Loss) income from investments	(2,271,500)	2,339,707
Change in fair value of interest rate swaps	330,530	190,373
Other nonoperating (expenses) income	(109,971)	(136,409)
Academic and research gifts, net of expenses	23,976	198,306
Non-service related pension income	201,000	127,735
Total nonoperating (loss) gains, net	(1,825,965)	2,719,712
(Deficit) excess of revenues over expenses	(2,257,627)	3,162,199
Other changes in net assets		
Funds utilized for property and equipment	44,340	51,718
Change in funded status of defined benefit plans	965,424	1,486,475
Other changes in net assets	19,337	6,872
(Decrease) increase in net assets without donor restrictions	\$ (1,228,526)	\$ 4,707,264

Mass General Brigham Incorporated and Affiliates Consolidated Statements of Changes in Net Assets Years Ended September 30, 2022 and 2021

(in thousands of dollars)	Without Donor Restrictions	With Donor Restrictions	Total
Net assets at September 30, 2020	\$ 8,099,064	\$ 2,521,230	\$ 10,620,294
Increases (decreases)			
Income from operations	442,487	-	442,487
Income from investments	2,339,707	466,855	2,806,562
Change in fair value of interest rate swaps	190,373	-	190,373
Other nonoperating (expenses) income	(136,409)	399,382	262,973
Academic and research gifts, net of expenses	198,306	-	198,306
Non-service related pension income	127,735	-	127,735
Funds utilized for property and equipment	51,718	(25,112)	26,606
Change in funded status of defined benefit plans	1,486,475	-	1,486,475
Other changes in net assets	6,872	6,820	13,692
Change in net assets	4,707,264	847,945	5,555,209
Net assets at September 30, 2021	12,806,328	3,369,175	16,175,503
Increases (decreases)			
Loss from operations	(431,662)	-	(431,662)
Loss from investments	(2,271,500)	(517,571)	(2,789,071)
Change in fair value of interest rate swaps	330,530	-	330,530
Other nonoperating (expenses) income	(109,971)	218,180	108,209
Academic and research gifts, net of expenses	23,976	-	23,976
Non-service related pension income	201,000	-	201,000
Funds utilized for property and equipment	44,340	(14,136)	30,204
Change in funded status of defined benefit plans	965,424	-	965,424
Other changes in net assets	19,337	(8,173)	11,164
Change in net assets	(1,228,526)	(321,700)	(1,550,226)
Net assets at September 30, 2022	\$ 11,577,802	\$ 3,047,475	\$ 14,625,277

Mass General Brigham Incorporated and Affiliates Consolidated Statements of Cash Flows Years Ended September 30, 2022 and 2021

(in thousands of dollars)		2022		2021
Cash flows from operating activities				
Change in net assets	\$	(1,550,226)	\$	5,555,209
Adjustments to reconcile change in net assets to net cash				
(used in) provided by operating activities		(005.404)		(4 400 475)
Change in funded status of defined benefit plans Change in fair value of interest rate swaps		(965,424) (330,530)		(1,486,475) (190,373)
Depreciation and amortization		769,783		724,477
Amortization of bond discount, premium and issuance costs		(11,923)		(12,117)
Gain on disposal of property		(222)		(69)
Change in right-of-use operating lease assets		165,958 [°]		178,991 [°]
Net realized and unrealized change in investments		2,580,370		(3,054,762)
Restricted contributions and investment income		(220,648)		(367,506)
Increases (decreases) in cash resulting from a change in				
Patient accounts receivable		(106,008)		(349,131)
Other assets		6,492		(138,340)
Accounts payable and other accrued expenses		(202,328)		286,776
Accrued medical claims and related expenses Operating lease obligations		31,948 (169,438)		2,651 (152,639)
Settlements with third-party payers		(45,553)		(29,328)
Medicare accelerated payments		(724,469)		(293,624)
Net cash (used in) provided by operating activities		(772,218)	_	673,740
	_	(112,210)	_	010,140
Cash flows from investing activities Purchases of property and equipment		(962 717)		(575 200)
Proceeds from sale of property		(863,717) 436		(575,288) 3,548
Purchase of investments		(2,281,901)		(3,510,944)
Proceeds from sales of investments		3,809,183		1,293,642
Net cash provided by (used for) investing activities		664,001		(2,789,042)
Cash flows from financing activities				
Payments on long-term obligations		(104,771)		(234,119)
Proceeds from long-term obligations		59,235		-
Decrease in auction rate securities holdings		-		29,985
Deposits into refunding trusts		(50,235)		-
Restricted contributions and investment income		220,648		367,506
Net cash provided by financing activities		124,877		163,372
Net increase (decrease) in cash and equivalents		16,660		(1,951,930)
Cash and equivalents				
Beginning of year		177,259		2,129,189
End of year	\$	193,919	\$	177,259
Non-cash purchases of property and equipment in accounts				
payable and accrued expenses	\$	119,196	\$	35,007

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

(in thousands of dollars)

1. Organization and Community Benefit Commitments

Mass General Brigham Incorporated (the Company) is the parent organization and sole corporate member of numerous organizations whose financial condition and operations are described in these consolidated financial statements. The terms Mass General Brigham, We, Our or Us as used herein, unless otherwise stated or indicated by context, refer collectively to the Company and its affiliated organizations.

Mass General Brigham operates academic medical centers, community acute care hospitals, inpatient and outpatient mental health services facilities, urgent care centers, facilities that provide rehabilitation medicine and long-term care services, physician organizations, home health services, nursing homes and a graduate level program for health professions. Our mission is to provide world class health care services to the local communities in which we operate as well as to patients across the United States and the world. In addition, we are a nonuniversity-based non-profit private medical research enterprise and a principal teaching affiliate of the medical and dental schools of Harvard University. Our licensed, not-for-profit managed care organization (AllWays Health Partners, Inc.) and licensed, for-profit insurance company (AllWays Health Partners Insurance Company) (collectively referred to as AllWays Health) provide health insurance products and administrative services to the Massachusetts Medicaid program (MassHealth), ConnectorCare (a state subsidized program for adults who meet income and immigration guidelines) and commercial populations.

Community Health

Through our community health programs we work with community residents and community-based organizations to make measurable, sustainable improvements in the health status of underserved populations. In addition, we support initiatives related to health inequities, social determinants of health and economic mobility. Our hospitals and licensed health centers partner with the community to help low-income, vulnerable families overcome barriers to health and wellbeing.

Charity Care

We provide charity care to all emergent patients regardless of their ability to pay. The cost of and reimbursement for providing that care, as reflected in the consolidated statements of operations, is summarized below.

State Programs Massachusetts

Acute care hospitals in The Commonwealth of Massachusetts (the Commonwealth or Massachusetts) are partially reimbursed for charity care services through the statewide Health Safety Net Trust Fund (HSN). A portion of the funding for the HSN is paid by an assessment on acute care hospitals' charges for private sector payers. The statewide assessment was \$165,308 in both 2022 and 2021 and the assessment expense on our acute care hospitals was \$61,696 and \$60,818 in 2022 and 2021, respectively.

(in thousands of dollars)

Acute care hospitals are reimbursed for charity care based on claims for eligible patients and services that are submitted to and adjudicated by the HSN. Payments are based on Medicare rates and payment policies. The HSN was under-funded by approximately \$68,030 and \$64,968 in 2022 and 2021, respectively. This shortfall is allocated to acute care hospitals based on their share of total statewide patient care costs with our share being approximately \$27,938 and \$22,086 in 2022 and 2021, respectively. Each hospital's share of the overall state shortfall cannot exceed its total charity care reimbursement. Hospitals with a high proportion of charity care and government funding receive more favorable reimbursement, including limiting their shortfall allocation to no more than 15% of their payments for charity care. In aggregate, our acute care hospitals received charity care funding covering 53% and 60% of the estimated cost of charity care provided in 2022 and 2021, respectively.

The Commonwealth levies an additional assessment on Massachusetts hospitals that is redistributed to the hospitals based on pay-for-performance criteria. The total assessment was \$257,500 in both 2022 and 2021 and our assessment expense was \$95,527 and \$94,734 in 2022 and 2021, respectively. The total amount redistributed to hospitals was \$265,000 in both 2022 and 2021 of which we received \$55,338 and \$55,469 in 2022 and 2021, respectively. Additionally, there is a separate assessment for our post-acute hospitals which totaled \$6,045 and \$3,178 in 2022 and 2021, respectively.

New Hampshire

The State of New Hampshire (New Hampshire) imposes a Medicaid Enhancement Tax (MET) on hospital net patient service revenue. For both of New Hampshire's fiscal years ended June 30, 2022 and 2021, the MET imposed was 5.4%. We incurred \$27,046 and \$20,330 of MET in 2022 and 2021, respectively.

New Hampshire acute care hospitals receive disproportionate share payments based on a portion of their charity care relative to other acute care hospitals. We received \$14,634 and \$10,950 in 2022 and 2021, respectively.

Medicaid

Medicaid is a health insurance program jointly funded by the states and the federal government. Each state administers its own program and sets rules for eligibility, benefits and provider payments within broad federal guidelines and in some cases, including the Commonwealth and New Hampshire, within a Waiver Agreement between each state and the federal government. The program provides health care coverage to low-income adults and children. Eligibility is determined by a variety of factors which include income relative to the federal poverty line, age, immigrant status and assets.

Medicaid payments to our providers do not cover the full cost of services provided to Medicaid patients. In aggregate, reimbursement from Medicaid covered approximately 61% and 62% of the estimated cost of services provided in 2022 and 2021, respectively.

Federal Program

Medicare

Medicare is a federally sponsored health insurance program for people age 65 or older, under age 65 with certain disabilities and any age with End-Stage Renal Disease. Medicare's payments historically have not kept pace with increases in the cost of care provided at many hospitals.

(in thousands of dollars)

Compounding this shortfall in payments is the continued shift of care from higher paying inpatient services to lower paying outpatient services.

Consequently, Medicare payments to our providers do not cover the full cost of services provided. In aggregate, reimbursement from Medicare covered approximately 69% and 71% of the estimated cost of services provided in 2022 and 2021, respectively.

Summary

For charity care, Medicaid and Medicare, the estimated cost of services provided is either obtained directly from a costing system or based on an entity specific ratio of cost to gross charges. In the latter case, cost is derived by applying this ratio to gross charges associated with providing care to charity care, Medicaid and Medicare patients. The following summarizes, by program, the cost of services provided, net reimbursement and cost of services in excess of reimbursement for each year:

	Years Ended September 30, 2022 2021 \$ 103,420 \$ 92,362 1,700,493 \$ 1,517,575 5,057,826 \$ 4,657,140 \$ 6,861,739 \$ 6,267,077 \$ 44,683 \$ 44,256 1,029,883 \$ 933,518 3,502,359 \$ 3,311,087 \$ 4,576,925 \$ 4,288,861 \$ 58,737 \$ 48,106 670,610 \$ 584,057 1,555,467 \$ 1,346,053 \$ 2,284,814 \$ 1,978,216				Years Ended September 30,						
		2022		2021							
Cost of services provided											
Charity care	\$	103,420	\$	92,362							
Medicaid		1,700,493		1,517,575							
Medicare		5,057,826		4,657,140							
	\$	6,861,739	\$	6,267,077							
Net reimbursement											
Charity care	\$	44,683	\$	44,256							
Medicaid		1,029,883		933,518							
Medicare		3,502,359		3,311,087							
	\$	4,576,925	\$	4,288,861							
Cost of services in excess of reimbursement											
Charity care	\$	58,737	\$	48,106							
Medicaid		670,610		584,057							
Medicare		1,555,467		1,346,053							
	\$	2,284,814	\$	1,978,216							

In addition to charity care and inadequate funding from the Medicaid and Medicare programs, there are significant losses related to self-pay patients who fail to make payment for services rendered or insured patients who fail to remit co-payments and deductibles as required under the applicable health insurance arrangement. The estimated cost of providing these services was approximately \$73,165 and \$66,215 for 2022 and 2021, respectively.

(in thousands of dollars)

2. Summary of Significant Accounting Policies

Basis of Accounting

The accompanying consolidated financial statements have been prepared on the accrual basis of accounting and include the accounts of the Company and its affiliates. Significant interaffiliate accounts and transactions have been eliminated.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America 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 revenues and expenses during the reporting period. Actual results could differ from those estimates. Significant estimates are made in the areas of patient accounts receivable, research grants receivable, investments, receivables and accrual for settlements with third-party payers, accrued medical claims and related expenses, accrued employee compensation and benefits, accrued professional liability, interest rate swaps liability and accrued other.

Income Taxes

The Company and substantially all of its affiliates are tax-exempt organizations under Sections 501(c)(3) or 501(c)(4) of the Internal Revenue Code (IRC) or are disregarded entities for tax purposes and therefore are exempt from federal and state income tax except on unrelated business taxable income. No provision for income taxes related to these tax-exempt entities has been made as the effect of any unrelated business income tax is not material to the accompanying consolidated financial statements.

Fair Value of Financial Instruments

The fair value of financial instruments approximates the carrying amount reported in the consolidated balance sheets for cash and equivalents, investments and investments limited as to use, patient accounts receivable, research grants receivable, accounts payable and accrued expenses and interest rate swaps liability.

Cash and Equivalents

Cash and equivalents represent cash, registered money market funds and highly liquid debt instruments with a maturity at the date of purchase of three months or less. Our cash and equivalents are maintained with several national banks, and cash deposits typically exceed federal insurance limits. Our policy is to monitor these banks' financial strength on an ongoing basis, and no losses have been experienced to date.

Investments

Investments in equity securities with readily determinable fair values, debt securities and alternative investments are measured at fair value. Alternative investments, consisting of various hedge funds, private equity funds, private debt funds, other private partnerships and restricted securities of public companies that are not traded on a national securities exchange, are valued based on amounts reported by the fund manager and evaluated by management. Investments in securities sold short or traded on a national securities exchange are valued based on quoted market prices.

(in thousands of dollars)

(Loss) income from investments (including realized gains and losses, unrealized change in value of investments, interest, dividends and endowment income distributions) is included in (deficit) excess of revenues over expenses unless the income or loss is restricted by donor or law. (Loss) income from investments is reported net of investment-related expenses.

Each year as part of our endowment spending policy, we establish a fixed distribution rate for spending. Distributions will come from either income and/or net accumulated appreciation.

Investments Limited as to Use

Investments limited as to use primarily include assets whose use is contractually limited by external parties as well as assets set aside by the boards (or management) for identified purposes and over which the boards (or management) retain control such that the boards (or management) may, at their discretion, subsequently use such assets for other purposes. Certain investments corresponding to deferred compensation are accounted for such that all income and appreciation (depreciation) is recorded as a direct addition (reduction) to the asset and corresponding liability.

Derivative Instruments

Derivatives are recognized on the balance sheets at fair value with changes in the fair value recorded in (deficit) excess of revenues over expenses.

Patient Accounts Receivable

The payments received for healthcare services rendered from federal and state agencies (under the Medicare and Medicaid programs), managed care payers, commercial insurance companies and patients are subject to explicit and implicit discounts. These discounts are based on contractual agreements, discount policies and management's assessment of historical experiences and are reflected in the period of service.

Research Grants Receivable

Mass General Brigham receives direct and pass through research funding from the National Institutes for Health and other federal agencies, industry, corporate, foundation, non-profits and other sponsors. Research grants receivable include amounts due from these sponsors of externally funded research. These amounts have been billed or are billable to the sponsor, or in limited circumstances, represent accelerated spending in anticipation of future funding. Research grants receivable are recognized at net realizable value.

As of September 30, 2022, and 2021, we have approximately \$4,239,039 and \$4,066,168, respectively, of conditional research grants for future research to be performed. The timing and amounts of funds received under such grants are subject to continued government funding and may change over time.

Other Current Assets

Other current assets include prepaid expenses, inventory, nonpatient receivables, current portion of receivable for settlements with third-party payers, current portion of pledges receivable and premiums receivable. Inventory (primarily supplies and pharmaceuticals) is accounted for on a first-in, first-out method basis and is recorded at the lower of average weighted cost or net realizable value.

(in thousands of dollars)

Property and Equipment

Property and equipment is reported on the basis of cost less accumulated depreciation. Donated items are recorded at fair value at the date of contribution. All research grants received for capital are recorded in the year of expenditure as a change in net assets without donor restrictions. Property and equipment is reviewed for impairment whenever events or changes in circumstances indicate that its carrying amount may not be recoverable. Depreciation of property and equipment is calculated by use of the straight-line method at rates intended to depreciate the cost of assets over their estimated useful lives, which generally range from three to fifty years. Interest costs incurred on borrowed funds during the period of construction of capital assets are capitalized, net of any interest earned, as a component of the cost of acquiring those assets.

Asset Retirement Obligations

Asset retirement obligations, reported in accrued other, are legal obligations associated with the retirement of long-lived assets. These liabilities are initially recorded at fair value and the related asset retirement costs are capitalized by increasing the carrying amount of the related assets by the same amount as the liability. Asset retirement costs are subsequently depreciated over the useful lives of the related assets. Any changes to the liability due either to the passage of time, better information or the settlement of an obligation are reflected in the current period.

Other Assets

Other assets consist of long-term receivables, intangible assets, malpractice insurance receivables, receivable for settlements with third-party payers, investments in healthcare related limited partnerships and long-term pledges and contributions receivable. The carrying value of other assets is evaluated for impairment if the facts and circumstances suggest that the carrying value may not be recoverable.

Compensated Absences

In accordance with formal policies concerning vacation and other compensated absences, accruals of \$404,123 and \$413,304 were recorded as of September 30, 2022 and 2021, respectively.

Unexpended Funds on Research Grants

Research grants received in advance of corresponding grant expenditures are accounted for as a direct addition to investments limited as to use and unexpended funds on research grants.

Self-Insurance Reserves

We are generally self-insured for employee healthcare, disability, workers' compensation and certain other employee benefits. These costs are accounted for on an accrual basis to include estimates of future payments for claims incurred prior to year-end and are included in accrued employee compensation and benefits and long-term accrued employee benefits.

(in thousands of dollars)

Net Assets

Net assets with donor restrictions include (a) the historical dollar amounts of contributions and the income and gains on such contributions which are required by donors to be retained and (b) contributions and the income and gains on these contributions which can be expended but for which restrictions have not yet been met. Such restrictions include purpose restrictions where donors have specified the purpose for which the net assets are to be spent, or time restrictions imposed by donors or implied by the nature of the contribution (capital projects, pledges to be paid in the future and life income funds) or by interpretations of law (gains available for appropriation but not appropriated in the current period). All remaining net assets are considered to be without donor restrictions.

Realized gains and losses are classified as net assets without donor restrictions unless they are restricted by the donor or law. Realized gains and net unrealized appreciation on contributions with donor restrictions are classified as net assets with donor restrictions until appropriated for spending in accordance with policies established by Mass General Brigham and applicable provisions of the Uniform Prudent Management of Institutional Funds Acts (UPMIFA). Net losses on donor endowment funds with donor restrictions are classified as a reduction to net assets with donor restrictions.

Contributed Securities

Our policy is to sell securities contributed by donors upon receipt, unless prevented from doing so by donor request. For the years ended September 30, 2022 and 2021, contributed securities of \$54,254 and \$53,872, respectively, were received and liquidated. Donors restricted \$27,628 and \$25,536 of the proceeds received from the sale of these contributed securities for long-term purpose for the years ended September 30, 2022 and 2021, respectively.

Statement of Operations

Activities deemed by management to be ongoing, major and central to the provision of healthcare services, teaching, research activities and health insurance are reported as operating revenues and expenses. Other activities are deemed to be nonoperating and include contributions without donor restrictions (net of fundraising expenses), external community benefit program support, net change in unexpended academic and research contributions, change in fair value of interest rate swaps, substantially all income (loss) from investments, interest on advanced borrowings and non-service related pension income. Academic and research contributions largely consist of donor contributions (and the related investment income including realized gains and losses) designated to support the clinical, teaching or research efforts of a physician or department as directed by the donor. These contributions are reported as being without donor restrictions, net of related support expenses, when donor restrictions are of a general nature that are inherent in the normal activities of the organization.

The consolidated statements of operations include (deficit) excess of revenues over expenses. Changes in net assets without donor restrictions, which are excluded from (deficit) excess of revenues over expenses, include contributions of long-lived assets (including assets acquired using contributions which by donor restriction were to be used for acquisition of such assets) and change in funded status of defined benefit plans.

(in thousands of dollars)

Revenues

To determine the appropriate revenue recognition policy, we first assess whether the transaction is an exchange or nonexchange transaction in accordance with accounting guidance. In general, an exchange transaction consists of an exchange of goods and/or services for commensurate value. Transactions that consist of transferring goods and/or services without receiving commensurate value in return are considered nonexchange transactions.

For exchange transactions, revenue is recognized as goods and/or services are provided and is based on the amount expected to be received in exchange for those goods and/or services. Revenue recognized as exchange transactions include net patient service revenue, premium revenue and other revenue.

Nonexchange transactions include contributions and grants for which the service provider does not receive commensurate value in return for the funding.

Contributions

Contributions are reported as other nonoperating gains in the consolidated statements of operations. Unconditional promises to give cash and other assets are reported at fair value at the date the promise is received. Conditional promises to give are recognized when the conditions are substantially met. Contributions are reported as support with donor restrictions if they are received with donor stipulations that limit the use of the donated assets. Contributions with donor restrictions whose restrictions are met within the same year as received are reported as contributions without donor restrictions in the consolidated statements of operations.

Contributions of long-lived assets with explicit restrictions that specify use of assets and contributions of cash or other assets that must be used to acquire long-lived assets are reported as additions to net assets with donor restrictions if the assets are not placed in service during the year.

Grants

Grants and contracts normally provide for the recovery of direct and indirect costs, subject to audit. Revenue associated with direct and indirect costs is recognized as direct costs are incurred. The recovery of indirect costs is based on predetermined rates for U.S. Government grants and contracts and negotiated rates for other grants and contracts.

Medical Claims and Related Expenses

AllWays Health contracts with various hospitals, community health centers, primary care and specialty physician practices and other health care providers for the delivery of services to its members and compensates these providers on a capitated, fee-for-service, per diem or diagnosis-related group basis.

The cost of contracted health care services is accrued in the period in which services are provided and include certain estimated amounts. The estimated liability for medical claims and related expenses is actuarially determined based on analysis of historical claims-paid experience, modified for changes in enrollment, inflation and benefit coverage. The liability for medical claims and related expenses represents the anticipated cost of claims incurred but unpaid at the balance sheet date. Estimates for claims expense may be more or less than the amounts ultimately paid when claims are settled. Such changes in estimates are reflected in the current period in the consolidated statements of operations.

(in thousands of dollars)

In the normal course of business, overpayments are recouped through reductions in future payments made to hospitals and other providers. Such overpayments are the result of, among other things, coordination of benefits and provider claim audits. For the years ended September 30, 2022 and 2021, we recorded a reduction in medical claims expense of \$37,915 and \$28,998, respectively, for such overpayments. As of September 30, 2022 and 2021, respectively, approximately \$1,812 and \$2,881 are recorded as receivables related to such overpayments.

Reinsurance

Reinsurance premiums are reported in medical claims and related expenses and reinsurance recoveries are reported as reductions in medical claims and related expenses.

Settlements

AllWays Health contracts with certain providers at negotiated rates based on historical and anticipated experience. These methods of reimbursement result in settlements based on actual versus anticipated experience which could result in payments due from (to) these providers. Settlements receivable of \$4,047 and \$4,446 were recorded in other current assets as of September 30, 2022 and 2021, respectively. Settlements payable of \$1,834 and \$1,223 were recorded in accrued medical claims and related expenses as of September 30, 2022 and 2021, respectively. The settlements are intended to include both reported and unreported incurred claims as of September 30, 2022 and 2021.

In 2014, the Affordable Care Act introduced new settlements related to a risk adjustment program, a risk corridor program and a reinsurance program designed to mitigate the transitional impact on insurers for new members. The risk corridor program and reinsurance program ended on December 31, 2016 in accordance with the provision of the Affordable Care Act. Our estimated net receivable due from the federal government for the risk adjustment program was \$73,868 and \$67,263 as of September 30, 2022 and 2021, respectively. Similar to the federal program, the Executive Office of Health and Human Services of the Commonwealth (EOHHS) has a risk corridor program, and our estimated net payable due to EOHHS was \$72,462 and \$14,540 as of September 30, 2022 and 2021, respectively.

Premium Deficiency Reserves

Premium deficiency reserves are assessed and recognized on a product line basis based upon expected premium revenue, medical expense and administrative expense levels, and remaining contractual obligations using historical experience. As of September 30, 2022, a premium deficiency reserve of \$21,120 is included in accrued medical claims and related expenses in the accompanying consolidated financial statements. There was no premium deficiency reserve as of September 30, 2021.

Claims Adjustment Expenses

Claims adjustment expenses (CAE) are those costs expected to be incurred in connection with the adjustment and recording of health claims. We have recorded an estimate of unpaid CAE associated with incurred but unpaid claims, which is included in medical claims and related expenses in the accompanying consolidated statements of operations. Management believes the amount of the liability for unpaid CAE as of September 30, 2022, is adequate to cover the cost for the adjustment and recording of unpaid claims; however, actual expenses may differ from those established estimates. Adjustments to the estimates for unpaid CAE are reflected in operating results in the period in which the change in estimate is identified.

(in thousands of dollars)

3. Pandemic

On March 11, 2020, the World Health Organization designated COVID-19 as a global pandemic resulting in an extraordinary impact to patient activity in 2020. In response to COVID-19, the Coronavirus Aid Relief and Economic Security (CARES) Act was enacted which provided different types of economic support to a wide variety of companies and individuals. Mass General Brigham employed several CARES Act provisions, with the most significant impacts summarized below.

Medicare Accelerated Payments (MAP)

For the period ended September 30, 2020, we received \$1,018,093 in MAP funding which was recorded in accounts payable and accrued expenses. Medicare started to recoup these payments beginning in April 2021 based upon the terms and conditions of this program. As of September 30, 2022 and 2021, we had \$0 and \$724,469, respectively, in MAP funding recorded in accounts payable and accrued expenses.

Deferred Payment of Employer Payroll Taxes

As of September 30, 2022 and 2021, we have accumulated \$121,604 and \$239,466, respectively, of deferred employer payroll taxes within accrued employee compensation and benefits. The CARES Act allows for deferred payments of only the employer share of payroll taxes through December 31, 2020 and requires payment of 50% of these deferred taxes by December 31, 2021 and 50% by December 31, 2022.

Provider Relief Funds (PRF)

For the years ended September 30, 2022 and 2021, we recognized approximately \$0 and \$232,063, respectively, of permanent grants from the PRF within other operating revenue. PRF were used to prevent, prepare for and respond to COVID-19. Based on our interpretation of available information as of September 30, 2022 and 2021, we have deferred \$86,487 in both 2022 and 2021 of PRF we received.

4. Operating Revenues

Net Patient Service Revenue

Mass General Brigham's providers maintain agreements with The Centers for Medicare and Medicaid Services under the Medicare program, the Commonwealth under the Medicaid program and various managed care payers that govern payment for services rendered to patients covered by these agreements. The agreements generally provide for per case or per diem rates or payments based on discounted charges for inpatient care and discounted charges or fee schedules for outpatient care. Certain contracts also provide for payments that are contingent upon meeting agreed upon quality and efficiency measures.

(in thousands of dollars)

We recognize net patient service revenue for services provided to patients who have third-party payer coverage based on contractual rates for the services rendered. For uninsured patients that do not qualify for charity care, we recognize revenue based on our standard rates (subject to discounts) for services provided. Based on our historical experience, a significant portion of uninsured patients are unable or fail to pay for the services provided. Consequently, we have provided implicit discounts to uninsured patients. These discounts represent the difference between amounts billed to patients and amounts expected to be collected based on historical experience. The following summarizes net patient service revenue, net of contractual adjustments and discounts by significant payer:

			Yea	rs Ended	Sep	tember 30,		
		20	22			2	021	
Net patient service revenue (net of contractual adjustments and discounts)								
Medicare	\$	2,677,395		22.6%	\$	2,614,786		23.0%
Medicare managed care		824,964		7.0%		696,301		6.1%
Medicaid		730,116		6.2%		698,353		6.1%
Medicaid managed care		299,767		2.5%		235,165		2.1%
Massachusetts managed care organizations		4,306,308		36.3%		4,192,422		36.6%
Other commercial		2,493,749		21.0%		2,310,323		20.2%
All others	_	537,152		4.4%	_	684,905		5.9%
Total all payers	\$	11,869,451		100.0%	\$	11,432,255		100.0%

Net patient service revenue includes estimated retroactive revenue adjustments due to future audits, reviews and investigations. Retroactive adjustments are considered in the recognition of revenue on an estimated basis in the period the related services are rendered, and such amounts are adjusted in future periods as adjustments become known or as years are no longer subject to such audits, reviews and investigations. Contracts, laws and regulations governing the Medicare, Medicaid and charity care programs and managed care payer arrangements are 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. A portion of the accrual for settlements with third-party payers has been classified as long-term because such amounts, by their nature or by virtue of regulation or legislation, will not be paid within one year.

Third-party payers (accrual) receivable consists of the following:

	Balance Sheet Classification		Septen	ber	30,			
								
Current portion								
Receivable for settlements with third-party payers	Other current assets	\$	136,498	\$	104,874			
Accrual for settlements with third-party payers	Accounts payable and accrued expenses		(72,765)		(785,917)			
			63,733		(681,043)			
Long-term portion								
Receivable for settlements with third-party payers	Other assets		26,567		4,315			
Accrual for settlements with third-party payers	Accrued other		(25,168)		(28,162)			
			1,399		(23,847)			
Third-party payers receivable (accrual)		\$	65,132	\$	(704,890)			

(in thousands of dollars)

We recognize changes in third-party payer settlements and other estimates in the year of the change in estimate. For the years ended September 30, 2022 and 2021, adjustments to prior year estimates resulted in an increase to net patient service revenue of \$13,177 and \$48,818, respectively. Subsequent changes to estimated discounts are generally recorded as adjustments to net patient service revenue in the period of change.

We provide either full or partial charity care to patients who cannot afford to pay for their medical services based on income and family size. Charity care is generally available to qualifying patients for medically necessary services. We report certain bad debts related to emergency services as charity care. As there is no expectation of collection, there is no net patient service revenue recorded related to charity care.

Premium Revenue

Premiums are due monthly and are recorded as earned during the period in which members are eligible to receive services. Premiums received prior to the first day of the coverage period are recorded as unearned premiums in accounts payable and accrued expenses.

Academic and Research Revenue

Academic and research revenue is recognized as either an exchange or nonexchange transaction, depending on the contract type. The following table sets forth total academic and research revenue received by funding source:

	Years Ended September 30,								
	202	22			20	21			
National Institute of Health and other federal agencies	\$ 1,046,056		41.7%	\$	998,423	43.8%			
Federal subcontracts	252,503		10.1%		230,702	10.1%			
Industry/corporate	221,240		8.8%		198,651	8.8%			
Foundations/nonprofits and other sponsors	 697,349		27.8%		625,795	27.5%			
Total research revenue	2,217,148				2,053,571				
Academic revenue	 290,214		11.6%		223,373	9.8%			
Total academic and research revenue	\$ 2,507,362		100.0%	\$	2,276,944	100.0%			

(in thousands of dollars)

Other Revenue

Other revenue includes all other operating revenue sources, the most significant being the following:

	Y	ears Ended	Sept	tember 30,
		2022		2021
Specialty and retail pharmacy operations	\$	652,109	\$	457,750
Provider relief funds (CARES)		-		232,063
Contract revenue		111,081		108,467
Parking and office rentals		71,087		63,197
Tuition		64,885		64,480
Outsourced services		57,082		45,423
Cafeteria sales		30,644		25,356
Contract administrative fees		32,065		34,220
Blood factor sales		40,499		37,467
Accountable care organization administration fees		47,135		37,104
Consulting services		14,997		13,028
International contracts		13,415		7,421
Intellectual property and royalties		3,793		23,314
Investment income		12,802		10,909
Other		251,207		216,593
Total other revenue	\$	1,402,801	\$	1,376,792

5. Liquidity and Availability

Cash and investments are managed centrally under policies developed by the Investment Committee and reviewed by the Finance Committee of the Company's Board of Directors. Wherever possible, funds are commingled and are assigned to one of three investment pools (the Money Market Pool, the Aggregate Bond Pool and the Long-Term Pool, collectively, the Pools) which have been structured to provide a range of investment objectives, risk profiles and rates of return appropriate for our assets. Funds are allocated among the Pools based on expected liquidity needs as determined by multi-year financial plans, restrictions and management judgment.

The tiered time horizon structure of the Pools is designed to meet anticipated and contingent liquidity needs. The following tables set forth the periods within which funds are available to meet liquidity needs and based on redemption provisions with investment managers, the specific Pools from which such funds would be drawn as of:

	September 30, 2022												
Investment Pool	S	Same Day		1 Week		1 Month		3 Months		1 Year		> 1 Year	Total
Money market	\$	362,668	\$	-	\$	-	\$	-	\$	-	\$	-	\$ 362,668
Aggregate bond		443,584		177,438		-		-		-		-	621,022
Long-term		146,618		1,013,946		1,464,776		2,870,543		907,734		5,803,923	12,207,540
Total	\$	952,870	\$	1,191,384	\$	1,464,776	\$	2,870,543	\$	907,734	\$	5,803,923	\$ 13,191,230
Cumulative total	\$	952,870	\$	2,144,254	\$	3,609,030	\$	6,479,573	\$	7,387,307	\$	13,191,230	

(in thousands of dollars)

			S	ept	ember 30, 20	21			
Investment Pool	Same Day	1 Week	1 Month		3 Months		1 Year	> 1 Year	Total
Money market	\$ 387,288	\$ -	\$ -	\$	-	\$	-	\$ -	\$ 387,288
Aggregate bond	1,798,123	348,702	-		-		-	-	2,146,825
Long-term	155,521	1,602,470	1,147,679		4,284,623		1,542,435	5,933,595	14,666,323
Total	\$ 2,340,932	\$ 1,951,172	\$ 1,147,679	\$	4,284,623	\$	1,542,435	\$ 5,933,595	\$ 17,200,436
Cumulative total	\$ 2,340,932	\$ 4,292,104	\$ 5,439,783	\$	9,724,406	\$	11,266,841	\$ 17,200,436	

As of September 30, 2022 and 2021, we had cash and equivalents not included in the Pools of \$129,750 and \$97,955, respectively. As of September 30, 2022 and 2021, we had net patient accounts receivable of \$1,438,412 and \$1,332,404, respectively, that would be available for general expenditures within one year of the balance sheet dates.

In addition, we maintain two lines of credit aggregating \$375,000 as well as a \$500,000 Taxable Commercial Paper (CP) program that provide access to same day funds. As of September 30, 2022, there were no amounts outstanding under the lines of credit and there was \$50,230 outstanding under the CP program.

6. Investments and Investments Limited as to Use

Investments are either invested in the Pools or separately managed. Substantially all affiliates participate in the Pools. Their respective ownership interests are tracked and updated monthly and are accounted for using the fair value method. Income (including realized gains and losses) from the Pools is allocated to each participant on a monthly basis based on its proportionate interest in the Pools.

Oversight of the management of the investable assets, including the Pools and pension assets, is provided by the Investment Committee of the Company's Board of Directors which seeks to achieve incremental returns by manager selection and asset allocation (increasing/decreasing allocations within allowable ranges based on current and projected valuations). The Committee is supported by a professional staff, an outside investment consultant and a pension actuarial consultant.

We utilize a target allocation policy and balance projected returns, correlation and volatility of various asset classes within the overall risk tolerance. Asset allocations are managed based on relative valuations among and within asset classes and the perceived ability of managers to outperform passive benchmarks. Exposure by asset class is the sum of allocation to those mangers whose mandates most closely fit the listed asset classes. Asset allocation can and will deviate from target exposures and is regularly monitored for rebalancing.

(in thousands of dollars)

The Pools invest in a variety of assets which include private partnerships whose assets include equity, fixed income and other investments. The Pools have unfunded commitments as follows:

	September 30,				
	2022			2021	
Private equity Private energy	\$	1,732,382 136,032	\$	1,108,801 159,847	
Private real estate Timber and agriculture Private alternatives and hedge funds	_	77,402 1,935 345,844		50,037 2,957 247,240	
	\$	2,293,595	\$	1,568,882	

The unfunded commitments will be drawn down by the various general partners over the next several years. The maximum annual drawdown is expected to be 3% to 5% of investments and investments limited as to use.

Short-term Investments in Investment Pools

Within the Aggregate Bond Pool and our Long-Term Pool, there are assets that meet the definition of short-term investments. These short-term investments are considered part of the Aggregate Bond Pool and Long-Term Pool and are not included in cash equivalents on the consolidated balance sheets. Accordingly, transactions within the Aggregate Bond Pool and Long-Term Pool that result in the purchase of investments or result in proceeds from the sales of investments are excluded from the statement of cash flows purchases of investments and proceeds from the sales of investments. Within the Aggregate Bond Pool, purchases of investments are proceeds from the sales of investments not included in the statement of cash flows were \$159,146 and \$1,536,389 for the year ended September 30, 2022, and \$1,636,272 and \$165,613 for the year ended September 30, 2021, respectively. Within the Long-Term Pool, purchases of investments and proceeds from the sales of investments not included in the statement of cash flows were \$1,888,457 and \$1,346,607 for the year ended September 30, 2022, and \$5,510,346 and \$3,233,338 for the year ended September 30, 2021, respectively.

(in thousands of dollars)

Investments limited as to use consist of the following:

	Septeml	per 30, 2022	September 30, 2021			
	Current	Long-Term	Current	Long-Term		
	Portion	Portion	Portion	Portion		
Internally designated funds						
Reserved for capital expenditures	\$ 1,406,275	\$ -	\$ 1,414,284	\$ -		
Unexpended academic and research gifts	-	3,989,979	-	5,031,167		
Deferred compensation	-	511,439	-	593,834		
Other	2,364,066	420,895	3,693,511	531,205		
	3,770,341	4,922,313	5,107,795	6,156,206		
Externally limited funds						
Unexpended funds on research	355,934	-	345,403	-		
Contributions held for others	1,405	-	2,864	-		
Professional liability trust fund	-	-	-	46,517		
Held by trustees under debt and other						
agreements	16,851	39,065	181,575			
	374,190	39,065	529,842	46,517		
	\$ 4,144,531	\$ 4,961,378	\$ 5,637,637	\$ 6,202,723		

Investment activity included in (deficit) excess of revenues over expenses consists of the following:

	Years Ended September 30,				
		2022		2021	
Investment income included in operations and reported in other revenue Investment income included in nonoperating gains	\$	12,802	\$	10,909	
and reported in Income from investments					
Net realized gains on investments		121,756		303,166	
Unrealized change in investments		(2,393,256)		2,036,541	
Academic and research gifts, net of expenses		219,505		251,297	
Total investment activity included in (deficit)		_		_	
excess of revenues over expenses	\$	(2,039,193)	\$	2,601,913	

7. Fair Value Measurements

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 (also referred to as exit price). Therefore, a fair value measurement should be determined based on the assumptions that market participants would use in pricing the asset or liability. In determining fair value, the use of various valuation approaches, including market, income and cost approaches, is permitted.

(in thousands of dollars)

Fair Value Hierarchy

A fair value hierarchy has been established based on whether the inputs to valuation techniques are observable or unobservable. Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect the reporting entity's assumptions about the inputs market participants would use. The fair value hierarchy requires the reporting entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. In addition, for hierarchy classification purposes, the reporting entity should not look through the form of an investment to the nature of the underlying securities held by an investee.

The hierarchy is described below.

- Level 1 Valuations using quoted prices in active markets for identical assets or liabilities.

 Valuations of these products do not require a significant degree of judgment. Level 1 assets and liabilities primarily include debt and equity securities that are traded in an active exchange market.
- Level 2 Valuations using observable inputs other than Level 1 prices such as quoted prices in active markets for similar assets or liabilities; quoted prices for identical or similar assets or liabilities in markets that are not active; broker or dealer quotations; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities. Level 2 assets and liabilities primarily include debt securities with quoted prices that are traded less frequently than exchange-traded instruments as well as debt securities and derivative contracts whose value is determined using a pricing model with inputs that are observable in the market or can be derived principally from or corroborated by observable market data.
- Level 3 Valuations using unobservable inputs that are supported by little or no market activity and are significant to the fair value of the assets or liabilities. Level 3 includes assets and liabilities whose value is determined using pricing models, discounted cash flow methodologies, or similar techniques reflecting the reporting entity's assumptions about the assumptions market participants would use as well as those requiring significant management judgment.

Valuation Techniques

Pooled investments, separately invested short-term investments and debt and equity securities are classified within Level 1 or Level 2 of the fair value hierarchy as they are valued using quoted market prices, broker or dealer quotations, or other observable pricing sources. Certain types of investments are classified within Level 3 of the fair value hierarchy because they have little or no market activity and therefore have little or no observable inputs with which to measure fair value.

The valuation of interest rate swaps is determined using widely accepted valuation techniques, including discounted cash flow analysis on the expected cash flows of each derivative. This analysis reflects the contractual terms of the derivatives, including the period to maturity, and uses observable market-based inputs, including interest rate curves and implied volatilities.

(in thousands of dollars)

The following tables summarize financial assets and liabilities measured at fair value on a recurring basis as of:

		0	00 0000		
	-		er 30, 2022		-
	Quoted Prices in Active Markets for Identical Items (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Investments Valued Using NAV as a Practical Expedient	Total
Assets					
Pooled investments					
Short-term investments Separately managed investments Mutual funds	\$ 269,086 755,478 177,438	\$ - 486,044	\$ -	\$ - -	\$ 269,086 1,241,522 177,438
Private partnerships, commingled	177,400	_	_	_	177,400
funds and other				11,503,184	11,503,184
	1,202,002	486,044	-	11,503,184	13,191,230
Separately invested					
Short-term investments	55,670	-	-	-	55,670
Equities Mutual funds	30,340 632,093	69,015	-	-	30,340 701,108
Beneficial interests in	002,000	00,010			701,100
perpetual assets			51,752		51,752
	718,103	69,015	51,752	- 	838,870
	\$ 1,920,105	\$ 555,059	\$ 51,752	\$ 11,503,184	\$ 14,030,100
Interest rate swaps		Ф 45.004			ф 45 004
Assets Liabilities		\$ 15,224 (156,705)			\$ 15,224 (156,705)
Net interest rate swaps		\$ (141,481)	-		\$ (141,481)
		+ (***,***)	•		+ (***,***)
		Septembe	er 30, 2021		
			urements Using		
	Quoted Prices in Active Markets for Identical Items (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Investments Valued Using NAV as a Practical Expedient	Total
Assets					
Pooled investments	405.457	•	•	•	
Short-term investments Separately managed investments	\$ 485,457 1,263,270	\$ - 384,995	\$ -	\$ -	\$ 485,457 1,648,265
Mutual funds	1,561,770	-	_	-	1,561,770
Private partnerships, commingled					
funds and other		<u> </u>		13,504,944	13,504,944
	3,310,497	384,995		13,504,944	17,200,436
Separately invested Short-term investments	44 220				44 220
Equities	41,339 38,045	-	-	-	41,339 38,045
Mutual funds	675,726	126,407	-	-	802,133
Beneficial interests in			04.040		04.040
perpetual assets	755,110	126,407	61,316 61,316		61,316 942,833
	\$ 4,065,607	\$ 511,402	\$ 61,316	\$ 13,504,944	\$ 18,143,269
Interest rate swaps	,000,007	2 311,102	- 01,010		0,.10,200
Liabilities		\$ (472,011)			\$ (472,011)

(in thousands of dollars)

8. Pledges and Contributions Receivable

Pledges receivable represent unconditional promises to give and are net of allowances for uncollectible amounts. Pledges are recorded at the present value of their estimated future cash flows. Pledges collectible within one year are classified as other current assets, net of allowances, and total \$113,916 and \$125,756 as of September 30, 2022 and 2021, respectively. Pledges collectable in one year or greater are classified as other assets. Estimated cash flows due after one year are discounted using published treasury bond and note yields that are commensurate with estimated collection risks. The blended discount rate was 4.2% and 0.6% for 2022 and 2021, respectively. Pledges are expected to be collected as follows:

	September 30,				
		2022		2021	
Amounts due					
Within one year	\$	136,491	\$	153,120	
In one to five years		169,846		170,934	
In more than five years		68,247		69,461	
Total pledges receivable		374,584		393,515	
Less: Unamortized discount		29,837		5,700	
		344,747		387,815	
Less: Allowance for uncollectibles		28,351		32,035	
Net pledges receivable		316,396		355,780	
Contributions receivable from trusts		53,481		66,477	
	\$	369,877	\$	422,257	

9. Property and Equipment

Property and equipment consists of the following:

	September 30,			
	2022			2021
Land and land improvements	\$	372,508	\$	356,271
Buildings and building improvements		9,282,374		8,990,955
Equipment		2,903,484		2,868,709
Construction in progress		702,930		388,724
Finance right-of-use lease assets		92,781		70,350
		13,354,077		12,675,009
Less: Accumulated depreciation		6,911,817		6,413,282
Property and equipment, net	\$	6,442,260	\$	6,261,727

(in thousands of dollars)

Depreciation expense for the years ended September 30, 2022 and 2021 was \$767,158 and \$721,199, respectively. Interest costs, net of interest earned, aggregating \$417 and \$1,257 were capitalized in 2022 and 2021, respectively.

For the years ended September 30, 2022 and 2021, fully depreciated assets with an original cost of \$268,623 and \$223,430, respectively, were written off.

10. Levels of Capital and Surplus

Risk-based capital (RBC) is a methodology adopted by the National Association of Insurance Commissioners for determining the minimum level of capital and surplus deemed necessary for an insurer based upon the types of assets held and business written. The Company has guaranteed to the Massachusetts Division of Insurance (DOI) (the RBC Guaranty) to maintain AllWays Health's capital and surplus at a specified minimum level, measured quarterly in accordance with an RBC methodology permitted by DOI. The RBC Guaranty may be enforced by the DOI. The Company provided capital to AllWays Health of \$11,000 and \$0 in 2022 and 2021, respectively. AllWays Health Partners, Inc.'s current contract with EOHHS requires it to maintain a minimum net worth and/or financial insolvency insurance in an amount equal to the Minimum Net Worth calculation as defined in Massachusetts General Law 176G, Section 25. At December 31, 2021 and 2020 (AllWays Health Partners, Inc.'s statutory year end), the minimum net worth requirement, as determined in accordance with EOHHS guidelines, was \$47,718 and \$43,702, respectively. AllWays Health Partners Inc.'s GAAP net worth was \$158,853 and \$163,025 at December 31, 2021 and 2020, respectively, and thus exceeded the EOHHS requirements by \$111,135 and \$119,323, respectively.

11. Accrued Medical Claims and Related Expenses

Accrued medical claims and related expenses include estimates of expected trends in claims severity, frequency, and other factors, which could vary as the claims are ultimately settled and are based principally upon historical experience. For the years ended September 30, 2022 and 2021, changes in estimates resulted in a decrease of accrued medical claims and related expense of \$14,564 and \$25,613, respectively. Decreases of this nature occur as the result of claim settlements and recoveries during the current year and as additional information is received regarding individual claims, causing changes from the original estimates of the cost of these claims. Ongoing analysis of the recent loss development trends is also taken into account in evaluating the overall adequacy of the reserves.

(in thousands of dollars)

Changes in accrued medical claims and related expenses are as follows:

	2022	2021
Balance at beginning of year	\$ 87,289	\$ 84,638
Less:		
Accrual for claims adjustment expenses	(1,602)	(1,475)
Accrued medical payables - other	(17,281)	(13,609)
Plus: Settlements payable, net	61,687	 67,491
Net balance at beginning of year	130,093	137,045
Incurred related to		
Current year	736,776	671,127
Prior years	(14,564)	(25,613)
Total incurred	722,212	645,514
Paid related to		
Current year	591,660	592,738
Prior years	89,724	59,728
Total paid	681,384	652,466
Net balance at end of year Plus:	170,921	130,093
Premium deficiency reserve	21,120	_
Accrual for claims adjustment expenses	1,608	1,602
Accrued medical payables - other	16,818	17,281
Less: Settlements payable, net	(91,230)	(61,687)
Balance at end of year	\$ 119,237	\$ 87,289

Medical claims and related expenses in the accompanying consolidated statements of operations include other nonclaims related costs. These nonclaims related expenses were for directly delivered services and medical cost risk sharing and incentives.

(in thousands of dollars)

12. Long-Term Obligations

Mass General Brigham's long-term obligations consist of the following:

	Final	Septe	ember 30,
	Maturity	2022	2021
Massachusetts Health and Educational Facilities Authority Revenue Bonds			
Series 1997 P*, variable interest rate of 2.38% and 0.05%	2027	\$ 150,000	\$ 150,000
Series 2005 F*, variable interest rate of 2.48% and 0.08%	2040	226,150	227,950
Series 2007 G*, variable interest rate of 2.10% and 0.20%	2042	75,000	75,000
Series 2008 H*, variable interest rate of 1.64% and 0.08%	2042	159,785	162,590
Massachusetts Development Finance Agency Revenue Bonds			
Series 2011 K*, variable interest rate of 2.54% and 0.05%	2046	100,000	100,000
Series 2012 L*, average fixed interest rate of 4.49%		-	8,635
Series 2014 M*, average fixed interest rate of 4.27%	2026	16,835	21,835
Series 2014 N*, variable interest rate of 2.60% and 0.69%	2044	126,150	127,950
Series 2015 O*, average fixed interest rate of 4.39%	2045	176,930	187,065
Series 2016 Q*, average fixed interest rate of 4.80%	2047	406,260	415,390
Series 2016 R*, variable interest rate of 2.29% and 0.63%	2052	100,000	100,000
Series 2017 S*, average fixed interest rate of 4.61%,			
variable interest rate of 2.96% and 0.52%	2047	823,485	907,630
Series 2019 T*, variable interest rate of 3.01% and 0.59%	2049	138,250	158,250
Series 2020 A*, average fixed interest rate of 4.84%	2050	286,325	294,195
New Hampshire Health and Education Facilities Authority Revenue Bonds			
Series 2017, average fixed interest rate of 5.00%	2041	90,390	92,840
MGB Taxable Debt			
Series 2007 Bonds, fixed interest rate of 6.26%	2037	100,000	100,000
2012 Senior Notes, fixed interest rate of 4.11%	2052	400,000	400,000
2014 Senior Notes, fixed interest rate of 4.73%	2044	150,000	150,000
Series 2015 Bonds, fixed interest rate of 4.12%	2055	300,000	300,000
2016 Senior Notes, fixed interest rate of 3.89%	2046	225,000	225,000
Series 2017 Bonds, fixed interest rate of 3.77%	2048	303,644	303,644
2018 Senior Notes, fixed interest rate of 4.60%	2049	400,000	400,000
Series 2020 Bonds, average fixed interest rate of 3.29%	2060	1,017,135	1,017,135
Series B-1 Commercial Paper Notes, variable interest rate of 2.65% and n/a	2023	50,230	-
Other obligations		14,341	6,574
Total long-term obligations, par value		5,835,910	5,931,683
Net unamortized bond premiums		264,135	277,409
Deferred financing costs		(23,514	(24,867)
Total long-term obligations, net		6,076,531	6,184,225
Less:			
Current portion		519,354	381,987
		\$ 5,557,177	\$ 5,802,238

^{*} Denotes series is issued in multiple subseries

Variable interest rates are presented at September 30, 2022 and 2021, respectively

(in thousands of dollars)

Scheduled maturities of long-term obligations (including the impact of net unamortized bond premiums and deferred financing costs) during the next five years and thereafter and other amounts classified as current liabilities, are as follows:

	_	cheduled Naturities	Bonds pported by Self Liquidity	Sup	Bonds oported by Bank acilities		Total
2023	\$	153,954	\$ 276,650	\$	88,750	\$	519,354
2024		110,030	-		-		110,030
2025		121,296	-		-		121,296
2026		95,836	-		-		95,836
2027		75,733	-		-		75,733
Thereafter		5,154,282	-		-	_	5,154,282
	\$	5,711,131	\$ 276,650	\$	88,750	\$	6,076,531

The scheduled maturities represent annual payments as required under debt repayment schedules. The current portion of long-term obligations includes the payments scheduled to be made in 2023, bonds supported by self-liquidity that can be tendered prior to September 30, 2023, and bonds supported by bank facilities with financial institutions (standby bond purchase agreements or letters of credit) that expire prior to September 30, 2023 or have potential principal amortization under bank facilities' term out provisions due during 2023. The bonds supported by self-liquidity provide the bondholder with an option to tender the bonds to the Company. Accordingly, these bonds are classified as a current liability. The bonds supported by bank facilities provide the bondholder with an option to tender the bonds to the liquidity provider. Generally accepted accounting principles require bonds backed by bank facilities expiring within one year of the balance sheet date as well as potential principal amortization under bank facilities' term out provisions due within one year of the balance sheet date to be classified as a current liability.

If bonds supported by bank facilities cannot be remarketed, the repayment terms of those bank facilities would result in repayments of \$68,750 in 2023, \$142,050 in 2024, \$85,800 in 2025 and \$29,550 in 2026. If the bonds supported by self-liquidity cannot be remarketed, the bonds would be tendered to the Company on their respective earliest tender dates, which differ from scheduled maturity dates, and would result in payments of \$276,650 in 2023, \$69,250 in 2024, \$61,935 in 2025, \$130,000 in 2026, \$0 in 2027 and \$139,285 thereafter.

(in thousands of dollars)

Scheduled payments of long-term debt (excluding the impact of net unamortized bond premiums and deferred financing costs) for each of the next five years, assuming bonds backed by bank facilities are remarketed and the standby purchase agreements are renewed and bonds supported by self-liquidity are remarketed, are as follows:

2023	\$ 103,725
2024	113,236
2025	124,751
2026	93,686
2027	101,148
Thereafter	 5,299,364
	\$ 5,835,910

Interest expense paid during the years ended September 30, 2022 and 2021 was \$237,384 and \$243,020, respectively.

Mass General Brigham bonds are general obligations of the Company supported by guarantees from Brigham, Inc., The Brigham and Women's Hospital, Inc., The Massachusetts General Hospital and The General Hospital Corporation (the General) which may be suspended under certain conditions.

Our debt agreements contain certain covenants, including a minimum debt service coverage ratio and limitations on additional indebtedness and asset transfers.

Lines of Credit

The Company maintains two lines of credit aggregating \$375,000 that provide access to same day funds. Advances under the lines of credit bear a variable rate of interest based on the Bloomberg Short-Term Bank Yield Index rate (BSBY) for the \$250,000 line of credit and the Secured Overnight Financing Rate (SOFR) for the \$125,000 line of credit. As of September 30, 2022, there were no amounts outstanding under the lines of credit. The \$250,000 line of credit expires in July 2025. The \$125,000 line of credit expires in July 2024.

Term Loan

In May 2020, the Company executed a \$150,000 Term Loan with a fixed interest rate of 2.42% and final maturity in May 2022. The Term Loan was pre-paid in full in May 2021.

Taxable Commercial Paper

The Company maintains a \$500,000 Taxable Commercial Paper program. As of September 30, 2022, there was \$50,230 outstanding under the CP program.

13. Derivatives

Interest Rate Swaps

We utilize swap contracts to lock-in long-term synthetic fixed rates and manage fluctuations in cash flows resulting from interest rate risk on certain of our variable rate bonds. These bonds expose us to variability in interest payments due to changes in interest rates. Management believes that it is prudent to limit this variability. To meet this objective and to take advantage of low interest rates, we have entered into various swap contracts involving the exchange of fixed rate payments by us for variable rate payments from several counterparties that are based on a percentage of London Interbank Offered Rate (LIBOR) or a percentage of SOFR plus a spread.

(in thousands of dollars)

By using swap contracts to manage the risk of changes in interest rates, we expose ourselves to credit risk and market risk. Credit risk is the failure of the counterparty to perform under the terms of the swap contracts. When the fair value of a swap contract is positive, the counterparty has a liability to us, which creates credit risk. We minimize our credit risk by entering into swap contracts with several counterparties and requiring the counterparty to post collateral for our benefit based on the credit rating of the counterparty and the fair value of the swap contract. Conversely, when the fair value of a swap contract is negative, we have a liability to the counterparty and, therefore, we do not have credit risk. Under certain circumstances, we may be required to post collateral for the benefit of the counterparty. Market risk is the adverse effect on the value of a financial instrument that results from a change in interest rates. The market risk associated with interest rate changes is managed by establishing and monitoring parameters that limit the types and degree of market risk that we may undertake.

The following is a summary of the outstanding positions under our swap contracts as of September 30, 2022:

	ı	Notional			
Effective Date		Amount	Maturity	Rate Paid	Rate Received
5/1/03	\$	147,188	7/1/45	3.38%	67% 1-month LIBOR
10/15/03		9,945	1/1/31	3.85%	70% 1-month LIBOR
7/1/05		150,000	7/1/50	3.09%	67% 1-month LIBOR
7/1/05		12,100	7/1/25	5.11%	67% 6-month LIBOR
9/1/05		540	1/1/23	3.26%	70% 1-month LIBOR
7/1/07		50,000	7/1/52	3.00%	67% 1-month LIBOR
7/1/07		100,000	7/1/52	2.95%	67% SOFR + 0.083%
7/1/09		100,000	7/1/50	3.58%	67% 1-month LIBOR
7/1/11		100,000	7/1/50	3.66%	67% 1-month LIBOR
7/1/13		100,000	7/1/48	3.80%	67% 1-month LIBOR
7/1/15		50,000	7/1/50	3.80%	67% 1-month LIBOR
4/1/16		100,000	7/1/52	3.76%	67% 1-month LIBOR
7/1/17		50,000	7/1/52	3.74%	67% SOFR + 0.083%
7/1/19		50,000	7/1/49	1.85%	67% 1-month LIBOR
7/1/21		50,000	7/1/51	1.84%	67% 1-month LIBOR
7/1/23		50,000	7/1/53	1.80%	67% 1-month LIBOR
7/1/24		100,000	7/1/54	1.81%	67% 1-month LIBOR
7/1/25		50,000	7/1/55	1.77%	67% SOFR + 0.083%
7/1/26		100,000	7/1/56	1.78%	67% 1-month LIBOR
7/1/27		50,000	5/1/57	1.80%	67% 1-month LIBOR
7/1/27		50,000	7/1/57	1.77%	67% SOFR + 0.083%
	\$	1,469,773			

(in thousands of dollars)

Our swap contracts contain provisions that require collateral to be posted if the fair value of the swap exceeds certain thresholds. The collateral thresholds reflect the current credit ratings issued by major credit rating agencies on our and the counterparty's debt. Declines in our or the counterparty's credit ratings would result in lower collateral thresholds and, consequently, the potential for additional collateral postings by us or the counterparty. As of September 30, 2022 and 2021, we have posted collateral of \$16,397 and \$181,396, respectively. We have established procedures to ensure that liquidity and securities are available to meet collateral posting requirements.

Upon the occurrence of certain events of default or termination events identified in the swap contracts, either the Company or the counterparty could terminate the contracts in accordance with their respective terms. Termination results in the payment of a termination amount by one party that attempts to compensate the other party for its economic losses. If interest rates at the time of termination are lower than those specified in the swap contract, we would make a payment to the counterparty. Conversely, if interest rates at such time are higher, the counterparty would make a payment to us.

14. Leases

We lease property and equipment under both finance and operating lease agreements. We recognize leases with a term greater than twelve months on the balance sheets.

Some lease agreements require us to pay variable costs including property taxes, insurance, maintenance and repairs. Variable costs are excluded from the right-of-use asset and liability. Lease and non-lease components of agreements are not separated. Some leases contain rental escalation clauses and renewal options that are included in lease payment calculations when appropriate. The estimated incremental borrowing rate is used to discount the lease payment amounts.

The components of lease expense consist of the following:

	nded S	September:	30, 2	022		
			Aca	demic and		
	Supplies and Research Other Gifts, Net Expenses of Expenses			Total		
Operating lease expense	\$	216,064	\$	7,639	\$	223,703
Short-term lease expense		12,964		183		13,147
Variable lease expense		77,112		2,545		79,657
Finance lease expense						
Amortization of leased assets		13,012		204		13,216
Interest on lease liabilities		3,871		36		3,907
Total lease expense	\$	323,023	\$	10,607	\$	333,630

(in thousands of dollars)

	Year Ended September 30, 2021 Academic and				021	
	Supplies and Other Expenses		Research Gifts, Net of Expenses		Total	
	_	жрепосо	01	LXPCII3C3		Total
Operating lease expense	\$	215,745	\$	7,380	\$	223,125
Short-term lease expense		12,575		130		12,705
Variable lease expense		69,352		1,448		70,800
Finance lease expense						
Amortization of leased assets		6,633		58		6,691
Interest on lease liabilities		2,827		9		2,836
Total lease expense	\$	307,132	\$	9,025	\$	316,157

Lease related assets and liabilities are as follows:

	Balance Sheet Classification	Se	ptember 30, 2022	Se	ptember 30, 2021
Operating lease assets Finance lease assets	Right-of-use operating lease assets Property and equipment, net	\$	1,135,787 72,401	\$	1,108,275 63,067
Total lease assets		\$	1,208,188	\$	1,171,342
Current operating lease liability Current finance lease liability Noncurrent operating lease liability Noncurrent finance lease liability	Current portion of operating lease obligations Accounts payable and accrued expenses Operating lease obligation, less current portion Accrued other	\$	206,350 15,864 801,038 77,274	\$	200,706 10,391 782,650 61,872
Total lease liabilities		\$	1,100,526	\$	1,055,619

Supplemental cash flow and other information related to leases are as follows:

	Years Ended September 30,			
		2022		2021
Cash paid for amounts included in the measurement of lease liabilities				
Operating cash flow for operating leases	\$	216,762	\$	205,986
Operating cash flow for finance leases		3,556		1,583
Financing cash flows for finance leases		9,744		748
Weighted-average remaining term (years)				
Operating leases		7.4		11.7
Finance leases		15.9		18.8
Weighted-average discount rate				
Operating leases		4.00 %		4.10 %
Finance leases		4.00 %		4.10 %

(in thousands of dollars)

Commitments related to noncancelable operating and finance leases for each of the next five years and thereafter are as follows:

	(Operating Leases	Finance Leases
2023	\$	206,350	\$ 15,864
2024		193,637	14,762
2025		176,741	11,246
2026		161,512	6,403
2027		128,691	3,357
Thereafter		334,756	 100,294
Total minimum future payments		1,201,687	151,926
Less: Amount representing interest		(194,299)	 (58,788)
Present value of minimum future payments		1,007,388	93,138
Less: Current portion		(206,350)	 (15,864)
Long-term lease obligations	\$	801,038	\$ 77,274

We are also a lessor and sublessor of real estate under operating leases. Lease income for the years ended September 30, 2022 and 2021 was \$15,604 and \$14,220, respectively, and is included in other revenue in the consolidated statements of operations. Some of these leases include expenses such as utilities and maintenance costs in rent charges, however this variable lease income is not considered material. We do not separate lease and non-lease components by class of underlying asset for all asset classes. The underlying real estate assets are included in property and equipment, net in the consolidated balance sheets.

The future undiscounted cash flows to be received from these leases for each of the next five years and thereafter is as follows:

2023	\$ 4,521
2024	4,121
2025	3,721
2026	2,723
2027	2,840
Thereafter	 161,833
	\$ 179,759

15. Construction Project

The Ragon Institute of Massachusetts General Hospital, Massachusetts Institute of Technology and Harvard University (the Ragon Institute) is constructing a new research facility at Kendall Square in Cambridge, Massachusetts. This new 318,000 square foot building (including 120 spaces of sub-level parking) is being built to meet both the current and future needs of the Ragon Institute, facilitating the important work that lies ahead in harnessing the power of the human

(in thousands of dollars)

immune systems to prevent and cure disease. It will include three floors of state-of-the-art laboratories supporting 60-open lab modules and 60-support lab modules, a vivarium, a Biosafety Level 3 laboratory, a translational research clinic and administrative space (including colloquium and case study seminar rooms). As of September 30, 2022, accumulated costs incurred related to this project are approximately \$93,530 with approximately \$235,080 in outstanding commitments. The total cost of the project is expected to be approximately \$412,000 with occupancy scheduled in the spring/summer of 2024. The General, an affiliate of the Company, serves as the administrative home of Ragon Institute, and therefore the construction costs are carried on the books of the General.

16. Pension and Postretirement Healthcare Benefit Plans

Substantially all Mass General Brigham employees are covered under noncontributory defined benefit pension plans and various defined contribution pension plans. In addition, certain affiliates provide subsidized healthcare benefits for retired employees on a self-insured basis, with the benefit obligation being partially funded. These retiree healthcare benefits are administered through a third-party administrator and are accounted for on the accrual basis, which includes an estimate of future payments for claims incurred.

Total (income) expense for Mass General Brigham plans consists of the following:

	Years Ended September 30,							
	2022							
Defined benefit plans	\$	304,026	\$	266,338				
Defined contribution plans		184,227		181,462				
Postretirement healthcare benefit plans		(4,038)		1,513				
	\$	484,215	\$	449,313				

Information regarding benefit obligations, plan assets, funded status, expected cash flows and net periodic benefit cost is as follows:

Benefit Obligations

	Defined Pensio	 	Postretirement Healthcare Benefit Plans				
	2022	2021		2022		2021	
Change in benefit obligations							
Benefit obligations at beginning of year	\$ 9,945,227	\$ 9,177,862	\$	237,224	\$	222,780	
Service cost	503,193	391,654		4,250		3,932	
Interest cost	322,521	293,418		6,541		5,692	
Plan amendments loss	-	70,068		-		-	
Actuarial (gain) loss	(2,970,410)	300,699		(47,457)		2,666	
Benefits paid	(397,884)	(277,251)		(8,731)		(8,471)	
Expenses paid	(11,347)	(11,333)		(683)		(505)	
Employee contributions	102	110		11,552		11,130	
Benefit obligations at end of year	\$ 7,391,402	\$ 9,945,227	\$	202,696	\$	237,224	

(in thousands of dollars)

The estimated actuarial (gain) loss in the change in benefit obligation for 2022 is due primarily to the change in discount rate and for 2021 is due primarily to demographic experience.

The accumulated benefit obligation for all defined benefit pension plans at the end of 2022 and 2021 was \$7,096,333 and \$9,605,264, respectively.

	Defined Benefit Pension Plans				Postretirement Healthcare Benefit Plans			
		2022		2021		2022		2021
Weighted-average assumptions used to determine end of year benefit obligation								
Discount rate		5.76%		3.15%	5.7	71% - 5.72%	2.7	75% - 3.00%
Rate of compensation increase	3	.00% - 5.00%	3	.00% - 4.45%		N/A		N/A
Postretirement healthcare cost trend rate for next year		N/A		N/A		7.00%		6.25%
Rate to which the cost trend rate is to decline		N/A		N/A		5.00%		5.00%
Year that rate reaches the ultimate trend rate		N/A		N/A		2031		2027
Plan Assets		Defined Pensio		lans		Postret Healthcare I		fit Plans
		2022		2021		2022		2021
Change in plan assets								
Fair value of plan assets at beginning of year	\$	10,163,079	\$	7,759,494	\$	171,053	\$	131,770
Actual return on plan assets		(1,491,419)		2,252,417		(24,489)		34,339
Employer contributions		308,054		439,642		2,585		2,790
Employee contributions		102		110		11,552		11,130
Benefits paid		(397,884)		(277, 251)		(8,594)		(8,471)
Expenses paid		(11,347)		(11,333)		(683)		(505)
Fair value of plan assets at end of year	\$	8,570,585	\$	10,163,079	\$	151,424	\$	171,053

The assets of the defined benefit pension plans are aggregated in a single master trust (Master Trust) and managed as one asset pool. The investment objective for the Master Trust is to achieve the highest reasonable total return after considering (i) plan liabilities, (ii) funding status and projected cash flows, (iii) projected market returns, valuations and correlations for various asset classes and (iv) ability and willingness to incur market risk.

Within the Master Trust, assets are allocated to managers with investment mandates that may range from a single sub-asset class to very broad mandates; with restrictions that range from longonly to unconstrained; and with management structures ranging from separately managed funds to mutual/commingled funds to private partnerships. Less market sensitive managers employ long/short equity and diversified strategies. Investment risks (concentration, correlation, valuation, liquidity, leverage, mandate compliance, etc.) are monitored at the manager level as well as the pool level.

(in thousands of dollars)

The following table presents the capital allocations and reported exposures by manager mandate within the Master Trust. Some managers, particularly less market sensitive managers, invest capital among multiple asset classes. The Long-Term Policy Benchmark is 70% Morgan Stanley Capital International All Country World Index and 30% Barclays Global Aggregate Bond.

	September 30, 2022			September 30, 2021			
		Reported			Reported		
	Dollars	Exposures		Dollars	Exposures		
Global equity	\$ 1,132,182	13.2%	\$	1,628,147	16.2%		
Traditional U.S. equity	929,068	10.8%		1,305,206	13.0%		
Traditional foreign developed equity	310,468	3.6%		472,562	4.7%		
Traditional emerging markets equity	560,912	6.5%		997,268	10.0%		
Private equity	2,158,992	25.2%		2,073,307	19.6%		
Real assets	609,123	7.1%		491,369	4.6%		
Less Market Sensitive managers	2,564,880	29.9%		2,747,090	27.4%		
Fixed income managers	 304,960	3.7%		448,130	4.5%		
	\$ 8,570,585	100.0%	\$	10,163,079	100.0%		

The postretirement healthcare benefit plans assets are invested in commingled funds with the objective of achieving returns to satisfy plan obligations and with a level of volatility commensurate with our overall financial profile.

The following tables summarize plan assets measured at fair value on a recurring basis (using the fair value hierarchy defined in Note 7) as of:

		Fair Value Measurements Using Quoted Prices Significant Investments in Active Other Valued Markets for Observable Using NAV as a Identical Items Inputs Practical (Level 1) (Level 2) Expedient						
Defined benefit pension plans								
Short-term investments	\$	143,631	\$	-	\$	-	\$	143,631
Separately managed investments		336,538		144,062		-		480,600
Private partnerships								
and commingled funds						7,946,354		7,946,354
		480,169		144,062		7,946,354		8,570,585
Postretirement healthcare benefit plans								
Commingled funds		42,540				108,884		151,424
Total plan assets	\$	522,709	\$	144,062	\$	8,055,238	\$	8,722,009

(in thousands of dollars)

				_				
		Fair \	/alue	Measurement	ts Usi	ing		
		Quoted Prices in Active Markets for Identical Items (Level 1)		Significant Other Observable Inputs (Level 2)		Investments Valued Using NAV as a Practical Expedient		Total
Defined benefit pension plans								
Short-term investments	\$	241,571	\$	_	\$	_	\$	241,571
Separately managed investments	*	598,063	*	211,118	•	-	*	809,181
Private partnerships								
and commingled funds		-				9,112,327		9,112,327
		839,634		211,118		9,112,327		10,163,079
Postretirement healthcare benefit plans								
Commingled funds		29,472				141,581		171,053
Total plan assets	\$	869,106	\$	211,118	\$	9,253,908	\$	10,334,132

In evaluating the Level at which private partnerships have been classified within the fair value hierarchy, management has assessed factors including but not limited to price transparency, the ability to redeem these investments at net asset value at the measurement date and the existence or absence of certain restrictions at the measurement date. Investments in private partnerships generally have limited redemption options for investors and, subsequent to final closing, may or may not permit subscriptions by new or existing investors. These entities may also have the ability to impose gates, lockups and other restrictions on an investor's ability to readily redeem out of their investment interest in the fund. As of September 30, 2022 and 2021, we have excluded all assets from the fair value hierarchy for which fair value is measured using net asset value per share as a practical expedient.

(in thousands of dollars)

Funded Status

The funded status of the plans recognized in the balance sheet and the amounts recognized in net assets without donor restrictions is as follows:

	Defined Benefit Pension Plans					Postretirement Healthcare Benefit Plans				
		2022		2021		2022		2021		
End of year										
Fair value of plan assets at measurement date	\$	8,570,585	\$	10,163,079	\$	151,424	\$	171,053		
Benefit obligations at measurement date		(7,391,402)		(9,945,227)		(202,696)		(237,224)		
Funded status	\$	1,179,183	\$	217,852	\$	(51,272)	\$	(66,171)		
Amounts recognized in the balance sheet consist of										
Noncurrent asset	\$	1,202,435	\$	250,167	\$	408	\$	-		
Current liabilities		(1,705)		(6,093)		(1,470)		(959)		
Long-term liabilities	_	(21,547)		(26,222)		(50,210)		(65,212)		
	\$	1,179,183	\$	217,852	\$	(51,272)	\$	(66,171)		
Amounts not yet recognized in net periodic benefit cost and included in net assets without donor restrictions consist of										
Actuarial net loss (gain)	\$	(117,642)	\$	867,560	\$	7,199	\$	20,629		
Prior service cost (credit)		(95,953)		(123,852)		(3,064)		(8,353)		
	\$	(213,595)	\$	743,708	\$	4,135	\$	12,276		
Amounts recognized in net assets without donor restrictions consist of										
Current year actuarial loss	\$	(871,080)	\$	(1,418,309)	\$	(12,960)	\$	(23,994)		
Amortization of actuarial loss		(114,122)		(148,542)		(470)		(4,856)		
Current year prior service cost		-		70,068		-		-		
Amortization of prior service credit	_	27,899		33,868	_	5,289		5,289		
	\$	(957,303)	\$	(1,462,915)	\$	(8,141)	\$	(23,561)		

As of September 30, 2022 and 2021, the projected benefit obligation, accumulated benefit obligation and fair value of plan assets for pension plans with an accumulated benefit obligation in excess of plan assets were as follows:

	September 30,			
	 2022		2021	
Accumulated benefit obligation in excess of, or below plan assets				
Projected benefit obligation	\$ 7,391,402	\$	9,945,227	
Accumulated benefit obligation	7,096,333		9,605,264	
Fair value of plan assets	8,570,585		10,163,079	

(in thousands of dollars)

Expected Cash Flows

Information about the expected cash flows for the defined benefit and postretirement healthcare benefit plans is as follows:

		Bei Pen	Benefit Hea Pension Be		ealt	irement hcare lefit lns		
Expected employer contributions								
2023		\$ 1	05,2	00 \$		4,133		_
							_	dicare ibsidy
Expected benefit payments (receip	ts)							
2023			35,7			15,306		(28)
2024			62,8			15,732		(23)
2025		387,625				16,354		(19)
2026			13,2			16,994		(16)
2027			36,5			17,458		(13)
2028-2032		2,5	53,1	07		88,878		(36)
Net Periodic Benefit Cost		D. ("		6 14		5		
		Defined Pension				Postretirement Healthcare Benefit Plans		
		2022		2021		2022	3011011	2021
Service cost	\$	503,193	\$	391,654	\$	4,250	\$	3,932
Interest cost		322,521		293,418		6,541		5,692
Expected return on plan assets Amortization of		(607,911)		(533,408)		(10,010)		(7,678)
Prior service credit		(27,899)		(33,868)		(5,289)		(5,289)
Actuarial net loss	_	114,122		148,542		470		4,856
Non-service related pension income		(199,167)		(125,316)		(8,288)		(2,419)
Net periodic benefit cost	\$	304,026	\$	266,338	\$	(4,038)	\$	1,513

(in thousands of dollars)

		Benefit n Plans		nt Healthcare t Plans
	2022	2021	2022	2021
Weighted-average assumptions used to determine net periodic pension and postretirement cost				
Discount rate	3.15 %	3.16 %	2.75% - 3.00%	2.50% - 3.00%
Expected return on plan assets	7.00 %	7.00 %	6.00 %	6.00 %
Rate of compensation increase	3.00% - 5.00%	3.00% - 4.45%	N/A	N/A
Healthcare cost trend rate for this year	N/A	N/A	6.25 %	5.00% - 6.25%
Rate to which the cost trend rate is to decline	N/A	N/A	5.00 %	5.00 %
Year that rate reaches the ultimate trend rate	N/A	N/A	2027	2027

We use a long-term return assumption which is validated annually by obtaining long-term asset return, volatility and correlation projections for relevant asset class indexes; modifying volatility and correlations to reflect the actual historical experience of the active managers; calculating the expected return using benchmark weights and indexes; and comparing the return assumption to the sum of the expected return and the historical outperformance of the actual return versus the benchmark. We regularly monitor the active risk of the Master Trust by a statistical regression of the return series of the actual portfolio to that of the policy benchmark.

17. Professional Liability Insurance

We insure substantially all of our professional and general liability risk on a claims-made basis in cooperation with other healthcare organizations in the Greater Boston area through a captive insurance company, Controlled Risk Insurance Company Ltd. (CRICO). The Company owns 11% of CRICO. The policies cover claims made during their respective terms, but not those occurrences for which claims may be made after expiration of the policy. Management intends to renew its coverage on a claims-made basis and has no reason to believe that it will be prevented from such renewal. During 2022, CRICO announced and paid a dividend to member organizations. As a result, we recorded dividend income of \$58,453 in other nonoperating (expenses) income.

We follow the accounting policy of establishing reserves to cover the ultimate costs of medical malpractice claims, which include costs associated with litigating or settling claims. The liability also includes an estimated tail liability, established to cover all malpractice claims incurred but not reported to the insurance company as of the end of the year. The total malpractice liability of \$570,862 and \$588,402 as of September 30, 2022 and 2021, respectively, is presented as an accrued professional liability in the consolidated balance sheets. These reserves have been recorded on a discounted basis using an interest rate of 5.6% and 2.5% as of September 30, 2022 and 2021, respectively.

We also recognize an insurance receivable from CRICO at the same time that it recognizes the liability, measured on the same basis as the liability, subject to the need for a valuation allowance for uncollectible amounts. The insurance receivable of \$432,704 and \$424,817 as of September 30, 2022 and 2021, respectively, is reported as a component of other assets in the consolidated balance sheets.

Management is not aware of any claims against us or factors affecting CRICO that would cause the expense for professional liability risks to vary materially from the amount provided.

(in thousands of dollars)

18. Concentration of Credit Risk

Financial instruments that potentially subject us to concentration of credit risk consist of patient accounts receivable, research grants receivable, pledges receivable, premiums receivable, certain investments and interest rate swaps.

Mass General Brigham provider organizations receive a significant portion of payments for services rendered from a limited number of government and commercial third-party payers, including Medicare, Medicaid, Blue Cross and Blue Shield of Massachusetts, Harvard Pilgrim Health Care and Tufts Health Plan. Research funding is provided through many government and private sponsors. AllWays Health receives a portion of premium revenue from the Commonwealth. Pledges receivable are due from multiple donors. We assess the credit risk for pledges based on history and the financial wherewithal of donors, most of which are individuals or organizations well known to us.

Investments, which include government and agency securities, stocks and corporate bonds, private partnerships and other investments, are not concentrated in any corporation or industry or with any single counterparty. Alternative investments are less liquid than other investments. The reported values of the alternative investments may differ significantly from the values that would have been used had a ready market for those securities existed. These instruments may contain elements of both credit and market risk. Such risks include, but are not limited to, limited liquidity, absence of oversight, dependence upon key individuals, emphasis on speculative investments and nondisclosure of portfolio composition.

We minimize our credit risk exposure under interest rate swap agreements by utilizing several counterparties and requiring the counterparties to post collateral for our benefit when the fair value of the swap is positive. We minimize our counterparty risk by contracting with nine counterparties, none of which accounts for more than 20% of the aggregate notional amount of the swap contracts.

19. Net Assets

Net assets with donor restrictions are available for the following purposes:

	September 30,						
		2022		2021			
Net assets with donor restrictions							
Charity care	\$	183,758	\$	221,875			
Buildings and equipment		470,888		392,886			
Clinical care, research and academic		2,392,829		2,754,414			
	\$	3,047,475	\$	3,369,175			

Endowment

Our endowment consists of numerous individual funds established for a variety of purposes and includes both endowment funds with donor restrictions and funds designated by boards to function as endowment. We have interpreted UPMIFA as requiring the preservation of the value of the original contribution of the endowment funds with donor restrictions absent explicit donor stipulations to the contrary. As a result of this interpretation, we classify net assets with donor

(in thousands of dollars)

restrictions, the original value of all contributions with donor stipulations to maintain in perpetuity, accumulated gains required to be maintained in perpetuity by explicit donor stipulation or accumulated gains which have been appropriated for expenditure in a manner consistent with the standard of prudence prescribed by UPMIFA. In accordance with UPMIFA, we consider several factors in making a determination to appropriate or accumulate endowment funds with donor restrictions. These factors include: the duration and preservation of the fund; the purposes of the organization and the endowment fund with donor restrictions; general economic conditions; the possible effect of inflation and deflation; the expected total return from income and the appreciation of investments; other resources of the organization; and the investment policies of the organization.

Endowment Funds with Deficits

From time to time, the value of assets associated with individual endowment funds with donor restrictions may fall below the value of the initial and subsequent donor contribution amounts. These deficits generally result from unfavorable market fluctuations that occurred after the investment of new contributions with donor restrictions or subsequent endowment additions. When such endowment deficits exist, they are classified as a reduction to net assets with donor restrictions.

The following presents the endowment net asset composition by type of fund as of September 30, 2022 and 2021 and the changes in endowment assets for the years ended September 30, 2022 and 2021:

	 thout Donor estrictions	_	Vith Donor estrictions	Total
Endowment net asset composition by type of fund as of September 30, 2022				
Endowment funds with donor restrictions Endowment funds with board designations	\$ - 1,285,916	\$	2,167,346	\$ 2,167,346 1,285,916
Total funds	\$ 1,285,916	\$	2,167,346	\$ 3,453,262

(in thousands of dollars)

	thout Donor estrictions		Vith Donor estrictions	Total
Changes in endowment net assets				
Endowment net assets at September 30, 2021	\$ 1,582,262	\$	2,543,776	\$ 4,126,038
Investment return Investment income Net realized and unrealized	902		1,484	2,386
appreciation	(262,195)		(428,389)	(690,584)
Total investment return	(261,293)		(426,905)	(688,198)
Contributions Appropriation of endowment assets	7,855		141,343	149,198
for expenditure	(54,754)		(90,550)	(145,304)
Other changes	 11,846		(318)	11,528
Total changes	 (296,346)		(376,430)	(672,776)
Endowment net assets at September 30, 2022	\$ 1,285,916	\$	2,167,346	\$ 3,453,262
	thout Donor estrictions			Total
Endowment net asset composition by type of fund as of September 30, 2021				
Endowment funds with donor restrictions Endowment funds with board designations	\$ - 1,582,262	\$	2,543,776	\$ 2,543,776 1,582,262
Total funds	\$ 1,582,262	\$	2,543,776	\$ 4,126,038

(in thousands of dollars)

	Without Donor Restrictions	With Donor Restrictions	Total
Changes in endowment net assets			
Endowment net assets at September 30, 2020	\$ 1,248,539	\$ 1,977,011	\$ 3,225,550
Investment return Investment income Net realized and unrealized	299	466	765
appreciation	344,230	535,621	879,851
Total investment return	344,529	536,087	880,616
Contributions Appropriation of endowment assets	5,460	109,292	114,752
for expenditure	(46,338)	(73,488)	(119,826)
Other changes	30,072	(5,126)	24,946
Total changes	333,723	566,765	900,488
Endowment net assets at September 30, 2021	\$ 1,582,262	\$ 2,543,776	\$ 4,126,038

20. Functional Expenses

Expenses by functional classification are allocated based on management's judgement, the nature of the expense and historical experience. Such classifications and allocations are as follows:

	ı	Healthcare Services	 search and Academic	li	nsurance	_	eneral and Iministrative	Year Ended tember 30, 2022
Operating expenses								
Employee compensation and benefit expense	\$	7,766,887	\$ -	\$	60,507	\$	1,317,076	\$ 9,144,470
Supplies and other expenses		4,274,806	-		66,741		61,446	4,402,993
Medical claims and related expenses		-	-		722,212		-	722,212
Direct academic and research expenses		-	1,937,738		-		-	1,937,738
Depreciation and amortization expenses		662,229	-		-		107,554	769,783
Interest expense		103,964	 				60,869	 164,833
Total operating expenses	\$	12,807,886	\$ 1,937,738	\$	849,460	\$	1,546,945	\$ 17,142,029

Direct academic and research expenses include \$1,147,460 of employee compensation and benefit expense and \$790,278 of supplies and other expenses for the year ended September 30, 2022.

(in thousands of dollars)

		ealthcare Services		earch and cademic		Insurance	_	eneral and ministrative		ear Ended mber 30, 2022
Nonoperating expenses Employee compensation and benefit expense	\$	_	\$	_	\$	_	\$	76.262	\$	76,262
Supplies and other expenses Interest expense	•	-	•	-	•	-	•	44,607 63,599	•	44,607 63,599
Pension related interest cost Total nonoperating expenses	\$	239,690	\$	37,184 37,184	\$		\$	52,188 236,656	\$	329,062 513,530

	ı	Healthcare Services	 search and Academic	ı	nsurance	_	eneral and Iministrative	Year Ended tember 30, 2021
Operating expenses								
Employee compensation and benefit expense	\$	6,990,999	\$ -	\$	59,405	\$	1,245,627	\$ 8,296,031
Supplies and other expenses		3,816,656	-		61,836		102,443	3,980,935
Medical claims and related expenses		-	-		645,514		-	645,514
Direct academic and research expenses		-	1,744,731		-		-	1,744,731
Depreciation and amortization expenses		641,147	-		-		83,330	724,477
Interest expense		108,656	_		_		53,472	162,128
Total operating expenses	\$	11,557,458	\$ 1,744,731	\$	766,755	\$	1,484,872	\$ 15,553,816

Direct academic and research expenses include \$1,065,480 of employee compensation and benefit expense and \$679,251 of supplies and other expenses for the year ended September 30, 2021.

	H	lealthcare Services	 search and scademic	Insurance	,	General and Administrative	Se	Year Ended ptember 30, 2021
Nonoperating expenses								
Employee compensation								
and benefit expense	\$	-	\$ -	\$ -	\$	72,264	\$	72,264
Supplies and other expenses		-	-	-		35,048		35,048
Interest expense		-		-		68,426		68,426
Pension related interest costs		223,779	 33,560			41,771		299,110
Total nonoperating expenses	\$	223,779	\$ 33,560	\$ -	\$	217,509	\$	474,848

21. Contingencies

We are subject to complaints, claims and litigation which arise in the normal course of business. In addition, we are subject to reviews and investigations by various federal and state government agencies to assure compliance with applicable laws, some of which are subject to different interpretations. Governmental review of compliance by healthcare organizations has increased.

22. Subsequent Events

We have assessed the impact of subsequent events through December 19, 2022, the date the audited financial statements were issued. During this period, there were no subsequent events that require adjustment to the audited financial statements. In November 2022, the General entered into a \$800,286 contract for the construction of a new clinical building. Other than this contract, there were no other events that require disclosure in the notes to the audited financials.



Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development and Research Training Research and Development				
Agency for International Development				
Fenway Community Health Center	98.001	72038619CA0001	\$ 13,408	\$ -
International AIDS Vaccine Initiative (IAVI)	98.001	AID-0AA-A-16-00032	169,801	-
National Opinion Research Center	98.001	GS-10F-0033M,AID-OAA-M-13-00013	(204)	-
The KonTerra Group	98.001	GS-10F-0418Y/7200AA20M00001	368,056	266,799
Yale University	98.001	7200AA21CA00010	256,815	
		Subtotal	807,876	266,799
Biomedical Advanced Research and Development Authority				
COVID-19 Battelle Memorial Institute	93.RD13	75A50121P00058	471,817	-
COVID-19 Beckman Coulter	93.RD13	75A0120C00189	61,837	62,500
		Subtotal	533,654	62,500
Consumer Product Safety Commission				
Consumer Product Safety Commission	93.RD5	Direct	33,963	_
Consumer Frouder Carety Commission	30.RD0	Subtotal	33,963	
		Subtotal	33,903	
Department of Agriculture - National Institute of Food and Agriculture				
Community Outreach and Patient Empowerment Program	10.331	2019-70030-30407	21,316	-
COVID-19 Community Outreach and Patient Empowerment Program	10.331	2021-70034-34991	30,770	
		Subtotal	52,086	
Department of Commerce - National Institute of Standards and Technology (NIST)				
National Institute of Standards and Technology (NIST)	11.609	Direct	205,316	
		Subtotal	205,316	
Department of Defense				
Arsenal Medical	93.RD10	W81XWH15C0147	27,332	-
Board of Trustees of the Leland Stanford Junior University	93.RD10	(blank)	25,535	-
Citizens United for Research in Epilepsy (CURE)	93.RD10	W81XWH1520069	121,223	-
Coalesenz	93.RD10	W81XWH20C0119	12,220	-
COVID-19 Advanced Technology International	93.RD10	2017-605	148,643	-
COVID-19 Geneva Foundation	93.RD10	W81XWH1590001	841,012	-
COVID-19 Mitre Corporation	93.RD10	1160555	100,903	-
COVID-19 Nihon Kohden OrangeMed	93.RD10	W81XWH1590001	86,626	-
Dana Farber Cancer Institute	93.RD10	W81XWH2110981	92,176	-
Defense Threat Reduction Agency	93.RD10	Direct	288,686	35,423
Department of Defense	93.RD10	Direct	70,010	-
Department of Defense-Congressionally Directed Medical Research Programs	93.RD10	Direct	1,085,594	61,319
Geneva Foundation	93.RD10	00011920056	1,767,817	-
Geneva Foundation	93.RD10	HU00011920056	784,100	-
Geneva Foundation	93.RD10	W81XWH2010833	92,885	-
Johns Hopkins University	93.RD10	N00024-13-D-6400	(213,498)	-
Luna Innovations	93.RD10	W81XWH20C0094	6,821	-
Massachusetts Institute of Technology	93.RD10	7000442543	10,875	-

Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Thro Entity Identifying Numb		Total Expenditures	Subrecipient Expenditures
Research and Development Continued					
Massachusetts Institute of Technology	93.RD10	7000451740		(11,057)	-
Massachusetts Institute of Technology	93.RD10	FA8650-21-2-7120		63,884	-
Massachusetts Institute of Technology	93.RD10	FA8702-15-D-0001		11,492	-
Massachusetts Institute of Technology Lincoln Laboratories	93.RD10	FA8702-15-D-0001		310,414	-
Medical Technology Enterprise Consortium (MTEC)	93.RD10	W81XWH2290004		149,660	-
National Trauma Institute	93.RD10	W81XWH18C0179		(3,258)	-
QLEDCures, LLC	93.RD10	W911NF22P0018		23,452	-
Radiant Images	93.RD10	W81XWH21P0042		22,917	-
Regents of the University of California, San Francisco	93.RD10	W81XWH1590001		61,318	-
Stottler Henke Associates	93.RD10	140D6318C0039		57,070	-
Triton Systems	93.RD10	W81XWH19C0041		94,606	-
Triton Systems	93.RD10	W81XWH20P0012		11,400	-
Triton Systems	93.RD10	W81XWH21C0024		147,654	-
Triton Systems	93.RD10	W81XWH22P0042		53,940	-
U.S. Army Research Institute of Environmental Medicine	93.RD10	Direct		327,085	-
University of Houston	93.RD10	W81XWH2010755		11,577	-
University of South Florida	93.RD10	H9240520D0001		1,426,118	
			Subtotal	8,107,232	96,742
Department of Defense - Advanced Research Projects Agency					
Broad Institute	12.910	DARPA-16-59-SAFE-FP-010		24,969	-
Broad Institute	12.910	HR00112120010		162,543	-
COVID-19 Draper Laboratory	12.910	75N95010C00035		152,218	-
Defense Advanced Research Projects Agency	12.910	Direct		1,843,874	1,029,384
Draper Laboratory	12.910	75N95010C00035		1,141	-
Draper Laboratory	12.910	W4C00861850/OSP29280		64,157	-
Massachusetts Institute of Technology	12.910	W911NF1720043		53,181	-
President and Fellows of Harvard College	12.910	HR0011-19-2-0022		149,890	-
President and Fellows of Harvard College	12.910	W911NF1920018		(12,776)	<u>-</u>
			Subtotal	2,439,197	1,029,384
Department of Defense - Defense Threat Reduction Agency					
Defense Threat Reduction Agency	12.351	Direct		604,778	238,376
			Subtotal	604,778	238,376
Department of Defense - Department of the Air Force, Materiel Command					
COVID-19 Air Force Office of Scientific Research	12.800	Direct		68.697	4,338
Massachusetts Institute of Technology	12.800	FA8702-15-D-0001		254,662	-
massas mediae of resimology	12.000	.,	Subtotal	323,359	4,338
			Jubilital	323,339	4,330
Department of Defense - Department of the Navy, Office of the Chief of Naval Research	40.000	D: .		(40.00=)	
Homeland Security Advanced Research Projects Agency	12.300	Direct		(10,905)	-
National Marrow Donor Program	12.300	N00014-18-1-2045		(168)	-
Ohio State University	12.300	N00014-20-1-2163		274,430	-
Regents of the University of Michigan	12.300	N00014-20-1-2479		366,197	<u> </u>
			Subtotal	629,554	

Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
Department of Defense - Office of the Secretary of Defense				
Advanced Regenerative Manufacturing Institute	12.630	22-01	201,370	-
Terasaki Institute for Biomedical Innovation	12.630	W911NF1730003	161,984	-
		Subt	tal 363,354	
Department of Defense - U.S. Army Materiel Command				
University of Southern California	12.431	W911NF1810434	20,921	_
	12.107	Subt		-
		Subt	20,921	·
Department of Defense - U.S. Army Medical Command				
Air Force Office of Scientific Research	12.420	Direct	8,105,983	-
Axogen Corporation	12.420	W81XWH18PRORPCTRA	5,749	-
Beth Israel Deaconess Medical Center	12.420	W81XWH2020023	58,256	-
Beth Israel Deaconess Medical Center	12.420	W81XWH20PCRPPRA2	127,457	-
Board of Trustees of the Leland Stanford Junior University	12.420	W81XWH2010855	164,748	-
Board of Trustees of the University of Alabama for the University of Alabama	12.420	W81XWH1510705	69,655	-
Board of Trustees of the University of Illinois	12.420	W81XWH1810661	55,610	-
Boston University School of Medicine	12.420	W81XWH2110980	5,256	-
Boston VA Research Institute	12.420	W81XWH1510216	39,776	-
Boston VA Research Institute	12.420	W81XWH1710217	43,601	-
Boston VA Research Institute	12.420	W81XWH1910057	192,640	-
Brigham and Women's Hospital	12.420	W81XWH1910482	(160)	-
Brigham and Women's Hospital	12.420	W81XWH1910517	28,336	-
Brigham and Women's Hospital	12.420	W81XWH1910708	1,771	-
Broad Institute	12.420	W81XWH2010533	6,285	-
Case Western Reserve University	12.420	W81XWH1910707	15,398	-
Children's Hospital Corporation dba Boston Children's Hospital	12.420	W81XWH1510621	6,756	-
Children's Hospital Corporation dba Boston Children's Hospital	12.420	W81XWH1720037	9,285	-
Children's Hospital Corporation dba Boston Children's Hospital	12.420	W81XWH1910219	13,338	-
Children's Hospital Corporation dba Boston Children's Hospital	12.420 12.420	W81XWH1910560	15,273 64.005	-
Children's Hospital Los Angeles COVID-19 Dana Farber Cancer Institute	12.420	W81XWH2110257	136,104	-
COVID-19 Dana Faiber Cancer institute COVID-19 Trustees of the University of Pennsylvania	12.420	W81XWH2110080 W81XWH2110422	3,764	-
Craig Hospital	12.420	W81XWH1520078	23	-
Dana Farber Cancer Institute	12.420	W81XWH1910780	89.435	-
Dana Farber Cancer Institute	12.420	W81XWH2010057	12.953	-
Dana Farber Cancer Institute	12.420	W81XWH2110482	66.683	-
Dartmouth-Hitchcock Clinic	12.420	W81XWH2010319	2,279	-
Department of Defense	12.420	Direct	192,012	35,466
Department of Defense-Congressionally Directed Medical Research Programs	12.420	Direct	9,090,211	318,155
gel-e	12.420	W81XWH1810006	(5,488)	
Geneva Foundation	12.420	W81XWH2010833	40,320	
Henry M Jackson Foundation for the Advancement of Military Medicine	12.420	W81XWH2020061	68.961	-
Joan & Sanford I. Weill Medical College of Cornell University	12.420	W81XWH1810667	666,231	-
Johns Hopkins University	12.420	10054547-01	2,385	-
Johns Hopkins University	12.420	W81XWH1620060	2,279	-
1 - 1-1-19		======	_, 0	

Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
Massachusetts General Hospital	12.420	W81XWH2010293	34,695	_
Massachusetts Institute of Technology	12.420	W81XWH1820010	240.112	_
Massachusetts Institute of Technology	12.420	W81XWH1910151	3,386	_
Massachusetts Institute of Technology	12.420	W81XWH2110245	43,346	_
Mayo Clinic	12.420	W81XWH1510293	243,290	-
Melanoma Research Alliance	12.420	W81XWH2110819	25.086	-
Moberg Research	12.420	W81XWH1920013	191,930	-
Nationwide Children's Hospital	12.420	W81XWH1810547	(26,217)	-
President and Fellows of Harvard College	12.420	W81XWH1910696	56,599	-
President and Fellows of Harvard College	12.420	W81XWH1920011	276,182	-
President and Fellows of Harvard College	12.420	W81XWH2010303	57,058	-
President and Fellows of Harvard College	12.420	W81XWH2110326	29,696	-
Regents of the University of California	12.420	W81XWH1420176	113,385	-
Regents of the University of California, San Diego	12.420	W81XWH1710671	102,831	-
Regents of the University of California, San Francisco	12.420	W81XWH1820042	9,148	-
Trustees of Boston University	12.420	W81XWH1910765	62,621	-
Trustees of Boston University	12.420	W81XWH2110980	52,797	-
U.S. Army Medical Research Acquisition Activity	12.420	Direct	26,061,403	2,096,923
U.S. Army Medical Research and Materiel Command	12.420	Direct	112,961	-
U.S. Army Research Institute of Environmental Medicine	12.420	Direct	24,728	-
University of Cincinnati	12.420	W81XWH1620020	(1,826)	-
University of Delaware	12.420	W81XWH1710335	2,040	-
University of Texas Health Science Center at San Antonio	12.420	W81XWH2120044	54,474	-
Wake Forest University Health Sciences	12.420	W81XWH1320054	(722)	
			47,166,173	2,450,544
Department of Defense - Uniformed Services University of the Health Sciences				<u> </u>
COVID-19 Henry M Jackson Foundation for the Advancement of Military Medicine	12.750	HU00012120089	327.088	
Geneva Foundation	12.750	HU00012120069 HU0001192000	97,105	-
Geneva Foundation	12.750	HU0001192000 HU00011920056	16,673	-
Geneva Foundation	12.750	HU00011920030 HU00012020011	753,576	-
Henry M Jackson Foundation for the Advancement of Military Medicine	12.750	HU00011110023	54,353	-
Henry M Jackson Foundation for the Advancement of Military Medicine	12.750	HU00011770023 HU00011720009	3,442,939	-
Henry M Jackson Foundation for the Advancement of Military Medicine	12.750	HU00011720009 HU00011820015	30,124	-
Henry M Jackson Foundation for the Advancement of Military Medicine	12.750	HU00011820018	3,719	
Henry M Jackson Foundation for the Advancement of Military Medicine	12.750	HU00011020010 HU00012120025	249,797	
President and Fellows of Harvard College	12.750	HU00012020031	56,430	_
r rosident and r one we are rained	12.700	11000012020001		
			5,031,804	-
Department of Education				
United Way of Massachusetts Bay and Merrimack Valley (UWMBMV)	84.411C	U411C170195	37,735	
			37,735	-
Department of Education - Institute of Education Sciences			<u> </u>	
Regents of the University of Minnesota	84.305	R305A180265	20,181	
regents of the onlycistly of Millinesota	04.505	13000/100200		<u>-</u>
			20,181	<u>-</u>

Research and Development Continued Department of Energy Battelle Memorial Institute (Pacific Northwest Division) Broad Institute	93.RD4			
Battelle Memorial Institute (Pacific Northwest Division)				
Battelle Memorial Institute (Pacific Northwest Division)				
Due and Impatibula		DE-AC05-76RL01830	10,785	-
Broad Institute	93.RD4	2F-60037Rev,1	11,299	-
Department of Energy	93.RD4	Direct	28,657	-
Texas A&M University	81.135	DE-AR0000823	228,687	-
•			279,428	
Department of Health and Human Services				
Aethlon Medical	93.RD1	75N91019C00042	59,582	
Board of Trustees of the Leland Stanford Junior University	93.RD1	HHSN261201700003C	(1,916)	-
	93.RD1	75N93019C00044	40,024	-
Children's Hospital Corporation dba Boston Children's Hospital Children's Hospital Corporation dba Boston Children's Hospital	93.RD1		43,459	-
	93.RD1	75N93020C00038		-
COVID-19 DHHS-IPA Agreement		Direct	4,321	-
COVID-19 Global Genomic Medicine Collaborative (G2MC)	93.RD1	31342020 C	2,021	-
COVID-19 Leidos Biomedical Research	93.RD1	75N91019D00024	522,624	-
COVID-19 University of Chicago	93.RD1	75N92020D00021	398,017	-
DHHS-IPA Agreement	93.RD1	Direct	232,811	-
Duke Clinical Research Institute	93.RD1	HHSN-275201800003I	6,201	-
Duke University	93.RD1	75N93019C00050	439,486	-
Duke University	93.RD1	HHSN-275201000003I	21,370	-
Duke University	93.RD1	HHSN275201800003I	18,448	-
ExQor Technologies	93.RD1	2R44MH108481-03	108,776	-
Justice Resource Institute	93.RD1	90ZV012502	(3)	-
Leidos Biomedical Research	93.RD1	20X013	354,484	136,878
Leidos Biomedical Research	93.RD1	20X013F	366,527	-
Leidos Biomedical Research	93.RD1	75N91019D00024	293,278	-
Leidos Biomedical Research	93.RD1	HHSN261200800001E	2,277,198	1,222,480
Mayo Clinic	93.RD1	HHSN2612012000421	29,063	-
Medical Science & Computing, LLC (MSC)	93.RD1	75N98020D00086	82,272	-
NIH-National Institutes of Health	93.RD1	Direct	4,066,136	119,208
NIH-NCI National Cancer Institute	93.RD1	Direct	252,595	-
NIH-NHLBI National Heart, Lung, and Blood Institute	93.RD1	Direct	1,251,951	52,661
NIH-NIDA National Institute on Drug Abuse	93.RD1	Direct	206,256	-
President and Fellows of Harvard College	93.RD1	75N93019C00071	2,036,740	-
Research Foundation for The SUNY on behalf of University of Buffalo	93.RD1	75N92021D00002	185,878	-
Robin Medical	93.RD1	75N91019C00009	17,969	-
Seattle Children's Hospital	93.RD1	75N93021C00029	2,260	-
Social and Scientific Systems	93.RD1	HHSN273201600003I/HHSN27300017	123,609	-
Social and Scientific Systems	93.RD1	HHSN61201400010I	206,403	-
University of Georgia Research Foundation (UGARF)	93.RD1	75N93019C00052	169,514	-
University of Mississippi Medical Center	93.RD1	HHSN268201800011I	23,329	-
University of Texas, MD Anderson Cancer Center	93.RD1	HHSN261201200034I02	25,453	-
Westat	93.RD1	HHSN261201300028I	60,536	
			13,926,672	1,531,227

Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
Department of Health and Human Services - Administration for Children and Families				
Center for Victims of Torture	93.604	90ZT0187-01-00	180,285	
			180,285	-
Department of Health and Human Services - Administration for Community Living				
Craig Hospital	93.433	90DPTB0017-04-00	2.941	_
DHHS-National Institute on Disability, Independent Living and Rehabilitation	93.433	Direct	89.285	7.187
National Institute on Disability, Independent Living, and Rehabilitation Re	93.433	Direct	1,250,517	131,959
Spaulding Rehabilitation Hospital	93.433	90DPBU0001-05-00	17,667	-
Spaulding Rehabilitation Hospital	93.433	90DPCP0008-02-00	23,665	_
Spaulding Rehabilitation Hospital-Internal Fund	93.433	90DPTB0011-03-00	(1,800)	_
Trustees of Indiana University	93.433	90DPHF0006-01-00	18,036	-
······································			1,400,311	139.146
			1,100,011	100,110
Department of Health and Human Services - Agency for Healthcare Research and Quality	03 BD0	LILIC D222204 F000421	25 742	
Abt Associates	93.RD9	HHSP233201500013I	35,713	-
Agency for Healthcare Research and Quality	93.226	Direct	2,754,380	281,039
Agency for Healthcare Research and Quality	93.RD9	Direct	1,630	-
American College of Surgeons	93.226	5R18HS026189-03	90,210	-
Beth Israel Deaconess Medical Center	93.226	5R01HS025702-03	46,441	-
Brigham and Women's Hospital	93.226	5R01HS025375-04	12,032	-
COVID-19 President and Fellows of Harvard College	93.226	1R01HS028240-01	18,540	-
COVID-19 RAND Corporation	93.226	R18HS026432	240,081	-
Harvard Pilgrim Health Care	93.226	R01HS027170	69,459	-
Massachusetts General Hospital	93.226	5R01HS025718-03	12,454	-
Memorial Sloan-Kettering Institute Cancer Center	93.RD9	HHSA2902015000071	(5,696)	-
President and Fellows of Harvard College	93.226	1R01HS026753-03	41,215	-
President and Fellows of Harvard College	93.226	5R18HS027282-03	42,249	-
RAND Corporation	93.226	5R18HS026432-03	50,612	-
Regents of the University of California, San Francisco	93.226	5R01HS027369-03	100,819	-
Trustees of Columbia University in the City of New York (The)	93.226	5R01HS024538-04	13,613	-
Trustees of Columbia University in the City of New York (The)	93.226	5R01HS024713-04	9,096	-
University of Utah	93.226	1R18HS027960-01	42,373	-
Yale University	93.226	5U18HS016978-15	181,323	
			3,756,544	281,039
Department of Health and Human Services - Centers for Disease Control and Prevention				
Abt Associates	93.RD7	53100	89,852	-
Beth Israel Deaconess Medical Center	93.067	1NU2GGH002212-01-00	(18,272)	-
Beth Israel Deaconess Medical Center	93.067	5NU2GGH002212-02-00	146,485	-
Beth Israel Deaconess Medical Center	93.067	5NU2GGH002212-03-00	83,691	-
Broad Institute	93.424	7R01MH123451-02	43,362	-
Centers for Disease Control and Prevention	93.084	Direct	1,836,493	597,040
Centers for Disease Control and Prevention	93.136	Direct	173,786	39,239
Centers for Disease Control and Prevention	93.262	Direct	797,203	-

Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
Centers for Disease Control and Prevention	93.326	Direct	313,222	23,777
Centers for Disease Control and Prevention	93.349	Direct	686,656	321,796
Children's Hospital Corporation dba Boston Children's Hospital	93.080	NU27DD000020-02-00	17,561	_
COVID-19 Broad Institute	93.RD7	75D30120CO9605	275,693	-
COVID-19 Brown University	93.RD7	200-2016-91773-T.O.2	321,813	_
COVID-19 Centers for Disease Control and Prevention	93.084	Direct	1,752	-
COVID-19 Centers for Disease Control and Prevention	93.326	Direct	1,387,803	215,692
COVID-19 Centers for Disease Control and Prevention	93.RD7	Direct	159,419	· -
COVID-19 Children's Hospital Corporation dba Boston Children's Hospital	93.RD7	75D30120C07725	3,439	-
COVID-19 Harvard Pilgrim Health Care	93.084	6U54CK000484-04M001	644	-
COVID-19 NTouch Strategies	93.RD7	75D30121C12802	509.450	220,567
COVID-19 Olive View/UCLA Education and Research Institute	93.860	6U01CK000480-05-01	(9,675)	-
COVID-19 Olive View/UCLA Education and Research Institute	93.860	6U01CK000480-05-05	63,204	-
COVID-19 Partners in Health	93.738	6NU58DP006594-03-01	119.325	-
COVID-19 President and Fellows of Harvard College	93.RD7	200-2016-91779/75D30121F0003	48.400	-
COVID-19 University of Vermont Medical Center	93.421	6NU38OT000280-03-02	4.453	-
COVID-19 University of Vermont Medical Center	93.421	6NU38OT000280-04-00	65,206	-
COVID-19 Wayne State University	93.RD7	75D30121C11813	235.846	_
Emory University	93.135	5U48DP006377-04	72,381	_
Fenway Community Health Center	93.944	6NU62PS005074	9.117	_
Harvard Pilgrim Health Care	93.084	6U54CK000484-04M001	(1,959)	_
Harvard Pilgrim Health Care	93.084	U54CK000611	229	_
Harvard Pilgrim Health Care	93.RD7	200-2016-91779/75D30121F00002	13	_
NIH-NIOSH National Institute for Occupational Safety and Health	93.262	Direct	10,569	_
Partners in Health	93.738	NU58DP006594-02-00	161,347	_
President and Fellows of Harvard College	93.262	5R01OH002421-26	38.131	_
President and Fellows of Harvard College	93.262	5U19OH008861-14	(17,228)	_
President and Fellows of Harvard College	93.262	5U19OH008861-16	75.175	_
President and Fellows of Harvard College	93.RD7	200-2016-91779/75D30121F003	36,339	_
Trustees of Columbia University in the City of New York (The)	93.283	6U01DP006436-01-02	13,060	_
University of North Carolina at Chapel Hill	93.068	6NU58DP006262-05-01	2,562	-
			7,756,547	1,418,111
Department of Health and Human Services - Centers for Medicare and Medicaid Services				
Centers for Medicare & Medicaid Services	93.986	Direct	98,060	_
COVID-19 Mitre Corporation	93.RD16	75FCMC18D0047	(8,631)	_
Kepro	93.RD16	MGHKepro_Consulting	10,359	_
ποριο	30.11.0	MGHrepro_consuming	99,788	
Department of Health and Human Services - Food and Drug Administration				
Perspectum Ltd	93.103	U01FD006880	59,472	_
President and Fellows of Harvard College	93.103	SC2023001u/1R43DP006690-01	7,473	_
U.S. Food & Drug Administration	93.103	Direct	3,584,950	234,257
. .			3,651,895	234,257
			3,031,033	204,201

Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
Department of Health and Human Services - Health Resources and Services Administration				
Boston Medical Center	93.266	7R18HS026177-04	6,967	-
COVID-19 Massachusetts League of Community Health Centers	93.732	1U3MHP45385 01 00	178,133	-
COVID-19 Partners in Health	93.011	6U3SHS42184_01 01	227,986	_
Education Development Center	93.110	UF4MC26525	55,413	_
Fenway Community Health Center	93.129	5U30CS22742 12	26,692	_
Fenway Community Health Center	93.129	U30CS22742	34,304	-
Fenway Community Health Center	93.129	U3FCS41777	25.337	_
Fenway Community Health Center	93.145	5U28HA376440100	13,723	_
Fenway Community Health Center	93.145	6U1OHA29294-08	2.528	-
Fenway Community Health Center	93.145	U1OHA29294	8,684	_
Fenway Community Health Center	93.145	U28HA37644	-	_
Fenway Community Health Center	93.914	U69HA31067	12.638	
Fenway Community Health Center	93.928	5U90HA42153-02	91,794	
Fenway Community Health Center	93.928	U90HA42153	(15,346)	_
Health Resources and Services Administration	93.110	Direct	619,870	60,711
Johns Hopkins University	93.505	UD5MC30792	27,828	00,711
Massachusetts General Hospital	93.110	5R40MC32753 03 01	13,995	-
President and Fellows of Harvard College	93.110	RS20210327-01	30,491	-
Regents of the University of California, Los Angeles	93.RD15	5UA6MC32492-02	(4,191)	-
	93.110	5UA6MC31101 05	8,037	-
University of Colorado at Denver	93.110	5UMA6MC31101-05-00		-
University of Colorado at Denver			184,067	-
University of Iowa	93.155	6U3GRH40003-01-01	3,565 1,552,515	60,711
			1,552,515	60,711
Department of Health and Human Services - National Institutes of Health				
149 Medical	93.853	1R42NS110337-01A1	(14,642)	-
149 Medical	93.853	4R42NS110337-02	209,150	-
Achieve Life Sciences	93.279	1R42DA054784-01	94,411	-
Achieve Life Sciences	93.279	4R44DA054784-02	85,209	-
ADK Group	93.866	1R42AG069629-01	(19,678)	-
AdventHealth	93.847	3R01DK112700-02S1	71,531	-
AdventHealth	93.847	5R01DK112700-03	5,600	-
AfaSci Research Laboratories	93.867	2R44EY025913-02	94,751	-
Africa Health Research Institute (AHRI)	93.837	1R01HL144848-01A1	202,672	-
Africa Health Research Institute (AHRI)	93.837	1R01HL144848-02	40,645	-
Africa Health Research Institute (AHRI)	93.855	5R01Al138546-05	39,167	-
Africa Health Research Institute (AHRI)	93.855	5R01AI145305-03	28,373	-
Albany Medical College	93.837	5R01HL153019-03	68,731	-
Albany Medical College	93.837	R01HL141127	44,929	-
Albert Einstein College of Medicine	93.847	5R01DK115577-05	305,182	-
Albert Einstein College of Medicine	93.866	5R01AG062622-04	23,616	-
Alliance Data Innovations Lab, LLC	93.395	U10CA180821	40,700	-
Alliance NCTN Foundation	93.399	5UG1CA189823-09	38,764	-
AltaMed Health Services Corporation	93.307	1R01MD013837-01A1	53,583	-

er Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
Altec	93.866	1R43AG072991-01	70,276	-
American College of Surgeons	93.307	5R01MD011695-03	(980)	-
Aromha	93.866	2R42AG062130-03	1,037	-
Augusta University	93.837	1R01HL157665-01	347,221	-
Augusta University	93.847	1R01DK133520-01	14,250	-
Augusta University	93.847	5R01DK121003-04	200,284	-
Augusta University	93.847	5U24DK115255-04	13,081	-
AutoIVF	93.865	1R44HD105529-01A1	73,879	_
Avera McKennan	93.279	5R01DA050696-03	18,362	_
Banner Alzheimer's Institute	93.866	5R01AG055444-05	22,307	_
Banner Alzheimer's Institute	93.866	5R01AG058468-03	296.258	-
Barrett Technology	93.286	2R44EB027525-02	391,182	-
Baylor College of Medicine	93.242	5R01MH115793-05	59,591	_
Baylor College of Medicine	93.837	5R01HL148050-03	433,402	281,348
Baystate Medical Center	93.838	5U01HL122989-06	(546)	
Beckman Research Institute of the City of Hope	93.393	5R01CA202712-05	105,574	_
Beckman Research Institute of the City of Hope	93.837	R01HL150069-03	17,583	_
Benaroya Research Institute at Virginia Mason	93.855	2UM1AI109565-08	51,789	
Benaroya Research Institute at Virginia Mason	93.855	2UM1AI109565-09	440,464	_
Benaroya Research Institute at Virginia Mason	93.855	5UM1AI109565-07	463	_
Benaroya Research Institute at Virginia Mason	93.855	5UM1AI109565-09	948,562	_
Benaroya Research Institute at Virginia Mason	93.855	5UM1AI109565-09	68,445	_
Beth Israel Deaconess Medical Center	93.113	5R01ES028688-02	10,173	
Beth Israel Deaconess Medical Center	93.213	R34AT009354	1,364	_
Beth Israel Deaconess Medical Center	93.233	5P01HL149630-02	960,567	_
Beth Israel Deaconess Medical Center	93.233	5R01HL136310-05	11,906	-
Beth Israel Deaconess Medical Center	93.242	5R01MH107579-05	86,757	-
Beth Israel Deaconess Medical Center	93.242	5R01MH111448-05	10,774	-
Beth Israel Deaconess Medical Center	93.242	5R01MH116170-04	80,500	-
Beth Israel Deaconess Medical Center	93.242	5UG3HL147353-03	(2,817)	-
Beth Israel Deaconess Medical Center	93.393	5R01CA242747-03	67,089	-
Beth Israel Deaconess Medical Center	93.395	5U01CA242747-03 5U01CA236489-02	177,394	-
Beth Israel Deaconess Medical Center Beth Israel Deaconess Medical Center				-
	93.397	2P50CA101942-16	706,736	-
Beth Israel Deaconess Medical Center Beth Israel Deaconess Medical Center	93.397	5P50CA101942-17	49,150	-
	93.837	1R01HL158077-01	70,992	-
Beth Israel Deaconess Medical Center	93.837	2R01HL129185-05	25,835	-
Beth Israel Deaconess Medical Center	93.837	5R01HL125379-04	(848)	-
Beth Israel Deaconess Medical Center	93.837	5R01HL154744-02	30,662	-
Beth Israel Deaconess Medical Center	93.837	5R01HL157991-02	126,908	-
Beth Israel Deaconess Medical Center	93.838	3U01HL123009-07S1	61,479	-
Beth Israel Deaconess Medical Center	93.838	5U01HL123009-07	10,406	-
Beth Israel Deaconess Medical Center	93.838	5U01HL123022-07	(14,263)	-
Beth Israel Deaconess Medical Center	93.839	5R34HL135226-03	(21,402)	-
Beth Israel Deaconess Medical Center	93.846	5R01AR075964-03	131,324	-
Beth Israel Deaconess Medical Center	93.847	2R01DK081572-11A1	103,347	-

Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
Beth Israel Deaconess Medical Center	93.847	5R01DK108894-05	12.733	_
Beth Israel Deaconess Medical Center	93.847	5R01DK124502-03	30,104	_
Beth Israel Deaconess Medical Center	93.847	5U01DK082919-12	(1)	_
Beth Israel Deaconess Medical Center	93.853	1U01NS096835-04	92.592	_
Beth Israel Deaconess Medical Center	93.853	5R01NS105844-04	312,670	_
Beth Israel Deaconess Medical Center	93.853	5U01NS096835-04	80,805	_
Beth Israel Deaconess Medical Center	93.853	5U01NS102289-02	179,703	-
Beth Israel Deaconess Medical Center	93.855	5R01AI129797-05	159,862	_
Beth Israel Deaconess Medical Center	93.855	5R01AI149670-03	316,606	_
Beth Israel Deaconess Medical Center	93.855	5U01AI145801-03	74,387	_
Beth Israel Deaconess Medical Center	93.855	5U19AI128751-05	122,807	-
Beth Israel Deaconess Medical Center	93.855	5U19Al128751-05	60,711	-
Beth Israel Deaconess Medical Center	93.855	5UM1AI069412-13	(3,965)	_
Beth Israel Deaconess Medical Center	93.855	5UM1AI126603-05	(12,164)	-
Beth Israel Deaconess Medical Center	93.855	5UM1AI164556-02	430,317	-
Beth Israel Deaconess Medical Center	93.855	5UM1AI124377-05	54,915	-
Beth Israel Deaconess Medical Center	93.855	5UM1AI126603-05	45,182	-
Beth Israel Deaconess Medical Center	93.865	R01HD108047	16,566	-
Beth Israel Deaconess Medical Center	93.866	5R01AG052282-05	76,164	-
Beth Israel Deaconess Medical Center	93.866	5R01AG055559-05	204,472	-
Beth Israel Deaconess Medical Center	93.866	5R01AG060981-03	712	-
Beth Israel Deaconess Medical Center	93.866	5R01AG065554-03	140,919	-
BioSensics	93.866	5R42AG059491	82,507	-
BioSensics	93.866	5R42AG059491-03	96,644	-
Board of Regents of the University of Nebraska for the University of Nebraska	93.279	5R01DA046852-04	132,179	-
Board of Regents of the University of Oklahoma Health Sciences Center	93.837	1R01HL161008-01	33,264	-
Board of Regents of the University of Wisconsin System	93.310	5UH3OD023282-06	388,850	-
Board of Regents of the University of Wisconsin System	93.855	2U01AI102456-06	268,515	-
Board of Regents of the University of Wisconsin System	93.865	5R01HD094759-05	18,092	-
Board of Trustees of the Leland Stanford Junior University	93.173	5R01DC014034-07	153,814	-
Board of Trustees of the Leland Stanford Junior University	93.242	7R01MH116173-04	312,930	-
Board of Trustees of the Leland Stanford Junior University	93.394	5U01CA242879-03	194,163	-
Board of Trustees of the Leland Stanford Junior University	93.853	1U01NS123101-01	108,608	-
Board of Trustees of the Leland Stanford Junior University	93.855	5U19AI057229-18	45,981	-
Board of Trustees of the University of Alabama for the University of Alabama	93.242	5R34MH118044-03	54,170	-
Board of Trustees of the University of Alabama for the University of Alabama	93.279	5R01DA044112-04	167,655	-
Board of Trustees of the University of Alabama for the University of Alabama	93.837	5R35HL135816-06	193,934	-
Board of Trustees of the University of Alabama for the University of Alabama	93.846	3P50AR060772-09S1	9,519	-
Board of Trustees of the University of Alabama for the University of Alabama	93.846	5P50AR060772-10	377,479	-
Board of Trustees of the University of Alabama for the University of Alabama	93.855	5R01AI147727-03	151,435	-
Board of Trustees of the University of Illinois	93.121	3R21DE026582-02S1	42,835	-
Board of Trustees of the University of Illinois	93.310	3UH3OD023272-06	46,196	-
Board of Trustees of the University of Illinois	93.847	5R01DK118736-04	94,561	-
Boston College	93.865	5R01HD098421-03	164,525	-

luster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
Boston Medical Center	93.279	5R25DA013582-20	14,042	-
Boston Medical Center	93.279	5UM1DA049412-04	88,227	-
Boston Medical Center	93.350	5U01TR002070-05	259,020	-
Boston Medical Center	93.847	1R21DK119751	5,395	-
Boston Medical Center	93.847	3P30DK046200-29	36,641	-
Boston Medical Center	93.847	3P30DK046200-29S2	25,000	-
Boston Medical Center	93.847	5P30DK046200-29	24,820	-
Boston Medical Center	93.866	5R01AG066892-03	527,520	-
Boston University School of Medicine	93.837	5R01HL127564-06	192,112	-
Boston University School of Medicine	93.866	1RF1AG061706-01	21,023	-
Boston University School of Medicine	93.866	1U19AG073172-01	559,355	-
Boston University School of Medicine	93.866	5R01AG066914-03	66,973	-
Botswana Harvard AIDS Institute Partnership	93.855	UM1AI068636	11,349	-
Brain Solutions, LLC	93.279	1R42DA043977-01	35,440	-
Brandeis University	93.395	2R01CA142746-11A1	44,287	-
Brandeis University	93.865	5R01HD090103-05	11,369	-
Brandeis University	93.866	1R01AG074330-01A1	27,056	-
Brandeis University	93.866	5P30AG048785-08	91,265	_
Brigham and Women's Hospital	93.172	2U01HG008685-05	174,632	_
Brigham and Women's Hospital	93.172	5U01HG012009-02	35,577	_
Brigham and Women's Hospital	93.172	5U01HG007690-08	194,637	_
Brigham and Women's Hospital	93.173	5R01DC015052-04	20,205	
Brigham and Women's Hospital	93.242	1R01MH125860-01	9,948	
Brigham and Women's Hospital	93.242	3U24MH124629-03	29,953	
Brigham and Women's Hospital	93.242	5R01MH091448-10	(9,520)	_
Brigham and Women's Hospital	93.242	5R01MH101244-09	136,835	_
Brigham and Women's Hospital	93.242	5R01MH125860-02	99,299	_
Brigham and Women's Hospital	93.242	5U01MH109977-04	27,770	_
Brigham and Women's Hospital	93.242	5U24MH124629-03	974,394	_
Brigham and Women's Hospital	93.279	5R01DA044167-05	15,429	
Brigham and Women's Hospital	93.307	5R01MD011685-04	26,957	_
Brigham and Women's Hospital	93.350	5UH3TR002155-05	85,699	_
Brigham and Women's Hospital	93.394	5R01CA120528-15	47,573	
Brigham and Women's Hospital	93.394	5R01CA235589-04	198,413	
Brigham and Women's Hospital	93.394	5R21CA238053-02	12,514	
Brigham and Women's Hospital	93.395	3U10CA180821-09S2	76,887	-
Brigham and Women's Hospital	93.395	5P01CA236749-03	372,182	-
Brigham and Women's Hospital	93.395	5R01CA230749-03 5R01CA207982-06	164	-
Brigham and Women's Hospital	93.395	5U10CA031946-32	4,143	-
Brigham and Women's Hospital	93.396	1U19CA264504-01	94,385	-
·	93.396	5P01CA120964-12		-
Brigham and Women's Hospital			37,946	-
Brigham and Women's Hospital	93.396	5U01CA214411-05	13,970	-
Brigham and Women's Hospital	93.397 93.397	2P50CA165962-08	233,356	-
Brigham and Women's Hospital		5P50CA165962-07	(45,950)	-
Brigham and Women's Hospital	93.397	5P50CA165962-08	240,040	-

Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
Brigham and Women's Hospital	93.837	1R011HL157457-01A1	1,593	
Brigham and Women's Hospital	93.837	1R01HL164409-01	15,405	-
Brigham and Women's Hospital	93.837	1R56HL157457-01	25,970	-
Brigham and Women's Hospital	93.837	5R01HL150401-03	373,412	-
Brigham and Women's Hospital	93.837		7,403	-
•	93.837	5U01HL107352-05	,	-
Brigham and Women's Hospital		5U54HL119145-07	83,000	66,000
Brigham and Women's Hospital	93.846	2R01AR065538-06A1	(24,272)	-
Brigham and Women's Hospital	93.846	5R01AR065807-24	68,923	-
Brigham and Women's Hospital	93.846	5R01AR074797-04	39,332	-
Brigham and Women's Hospital	93.846	5R01AR077607-02	23,073	-
Brigham and Women's Hospital	93.846	5U01AR068043-05	56,606	
Brigham and Women's Hospital	93.846	5U01AR070498-04	432,303	97,045
Brigham and Women's Hospital	93.847	5R01DK102696-05	1,446	-
Brigham and Women's Hospital	93.847	5R01DK104772-05	(1,324)	-
Brigham and Women's Hospital	93.847	5R01DK125786-02	126,249	-
Brigham and Women's Hospital	93.853	1R01NS123557-01A1	13,200	-
Brigham and Women's Hospital	93.853	5R01NS115951-02	25,005	-
Brigham and Women's Hospital	93.855	2UM1AI069412-16	759,478	-
Brigham and Women's Hospital	93.855	5R01AI138800-04	21,877	-
Brigham and Women's Hospital	93.855	5R01AI138801-03	86,443	-
Brigham and Women's Hospital	93.855	5R01AI138999-04	122,217	-
Brigham and Women's Hospital	93.855	5R01AI150295-03	151,796	-
Brigham and Women's Hospital	93.855	5R21AI154930-02	120,270	-
Brigham and Women's Hospital	93.855	5U01AI117841-06	475,466	-
Brigham and Women's Hospital	93.855	5U01AI148306-03	30,471	-
Brigham and Women's Hospital	93.859	5R01GM132825-03	119,936	-
Brigham and Women's Hospital	93.865	3R01HD093724-05	42,139	-
Brigham and Women's Hospital	93.865	5R01HD093724-05	51,740	-
Brigham and Women's Hospital	93.866	1RF1AG063381-01	19,205	-
Brigham and Women's Hospital	93.866	1RF1AG064312-01	161,063	-
Brigham and Women's Hospital	93.866	2P01AG015379-24	501,699	-
Brigham and Women's Hospital	93.866	5P01AG015379-24	555,701	-
Brigham and Women's Hospital	93.866	5P30AG064199-03	19,043	-
Brigham and Women's Hospital	93.866	5P30AG064199-04	31,518	-
Brigham and Women's Hospital	93.866	5R01AG042512-09	146,769	-
Brigham and Women's Hospital	93.866	5R01AG053184-04	409,212	_
Brigham and Women's Hospital	93.866	5R01AG054029-04	184,241	_
Brigham and Women's Hospital	93.866	5R01AG058825-03	560,282	_
Brigham and Women's Hospital	93.866	5R01AG061083-04	267,424	_
Brigham and Women's Hospital	93.866	5R01AG063689-03	270,852	_
Brigham and Women's Hospital	93.866	5R01AG066921-02	278,150	_
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Brigham and Women's Hospital Brigham and Women's Hospital Brigham and Women's Hospital	93.866 93.866 93.867	5R01AG067507-03 5R01AG070252-02 5R24EY028767-04	137,323 22,147 479,451	

Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
Broad Institute	93.172	1U01HG011723-01	44,690	-
Broad Institute	93.172	1U01HG011755-01	1,988	-
Broad Institute	93.172	1U24HG011025	22,305	-
Broad Institute	93.172	1U24HG011450-01	83,103	-
Broad Institute	93.172	1U24HG012090-01	10,696	-
Broad Institute	93.172	1UM1HG011986-01	13,333	-
Broad Institute	93.172	2U24HG006834-08	13,928	-
Broad Institute	93.172	2U24HG006834-08/5400001141	106,537	-
Broad Institute	93.172	54000001144/1U01HG011723	14,907	-
Broad Institute	93.172	54000001265/1U01HG011755	146,700	-
Broad Institute	93.172	5400000947	(9,887)	-
Broad Institute	93.172	5400001294/1U01HG011723-01	13,335	-
Broad Institute	93.172	5RM1HG006193-10	52,615	-
Broad Institute	93.172	5U01HG011723-02	38,759	-
Broad Institute	93.172	5U01HG011755-02	301,062	-
Broad Institute	93.172	5UM1HG009435-04	1,685	-
Broad Institute	93.172	R01HG009141	12,231	-
Broad Institute	93.172	R01HG010647	55,365	-
Broad Institute	93.172	U01HG011723/5400001283	48,988	-
Broad Institute	93.172	U24HG010262	28,627	-
Broad Institute	93.172	U41HG009494	4,662	-
Broad Institute	93.242	1R01MH123451-01	(11,215)	-
Broad Institute	93.242	1R01MH129722-01	2,818	-
Broad Institute	93.242	1RF1MH124598-01	19,462	-
Broad Institute	93.242	1U01MH121499-01	6,883	-
Broad Institute	93.242	1U01MH124602-01	34,749	-
Broad Institute	93.242	2R01MH104964-07	(8,740)	-
Broad Institute	93.242	3U01MH109539-04S1	(243)	-
Broad Institute	93.242	5R01-MH106595-05	5,338	-
Broad Institute	93.242	5R01MH107649-07	41,225	-
Broad Institute	93.242	5R01MH115957-03	54,530	-
Broad Institute	93.242	5R01MH116037-03	2,668	-
Broad Institute	93.242	5R01MH120642-02	(4,950)	-
Broad Institute	93.242	5R01MH120642-03	44,480	-
Broad Institute	93.242	5R21MH125358-02	78,137	-
Broad Institute	93.242	5R37MH107649-07	9,847	-
Broad Institute	93.242	5U01MH111660-05	3,952	-
Broad Institute	93.242	5U01MH115727-03	(8,769)	-
Broad Institute	93.242	7R01MH104964-08	33,867	-
Broad Institute	93.242	GR111001CON-8000267	4,615	-
Broad Institute	93.242	R01MH111813/5400001206	75,240	-
Broad Institute	93.242	R01MH115957	21,489	-
Broad Institute	93.242	U01MH115727	3,056	-
Broad Institute	93.242	U01MH119689	5,338	-

Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
Broad Institute	93.242	U01MH119689/5400001204	54,340	-
Broad Institute	93.242	U01MH125047	120,680	-
Broad Institute	93.242	U19MH114821	28,142	-
Broad Institute	93.310	5DP5OD024582-05	57,221	-
Broad Institute	93.310	5R01DK113597-04	(10,526)	-
Broad Institute	93.353	1307001/U01DE029188	10,170	-
Broad Institute	93.353	1U2CCA252974-01	35,401	-
Broad Institute	93.353	5U2CCA33195-03	5,222	-
Broad Institute	93.353	U01DE029188	(31,777)	-
Broad Institute	93.353	U2CCA233238	2,604	-
Broad Institute	93.368	3OT2OD002750-01S3	34,070	-
Broad Institute	93.393	5R01CA231264-04	1,533	-
Broad Institute	93.393	A20-0145-S002P072683U01CA242954	(5)	-
Broad Institute	93.393	R01CA208756	(18,540)	-
Broad Institute	93.393	U01CA176058	19,354	-
Broad Institute	93.394	1U24CA264024-01	165,216	-
Broad Institute	93.394	1U24CA264029-01	2,852	-
Broad Institute	93.394	5U24CA210979-03	(15,988)	-
Broad Institute	93.394	5U24CA210999-05	24,595	-
Broad Institute	93.394	U01CA214125	39,576	-
Broad Institute	93.394	U24CA210979	(7,803)	-
Broad Institute	93.394	U24CA210986	(8,843)	-
Broad Institute	93.394	U24CA210999	(28,800)	-
Broad Institute	93.395	1P01CA229092	13,155	-
Broad Institute	93.395	2P01CA206978-06	39,018	-
Broad Institute	93.395	5P01CA206978	10,865	-
Broad Institute	93.396	2R01CA155010	(958)	-
Broad Institute	93.396	UH3CA246632	20,280	-
Broad Institute	93.397	2P50CA127003-11A1	13,496	-
Broad Institute	93.397	2P50CA127003-12_A1	(52)	-
Broad Institute	93.837	0001081389	7,054	-
Broad Institute	93.837	1R01HL142711-01A1/234357	13,338	-
Broad Institute	93.837	1R01HL148050-03	13,407	-
Broad Institute	93.837	1R01HL156991-01	11,446	-
Broad Institute	93.837	1R01HL157717-01A1	48,890	-
Broad Institute	93.837	231873	1,424	-
Broad Institute	93.837	237407	22,357	-
Broad Institute	93.837	3OT3HL142481	131	-
Broad Institute	93.837	5400004030	15,376	-
Broad Institute	93.837	5R01HL143295-02	47,270	-
Broad Institute	93.837	5R01HL143295-04	377,092	-
Broad Institute	93.839	996106	6,149	-
Broad Institute	93.846	3UH2AR067688-05S4	2,436	-
Broad Institute	93.846	(blank)	1,741	-

er Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
Broad Institute	93.847	1R01DK127171-01A1	5,484	-
Broad Institute	93.847	1R01DK129464-01	14,429	-
Broad Institute	93.847	233311/5R01DK120485-03	5,338	-
Broad Institute	93.847	2P30DK043351-31	5,495	-
Broad Institute	93.847	2UM1DK105554-06	31,538	-
Broad Institute	93.847	3UH3DK114907-03S1	16,656	-
Broad Institute	93.847	5119069/54/1192	20,808	-
Broad Institute	93.847	5R01DK075787-15	11,632	-
Broad Institute	93.847	5R01DK099465-08	65,906	-
Broad Institute	93.847	5R21DK110499-05	2,002	-
Broad Institute	93.847	5RC2DK114784-05	174,235	-
Broad Institute	93.847	5U01DK105554-04	(395)	-
Broad Institute	93.847	FP068366-01A	52,746	-
Broad Institute	93.847	RC2DK114784	5,680	-
Broad Institute	93.847	U01DK123717	12,757	
Broad Institute	93.847	UWSC12163	1,989	
Broad Institute	93.853	5400000625	26,895	-
Broad Institute	93.853	5R01NS102371-04	5,778	
Broad Institute	93.855	1P01AI148102-01A1	16,710	
Broad Institute	93.855	1R01AI153405	97,676	
Broad Institute	93.855	1R01AI158495-01A1	26,306	
Broad Institute	93.855	1R01AI172147-01	6,723	
Broad Institute	93.855	1R21AI154099-01	24,939	
Broad Institute	93.855	1U19AI142780-04	447,349	
Broad Institute	93.855	5U19AI110818-09	95,284	
Broad Institute	93.855	A265499	2,675	-
Broad Institute	93.855	CNVA000599421316161	5,460	
Broad Institute	93.855	GMO1904409	10,162	
Broad Institute	93.855	GR105105(CON-8000165U19AI089992-09	438	
Broad Institute	93.855	R01Al132300	40,446	-
Broad Institute	93.855	U19Al082630	5,378	
Broad Institute	93.855	U19AI13324	9,866	-
Broad Institute	93.855	U19AI142780	29,660	
Broad Institute	93.855	U24AI118668	(20,580)	
Broad Institute	93.859	1R01GM137606-01A1	50,909	
Broad Institute	93.865	U24HD090743	12,239	_
Broad Institute	93.866	DP2AG058488	53,797	_
Broad Institute	93.867	540000744	5,556	
Brown University	93.173	5U01DC017844-02	297,443	_
Brown University	93.279	5R01DA047975-04	48,370	
Brown University	93.310	3U54AG063546-02S2	35,642	
Brown University	93.395	7R01CA237063-04	6,140	
Brown University	93.398	5R01CA201262-05	(1,832)	
Brown University	93.847	5R01DK127585-02	106,759	
Brown University	93.853	5R01NS079533-10	110,486	
Brown University	93.853	5R01NS113141-04	134,788	

Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
Brown University	93.855	1R01AI167694-01	15,556	_
Brown University	93.865	R03HD099428-01	2,843	_
Brown University	93.866	5U54AG063546-03	92,175	7,521
Brown University	93.867	5R01EY030569-03	39,883	· -
Butler Hospital	93.242	5R01MH112674-04	64,305	-
Cambridge Hospital	93.393	5R01CA229355-02	29,896	-
Carolinas HealthCare System	93.121	2U01DE022939-09	111,743	-
Carolinas HealthCare System	93.121	5U01DE022939-08	111	-
Case Western Reserve University	93.847	5R01DK116723-02	19,679	-
Case Western Reserve University	93.847	5U01DK094157-11	246,155	-
Case Western Reserve University	93.855	5R01Al124348-05	(855)	-
Case Western Reserve University	93.867	5R01EY027134-02	(1)	-
Cedar-Sinai Medical Center	93.393	5R01CA211707-02	43,146	-
Cedar-Sinai Medical Center	93.394	5R01CA201709-05	27,852	-
Cedar-Sinai Medical Center	93.395	5U01CA232859-04	31,445	-
Cedar-Sinai Medical Center	93.837	5R01HL131532-05	30,734	-
Cedar-Sinai Medical Center	93.837	5R01HL151828-02	147,566	-
Cedar-Sinai Medical Center	93.865	1R01HD106096-01	170,260	-
Cedar-Sinai Medical Center	93.866	5R01AG058911-04	270,934	-
Cedar-Sinai Medical Center	93.866	5U54AG065141-03	16,258	-
Cedars-Sinai Health System	93.394	1R01CA260955-01	29,198	-
Cessation Therapeutics, LLC	93.279	U01DA051071-01A1	259,628	-
Charles River Analytics	93.853	1R43NS117226-01A1	77,000	-
Children's Hospital Corporation dba Boston Children's Hospital	93.173	2R01DC008853-11A1	156,577	-
Children's Hospital Corporation dba Boston Children's Hospital	93.233	5R01HL137192-04	263,401	-
Children's Hospital Corporation dba Boston Children's Hospital	93.242	1RF1MH122967-01	66,523	-
Children's Hospital Corporation dba Boston Children's Hospital	93.286	1R01EB032708-01	8,933	-
Children's Hospital Corporation dba Boston Children's Hospital	93.307	5R01MD015031-02	61,107	-
Children's Hospital Corporation dba Boston Children's Hospital	93.310	1U01OD033248-01	62,545	-
Children's Hospital Corporation dba Boston Children's Hospital	93.351	5R21OD029996-02	28,067	-
Children's Hospital Corporation dba Boston Children's Hospital	93.837	1R01HL162367-01	142,681	-
Children's Hospital Corporation dba Boston Children's Hospital	93.837	5R01HL156362-02	120,838	-
Children's Hospital Corporation dba Boston Children's Hospital	93.837	5R01HL158097-02	76,229	-
Children's Hospital Corporation dba Boston Children's Hospital	93.837	5U01HL098147-13	211,090	-
Children's Hospital Corporation dba Boston Children's Hospital	93.838	2R01HL118455-06	70,192	-
Children's Hospital Corporation dba Boston Children's Hospital	93.839	1DP2HL137300-01	(6,750)	-
Children's Hospital Corporation dba Boston Children's Hospital	93.839	1OT2HL154984-01	64,663	-
Children's Hospital Corporation dba Boston Children's Hospital	93.839	5P01HL032262-39	13,500	-
Children's Hospital Corporation dba Boston Children's Hospital	93.839	5P01HL046925-24	404,743	-
Children's Hospital Corporation dba Boston Children's Hospital	93.839	5P01HL095489-10	41,318	-
Children's Hospital Corporation dba Boston Children's Hospital	93.846	1R01AR080079-01	22,165	-
Children's Hospital Corporation dba Boston Children's Hospital	93.847	1R01DK126448-02	157,241	-
Children's Hospital Corporation dba Boston Children's Hospital	93.847	1R21DK118951-01	1,181	-
Children's Hospital Corporation dba Boston Children's Hospital	93.847	2P30DK034854-36	387,228	-

Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
·	93.847	2R01DK048106-28	20 542	
Children's Hospital Corporation dba Boston Children's Hospital			20,512	-
Children's Hospital Corporation dba Boston Children's Hospital	93.847	5R01DK125273-02	126,263	-
Children's Hospital Corporation dba Boston Children's Hospital	93.853	5R01NS080833-11	22,544	-
Children's Hospital Corporation dba Boston Children's Hospital	93.855	1R56AI147950-01	49,906	-
Children's Hospital Corporation dba Boston Children's Hospital	93.855	5P01AI089618-10	287,599	-
Children's Hospital Corporation dba Boston Children's Hospital	93.855	5R01Al126915-05	3,850	-
Children's Hospital Corporation dba Boston Children's Hospital	93.855	5U01AI126614-06	46,730	-
Children's Hospital Corporation dba Boston Children's Hospital	93.855	5U01Al143514-04	87,542	-
Children's Hospital Corporation dba Boston Children's Hospital	93.855	5U01Al163072-02	129,964	-
Children's Hospital Corporation dba Boston Children's Hospital	93.855	7R01Al151180-02	14,125	-
Children's Hospital Corporation dba Boston Children's Hospital	93.859	1R01GM127600-01A1	20,162	-
Children's Hospital Corporation dba Boston Children's Hospital	93.865	1R03HD104891-02	8,136	-
Children's Hospital Corporation dba Boston Children's Hospital	93.865	5R01HD100009-04	115,975	-
Children's Hospital Corporation dba Boston Children's Hospital	93.866	5R01AG070921-02	20,971	-
Children's Hospital Corporation dba Boston Children's Hospital	93.867	5R01EY025794-03	1,917	-
Children's Hospital Corporation dba Boston Children's Hospital	93.867	5R01EY025794-05	7,578	-
Children's Hospital Los Angeles	93.838	5R01HL141352-04	94,839	-
Children's Hospital Los Angeles	93.838	5R01HL146541-04	338,721	-
Children's Hospital Los Angeles	93.865	5R21HD107983-02	16,397	-
Children's Hospital Medical Center	93.172	5R01HG010730-03	255,440	-
Children's Hospital Medical Center	93.837	2U01HL131003-06	83,157	-
Children's Hospital Medical Center	93.838	5U01HL148856-03	118,630	-
Children's Hospital Medical Center	93.855	5R01Al148276-03	62,125	-
Children's Hospital of Philadelphia (The)	93.233	3R33HL151253-03S1	28,188	-
Children's Hospital of Philadelphia (The)	93.233	4R33HL151253-03	160,167	-
Children's Hospital of Philadelphia (The)	93.233	5R61HL151253-02	(623)	-
Children's Hospital of Philadelphia (The)	93.395	2U10CA180886	7,091	-
Children's Hospital of Philadelphia (The)	93.853	3U01NS111671-01S1	(123)	-
Children's Hospital of Philadelphia (The)	93.853	5U01NS111671-03	23,507	-
Children's Hospital of Philadelphia (The)	93.853	5U54NS115052-03	135,466	-
Cincinnati Children's Hospital Medical Center	93.396	1R01CA240317-03	160,171	-
Cincinnati Children's Hospital Medical Center	93.837	5R01HL151604-02	4,523	-
Cincinnati Children's Hospital Medical Center	93.837	5U01HL131003-05	(83,158)	-
Cincinnati Children's Hospital Medical Center	93.838	5U24HL148865-03	50,245	-
Clear Scientific	93.279	U01DA053054	27,177	-
Cleveland Clinic Foundation Group Return	93.838	5U01HL125177-05	(177,202)	-
Cleveland Clinic Foundation Group Return	93.846	5R01AR074131-03	22,687	-
Cleveland Clinic Lerner College of Medicine	93.838	4U01HL125177-06	69,992	-
Cleveland Clinic Lerner College of Medicine	93.839	UH3HL140097-04	55,872	-
Clinitech	93.273	2R44AA026123-02	(61,193)	-
Collagen Medical, LLC	93.286	1R43EB029773-01	(368)	-
Collagen Medical, LLC	93.394	1R44CA250771-01	92,068	_
Collagen Medical, LLC	93.866	R44AG059524	277,772	_
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er Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
Columbia University	93.866	5U01AG051412-05	302,510	
Columbia University Irving Medical Center (CUIMC)	93.307	5R21MD013991-02	5,112	
Columbia University Irving Medical Center (CUIMC)	93.837	5R01HL157216-02	66,281	
Columbia University Irving Medical Center (CUIMC)	93.838	1R01HL159675-02	71,175	
Columbia University Medical Center	93.361	5R01NR016941-06	154,715	
Columbia University Medical Center	93.846	5R01AR068425-05	20,581	
Columbia University Medical Center	93.866	5U01AG051412-05	712,630	
Cook Children's Health Care System	93.853	5R01NS104116-04	137,600	
Cook Children's Medical Center	93.865	7R21HD090549-03	(16,779)	
Cornell University	93.879	5R01LM012719-04	49,018	
CorticoMetrics, LLC	93.866	R42AG062026	148,926	
COVID-19 Benaroya Research Institute at Virginia Mason	93.855	3UM1AI109565-08S1	415,325	
COVID-19 Benaroya Research Institute at Virginia Mason	93.855	5UM1AI109565-07	(4,109)	
COVID-19 Beth Israel Deaconess Medical Center	93.394	1U01CA260476-01	290,856	
COVID-19 Beth Israel Deaconess Medical Center	93.838	1OT2HL156812-01	443,804	
COVID-19 Beth Israel Deaconess Medical Center	93.838	3U01HL123009-06S1	16,954	
COVID-19 Beth Israel Deaconess Medical Center	93.855	UM1AI069412-14S1	(1,983)	
COVID-19 Biobot Analytics	93.279	3R44DA051106-02S1	22,699	
COVID-19 Brigham and Women's Hospital	93.172	3U01HG008685-05S1	681	
COVID-19 Brigham and Women's Hospital	93.172	3U01HG008685-05S2	(21,111)	
COVID-19 Brigham and Women's Hospital	93.286	3U54HL119145-07S1	30,504	
COVID-19 Brigham and Women's Hospital	93.838	OT2HL161847-01	1,330,636	
·	93.855	1P01Al165072-01		
COVID-19 Brigham and Women's Hospital			1,096,389	
COVID-19 Brigham and Women's Hospital	93.855	3UM1AI069412-15S1	70,962	
COVID-19 Broad Institute	93.855	1R21Al162662-01	30,339	
COVID-19 Broad Institute	93.855	3U19Al110818-08S2	48,224	
COVID-19 Broad Institute	93.855	3U19AI110818-08S3	38,646	
COVID-19 Children's Hospital Corporation dba Boston Children's Hospital	93.279	3R34DA050289-01S2	24,421	
COVID-19 Children's Hospital Corporation dba Boston Children's Hospital	93.279	R34DA050289-01S3	17,587	
COVID-19 Children's Hospital Corporation dba Boston Children's Hospital	93.855	3R01Al065617-20S1	(13,487)	
COVID-19 Children's Hospital Corporation dba Boston Children's Hospital	93.855	3U19Al118608-05S2	16,485	
COVID-19 Children's Hospital Corporation dba Boston Children's Hospital	93.855	3U19AI118608-05S3	48,913	
COVID-19 Duke University	93.310	4U24MD016258-02	233,578	
COVID-19 Emory University	93.839	5R01HL138656-04	259,621	
COVID-19 Emory University	93.855	3U19AI110483-08S4	385,369	
COVID-19 Emory University	93.855	A526793	325	
COVID-19 Fred Hutchinson Cancer Center	93.855	3UM1Al068614-17S4	18,572	
COVID-19 Fred Hutchinson Cancer Research Center	93.855	3UM1AI068614-14S1	2,861,690	
COVID-19 Fred Hutchinson Cancer Research Center	93.855	3UM1AI068614-15S2	25,044	
COVID-19 Hebrew Senior Life	93.866	90103	85,164	
COVID-19 Icahn School of Medicine at Mount Sinai	93.286	1R01EB031083-01	16,602	
COVID-19 Icahn School of Medicine at Mount Sinai	93.837	5U01HL088942-14	6,867	
COVID-19 Joan & Sanford I. Weill Medical College of Cornell University	93.855	3U19AI111143-07S1	(1)	
COVID-19 Johns Hopkins Hospital	93.866	3R01AG050515-04S1	120,452	

ter Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
COVID-19 Johns Hopkins University	93.310	UH3AI133669	128,014	_
COVID-19 Johns Hopkins University	93.855	3U01AI138897-04S1	5,086	_
COVID-19 Johns Hopkins University	93.855	3U24AI118633-05S1	(2,721)	_
COVID-19 Johns Hopkins University	93.866	5R01AG050515-04	19,506	
COVID-19 La Jolla Institute for Immunology	93.855	3U19AI142790-02S1	131,409	
COVID-19 Massachusetts General Hospital	93.838	1OT2HL161841-01	1.110.499	
COVID-19 Massachusetts Institute of Technology	93.286	3R21EB026008-02S1	35,645	
COVID-19 Massachusetts Institute of Technology	93.855	1U19Al167899-01	86,946	
COVID-19 Massachusetts Institute of Technology	93.866	3P30AG064190-02S1	81,217	
COVID-19 Mbarara University of Science and Technology	93.310	1U54TW012043-01	104,877	
COVID-19 Michigan State University	93.865	3R01HD094842-04S1	88.979	
COVID-19 New York University Grossman School of Medicine	93.350	3UL1TR001445-06A1S3	207,731	
COVID-19 New York University Grossman School of Medicine	93.838	1OT2HL161847-01	2,682,280	1,799,377
COVID-19 New York University Grossman School of Medicine	93.838	OT2HL161847	945	1,100,01
COVID-19 New York University Grossman School of Medicine	93.838	OT2HL161847-01	153,243	123,083
COVID-19 New York University School of Medicine	93.350	3UL1TR001445-05S3	(76,765)	.20,000
COVID-19 New York University School of Medicine	93.838	0T2HL156812	244,428	
COVID-19 NIH-NCATS National Center for Advancing Translational Sciences	93.350	Direct	1,211,334	
COVID-19 NIH-NCI National Cancer Institute	93.393	Direct	401,559	228,48
COVID-19 NIH-NHGRI National Human Genome Research Institute	93.172	Direct	368,500	371,48
COVID-19 NIH-NHLBI National Heart, Lung, and Blood Institute	93.286	Direct	518,659	206,95
COVID-19 NIH-NHLBI National Heart, Lung, and Blood Institute	93.837	Direct	716,760	185,644
COVID-19 NIH-NHLBI National Heart, Lung, and Blood Institute	93.838	Direct	16,155,401	8,864,22
COVID-19 NIH-NIA National Institute on Aging	93.866	Direct	1,845,024	314,79
COVID-19 NIH-NIAID National Institute of Allergy and Infectious Diseases	93.855	Direct	5,202,202	2,036,254
COVID-19 NIH-NIBIB National Institute of Biomedical Imaging and Bioengineering	93.286	Direct	7,882,949	4,040,86
COVID-19 Niti-NichD National Institute of Child Health and Human Development	93.865	Direct	558,319	1,64
COVID-19 NIH-NIDA National Institute on Drug Abuse	93.279	Direct	72,281	14,93
COVID-19 NIH-NIDDK National Institute of Diabetes and Digestive and Kidney Diseases	93.847	Direct	98,719	14,93
COVID-19 NIH-NIEHS National Institute of Brabetes and Bigestive and Ridney Biseases	93.113	Direct	155,368	10,92
COVID-19 NIH-NIGMS National Institute of General Medical Sciences	93.859	Direct	523,492	10,92
COVID-19 NIH-NINDS National Institute of Neurological Disorders and Stroke	93.853	Direct	667,535	
· · · · · · · · · · · · · · · · · · ·	93.879	Direct	99,913	
COVID-19 NIH-NLM National Library of Medicine				200.24
COVID-19 NIH-OD Office of the Director	93.310	Direct	1,283,427	200,24
COVID-19 PAREXEL International, LLC	93.838	OT2HL156812	42,989	
COVID-19 President and Fellows of Harvard College	93.310	3P50CA244433-02S1	41,674	
COVID-19 President and Fellows of Harvard College	93.310	3P50CA244433-03S3	113,113	
COVID-19 President and Fellows of Harvard College	93.394	U01CA261277	40,204	
COVID-19 President and Fellows of Harvard College	93.837	3U01HL145386-02S1	23,163	
COVID-19 President and Fellows of Harvard College	93.865	3R01HD094725-02S1	161,105	
COVID-19 President and Fellows of Harvard College	93.866	1R01AG075507-01	5,380	
COVID-19 President and Fellows of Harvard College	93.866	3P01AG032952-12S1	18,959	
COVID-19 President and Fellows of Harvard College	93.866	3P01AG032952-12S3	35,287	
COVID-19 President and Fellows of Harvard College	93.866	3P01AG041710-07S1	7,031	
COVID-19 President and Fellows of Harvard College	93.866	5P01AG041710-08	16,447	

Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
COVID-19 Rector and Visitors of the University of Virginia	93.867	2R01EY026171-05	63,772	_
COVID-19 Regents of the University of California, Los Angeles	93.855	2UM1AI068636-15S1	435,153	_
COVID-19 Regents of the University of California, Los Angeles	93.855	3UM1AI068636-14S2	197,047	_
COVID-19 Regents of the University of California, Los Angeles	93.855	3UM1AI068636-15S1	151,484	_
COVID-19 Regents of the University of California, Los Angeles	93.855	Number Not Available	18,094	_
COVID-19 Regents of the University of Minnesota	93.853	5R01NS124065-02	161,181	_
COVID-19 Regents of the University of Minnesota	93.853	R01NS124065	12,845	_
COVID-19 Rensselaer Polytechnic Institute	93.286	3R21EB028001-02S1	34,029	-
COVID-19 Research Triangle Institute International	93.838	1OT2HL156812-01	17,395,160	55,242
COVID-19 Research Triangle Institute International	93.840	1OT2HL156812-01	(780)	
COVID-19 Temple University - Of the Commonwealth System of Higher Education	93.847	3U01DK073975-15S2	20,593	-
COVID-19 Trustees of Boston University	93.853	1R21NS123412-01	123,393	-
COVID-19 Trustees of Columbia University in the City of New York (The)	93.838	RTI22-312-0217571-66178	1,622	-
COVID-19 University of Pittsburgh Of the Commonwealth System of Higher Education	93.838	1OT2HL156812-01	1,202,280	251,127
COVID-19 University of Texas Health Science Center at San Antonio	93.866	1R56AG074467-01	13,628	-
COVID-19 Vanderbilt University Medical Center	93.350	3UL1TR002243-04S3	88,042	-
COVID-19 Vanderbilt University Medical Center	93.838	1OT2HL156812-01	299,143	-
COVID-19 Washington University	93.866	3U01AG052564-04S1	94,896	-
COVID-19 Yale University	93.853	3U01NS106513-02S1	68,345	-
Dana Farber Cancer Institute	93.121	5R01DE027736-04	64,407	-
Dana Farber Cancer Institute	93.121	5R01DE027736-05	34,008	-
Dana Farber Cancer Institute	93.172	5U24HG004059-18	415,930	-
Dana Farber Cancer Institute	93.286	R56EB027683	(4,947)	-
Dana Farber Cancer Institute	93.353	1U01CA250549-01	5,308	-
Dana Farber Cancer Institute	93.353	1U01DE029188-01	176,758	-
Dana Farber Cancer Institute	93.353	1U2CCA233195	(1,080)	-
Dana Farber Cancer Institute	93.353	1U2CCA233195-01	7,294	-
Dana Farber Cancer Institute	93.353	1U2CCA233195-03	5,307	-
Dana Farber Cancer Institute	93.353	1U2CCA233195-04	5,308	-
Dana Farber Cancer Institute	93.353	1U54CA231637-01	294,563	-
Dana Farber Cancer Institute	93.353	2P01CA163222	9,972	-
Dana Farber Cancer Institute	93.353	5P01CA154303-09	9,165	-
Dana Farber Cancer Institute	93.353	5U2CCA233195-04	151,249	-
Dana Farber Cancer Institute	93.353	R33CA246455-02	13,271	-
Dana Farber Cancer Institute	93.353	U24CA224331	26,540	-
Dana Farber Cancer Institute	93.393	5R01CA204954-05	(156)	-
Dana Farber Cancer Institute	93.393	5R01CA258924-02	118,769	-
Dana Farber Cancer Institute	93.393	8310051	20,319	-
Dana Farber Cancer Institute	93.393	R01CA248857-01	70,207	-
Dana Farber Cancer Institute	93.394	1R21CA249875-01A1	43,702	-
Dana Farber Cancer Institute	93.394	3U01CA210171-05S1	24,286	-
Dana Farber Cancer Institute	93.394	5R01CA188446-08	39,199	-
Dana Farber Cancer Institute	00.004	ED040400E 04	47.000	
	93.394	5R01CA214385-04	17,238	-

Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
Dana Farber Cancer Institute	93.394	5R01CA221874-03	(4,020)	-
Dana Farber Cancer Institute	93.394	5R01CA239042-03	(1,749)	-
Dana Farber Cancer Institute	93.394	5R01CA240592-03	30,767	-
Dana Farber Cancer Institute	93.394	5U01CA210171-05S1	19,585	_
Dana Farber Cancer Institute	93.394	R01CA240582-02	53,869	_
Dana Farber Cancer Institute	93.395	1P01CA229092-02	51,014	_
Dana Farber Cancer Institute	93.395	2UM1CA186709-06	113,853	_
Dana Farber Cancer Institute	93.395	3UM1CA186709-08	35,308	_
Dana Farber Cancer Institute	93.395	5P01CA066996-16A1	13,151	_
Dana Farber Cancer Institute	93.395	5P01CA142106-15	(1,482)	_
Dana Farber Cancer Institute	93.395	5R01CA200977-05	(392)	-
Dana Farber Cancer Institute	93.395	5R01CA205406-05	36,269	_
Dana Farber Cancer Institute	93.395	5R01CA240804-02	(1,019)	-
Dana Farber Cancer Institute	93.395	5R01CA240804-03	38,877	-
Dana Farber Cancer Institute	93.395	5R01CA258688-02	65,272	-
Dana Farber Cancer Institute	93.395	5UM1CA186709-04	7,031	-
Dana Farber Cancer Institute	93.395	R01CA244936	3,309	-
Dana Farber Cancer Institute	93.396	2R01CA181217-06A1	45,546	_
Dana Farber Cancer Institute	93.396	5P01CA233412-02	157,113	_
Dana Farber Cancer Institute	93.396	5P01CA233412-03	369,648	_
Dana Farber Cancer Institute	93.396	5R01CA238039-04	16,421	_
Dana Farber Cancer Institute	93.396	5R01CA246653-03	122,347	_
Dana Farber Cancer Institute	93.396	5R01CA251589-02	23,707	_
Dana Farber Cancer Institute	93.396	5R01CA251599-03	33,897	_
Dana Farber Cancer Institute	93.396	5U01CA232161-04	323,826	_
Dana Farber Cancer Institute	93.396	7U01CA199252-05	(3,848)	_
Dana Farber Cancer Institute	93.396	P01CA250959	254,898	_
Dana Farber Cancer Institute	93.397	1P50CA240243-01A1	79,747	
Dana Farber Cancer Institute	93.397	2P30CA006516-57	1,258,407	_
Dana Farber Cancer Institute	93.397	2P50CA127003-12	28.838	_
Dana Farber Cancer Institute	93.397	2P50CA127003-13	56,059	_
Dana Farber Cancer Institute	93.397	2P50CA168504-07	143,731	
Dana Farber Cancer Institute	93.397	2P50CA168504-7	22,229	
Dana Farber Cancer Institute	93.397	5P30CA006516-55	49,080	
Dana Farber Cancer Institute	93.397	5P30CA006516-56	222,195	-
Dana Farber Cancer Institute	93.397	5P30CA000516-50 5P30CA006516-57	100,002	-
Dana Farber Cancer Institute	93.397	5P50CA100707-18	151,857	-
Dana Farber Cancer Institute	93.397	5P50CA127003-10	(9,935)	-
Dana Farber Cancer Institute	93.397	5P50CA127003-10 5P50CA127003-13	* * * *	-
Dana Farber Cancer Institute Dana Farber Cancer Institute	93.397	5P50CA127003-13 5P50CA168504-07	754,357 19,004	-
Dana Farber Cancer Institute Dana Farber Cancer Institute	93.397		,	-
		5P50CA168504-08	250,562	-
Dana Farber Cancer Institute	93.397	5P50CA206963-05	(7,135)	-
Dana Farber Cancer Institute	93.397	5P50CA206963-06	102,377	-
Dana Farber Cancer Institute	93.397	5P50CA240243-02	468,557	-
Dana Farber Cancer Institute	93.397	5U54CA156732-10	(937)	-

Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
Dana Farber Cancer Institute	93.397	5U54CA193461-04	(4,124)	_
Dana Farber Cancer Institute	93.397	5U54CA193461-05	(28,060)	_
Dana Farber Cancer Institute	93.399	1UG1CA233180-01	3,706	_
Dana Farber Cancer Institute	93.399	5UG1CA233180-04	18,474	_
Dana Farber Cancer Institute	93.839	5UG1HL069249-21	13,131	_
Dana Farber Cancer Institute	93.847	5R01DK124384-03	42,868	_
Dana Farber Cancer Institute	93.853	5R01NS091620-05	2	_
Dana Farber Cancer Institute	93.855	1U01AI165442-01	175,266	-
Dana Farber Cancer Institute	93.855	1U01Al165442-01	66,851	_
Dana Farber Cancer Institute	93.866	5UH3AG060626-04	405,864	_
Dartmouth Hitchcock Medical Center	93.393	5R01CA243449-03	35,660	-
Dartmouth-Hitchcock Clinic	93.242	5R01MH110965-05	10,225	-
Dartmouth-Hitchcock Clinic	93.846	R01AR077157	2,279	-
Dartmouth-Hitchcock Clinic	93.865	R01HD067270	(10,444)	-
Dimagi	93.307	1R43MD014916-01	(1,157)	-
Dimagi	93.393	2R44CA265301-02	142,087	-
Drexel University	93.113	1R01ES032469-01A1	61,776	-
Duke NUS Graduate Medical School	93.855	5R01Al139032-04	20,996	-
Duke University	93.286	5R01EB028143-04	180,327	-
Duke University	93.350	5U24TR001608-03	1,418	-
Duke University	93.393	1R01CA235677-03	76,643	-
Duke University	93.393	1U54CA231630-01A1	153,709	-
Duke University	93.837	5R01HL146145-02	280,030	-
Duke University	93.837	5U01HL134879-02	1,927	-
Duke University	93.837	5U10HL084904-12	(51,728)	-
Duke University	93.837	U01HL134679-02	1,725	-
Duke University	93.853	5R01NS113541-02	32,975	-
Duke University	93.855	5R01AI139425-03	21,084	-
Duke University	93.865	HHSN-275201000003I	83,312	-
Duke University	93.866	1RF1AG059093-01	229,937	-
ECOG-ACRIN Medical Research Foundation	93.394	5U24CA196172-08	10,004	-
ECOG-ACRIN Medical Research Foundation	93.395	5U10CA180820-09	249,901	-
ECOG-ACRIN Medical Research Foundation	93.399	5UG1CA189828-08	54,486	-
Emma Pendleton Bradley Hospital	93.865	5R01HD103665-02	22,883	-
Emory University	93.121	5R01DE030342-02	265,496	-
Emory University	93.279	7R01DA043263-06	29,297	-
Emory University	93.837	5R01HL119798-08	7,656	-
Emory University	93.839	1R01HL138714-01A1	343,959	-
Emory University	93.839	5U54HL141981-04	288,856	-
Emory University	93.853	1DP2NS127291-01	10,925	-
Emory University	93.855	5R01Al051231-21	191,886	-
Emory University	93.855	5U01AI131295-06	28,323	-
Emory University	93.855	5U19AI110483-09	159,235	-
Emory University	93.855	5U19Al110483-08	63,932	-

Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
Emory University	93.855	5UM1AI164562-02	211,762	_
Emory University	93.866	1R01AG070704-01A1	37,942	_
Emory University	93.866	5R01AG058704-05	30,567	_
Emory University	93.866	5R01AG066956-02	64,911	_
eMRI System LLP	93.242	R43MH128138	40,157	_
Environment and Health Group	93.307	2R44MD009454-03	3,308	_
Erasmus University Medical Center	93.855	1R01AI147330-01	188,454	_
Expesicor	93.853	1R43NS115294-01	8,986	_
ExQor Technologies	93.279	2R44DA044050-02A1	106,580	_
ExQor Technologies	93.866	4R44AG05834302	176,954	_
Feinstein Institutes for Medical Research	93.846	3UH2AR067694-05S5	1,984	-
Fenway Community Health Center	93.273	5P01AA029544-02	17,527	-
Fenway Community Health Center	93.279	5K23DA044874-03	71	_
Fenway Community Health Center	93.279	5R01DA044112-02	(714)	_
Fenway Community Health Center	93.279	5R01DA047045-05	8,769	_
Fenway Community Health Center	93.307	5R01MD013498-05	24,098	_
Fenway Community Health Center	93.855	5UM1AI068619-16	8,409	_
FHC	93.242	1R41MH11980401	2,220	_
FHI 360	93.855	5UM1A1068619-16	18,103	_
FHI 360	93.855	UM1AI068619	51,025	_
Firtility	93.865	6R44HD099040-03	483,575	_
Florida International University	93.279	U01DA040381	4,021	_
Florida International University	93.396	7U01CA225644-03	17,805	_
FluGen	93.855	R42AI120269-03	6,903	_
Forsyth Institute	93.121	5R01DE025020-08	120,795	_
Fred Hutchinson Cancer Center	93.855	6UM1AI068614-17	39,460	_
Fred Hutchinson Cancer Center	93.855	6UM1AI068617-17	119,141	-
Fred Hutchinson Cancer Research Center	93.393	1R01CA248857-01	31,028	-
Fred Hutchinson Cancer Research Center	93.393	5R01CA215134-05	22,947	-
Fred Hutchinson Cancer Research Center	93.394	3U01CA214172-05S1	1,048	-
Fred Hutchinson Cancer Research Center	93.394	5U01CA214114-05	46,786	-
Fred Hutchinson Cancer Research Center	93.855	2UM1AI068614-15	(2,443)	-
Fred Hutchinson Cancer Research Center	93.855	5UM1AI068614-14	308	-
Fred Hutchinson Cancer Research Center	93.855	5UM1AI068614-16	179,670	-
Fred Hutchinson Cancer Research Center	93.866	5R01AG048209-05	16,235	-
Function Promoting Therapies, LLC	93.866	1R33AG068234-01	132,557	-
Function Promoting Therapies, LLC	93.866	2R44AG045011-02	(18,544)	-
General Biophysics LLC	93.866	R41AG073059	281,532	-
George Washington University	93.837	5R01HL140977-04	253,218	-
George Washington University	93.847	5U01DK061230-16	40,462	-
George Washington University	93.847	5U01DK098246-09	207,664	-
George Washington University	93.847	5U01DK098246-10	229,623	-
George Washington University	93.853	5U54NS115054-03	22,985	-
Georgetown University	93.989	R21TW010789	194	-
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Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
GHESKIO Centers	93.855	4UM1AI069421-16	78,252	-
Giner	93.865	1R43HD098994-01	141	-
Glyciome, LLC	93.394	1R41CA254543-01A1	148,038	-
Hackensack University Medical Center	93.395	5R01CA212639-05	34,538	-
Harvard Pilgrim Health Care	93.307	5R01MD015256-03	101,113	-
Harvard Pilgrim Health Care	93.837	5R01HL150119-02	135,954	-
Harvard Pilgrim Health Care	93.855	1R56AI150864-01	7,952	-
Harvard Pilgrim Health Care	93.865	3R01HD034568-17S1	47,920	-
Harvard Pilgrim Health Care	93.865	5R01HD094150-05	112,288	-
Hebrew Rehabilitation Center for Aged	93.866	1R01AG059089	19,958	-
Hebrew Rehabilitation Center for Aged	93.866	1R03AG075434-01	29,277	-
Hebrew Rehabilitation Center for Aged	93.866	5P01AG031720-10	240,371	-
Hebrew Rehabilitation Center for Aged	93.866	90083	88,141	-
Hebrew Rehabilitation Center for Aged	93.866	P01AG031720-09S2	32,234	-
Hebrew Senior Life	93.846	R01AR075346	(1,503)	-
Hebrew Senior Life	93.866	5P01AG031720-10	105,971	-
Hebrew Senior Life	93.866	5R21AG060227-02	4,790	-
Hebrew Senior Life	93.866	P01AG031720	4,108	-
Hennepin Healthcare Research Institute	93.279	3UG1DA040316-08S1	356,920	-
Hennepin Healthcare Research Institute	93.866	3U19AG062682-02S1	62,106	-
Hennepin Healthcare Research Institute	93.866	3U19AG062682-03S1	138,591	-
Hennepin Healthcare Research Institute	93.866	5U19AG062682-04	179,114	-
Highland Instruments	93.846	1R44AR076885-01	34,672	-
Highland Instruments	93.853	5R44NS110237-03	114,964	-
Highland Instruments	93.866	1R44AG055360-01	223,661	-
Hillhurst Biopharmaceuticals	93.853	1R41NS122576-01	128,069	-
Huntington Medical Research Institute	93.242	2R01MH110438-06A1	64,443	-
Huntington Medical Research Institute	93.853	5R01NS100808-05	14,677	-
Icahn School of Medicine at Mount Sinai	93.242	5P50MH096890-10	40,794	-
Icahn School of Medicine at Mount Sinai	93.286	5R01EB030549-02	35,684	-
Icahn School of Medicine at Mount Sinai	93.393	5R01CA203193-05	585	-
Icahn School of Medicine at Mount Sinai	93.393	5R01CA260889-02	80,576	-
Icahn School of Medicine at Mount Sinai	93.837	5P01HL131478-05	(38,812)	-
Icahn School of Medicine at Mount Sinai	93.837	5R01HL144072-04	81,266	-
Icahn School of Medicine at Mount Sinai	93.837	5R01HL147328-03	80,899	-
Icahn School of Medicine at Mount Sinai	93.837	5U01HL088942-14	14,778	-
Icahn School of Medicine at Mount Sinai	93.837	5U01HL088942-15	50,904	-
Icahn School of Medicine at Mount Sinai	93.853	1RF1NS115268-01	81,168	-
Icahn School of Medicine at Mount Sinai	93.853	1U01NS125580-01	11,329	-
Icahn School of Medicine at Mount Sinai	93.853	5U01NS107016-04	167,494	-
Icahn School of Medicine at Mount Sinai	93.866	5P01AG066605-02	59,660	-
Icahn School of Medicine at Mount Sinai	93.866	5R01AG052557-05	3	-
Icahn School of Medicine at Mount Sinai	93.866	5R01AG053509-05	269,082	-
Icahn School of Medicine at Mount Sinai	93.867	1R21EY032522-01	53,485	-

Research and Development Continued Ican'n School of Medicine all Mount Sinal Ican'n School of Medicine all Mo	Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Scalm School of Medicine at Mount Sinal 93.867 \$601EY015473-17 232.989 can's School of Medicine at Mount Sinal 33.678 can's School of Medicine at Mount Sinal 32.783 can's School Medicine (Can's School Medicine) can's School Medicine (Can's School Medicine) can's School Medicine (Can's School Medicine) can's School Med	Research and Development Continued				
Learn School of Medicine at Mount Sinal 93.867 570.11 (**9032559-0.02 22 (Icahn School of Medicine at Mount Sinai	93.867	2R01EY015473-14A1	14,303	-
Integrated Bio Therapeutics	Icahn School of Medicine at Mount Sinai	93.867	5R01EY015473-17	232,989	-
Inlation Optics International Agency for Research on Cancer Infernational Agency for Infernational Infernati	Icahn School of Medicine at Mount Sinai	93.867	5R01EY032559-02	221,640	-
International Agency for Research on Cancer International Agency for Research International Agency for International Agency International Agency for Research International Agency	Integrated BioTherapeutics	93.855	1R43AI136143	32,783	-
International Agency for Research on Cancer 93.310	Intelon Optics	93.867	2R42EY028820-02	95,820	-
O Medical Imaging LC 93.344	International Agency for Research on Cancer	93.273	5R01AA024770-04	120	-
Jackson Laboratory Jackson Labor	International Agency for Research on Cancer	93.310	7U19CA203654	46,095	-
Jackson Laborationy Jackson Laborationy Jackson Left For Health Research Jack Center for Health Research Jank & Sanford I. Well Medicial College of Cornell University Joan & Sanford I. Well Medicial College of Cornell University Joan & Sanford I. Well Medicial College of Cornell University Joan & Sanford I. Well Medicial College of Cornell University Joan & Sanford I. Well Medicial College of Cornell University Joan & Sanford I. Well Medicial College of Cornell University Joan & Sanford I. Well Medicial College of Cornell University Joan & Sanford I. Well Medicial College of Cornell University Joan & Sanford I. Well Medicial College of Cornell University Joan & Sanford I. Well Medicial College of Cornell University Joan & Sanford I. Well Medicial College of Cornell University Joan & Sanford I. Well Medicial College of Cornell University Joan & Sanford I. Well Medicial College of Cornell University Joan & Sanford I. Well Medicial College of Cornell University Joan & Sanford I. Well Medicial College of Cornell University Joan & Sanford I. Well Medicial College of Cornell University Joan & Sanford I. Well Medicial College of Cornell University Joan & Sanford I. Well Medicial College of Cornell University Joan & Sanford I. Well Medicial College of Cornell University Johns Hopkins	IQ Medical Imaging LLC	93.394	2R42CA192600-02	41,390	-
Jaeb Center for Health Research 93.867 1UG1EY030030-01A1 6,778 - 1 Joan & Sanford I. Weill Medical College of Cornell University 93.833 1R61HL155011-01 72.555 - 2 Joan & Sanford I. Weill Medical College of Cornell University 93.838 1R61HL155011-01 72.555 - 3 Joan & Sanford I. Weill Medical College of Cornell University 93.838 5P01HL114501-06A1 89.699 - 2 Joan & Sanford I. Weill Medical College of Cornell University 93.838 5P01HL114501-07 626.280 - 3 Joan & Sanford I. Weill Medical College of Cornell University 93.838 5P01HL114501-07 626.280 - 3 Joan & Sanford I. Weill Medical College of Cornell University 93.835 5UHA10263-05 135.674 - 3 Johns Hopkins University 93.172 5U24HG010263-05 135.674 - 3 Johns Hopkins University 93.344 5U1CA230691-02 (861) - 3 Johns Hopkins University 93.394 5U1CA230691-02 (861) - 3 Johns Hopkins University 93.838 5P01HL160008-02 13.993 - 3 Johns Hopkins University 93.848 SP01HL160008-02 13.993 - 3 Johns Hopkins University 93.846 SU1A3007360-03 37.999 - 3 Johns Hopkins University 93.847 5P01DK124782-03 325.237 - 3 Johns Hopkins University 93.855 UMIA1086832-15 28.767 - 3 Johns Hopkins University 93.855 2UMIA1086832-15 28.767 - 3 Johns Hopkins University 93.855 2UMIA1086832-15 28.767 - 3 Johns Hopkins University 93.855 2UMIA1086832-15 22.768 - 3 Johns Hopkins University 93.855 30.01A113697-03 35.477 - 3 Johns Hopkins University 93.855 30.01A113697-03 37.22 Johns Hopkins University 93.855 5U0M1A1086803-16 35.477 - 3 Johns Hopkins University 93.855 5U0M1A1086803-16 36.072 39.886 30.072 39.886 30	Jackson Laboratory	93.172	5U24HG007497-08	238,360	-
Jana R Sanford I. Weill Medical College of Cornell University 93.383 1801 (CA260552-01 113.664 -	Jackson Laboratory	93.172	5U24HG011735-02	86,053	-
Joan & Sanford I. Weill Medical College of Cornell University 93.838 1R61HL 153011-01 72,595 - Joan & Sanford I. Weill Medical College of Cornell University 93.838 2P01HL 114501-06A1 89,699 - Joan & Sanford I. Weill Medical College of Cornell University 93.838 SP01HL 114501-07 626,280 - Johns Hopkins University 93.838 SP01HL 114501-07 626,280 - Johns Hopkins University 93.772 524HG011028-05 13,5074 - Johns Hopkins University 93.772 524HG011028-05 13,5074 - Johns Hopkins University 93.939 501016230981-02 (8611) - Johns Hopkins University 93.939 501016230981-02 (900000000000000000000000000000000000	Jaeb Center for Health Research	93.867	1UG1EY030030-01A1	6,778	-
Joan & Sanford I. Welli Medical College of Cornell University 38.888 ZPO1HL.114501-06A1 89.699 2	Joan & Sanford I. Weill Medical College of Cornell University	93.393	1R01CA260352-01	113,664	-
Joan & Sanford I. Weill Medical College of Cornell University 33.838 SP01HL114501-07 626.280 - 5 Joan & Sanford I. Weill Medical College of Cornell University 33.872 5U24HG010263-05 135.674 - 5 Johns Hopkins University 33.172 5U24HG010263-05 135.674 - 7 Johns Hopkins University 33.242 SP50MH115842-03 13.003 - 7 Johns Hopkins University 33.395 5UMCA137443-10 (3.834) - 7 Johns Hopkins University 33.395 5UMCA137443-10 (3.834) - 7 Johns Hopkins University 33.836 SP01HL16008-02 103.993 - 7 Johns Hopkins University 33.846 5UH3AR077360-03 37,959 - 7 Johns Hopkins University 33.846 5UH3AR077360-03 37,959 - 7 Johns Hopkins University 33.855 1UMA164566-01 121.278 - 7 Johns Hopkins University 33.855 1UMA164566-01 121.278 - 7 Johns Hopkins University 33.855 2UM141086832-16 35.477 - 7 Johns Hopkins University 33.855 5UJ01A112620-05 2.296 - 7 Johns Hopkins University 33.855 5UJ01A112620-05 2.296 - 7 Johns Hopkins University 33.855 5UJ01A112630-03 35.237 - 7 Johns Hopkins University 33.855 5UJ01A1136832-16 35.477 - 7 Johns Hopkins University 33.855 5UJ01A1136832-16 35.477 - 7 Johns Hopkins University 33.855 5UJ01A11368032-16 35.477 - 7 Johns Hopkins University 33.855 5UJ01A1136809-03 6.072 - 7 Johns Hopkins University 33.855 5UJ01A1136809-03 6.072 - 7 Johns Hopkins University 33.855 5UJ01A1136809-03 13.4400 - 7 Johns Hopkins University 33.855 5UJ01A1136809-03 134.400 - 7 Johns Hopkins University 33.856 5UJ01A1138809-03 134.400 - 7 Johns Hopkins University 34.866 5UJ01A138809-03 134.400 - 7 Johns Hopkins University 34.866 5UJ01A138809-03 134.400 - 7 Johns Hopkins University 34.866 5UJ01A138809-03 134.400 - 7	Joan & Sanford I. Weill Medical College of Cornell University	93.838	1R61HL153011-01	72,595	-
Joan & Sanford I. Weill Medical College of Cornell University 93.853 5.UH3NSQ95554-0.5 46.742 - Johns Hopkins University 93.172 5.U24HG010283-0.5 135,674 - Johns Hopkins University 93.242 5.P50MH115842-0.3 13,003 - Johns Hopkins University 93.345 5.U01CA230691-0.2 (861) - Johns Hopkins University 93.845 5.U01CA37443-10 (3.834) - Johns Hopkins University 93.845 5.U01CA37443-10 (3.894) - Johns Hopkins University 93.845 5.U01CA37443-10 (3.894) - Johns Hopkins University 93.845 5.U01CA37443-0.3 (3.7959 - Johns Hopkins University 93.845 5.U01CA37482-0.3 (3.25.237 - Johns Hopkins University 93.855 1.UMA164656-0.1 (2.12.78 - Johns Hopkins University 93.855 1.UMA164656-0.1 (2.12.78 - Johns Hopkins University 93.855 5.U01CA178229-0.5 (2.296 - Johns Hopkins University 93.855 5.U01CA178229-0.5 (2.296 - Johns Hopkins University 93.855 5.U01CA178229-0.5 (2.296 - Johns Hopkins University 93.855 5.U01CA178829-0.4 (2.145 - Johns Hopkins University 93.855 5.U01CA178829-0.4 (2.145 - Johns Hopkins University 93.855 5.U01CA178829-0.4 (2.145 - Johns Hopkins University 93.855 5.U01CA178829-0.2 (2.290.14 - Johns Hopkins University 93	Joan & Sanford I. Weill Medical College of Cornell University	93.838	2P01HL114501-06A1	89,699	-
Johns Hopkins University 93.242 5P50MH115842-03 13,003 - Johns Hopkins University 93.245 5P50MH115842-03 13,003 - Johns Hopkins University 93.394 5U01CA230691-02 (861) - Johns Hopkins University 93.395 5UM1CA137443-10 (3,834) - Johns Hopkins University 93.395 5UM1CA137443-10 (3,834) - Johns Hopkins University 93.836 5P0MH115808-02 130,393 - Johns Hopkins University 93.846 5UH3AR077360-03 37,959 - Johns Hopkins University 93.847 5P0DK124782-03 325,237 - Johns Hopkins University 93.855 1UMA1164566-01 121,278 - Johns Hopkins University 93.855 2UM1A086832-15 28,767 - Johns Hopkins University 93.855 2UM1A086832-16 35,477 - Johns Hopkins University 93.855 5UM1A1268032-16 35,477 - Johns Hopkins University 93.855 5UM1A1268032-16 35,477 - Johns Hopkins University 93.855 5UM1A1268032-16 22,296 - Johns Hopkins University 93.855 5UM1A1268032-16 22,296 - Johns Hopkins University 93.855 5UM1A1268032-16 22,296 - Johns Hopkins University 93.855 5UM1A134591-04 12,145 - Johns Hopkins University 93.855 5UM2A130836-06 13,032,889 - Johns Hopkins University 93.865 FR01AG049872-05 12,126 - Johns Hopkins University 93.866 5R01AG049872-05 12,126 - Johns Hopkins University 93.866 5R01AG050510-05 19,816 - Johns Hopkins University 93.867 7UC1EY028096-02 (333) - Johns Hopkins University 93.867 7UC1EY028096-02 (333) - Johns Hopkins University 93.867 7UC1EY028096-02 (333) - Johns Hopkins University 93.867 R01AL161888-01 48,363 - Johns Hopkins University 93.867 FR01AG050510-05 19,816 - Joslin Diabetes Center 93.847 FR01K16188-01 48,363 - Joslin Diabetes Center 93.847 FR01K16183-0541 11,988 - Joslin Diabetes Center 93.847 FR01K16183-0541 11,988 - Joslin Diabe	Joan & Sanford I. Weill Medical College of Cornell University	93.838	5P01HL114501-07	626,280	-
Johns Hopkins University 93.242 5P50MH115842-03 13.003 - Johns Hopkins University 93.394 5U01CA230691-02 (861) - Johns Hopkins University 93.395 5UM1CA137443-10 (3.834) - Johns Hopkins University 93.838 5R01HL (6008-02 103.993 - Johns Hopkins University 93.838 5R01HL (6008-02 103.993 - Johns Hopkins University 93.847 5R01DK124782-03 32.5237 - Johns Hopkins University 93.847 5R01DK124782-03 32.5237 - Johns Hopkins University 93.855 UMA164566-01 121.278 - Johns Hopkins University 93.855 UMA164566-01 121.278 - Johns Hopkins University 93.855 UMA168632-15 28.767 - Johns Hopkins University 93.855 2UM140068632-15 28.767 - Johns Hopkins University 93.855 5U01A1125290-05 2.296 - Johns Hopkins University 93.855 5U01A1136897-03 6.072 - Johns Hopkins University 93.855 5U01A138897-03 6.072 - Johns Hopkins University 93.855 5U01A138897-03 6.072 - Johns Hopkins University 93.855 5U01A138897-03 6.072 29.20.14 - Johns Hopkins University 93.856 5R01A00330-06 6.072 29.20.14 - Johns Hopkins University 93.856 5R01A00330-06 6.072 29.20.14 - Johns Hopkins University 93.866 5R01A0053100-05 19.816 - Johns Hopkins University 93.866 5R01A0053100-05 19.816 - Johns Hopkins University 93.867 7UG1EY028096-02 (393) - Johns Hopkins University 93.867 7UG1EY028096-02 (393) - Johns Hopkins University 93.867 7UG1EY028096-02 (393) - Johns Hopkins University 93.867 7UG1EY028096	Joan & Sanford I. Weill Medical College of Cornell University	93.853	5UH3NS095554-05	46,742	-
Johns Hopkins University	Johns Hopkins University	93.172	5U24HG010263-05	135,674	-
Johns Hopkins University 93.395 SUM1CA137443-10 (3.834) - Johns Hopkins University 93.836 SR01HL160008-02 103.993 - Johns Hopkins University 93.846 SUH3AR077360-03 37,959 - Johns Hopkins University 93.847 SR01DK124782-03 325,237 - Johns Hopkins University 93.855 UMAI164666-01 121.278 - Johns Hopkins University 93.855 2UM1A008632-15 28,767 - Johns Hopkins University 93.855 SU1MAI1686632-16 35,477 - Johns Hopkins University 93.855 SU1MAI1686632-16 35,477 - Johns Hopkins University 93.855 SU1MAI1686932-16 35,477 - Johns Hopkins University 93.855 SU1MAI1686932-16 35,477 - Johns Hopkins University 93.855 SU1MAI14591-04 12,145 - Johns Hopkins University 93.855 SU1MAI14591-04 12,145 - Johns Hopkins University 93.855 SU1MAI14591-04 12,145 - Johns Hopkins University 93.855 SU1MAI13897-03 6,072 29,014 - Johns Hopkins University 93.855 SUMAI130830-66 1,032,889 - Johns Hopkins University 93.855 SUMAI130830-66 1,032,889 - Johns Hopkins University 93.855 SUMAIN3080-6 1,032,889 - Johns Hopkins University 93.855 SUMAIN3080-6 1,032,889 - Johns Hopkins University 93.856 SUMAIN3080-6 1,032,889 - Johns Hopkins University 93.866 SR01AG053100-05 19,816 - Johns Hopkins University 93.866 SR01AG053100-05 19,816 - Johns Hopkins University 93.867 SR01AG050515 5 225,209 - Johns Hopkins University 93.867 R01HL161856-01 40.463 - Johns Hopkins University 93.867 R01HL161856-01 40.463 - Johns Hopkins University 93.867 R01HL161856-01 40.463 - Johns Hopkins University 40.668 SR01AG050515 5 225,209 - Johns Hopkins University 93.867 R01HL161856-01 40.463 - Johns Hopkins University 40.668 SR01AG050515 5 225,209 - Johns Hopkins Univer	Johns Hopkins University	93.242	5P50MH115842-03	13,003	-
Johns Hopkins University 93.838 5R01HL160008-02 103,993 3 3 3 3 3 3 3 3 3	Johns Hopkins University	93.394	5U01CA230691-02	(861)	-
Johns Hopkins University 93.846 SUH3AR077360-03 37,959 - Johns Hopkins University 93.847 5R01DK124782-03 325,237 - Johns Hopkins University 93.855 1UMA164566-01 121,278 - Johns Hopkins University 93.855 2UM1A1086632-15 28,767 - Johns Hopkins University 93.855 2UM1A108632-16 35,477 - Johns Hopkins University 93.855 2UM1A108632-16 35,477 - Johns Hopkins University 93.855 5U01Al125290-05 2,296 - Johns Hopkins University 93.855 5U01Al125290-05 2,296 - Johns Hopkins University 93.855 5U01Al134691-04 12,145 - Johns Hopkins University 93.855 5U01Al134691-04 12,145 - Johns Hopkins University 93.855 5U01Al13897-03 6,072 - Johns Hopkins University 93.855 5U01Al138997-03 6,072 - Johns Hopkins University 93.855 5U01Al138997-03 6,072 - Johns Hopkins University 93.855 5U01Al138997-03 6,072 - Johns Hopkins University 93.855 5U01Al138690-02 23,988 - Johns Hopkins University 93.855 5U01Al138690 93.722 - Johns Hopkins University 93.865 7R01Al144983-03 134,400 - Johns Hopkins University 93.866 5R01AG053100-05 12,126 - Johns Hopkins University 93.866 5R01AG053100-05 19,816 - Johns Hopkins University 93.866 5R01AG053100-05 19,816 - Johns Hopkins University 93.867 7UG1EV028096-02 (393) - Johns Hopkins University 93.867 7UG1EV028096-02	Johns Hopkins University	93.395	5UM1CA137443-10	(3,834)	-
Johns Hopkins University 93.857 1UMAI164566-01 121,278 -	Johns Hopkins University	93.838	5R01HL160008-02	103,993	-
Johns Hopkins University	Johns Hopkins University	93.846	5UH3AR077360-03	37,959	-
Johns Hopkins University	Johns Hopkins University	93.847	5R01DK124782-03	325,237	-
Johns Hopkins University	Johns Hopkins University	93.855	1UMAI164566-01	121,278	-
Johns Hopkins University	Johns Hopkins University	93.855	2UM1AI068632-15	28,767	-
Johns Hopkins University	Johns Hopkins University	93.855	2UM1AI068632-16	35,477	-
Johns Hokins University 93.855 5U01Al138897-03 6,072 - Johns Hopkins University 93.855 5U19Al159822-02 292,014 - Johns Hopkins University 93.855 5UM2Al130836-06 1,032,888 - Johns Hopkins University 93.855 5UM2Al130836-06 1,032,888 - Johns Hopkins University 93.855 7R01Al144983-03 134,400 - Johns Hopkins University 93.855 UH3Al133669 93,722 - Johns Hopkins University 93.866 5R01AG049872-05 12,126 - Johns Hopkins University 93.866 5R01AG053100-05 19,816 - Johns Hopkins University 93.867 7UG1EY028096-02 (393) - Johns Hopkins University School of Medicine 93.867 7UG1EY028096-02 (393) - Joslin Diabetes Center 93.837 1R01HL161858-01 48,363 - Joslin Diabetes Center 93.847 2R01DK106193-05A1 17,576 - Joslin Diabetes Center 93.847 3R01DK0770	Johns Hopkins University	93.855	5U01AI125290-05	2,296	-
Johns Hopkins University 93.855 5U19Al159822-02 292,014 - Johns Hopkins University 93.855 5UM1Al164566-02 23,988 - Johns Hopkins University 93.855 5UM2Al130836-06 1,032,889 - Johns Hopkins University 93.855 7R01Al144983-03 134,400 - Johns Hopkins University 93.855 UH3Al133669 93,722 - Johns Hopkins University 93.866 5R01AG049872-05 12,126 - Johns Hopkins University 93.866 5R01AG053100-05 19,816 - Johns Hopkins University 93.867 7UG1EY028096-02 (393) - Johns Hopkins University School of Medicine 93.866 5R01AG050515 05 225,209 - Joslin Diabetes Center 93.837 1R01HL161858-01 48,363 - Joslin Diabetes Center 93.847 2R01DK106193-05A1 175,576 - Joslin Diabetes Center 93.847 3R01DK077097-13S1 11,998 - Joslin Diabetes Center 93.847 3R01DK07	Johns Hopkins University	93.855	5U01Al134591-04	12,145	-
Johns Hopkins University 93.855 5UM1Al164566-02 23,988 - Johns Hopkins University 93.855 5UM2Al130836-06 1,032,889 - Johns Hopkins University 93.855 7R01Al144983-03 134,400 - Johns Hopkins University 93.855 UH3Al133669 93,722 - Johns Hopkins University 93.866 5R01AG049872-05 12,126 - Johns Hopkins University 93.866 5R01AG053100-05 19,816 - Johns Hopkins University 93.867 7UG1EY028096-02 (393) - Johns Hopkins University School of Medicine 93.866 5R01AG050515 05 225,209 - Joslin Diabetes Center 93.837 1R01HL161868-01 48,363 - Joslin Diabetes Center 93.847 2R01DK106193-05A1 40,463 - Joslin Diabetes Center 93.847 3R01DK077097-13S1 11,998 - Joslin Diabetes Center 93.847 5R01DK125677-02 15,710 -	Johns Hopkins University	93.855	5U01Al138897-03	6,072	-
Johns Hopkins University 93.855 5UM2Al130836-06 1,032,889 - Johns Hopkins University 93.855 7R01Al144983-03 134,400 - Johns Hopkins University 93.855 UH3Al133669 93,722 - Johns Hopkins University 93.866 5R01AG049872-05 12,126 - Johns Hopkins University 93.866 5R01AG053100-05 19,816 - Johns Hopkins University School of Medicine 93.867 7UG1EY028096-02 (393) - Joslin Diabetes Center 93.837 1R01HL161886-01 48,363 - Joslin Diabetes Center 93.837 R01HL161864-01 40,463 - Joslin Diabetes Center 93.847 2R01DK106193-05A1 175,576 - Joslin Diabetes Center 93.847 3R01DK077097-13S1 11,998 - Joslin Diabetes Center 93.847 5R01DK125677-02 15,710 -	Johns Hopkins University	93.855	5U19Al159822-02	292,014	-
Johns Hopkins University 93.855 7R01Al144983-03 134,400 - Johns Hopkins University 93.855 UH3Al133669 93,722 - Johns Hopkins University 93.866 5R01AG049872-05 12,126 - Johns Hopkins University 93.866 5R01AG053100-05 19,816 - Johns Hopkins University 93.867 7UG1EY028096-02 (393) - Johns Hopkins University School of Medicine 93.866 5R01AG050515 05 225,209 - Joslin Diabetes Center 93.837 1R01HL161858-01 48,363 - Joslin Diabetes Center 93.847 2R01DK106193-05A1 175,576 - Joslin Diabetes Center 93.847 3R01DK077097-13S1 11,998 - Joslin Diabetes Center 93.847 5R01DK125677-02 15,710 -	Johns Hopkins University	93.855	5UM1AI164566-02	23,988	-
Johns Hopkins University 93.855 UH3Al133669 93,722 - Johns Hopkins University 93.866 5R01AG049872-05 12,126 - Johns Hopkins University 93.866 5R01AG053100-05 19,816 - Johns Hopkins University 93.867 7UG1EY028096-02 (393) - Johns Hopkins University School of Medicine 93.866 5R01AG050515 05 225,209 - Joslin Diabetes Center 93.837 1R01HL161858-01 48,363 - Joslin Diabetes Center 93.837 R01HL161864-01 46,463 - Joslin Diabetes Center 93.847 2R01DK106193-05A1 175,576 - Joslin Diabetes Center 93.847 3R01DK077097-13S1 11,998 - Joslin Diabetes Center 93.847 5R01DK125677-02 15,710 -	Johns Hopkins University	93.855	5UM2AI130836-06	1,032,889	-
Johns Hopkins University 93.866 5R01AG049872-05 12,126 - Johns Hopkins University 93.866 5R01AG053100-05 19,816 - Johns Hopkins University 93.867 7UG1EY028096-02 (393) - Johns Hopkins University School of Medicine 93.866 5R01AG050515 05 225,209 - Joslin Diabetes Center 93.837 1R01HL161858-01 48,363 - Joslin Diabetes Center 93.837 R01HL161864-01 46,463 - Joslin Diabetes Center 93.847 2R01DK106193-05A1 175,576 - Joslin Diabetes Center 93.847 3R01DK077097-13S1 11,998 - Joslin Diabetes Center 93.847 5R01DK125677-02 15,710 -	Johns Hopkins University	93.855	7R01AI144983-03	134,400	-
Johns Hopkins University 93.866 5R01AG053100-05 19,816 - Johns Hopkins University 93.867 7UG1EY028096-02 (393) - Johns Hopkins University School of Medicine 93.866 5R01AG050515 05 225,209 - Joslin Diabetes Center 93.837 1R01HL161858-01 48,363 - Joslin Diabetes Center 93.837 R01HL161864-01 40,463 - Joslin Diabetes Center 93.847 2R01DK106193-05A1 175,576 - Joslin Diabetes Center 93.847 3R01DK077097-13S1 11,998 - Joslin Diabetes Center 93.847 5R01DK125677-02 15,710 -	Johns Hopkins University	93.855	UH3AI133669	93,722	-
Johns Hopkins University 93.867 7UG1EY028096-02 (393) - Johns Hopkins University School of Medicine 93.866 5R01AG050515 05 225,209 - Joslin Diabetes Center 93.837 1R01HL161858-01 48,363 - Joslin Diabetes Center 93.837 R01HL161864-01 40,463 - Joslin Diabetes Center 93.847 2R01DK106193-05A1 17,576 - Joslin Diabetes Center 93.847 3R01DK077097-13S1 11,998 - Joslin Diabetes Center 93.847 5R01DK125677-02 15,710 -	Johns Hopkins University	93.866	5R01AG049872-05	12,126	-
Johns Hopkins University School of Medicine 93.866 5R01AG050515 05 225,209 - Joslin Diabetes Center 93.837 1R01HL161858-01 48,363 - Joslin Diabetes Center 93.837 R01HL161864-01 40,463 - Joslin Diabetes Center 93.847 2R01DK106193-05A1 175,576 - Joslin Diabetes Center 93.847 3R01DK077097-13S1 11,998 - Joslin Diabetes Center 93.847 5R01DK125677-02 15,710 -	Johns Hopkins University	93.866	5R01AG053100 <u>-</u> 05	19,816	-
Joslin Diabetes Center 93.837 1R01HL161858-01 48,363 - Joslin Diabetes Center 93.837 R01HL161864-01 40,463 - Joslin Diabetes Center 93.847 2R01DK106193-05A1 175,576 - Joslin Diabetes Center 93.847 3R01DK077097-13S1 11,998 - Joslin Diabetes Center 93.847 5R01DK125677-02 15,710 -	Johns Hopkins University	93.867	7UG1EY028096-02	(393)	-
Joslin Diabetes Center 93.837 R01HL161864-01 40,463 - Joslin Diabetes Center 93.847 2R01DK106193-05A1 175,576 - Joslin Diabetes Center 93.847 3R01DK077097-13S1 11,998 - Joslin Diabetes Center 93.847 5R01DK125677-02 15,710 -	Johns Hopkins University School of Medicine	93.866	5R01AG050515 05	225,209	-
Joslin Diabetes Center 93.847 2R01DK106193-05A1 175,576 - Joslin Diabetes Center 93.847 3R01DK077097-13S1 11,998 - Joslin Diabetes Center 93.847 5R01DK125677-02 15,710 -	Joslin Diabetes Center	93.837	1R01HL161858-01	48,363	-
Joslin Diabetes Center 93.847 3R01DK077097-13S1 11,998 - Joslin Diabetes Center 93.847 5R01DK125677-02 15,710 -	Joslin Diabetes Center	93.837	R01HL161864-01	40,463	-
Joslin Diabetes Center 93.847 5R01DK125677-02 15,710 -	Joslin Diabetes Center	93.847	2R01DK106193-05A1	175,576	-
	Joslin Diabetes Center	93.847	3R01DK077097-13S1	11,998	-
Joslin Diabetes Center 93.847 5U01DK114156-04 19,224 -	Joslin Diabetes Center	93.847	5R01DK125677-02	15,710	-
	Joslin Diabetes Center	93.847	5U01DK114156-04	19,224	-

luster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
Joslin Diabetes Center	93.847	5U01DK116102-04	8,511	-
Joslin Diabetes Center	93.847	R01DK121995	72,941	-
Joslin Diabetes Center	93.847	R01DK122808	257,092	-
Joslin Diabetes Center	93.847	U01DK114156	25,954	-
Joslin Diabetes Center	93.866	3P30DK036836-34S2	12,926	_
Kaiser Foundation Research Institute	93.393	R01CA241623	77,554	_
Kaiser Foundation Research Institute	93.847	2R01DK085070	172	_
Kaiser Permanente Division of Research	93.396	R01CA251589	241,730	_
King's College London	93.242	5R01MH114708-05	226,164	_
Kitware	93.286	2R01EB014955-05	4,313	_
La Jolla Institute for Immunology	93.855	5U19AI142790-04	180,859	_
London School of Hygiene & Tropical Medicine	93.242	7R01MH115504-02	25,723	_
Ludwig Institute for Cancer Research	93.310	5R01NS112503-03	357,291	_
Lumicell	93.394	5R44CA211013-02	(17,989)	_
Masonic Medical Research Institute	93.837	R01HL102368-09	64,026	_
Mass General Brigham	93.866	5U54AG063546-02	(1,100)	_
Massachusetts Eye and Ear Infirmary	93.173	1P50DC019900-01	45,007	_
Massachusetts Eye and Ear Infirmary	93.173	1U01DC019279-01	72,961	_
Massachusetts Eye and Ear Infirmary	93.173	1U01DC019279-02	141,410	_
Massachusetts Eye and Ear Infirmary	93.173	2R01DC011805-12A1	8,998	_
Massachusetts Eye and Ear Infirmary	93.173	5R01DC011805-11	68,684	
Massachusetts Eye and Ear Infirmary	93.173	5U01DC019279-02	84,286	-
Massachusetts Eye and Ear Infirmary	93.173	R01DC019279-02	140,626	-
Massachusetts Eye and Ear Infirmary Massachusetts Eye and Ear Infirmary	93.855	5P01Al083214-13	431,928	-
Massachusetts Eye and Ear Infirmary Massachusetts Eye and Ear Infirmary	93.867	1R01EY031708-01A1	49,917	-
Massachusetts Eye and Ear Infirmary Massachusetts Eye and Ear Infirmary	93.867	2R01EY020928-10	2,850	-
Massachusetts Eye and Ear Infirmary Massachusetts Eye and Ear Infirmary	93.867	5R01EY019703-12	15,069	-
Massachusetts Eye and Ear Infirmary Massachusetts Eye and Ear Infirmary	93.867	5R01EY020928-09	3,396	-
Massachusetts Eye and Ear Infirmary Massachusetts Eye and Ear Infirmary	93.867	5R01EY029269-09 5R01EY029269-02	121,945	-
Massachusetts Eye and Ear Infirmary Massachusetts Eye and Ear Infirmary	93.867	5R01E1029209-02 5R01EY029437-03	(17,341)	-
Massachusetts Eye and Ear Infirmary Massachusetts Eye and Ear Infirmary	93.867	5R01EY031300-03	16,022	-
Massachusetts General Hospital	93.007	1R01DE027989-01A1	5,469	-
·	93.121	5UM1HG012010-02	534,353	-
Massachusetts General Hospital	93.172	5P01AT009965-04	378,184	-
Massachusetts General Hospital	93.243		67,193	-
Massachusetts General Hospital		2R56MH091448-11A1	,	-
Massachusetts General Hospital	93.242	3R01MH112737-04S1	(2,629)	-
Massachusetts General Hospital	93.242	5R01MH102279-05	7,337	-
Massachusetts General Hospital	93.242	5R01MH113930-05	7,224	-
Massachusetts General Hospital	93.242	5R01MH116205-04	189,648	-
Massachusetts General Hospital	93.273	5R33AA025192-05	24,974	-
Massachusetts General Hospital	93.279	5R61DA047034-03	118,156	-
Massachusetts General Hospital	93.286	1R01EB031008-02	149,478	-
Massachusetts General Hospital	93.310	1U01EB028899-01	173,435	-
Massachusetts General Hospital	93.310	3OT2OD026553-01S4	3,118,876	-
Massachusetts General Hospital	93.393	5R01CA218123-05	11,188	-
Massachusetts General Hospital	93.393	5U01CA225451-04	77,568	-

Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
Massachusetts General Hospital	93.394	1R01CA265742-01	293,794	-
Massachusetts General Hospital	93.394	5R01CA203873-05	14,545	-
Massachusetts General Hospital	93.394	5R01CA215431-05	56,932	-
Massachusetts General Hospital	93.394	5R01CA227156-04	45,000	-
Massachusetts General Hospital	93.394	5U01CA233360-03	257,465	-
Massachusetts General Hospital	93.395	5P01CA069246-24	263,454	-
Massachusetts General Hospital	93.395	5R01CA227821-05	176,918	-
Massachusetts General Hospital	93.837	1R01HL149516-01A1	(773)	-
Massachusetts General Hospital	93.837	1R01HL149647-01A1	18,695	-
Massachusetts General Hospital	93.837	1R01HL163234-01	26,772	-
Massachusetts General Hospital	93.837	1U01HL160278-01	190,165	-
Massachusetts General Hospital	93.837	5R01HL130539-05	(2,121)	-
Massachusetts General Hospital	93.837	5R01HL133149-05	2,704	-
Massachusetts General Hospital	93.837	5R01HL137562-04	23,586	-
Massachusetts General Hospital	93.837	5R01HL140498-05	71,504	-
Massachusetts General Hospital	93.837	5R01HL141053-04	18,272	-
Massachusetts General Hospital	93.837	5R01HL141917-04	193,720	-
Massachusetts General Hospital	93.837	5R01HL146267-03	75,475	-
Massachusetts General Hospital	93.837	5R01HL151293-03	164,502	-
Massachusetts General Hospital	93.837	5R01HL151643-03	109,826	-
Massachusetts General Hospital	93.837	5U01HL123336-04	11,816	-
Massachusetts General Hospital	93.837	5U01HL123336-06	111,636	-
Massachusetts General Hospital	93.838	4UH3HL140177-03	31,850	-
Massachusetts General Hospital	93.838	5R01HL154549-02	29,988	-
Massachusetts General Hospital	93.838	5UG3HL140177-03	40,536	-
Massachusetts General Hospital	93.839	5R01HL137913-04	(19,665)	-
Massachusetts General Hospital	93.846	1R03AR078938-01	41,684	-
Massachusetts General Hospital	93.846	5P30AR075042-02	12,091	-
Massachusetts General Hospital	93.846	5P30AR075042-03	12,281	-
Massachusetts General Hospital	93.846	5R01AR077023-03	11,206	-
Massachusetts General Hospital	93.846	5R34AR076077-02	34,330	-
Massachusetts General Hospital	93.847	3P30DK040561-24S1	(76)	-
Massachusetts General Hospital	93.847	5P30DK040561-24	25,903	-
Massachusetts General Hospital	93.847	5P30DK040561-25	62,480	-
Massachusetts General Hospital	93.847	5R01DK049302-24	82,825	-
Massachusetts General Hospital	93.847	5R01DK101495-08	113,762	-
Massachusetts General Hospital	93.847	5R01DK105072-05	8,986	-
Massachusetts General Hospital	93.847	5R01DK107972-05	(107)	-
Massachusetts General Hospital	93.847	5R01DK124145-03	36,735	-
Massachusetts General Hospital	93.847	5R01DK124223-02	26,287	-
Massachusetts General Hospital	93.853	1OT2NS122680-01	19,470	-
Massachusetts General Hospital	93.853	1R61NS117210-01A1	20,879	-
Massachusetts General Hospital	93.853	5R01NS062092-08	61,331	-
Massachusetts General Hospital	93.853	5R01NS095937-03	43	-

Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
Massachusetts General Hospital	93.853	5R01NS102574-05	12,612	-
Massachusetts General Hospital	93.853	5R01NS103924-04	212,630	-
Massachusetts General Hospital	93.853	5U19NS115388-04	86,985	-
Massachusetts General Hospital	93.853	5U24NS107154-05	39,634	-
Massachusetts General Hospital	93.853	5U24NS107243-02	8,383	-
Massachusetts General Hospital	93.853	5U24NS107243-05	(45)	-
Massachusetts General Hospital	93.853	5U24NS113850-04	214,205	-
Massachusetts General Hospital	93.853	U01NS114001	13,882	-
Massachusetts General Hospital	93.855	1R01Al155171-02	168,046	-
Massachusetts General Hospital	93.855	1R01Al155662-01	138,776	-
Massachusetts General Hospital	93.855	2R01AI042006-24	56,903	-
Massachusetts General Hospital	93.855	2R01AI042006-25	74,817	-
Massachusetts General Hospital	93.855	5R37AI058736-17	48,957	-
Massachusetts General Hospital	93.855	5U01AI136816-04	17,771	-
Massachusetts General Hospital	93.855	5U01AI163086-02	28,529	-
Massachusetts General Hospital	93.865	1R01HD105266-01	81,039	-
Massachusetts General Hospital	93.865	1R01HD107064-01	109,120	_
Massachusetts General Hospital	93.865	5R01HD091067-05	320,609	_
Massachusetts General Hospital	93.865	5R61HD103099-02	2,782	_
Massachusetts General Hospital	93.866	1R01AG067019-01	67,529	_
Massachusetts General Hospital	93.866	1RF1AG067744-01	65,163	_
Massachusetts General Hospital	93.866	1RF1AG074008-01	26,804	_
Massachusetts General Hospital	93.866	5R01AG054081-05	30,008	
Massachusetts General Hospital	93.866	5R01AG062667-03	83,291	
Massachusetts General Hospital	93.866	5R01AG071865-02	427,714	
Massachusetts General Hospital	93.866	7R01AG065254-02	19,287	
Massachusetts General Hospital	93.867	5R01EY029544-03	165.884	
Massachusetts Institute of Technology	93.172	5R01HG008754-04	277,375	_
Massachusetts Institute of Technology	93.242	1RF1MH121885-01A1	187,369	
Massachusetts Institute of Technology	93.242	5U01MH108168-04S1	(395)	_
Massachusetts Institute of Technology	93.242	5U01MH117072-02	93,960	_
Massachusetts Institute of Technology	93.286	5P41EB015871-35	65,451	_
Massachusetts Institute of Technology	93.286	5R01EB000244-41	486,318	_
Massachusetts Institute of Technology	93.393	5R21CA256081-02	4,307	_
Massachusetts Institute of Technology	93.394	1R21CA236685-02	61,659	
Massachusetts Institute of Technology	93.395	5R01CA247632-02	22,735	
Massachusetts Institute of Technology Massachusetts Institute of Technology	93.396	5U01CA215798-05	(32,606)	-
Massachusetts Institute of Technology Massachusetts Institute of Technology	93.397	5U54CA210180-05	119,999	-
Massachusetts Institute of Technology	93.837	1R01HL153857-02	152,302	-
Massachusetts Institute of Technology Massachusetts Institute of Technology	93.839	1R01HL158102-01	337,766	-
•••			,	-
Massachusetts Institute of Technology	93.853	1U01NS121471-02	141,340	-
Massachusetts Institute of Technology	93.853	5R01NS121078-02 5R21NS105027-02	192,184 22,407	-
Massachusetts Institute of Technology	93.853 93.866	1R56AG069192-01	22,407 111,234	-
Massachusetts Institute of Technology	93.866	5R01AG058002-04	3,514	-
Massachusetts Institute of Technology	93.800	UNU IAGUU00UUZ-U4	3,314	-

Research and Development Continued	Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Mayo Clinic	Research and Development Continued				
Mayo Clinic \$38.53 ZROINSD76491-11 \$98.838	Mayo Clinic	93.393	5R01CA248288-02	141,963	-
Mayo Clinic \$38.853 SUHNN \$103870-05 413,111	Mayo Clinic	93.395	1U19CA264362-01	41,955	-
Mayo Clinic 93.866 1RF1AG6875947-01 145,364	Mayo Clinic	93.853	2R01NS076491-11	98,838	-
Mayo Clinic 93.866 SU19AQ035911-03 173.631 - Mayo Clinic Jacksonwille 93.855 SP01NS084074-08 183.225 - Mayo Clinic Jacksonwille 93.855 SP01NS084074-08 183.225 - Mayo Clinic Jacksonwille 93.855 SP01NS084074-08 183.225 - Mayo Clinic Jacksonwille 93.845 SU01NS080160-09 16.831 - Mayo Clinic Jacksonwille 93.842 PS0MH115846-03 24.774 - Machan Hospital Corporation 93.242 1850MH126996-11 45.575 - McLean Hospital Corporation 93.242 1850MH126996-11 25.099 - McLean Hospital Corporation 93.242 SP00MH115846-03 55.919 - McLean Hospital Corporation 93.242 SP00MH115846-04 92.834 - McLean Hospital Corporation 93.242 SP00MH115846-04 92.834 - McLean Hospital Corporation 93.242 SP00MH119846-03 57.113 - McLean Hospital Corporation 93.242 SP00MH119846-03 57.113 - McLean Hospital Corporation 93.242 SP00MH119846-03 57.113 - McLean Hospital Corporation 93.242 SR01MH11970-204 77.125 - McLean Hospital Corporation 93.242 SR01MH11970-204 77.125 - McLean Hospital Corporation 93.242 SR01MH120991-03 64.870 - McLean Hospital Corporation 93.242 SR01MH120991-03 64.870 - McLean Hospital Corporation 93.242 SR01MH1242703 414.228 - McLean Hospital Corporation 93.242 SR01MH124709 414.228 - McLean Hospital Corporation 93.242 SR01MH124709 - McLean Hospital Corporation 93.242 SR01MH124709 - McLean Hospital Corporation 93.279 SR01DA0468376-16 44.492 - McLean Hospital Corporation 93.279 SR01DA0468376-16 44.492 - McLean Hospital Corporation 93.279 SR01DA046830-03 20.863 - McLean Hospital Corporation 93.879 SR01DA0484140-05	Mayo Clinic	93.853	5UH3NS103870-05	413,111	-
Mayo Clinic Jacksonville 98.866 SU19AG063911-05 142,174 - Mayo Clinic Jacksonville 98.853 SP011NS080168-09 16,831 - McLean Hospital Corporation 93.242 1780MH1884-03 24,774 - McLean Hospital Corporation 93.242 1780MH1884-03 55,919 - McLean Hospital Corporation 93.242 850MH1884-03 55,919 - McLean Hospital Corporation 93.242 850MH1884-03 55,919 - McLean Hospital Corporation 93.242 850MH1986-03 57,113 - McLean Hospital Corporation 93.242 850MH1986-03 57,113 - McLean Hospital Corporation 93.242 850MH1986-03 57,113 - McLean Hospital Corporation 93.242 850MH1916-03 7,162 - McLean Hospital Corporation 93.242 850MH1916-02 7,162 - McLean Hospital Corporation 93.242 850MH1916-02 7,162 - McLean Hospital Corporation 93.242 850MH19126-02	Mayo Clinic	93.866	1RF1AG057547-01	145,364	-
Mayo Clinic Jacksonville 93.853 SP01NS0804974-08 18.3225 Mayo Clinic Jacksonville 93.853 SU01NS080188-09 16.831 McLean Hospital Corporation 93.242 1F50MH115846-03 24.774 - McLean Hospital Corporation 93.242 1R56MH112698-01 45.575 - McLean Hospital Corporation 93.242 1R61MH112640-01A1 21.609 - McLean Hospital Corporation 93.242 SF50MH115846-04 92.834 - McLean Hospital Corporation 93.242 SF50MH119846-04 92.834 - McLean Hospital Corporation 93.242 SF50MH119840-04 92.834 - McLean Hospital Corporation 93.242 SF01MH110860-05 7,162 - McLean Hospital Corporation 93.242 SF01MH11269-103 64.870 - McLean Hospital Corporation 93.242 SF01MH12247-03 414,228 - McLean Hospital Corporation 93.242 SF01MH12247-03 414,228 - McLean Hospital Corporation 93.242 SF01MH12247-03	Mayo Clinic	93.866	5U19AG063911-03	173,631	-
Meyo Clinic Jackson/life	Mayo Clinic	93.866	5U19AG063911-05	142,174	-
McLean Hospital Corporation 93.242 1F50MH15848-03 24,774	Mayo Clinic Jacksonville	93.853	5P01NS084974-08	183,225	-
McLean Hospital Corporation 93,242 1R66MH126996-01 45,575 - McLean Hospital Corporation 93,242 5F60MH11846-03 55,919 - McLean Hospital Corporation 93,242 5F50MH11846-04 92,834 - McLean Hospital Corporation 93,242 5F50MH119467-03 517,113 - McLean Hospital Corporation 93,242 5F00MH108602-05 7,162 - McLean Hospital Corporation 93,242 5F00MH108602-05 7,162 - McLean Hospital Corporation 93,242 5F00MH112940-03 64,870 - McLean Hospital Corporation 93,242 5F00MH120991-03 64,870 - McLean Hospital Corporation 93,242 5F00MH120991-03 64,870 - McLean Hospital Corporation 93,242 5F00MH12691-02 44,402 - McLean Hospital Corporation 93,242 5F00MH12691-02 56,888 - McLean Hospital Corporation 93,279 5F00 LOA15632-03 20,863 - McLean Hospital Corporation 93,279	Mayo Clinic Jacksonville	93.853	5U01NS080168-09	16,831	-
McLean Hospital Corporation	McLean Hospital Corporation		1P50MH115846-03	24,774	-
McLean Haspital Corporation	McLean Hospital Corporation	93.242	1R56MH125995-01	45,575	-
McLean Hospital Corporation 93.242 \$P50MH11940F-03 \$17.113 -1	McLean Hospital Corporation		1R61MH121640-01A1	21,609	-
McLean Hospital Corporation 93.242 SP50MH119467-03 517,113 AcLean Hospital Corporation 93.242 SR01MH10802-05 7,162 - 7	McLean Hospital Corporation	93.242	5P50MH115846-03	55,919	-
McLean Hospital Corporation 93.242 5R01MH108062-05 7,162 -	McLean Hospital Corporation	93.242	5P50MH115846-04	92,834	-
McLean Hospital Corporation 93.242 5R01MH117012-04 171.215 - McLean Hospital Corporation 93.242 5R01MH120991-03 64.870 - McLean Hospital Corporation 93.242 5R01MH12247-03 414.272 - McLean Hospital Corporation 93.242 5R37MH068376-16 44.492 - McLean Hospital Corporation 93.242 5R37MH068376-16 44.492 - McLean Hospital Corporation 93.242 5R37MH068376-16 44.492 - McLean Hospital Corporation 93.279 3UG1DA015831-1855 (780) - McLean Hospital Corporation 93.279 5R33DA042847-05 140.068 - McLean Hospital Corporation 93.279 5R33DA042847-05 140.068 - McLean Hospital Corporation 93.279 5R33DA042847-05 140.068 - McLean Hospital Corporation 93.877 3R01DK121240-0251 38.606 - MD Anderson Cancer Center 93.396 5P01CA117969-15 (57.717) - MD Anderson Cancer Center 93.396 5P01CA117969-15 (57.717) - MD Anderson Cancer Center 93.396 5P01CA117969-17 458.239 - Medical University of South Carolina 93.847 1UDIK104833-03 28.803 - Medical University of South Carolina 93.847 1UDIK104833-03 28.803 - Memorial Sloan-Kettering Institute Cancer Center 93.395 5P01CA117969-17 458.239 - Memorial Sloan-Kettering Institute Cancer Center 93.393 5U01CA259313-02 191.847 - Memorial Sloan-Kettering Institute Cancer Center 93.393 5U01CA25983-02 191.847 - Memorial Sloan-Kettering Institute Cancer Center 93.395 5V01CA907496-01 154.372 - Memorial Sloan-Kettering Institute dba Houston Methodist Research Institute 93.866 5R01A6071496-01 154.372 - Memorial Sloan-Kettering Institute (ba Houston Methodist Research Institute 93.866 5R01A6071496-01 154.372 - Methodist Hospital Research Institute 49.866 5R01A6071496-01 154.372 - Methodist Hospital Research Institute 49.992 - Michigan State University 93.305 5R01CA221771-04 5.027 - Michigan State University 93.305 5R01CA221	McLean Hospital Corporation	93.242	5P50MH119467-03	517,113	-
McLean Hospital Corporation 93.242 5R01MH120991-03 64.870 -	McLean Hospital Corporation	93.242	5R01MH108602-05	7,162	-
McLean Hospital Corporation 93 242 5R01MH122427-03 414,228 - McLean Hospital Corporation 93 242 5R37MH068376-16 44,492 - McLean Hospital Corporation 93 242 5R61MH121640-02 56,888 - McLean Hospital Corporation 93 279 5R01DA045631-1855 (760) - McLean Hospital Corporation 93 279 5R01DA045632-03 20,863 - McLean Hospital Corporation 93 279 5R01DA045632-03 20,863 - McLean Hospital Corporation 93 279 5R01DA045632-03 38,606 - McLean Hospital Corporation 93 279 5R01DA045632-03 38,606 - McLean Hospital Corporation 93 387 3800 121240-0251 38,606 - MD Anderson Cancer Center 93 396 5P01CA117969-17 456,239 - McMcCall University of South Carolina 93 396 5P01CA117969-17 456,239 - Medical University of South Carolina 93 865 2P2CHD08684-08 25,545 - Memorial Sloan-Kettering Institute	McLean Hospital Corporation	93.242	5R01MH117012-04	171,215	-
McLean Hospital Corporation 93.242 \$R37MH068376-16 44.492 - McLean Hospital Corporation 93.242 \$R61MH121640-02 56.888 - McLean Hospital Corporation 93.279 3UG1DA015831-1855 (780) - McLean Hospital Corporation 93.279 \$R01DA045632-03 20.863 - McLean Hospital Corporation 93.279 \$R33DA024847-05 140.068 - McLean Hospital Corporation 93.847 3R01DK121240-02S1 38.606 - McLean Hospital Corporation 93.896 \$P01CA117969-15 (57,717) - MD Anderson Cancer Center 93.396 \$P01CA117969-15 (57,717) - MD Anderson Cancer Center 93.396 \$P01CA117969-15 (57,717) - MEdical University of South Carolina 93.847 110I1DK104833-03 26.803 - Medical University of South Carolina 93.865 2P2CHD086844-08 25,545 - Memorial Sloan-Kettering Institute Cancer Center 93.396 5U24CA213274-05 8,438 - Memorial S	McLean Hospital Corporation	93.242	5R01MH120991-03	64,870	-
McLean Hospital Corporation 93.242 5R61MH121640-02 56,888 - McLean Hospital Corporation 93.279 3UG1DA015831-1855 (780) - McLean Hospital Corporation 93.279 5R01DA045632-03 20,863 - McLean Hospital Corporation 93.279 5R33DA042847-05 140,068 - McLean Hospital Corporation 93.396 5P01CA117969-15 (57,717) - MD Anderson Cancer Center 93.396 5P01CA117969-15 (57,717) - MD Anderson Cancer Center 93.396 5P01CA117969-17 458,239 - Medical University of South Carolina 93.847 1U01DK104833-03 26,803 - Memorial Sloan Kettering Institute Cancer Center 93.396 5P01CA117969-17 458,239 - Memorial Sloan-Kettering Institute Cancer Center 93.865 2P2CHD086844-08 25,545 - Memorial Sloan-Kettering Institute Cancer Center 93.393 5R01CA2213274-05 8,438 - Memorial Sloan-Kettering Institute Cancer Center 93.395 3P01CA190174-05S1 (19,589)	McLean Hospital Corporation	93.242	5R01MH122427-03	414,228	-
McLean Hospital Corporation 93.279 3UG1DA015831-18SS (780) - McLean Hospital Corporation 93.279 5R01DA045632-03 20,863 - McLean Hospital Corporation 93.279 5R33DA042847-05 140,068 - MCLean Hospital Corporation 93.847 3R01DK121240-0251 38,606 - MD Anderson Cancer Center 93.396 5P01CA117969-15 (57,717) - MD Anderson Cancer Center 93.396 5P01CA117969-17 458,239 - Medical University of South Carolina 93.847 1U01DK104833-03 26,803 - Memorial Sloan-Kettering Institute 93.396 5P01CA117969-17 458,239 - Memorial Sloan-Kettering Institute Cancer Center 93.396 5U24CA213274-05 8,438 - Memorial Sloan-Kettering Institute Cancer Center 93.393 5U01CA253913-02 191,847 - Memorial Sloan-Kettering Institute Cancer Center 93.395 5U01CA253913-02 617,596 - Memorial Sloan-Kettering Institute Cancer Center 93.395 5U01CA228963-02 667,596	McLean Hospital Corporation	93.242	5R37MH068376-16	44,492	-
McLean Hospital Corporation 93.279 5R01DA045632-03 20.863 - McLean Hospital Corporation 93.279 5R33DA042847-05 140,068 - McLean Hospital Corporation 93.847 3R01DK121240-0281 38,606 - MD Anderson Cancer Center 93.396 5P01CA117969-15 (57,717) - MD Anderson Cancer Center 93.396 5P01CA117969-17 458,239 - Medical University of South Carolina 93.847 1U01DK104833-03 26,803 - Medical University of South Carolina 93.865 2P2CHD086844-08 25,545 - Memorial Sloan Kettering Institute Cancer Center 93.393 5R01CA244185-02 103,331 - Memorial Sloan-Kettering Institute Cancer Center 93.393 5R01CA244185-02 191,847 - Memorial Sloan-Kettering Institute Cancer Center 93.393 5P01CA190174-0551 (19,589) - Memorial Sloan-Kettering Institute Cancer Center 93.396 5U01CA229693-02 667,596 - Mercator MedSystems 93.857 R41HL 160434 165,923	McLean Hospital Corporation	93.242	5R61MH121640-02	56,888	-
McLean Hospital Corporation 93.279 5R33DA042847-05 140,068 - McLean Hospital Corporation 93.847 3R01DK121240-02S1 38,606 - MD Anderson Cancer Center 93.396 5P01CA117969-15 (57,177) - MD Anderson Cancer Center 93.396 5P01CA117969-17 458,239 - Medical University of South Carolina 93.847 1U01DK104833-03 26,803 - Memorial Sloan Kettering Institute 93.396 5U24CA213274-05 8,438 - Memorial Sloan-Kettering Institute Cancer Center 93.393 5R01CA244185-02 103,331 - Memorial Sloan-Kettering Institute Cancer Center 93.393 5P01CA293913-02 191,847 - Memorial Sloan-Kettering Institute Cancer Center 93.395 3P01CA293913-02 191,847 - Memorial Sloan-Kettering Institute Cancer Center 93.395 3P01CA293913-02 667,596 - Mercator MedSystems 93.395 3P01CA29393-02 667,596 - Methodist Hospital Research Institute dha Houston Methodist Research Institute 93.86 1R0	McLean Hospital Corporation	93.279	3UG1DA015831-18S5	(780)	-
McLean Hospital Corporation 93.847 3R01DR121240-02S1 38.806 - MD Anderson Cancer Center 93.396 5P01CA117969-15 (57.717) - MD Anderson Cancer Center 93.396 5P01CA117969-17 458,239 - Medical University of South Carolina 93.847 1U01DR104833-03 28.803 - Medical University of South Carolina 93.865 2P2CHD086844-08 25,545 - Memorial Sloan-Kettering Institute Cancer Center 93.393 5U24CA213274-05 8,438 - Memorial Sloan-Kettering Institute Cancer Center 93.393 5U01CA244185-02 103.331 - Memorial Sloan-Kettering Institute Cancer Center 93.393 5U01CA259913-02 191.847 - Memorial Sloan-Kettering Institute Cancer Center 93.396 5U01CA228963-02 667,596 - Mercator MedSystems 93.897 R41HL160434 165,923 - Methodist Hospital Research Institute dba Houston Methodist Research Institute 93.866 1801A0071496-01 154,372 - MCH Institute of Health Professions 93.817		93.279	5R01DA045632-03	20,863	-
MD Anderson Cancer Center 93.396 5P01CA117969-15 (57,717) - MD Anderson Cancer Center 93.396 5P01CA117969-17 458,239 - Medical University of South Carolina 93.847 1U01b(104833-03) 26,803 - Medicial University of South Carolina 93.865 2P2CHD086844-08 25,545 - Memorial Sloan Kettering Institute 93.396 5U24CA213274-05 8,438 - Memorial Sloan-Kettering Institute Cancer Center 93.393 5R01CA244185-02 103,331 - Memorial Sloan-Kettering Institute Cancer Center 93.393 5U01CA225913-02 191,847 - Memorial Sloan-Kettering Institute Cancer Center 93.395 3P01CA190174-05S1 (19,589) - Memorial Sloan-Kettering Institute Cancer Center 93.396 5U01CA2259893-02 667,596 - Mercator MedSystems 93.897 R41HL160434 165,923 - Methodist Hospital Research Institute dba Houston Methodist Research Institute 93.866 1R01AG071496-01 154,372 - Methodist Hospital Research Institute dba Houston Methodist R	McLean Hospital Corporation	93.279	5R33DA042847-05	140,068	-
MD Anderson Cancer Center 93.396 5P01CA117969-17 458,239 - Medical University of South Carolina 93.847 1U01DK104833-03 26,803 - Medical University of South Carolina 93.865 2P2CHD086844-08 25,545 - Memorial Sloan Kettering Institute 93.396 5U24CA213274-05 8,438 - Memorial Sloan-Kettering Institute Cancer Center 93.393 5R01CA244185-02 103,331 - Memorial Sloan-Kettering Institute Cancer Center 93.393 5U01CA253913-02 191,847 - Memorial Sloan-Kettering Institute Cancer Center 93.395 3P01CA190174-0551 (19,589) - Mercator MedSystems 93.396 5U01CA228963-02 667,596 - Methodist Hospital Research Institute dba Houston Methodist Research Institute 93.866 1R01AG071496-01 154,372 - Methodist Hospital Research Institute dba Houston Methodist Research Institute 93.866 1R01AG071496-01 154,372 - MGH Institute of Health Professions 93.173 1R15DC018944-01A1 21,378 - Michigan State Unive	McLean Hospital Corporation	93.847	3R01DK121240-02S1	38,606	-
Medical University of South Carolina 93.847 1U01DK104833-03 26,803 - Medical University of South Carolina 93.865 2P2CHD086844-08 25,545 - Memorial Sloan-Kettering Institute 93.396 5U24CA213274-05 8,438 - Memorial Sloan-Kettering Institute Cancer Center 93.393 5R01CA244185-02 103,331 - Memorial Sloan-Kettering Institute Cancer Center 93.393 5U01CA253913-02 191,847 - Memorial Sloan-Kettering Institute Cancer Center 93.395 3P01CA190174-0551 (19,589) - Memorial Sloan-Kettering Institute Cancer Center 93.396 5U01CA228963-02 67,596 - Mercator MedSystems 93.837 R41HL160434 165,923 - Methodist Hospital Research Institute dba Houston Methodist Research Institute 93.866 1R01AG071496-01 154,372 - MGH Institute of Health Professions 93.873 1R1BC018944-01A1 21,378 - MGH Institute of Health Professions 93.873 1R21NS120186-01A1 49,992 - Michigan State University 93	MD Anderson Cancer Center	93.396	5P01CA117969-15	(57,717)	-
Medical University of South Carolina 93.865 2P2CHD086844-08 25,545 - Memorial Sloan Kettering Institute 93.396 5U24CA213277-05 8,438 - Memorial Sloan-Kettering Institute Cancer Center 93.393 5R01CA253913-02 103,331 - Memorial Sloan-Kettering Institute Cancer Center 93.393 5U01CA253913-02 191,847 - Memorial Sloan-Kettering Institute Cancer Center 93.395 3P01CA190174-0551 (19,589) - Mercator MedSystems 93.396 5U01CA228963-02 667,596 - Methodist Hospital Research Institute dba Houston Methodist Research Institute 93.866 1R01AG071496-01 154,372 - MGH Institute of Health Professions 93.173 1R15DC018944-01A1 21,378 - MGH Institute of Health Professions 93.853 1R21NS120186-01A1 49,992 - Michigan State University 93.307 5R01AD015763-02 23,344 - Michigan State University 93.395 5R01CA221771-04 5,027 - Michigan State University 93.395 5R01CA22	MD Anderson Cancer Center	93.396	5P01CA117969-17	458,239	-
Memorial Sloan Kettering Institute 93.396 5U24CA213274-05 8,438 - Memorial Sloan-Kettering Institute Cancer Center 93.393 5R01CA244185-02 103,331 - Memorial Sloan-Kettering Institute Cancer Center 93.393 5U01CA253913-02 191,847 - Memorial Sloan-Kettering Institute Cancer Center 93.395 3P01CA190174-05S1 (19,589) - Memorial Sloan-Kettering Institute Cancer Center 93.396 5U01CA228963-02 667,596 - Mercator MedSystems 93.887 R41HL160434 165,923 - Methodist Hospital Research Institute dba Houston Methodist Research Institute 93.866 1R01AG071496-01 154,372 - MGH Institute of Health Professions 93.173 1R15DC018944-01A1 21,378 - MGH Institute of Health Professions 93.853 1R21NS120186-01A1 49,992 - Michigan State University 93.310 5UH3OD023285-07 153,950 - Michigan State University 93.395 5R01CA221771-04 5,027 - Michigan State University 93.395 <t< td=""><td>Medical University of South Carolina</td><td>93.847</td><td>1U01DK104833-03</td><td>26,803</td><td>-</td></t<>	Medical University of South Carolina	93.847	1U01DK104833-03	26,803	-
Memorial Sloan-Kettering Institute Cancer Center 93.393 5R01CA244185-02 103,331 - Memorial Sloan-Kettering Institute Cancer Center 93.393 5U01CA253913-02 191,847 - Memorial Sloan-Kettering Institute Cancer Center 93.395 3P01CA190174-05S1 (19,589) - Memorial Sloan-Kettering Institute Cancer Center 93.396 5U01CA228963-02 667,596 - Mercator MedSystems 93.837 R41HL160434 165,923 - Methodist Hospital Research Institute dba Houston Methodist Research Institute 93.866 1R01AG071496-01 154,372 - Methodist Hospital Research Institute dba Houston Methodist Research Institute 93.866 5R01AG071496-02 339,501 - MGH Institute of Health Professions 93.173 1R15DC018944-01A1 21,378 - MGH Institute of Health Professions 93.853 1R21NS120186-01A1 49,992 - Michigan State University 93.307 5R01MD015763-02 23,344 - Michigan State University 93.395 5R01CA221771-04 5,027 - Michigan State Unive	Medical University of South Carolina	93.865	2P2CHD086844-08	25,545	-
Memorial Sloan-Kettering Institute Cancer Center 93.393 5U01CA253913-02 191,847 - Memorial Sloan-Kettering Institute Cancer Center 93.395 3P01CA190174-05S1 (19,589) - Memorial Sloan-Kettering Institute Cancer Center 93.396 5U01CA228963-02 667,596 - Mercator MedSystems 93.837 R41HL160434 165,923 - Methodist Hospital Research Institute dba Houston Methodist Research Institute 93.866 1R01AG071496-01 154,372 - Methodist Hospital Research Institute dba Houston Methodist Research Institute 93.866 5R01AG071496-02 339,501 - MGH Institute of Health Professions 93.173 1R15DC018944-01A1 21,378 - MGH Institute of Health Professions 93.853 1R21NS120186-01A1 49,992 - Michigan State University 93.307 5R01MD015763-02 23,344 - Michigan State University 93.395 5R01CA221771-04 5,027 - Michigan State University 93.395 7R01CA221771-04 5,027 -	Memorial Sloan Kettering Institute	93.396	5U24CA213274-05	8,438	-
Memorial Sloan-Kettering Institute Cancer Center 93.395 3P01CA190174-05S1 (19,589) - Memorial Sloan-Kettering Institute Cancer Center 93.396 5U01CA228963-02 667,596 - Mercator MedSystems 93.837 R41HL160434 165,923 - Methodist Hospital Research Institute dba Houston Methodist Research Institute 93.866 1R01AG071496-01 154,372 - Methodist Hospital Research Institute dba Houston Methodist Research Institute 93.866 5R01AG071496-02 339,501 - MGH Institute of Health Professions 93.173 1R15DC018944-01A1 21,378 - Michigan State University 93.307 5R01MD015763-02 23,344 - Michigan State University 93.310 5UH30D023285-07 153,950 - Michigan State University 93.395 5R01CA221771-04 5,027 - Michigan State University 93.395 7R01CA221771-04 276,120 -	Memorial Sloan-Kettering Institute Cancer Center	93.393	5R01CA244185-02	103,331	-
Memorial Sloan-Kettering Institute Cancer Center 93.396 5U01CA228963-02 667,596 - Mercator MedSystems 93.837 R41HL160434 165,923 - Methodist Hospital Research Institute dba Houston Methodist Research Institute 93.866 1R01AG071496-01 154,372 - Methodist Hospital Research Institute dba Houston Methodist Research Institute 93.866 5R01AG071496-02 339,501 - MGH Institute of Health Professions 93.173 1R15DC018944-01A1 21,378 - MGH Institute of Health Professions 93.853 1R21NS120186-01A1 49,992 - Michigan State University 93.307 5R01MD015763-02 23,344 - Michigan State University 93.310 5UH3OD023285-07 153,950 - Michigan State University 93.395 5R01CA221771-04 5,027 - Michigan State University 93.395 7R01CA221771-04 276,120 -	Memorial Sloan-Kettering Institute Cancer Center	93.393	5U01CA253913-02	191,847	-
Mercator MedSystems 93.837 R41HL160434 165,923 - Methodist Hospital Research Institute dba Houston Methodist Research Institute 93.866 1R01AG071496-01 154,372 - Methodist Hospital Research Institute dba Houston Methodist Research Institute 93.866 5R01AG071496-02 339,501 - MGH Institute of Health Professions 93.173 1R15DC018944-01A1 21,378 - MGH Institute of Health Professions 93.853 1R21NS120186-01A1 49,992 - Michigan State University 93.307 5R01MD015763-02 23,344 - Michigan State University 93.310 5UH3OD023285-07 153,950 - Michigan State University 93.395 5R01CA221771-04 5,027 - Michigan State University 93.395 7R01CA221771-04 276,120 -	Memorial Sloan-Kettering Institute Cancer Center	93.395	3P01CA190174-05S1	(19,589)	-
Methodist Hospital Research Institute dba Houston Methodist Research Institute 93.866 1R01AG071496-01 154,372 - Methodist Hospital Research Institute dba Houston Methodist Research Institute 93.866 5R01AG071496-02 339,501 - MGH Institute of Health Professions 93.173 1R15DC018944-01A1 21,378 - MGH Institute of Health Professions 93.853 1R21NS120186-01A1 49,992 - Michigan State University 93.307 5R01MD015763-02 23,344 - Michigan State University 93.310 5UH30D023285-07 153,950 - Michigan State University 93.395 5R01CA221771-04 5,027 - Michigan State University 93.395 7R01CA221771-04 276,120 -	Memorial Sloan-Kettering Institute Cancer Center	93.396	5U01CA228963-02	667,596	-
Methodist Hospital Research Institute dba Houston Methodist Research Institute 93.866 5R01AG071496-02 339,501 - MGH Institute of Health Professions 93.173 1R15DC018944-01A1 21,378 - MGH Institute of Health Professions 93.853 1R21NS120186-01A1 49,992 - Michigan State University 93.307 5R01MD015763-02 23,344 - Michigan State University 93.310 5UH3OD023285-07 153,950 - Michigan State University 93.395 5R01CA221771-04 5,027 - Michigan State University 93.395 7R01CA221771-04 276,120 -	Mercator MedSystems	93.837	R41HL160434	165,923	-
MGH Institute of Health Professions 93.173 1R15DC018944-01A1 21,378 - MGH Institute of Health Professions 93.853 1R21NS120186-01A1 49,992 - Michigan State University 93.307 5R01MD015763-02 23,344 - Michigan State University 93.310 5UH3OD023285-07 153,950 - Michigan State University 93.395 5R01CA221771-04 5,027 - Michigan State University 93.395 7R01CA221771-04 276,120 -	Methodist Hospital Research Institute dba Houston Methodist Research Institute	93.866	1R01AG071496-01	154,372	-
MGH Institute of Health Professions 93.853 1R21NS120186-01A1 49.992 - Michigan State University 93.307 5R01MD015763-02 23,344 - Michigan State University 93.310 5UH3OD023285-07 153,950 - Michigan State University 93.395 5R01CA221771-04 5,027 - Michigan State University 93.395 7R01CA221771-04 276,120 -	Methodist Hospital Research Institute dba Houston Methodist Research Institute	93.866	5R01AG071496-02	339,501	-
Michigan State University 93.307 5R01MD015763-02 23,344 - Michigan State University 93.310 5UH3OD023285-07 153,950 - Michigan State University 93.395 5R01CA221771-04 5,027 - Michigan State University 93.395 7R01CA221771-04 276,120 -	MGH Institute of Health Professions	93.173	1R15DC018944-01A1	21,378	-
Michigan State University 93.310 5UH3OD023285-07 153,950 - Michigan State University 93.395 5R01CA221771-04 5,027 - Michigan State University 93.395 7R01CA221771-04 276,120 -	MGH Institute of Health Professions	93.853	1R21NS120186-01A1	49,992	-
Michigan State University 93.395 5R01CA221771-04 5,027 - Michigan State University 93.395 7R01CA221771-04 276,120 -	Michigan State University	93.307	5R01MD015763-02	23,344	-
Michigan State University 93.395 7R01CA221771-04 276,120 -	Michigan State University	93.310	5UH3OD023285-07	153,950	-
	Michigan State University	93.395	5R01CA221771-04	5,027	-
Michigan State University 93.865 5R01HD094842-05 72,497 -	Michigan State University	93.395	7R01CA221771-04	276,120	-
	Michigan State University	93.865	5R01HD094842-05	72,497	-

Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
Michigan State University	93.865	5R01HD096033-04	479,938	_
Michigan State University	93.865	5R21HD096358-02	20,499	_
Minnesota Health Solutions	93.837	1R43HL160298-01	24,823	_
Minnesota Health Solutions	93.866	R44AG058515	24,086	_
Modality.Al	93.173	1R42DC019877-01A1	11,198	_
Montana State University	93.867	R21EY031130	2,522	-
Montreal Heart Institute	93.847	5U01DK062432-19	87,013	-
Mount Sinai School of Medicine	93.837	5P01HL131478-05	274,153	-
Mount Sinai School of Medicine	93.837	5U01HL088942-15	125,021	-
Myolyn, LLC	93.865	1R41HD102261-01A1	72,718	-
National Bureau of Economic Research (NBER)	93.866	5P01AG005842-31	33,259	-
National Jewish Health	93.838	5U01HL089897-14	139,292	-
National Network of Depression Centers	93.242	1R01MH121542-01	5,564	-
Natural Pharmacia International	93.351	1R44OD24615-01	167	-
Navigation Sciences	93.394	R41CA261420	32,695	-
Neuropace	93.853	1UH3NS109557-01A1	67,237	-
New England Research Institute (NERI)	93.837	5U01HL107407-05	(5,063)	-
New England Research Institute (NERI)	93.847	5U01DK110377-03	47,206	-
New York University Grossman School of Medicine	93.279	1UG3CA261067-01	31,168	-
New York University Grossman School of Medicine	93.394	5U01CA214195-05	11,431	-
New York University Grossman School of Medicine	93.837	1R01HL157220-01A1	12,135	-
New York University Medical Center	93.395	5U01CA213333-04	11,581	-
New York University School of Medicine	93.213	4UG3AT009844-03	23,044	-
New York University School of Medicine	93.242	5R61MH122647-02	189,771	-
New York University School of Medicine	93.867	5U10EY026869-03	5,075	-
New York University School of Medicine	93.867	5U10EY026869-05	21,763	-
NF Bio	93.853	R41NS120338	157,701	
NIH-FIC Fogarty International Center	93.989	Direct	131,100	51,303
NIH-NCATS National Center for Advancing Translational Sciences	93.350	Direct	2,438,198	739,850
NIH-NCCAM National Center for Complementary and Alternative Medicine	93.213	Direct	4,299,005	820,313
NIH-NCCIH National Center for Complementary and Integrative Health	93.213	Direct	2,217,086	112,147
NIH-NCI National Cancer Institute	93.353	Direct	2,955,515	220,907
NIH-NCI National Cancer Institute	93.393	Direct	19,850,865	5,118,801
NIH-NCI National Cancer Institute	93.394	Direct	18,234,480	3,340,201
NIH-NCI National Cancer Institute	93.395	Direct	44,436,830	17,783,091
NIH-NCI National Cancer Institute	93.396	Direct	16,026,624	3,451,722
NIH-NCI National Cancer Institute	93.397	Direct Direct	2,409,099	1,726,415
NIH-NCI National Cancer Institute	93.398		(2,728)	12 205
NIH-NCNR National Center for Nursing Research	93.361 93.867	Direct Direct	127,095 28,825,507	13,395
NIH-NEI National Eye Institute NIH-NHGRI National Human Genome Research Institute	93.867	Direct	28,825,507 9,229,074	2,575,216
NIH-NHEBI National Heart, Lung, and Blood Institute	93.172	Direct	9,229,074 377,050	3,312,980 105,183
NIH-NHLBI National Heart, Lung, and Blood Institute	93.233	Direct	5,890,313	182,024
NIH-NHLBI National Heart, Lung, and Blood Institute	93.837	Direct	65,993,019	11,985,940
MI PATEST NATIONAL FIGURE, AND SHOULD INSTITUTE	a3.031	Direct	00,880,018	11,300,340

Research and Development Continued NIH-NHLBI National Heart, Lung, and Blood Institute NIH-NHLBI National Heart, Lung, and Blood Institute	93.838 93.839			
	03 830	Direct	36,316,533	8,270,787
	90.009	Direct	6,261,952	1,314,716
NIH-NHLBI National Heart, Lung, and Blood Institute	93.840	Direct	1,019,566	561,026
NIH-NIA National Institute on Aging	93.866	Direct	105,625,390	28,798,158
NIH-NIAAA National Institute on Alcohol Abuse and Alcoholism	93.273	Direct	1,080,080	287,329
NIH-NIAID National Institute of Allergy and Infectious Diseases	93.855	Direct	97,353,648	19,684,894
NIH-NIAMS National Institute of Arthritis and Musculoskeletal and Skin Diseases	93.846	Direct	26,373,961	4,275,289
NIH-NIBIB National Institute of Biomedical Imaging and Bioengineering	93.286	Direct	32,363,930	5,457,205
NIH-NICHD National Institute of Child Health and Human Development	93.865	Direct	28,257,412	7,318,240
NIH-NIDA National Institute on Drug Abuse	93.279	Direct	18,034,586	2,455,088
NIH-NIDCD National Institute on Deafness and Other Communication Disorders	93.173	Direct	22,167,456	2,653,205
NIH-NIDCR National Institute of Dental and Craniofacial Research	93.121	Direct	3,006,835	608,540
NIH-NIDDK National Institute of Diabetes and Digestive and Kidney Diseases	93.847	Direct	46,069,104	6,544,383
NIH-NIEHS National Institute of Environmental Health Sciences	93.113	Direct	2,181,479	842,080
NIH-NIGMS National Institute of General Medical Sciences	93.859	Direct	16,823,663	1,092,207
NIH-NIMH National Institute of Mental Health	93.242	Direct	56,879,621	13,565,559
NIH-NIMHD National Center on Minority Health and Health Disparities	93.307	Direct	3,128,095	1,387,234
NIH-NINDS National Institute of Neurological Disorders and Stroke	93.853	Direct	93,654,608	17,744,210
NIH-NINR National Institute of Nursing Research	93.361	Direct	2,063,050	771,283
NIH-NLM National Library of Medicine	93.879	Direct	884,895	155,868
NIH-OD Office of the Director	93.310	Direct	24,230,742	9,242,576
NIH-OD Office of the Director	93.351	Direct	6,772,227	601,521
Nobilis Therapeutics	93.279	R41DA055403	143,709	-
North Carolina State University	93.286	1R01EB029829-01	77,260	_
Northeastern University	93.242	1R21MH129902-01	10,977	_
Northeastern University	93.242	5R01MH113234-05	328,454	_
Northeastern University	93.273	5R01AA027097-04	6,911	_
Northeastern University	93.279	5R01DA047130-05	296,466	_
Northeastern University	93.279	7U18DA052509-02	33,063	_
Northeastern University	93.393	5R01CA252966-02	82,900	_
Northeastern University	93.393	5U01CA193632-05	(1,120)	_
Northeastern University	93.394	5R01CA204443-05	72,108	_
Northeastern University	93.395	5R01CA226855-03	170,026	_
Northeastern University	93.839	5R01HL143020-03	(209)	_
Northeastern University	93.847	1R21DK118449-01A1	9,695	_
Northeastern University	93.853	1UF1NS107694-01	134,247	_
Northeastern University	93.866	5R21AG061743-02	11,309	_
Northeastern University	93.867	7R01EY027857-05	52,109	_
Northern Arizona University	93.307	5R01MD013352-04	47,703	_
Northern California Institute for Research and Education	93.847	R01DK120387	190,506	_
Northern California Institute for Research and Education	93.866	5U19AG024904-15	44,766	_
Northwestern University	93.838	1R01HL159250-01	13,390	_
Northwestern University	93.838	3R01HL122477-07S1	381,250	_
Northwestern University	93.838	5U01HL146408-03	371,818	_

er Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
Northwestern University	93.853	5R01NS85770-07	170,947	
Northwestern University	93.865	5R21HD098498-02	(5,977)	
Northwestern University	93.866	3RF1AG064006-01S1	276,607	
Northwestern University	93.866	5U2CAG057441-03S1	73,865	
Northwestern University	93.866	5U2CAG060426-04S1	46,792	
Northwestern University	93.879	1R01LM13337-01	28,699	
NOUS Imaging	93.242	4R44MH124567-02	255,952	
NRG Oncology	93.395	5U10CA180868-09	62,256	
NYU Langone Health	93.866	5R01AG068248-03	416,892	
Ocean State Research Institute	93.242	1U01MH123427-02	50,684	
Ohio State University	93.121	7R01DE028565-02	117,918	
Onio State University Ohio State University	93.121	5UH3HL140144-03	14,700	
•	93.253			
Ohio State University		5R21TR003191-02	19,537	
Ohio State University	93.393	1R01CA266402-01	50,681	
Ohio State University	93.853	5UG3NS117844-02	150,853	
Ohio State University	93.866	1R01AG050801-05	85,423	
Ohio State University	93.866	5R01AG058822-04	3,369	
Ohio State University	93.866	5R01AG073113-02	27,186	
Oregon Health & Science University (OHSU)	93.846	5R01AR073186-04	53,569	
Oregon Health & Science University (OHSU)	93.855	5R01Al157807-2	250,111	
Oregon Health & Science University (OHSU)	93.867	8R01EY019474-10	134,964	
Oregon State University	93.113	1R21ES032600-01	22,746	
Palo Alto Veterans Institute for Research (PAVIR)	93.242	R01MH112628	41,974	
Palo Alto Veterans Institute for Research (PAVIR)	93.307	R01MD012273	17,686	
Paradromics	93.242	1R44MH125700-01A1	55,635	
PASCALL Systems	93.279	R42DA053075	151,579	
PASCALL Systems	93.866	4R42AG066325-02	525,986	
PathMaker Neurosystems	93.853	1U44NS104138-01	264,095	
Pennsylvania State University	93.286	7R01EB025205-03	14,531	
Pennsylvania State University	93.866	5U2CAG060408-04	209,215	
Pennsylvania State University	93.867	5UG1EY023533-08	5,116	
Phoenicia Biosciences	93.839	5R33HL147845-02	172,957	
Phoenix Children's Hospital	93.865	R01HD088528	201,358	
Physical Sciences	93.173	2R44DC015414-02A1	141,877	
Physical Sciences	93.286	1R43EB032676-01	656	
Physical Sciences	93.393	4R44CA224853-02	74,531	
President and Fellows of Harvard College	93.113	1R01ES033185-01A1	15,525	
President and Fellows of Harvard College	93.113	1R56ES033185-01	5,331	
President and Fellows of Harvard College	93.113	2P30ES000002-58EXT	22,438	
President and Fellows of Harvard College	93.113	2R01ES022981-07	74,473	
President and Fellows of Harvard College	93.113	5P30ES000002-58	31,522	
President and Fellows of Harvard College	93.113	5R01ES014370-15	39,262	
President and Fellows of Harvard College	93.113	5R01ES026166-06	6,918	
President and Fellows of Harvard College	93.113	5R01ES028033-05	230,275	
President and Fellows of Harvard College	93.113	5R01ES028800-04	6,615	
President and Fellows of Harvard College	30.110	5R01ES031657-03	0,013	

Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
President and Fellows of Harvard College	93.113	5R01ES031943-03	30,374	_
President and Fellows of Harvard College	93.113	5R21ES029637-02	(70)	-
President and Fellows of Harvard College	93.113	5R24ES028521-05	128,537	_
President and Fellows of Harvard College	93.113	5U01ES029520-05	82,261	_
President and Fellows of Harvard College	93.113	7R01ES028298-04	9,198	_
President and Fellows of Harvard College	93.121	5R21DE026872-02	26,163	_
President and Fellows of Harvard College	93.143	5P42ES030990-03	185,711	-
President and Fellows of Harvard College	93.172	3U01HG009088-04	1,123	-
President and Fellows of Harvard College	93.172	3U01HG009088-04S2	104,545	_
President and Fellows of Harvard College	93.172	3U01HG009088-04S3	39,518	_
President and Fellows of Harvard College	93.172	3U01HG009088-04S4	34,398	-
President and Fellows of Harvard College	93.172	3U01HG009379-04S1	148,908	-
President and Fellows of Harvard College	93.172	5R35HG010706-02	(3,314)	-
President and Fellows of Harvard College	93.172	5U01HG009088-04	582	-
President and Fellows of Harvard College	93.172	5U01HG009379-04	(2)	-
President and Fellows of Harvard College	93.172	3U01HG009088-04S1	(601)	-
President and Fellows of Harvard College	93.173	5R01DC016932-05	44,537	-
President and Fellows of Harvard College	93.173	5R01DC017717-03	78,692	-
President and Fellows of Harvard College	93.213	5R01AT009708-04	40,150	-
President and Fellows of Harvard College	93.242	1R01MH121191-01A1	21,556	-
President and Fellows of Harvard College	93.242	1R01MH121191-03	7,666	-
President and Fellows of Harvard College	93.242	1RF1MH128861-01	73,702	-
President and Fellows of Harvard College	93.242	3R01MH101269-08	76,499	-
President and Fellows of Harvard College	93.242	4R33MH113751-03	116,391	-
President and Fellows of Harvard College	93.242	5R01MH101269-08	836,786	-
President and Fellows of Harvard College	93.242	5R01MH112829-05	6,164	-
President and Fellows of Harvard College	93.242	5R01MH116858-04	156,999	-
President and Fellows of Harvard College	93.242	5R01MH120642-03	39,417	-
President and Fellows of Harvard College	93.242	5R01MH124004-03	38,383	-
President and Fellows of Harvard College	93.242	5R21MH121704-02	45,871	-
President and Fellows of Harvard College	93.242	5U01MH116928-04	22,666	-
President and Fellows of Harvard College	93.242	5U19MH113211-05	12,215	-
President and Fellows of Harvard College	93.273	5R01AA029267-02	46,385	-
President and Fellows of Harvard College	93.279	5R01DA044201-04	28,758	-
President and Fellows of Harvard College	93.279	5R01DA048533-04	34,475	-
President and Fellows of Harvard College	93.307	5R01MD012793-04	8,914	-
President and Fellows of Harvard College	93.307	5R01MD014304-04	28,552	-
President and Fellows of Harvard College	93.310	5U01CA242098-02	(2,168)	-
President and Fellows of Harvard College	93.310	5U01HG007530-08	106,496	-
President and Fellows of Harvard College	93.310	5UH30D023282	86,426	-
President and Fellows of Harvard College	93.350	5UL1TR002541-04	305,589	-
President and Fellows of Harvard College	93.350	5UL1TR002541-05	2,552,526	-
President and Fellows of Harvard College	93.350	5ULTR002541-05	80,308	-
President and Fellows of Harvard College	93.350	3UL1TR002541-04S3	150,133	-

Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
President and Fellows of Harvard College	93.353	1U2CCA233262-01	524,095	-
President and Fellows of Harvard College	93.353	1U2CCA233262-01REVISED	6,527	-
President and Fellows of Harvard College	93.353	1U2CCA233280	25,846	-
President and Fellows of Harvard College	93.353	3P50CA244433-03S2	26,763	-
President and Fellows of Harvard College	93.353	5P50CA244433-03	198,025	-
President and Fellows of Harvard College	93.353	5U2CCA233280-04	7,360	-
President and Fellows of Harvard College	93.353	P50CA244433-03	400,831	-
President and Fellows of Harvard College	93.353	P50CA244433-03S1	176,879	-
President and Fellows of Harvard College	93.353	P50CA244433-03S3	325,048	-
President and Fellows of Harvard College	93.393	3U01CA253912-02S2	30,429	-
President and Fellows of Harvard College	93.393	5R00CA215314-04	48,309	-
President and Fellows of Harvard College	93.393	5R01CA240299-03	22,090	-
President and Fellows of Harvard College	93.393	5R03CA249027-02	899	(4,338)
President and Fellows of Harvard College	93.393	5U01CA167552-10	51,940	-
President and Fellows of Harvard College	93.393	5U01CA176726-09	1,493,047	-
President and Fellows of Harvard College	93.393	5U01CA209414-06	276,758	-
President and Fellows of Harvard College	93.393	5U01CA253912-03	146,448	_
President and Fellows of Harvard College	93.394	2R44CA224503-02	17,948	_
President and Fellows of Harvard College	93.396	1U01CA267827-01	50,110	_
President and Fellows of Harvard College	93.396	5R35CA220523-05	71,240	_
President and Fellows of Harvard College	93.397	5U54CA225088-04	98,151	_
President and Fellows of Harvard College	93.397	5U54CA225088-05	151,548	_
President and Fellows of Harvard College	93.837	5R01HL035464-31	113,128	_
President and Fellows of Harvard College	93.837	5R01HL060712-19	50,819	_
President and Fellows of Harvard College	93.837	5R01HL126896-05	279,244	_
President and Fellows of Harvard College	93.837	5U01HL145386-04	1,236,360	_
President and Fellows of Harvard College	93.837	5U19HL129903-05	66,081	_
President and Fellows of Harvard College	93.838	5R01HL139496-04	100,409	_
President and Fellows of Harvard College	93.838	5R01HL150520-03	132,876	_
President and Fellows of Harvard College	93.840	5R01HL149912-02	19,706	_
President and Fellows of Harvard College	93.840	5R01HL149912-03	60,236	
President and Fellows of Harvard College	93.847	1R01DK120560-03	10,835	
President and Fellows of Harvard College	93.847	1U2CDK129670-01	13,063	-
President and Fellows of Harvard College	93.847	5R01DK114098-04	76,367	•
President and Fellows of Harvard College President and Fellows of Harvard College	93.847		46,242	-
· · · · · · · · · · · · · · · · · · ·		5R01DK120560-03		-
President and Fellows of Harvard College	93.847	5R01DK120870	4,725	-
President and Fellows of Harvard College	93.847	5R01DK120870-04	157,810	-
President and Fellows of Harvard College	93.847	5R01DK126698-02	49,717	-
President and Fellows of Harvard College	93.847	5U2CDK129670-02	220,061	-
President and Fellows of Harvard College	93.847	5UC2DK126023-03	255,614	-
President and Fellows of Harvard College	93.853	1R01NS124017-01	27,118	-
President and Fellows of Harvard College	93.853	1R01NS126248-01	37,264	-
President and Fellows of Harvard College	93.853	1R01NS126260-01	8,531	-
President and Fellows of Harvard College	93.853	5R01NS104143-05	71,964	-

Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
President and Fellows of Harvard College	93.853	5R01NS111952-04	129,318	-
President and Fellows of Harvard College	93.855	2P30AI060354-17	(5,970)	-
President and Fellows of Harvard College	93.855	2P30AI060354-18	119,515	-
President and Fellows of Harvard College	93.855	2P30AI060354-19	152,857	-
President and Fellows of Harvard College	93.855	2UM1AI069456-16	101,846	-
President and Fellows of Harvard College	93.855	4U01AI114235-06	12,757	-
President and Fellows of Harvard College	93.855	5P01AI056299-19	610,430	-
President and Fellows of Harvard College	93.855	5P30AI060354-17	(8,836)	-
President and Fellows of Harvard College	93.855	5P30AI060354-18	459,364	-
President and Fellows of Harvard College	93.855	5P30AI060354-19	838,675	-
President and Fellows of Harvard College	93.855	5R01AI037581-25	(1,792)	-
President and Fellows of Harvard College	93.855	5R01AI143723-03	344,130	-
President and Fellows of Harvard College	93.855	5R01AI146095-02	8,478	-
President and Fellows of Harvard College	93.855	5R01AI148338-02	357,131	-
President and Fellows of Harvard College	93.855	5U01AI135940-04	221,594	-
President and Fellows of Harvard College	93.855	5U01AI135940-05	276,629	-
President and Fellows of Harvard College	93.855	5U01AI35940-04	1,702	-
President and Fellows of Harvard College	93.855	5U19AI133524-05	127,903	-
President and Fellows of Harvard College	93.855	5U19AI142793-02	(38,722)	-
President and Fellows of Harvard College	93.855	5U19AI142793-04	263,090	-
President and Fellows of Harvard College	93.859	5R01GM129026-04	25,475	-
President and Fellows of Harvard College	93.859	5R01GM131401-04	49,307	-
President and Fellows of Harvard College	93.865	1P01HD107670-02	2,579	-
President and Fellows of Harvard College	93.865	1R01HD095766	12,896	-
President and Fellows of Harvard College	93.865	1R01HD101351-02	61,379	-
President and Fellows of Harvard College	93.865	1R13HD104440-01	6,237	-
President and Fellows of Harvard College	93.865	3P01HD103133-02S1	2,947	-
President and Fellows of Harvard College	93.865	5P01HD103133-03	27,550	-
President and Fellows of Harvard College	93.865	5P01HD107670-02	144,837	-
President and Fellows of Harvard College	93.865	5R01AI148338-02	9,373	-
President and Fellows of Harvard College	93.865	5R01HD032443-24	1,578	-
President and Fellows of Harvard College	93.865	5R01HD088619-06	11,330	-
President and Fellows of Harvard College	93.865	5R01HD091797-05	(6,878)	-
President and Fellows of Harvard College	93.865	5R01HD093761-05	220,907	-
President and Fellows of Harvard College	93.865	5R01HD094725-03	146,382	-
President and Fellows of Harvard College	93.865	5R01HD095766-03	5,381	-
President and Fellows of Harvard College	93.865	5R01HD095766-04	11,800	-
President and Fellows of Harvard College	93.865	5R01HD097778-04	216,619	-
President and Fellows of Harvard College	93.865	5R01HD098232-03	6,335	-
President and Fellows of Harvard College	93.865	5R01HD102342-02	69,877	-
President and Fellows of Harvard College	93.866	1R21AG072516-01	76,808	-
President and Fellows of Harvard College	93.866	1RF1AG061774-01	249,664	-
President and Fellows of Harvard College	93.866	2P01AG032952-13	55,034	-
President and Fellows of Harvard College	93.866	3R01AG048917-05	7,164	-

Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
President and Fellows of Harvard College	93.866	3U54CA225088-04S1	5,365	_
President and Fellows of Harvard College	93.866	5P01AG041710-08	53,842	_
President and Fellows of Harvard College	93.866	5P01AG041710-08R	2,844	_
President and Fellows of Harvard College	93.866	5R01AG011085-29	249,867	_
President and Fellows of Harvard College	93.866	5R01AG053273-04	(1,892)	_
President and Fellows of Harvard College	93.866	5R01AG060935-03	63,811	_
President and Fellows of Harvard College	93.866	5R01AG066793-02	21,765	_
President and Fellows of Harvard College	93.866	5R01AG067420-03	26,012	_
President and Fellows of Harvard College	93.866	5R01AG068122-02	44,677	_
President and Fellows of Harvard College	93.866	5R56AG059620	70,604	_
President and Fellows of Harvard College	93.866	5R56AG059620-02	(6,196)	-
President and Fellows of Harvard College	93.866	R01HS026753	60,984	_
President and Fellows of Harvard College	93.879	5R01LM013614-02	69,758	_
President and Fellows of Harvard College	93.989	3D43TW010543-05S4	78,976	_
President and Fellows of Harvard College	93.989	5D43TW009610-09	5,407	_
RAND Corporation	93.242	5R01MH117760-03	55,407	_
RAND Corporation	93.242	5R34MH126478-02	45,150	_
Rector and Visitors of the University of Virginia	93.838	1R01HL153248-01A1	111,285	_
Rector and Visitors of the University of Virginia	93.839	5P01HL132819-04	353,414	63,207
Rector and Visitors of the University of Virginia	93.847	3P50DK096373-10	18,158	-
Regents of the University of California	93.113	5R01ES023316-10	321,767	_
Regents of the University of California	93.286	5U01EB025162-05	365,843	_
Regents of the University of California	93.361	5R01NR015591-05	39,237	_
Regents of the University of California, Davis	93.838	5R01HL113178-09	47,421	_
Regents of the University of California, Davis	93.838	R01HL148715	15,603	_
Regents of the University of California, Davis	93.853	R01NS058949-11	79,117	_
Regents of the University of California, Irvine	93.113	5R01ES020454-10	65,797	_
Regents of the University of California, Irvine	93.393	5R37CA252081-02	22,813	_
Regents of the University of California, Irvine	93.846	5R01AR078340-02	11,182	_
Regents of the University of California, Los Angeles	93.307	5R01MD013913-03	31,098	_
Regents of the University of California, Los Angeles	93.847	5RC2DK118640-02	22,515	_
Regents of the University of California, Los Angeles	93.855	1R01AI166313-01	24,301	_
Regents of the University of California, Los Angeles	93.855	2UM1AI068636-16	267,595	_
Regents of the University of California, Los Angeles	93.855	2UM1AI106701-09	341,206	_
Regents of the University of California, Los Angeles	93.855	3UM1AI068636-14S2	263,252	_
Regents of the University of California, Los Angeles	93.855	3UM1AI068636-16S1	3,582	_
Regents of the University of California, Los Angeles	93.855	5UM1AI068636-14	(1,718)	_
Regents of the University of California, Los Angeles	93.855	5UM1AI068636-16	185,204	_
Regents of the University of California, Los Angeles	93.855	5UM1AI106701-07	(5,178)	_
Regents of the University of California, Los Angeles	93.855	UM1AI068636	772	_
Regents of the University of California, Los Angeles	93.855	UM1AI068636-14	139,639	_
Regents of the University of California, Los Angeles	93.859	5P01GM099134-10	256,067	_
Regents of the University of California, Los Angeles	93.865	5R01HD090138-04	(12,445)	_
Regents of the University of California, San Diego	93.242	1RF1MH117155-01	108,177	_
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Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
Regents of the University of California, San Diego	93.242	5R01MH106595-06	32,124	-
Regents of the University of California, San Diego	93.242	5R01MH106595-07	97,746	-
Regents of the University of California, San Diego	93.242	5R01MH111438-05	267,755	-
Regents of the University of California, San Diego	93.242	5R21MH117518-02	1,214	-
Regents of the University of California, San Diego	93.310	4UG3CA241687-03	38,226	-
Regents of the University of California, San Diego	93.838	1R01HL161362-01	61,626	-
Regents of the University of California, San Diego	93.838	2R01HL162570-04A1	34,335	-
Regents of the University of California, San Diego	93.847	5R01DK124318-02	59,107	-
Regents of the University of California, San Diego	93.853	1UG3NS123723-01	122,948	-
Regents of the University of California, San Diego	93.855	2U19AI070535-16	57,327	-
Regents of the University of California, San Diego	93.855	5U19AI070535-15	(38,363)	-
Regents of the University of California, San Diego	93.866	1R56AG069107-01	28,875	-
Regents of the University of California, San Diego	93.866	5R56AG048642-07	39,072	-
Regents of the University of California, San Diego	93.866	7R56AG069107-02	78,753	-
Regents of the University of California, San Francisco	93.837	5R01HL152957-03	137,322	-
Regents of the University of California, San Francisco	93.837	5R33HL141047-05	124,430	-
Regents of the University of California, San Francisco	93.847	5R01DK114014-04	53,677	-
Regents of the University of California, San Francisco	93.853	5UH3NS105557-05	12,200	-
Regents of the University of California, San Francisco	93.855	5U01Al131296-05	24,486	-
Regents of the University of California, San Francisco	93.855	5UM1AI164560-02	488,929	-
Regents of the University of California, San Francisco	93.859	5R01GM130900-03	7,406	-
Regents of the University of California, San Francisco	93.859	R01GM117163	257,975	-
Regents of the University of California, San Francisco	93.865	5R01HD089511-05	157	-
Regents of the University of California, San Francisco	93.865	5R01HD098978-04	297,232	-
Regents of the University of California, San Francisco	93.866	5R01AG066137-04	66,941	-
Regents of the University of California, San Francisco	93.867	5R01EY032041-02	21,674	-
Regents of the University of Colorado	93.233	5R21HL145421-02	25	-
Regents of the University of Colorado	93.846	1R01AR069060-01A1	(1,629)	-
Regents of the University of Michigan	93.113	1R01ES031591-02	108,128	-
Regents of the University of Michigan	93.242	5R01MH110872-04	144,806	_
Regents of the University of Michigan	93.393	5U01CA253858-02	126,578	_
Regents of the University of Michigan	93.394	5U24CA086368-20	35,893	_
Regents of the University of Michigan	93.395	5R21CA234760-02	(145)	_
Regents of the University of Michigan	93.837	5R01HL155834-02	129,120	_
Regents of the University of Michigan	93.837	UG3HL159134	15	_
Regents of the University of Michigan	93.838	5U24HL145265-02	53,662	_
Regents of the University of Michigan	93.847	5R01DK106618-07	196,158	_
Regents of the University of Michigan	93.853	1U01NS099046-01A1	63,818	_
Regents of the University of Michigan	93.853	1UG3HL145269-01A1	29,420	_
Regents of the University of Michigan	93.866	5U01AG017719-20	8,357	-
, ,	93.279	R01DA047287	,	-
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Regents of the University of Minnesota Regents of the University of Minnesota Regents of the University of Minnesota ReNetX Bio	93.279 93.286 93.837 93.853	R01DA047287 5U01EB025153-05 5R01HL141288-04 1R44NS118974-01	27,201 17,919 33,631 139,474	

ter Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
Rensselaer Polytechnic Institute	93.286	1R01EB031102-01	128,306	-
Rensselaer Polytechnic Institute	93.855	R01AI132580	(7,746)	-
Research Foundation for Mental Hygiene	93.242	5R33MH116089-04	63,320	-
Research Foundation for Mental Hygiene	93.866	5R01AG066828-03	9,896	-
Research Foundation for the State University Of New York (SUNY), Albany	93.865	5R01HD097331-03	16,820	-
Research Foundation for The SUNY on behalf of University of Buffalo	93.867	1R01EY028553-01	139,823	-
Research Foundation of the City University of New York	93.393	7U24CA180996-09	151,082	-
Research Triangle Institute International	93.279	1UM1DA049394-01	344,109	-
Research Triangle Institute International	93.837	5R01HL149352-04	78,588	-
RetiSpec	93.866	1R01AG053184-01	3,801	-
Reveal Pharmaceuticals	93.394	R44CA239935	271,226	-
Reveal Pharmaceuticals	93.837	1R43HL156713	12,264	-
Rhode Island Hospital	93.837	5R01HL134706-04	(454)	-
Roswell Park Cancer Institute	93.393	2U24CA180996-08	37,907	-
RPCI Oncology, PC	93.172	5U41HG004059-16	8	-
Rush University Medical Center	93.847	5R01DK084195-10	129,108	-
Rush University Medical Center	93.847	5R01DK124280-02	35,073	-
Rush University Medical Center	93.853	5U01NS096767-04	319,133	32,039
Rush University Medical Center	93.866	1RF1AG059621	53,373	-
Rush University Medical Center	93.866	2RF1AG036042-06	(593)	-
Rush University Medical Center	93.866	5R01AG017917-19	213,527	-
Rush University Medical Center	93.866	5R01AG052583-05	509,664	-
Rush University Medical Center	93.866	5R01AG061798-03	183,342	-
Rush University Medical Center	93.866	5R01AG062637-02	92,151	-
Rutgers State University of New Jersey	93.242	5R01MH124899-02	52,968	-
Rutgers State University of New Jersey	93.242	5R34MH113757-03	34,715	-
Rutgers State University of New Jersey	93.853	5R01NS115957-02	50,308	-
Rutgers State University of New Jersey	93.855	7R01AI114617-06	(9,181)	-
Schepens Eye Research Institute	93.853	1RF1NS110048-01	41,866	-
Schepens Eye Research Institute	93.867	1R01EY031696-01A1	66,036	-
Schepens Eye Research Institute	93.867	1R21EY029847-01A1	(1,032)	-
Schepens Eye Research Institute	93.867	5R01EY019470-13	13,023	-
Scripps Research Institute	93.855	1R61AI161818-01	253,688	-
Scripps Research Institute	93.855	5R01AI147826-04	192,794	-
Scripps Research Institute	93.855	5U19AI135995-05	46,218	-
Scripps Research Institute	93.855	5UM1AI144462-03	2,674,345	-
Scripps Research Institute	93.855	5UM1AI144462-03	73,082	-
Scripps Research Institute	93.867	2R01EY026202-06A1	52,375	-
Seattle Institute for Biomedical and Clinical Research	93.393	5R01CA239208-03	286,564	54,264
Seattle Institute for Biomedical and Clinical Research	93.866	5R01AG061558-03	307,070	17,522
Seer, Inc.	93.866	5R44AG065051-02	231,980	,
SingletO2 Therapeutics LLC	93.121	R44DE026083	146,512	_
Soterya	93.853	1R43NS120394-01A1	17,612	_
St. Louis College of Pharmacy	93.865	4R33HD099748-03	166,628	_
Stanford University	93.173	5R01DC014034-05	(1,194)	_

Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
Stanford University Medical Center	93.233	5R01HL148704-02/R01HL148704	497,087	
Stanford University Medical Center Stanford University Medical Center	93.395	2R01CA177684-06A2	43,265	-
Stanford University Medical Center	93.853	5U01NS038455-20	138,226	-
State University of New York at Buffalo	93.853	7R01NS058949-12	178,212	-
Statera	93.855	1R43AI157959-01A1	40,486	-
	93.865		12,522	-
Stellenbosch University		R61HD103093		-
Strategen Bio	93.395	1R43CA261401-1A1	87,547	-
Sunnybrook Research Institute	93.173	1R01DC017291-05	103,863	-
Sunnybrook Research Institute	93.279	5R01DA042299-02	(16,369)	-
Superconducting Systems	93.286	1R43EB030454	61,769	-
Sylvatica Biotech	93.847	1R44DK124053-01	49,838	-
Sylvatica Biotech	93.855	2R44AI124835-02	43,913	-
Sylvatica Biotech	93.855	R44AI145782	26,321	-
Terasaki Family Foundation	93.846	5R01AR073135-06	213,600	-
The Administrators of the Tulane Educational Fund d/b/a Tulane University	93.837	1R01HL157903-01	29,417	-
The Administrators of the Tulane Educational Fund d/b/a Tulane University	93.847	1R01DK125782-01A1	47,462	-
The Methodist Hospital Research Institute	93.397	5U54CA210181-05	(1,169)	-
The Methodist Hospital Research Institute	93.853	5U01NS104326-05	5,923	-
The Methodist Hospital Research Institute	93.866	5R01AG057635-05	123,097	-
The University of Texas Health Science Center at Houston	93.399	5R01CA232888-04	10,306	-
The University of Texas Health Science Center at Houston	93.837	5R01HL141824-04	742	-
The University of Texas Health Science Center at Houston	93.838	5R01HL145025-03	566,497	-
The University of Texas Health Science Center at Houston	93.865	5R01HD099543-03	116,130	-
The Washington University	93.837	5R01HL143421-04	133,077	-
Thomas Jefferson University	93.837	5R01HL136209-04	(8,371)	-
Trace-Ability	93.242	1R44MH119110-01A1	9,923	-
Transcode Therapeutics	93.395	1R44CA257093-01A1	148,458	-
Translational Genomics Research Institute	93.866	1U19AG073153-01	29,826	-
Translational Genomics Research Institute	93.866	3UH3AG064706-03S1	110,000	-
Translational Genomics Research Institute	93.866	4UH3AG064706-03	36,217	-
Tristan Technologies	93.286	R44EB023147	(106)	-
Tristan Technologies	93.853	5R44NS090894-04	64,496	_
Trustees of Boston University	93.173	3U01DC014922-05S1	28,856	_
Trustees of Boston University	93.173	4500003984	228,963	_
Trustees of Boston University	93.213	5R01AT011429-02	213,817	_
Trustees of Boston University	93.242	1R01MH125703-01A1	35,931	_
Trustees of Boston University	93.242	5R01MH121397-03	33,352	_
Trustees of Boston University	93.242	7R01MH111359-05	85,595	_
Trustees of Boston University	93.273	5R01AA015923-10	(134)	-
Trustees of Boston University	93.279	4R33DA045148-03	28,341	-
Trustees of Boston University Trustees of Boston University	93.279	5R33DA045148-04	143,616	-
Trustees of Boston University Trustees of Boston University	93.286			-
Trustees of Boston University Trustees of Boston University	93.286	1R21EB029154-01 5R21EB030197-03	67,623 38,331	-
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Trustees of Boston University	93.307	4500003776	20,363	-

Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
Trustees of Boston University	93.393	5R01CA226805-03	(3,974)	-
Trustees of Boston University	93.394	5R01CA232056-04	114,008	-
Trustees of Boston University	93.395	1U01CA265713-01	200,390	-
Trustees of Boston University	93.395	5R01CA227433-05	196,388	-
Trustees of Boston University	93.395	5R01CA232708-04	310,078	-
Trustees of Boston University	93.837	1R01HL156975-01	54,082	-
Trustees of Boston University	93.837	5R01HL098028-06	12,126	-
Trustees of Boston University	93.837	5R01HL141406-04	53,032	-
Trustees of Boston University	93.838	5R33HL137081-05	76,274	-
Trustees of Boston University	93.847	1R01DK132576-01	58,120	-
Trustees of Boston University	93.853	5R01NS110669-04	60,617	-
Trustees of Boston University	93.853	5U01NS093334-07	314,970	-
Trustees of Boston University	93.853	5U19NS123717-02	1,028,536	-
Trustees of Boston University	93.855	1R01AI162850-01A1	14,096	-
Trustees of Boston University	93.859	5R01GM121457-05	119,119	_
Trustees of Boston University	93.866	1RF1AG056032-01A1	182,905	_
Trustees of Boston University	93.866	1RF1AG068121-01	106,103	_
Trustees of Boston University	93.866	1U01AG068221-01A1	47,526	_
Trustees of Boston University	93.866	1U19AG073172-01	307,315	_
Trustees of Boston University	93.866	5R01AG066010-03	75,607	_
Trustees of Boston University	93.866	5R01AG067394-04	116,872	_
Trustees of Boston University	93.866	5R01AG070135-02	37,025	_
Trustees of Boston University	93.866	5U19AG068753-03	267,805	_
Trustees of Columbia University in the City of New York (The)	93.395	5R01CA212086-05	56,052	_
Trustees of Columbia University in the City of New York (The)	93.838	5R01HL137234-04	102,288	_
Trustees of Columbia University in the City of New York (The)	93.838	7UH3HL140177-04	115,111	_
Trustees of Columbia University in the City of New York (The)	93.846	1R01AR077187-01A1	756	_
Trustees of Columbia University in the City of New York (The)	93.846	1R56AR077187-01	78,220	_
Trustees of Columbia University in the City of New York (The)	93.846	5R01AR050026-16	202,619	_
Trustees of Columbia University in the City of New York (The)	93.853	5R01NS084142-10	102,069	_
Trustees of Columbia University in the City of New York (The)	93.853	5U54NS078059-11	69,073	
Trustees of Columbia University in the City of New York (The)	93.855	1R34AI152962-01	3,207	
Trustees of Columbia University in the City of New York (The)	93.855	1R56Al154845-01A1	10,150	-
Trustees of Columbia University in the City of New York (The)	93.855	5U54Al138370-05	58,814	-
	93.865	5R01HD094793-04	180.110	-
Trustees of Columbia University in the City of New York (The)	93.866	3U01AG061356-04	106,319	-
Trustees of Columbia University in the City of New York (The)	93.866	5P30AG064198-03	,	-
Trustees of Columbia University in the City of New York (The)			42,138	-
Trustees of Columbia University in the City of New York (The)	93.866	5U01AG061356-04	94,056	-
Trustees of Dartmouth College	93.393	R01CA243449	2,463	-
Trustees of Dartmouth College	93.397	R1575	10,574	-
Trustees of Dartmouth College	93.859	5R35GM128745-05	33,559	-
Trustees of Indiana University	93.393	2R01CA157823	24,339	-
Trustees of Indiana University	93.847	R01DK112293-05	121,230	-
Trustees of Indiana University	93.859	5R01GM120156-04	387	-

Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
Trustees of Indiana University	93.866	5U01AG057195-03S1	(57,537)	-
Trustees of Indiana University	93.866	5U01AG057195-04	862,732	-
Trustees of the University of Pennsylvania	93.286	5R21EB027397-02	36	-
Trustees of the University of Pennsylvania	93.286	5U24EB028941-04	89,397	-
Trustees of the University of Pennsylvania	93.394	5R01CA229502-04	53,573	-
Trustees of the University of Pennsylvania	93.837	5R01HL103723-08	57,762	23,250
Trustees of the University of Pennsylvania	93.837	5R01HL148272-03	78,462	-
Trustees of the University of Pennsylvania	93.846	1U01AR079752-01	76,174	-
Trustees of the University of Pennsylvania	93.847	5U01DK103225-07	125,126	-
Trustees of the University of Pennsylvania	93.847	5U01DK126654-02	60,014	-
Trustees of the University of Pennsylvania	93.855	5U01AI163087-02	111,041	-
Trustees of the University of Pennsylvania	93.855	5U19AI149680-03	486,939	-
Trustees of the University of Pennsylvania	93.859	5R01GM132668-04	72,376	-
Trustees of the University of Pennsylvania	93.866	5U01AG032984-12	17,972	-
Trustees of Tufts College	93.859	5R21GM141683-02	85,892	-
Trustees of Tufts College	93.866	1R01AG069917	24,050	-
Tufts Medical Center	93.837	7R01HL149999-02	23,833	-
Tufts Medical Center	93.839	5R01HL135160-04	(11,661)	-
Tufts Medical Center	93.846	R01AR077146	21,532	-
Tufts Medical Center	93.865	1R01HD097081-03	127,445	-
Tufts Medical Center	93.865	5R01HD088061-05	158,226	-
Tufts Medical Center	93.866	5R01AG064064-03	166,660	-
Tufts Medical Center	93.867	5R01EY029602-04	18,804	-
Tufts University	93.310	1UG1HD107691-01	136,690	-
Tufts University	93.310	UG1HD107691	37,898	-
Tufts University	93.353	1U01CA224153	9,207	-
Tufts University	93.855	1R01Al169786-01	41,551	-
Tufts University	93.866	1R56AG065236	76,612	-
Tufts University	93.866	5R01AG059011-04	212,353	-
Tufts University School of Medicine	93.350	5UL1TR002544	9,697	-
Tulane University School of Medicine	93.279	1R01NS114286	43,879	-
University of Alabama, Birmingham	93.847	5R01DK115473-04	125,661	-
University of Alabama, Birmingham	93.855	5U19Al142737-04	68,449	-
University of Arizona	93.837	5U01HL133362-05	22,125	-
University of Arizona	93.838	5R01HL149744-02	55,946	-
University of Arizona	93.846	1R01AR078187-01	165,780	-
University of Arizona	93.846	5R01AR071409-04	97,082	-
University of Arizona	93.865	5R21HD099623-02	16,398	-
University of Arizona	93.989	5R21TW011222-02	7,602	-
University of Arkansas for Medical Sciences	93.310	2U24OD024957-04	9,901	-
University of Arkansas for Medical Sciences	93.310	5U24OD024957-04	18,312	-
University of California at Berkeley	93.172	5RM1HG009490-05	357,086	-
University of California at Berkeley	93.855	1R01AI155634-02	42,426	-
University of California at Davis	93.837	1R01HL157712-01A1	38,275	-
University of California at Davis	93.853	R01NS058949	7,323	-
University of California at Davis	93.866	2R01AG052132-03	30,363	-

ter Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
University of California at Davis	93.866	RF1AG054548	73,241	-
University of California at Irvine	93.113	5R01ES031139-03	252,714	-
University of California at Irvine	93.242	1RF1MH120021-01	32,432	-
University of California at Irvine	93.307	5R01MD015186-02	81,570	-
University of California at San Francisco	93.837	5R01HL125034-03	(17,464)	-
University of California at San Francisco	93.866	5R01AG038791-10	(152,362)	-
University of California at San Francisco, Cardiovascular Research Institute	93.395	5U24CA215123-05	393,590	-
University of Chicago	93.847	5R01DK118266-04	161,237	-
University of Chicago	93.847	5U54DK118612-03	118,229	-
University of Chicago	93.853	5R01NS116262-02	132,938	-
University of Cincinnati	93.838	5U01HL131755-05	7,048	-
University of Cincinnati	93.847	5R01DK123330-03	187,538	-
University of Cincinnati	93.853	1U01NS099043-01A1	508	-
University of Cincinnati	93.853	1U01NS102289-01A1	55	-
University of Cincinnati	93.853	1U01NS110772-01	2,061	-
University of Cincinnati	93.853	2U01NS069763-06A1	(75,536)	-
University of Cincinnati	93.853	5U01NS069763-08	495,052	-
University of Cincinnati	93.853	5U01NS095869-02	4,824	-
University of Cincinnati	93.853	5U01NS106513-02	18	-
University of Cincinnati	93.853	7U01NS100699-03	213	-
University of Cincinnati	93.865	1R01HD105818-01	88,214	-
University of Cincinnati	93.866	1R01AG072087-02	423,975	-
University of Colorado at Denver	93.361	5U2CNR014637-10	190,085	-
University of Colorado at Denver	93.838	5R01HL152735-03	64,931	-
University of Colorado at Denver	93.846	5R01AR075033-04	28,469	-
University of Colorado at Denver	93.846	5UH2AR067681-05	(6,146)	-
University of Colorado at Denver	93.847	5U01DK062453-20	66,133	-
University of Colorado at Denver	93.865	1R01HD108133-01	12,893	-
University of Colorado at Denver	93.866	5R01AG054366-02	(1,173)	-
University of Connecticut	93.846	5R01AR073822-05	164,146	-
University of Delaware	93.242	1R01MH126196-01A1	44,424	-
University of Florida Board of Trustees	93.242	R01MH117114	48,268	-
University of Florida Board of Trustees	93.279	5R01DA039044-05	78,498	-
University of Florida Board of Trustees	93.393	5R01CA240341-03	87,619	-
University of Florida Board of Trustees	93.853	5U01NS119562-02	14,733	-
University of Florida Board of Trustees	93.865	5R01HD089939-05	279,462	-
University of Georgia Research Foundation (UGARF)	93.855	U01AI148114	48,834	-
University of Houston	93.286	5R21EB026175-02	(68)	-
University of Houston	93.286	R21EB030257-01	30,400	-
University of Illinois	93.242	5R56MH112642-02	1,050	_
University of Illinois at Urbana Champaign	93.121	R01DE027989	216,119	3,248
University of lowa	93.847	2U01DK108334-07S1	2,019	-,
University of Iowa	93.855	5UH2AI144434-02	100,443	_
University of Kansas Medical Center Research Institute	93.847	5R01DK115727-02	(1,038)	_

ter Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
University of Louisville	93.837	5P01HL078825-15	16,064	_
University of Maryland	93.853	1R01NS100178-02	(43,276)	-
University of Maryland	93.853	1R01NS122980-01	107,920	-
University of Maryland	93.855	R01AI155716	75,910	-
University of Maryland, Baltimore	93.395	5R01CA260340-02	220,193	-
University of Maryland, Baltimore	93.855	1R01AI144983-02	295	-
University of Maryland, Baltimore	93.855	1U19AI145825-01A1	290,714	-
University of Maryland, Baltimore	93.866	1RF1AG073236-01	155,576	-
University of Massachusetts Amherst	93.242	5R01MH122371-04	76,965	-
University of Massachusetts Amherst	93.286	5R01EB027777-03	293,583	-
University of Massachusetts Amherst	93.393	5R01CA207369-05	116,444	-
University of Massachusetts Amherst	93.866	5P30AG073107-02	284,683	-
University of Massachusetts Amherst	93.866	5R01AG051600-04	24,141	-
University of Massachusetts Amherst	93.879	5R01LM013444-03	18,797	-
University of Massachusetts at Lowell	93.839	5R01HL143020-05	18,741	-
University of Massachusetts at Lowell	93.839	7R01HL143020-04	662,156	-
University of Massachusetts at Lowell	93.853	5R01NS097723-06	77,779	_
University of Massachusetts at Lowell	93.865	5R00HD093814-05	70,524	_
University of Massachusetts at Lowell	93.866	R21AG068890	29,188	_
University of Massachusetts Medical Center	93.361	1R01NR020439-01	23,561	_
University of Massachusetts Medical School	93.242	5R01MH083320-12	(17)	_
University of Massachusetts Medical School	93.846	1R01AR078230-01A1	146,658	_
University of Massachusetts Medical School	93.853	5R01NS098747-05	(6,404)	-
University of Massachusetts Medical School	93.855	1R01AI159159-01A1	201,463	_
University of Massachusetts Medical School	93.866	5R33AG057806-03	(43)	_
University of Massachusetts, Worcester	93.837	5R01HL131624-04	50,859	_
University of Massachusetts, Worcester	93.837	5R01HL137794-04	10,977	_
University of Massachusetts, Worcester	93.837	5R01HL145721-03	(1,848)	_
University of Massachusetts, Worcester	93.847	1R01DK127180-01	53,188	_
University of Massachusetts, Worcester	93.847	1R01DK127207-01	70,704	_
University of Massachusetts, Worcester	93.853	5R01NS108769-04	385,019	_
University of Massachusetts, Worcester	93.853	5U01NS114098-03	278,316	_
University of Miami	93.242	5R01MH103770-05	49,599	_
University of Miami	93.242	5R01MH118043-03	24,589	_
University of Miami	93.839	1R01HL156958-01	48,860	_
University of Miami	93.839	2R56HL131013-05A1	308	_
University of Miami	93.853	2U54NS092091-06	3,832	_
University of Miami	93.853	5R01NS098740-05	36,517	_
University of Miami	93.866	1R01AG067568-2	103,179	_
University of Michigan Medical School	93.353	3U01DE029255-01S2	75,932	_
University of Michigan Medical School	93.837	5R01HL146619-03	51,008	-
University of Michigan Medical School	93.839	5R01HL144550-03	64,477	_
University of Minnesota	93.839	5R01HL132906-05	133,845	-
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University of North Carolina at Chapel Hill	93.172	2U24HG009650-05	89,865	_

Research and Development Continued 93,242 500 11MH 110025-05 102,392	Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
University of North Carolina at Chapel Hill	Personal and Personal Conference				
University of North Carolina at Chapel Hill University of North Carolina at Chapel Hill 93.833 1073H-114279-12 64.694 104 North Carolina at Chapel Hill 93.837 1073H-114279-12 64.696 102.465 104 North Carolina at Chapel Hill 93.846 104 North Carolina at Chapel Hill 93.847 105 North Carolina at Chapel Hill 93.855 104 North Carolina at Chapel Hill 93.856 104 North Carolina at Chapel Hill 93.856 104 North Carolina at Chapel Hill 93.856 105 North Carolina at Chapel Hill 105 North Carolina at Chapel Hill 106 North Carolina at Chapel Hill 107 North Carolina at Chapel Hill 108 North Carolina At Chapel	·	00.040	51104841440005.05	400.000	
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University of Pittsburgh Of the Commonwealth System of Higher Education 93.837 SR01HL131632-05 5,496 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.837 SR01HL142932-05 5,496 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.837 SR01HL151886-02 287,460 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.838 1R01HL157879-01 154.875 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.838 1R01HL149719-03 44,996 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.846 4UH3AR076568-03 (2,852) - University of Pittsburgh Of the Commonwealth System of Higher Education 93.846 SP50AR060780-10 29.882 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.846 SUH3AR076568-03 83,494 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.853 1U24NS115708-01 11,935 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.855 1R01A1150255-02 65,960 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.855 P01A108545-06 154,281 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.855 SP01A1156255-02 65,960 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.855 SP01A1156345-02 18,139 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.855 SP01A1156345-02 18,139 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.865 SP01A1156345-02 18,139 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 SP01A1156345-02 18,139 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 SP01A1156345-02 18,139 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 SP01A0056331-03 (16,840) - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 SP01A0056331-03 (16,840) - University of Pittsburgh Of the Commonwealth System of Higher Educ	University of Pittsburgh Of the Commonwealth System of Higher Education	93.396	5R01CA256068-02	78,311	-
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University of Pittsburgh Of the Commonwealth System of Higher Education University of Pittsburgh Of the Commonwealth System of Higher Education University of Pittsburgh Of the Commonwealth System of Higher Education University of Pittsburgh Of the Commonwealth System of Higher Education University of Pittsburgh Of the Commonwealth System of Higher Education University of Pittsburgh Of the Commonwealth System of Higher Education University of Pittsburgh Of the Commonwealth System of Higher Education University of Pittsburgh Of the Commonwealth System of Higher Education University of Pittsburgh Of the Commonwealth System of Higher Education University of Pittsburgh Of the Commonwealth System of Higher Education University of Pittsburgh Of the Commonwealth System of Higher Education University of Pittsburgh Of the Commonwealth System of Higher Education University of Pittsburgh Of the Commonwealth System of Higher Education University of Pittsburgh Of the Commonwealth System of Higher Education University of Pittsburgh Of the Commonwealth System of Higher Education University of Pittsburgh Of the Commonwealth System of Higher Education University of Pittsburgh Of the Commonwealth System of Higher Education University of Pittsburgh Of the Commonwealth System of Higher Education University of Pittsburgh Of the Commonwealth System of Higher Education University of Pittsburgh Of the Commonwealth System of Higher Education University of Pittsburgh Of the Commonwealth System of Higher Education University of Pittsburgh Of the Commonwealth System of Higher Education University of Pittsburgh Of the Commonwealth System of Higher Education University of Pittsburgh Of the Commonwealth System of Higher Education University of Pittsburgh Of the Commonwealth System of Higher Education University of Pittsburgh Of the Commonwealth System of Higher Education University of Pittsburgh Of the Commonwealth System of Higher Education University of Pittsburgh Of the Commonwealth System of Higher Education University of Pittsburgh Of th	University of Pittsburgh Of the Commonwealth System of Higher Education	93.837	5R01HL151386-02	287,460	-
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University of Pittsburgh Of the Commonwealth System of Higher Education 93.846 5P50AR060780-10 29,882 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.846 5UH3AR076568-03 83,494 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.853 1U24NS115708-01 11,935 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.855 1R01Al150255-02 65,960 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.855 2P01Al08545-06 154,281 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.855 5P01Al129880-04 476,123 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.855 5R01Al155345-02 18,139 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.865 5U10HD036801-24 42,880 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.865 5U10HD036801-24 42,880 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 1U19AG063720-01A1 718,143 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 1U19AG063720-01A1 718,143 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 1U19AG063720-01A1 718,143 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 5R01AG056331-034 19,359 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 5R01AG056331-034 19,359 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 5R01AG068567-02 11,430 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 5R01AG066567-02 16,772 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.867 5UG1EY031651-02 19,715 - University of Rhode Island	University of Pittsburgh Of the Commonwealth System of Higher Education	93.838	5R01HL149719-03	44,996	-
University of Pittsburgh Of the Commonwealth System of Higher Education 93.846 5P50AR060780-10 29,882 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.846 5UH3AR076568-03 83,494 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.853 1U24NS115708-01 11,935 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.855 1R01Al150255-02 65,960 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.855 2P01Al08545-06 154,281 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.855 5P01Al129880-04 476,123 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.855 5P01Al129880-04 476,123 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.865 5U10HD036801-24 42,880 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.865 5U10HD036801-24 42,880 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 1U19AG063720-01A1 718,143 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 1U19AG063720-01A1 718,143 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 1U19AG063720-01A1 718,143 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 5R01AG056331-03 (16,840) - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 5R01AG068567-02 11,430 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 5R01AG068567-02 11,430 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 5R01AG068567-02 19,715 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 5R01AE066857-02 19,715 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 5R01AE066857-02 19,715 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 5R01AE068567-02 19,715 - University of Pittsburgh Of the Commonwealth System of Hi	University of Pittsburgh Of the Commonwealth System of Higher Education	93.846	4UH3AR076568-03	(2,852)	-
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University of Pittsburgh Of the Commonwealth System of Higher Education 93.855 1R01Al150255-02 65,960 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.855 2P01Al08545-06 154,281 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.855 5P01Al129880-04 476,123 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.855 5R01Al155345-02 18,139 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.865 5U10HD036801-24 42,880 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.865 AWD00003188(417136-6) 14,570 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 1U19AG063720-01A1 718,143 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 2RF1AG056331-04A1 19,359 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 5R01AG056331-03 (16,840) - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 U19AG068054 706,397 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 3U19AG068567-02 11,430 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 5R01AG068567-02 11,430 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 5R01AG068567-02 16,772 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 5R01AG068567-02 16,772 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.867 5UG1EY031651-02 19,715 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.143 5P42ES027706-05 15,099 -	University of Pittsburgh Of the Commonwealth System of Higher Education	93.846	5UH3AR076568-03	83,494	-
University of Pittsburgh Of the Commonwealth System of Higher Education 93.855 5P01Al129880-04 476,123 University of Pittsburgh Of the Commonwealth System of Higher Education 93.855 5P01Al129880-04 476,123 University of Pittsburgh Of the Commonwealth System of Higher Education 93.855 5R01Al155345-02 18,139 University of Pittsburgh Of the Commonwealth System of Higher Education 93.865 University of Pittsburgh Of the Commonwealth System of Higher Education 93.865 University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 University of Pittsburgh Of the Commonwealth System of Higher Education 93.866	University of Pittsburgh Of the Commonwealth System of Higher Education	93.853	1U24NS115708-01	11,935	-
University of Pittsburgh Of the Commonwealth System of Higher Education 93.855 5P01Al129880-04 476,123 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.855 5R01Al155345-02 18,139 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.865 5U10HD036801-24 42,880 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.865 AWD00003188(417136-6) 14,570 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 1U19AG063720-01A1 718,143 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 2RF1AG056331-04A1 19,359 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 5R01AG056331-03 (16,840) - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 U19AG068054 706,397 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 3U19AG068054 706,397 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 5R01AG068567-02 11,430 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 5R01AG068567-02 16,772 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.867 5UG1EY031651-02 19,715 - University of Rhode Island	University of Pittsburgh Of the Commonwealth System of Higher Education	93.855	1R01Al150255-02	65,960	-
University of Pittsburgh Of the Commonwealth System of Higher Education 93.855 5R01Al155345-02 18,139 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.865 5U10HD036801-24 42,880 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.865 AWD0003188(417136-6) 14,570 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 1U19AG063720-01A1 718,143 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 2RF1AG056331-04A1 19,359 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 5R01AG056331-03 (16,840) - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 U19AG068054 706,397 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 3U19AG063720-02S2 11,430 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 5R01AG068567-02 16,772 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.867 5UG1EY031651-02 19,715 - University of Rhode Island	University of Pittsburgh Of the Commonwealth System of Higher Education	93.855	2P01AI08545-06	154,281	-
University of Pittsburgh Of the Commonwealth System of Higher Education 93.865 AWD0003188(417136-6) 14,570 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 1U19AG063720-01A1 718,143 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 2RF1AG056331-04A1 19,359 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 2RF1AG056331-03 (16,840) - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 U19AG068054 706,397 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 3U19AG063720-02S2 11,430 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 5R01AG068567-02 11,430 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 5R01AG068567-02 16,772 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.867 5UG1EY031651-02 19,715 - University of Rhode Island	University of Pittsburgh Of the Commonwealth System of Higher Education	93.855	5P01AI129880-04	476,123	-
University of Pittsburgh Of the Commonwealth System of Higher Education 93.865 AWD0003188(417136-6) 14,570 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 1U19AG063720-01A1 718,143 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 2RF1AG056331-04A1 19,359 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 2RF1AG056331-03 (16,840) - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 U19AG068054 706,397 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 3U19AG063720-02S2 11,430 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 5R01AG068567-02 11,430 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 5R01AG068567-02 16,772 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.867 5UG1EY031651-02 19,715 - University of Rhode Island	University of Pittsburgh Of the Commonwealth System of Higher Education	93.855	5R01AI155345-02	18,139	-
University of Pittsburgh Of the Commonwealth System of Higher Education 93.865 AWD0003188(417136-6) 14,570 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 1U19AG063720-01A1 718,143 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 2RF1AG056331-04A1 19,359 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 5R01AG056331-03 (16,840) - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 U19AG068054 706,397 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 3U19AG063720-02S2 11,430 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 5R01AG088567-02 16,772 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.867 5UG1EY031651-02 19,715 - University of Rhode Island		93.865	5U10HD036801-24		-
University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 1U19AG063720-01A1 719,143 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 2RF1AG056331-04A1 19,359 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 5R01AG056331-03 (16,840) - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 U19AG068054 706,397 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 3U19AG068720-02S2 11,430 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 5R01AG068567-02 16,772 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.867 5UG1EY031651-02 19,715 - University of Rhode Island 93.143 5P42ES027706-05 15,099 -	· · · · · · · · · · · · · · · · · · ·		AWD00003188(417136-6)		_
University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 2RF1AG056331-04A1 19,359 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 5R01AG056331-03 (16,840) - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 U19AG068054 706,397 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 3U19AG063720-02S2 11,430 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 5R01AG068567-02 16,772 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.867 5UG1EY031651-02 19,715 - University of Rhode Island 93.143 5P42ES027706-05 15,099 -			,	,	_
University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 5R01AG056331-03 (16,840) - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 U19AG068054 706,397 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 3U19AG063720-02S2 11,430 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 5R01AG068567-02 16,772 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.867 5UG1EY031651-02 19,715 - University of Rhode Island 93.143 5P42ES027706-05 15,099 -	, , , , ,			,	_
University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 U19AG068054 706,397 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 3U19AG063720-02S2 11,430 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 5R01AG068567-02 16,772 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.867 5UG1EY031651-02 19,715 - University of Rhode Island 93.143 5P42ES027706-05 15,099 -	· · · · · · · · · · · · · · · · · · ·				_
University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 3U19AG063720-02S2 11,430 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 5R01AG068567-02 16,772 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.867 5UG1EY031651-02 19,715 - University of Rhode Island 93.43 5P42ES027706-05 15,099 -					_
University of Pittsburgh Of the Commonwealth System of Higher Education 93.866 5R01AG068567-02 16,772 - University of Pittsburgh Of the Commonwealth System of Higher Education 93.867 5UG1EY031651-02 19,715 - University of Rhode Island 93.867 5P42ES027706-05 15,099 -					_
University of Pittsburgh Of the Commonwealth System of Higher Education 93.867 5UG1EY031651-02 19,715 - University of Rhode Island 93.867 5P42ES027706-05 15,099 -					_
University of Rhode Island 93.143 5P42ES027706-05 15,099 -				,	_
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	University of Rochester			216,733	_

Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
University of Rochester	93.242	5P50MH106435-05	(58)	-
University of Rochester	93.866	5P01AG047200-09	462,728	-
University of Southern California	93.839	5U19HL156247-03	1,122,376	-
University of Southern California	93.847	5U01DK107350-05	7,784	-
University of Southern California	93.847	5U24DK110814-05	31,505	-
University of Southern California	93.853	5U54NS100064-05	52,898	-
University of Southern California	93.853	5UH3NS100614-05	392	-
University of Southern California	93.866	1R01AG061848-01	28,129	-
University of Southern California	93.866	1R01AG063689-01	259,550	-
University of Southern California	93.866	1RF1AG057892-01A1	105,608	-
University of Southern California	93.866	4U19AG010483-25	887,366	-
University of Southern California	93.866	5R01AG053798-04	198,960	-
University of Southern California	93.866	5R01AG054029-02	53,425	-
University of Southern California	93.866	5R01AG061848-03	347,741	-
University of Southern California	93.866	5U19AG024904-14	3,997	-
University of Southern California	93.866	5U24AG057437-02	111,501	-
University of Southern California	93.866	5U24AG057437-04	443,073	-
University of Southern California	93.866	5U24AG057437-05	709,694	-
University of Tennessee Health Science Center	93.867	1R21EY030142-01	1,336	-
University of Tennessee Health Science Center	93.867	1R21EY031725-01	14,959	-
University of Tennessee Medical Center	93.866	A22-1001-S001	25,667	-
University of Texas at Austin	93.242	1R01MH120219-01A1	28,842	-
University of Texas at Austin	93.286	7R21EB027506-03	72,349	-
University of Texas at San Antonio	93.853	1R01NS113516-02	1,660	-
University of Texas Health Science Center at San Antonio	93.853	5R01NS017950-37	79,082	-
University of Texas Health Science Center at San Antonio	93.866	5R01AG054076-05	762,569	-
University of Texas Health Science Center at San Antonio	93.866	5R01AG062531-03	134,397	-
University of Texas Health Science Center at San Antonio	93.866	5R01AG066524-02	232,735	-
University of Texas Health Science Center at San Antonio	93.866	7R01AG049607-04	13,683	-
University of Texas Medical Branch at Galveston	93.865	19-84725-10	(6,419)	-
University of Texas Southwestern Medical Center	93.393	3U01CA253912-02S2	82,771	-
University of Texas Southwestern Medical Center	93.393	5R01CA233794-03	39,908	-
University of Texas Southwestern Medical Center	93.394	1R01CA258524-01A1	23,468	-
University of Texas Southwestern Medical Center	93.394	1R37CA242070-01A1	58,217	-
University of Texas Southwestern Medical Center	93.396	5UM1CA221940-05	602,910	-
University of Texas Southwestern Medical Center	93.853	5R01NS108115-05	491,236	-
University of Texas Southwestern Medical Center	93.855	1R34AI134569-01A1	50	-
University of Texas Southwestern Medical Center	93.855	5U19AI142784-04	770,191	-
University of Texas Southwestern Medical Center	93.866	5R01AG056426-04	340,351	-
University of Texas, MD Anderson Cancer Center	93.394	3U01CA200462-05S1	25,552	-
University of Texas, MD Anderson Cancer Center	93.394	5U01CA200462-05	31,460	-
University of Texas, MD Anderson Cancer Center	93.395	5R01CA260872-02	305,134	-
University of Utah	93.173	5U01DC014706-03	(6,743)	-
University of Utah	93.393	R01CA242729	43,423	-
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er Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
University of Utah	93.847	1U24DK126127-01	74,908	
University of Utah	93.847	5U24DK126127-02	6,954	
University of Utah	93.853	1U01NS120901-01	899,260	194,472
University of Utah	93.855	R01AI135115	30,736	
University of Utah	93.859	R01GM134069	251,906	
University of Washington	93.113	1R21ES033343-01	45,371	
University of Washington	93.113	5R01ES027696-04	81,379	
University of Washington	93.394	1U24CA624044-01	38,183	
University of Washington	93.837	1R01HL142834-04	21,378	
University of Washington	93.839	5R01HL154385-03	44,929	
University of Washington	93.847	5U2CDK114886-05	44,367	
University of Washington	93.855	1R01Al136648-03	1	
University of Washington	93.866	3U01AG016976-20SA	(1,398)	
University of Washington	93.866	5R33AG067069-02	46,400	
University of Washington - Seattle	93.393	5R01CA194393-06	94,814	
University of Washington - Seattle	93.837	1R01HL158765-01	401,300	
University of Washington - Seattle	93.839	1R01HL147894-02	114,718	
University of Washington - Seattle	93.866	3U01AG016976-20SA	(144)	
University of Washington - Seattle	93.866	5R21AG070576-02	29,886	
University of Washington - Seattle	93.866	5U24AG072122-02	42,617	
Vanderbilt University Medical Center	93.242	5R01MH113478-05	98,682	
Vanderbilt University Medical Center	93.242	R56MH120736	64,560	
Vanderbilt University Medical Center	93.394	5U01CA231840-03	4,414	
Vanderbilt University Medical Center	93.837	1R01HL161516-01	16,237	
Vanderbilt University Medical Center	93.837	5R01HL131977-05	4,288	
Vanderbilt University Medical Center	93.837	5R01HL159487-02	7,809	
Vanderbilt University Medical Center	93.838	5R01HL146588-03	23,404	
Vanderbilt University Medical Center	93.846	5R01AR060846-08	16,881	
Vanderbilt University Medical Center	93.847	1R01DK131129-01	149,457	
Vanderbilt University Medical Center	93.855	1R01AI152693-01A1	(12,555)	
Vanderbilt University Medical Center	93.855	1R01AI154659-02	2,357	
Vanderbilt University Medical Center	93.866	1R01AG073439-01	50,462	
Vanderbilt University Medical Center	93.866	5R01AG062499-04	21,900	
Vanderbilt University Medical Center	93.867	1R21EY032592-01	45,023	
Vanderbilt University Medical Center	93.867	U24EY029893-03	483,248	
Vascular BioSciences	93.838	1R42HL132742-01A1	(27,985)	
Veristride	93.879	1R43LM013104-01	279	
Virginia Commonwealth University	93.242	1R01MH125938-01A1	19,417	
Virginia Commonwealth University	93.853	5U01NS095388-03	193,379	9,87
Virginia Commonwealth University	93.853	5U01NS095388-3	36,014	0,0
Virginia Commonwealth University	93.866	1U01AG076481-01	13,740	
Volatylix	93.855	5R44AI141264-03	156,378	
Vox Biomedical LLC	93.279	4R42DA049655-03	189,728	
Vox Biomedical LLC	93.279	6R42DA049655-02	334	
Wake Forest University	93.846	5U01AR068658-04	60,437	

er Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
Wake Forest University	93.846	R34AR077361	22,388	
Wake Forest University Health Sciences	93.233	5R01HL133684-04	16,083	
Wake Forest University Health Sciences	93.859	3P01GM113852-05S1	15,922	
Wake Forest University Health Sciences	93.859	P01GM113852	13,245	
Wake Forest University Health Sciences	93.866	5R01AG058571-04	12,466	
Wake Forest University Health Sciences	93.866	5R01AG064440-04	71,480	
Wake Forest University Health Sciences	93.866	5R01AG074562-02	54,685	
Washington University	93.273	5R21AA027608-02	12,943	
Washington University	93.393	5R01CA248526-03	146,026	
Washington University	93.393	5R37CA246175-02	87,438	
Washington University	93.394	5U24CA196171-08	106,329	
Washington University	93.397	5P50CA171963-09	77,304	
Washington University	93.837	1R01HL156991-01	62,822	
Washington University	93.837	5R01HL156991-02	79,525	
Washington University	93.839	4UH3HL138325-03	3,280	
Washington University	93.839	5UH3HL138325-04	93,459	
Washington University	93.853	5R01NS097816-03	2,608	
Washington University	93.866	1U19AG071754-01	216,351	
Nashington University	93.866	1U19AG073585-01	406,243	
Vashington University	93.866	2RF1AG047644-06	410,765	
Vashington University	93.866	5R34AG056639-02	(168)	
Washington University	93.866	5U01AG052564-04	378,425	
Vashington University	93.866	5U19AG032438-10	119,497	
VellSIM BioMedical Technologies	93.866	1R41AG076098-01	70,221	
Nistar Institute of Anatomy and Biology	93.855	5UM1AI164570-02	106,552	
Wistan Institute of Artifatority and Blology Wits Reproductive Health and HIV Institute (WRHI)	93.840	1UG3HL156388-01	35,602	
Worcester Polytechnic Institute	93.173	1R15DC018667-01	19,781	
Nyss Institute at Harvard University	93.353	1U54CA244726-02	185,363	
Yale University	93.173	5R21DC018098-03	42,471	
Yale University	93.242	5R01MH120080-04	235,288	
/ale University	93.242	5R01MH123155-02	788,883	
Yale University	93.279	2UG1DA015831-21	14,764	
Yale University	93.279	3UG1DA015831-21S1	454,783	
Yale University	93.279	3UG1DA015831-21S2	518,173	
Yale University	93.279	5UG1DA015831-21	340,877	
Yale University	93.286	1R01EB031114-01A1	66,180	
Yale University	93.350	7R21TR002639-03	5,317	
Yale University	93.353	1U2CCA252979-01A1	66,169	
/ale University	93.393	5R03CA219603-02	(3,314)	
Yale University	93.393	5U01CA233364-04	117,860	
•				
Yale University	93.396	5R01CA230275-04	58,229	
Yale University	93.837	5R01HL148819-03	115,773	
Yale University	93.853	5R01NS11072-04	4,420	
Yale University	93.853	5R01NS117904-02	186,308	
Yale University	93.853	5U01NS106513-02	9,064	
Yale University	93.855	5P01Al039671-24	657,368	

Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
Yale University	93.855	5R01AI104824-08	22,164	-
Yale University	93.866	1R01AG071528-01A1	23,932	-
Yale University	93.866	5R01AG065403-03	552,040	-
Yale University School of Medicine	93.361	5R01NR018335-03	28,375	-
·			1,096,393,296	204,777,384
Department of Health and Human Services - Office of the Secretary				
Assistant Secretary for Preparedness and Response	93.817	Direct	1,497,261	317,873
COVID-19 New York City Health and Hospitals Corporation	93.825	6NU38CK000482-01-05	456,138	-
COVID-19 New York City Health and Hospitals Corporation	93.825	6NU38CK000482-01-06	449,186	-
Emory University	93.825	6U3REP170552-04-05	207,365	-
New York City Health and Hospitals Corporation	93.825	6NU38CK000482-01-10	542,666	-
			3,152,616	317,873
Department of Health and Human Services - Substance Abuse and Mental Health Services Administration				
American Academy of Addiction Psychiatry (AAAP)	93.788	1H79TI083343-02	251,905	-
Centers for Disease Control and Prevention	93.276	Direct	128,445	-
President and Fellows of Harvard College	93.243	1H79FG000030-01	16,982	-
Substance Abuse and Mental Health Services Administration	93.243	Direct	4,022	-
University of Puerto Rico Medical Sciences Campus	93.958	2022951719	71,537	
			472,891	
Department of Justice - Office for Victims of Crime				
Beth Israel Deaconess Medical Center	16.320	OVC-2019-15655	97,215	
			97,215	
Department of Justice - Office of Justice Programs				
Department of Justice - Office of Justice Programs	16.842	Direct	211,643	-
Department of Justice - Office of Justice Programs	93.RD3	Direct	79,525	
			291,168	
Department of Veterans Affairs				
Department of Veterans Affairs	93.RD2	Direct	1,057,491	-
President and Fellows of Harvard College	93.RD2	36C24E20N0129	35,802	-
VA Boston Healthcare System	93.RD2	Direct	608,059	
			1,701,352	
Federal Aviation Administration				
Boston University School of Public Health	93.RD14	13-C-AJFE-BU-027	123,713	-
Federal Aviation Administration	93.RD6	Direct	556,858	
			680,571	
Federal Communications Commission				
Federal Communications Commission	93.RD11	Direct	166,773	
			166,773	
National Aeronautics and Space Administration				
Baylor College of Medicine	43.003	NNX16A069A	119,273	-
Baylor College of Medicine	43.003	NNX17AE04G	(12)	-
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Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development Continued				
COVID-19 Emerald Innovations	43.003	NNX16A069A	(10,111)	_
Georgia Institute of Technology	43.001	80NSSC21K0234	33,073	_
KBRWyle	93.RD17	NNJ15HK11B	95,445	37,698
Massachusetts Institute of Technology	43.003	700000324/NNX16A069A	203,743	-
National Aeronautics and Space Administration	43.003	Direct	1,252,704	162,810
Trustees of the University of Pennsylvania	43.003	NNX15AK76A	100,966	-
,			1,795,081	200,508
National Science Foundation				
Children's Hospital Corporation dba Boston Children's Hospital	47.049	1707865	9,183	-
COVID-19 Altigg Therapeutics	47.041	2036233	68,267	-
COVID-19 Claremont McKenna College	47.075	2027694	72	-
COVID-19 National Science Foundation	47.074	Direct	45,553	4,932
COVID-19 University of California at Davis	47.075	2116859	22,282	-
George Washington University	47.041	1830941	62,490	-
Massachusetts Institute of Technology	47.041	2124319	61,603	-
National Science Foundation	47.041	Direct	459,767	86,269
National Science Foundation	47.041	Direct	108,745	-
National Science Foundation	47.049	Direct	98,846	-
National Science Foundation	47.070	Direct	262,333	-
National Science Foundation	47.074	Direct	586,641	349,650
National Science Foundation	47.075	Direct	170,262	-
National Science Foundation	47.076	Direct	792,686	51,004
President and Fellows of Harvard College	47.041	EFMA-1830896	12,406	-
President and Fellows of Harvard College	47.049	2127882	101,466	-
President and Fellows of Harvard College	47.070	CCF-1509178	65,010	-
President and Fellows of Harvard College	47.079	59-0210-6-004	10,025	-
Regents of the University of California, San Diego	47.075	1932619	39,744	-
Regents of the University of Minnesota	47.041	EEC-194153	1,600,438	-
Research Foundation for The SUNY Stony Brook University	47.070	IIS1926781	388,080	-
Retinal Registry	47.041	2025322	53,985	-
Scalar Magnetics, LLC	47.041	2014924	72,946	-
University of Iowa	47.083	2040532	19,824	-
University of Massachusetts Amherst	47.070	1915481	62,987	-
University of Nevada Las Vegas Woods Hole Research Center	47.074	1921742	(89)	-
Woods Hole Research Center	47.050	1915307	1,544	401.055
U.S. Food & Drug Administration			5,177,096	491,855
American College of Radiology	93.RD8	75F40120C00093	9,008	
Harvard Pilgrim Health Care	93.RD8	75F40120C00093 75F40119D10037	9,008 1,789,701	-
U.S. Food & Drug Administration	93.RD8	Direct	1,074,785	-
o.o. i ood & Didy Administration	30.IND0	Direct.	2,873,494	<u>-</u>
		Total Research and Development		\$ 213.600.794
		rotal Research and Development	<u>ت 1ب40 ابا 12 ا</u>	₽ ∠13,000,794

Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-T Entity Identifying Nu	•	Total Expenditures	Subrecipient Expenditures
Research Training					
Department of Defense - U.S. Army Medical Command					
U.S. Army Medical Research Acquisition Activity	12.420	Direct		\$ 163,129	\$ -
			Subtotal	163.129	
Department of Health and Human Services - Agency for Healthcare Research and Quality					
Agency for Healthcare Research and Quality	93.226	Direct		233.772	_
Children's Hospital Corporation dba Boston Children's Hospital	93.226	5T32HS000063-28		55,208	
Official of Pospital Corporation and Boston Official Strospital	30.220	3132116000000-20	Subtotal	288,980	
			Subiolai	288,980	
Department of Health and Human Services - Health Resources and Services Administration					
Beth Israel Deaconess Medical Center	93.186	5T32HP42013-02-00		28,073	-
Beth Israel Deaconess Medical Center	93.186	6T32HP42013-01-01		13,202	-
Health Resources and Services Administration	93.186	Direct		257,058	-
Health Resources and Services Administration	93.359	Direct		25,562	
Health Resources and Services Administration	93.732	Direct		1,270,957	150,017
Massachusetts General Hospital	93.732	5T25HP37602-03		115,506	-
MGH Institute of Health Professions	93.732	1M01HP41980 01 00		18,936	-
President and Fellows of Harvard College	93.110	6T76MC00001670		7,605	-
President and Fellows of Harvard College	93.884	5T0BHP29997-05-00		(1)	
			Subtotal	1,736,898	150,017
Department of Health and Human Services - National Institutes of Health					
American Academy of Child and Adolescent Psychiatry	93.279	K12DA000357		142,291	-
American University of Beirut	93.989	3BWH2D43TW009118-06		22,901	-
Beth Israel Deaconess Medical Center	93.213	5T32AT000051-22		79,811	-
Beth Israel Deaconess Medical Center	93.213	5T32AT000051-23		48,847	-
Beth Israel Deaconess Medical Center	93.398	5K08CA248473-03		31,953	-
Beth Israel Deaconess Medical Center	93.837	5T32HL007734-28		122,938	-
Boston Medical Center	93.242	5T32MH116140-03		88,487	-
Boston Medical Center	93.242	5T32MH116140-05		13,417	-
Boston Medical Center	93.855	2T32AI052074-17		57,455	-
Brigham and Women's Hospital	93.242	5K24MH110807-05		24,459	-
Brigham and Women's Hospital	93.839	5K12HL141953-03		(592)	-
Brigham and Women's Hospital	93.839	5K12HL141953-04		75,419	-
Children's Hospital Corporation dba Boston Children's Hospital	93.839	5T32HL066987-19		77,562	-
Children's Hospital Corporation dba Boston Children's Hospital	93.839	5T32HL066987-20		47,277	-
Children's Hospital Corporation dba Boston Children's Hospital	93.847	5F32DK122766-02		48,001	-
Children's Hospital Corporation dba Boston Children's Hospital	93.847	5T32DK007477-38		41,546	-
Children's Hospital Corporation dba Boston Children's Hospital	93.865	5K08HD100595-02		14,098	-
Children's Hospital Corporation dba Boston Children's Hospital	93.865	5K12HD052896-13		(405)	-
Children's Hospital Corporation dba Boston Children's Hospital	93.865	5T32HD040128-18		54,408	-
COVID-19 Brigham and Women's Hospital	93.865	1K12HD103096-02		74,164	-
COVID-19 NIH-NIAID National Institute of Allergy and Infectious Diseases	93.855	Direct		146,826	-
COVID-19 NIH-NICHD National Institute of Child Health and Human Development	93.865	Direct		30,545	-
COVID-19 NIH-NIGMS National Institute of General Medical Sciences	93.859	Direct		79,367	-
COVID-19 University of North Carolina at Chapel Hill	93.837	1OT3HL147154-01		17,866	-

luster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research Training Continued				
Dana Farber Cancer Institute	93.393	5UE5CA246746-03	81,464	_
Dana Farber Cancer Institute	93.398	5K08CA219504-05	108,335	_
Dana Farber Cancer Institute	93.398	5R25CA181000-08	78,903	_
Dana Farber Cancer Institute	93.398	5T32CA092203	53,603	_
Dana Farber Cancer Institute	93.398	5T32CA092203-20	56,349	_
Dana Farber Cancer Institute	93.855	5T32AI007386-28	60,520	_
George Washington University	93.853	5U54NS115054-02	38,135	-
George Washington University	93.853	E&RFund2/2Agmt21 SA003AgrenX	19,500	-
Joslin Diabetes Center	93.847	5T32DK007260-44	40	-
Judge Baker Children's Center	93.242	5T32MH016259-40	40,208	-
Judge Baker Children's Center	93.242	5T32MH016259-41	113,744	-
Kennedy Krieger Institute	93.853	5K12NS098482-05	254,281	-
Massachusetts General Hospital	93.398	2K12CA090354-21	7,416	-
Massachusetts General Hospital	93.866	5K23AG061276-04	6,237	-
Mbarara University of Science and Technology	93.989	1D43TW011632-01	5,463	-
Mbarara University of Science and Technology	93.989	5D43TW011632-02	13,990	-
NIH-FIC Fogarty International Center	93.989	Direct	212,663	11,545
NIH-NCCAM National Center for Complementary and Alternative Medicine	93.213	Direct	417,108	-
NIH-NCCIH National Center for Complementary and Integrative Health	93.213	Direct	119,559	-
NIH-NCI National Cancer Institute	93.393	Direct	322,839	-
NIH-NCI National Cancer Institute	93.398	Direct	8,880,842	246,648
NIH-NEI National Eye Institute	93.867	Direct	1,860,966	-
NIH-NHGRI National Human Genome Research Institute	93.172	Direct	829,388	-
NIH-NHLBI National Heart, Lung, and Blood Institute	93.233	Direct	1,683,117	-
NIH-NHLBI National Heart, Lung, and Blood Institute	93.837	Direct	8,462,779	3,614
NIH-NHLBI National Heart, Lung, and Blood Institute	93.838	Direct	7,480,661	36,135
NIH-NHLBI National Heart, Lung, and Blood Institute	93.839	Direct	1,589,624	332,819
NIH-NHLBI National Heart, Lung, and Blood Institute	93.840	Direct	18,429	-
NIH-NIA National Institute on Aging	93.866	Direct	4,780,201	81,691
NIH-NIAAA National Institute on Alcohol Abuse and Alcoholism	93.273	Direct	1,005,267	-
NIH-NIAID National Institute of Allergy and Infectious Diseases	93.855	Direct	6,086,541	284,287
NIH-NIAMS National Institute of Arthritis and Musculoskeletal and Skin Diseases	93.846	Direct	4,657,087	31,005
NIH-NIBIB National Institute of Biomedical Imaging and Bioengineering	93.286	Direct	1,288,260	-
NIH-NICHD National Institute of Child Health and Human Development	93.865	Direct	2,489,605	137,399
NIH-NIDA National Institute on Drug Abuse	93.279	Direct	3,053,316	81,332
NIH-NIDA National Institute on Drug Abuse	93.853	Direct	21,202	-
NIH-NIDCD National Institute on Deafness and Other Communication Disorders	93.173	Direct	1,638,019	-
NIH-NIDCR National Institute of Dental and Craniofacial Research	93.121	Direct	467,914	-
NIH-NIDDK National Institute of Diabetes and Digestive and Kidney Diseases	93.847	Direct	9,492,124	14,778
NIH-NIEHS National Institute of Environmental Health Sciences	93.113	Direct	244,759	25,452
NIH-NIGMS National Institute of General Medical Sciences	93.859	Direct	1,681,365	-
NIH-NIMH National Institute of Mental Health	93.242	Direct	7,409,760	190,549
NIH-NIMH National Institute of Mental Health	93.853	Direct	76,091	-
NIH-NIMHD National Center on Minority Health and Health Disparities	93.307	Direct	317,353	-

Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research Training Continued				
NIH-NINDS National Institute of Neurological Disorders and Stroke	93.853	Direct	5,772,704	138,185
President and Fellows of Harvard College	93.113	5T32ES7069-42	50,317	· -
President and Fellows of Harvard College	93.242	T32MH017119	61,057	-
President and Fellows of Harvard College	93.350	5KL2TR002542-04	29,462	_
President and Fellows of Harvard College	93.350	5KL2TR002542-05	749,196	-
President and Fellows of Harvard College	93.398	5T32CA009001	54,264	-
President and Fellows of Harvard College	93.398	5T32CA009001-45	35,640	-
President and Fellows of Harvard College	93.398	5T32CA009001-46	101,682	(2,280)
President and Fellows of Harvard College	93.398	5T32CA009001-47	63,416	-
President and Fellows of Harvard College	93.398	5T32CA9001-45	37,688	-
President and Fellows of Harvard College	93.847	2T32DK007703-26	52,704	-
President and Fellows of Harvard College	93.847	2T32DK007703-27	15,759	-
President and Fellows of Harvard College	93.855	5P30AI060354-18	16,586	-
President and Fellows of Harvard College	93.855	5T32AI007245-38	23,011	-
President and Fellows of Harvard College	93.855	5T32AI007245-39	56,558	-
President and Fellows of Harvard College	93.855	CFAR-MGH-21-2-STANTON	5,772	-
President and Fellows of Harvard College	93.866	5T32AG000222-28	(17,568)	-
President and Fellows of Harvard College	93.866	5T32AG000222-29	33,621	-
President and Fellows of Harvard College	93.866	5T32AG000222-30	177,812	-
President and Fellows of Harvard College	93.866	5T32Al007245-37	34,104	-
President and Fellows of Harvard College	93.879	2T15LM007092-31	79,736	-
President and Fellows of Harvard College	93.879	5T15LM007092-28	(6,369)	-
President and Fellows of Harvard College	93.879	5T15LM007092-29	(12,167)	-
President and Fellows of Harvard College	93.879	5T15LM007092-30	106,925	-
Regents of the University of California, San Francisco	93.837	5R25HL126146-06	2,700	-
Trustees of Boston University	93.837	5T32HL125232-06	45,491	-
Trustees of Tufts College	93.121	K23DE026804-05	10,344	-
University of North Carolina at Chapel Hill	93.837	1OT3HL147154-01	152,870	
		Subtotal	86,596,983	1,613,159
Department of Health and Human Services - Substance Abuse and Mental Health Services Administration				
American Academy of Addiction Psychiatry (AAAP)	93.243	5H79TI081358-02	(8,482)	-
American Academy of Addiction Psychiatry (AAAP)	93.243	5H79TI081358-03	72,738	-
American Academy of Addiction Psychiatry (AAAP)	93.243	5H79TI081358-04	29,794	-
American Psychiatric Association (APA)	93.243	Number Not Available	15,609	-
Substance Abuse and Mental Health Services Administration	93.243	Direct	(428)	(428)
		Subtotal	109,231	(428)
		Total Research Training	\$ 88,895,221	\$ 1,762,748
	Total Research	and Development and Research Training	\$ 1,300,677,942	\$ 215,363,540

Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Student Financial Aid				
Department of Education - Office of Federal Student Aid				
U.S. Department of Education	84.268	Direct	\$ 40,589,330	\$ -
		Sub	otal 40,589,330	
Nurse Faculty Loan Program (NFLP) FY21 Outstanding Loans				
U.S. Department of Health and Human Services	93.264	Direct	214,737	-
		Sub	otal 214,737	-
Nurse Faculty Loan Program (NFLP) New Loans Issued During FY22				
U.S. Department of Health and Human Services	93.264	Direct	45,647	_
		Subi		
		Sub	Jiai 45,047	-
ARRA Nurse Faculty Loan Program (NFLP) FY21 Outstanding Loans				
U.S. Department of Health and Human Services	93.408	Direct	20,201	. <u> </u>
		Sub	otal 20,201	<u> </u>
ARRA Nurse Faculty Loan Program (NFLP) Write Off During FY22				
U.S. Department of Health and Human Services	93.408	Direct	(20,201	
		Sub	otal (20,201)) -
		Total Student Financial	Aid \$ 40,849,714	\$ -

Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Food Distribution Cluster				
Department of Agriculture - Food and Nutrition Service				
Greater Boston Food Bank	10.569	Agency 2273	\$ 125,206	\$ -
Ground Booton Food Burn	10.000	Subto	<u>+ :==;===</u>	<u> </u>
		Subto	ai 125,200	
SNAP Cluster				
Department of Agriculture - Food and Nutrition Service	40.504	Outro - Doutro Auro -	7.000	
University of Massachusetts Medical Center	10.561	OutreachPartnerAmendment1-4-2016	7,880	
		Subto	al <u>7,880</u>	
Highway Safety Cluster				
Department of Transportation - National Highway Traffic Safety Administration (NHTSA)				
KEA Technologies	20.614	DTNH22-13-H-00433	118,709	
		Subto	al118,709_	
Aging Cluster				
Department of Health and Human Services - Administration for Community Living				
Highland Valley Elder Services	93.044	Number Not Available	4.002	_
Mystic Valley Elder Services	93.044	TitleIII,PartE	3,866	-
Mystic Valley Elder Services	93.044	TitleIII-E	3,866	-
		Subto	al 11,734	
Department of Health and Human Services - Administration for Community Living				
Highland Valley Elder Services	93.052	Number Not Available	4,000	
riigilianu valley Lidel Services	93.032			
		Subto	ai 4,000	<u>-</u>
Special Supplemental Nutrition Program for Women, Infant, and Children				
Department of Agriculture - Food and Nutrition Service				
Massachusetts Department of Public Health	10.557	INTF3502M03162726104	827,289	-
Massachusetts Department of Public Health	10.557	INTF3502M03162726128	831,961	-
Massachusetts Department of Public Health	10.557	WICvoucher	4,075,902	
		Subto	al 5,735,152	
HRSA COVID-19 Claims Reimbursement for the Uninsured Program				
Department of Health and Human Services - Health Resources and Services Administration				
COVID-19 HRSA COVID Testing for Uninsured	93.461	Number Not Available	4,303,034	
		Subto	al 4,303,034	
Provider Relief Funds				
Department of Health and Human Services - Health Resources and Services Administration				
COVID-19 Cares Provider Relief Funds	93.498	Number Not Available	480,170,587	-
		Subto	al 480,170,587	
Higher Education Emergency Relief Fund				
Department of Education				
COVID 19 Emergency Relief Fund - Institutional	84.425E	P425E202204	29,553	_
COVID 19 Emergency Relief Fund - Student	84.425F	P425F202849	467,713	-
Table 15 and Graden	020.	Subto		
		Subto	431,200	

Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Th Entity Identifying Nun	-	Total Expenditures	Subrecipient Expenditures
Coronavirus Relief Fund					
Department of the Treasury					
COVID-19 Foundation for Healthy Communities	21.019	CoronavirusReliefFundGrant		183,425	-
COVID-19 Governor's Office for Emergency Relief and Recovery	21.019	CoronavirusReliefFundGrant		726,000	
			Subtotal	909,425	
Coronavirus State and Local Fiscal Recovery Funds					
Department of the Treasury					
COVID-19 Boston Public Health Commission	21.027	SLFRPO153		8,975	_
COVID-19 Commonwealth of Massachusetts	21.027	CTDOE22CT96EAASES2ARLI	NGT	112,941	-
COVID-19 Commonwealth of Massachusetts	21.027	CTDOE22CT96EAASESWFM0	CLEAN	582,206	-
COVID-19 Commonwealth of Massachusetts	21.027	Number Not Available		4,781,000	
			Subtotal	5,485,122	_
Other Programs					
Agency for International Development					
Eastern Virginia Medical School	98.001	7200AA20CA00019		79.815	_
Fenway Community Health Center	98.001	72038619CA0001		14,026	_
International AIDS Vaccine Initiative (IAVI)	98.001	A09867		150,675	_
Invisible Children	98.001	7260518CA00001		88,009	-
President and Fellows of Harvard College	98.001	7200AA19APS00002		211,043	-
President and Fellows of Harvard College	98.001	720FDA20GR00043		388,320	-
SSG Advisors, LLC d/b/a Resonance	98.001	7200AA18C00072		10,446	-
U.S. Agency for International Development	98.001	7200AA18CA00002		308,870	80,605
U.S. Agency for International Development	98.001	720FDA20CA00084		925,039	-
U.S. Agency for International Development	98.001	AID-440-A-16-00002		1,240,559	818,929
			Subtotal	3,416,802	899,534
Agency for International Development					
U.S. Agency for International Development	98.006	72ASHA19GR00002		409,587	-
			Subtotal	409,587	
Department of Health and Human Services - Administration for Children and Families					
Massachusetts Department of Public Health	93.235	INTF3211MM3W19020007		63,907	11,400
·			Subtotal	63,907	11,400
Department of Health and Human Caminas Contant for Disease Control and Brayantian					
Department of Health and Human Services - Centers for Disease Control and Prevention	93.073	5U01DD001224-03-00		5,783	
Massachusetts Department of Public Health Massachusetts Department of Public Health	93.073	INTF3122HH4300522044		2,660	-
Massachuseus Department of Fublic Health	93.073	11117312211114300322044	0.1.1.1		
			Subtotal	8,443	
Department of Health and Human Services - Centers for Disease Control and Prevention					
Massachusetts Department of Public Health	93.074	MPD		(945)	
			Subtotal	(945)	
Department of Health and Human Services - Centers for Disease Control and Prevention					
University of Alabama, Birmingham	93.184	1NU27DD000022-01-00		82,839	_
University of Alabama, Birmingham	93.184	5NU27DD001157-05-00		24,249	_
•			Subtotal	107,088	
			Capiolal	107,000	

Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-T Entity Identifying Nu		Total Expenditures	Subrecipient Expenditures
Other Programs Continued					
Department of Health and Human Services - Centers for Disease Control and Prevention					
COVID-19 Centers for Disease Control and Prevention	93.318	6NU50CK000611-02-01	Subtotal	8,906 8,906	-
Department of Health and Human Services - Centers for Disease Control and Prevention			Cubiotai	0,500	
Centers for Disease Control and Prevention	93.421	6NU50CK000622-01-01		27,543	
			Subtotal	27,543	
Department of Health and Human Services - Centers for Disease Control and Prevention Massachusetts Department of Public Health	93.940	INTF4944MM3181926038		1,176,668	
Massachusetts Department of Fublic Health	93.940	INTF4944IVIIVISTO 1920030	Subtotal	1,176,668	
Department of Health and Human Services - Centers for Disease Control and Prevention			•	, .,	
Massachusetts Department of Public Health	93.943	INTF5180HH2W40199011		(5)	
Department of Health and Human Services - Centers for Disease Control and Prevention			Subtotal	(5)	
Massachusetts Department of Public Health	93.946	5NU58DP006371-05-00		15,000	
			Subtotal	15,000	
Department of Health and Human Services - Centers for Disease Control and Prevention					
COVID-19 Massachusetts Department of Public Health Massachusetts Department of Public Health	93.977 93.977	INTF5264HH2500224074 INTF5290HH2500224014		3,173 12,200	-
			Subtotal	15,373	
Department of Health and Human Services - Centers for Disease Control and Prevention					
Massachusetts Department of Public Health	93.978	INTF5291HH4300522040	0	45,450	-
Department of Health and Human Capitage Health Descurees and Capitage Administration			Subtotal	45,450	
Department of Health and Human Services - Health Resources and Services Administration Icahn School of Medicine at Mount Sinai	93.110	5H30MC24048-10		18,065	-
Massachusetts Department of Public Health	93.110	INTF3121M04W16082022		24,490	21,728
			Subtotal	42,555	21,728
Department of Health and Human Services - Health Resources and Services Administration Dimock Community Health Center	93.153	2H12HA24846-06-00		72,850	-
,			Subtotal	72,850	
Department of Health and Human Services - Health Resources and Services Administration					
Health Resources and Services Administration	93.211	6P13RH331680102	0	203,174	-
Department of Health and Human Services - Health Resources and Services Administration			Subtotal	203,174	
Health Resources and Services Administration	93.266	5UH6HA30738 05 17		1,787,391	1,777,630
			Subtotal	1,787,391	1,777,630
Department of Health and Human Services - Health Resources and Services Administration	00.004	LIGHTHOOGAA		40.454	
Massachusetts Health and Hospital Association Massachusetts Health and Hospital Association	93.301 93.301	H3HRH00011 Number Not Available		12,451 514,000	-
·			Subtotal	526,451	

Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-Th Entity Identifying Nun	•	Total Expenditures	Subrecipient Expenditures
Other Programs Continued					
Department of Health and Human Services - Health Resources and Services Administration					
Boston Public Health Commission	93.686	6UT8HA33922-02-03		12,332	
			Subtotal	12,332	
Department of Health and Human Services - Health Resources and Services Administration					
Massachusetts Department of Public Health	93.870	INTF3617M03210621190		(6,746)	-
Massachusetts Department of Public Health	93.870	INTF3617M03210621192		(4,622)	-
Massachusetts Department of Public Health	93.870	INTF3617MM3220226202		278,325	-
Massachusetts Department of Public Health	93.870	INTF3617MM3220226207		292,699	
			Subtotal	559,656	
Department of Health and Human Services - Health Resources and Services Administration					
Boston Public Health Commission	93.914	H89HA00011		465,491	-
Boston Public Health Commission	93.914	H9AHA36910		(198)	
			Subtotal	465,293	_
Department of Health and Human Services - Health Resources and Services Administration					
Massachusetts Department of Public Health, BIDLS, OHA	93.917	INTF4944MM3181926016		418,169	_
Maddad Adola Bopartinonit of Fability Fiber, Office	00.011	11411 10 1 11/11/10 10 10 200 10	Subtotal	418,169	
			Subiolai	410,109	<u>-</u>
Department of Health and Human Services - Indian Health Service					
Great Plains Area IHS	93.UO3	HHSI241201600023I		82,489	
			Subtotal	82,489	<u> </u>
Department of Health and Human Services					
Salem Board of Health	93.279	5UM1DA049412-02		413,252	
			Subtotal	413,252	
Department of Health and Human Services - Office of the Secretary					
Massachusetts Department of Public Health	93.817	INTF6207PP1W16005812		205,443	_
Massachusetts Department of Fublic Health Massachusetts Department of Public Health	93.817	INTF6207PP1W16052809		30,401	_
Massachusetts Department of Public Health	93.817	INTF6208PP1W20166284		64,088	_
Massachusetts Department of Public Health	93.817	INTF6208PP1W22146333		426,184	_
			Subtotal	726,116	
D			Cubiotai	720,110	
Department of Health and Human Services - Office of the Secretary	00.000	LIODEDOGGG4		40.000	
COVID-19 Massachusetts Hospital Association Metropolitan Area Planning Council	93.889 93.889	U3REP200664 U3REP200664		10,000 20,000	-
Metropolitari Area Piarining Council	93.009	USREP200004			<u>-</u>
			Subtotal	30,000	
Department of Health and Human Services - Substance Abuse and Mental Health Services Administration					
Massachusetts Department of Mental Health	93.243	SCDMH651001663334BRIG		41,990	42,763
			Subtotal	41,990	42,763
Department of Health and Human Services - Substance Abuse and Mental Health Services Administration					
New Hampshire Department of Health and Human Services	93.788	05-95-92-7040-500731		1,139,277	
			Subtotal	1,139,277	

Cluster Title/Federal Program/Pass-Through Program	Assistance Listing Number	Direct Award or Pass-The Entity Identifying Num		Total Expenditures	Subrecipient Expenditures
Other Programs Continued					
Department of Health and Human Services - Substance Abuse and Mental Health Services Administration					
City of Chelsea	93.959	4512-9069		(8,130)	-
Massachusetts Department of Public Health	93.959	INTF2351M03183626051		205,105	-
Massachusetts Department of Public Health	93.959	INTF2351M03183626053		108,130	-
Massachusetts Department of Public Health	93.959	INTF2351M03183626061		322,732	
			Subtotal	627,837	
Department of Health and Human Services - Substance Abuse and Mental Health Services Administration					
City of Chelsea	93.UO2	2022-398		70,083	_
	*****		Subtotal	70,083	
			Gubiotai	70,003	
Department of Housing and Urban Development - Office of Community Planning and Development					
HOWPA	14.241	20210144		244,514	
			Subtotal	244,514	
Department of Housing and Urban Development - Office of Community Planning and Development					
Community Action of Pioneer Valley	14.267	MA0401L1T072009		106,834	_
Community Action of Pioneer Valley	14.267	MA0401L1T072110		19.129	_
HUD-McKinney	14.267	INTF4944MM3181926016		16,293	_
•			Subtotal	142,256	
			Cabiotai	112,200	
Department of Justice - Office for Victims of Crime	10.575	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		(4.050)	
Commonwealth of Massachusetts	16.575	VOCA2020BRIGEMRGNCY0		(1,050)	-
Commonwealth of Massachusetts	16.575	VOCA2021BRIGPASS0000		93,998	-
Commonwealth of Massachusetts	16.575	VOCA2021BRIGVRP00000		170,834	-
Commonwealth of Massachusetts	16.575	VOCA2021MGHI00000000		47,740	<u>-</u>
			Subtotal	311,522	
Department of Justice - Office for Victims of Crime					
Department of Justice - Office of Justice Programs	16.582	2018-V3-GX-K036		(15,380)	-
			Subtotal	(15,380)	-
		Total Other		\$ 13,195,644	\$ 2,753,056
		Total Federal Exp	onditures	\$ 1.852.091.415	\$ 218.116.598
		TOTAL FEDERAL EX	Jenununes	# 1,002,031,415	<u> 210,110,030</u>

1. Organization

Mass General Brigham Incorporated (the Company) is the parent organization and sole corporate member of numerous organizations whose financial condition and operations are described in the consolidated financial statements. The terms Mass General Brigham, We, Our or Us as used herein, unless otherwise stated or indicated by context, refer collectively to the Company and its affiliated organizations.

Mass General Brigham operates academic medical centers, community acute care hospitals, inpatient and outpatient mental health services facilities, urgent care centers, facilities that provide rehabilitation medicine and long-term care services, physician organizations, home health services, nursing homes and a graduate level program for health professions. Our mission is to provide world class health care services to the local communities in which we operate as well as to patients across the United States and the world. In addition, we are a nonuniversity-based non-profit private medical research enterprise and a principal teaching affiliate of the medical and dental schools of Harvard University. Our licensed, not-for-profit managed care organization (AllWays Health Partners, Inc.) and licensed, for-profit insurance company (AllWays Health Partners Insurance Company) (collectively referred to as AllWays Health) provide health insurance products and administrative services to the Massachusetts Medicaid program (MassHealth), ConnectorCare (a state subsidized program for adults who meet income and immigration guidelines) and commercial populations.

Summary of Significant Accounting Policies

Basis of Presentation

The accompanying Schedule of Expenditures of Federal Awards (the Schedule) includes the Federal award activity of Mass General Brigham and is recorded on the accrual basis of accounting.

The information in the Schedule is presented in accordance with Title 2 U.S. Code of Federal Regulations (CFR) 200 Uniform Administrative Requirements Cost Principles and Audit Requirements for Federal Awards (Uniform Guidance). Therefore, some amounts presented in the Schedule may differ from amounts presented in or used in the preparation of the basic consolidated financial statements. Negative amounts represent adjustments to amounts reported as expenditures in prior years in the normal course of business. Assistance Listing Number (ALN) and pass-through award numbers are provided where available. The Schedule combines expenditures of The Brigham and Women's Hospital, Inc., The General Hospital Corporation d/b/a The Massachusetts General Hospital (MGH), Massachusetts Eye and Ear Infirmary, including The Schepens Eye Research Institute, Inc., The McLean Hospital Corporation, The MGH Institute of Health Professions, Inc., The Spaulding Rehabilitation Hospital Corporation, including Spaulding Hospital Cambridge, Inc. and Spaulding Nursing and Therapy Center Brighton, Inc., Cooley Dickinson Hospital, Inc., North Shore Medical Center d/b/a Salem Hospital, Newton-Wellesley Hospital, Brigham and Women's Faulkner Hospital, Inc., Martha's Vineyard Hospital, Inc. including WNR, Inc., Nantucket Cottage Hospital, Mass General Brigham Community Physicians, Inc., Wentworth-Douglass Hospital, and Mass General Brigham. These entities are all affiliates of Mass General Brigham.

The Schedule includes grant activity related to the Department of Health and Human Services (HHS) Coronavirus Aid Relief and Economic Security (CARES) Act Assistance Listing Number 93.498. The grant activity associated with this Assistance Listing Number includes lost revenues and direct expenditures reported for Period 2 on March 31, 2022 and Period 3 on 9/30/22 as required by HHS.

Mass General Brigham conducted COVID-19 testing and/or provided treatment for uninsured individuals with a COVID-19 primary diagnosis and as such has requested claims reimbursement under Assistance Listing Number 93.461 Health Resources and Services Administration's ("HRSA") COVID Testing for Uninsured. On March 15, 2022, HRSA announced that the uninsured program would no longer accept claims for payment of COVID-19 testing due to lack of sufficient funds. Any adjustments to amounts recorded for fiscal year 2021 claims based on actual cash receipts are reflected in the fiscal year 2022 Schedule.

2. Facilities and Administrative and Fringe Benefit Costs

Federal expenditures for Research and Development and Research and Development Training for Brigham and Women's Hospital, Massachusetts General Hospital, McLean, Massachusetts Eye and Ear Infirmary, Schepens Eye Research Institute, Spaulding Rehabilitation Hospital and the MGH Institute of Health Professions include facilities and administrative cost recoveries and fringe benefit cost recoveries in the amounts reported in the Schedule based on rates negotiated and awarded with the DHHS Division of Cost Allocation. These rates are based on financial information submitted utilizing the methods prescribed in Principles for Determining Costs Applicable to Research and Development Under Grants and Contracts with Hospitals, contained in the Code of Federal Regulation, Title 45, Part 74, Appendix E (OASC-3). The predetermined facilities and administrative cost rates for IHP are based on financial information submitted utilizing the simplified method for small institutions prescribed in Indirect (F&A) Costs Identification and Assignment, and Rate Determination for Institutions of Higher Education (IHEs), contained in the Code of Federal Regulation, Title 2, Part 200, Appendix III. Expenditures reported in Training and Other include the maximum facilities and administrative recoveries approved by the sponsor. The 10% de-minimis rate is not utilized on Research and Development or Research and Development Training by Mass General Brigham because they have approved negotiated rate agreements. The 10% de-minimis rate is used for Other awards where allowed.

3. Federal Student Loan Programs

The amounts reported in the Student Financial Aid Cluster of the Schedule represent the beginning balances and newly issued loans in fiscal year 2022. As of September 30, 2022, the MGH Institute of Health Professions (IHP) had loans outstanding of \$137,708 for loans issued as part of the Nurse Faculty Loan Program (ALN 93.264). On May 9, 2022 IHP received approval from HHS to write off the remaining balance of \$20,201 in the ARRA - Nurse Faculty Loan Program (ALN 93.408). Therefore, the remaining loan balance of that program is zero at September 30, 2022. IHP had Direct Loans issued by the Department of Education of \$40,589,330 as of September 30, 2022 for ALN 84.268.

Part II
Reports on Compliance and Internal Control



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

To the Board of Directors of Mass General Brigham

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 Mass General Brigham Incorporated (the "Company") and its affiliates, which comprise the consolidated balance sheet as of September 30, 2022, and the related consolidated statements of operations, changes in net assets and 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 December 19, 2022.

Report on Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Company and its affiliates 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 financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Company and its affiliates internal control. Accordingly, we do not express an opinion on the effectiveness of the Company and its affiliates 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 Company and its affiliates 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 Company and its affiliates 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 Company and its affiliates internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Company and its affiliates internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Priceworthhouse Coopus LLP

Boston, Massachusetts December 19, 2022



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

To the Board of Directors of Mass General Brigham

Report on Compliance for Each Major Federal Program

Opinion on Each Major Federal Program

We have audited Mass General Brigham Incorporated (the "Company") and its affiliates 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 Company and its affiliates major federal programs for the year ended September 30, 2022. The Company and its affiliates 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 Company and its affiliates 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 September 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 Company and its affiliates 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 Company and its affiliates 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 Company and its affiliates 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 Company and its affiliates 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 Company and its affiliates 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 Company and its affiliates 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 Company and its affiliates 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 Company and its affiliates 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.

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.

meematerhouse Coopers

Boston, Massachusetts December 19, 2022 Part III
Federal Award Findings and Questioned Cost

Mass General Brigham Incorporated and Affiliates Schedule of Findings and Questioned Costs For the Fiscal Year Ended September 30, 2022

1. Summary of Auditor's Results

2.

3.

Financial Statements	
Type of auditor's report issued	
Internal control over financial reporting	Unmodified
M. (arislando) (arislandification	V
Material weakness(es) identified?	yesXno
Significant deficiency(ies) identified that are not	
considered to be material weaknesses?	yesXnone reported
Noncompliance material to financial statements noted?	yesXno
Federal Awards	
Internal control over major programs	
Material weakness(es) identified?	yesXno
Significant deficiency(ies) identified that are not	yesXno
considered to be material weaknesses?	yesXnone reported
considered to be material weaknesses!	yes^_none reported
Type of auditor's report issued on compliance for major progr	ams Unmodified
Any audit findings disclosed that are required to be	
reported in accordance with 2 CFR 200, 516(a)	yesXno
1	
Identification of Major Programs	Name of Federal Program or Cluster
Identification of Major Programs	Name of Federal Program or Cluster Research and Development, Research
Identification of Major Programs Various Assistance Listing Numbers	-
	Research and Development, Research
	Research and Development, Research Training Cluster
Various Assistance Listing Numbers	Research and Development, Research Training Cluster Coronavirus State and Local Fiscal
Various Assistance Listing Numbers 21.027	Research and Development, Research Training Cluster Coronavirus State and Local Fiscal Recovery Funds
Various Assistance Listing Numbers 21.027 93.498	Research and Development, Research Training Cluster Coronavirus State and Local Fiscal Recovery Funds
Various Assistance Listing Numbers 21.027 93.498 Dollar threshold used to distinguish between Type A	Research and Development, Research Training Cluster Coronavirus State and Local Fiscal Recovery Funds Provider Relief Funds
Various Assistance Listing Numbers 21.027 93.498	Research and Development, Research Training Cluster Coronavirus State and Local Fiscal Recovery Funds Provider Relief Funds
Various Assistance Listing Numbers 21.027 93.498 Dollar threshold used to distinguish between Type A	Research and Development, Research Training Cluster Coronavirus State and Local Fiscal Recovery Funds Provider Relief Funds
Various Assistance Listing Numbers 21.027 93.498 Dollar threshold used to distinguish between Type A and Type B programs Auditee qualified as low-risk auditee?	Research and Development, Research Training Cluster Coronavirus State and Local Fiscal Recovery Funds Provider Relief Funds \$5,556,274
Various Assistance Listing Numbers 21.027 93.498 Dollar threshold used to distinguish between Type A	Research and Development, Research Training Cluster Coronavirus State and Local Fiscal Recovery Funds Provider Relief Funds
Various Assistance Listing Numbers 21.027 93.498 Dollar threshold used to distinguish between Type A and Type B programs Auditee qualified as low-risk auditee?	Research and Development, Research Training Cluster Coronavirus State and Local Fiscal Recovery Funds Provider Relief Funds \$5,556,274
Various Assistance Listing Numbers 21.027 93.498 Dollar threshold used to distinguish between Type A and Type B programs Auditee qualified as low-risk auditee? Auditee qualified as low-risk auditee?	Research and Development, Research Training Cluster Coronavirus State and Local Fiscal Recovery Funds Provider Relief Funds \$5,556,274
Various Assistance Listing Numbers 21.027 93.498 Dollar threshold used to distinguish between Type A and Type B programs Auditee qualified as low-risk auditee? Auditee qualified as low-risk auditee? Financial Statement Findings	Research and Development, Research Training Cluster Coronavirus State and Local Fiscal Recovery Funds Provider Relief Funds \$5,556,274
Various Assistance Listing Numbers 21.027 93.498 Dollar threshold used to distinguish between Type A and Type B programs Auditee qualified as low-risk auditee? Auditee qualified as low-risk auditee? Financial Statement Findings No findings to report.	Research and Development, Research Training Cluster Coronavirus State and Local Fiscal Recovery Funds Provider Relief Funds \$5,556,274

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Mass General Brigham Incorporated and Affiliates Summary Schedule of Prior Audit Findings and Status For the Fiscal Year Ended September 30, 2022

No findings noted in the prior year which required follow ups in the current year.