

Independent Auditors' Reports, as Required by Title 2 U.S. Code of Federal Regulations Part 200, *Uniform Administrative* Requirements, Cost Principles, and Audit Requirements for Federal Awards and Government Auditing Standards and Related Information

Year Ended December 31, 2023

Independent Auditors' Reports as Required by Title 2 U.S. Code of Federal Regulations Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* and *Government Auditing Standards* and Related Information

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

The Board of Trustees
The Jackson Laboratory:

Report on Compliance for Major Federal Program

Opinion on Major Federal Program

We have audited The Jackson Laboratory's (the Laboratory) 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 the Laboratory's major federal program for the year ended December 31, 2023. The Laboratory's major federal program is identified in the summary of auditors' results section of the accompanying schedule of findings and questioned costs.

In our opinion, the Laboratory complied, in all material respects, with the compliance requirements referred to above that could have a direct and material effect on its major federal program for the year ended December 31, 2023.

Basis for Opinion on Major Federal Program

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

We are required to be independent of the Laboratory 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 the major federal program. Our audit does not provide a legal determination of the Laboratory's compliance with the compliance requirements referred to above.

Responsibilities of Management for Compliance

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

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 Laboratory's compliance based on our audit. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS,



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

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

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

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

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 a combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis. A significant deficiency in internal control over compliance is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a federal program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.

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.



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

We have audited the consolidated financial statements of the Laboratory as of and for the year ended December 31, 2023, and have issued our report thereon dated May 29, 2024, which contained an unmodified opinion on those consolidated financial statements. Our audit was performed for the purpose of forming an opinion on the consolidated financial statements as a whole. The accompanying schedule of expenditures of federal awards is presented for purposes of additional analysis as required by the Uniform Guidance and is not a required part of the consolidated financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the consolidated financial statements. The information has been subjected to the auditing procedures applied in the audit of the consolidated financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the consolidated financial statements or to the consolidated financial statements themselves, and other additional procedures in accordance with GAAS. In our opinion, the schedule of expenditures of federal awards is fairly stated in all material respects in relation to the consolidated financial statements as a whole.



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Colchester, Vermont June 17, 2024

Vt. Reg. No. 92-0000241



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

The Board of Trustees
The Jackson Laboratory:

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the consolidated financial statements of the Jackson Laboratory (the Laboratory), which comprise the Laboratory's consolidated balance sheet as of December 31, 2023, and the related consolidated statements of activities and changes in net assets, and cash flows for the year then ended, and the related notes to the consolidated financial statements, and have issued our report thereon dated May 29, 2024.

Report on Internal Control Over Financial Reporting

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

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

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

Report on Compliance and Other Matters

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



Purpose of This Report

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

KPMG LLP

Colchester, Vermont May 29, 2024

Schedule of Findings and Questioned Costs Year ended December 31, 2023

(1) Summary of Auditors' Results

Financial Statements

- a) Type of report issued on whether the consolidated financial statements were prepared in accordance with U.S. generally accepted accounting principles: **Unmodified**
- b) Internal control deficiencies over financial reporting disclosed by the audit of the financial statements:
 - Material weaknesses: No
 - Significant deficiencies: None reported
- c) Noncompliance material to the financial statements: No

Federal Awards

- d) Internal control deficiencies over major program disclosed by the audit:
 - Material weaknesses: No
 - Significant deficiencies: None reported
- e) Type of report issued on compliance for major program: Unmodified
- f) Audit findings disclosed that are required to be reported in accordance with 2 CFR 200.516(a)?: No
- g) Major program:
 - Research and Development Cluster various assistance listing numbers
- h) Dollar threshold used to distinguish between Type A and Type B programs: \$2,864,034
- i) Auditee qualified as a low-risk auditee: Yes
- (2) Findings Relating to the Financial Statements Reported in Accordance with *Government Auditing*Standards

None.

(3) Findings and Questioned Costs Relating to Federal Awards

None.



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Independent Auditors' Report

The Board of Trustees
The Jackson Laboratory:

Report on the Audit of the Consolidated Financial Statements

Opinion

We have audited the consolidated financial statements of the Jackson Laboratory (the Laboratory), which comprise the consolidated balance sheets as of December 31, 2023 and 2022, and the related consolidated statements of activities and changes in net assets, and cash flows for the years then ended, and the related notes to the consolidated financial statements.

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

Basis for Opinion

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

Responsibilities of Management for the Consolidated Financial Statements

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

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

Auditors' Responsibilities for the Audit of the Consolidated Financial Statements

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



considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the consolidated financial statements.

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

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

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

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated May 29, 2024, on our consideration of the Laboratory's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Laboratory's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Laboratory's internal control over financial reporting and compliance.



Colchester, Vermont May 29, 2024

Consolidated Balance Sheets

December 31, 2023 and 2022

(Dollars in thousands)

Assets	_	2023	2022
Cash and equivalents	\$	17,062	21,368
Short-term investments, at fair value		217,449	241,607
Accounts receivable, net		67,021	67,990
Contributions receivable, net		27,588	3,574
Goodwill and other intangible assets		47,553	48,908
Other assets		54,584	49,123
Long-term investments, at fair value		410,432	376,169
Long-lived assets, net		654,024	622,002
Total assets	\$	1,495,713	1,430,741
Liabilities			
Accounts payable and accrued expenses	\$	121,919	93,028
Deposits and deferred revenue		15,394	14,907
Long-term debt, net		359,766	368,641
Other liabilities		15,214	13,704
Total liabilities	_	512,293	490,280
Net assets:			
Without donor restrictions		886,701	850,545
With donor restrictions		96,719	89,916
Total net assets	_	983,420	940,461
Total liabilities and net assets	\$	1,495,713	1,430,741

Consolidated Statement of Activities and Changes in Net Assets

Year ended December 31, 2023

(Dollars in thousands)

		Without donor restrictions	With donor restrictions	Total
Operating activities:				
Revenue and other support:				
Grants and research contracts	\$	112,168	_	112,168
Contributions		1,086	2,891	3,977
Genetic resources and clinical and research services		476,676	_	476,676
Long-term investment return utilized		10,739	2,864	13,603
Other investment return		10,830	_	10,830
Other revenue	·	2,691		2,691
Total revenue		614,190	5,755	619,945
Net assets released from restrictions	,	6,959	(6,959)	
Total revenue and other support	,	621,149	(1,204)	619,945
Expenses:				
Research		169,499	_	169,499
Genetic resources and clinical and research services		338,161	_	338,161
Training		11,405	_	11,405
Institutional support		89,172		89,172
Total expenses	i	608,237		608,237
Change in net assets from operating activities	,	12,912	(1,204)	11,708
Nonoperating activities:				
Grants and contributions for capital and long-term investments		_	707	707
Long-term investment gains		25,116	7,380	32,496
Other, net		(1,804)	(80)	(1,884)
Increase in net assets from nonoperating activities	·	23,312	8,007	31,319
Increase in net assets	·	36,224	6,803	43,027
Other changes in net assets:				
Cumulative translation adjustments	i	(68)		(68)
Total other changes in net assets	,	(68)		(68)
Total increase in net assets		36,156	6,803	42,959
Net assets, beginning of year		850,545	89,916	940,461
Net assets, end of year	\$	886,701	96,719	983,420

Consolidated Statement of Activities and Changes in Net Assets

Year ended December 31, 2022

(Dollars in thousands)

	i	Without donor restrictions	With donor restrictions	Total
Operating activities:				
Revenue and other support:				
Grants and research contracts	\$	111,712	_	111,712
Contributions		1,095	3,132	4,227
Genetic resources and clinical and research services		460,105	_	460,105
Long-term investment return utilized		8,776	2,525	11,301
Other investment return		(4,332)	_	(4,332)
Other revenue		725		725
Total revenue		578,081	5,657	583,738
Net assets released from restrictions		5,033	(5,033)	
Total revenue and other support		583,114	624	583,738
Expenses:				
Research		160,602	_	160,602
Genetic resources and clinical and research services		327,387	_	327,387
Training		10,305	_	10,305
Institutional support	į	77,078		77,078
Total expenses	į	575,372	<u> </u>	575,372
Increase in net assets from operating activities	i	7,742	624	8,366
Nonoperating activities:				
Grants and contributions for capital and long-term investments		1,735	1,805	3,540
Long-term investment losses		(56,702)	(15,881)	(72,583)
Other, net		(6,867)	229	(6,638)
Decrease in net assets from nonoperating activities		(61,834)	(13,847)	(75,681)
Decrease in net assets	·	(54,092)	(13,223)	(67,315)
Other changes in net assets:				
Cumulative translation adjustments		(5,301)	_	(5,301)
Contributed capital from noncontrolling interest partner		2,518	_	2,518
Distribution of contributed capital	,	(26,824)		(26,824)
Total other changes in net assets	,	(29,607)		(29,607)
Total decrease in net assets		(83,699)	(13,223)	(96,922)
Net assets, beginning of year	·	934,244	103,139	1,037,383
Net assets, end of year	\$	850,545	89,916	940,461

Consolidated Statements of Cash Flows

Years ended December 31, 2023 and 2022

(Dollars in thousands)

	_	2023	2022
Cash flows from operating activities:			
Change in net assets	\$	42,959	(96,922)
Adjustments to reconcile change in net assets to cash provided			
by operating activities:			
Noncontrolling interest		_	28,973
Foreign currency translation adjustment		(68)	(5,301)
Depreciation and amortization		58,374	58,911
Realized and unrealized net investment (gains) losses		(43,918)	79,180
Loss on disposal of long-lived assets		(665)	(871)
Contributions restricted for long-term investment and assets		(980) (6.247)	(4,570)
Changes in operating assets and liabilities	-	(6,247)	(7,600)
Net cash provided by operating activities	_	49,455	51,800
Cash flows from investing activities:			
Acquisition and construction of long-lived assets		(81,521)	(108,417)
Refund of Charles River Lab Japan Purchase Price		_	948
Capital contribution from joint venture partner		_	2,518
Proceeds from sales of investments		97,303	107,213
Purchases of investments	_	(71,378)	(106,299)
Net cash used in investing activities	_	(55,596)	(104,037)
Cash flows from financing activities:			
Repayment of bonds		(4,815)	(4,990)
Loan proceeds, net		· —	29,615
Repayment of note payable		(2,218)	(1,263)
Contributions restricted for long-term investment and assets	_	980	4,570
Net cash used in (provided by) financing activities	_	(6,053)	27,932
Net decrease in cash and equivalents		(12,194)	(24,305)
Cash and cash equivalents beginning of year	_	60,030	84,335
Cash and cash equivalents end of year	\$_	47,836	60,030
Cash paid for interest	\$	12,882	13,045

Notes to Consolidated Financial Statements

December 31, 2023 and 2022

(1) Background

The Jackson Laboratory (the Laboratory) is a not-for-profit independent research organization focused on the advancement of human health. The purposes of the Laboratory are scientific, medical, charitable, and educational. The Laboratory strives to discover precise genomic solutions for disease and empower the global biomedical community in its shared quest to improve human health. This mission is carried out through: (1) conducting basic biomedical research; (2) training and educating scientists worldwide; and (3) developing and providing scientific services, genetic resources, and genetic and clinical information related to genetic resources to the global scientific community.

All amounts presented in the notes to the consolidated financial statements are in thousands.

The Laboratory's financial results include the operations of its wholly-owned US subsidiary, JAX LLC, JAX LLC's wholly-owned subsidiaries, The Jackson Laboratory Medical Science and Technology (Shanghai) Co., Ltd. (JAX Shanghai), JAX HK, and JAX Japan Holdings, and their subsidiaries, JAX Beijing and JAX Japan. All intercompany transactions have been eliminated in consolidation. In 2022, to determine the final value of goodwill within twelve months of the acquisition of The Jackson Laboratory Japan, Inc. and with the assistance of an independent subject-matter specialist, management determined the final step-up fair value of certain acquired long-lived and intangible assets. Factors contributing to the final valuation of these assets include, but are not limited to, the increase in business opportunities from the Laboratory's presence in the Japanese market. The resultant net step-up adjustment to the long-lived and intangible assets, and the resultant decrease in goodwill, totaled \$6,582 in 2022.

In accordance with the purchase agreement, the final determination of working capital at the date of acquisition was agreed on with the seller of Charles River Laboratory Japan, Inc. As a result, in 2022 the Laboratory received a partial refund of the acquisition purchase price of \$948, which was recognized as a decrease in the value of goodwill.

As a result of the foregoing, the final value of goodwill included in the Laboratory's consolidated balance sheet, is \$22,468 at December 31, 2023 and 2022.

Through its wholly-owned subsidiary, Jackson Laboratory Hong Kong Holdings Limited (JAX HK), the Laboratory held a controlling interest in an operating venture in the People's Republic of China, The Jackson Laboratory Anitech Biotechnology (Beijing) Limited (JAX Beijing). In November 2022, prior to JAX Beijing commencing operations, the shareholders of JAX Beijing voted on a plan to dissolve the entity. As a result, the exclusive right to utilize certain buildings and related land for JAX Beijing's operations was revoked in 2022 and was recognized as a distribution of capital for the year ended December 31, 2022.

Notes to Consolidated Financial Statements

December 31, 2023 and 2022

The reconciliation of a noncontrolling interest reported in net assets without donor restrictions at December 31, 2022 is as follows:

			2022	
	T	he Laboratory	JAX Beijing	Total
Net assets without donor restrictions at December 31, 2021	\$	905,271	28,973	934,244
Operating income (loss) Nonoperating income	_	12,220 (61,834)	(4,478) ———	7,742 (61,834)
Excess (deficit) of revenues over expenses		(49,614)	(4,478)	(54,092)
Cumulative translation adjustments Contributed capital from non-controlling		(5,112)	(189)	(5,301)
interest partner		_	2,518	2,518
Distribution of capital	_		(26,824)	(26,824)
Change in net assets	_	(54,726)	(28,973)	(83,699)
Net assets without donor restrictions at December 31, 2022	\$_	850,545		850,545

(2) Summary of Significant Accounting Policies

(a) Basis of Presentation

The Laboratory presents its consolidated financial statements on the accrual basis in accordance with U.S. generally accepted accounting principles (GAAP).

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, and disclosure of contingent assets and liabilities, at the dates of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting periods. Actual results could differ from those estimates. Management estimates, requiring the application of significant judgments, include the valuation of goodwill and intellectual property, obligations under a postretirement plan, liabilities under self-insured plans, allowances for uncollectible receivables and certain alternative investments.

Notes to Consolidated Financial Statements

December 31, 2023 and 2022

(b) Classification of Net Assets

The Laboratory follows the reporting requirements of GAAP which require that net assets be classified for reporting purposes based on the existence or absence of donor-imposed restrictions. This is accomplished by classifying net assets into two classes: without donor restrictions and with donor restrictions. Descriptions of the two net asset categories and the types of transactions affecting each category follow:

- Without Donor Restrictions Net assets that are not subject to donor-imposed restrictions. This net
 asset category principally consists of revenues and related expenses associated with the core
 activities of the Laboratory: conduct of sponsored research, genetic resources and clinical and
 research services, and training. Additionally, changes in this category include investment returns
 on funds without donor restrictions, including those designated by the Board of Trustees
 (the Board) to function as an endowment, restricted gifts whose donor-imposed restrictions were
 met during the fiscal year, and previously restricted gifts and grants for buildings and equipment
 that have been placed in service.
- With Donor Restrictions Net assets subject to donor-imposed restrictions that will be met either
 by actions of the Laboratory or the passage of time. This net asset category consists of gifts for
 which donor-imposed restrictions have not been met in the year of receipt, including gifts and
 grants for buildings and equipment not placed in service; endowment, pledges, and investment
 return on endowments funds; and endowments where the principal may be expended over a stated
 period of time (term endowments). Expirations of restrictions on net assets with donor restrictions
 are reported as net assets released from restrictions.

Also included in this category are net assets subject to donor-imposed restrictions, including gifts and pledges wherein donors stipulate that the corpus of the gift be held in perpetuity and that only the income be made available for program operations and other purposes.

Revenue is reported as an increase in net assets without donor restrictions unless its use is limited by donor-imposed restrictions or it is a pledge and included in net assets with donor restrictions until collected. Expenditures of net assets with donor restrictions are reported in the program where expended with the release of the restriction shown as a decrease in net assets with donor restrictions and an offsetting increase in net assets without donor restrictions.

(c) Revenue

Revenue from Provision of Genetic Resources and Clinical and Research Services

The Laboratory recognizes revenue from providing genetic resources and clinical and research services when the resources are shipped or the services are provided. These transactions are considered to be exchange transactions. Accounts receivable from such activities are reported net of allowance for uncollectible accounts.

Notes to Consolidated Financial Statements

December 31, 2023 and 2022

Revenue from Grants and Research Contracts

Grants and contracts awarded by federal and other sponsors, which generally are considered nonexchange transactions restricted by sponsors for certain purposes, are recognized as revenue when qualifying expenditures are incurred or other conditions under the agreements are met. The Laboratory has elected the simultaneous release policy which allows a not-for-profit organization to recognize a restricted contribution directly in net assets without donor restrictions if the restriction is met in the same period that the revenue is recognized. Payments received in advance of expenditures are recorded as deferred revenue until expended. The Laboratory received approximately 87% of its revenue from grants and contracts from the National Institutes of Health (NIH) for each of the years ended December 31, 2023 and 2022. Indirect costs are billed and recovered in accordance with the terms of the grant agreements and represented \$39,253 and \$39,652, respectively, of revenue from grants for the years ended December 31, 2023 and 2022. Most NIH grants reimburse for indirect costs at an agreed percentage of direct costs incurred.

Revenue from Contributions

Contributions, including unconditional promises to give, are generally considered non-exchange transactions, and are recognized at fair value and increase net assets in the period received. Written promises to give that are scheduled to be received after the balance sheet date are shown as increases in net assets with donor restrictions and are reclassified to net assets without donor restrictions when the purpose or time restrictions are met. Promises to give subject to donor-imposed stipulations that the corpus be maintained permanently are recognized as increases in net assets with donor restrictions. Contributions are considered conditional when the underlying agreement includes a performance barrier and a right of return or a right to release promised assets exists. Conditional promises to give are not recognized as revenue until the performance barrier and the right of return or release have been overcome. Contributions to be received after one year are discounted at rates commensurate with the estimated risk of receipt of the pledge. Amortization of the discount is recorded as additional contribution revenue in the appropriate net asset category.

Contributions of cash or other assets that must be used to acquire long-lived assets or the contribution of long-lived assets are reported in nonoperating support as a component of net assets with donor restrictions until the assets are placed in service.

(d) Functional Classification of Expenses

Program services consist of research, genetic resources and clinical and research services, and training. Expenses are presented on the consolidated statements of activities on a functional or programmatic basis, consisting of direct costs and indirect facility-related costs. Facility-related expenses, including costs for the operation and maintenance of long-lived assets, financing costs and depreciation, are allocated on the basis of square footage utilized by each of the programs. Information technology costs are allocated primarily on the basis of the estimated level of effort in support of programs.

Notes to Consolidated Financial Statements

December 31, 2023 and 2022

Functional expenses incurred by type for the years ended December 31, 2023 and 2022 are presented below:

	December 31, 2023				
	Research	Genetic resources and clinical and research services	Training	Institutional support	Total
Salaries and wages \$	76,133	130,960	4,089	44,103	255,285
Benefits	23,900	41,112	1,284	13,845	80,141
Employee recruitment, training,					
memberships and subscriptions	1,846	1,089	272	2,972	6,179
Purchased services and stipends	13,880	18,841	1,770	13,493	47,984
Supplies and shipping	17,948	63,014	561	698	82,221
Maintenance, utilities and					
insurance	12,539	27,126	706	6,459	46,830
Travel and meals	2,438	3,400	1,047	2,264	9,149
Interest expense	260	9,448	28	90	9,826
Depreciation	20,237	33,913	1,446	2,486	58,082
Other expenses	318	9,258	202	2,762	12,540
Total \$	169,499	338,161	11,405	89,172	608,237

	December 31, 2022					
	_	Research	Genetic resources and clinical and research services	Training	Institutional support	Total
Salaries and wages	\$	71,063	124,465	3,581	37,098	236,207
Benefits		21,472	37,608	1,082	11,209	71,371
Employee recruitment, training,						
memberships and subscriptions		1,846	1,276	185	2,669	5,976
Purchased services and stipends		14,001	21,337	1,755	12,856	49,949
Supplies and shipping		17,926	60,881	353	735	79,895
Maintenance, utilities and						
insurance		11,383	26,836	655	4,846	43,720
Travel and meals		1,669	2,610	1,168	2,572	8,019
Interest expense		272	7,648	30	110	8,060
Depreciation		20,706	32,126	1,291	2,691	56,814
Other expenses	_	264	12,600	205	2,292	15,361
Total	\$	160,602	327,387	10,305	77,078	575,372

All direct and indirect costs of fundraising are expensed as incurred and are included in institutional support in the consolidated statements of activities. Direct fundraising expenses were \$3,893 and \$3,857 for the years ended December 31, 2023 and 2022, respectively.

Notes to Consolidated Financial Statements

December 31, 2023 and 2022

(e) Operating and Nonoperating Activities

The consolidated statements of activities report changes in net assets from operating and nonoperating activities.

Operating activities consist of the Laboratory's ongoing research and training programs, including the provision of genetic resources and clinical and research services. Included in operating revenue is investment return appropriated to support operations under the endowment income spending formula approved by the Board, as described in note 5(c).

Nonoperating revenue includes items not related to the Laboratory's recurring activities or revenue that may not be used for operations. Contributions for the acquisition of long-lived assets, net assets released from restrictions for the acquisition of long-lived assets, unrestricted bequests, other investment return in excess of the amount appropriated under the Laboratory's spending formula are all reported as nonoperating activities.

(f) Cash and Cash Equivalents

Cash and cash equivalents include highly liquid investments with original maturities of three months or less when purchased. Cash equivalents held for investment purposes that are classified as short-term investments or long-term investments are not reflected as cash equivalents in the consolidated statements of cash flows.

The following table provides a reconciliation of cash and cash equivalents within the consolidated balance sheet that sums to the total of such amounts as shown on the consolidated statement of cash flows as of December 31:

	 2023	2022
Cash included in short-term investments on the consolidated balance sheets	\$ 30,774	38,662
Cash and cash equivalents as reported in the consolidated balance sheets	 17,062	21,368
Total cash and cash equivalents as shown in the consolidated statement of cash flows	\$ 47,836	60,030

Notes to Consolidated Financial Statements

December 31, 2023 and 2022

In 2023, the Laboratory changed its presentation in the 2022 consolidated statement of cash flows, where cash included in short-term investments were presented in the consolidated statement of cash flows as investing activities rather than in the beginning and end of year cash amounts. Accordingly, in 2023 the Laboratory has changed the 2022 presentation by increasing the cost of purchases of investments of \$698 and decreasing the total of net cash provided by investing activities by \$698. In addition, cash at the beginning of the year increased by \$30,340 and at the end of year by \$29,642. There is no change in the total of net cash provided by operating or financing activities.

(g) Self-Insurance Reserves

The Laboratory is self-insured for healthcare benefits offered to active employees who meet eligibility requirements. These costs are accounted for on an accrual basis, which requires estimates to be made for claims incurred but not yet reported as of the consolidated balance sheet date.

(h) Long-lived Assets, Goodwill and Other Intangible Assets

Long-lived assets and other intangible assets are reported at cost at date of acquisition or at fair value at date of donation in the case of gifts. For long-lived assets and other intangible assets placed in service, depreciation and amortization, respectively, is provided using the straight-line method over the estimated useful lives of the assets. For long-lived assets the cost of normal maintenance and repairs that does not add to the value of the asset or materially extend asset lives is not capitalized.

For long-lived assets depreciation is provided on a straight-line basis over the following estimated useful lives:

	Years
Buildings and improvements	15–50
Land improvements	5–15
Equipment and software	3–15

For other intangible assets amortization is provided on a straight-line basis over an estimated useful life of fifteen years. At December 31, 2023 and 2022 other intangible assets of \$25,085 and \$26,440 are included in goodwill and other intangible assets on the consolidated balance sheets. Goodwill is recorded at fair value. Goodwill is not amortized but is assessed for impairment on a recurring basis. At December 31, 2023 and 2022, goodwill is recorded on the consolidated balance sheets at \$22,468. Management reviews long-lived assets, other intangible assets and goodwill for impairment whenever events or circumstances indicate that the carrying value of these assets may not be recoverable. The Laboratory recorded no impairment for the years ended December 31, 2023 and 2022.

The Laboratory receives awards from various granting agencies that allow for the purchase of certain assets, scientific equipment and construction of buildings. These assets are depreciated in accordance with the aforementioned policy. The assets become the property of the Laboratory upon acquisition, unless the grant or funding agreement specifically states otherwise. Grant funded assets are typically restricted as to use and disposal.

Notes to Consolidated Financial Statements

December 31, 2023 and 2022

(i) Foreign currency translation

The Laboratory's accounting records in Japan, China, and Hong Kong are maintained in Japanese Yen, Chinese Yuan, and the Hong Kong Dollar, respectively. The Foreign currency equivalents used to translate into U.S. Dollars as of and for the respective periods ended December 31 are as follows:

		2023	
	Japanese Yen	Chinese Yuan	Hong Kong
	to one	to one	Dollar to one
	U.S. Dollar	U.S. Dollar	U.S. Dollar
Revenues and expenses at the average rate for the fiscal year ended			
December 31, 2023	0.00695	0.14052	0.12805
Assets, liabilities, and net assets at the			
current rate as of December 31, 2023	0.00709	0.14145	0.12807
		2022	
	Japanese Yen	Chinese Yuan	Hong Kong
	to one	to one	Dollar to one
	U.S. Dollar	U.S. Dollar	U.S. Dollar
Revenues and expenses at the average rate for the fiscal year ended			
December 31, 2022	0.00740	0.14340	0.12840
Assets, liabilities, and net assets at the			
current rate as of December 31, 2022	0.00763	0.14500	0.12810

An analysis of the unrestricted cumulative adjustments from foreign currency translation are as follows for the years ended December 31:

	 2023	2022
Beginning balance	\$ (5,592)	(291)
Translation adjustment	 (68)	(5,301)
Ending balance	\$ (5,660)	(5,592)

(j) Income Taxes

The Laboratory is a not-for-profit organization as described in Section 501(c)(3) of the Internal Revenue Code (the Code), as amended, and is generally exempt from income taxes pursuant to the Code. JAX Shanghai and JAX Beijing are taxable entities organized under the regulations of the People's Republic of China. JAX HK is a taxable entity organized under the regulations of Hong Kong. JAX Japan Holdings and JAX Japan are taxable entities organized under the regulations of Japan.

Notes to Consolidated Financial Statements

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In accordance with GAAP, the Laboratory assesses whether there are uncertain tax positions and determined that there were no uncertain tax positions that would have a material effect on the consolidated financial statements.

(k) Fair Value Measurements

The Laboratory determines fair value based on assumptions that market participants would use in pricing an asset or liability in the principal or most advantageous market. When considering market participant assumptions in fair value measurements, the following fair value hierarchy distinguishes between observable and unobservable inputs, which are categorized in one of the following levels:

- **Level 1 inputs**: Unadjusted quoted and published prices for identical assets or liabilities in active markets accessible to the entity at the measurement date.
- Level 2 inputs: Other than quoted prices included in Level 1, inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the asset or liability.
- Level 3 inputs: Unobservable inputs for the asset or liability used to measure fair value to the extent that observable inputs are not available, thereby allowing for situations in which there is little, if any, market activity for the asset or liability at the measurement date.

The fair value hierarchy gives the highest priority to Level 1 inputs and the lowest priority to Level 3 inputs. In determining fair value, the Laboratory utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs to the extent possible. Levels are determined based on the aforementioned hierarchy, except for investments measured using net asset value (NAV) as a practical expedient to estimate fair value, as described in note 3.

It is the Laboratory's policy to review and reflect transfers between levels as of the consolidated financial statement reporting date. Transfers between different levels of the fair value hierarchy are recorded as of the end of the reporting period.

The categorization of an investment within the fair value hierarchy is based on the inputs described above and does not necessarily correspond to the Laboratory's management's perceived risk of that investment. Moreover, the methods used by management may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, although the Laboratory believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments and nonfinancial assets and liabilities could result in a different fair value measurement at the reporting date.

(3) Investments

(a) Overall Investment Objective

The overall investment objective of the Laboratory is to invest its long-term assets in a prudent manner to achieve a long-term rate of return sufficient to fund a portion of its annual operating activities, and increase investment value after inflation. The investment objective for short-term investments is preservation of value and liquidity, relying primarily on highly rated short-term interest-bearing investments. The Laboratory diversifies its long-term investments among various asset classes

Notes to Consolidated Financial Statements

December 31, 2023 and 2022

incorporating multiple strategies and managers. The Investment Committee oversees the Laboratory's endowment in accordance with the investment policy statement.

(b) Basis of Reporting

Investments, including endowment and operating investments are reported at fair value. If an investment is held directly by the Laboratory and an active market where quoted prices exist, the market price of an identical security is used as the reported fair value. Reported fair values for shares in registered mutual funds are based on share prices reported by the funds as of the last business day of the fiscal year. The Laboratory's interests in commingled investment funds (multiple strategies) are generally reported at the net asset value (NAV) reported by the fund managers, which is used as a practical expedient to estimate the fair value of the Laboratory's interest therein, unless it is probable that all or a portion of the investment will be sold for an amount different from NAV.

(c) Classification in the Fair Value Hierarchy

The Laboratory owns interests in alternative investment funds that are generally reported at the NAV reported by the fund managers, unless the fund has a readily determinable fair value that is used as a practical expedient to estimate the fair value of the Laboratory's interest therein, or it is probable that all or a portion of the investment will be sold for an amount different from the NAV. Such valuations are determined by fund managers who generally consider variables such as operating results, comparable earnings multiples, projected cash flows, recent sales prices, and other pertinent information, and also may reflect discounts for the liquid nature of certain investments held. As of December 31, 2023 and 2022 the Laboratory had no plans or intentions to sell investments at amounts different from NAV.

The inputs or methodology used for valuing or classifying investments for financial reporting purposes are not necessarily an indication of the risk associated with investing in those investments or a reflection on the liquidity of each fund's underlying assets and liabilities.

Notes to Consolidated Financial Statements

December 31, 2023 and 2022

The following tables summarize the Laboratory's investments by major category in the fair value hierarchy as of December 31, 2023 and 2022, as well as related strategy, liquidity and funding commitments:

	December 31, 2023					
_			NAV or			
<u>-</u>	Level 1	Level 2	equivalent	Total		
Short-term investments:						
Cash and cash equivalents \$	92,589	10,458	_	103,047		
U.S. and global fixed income funds	114,402			114,402		
Total short-term						
investments	206,991	10,458		217,449		
Long-term investments (endowment):						
Money market accounts and	000			000		
certificates of deposit U.S. and global fixed	896	_	_	896		
income funds	27,575	_	_	27,575		
Equities:						
U.S. mid and large cap						
value funds	142,487	_	_	142,487		
Global large cap	82,339		23,614	105,953		
Total equities	224,826	_	23,614	248,440		
Mutual Funds, comprising a mix						
of equities and fixed income	18,307	_	_	18,307		
Multiple hedged strategies ¹ Private equity and real	_	_	33,021	33,021		
assets ¹			82,193	82,193		
Total long-term						
investments	271,604		138,828	410,432		
Total \$_	478,595	10,458	138,828	627,881		

The redemption or liquidation is monthly to locked up. The lock-up periods have various terms with extensions of one to three years. As of December 31, 2023, the average remaining life of these partnerships is approximately six years.

Notes to Consolidated Financial Statements

December 31, 2023 and 2022

	December 31, 2022					
			NAV or			
	Level 1	Level 2	equivalent	Total		
Short-term investments:						
Cash and cash equivalents \$ U.S. and global fixed income	84,227	10,000	_	94,227		
funds	147,380			147,380		
Total short-term investments	231,607	10,000		241,607		
Long-term investments (endowment): Money market accounts and						
certificates of deposit U.S. and global fixed	1,534	_	_	1,534		
income funds	27,426	_	_	27,426		
Equities: U.S. mid and large cap						
value funds	121,525	_	_	121,525		
Global large cap	73,217		18,776	91,993		
Total equities	194,742	_	18,776	213,518		
Mutual Funds, comprising a mix of equities and fixed income	19,344	_	_	19,344		
Multiple hedged strategies ¹ Private equity and real	_	_	32,118	32,118		
assets ¹			82,229	82,229		
Total long-term						
investments	243,046		133,123	376,169		
Total \$	474,653	10,000	133,123	617,776		

The redemption or liquidation is monthly to locked up. The lock-up periods have various terms with extensions of one to three years. As of December 31, 2022, the average remaining life of these partnerships is approximately six years.

(d) Commitments

Private equity investments are generally made through private limited partnerships. Under the terms of the partnership agreements, the Laboratory makes a commitment of a specific amount of capital to a partnership and is obligated to remit committed funding periodically when capital calls are exercised by the General Partner as the partnership executes on its investment strategy. Private equity funds are typically structured with investment periods of three-to-ten years. The aggregate amounts of unfunded

Notes to Consolidated Financial Statements

December 31, 2023 and 2022

commitments associated with private limited partnerships as of December 31, 2023 and 2022 were \$32,339 and \$31,111, respectively. The timing and amount of future capital calls expected to be exercised in any particular future year is uncertain.

(4) Financial Assets and Liquidity Resources

As of December 31, 2023 and 2022 financial assets and liquidity resources available within one year for general expenditure, such as operating and program expenditure, scheduled principal and interest payments on debt, and capital constructions costs not financed with debt, were as follows:

	 2023	2022
Financial assets:		
Cash and cash equivalents	\$ 17,062	21,368
Contributions and accounts receivable, net	67,970	68,438
Short-term investments	217,449	241,607
Budgeted endowment payouts:		
Board-designated	11,606	10,855
Donor-restricted	 3,441	2,977
Total financial assets available within one year	317,528	345,245
Liquidity resources:		
Bank line of credit	 57,500	57,500
Total financial assets and liquidity resources		
available within one year	\$ 375,028	402,745

The Laboratory actively manages its resources utilizing a combination of short, medium and long-term operating investment strategies to align its cash inflows with anticipated outflows in accordance with policies approved by the Board. As disclosed in note 8(a), the Laboratory may draw upon an unsecured revolving credit facility to manage cash flows.

Additionally, as of December 31, 2023 and 2022, the Laboratory had an additional \$307,359 and \$281,933, respectively, in Board-designated endowments, contingent on Board approval, which is available for general expenditure.

(5) Endowment

The Laboratory's endowment consisted of 86 individual donor-restricted funds, as well as 18 Board-designated funds held for the long-term support of the Laboratory's mission.

Notes to Consolidated Financial Statements

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Both donor-restricted and Board-designated endowment funds were invested with a total return objective and long-term goal of attaining an average annualized nominal return equal to, or above the rate of inflation, based on the Consumer Price Index (CPI), plus the Laboratory's spending rate.

(a) Interpretation of Relevant Law

The Laboratory is subject to the Maine Uniform Prudent Management of Institutional Funds Act (MUPMIFA).

For reporting purposes the Laboratory classifies as net assets with donor restrictions the historical value of donor-restricted endowment funds, which includes: (a) the original value of gifts donated to the endowment, (b) the original value of subsequent gifts to the endowment, and (c) changes to the endowment made in accordance with the direction of the applicable donor instrument. Also included in net assets with donor restrictions is accumulated appreciation on donor-restricted endowment funds which are available for expenditure in a manner consistent with the standard of prudence prescribed by MUPMIFA, and deficiencies associated with funds where the value of the fund has fallen below the original value of the gift as disclosed in note 5(d).

(b) Investment Strategies

The endowment provides financial support for programs through the generation of income and gains while preserving capital for future support. The endowment is managed to maximize long-term, risk-adjusted investment returns. The investment objective for both donor-restricted and Board-designated funds can be met through a common investment pool with liquidity sufficient to meet the needs of the Laboratory.

(c) Endowment Spending Policy

The Laboratory employs a total-return approach to endowment management. Taking into consideration the factors continued in MUPMIFA for the appropriation and accumulation of endowment funds, the annual spending policy distribution rate from the endowment shall be a target percentage as adopted by the Investment Committee from time to time, of the twelve-quarter moving average market value, with the final quarter in the spending formula determined on December 31 of the last audited year preceding the fiscal year of spending. The target percentage as approved by the board is 4% for 2023 and 2022. The spending distribution is reviewed and approved annually by the Finance Committee in conjunction with the recommended adoption of the annual budget.

(d) Funds with Deficiencies

From time to time, the fair value of assets associated with individual donor-restricted endowment funds may fall below the historic dollar value of permanently restricted contributions. Deficiencies of this nature are reported in net assets with donor restrictions as underwater funds when they occur. Deficiencies of this nature are reported in net assets with donor restrictions as underwater funds when they occur. There were no funds with deficiencies at December 31, 2023. Deficiencies totaled \$229 at December 31, 2022.

Notes to Consolidated Financial Statements

December 31, 2023 and 2022

(e) Net Assets by Type of Fund and Changes in Endowment Investments

Net assets by type of fund consisted of the following at December 31, 2023 and 2022:

	2023					
	Without With donor restrictions					
	donor restrictions	Underwater funds	Other funds	Total		
-						
\$	_	_	33,328	33,328		
	_	_	58,139	58,139		
_	318,965			318,965		
\$_	318,965		91,467	410,432		
	-	donor restrictions	Without donor underwater funds \$	donor restrictions Underwater funds Other funds \$ — — 33,328 — — 58,139 318,965 — —		

		2022					
		Without	With donor r	estrictions	_		
		donor	Underwater	Other			
	_	restrictions	funds	funds	Total		
Donor-restricted endowments:							
Historical gift value	\$	_	3,290	29,352	32,642		
(Depreciation)/Appreciation		_	(229)	50,968	50,739		
Board-designated endowments	_	292,788			292,788		
Total	\$	292,788	3,061	80,320	376,169		

Changes in endowment assets for the years ended December 31, 2023 and 2022 are as follows:

	December 31, 2023				
	Without donor restrictions	With donor restrictions	Total		
Endowment, December 31, 2022	\$ 292,788	83,381	376,169		
Cash contributions	_	684	684		
Board transfer from operating funds					
to endowment	1,062	_	1,062		
Investment return	35,855	10,244	46,099		
Long-term investment return utilized	(10,739)	(2,864)	(13,603)		
In-transit transactions	(1)	22	21		
Endowment, December 31, 2023	\$ 318,965	91,467	410,432		

Notes to Consolidated Financial Statements

December 31, 2023 and 2022

	December 31, 2022				
	= =	ithout donor restrictions	With donor restrictions	Total	
Endowment, December 31, 2021	\$	348,960	96,676	445,636	
Cash contributions		_	2,562	2,562	
Board transfer from operating funds					
to endowment		370	_	370	
Investment return		(47,926)	(13,356)	(61,282)	
Long-term investment return utilized		(8,776)	(2,525)	(11,301)	
In-transit transactions		160	24	184	
Endowment, December 31, 2022	\$	292,788	83,381	376,169	

In-transit transactions are due to timing of transfers between the Laboratory's operational accounts and endowment accounts for gifts received and reimbursement of expenditures. Gifts are shown as the amount of cash received and therefore include the collection of pledge payments and exclude uncollected pledges.

(6) Accounts Receivable

Accounts receivable consisted of the following as of December 31, 2023 and 2022:

	 2023	2022
Due from provision of genetic resources and services	\$ 56,762	50,528
Amounts reimbursable under grants and contracts	11,587	14,942
Miscellaneous accounts receivable	 31	3,485
	68,380	68,955
Less allowance for uncollectibles	 (1,359)	(965)
Accounts receivable, net	\$ 67,021	67,990

In June 2016, the FASB issued Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments, as amended, that requires credit losses to be recognized on most financial assets carried at amortized cost and certain other instruments. The allowance is deducted from the amortized cost basis of a financial asset so that the balance sheet reflects the net amount an entity expects to collect. The ASU became effective for the Laboratory for the year ended December 31, 2023. The Laboratory's adoption of the ASU did not have a material effect on its financial statements.

Notes to Consolidated Financial Statements

December 31, 2023 and 2022

(7) Long-Lived Assets

Long-lived assets consisted of the following as of December 31, 2023 and 2022:

	,	2023	2022
Land and improvements	\$	17,812	15,453
Buildings and improvements		831,794	769,531
Construction in progress		107,222	115,503
Equipment and software		256,472	234,850
		1,213,300	1,135,337
Less accumulated depreciation	,	(559,276)	(513,335)
Long-lived assets, net	\$	654,024	622,002

The change in accounts payable for acquisition and construction of long-lived assets was a decrease of \$6,419 for the year ended December 31, 2023 an increase of \$1,705 for the year ended December 31, 2022.

Commitments to third parties for the purchase of equipment, space renovation and construction projects were \$16,945 and \$60,009 as of December 31, 2023 and 2022, respectively.

(8) Debt

(a) Long-term debt, net

Long-term debt, net, consists of the following as of December 31, 2023 and 2022:

		2023	2022
Series 2021 taxable bonds	\$	203,340	203,340
Series 2018 taxable bonds		133,475	138,290
Term loan		25,180	29,376
		361,995	371,006
Debt issuance costs		(3,271)	(3,563)
Bonds and term loan payable, net		358,724	367,443
Note payable	_	1,042	1,198
Long-term debt, net	\$_	359,766	368,641

Notes to Consolidated Financial Statements

December 31, 2023 and 2022

On June 24, 2022, the Laboratory entered into a five-year, \$30,000 loan agreement with a Japanese bank to fund a portion of the JAX Japan acquisition. The loan and related interest and principal payments are denominated in Japanese Yen. The loan agreement also provides for a \$7,500 revolving credit facility. The borrowing consists of a blended rate of 1.4%, payable semi-annually. Principal payments of \$1,100 and related interest payments are payable semi-annually, with a balloon payment for the remaining balance of \$19,100 in 2027. The borrowing is securitized by JAX Japan assets and contains several non-financial and financial reporting covenants. The financial covenants include the maintenance of a minimal net asset value, as well as the achievement of certain ordinary income levels for the Laboratory's Japan operations on a stand-alone basis. As a result of the Laboratory's Japan operations, the Laboratory is in default of these financial covenants as of December 31, 2023. On April 15, 2024, the Laboratory received a waiver of the default of these financial covenants from the bank. Additionally, in exchange for an accelerated loan payment of \$9,214, expected to be made in June 2024, the bank will modify certain of the covenants of the loan agreement to more closely reflect the impact of the economy of Japan. Interest expense incurred and paid totaled \$242 for both 2023 and 2022. The Laboratory did not utilize the revolving credit facility in 2023 or 2022.

In 2021, the Laboratory issued taxable bonds in the amount of \$203,340. The bonds have a stated rate of fixed interest ranging from 2.692% to 3.468%, payable semiannually, over a 30 year term. Principal payments totaling \$39,560 are due to be paid during the years 2032 to 2041, with a final balloon payment of \$163,780 to be paid in 2051. Interest expense incurred during 2023 and 2022 on the taxable bonds totaled \$6,924 and \$6,924, net of capitalized interest of \$3,519 and \$5,104, respectively. At December 31, 2023 and 2022 accrued interest of \$3,462, is included in accrued expenses on the consolidated balance sheets. Under the terms of the bonds, the Laboratory is to meet certain reporting covenants.

The Series 2018 taxable bonds have a stated rate of fixed interest ranging from 2.25% to 4.334%, payable semiannually, over a 30 year term. Interest expense incurred during 2023 and 2022 on the taxable bonds totaled \$5,592 and \$5,749. At December 31, 2023 and 2022 accrued interest of \$2,756 and \$2,836, respectively, is included in accrued expenses on the consolidated balance sheets.

The Laboratory maintains a \$50,000 unsecured line of credit with a financial institution, to provide general working capital needs and other corporate purposes. The line of credit has been extended until January 3, 2025. Interest is payable monthly at the rate of BSBY plus 0.65%. The Laboratory did not utilize the unsecured line of credit during the year ended December 31, 2023 or 2022. The line of credit documents require the Laboratory to maintain certain reporting covenants but contains no financial covenants.

Notes to Consolidated Financial Statements

December 31, 2023 and 2022

(b) Maturities of Long-Term Debt

Maturities of long-term debt as of December 31, 2023, were as follows:

	_	Amounts due		
Year ending December 31:				
2024	\$	7,245		
2025		7,406		
2026		7,588		
2027		24,439		
2028		5,840		
Thereafter	_	310,519		
Total	\$_	363,037		

(9) Employee Benefits

(a) Defined Contribution Retirement Plan

Subject to meeting certain eligibility requirements, all employees participate in a defined contribution 403(b) retirement plan administered by the Laboratory. Contribution expense was \$18,435 and \$18,247 for the years ended December 31, 2023 and 2022, respectively.

(b) Postretirement Medical Plan

The Laboratory maintains a non-contributory postretirement medical plan covering certain retired employees with hire dates before 2003 and faculty members eligible to retire on May 31, 2008, and their dependents. Other than the payment of current benefits totaling \$452 and \$477 in the years ended December 31, 2023 and 2022, respectively, the Laboratory has not funded the postretirement plan. The benefit obligation as of December 31, 2023 and 2022, respectively, is \$4,925 and \$5,218, and is included in other liabilities on the consolidated balance sheets.

(c) Deferred Compensation Program

The Laboratory maintains a nonqualified salary deferral plan authorized under Section 457(b) of the Internal Revenue Code. The Laboratory holds an investment matching the employee investment selections to assure funding is available to meet future liabilities. The liability and matching investments related to the salary deferral plan each totaled \$10,292 and \$8,489 at December 31, 2023 and 2022, respectively. Investments related to the non-qualified salary deferral plan are categorized as Level 1 in the fair value hierarchy as more fully described in note 3(c).

The Laboratory also maintains a deferred compensation program under Section 457(f) of the Internal Revenue Code for management and certain highly compensated employees under which a portion of the employee's compensation is deferred and vested over time. The liability of \$746 and \$703 at December 31, 2023 and 2022, respectively, is included in accounts payable and accrued expenses, and the corresponding assets are included in other assets.

Notes to Consolidated Financial Statements

December 31, 2023 and 2022

(10) Net Assets

Net assets without donor restrictions include Board-designated endowments that are used to support the Laboratory's strategic initiatives and general operations. The Laboratory classifies gift pledges based on donor purpose restriction. Unrestricted pledges are shown as a component of net assets with donor restrictions until collected. Net assets with donor restrictions consisted of the following at December 31:

	 2023	2022
Without donor restrictions:		
Board-designated endowments	\$ 318,965	292,788
Other net assets without donor restrictions	 567,736	557,757
Total net assets without donor restrictions	 886,701	850,545
With donor restrictions:		
Donor-restricted endowments:		
Research	27,138	26,535
Training	2,481	2,408
Other programs	908	899
General purpose	2,801	2,800
Unappropriated Return	58,139	50,739
Pledges receivable for endowment	 723	724
Total endowment	92,190	84,105
Purpose and time-restricted non-endowed gifts	 4,529	5,811
Total net assets with donor restrictions	 96,719	89,916
Total net assets	\$ 983,420	940,461

(11) Legal Claims

The Laboratory is subject to certain legal proceedings and claims that arise in the ordinary course of conducting its activities. While it is not possible to predict accurately or determine the eventual outcome of such actions, management believes that the outcome of proceedings will not have a material adverse effect on the Laboratory's financial position.

(12) Related Party Transactions

Members of the Laboratory's Board and senior management may, from time to time, be associated, either directly or indirectly, with companies doing business with the Laboratory. The Laboratory has a written conflict of interest policy that requires, among other things, that no member of the Board may participate in any decision in which he or she has a material financial interest.

Notes to Consolidated Financial Statements

December 31, 2023 and 2022

(13) Subsequent Events

The Laboratory has evaluated subsequent events from the consolidated balance sheet date of December 31, 2023 through May 29, 2024, the date on which the consolidated financial statements were issued.

Supplementary Schedule of Expenditures of Federal Awards Year ended December 31, 2023

Federal grantor/pass-through grantor/ program or cluster title	Federal Assistance Listing number	Direct or pass-through identifying number	Passed through to subrecipients	Total federal expenditures
Research and Development Cluster:			<u> </u>	-
Department of Health and Human Services: Environmental Health	93.113	Direct	¢	789,979
Subtotal	93.113	Dilect	Ψ <u> </u>	789,979
	02.404	Discret		
Oral Diseases and Disorders Research University of Pittsburgh	93.121 93.121	Direct R01 DE032319A Upitt	434,679 —	823,642 267,679
Subtotal			434,679	1,091,321
Human Genome Research	93.172	Direct	101,010	4,557
Human Genome Research	93.172	Direct	412,586	419,012
Human Genome Research	93.172	Direct	422,070	1,015,027
Human Genome Research Human Genome Research	93.172 93.172	Direct Direct	<u> </u>	718,304 (106)
Human Genome Research	93.172	Direct	=	94,844
Human Genome Research	93.172	Direct	_	528,990
Human Genome Research Human Genome Research	93.172 93.172	Direct Direct	_	147,676 3,445,648
Human Genome Research	93.172	Direct	1,067,589	1,845,575
Human Genome Research	93.172	Direct	363,489	981,691
Human Genome Research Human Genome Research	93.172 93.172	Direct Direct	652,101	1,393,744 2,732
Human Genome Research	93.172	Direct	_	1,977,062
California Institute of Technology	93.172	U24 HG010859A CALTECH	_	752,672
Geisinger Clinic New York University School of Medicine	93.172 93.172	R01 HG011799A Geisinger U24 HG011851A NYU	_	187,699 143,947
Smart Information Flow Technologies	93.172	R41 HG013076 SIFT	=	22,771
The Broad Institute, Inc	93.172	UM1 HG009435A Broad Inst	_	57,631
The Ohio State University University of Colorado	93.172 93.172	R01 HG011469A RM1 HG010860B Colorado	_	41,500 142,807
University of Michigan	93.172	R00 HG011542 Umich	_	19,128
University of Southern California	93.172	U24 HG012212A USC	_	214,651
University of Washington	93.172	R01 HG010169A UW		8,380
Subtotal			2,917,835	14,165,942
Research Related to Deafness and Communication Disorders Research Related to Deafness and Communication Disorders Research Related to Deafness and Communication Disorders	93.173 93.173 93.173	Direct Direct Direct	176,989	836,835 556,303 5,750
	30.170	Biledi	470,000	
Subtotal			176,989	1,398,888
National Center on Sleep Disorders Research Trustees of the University of Pennsylvania	93.233	R21 HL163717A Upenn		32,917
	93.233	KZ1 HL103/1/A Openii		
Subtotal				32,917
Mental Health Research Grants	93.242 93.242	Direct R01 MH112739A Uconn	9,292	134,816 9,099
University of Connecticut	93.242	ROT MITTIZITS A OCCITII		
Subtotal			9,292	143,915
Drug Abuse and Addiction Research Programs Drug Abuse and Addiction Research Programs	93.279 93.279	Direct Direct	74,151 381,027	93,401 1,807,729
Drug Abuse and Addiction Research Programs	93.279	Direct	301,027	789,254
Drug Abuse and Addiction Research Programs	93.279	Direct	9,409	1,067,496
Drug Abuse and Addiction Research Programs Drug Abuse and Addiction Research Programs	93.279 93.279	Direct Direct	96,681	862,121 133,950
Drug Abuse and Addiction Research Programs	93.279	Direct	_	45,168
Drug Abuse and Addiction Research Programs	93.279	Direct	_	127,810
Drug Abuse and Addiction Research Programs Drug Abuse and Addiction Research Programs	93.279 93.279	Direct Direct	19,797 72,197	203,628 197,984
Drug Abuse and Addiction Research Programs	93.279	Direct	26,902	930,494
Emory University	93.279	DP1 DA042103A Emory U	· —	10,056
Emory University Research Triangle Institute International	93.279 93.279	R01 DA042742A Emory U P50 DA054071A RTI	_	3,809 42,191
Virginia Commonwealth University	93.279	U01 DA045299A VCU	=	171,549
Subtotal			680,164	6,486,640
Discovery and Applied Research for Technological Innovations to Improve Human Health University of Connecticut Health Center	93.286	U01EB028898A / HL156349		313,339
Subtotal				313,339
	00.040	Direct	(700)	
Trans-NIH Research Support Trans-NIH Research Support	93.310 93.310	Direct Direct	(730) 121,784	(730) 244,214
Trans-NIH Research Support	93.310	Direct	440,132	981,215
Trans-NIH Research Support Connecticut Children's Medical Center	93.310	Direct	26,995	118,280
Connecticut Children's Medical Center University of Connecticut Health Center	93.310 93.310	R33 HD105613C JG CCMC U01EB028898A / HL156349	_	25,556 157,270
University of Connecticut Health Center	93.310	U54 AG075941A UCHC		1,219,814
Subtotal			588,181	2,745,619
National Center for Advancing Translational Sciences	02.050	III 4 TD0005444 Tof-		0.010
Tufts University School of Medicine Tufts University School of Medicine	93.350 93.350	UL1 TR002544A Tufts UM1TR004398 Tufts	_	8,210 45,129
Subtotal	-			53,339
Carata				33,339

Supplementary Schedule of Expenditures of Federal Awards Year ended December 31, 2023

Federal grantor/pass-through grantor/ program or cluster title	Federal Assistance Listing number	Direct or pass-through identifying number	Passed through to subrecipients	Total federal expenditures
Research Infrastructure Programs	93.351	Direct	s —	18,810
Research Infrastructure Programs	93.351	Direct	· –	968,576
Research Infrastructure Programs	93.351	Direct	15,098	238,959
Research Infrastructure Programs	93.351	Direct	_	600,323
Research Infrastructure Programs	93.351	Direct	_	820,571
Research Infrastructure Programs	93.351	Direct	_	895,558
Research Infrastructure Programs	93.351	Direct	_	1,254,331
Research Infrastructure Programs	93.351	Direct	_	1,013,855
Research Infrastructure Programs Research Infrastructure Programs	93.351 93.351	Direct Direct	_	1,657,085
Research Infrastructure Programs Research Infrastructure Programs	93.351	Direct	_	(899) 2,860,645
University of Colorado	93.351	R24 OD011883D CU Denver	_	336,244
University of Massachusetts	93.351	R24 OD026440A UMA	_	288,384
University of Mussachusetts University of Southern California	93.351	R24 OD030033A USC	_	745,694
•				
Subtotal			15,098	11,698,136
21st Century Cures Act – Beau Biden Cancer Moonshot	93.353	Direct	299,156	715,032
Yale University	93.353	U2C CA252979A Yale	_	441,094
Subtotal			299,156	1,156,126
Subtotal			299,100	1,150,120
Cancer Cause and Prevention Research	93.393	Direct	_	700,661
Cancer Cause and Prevention Research	93.393	Direct	_	66,383
Moffitt Cancer Center	93.393	R01 CA219389A Moffit	_	2,701
University of Connecticut Health Center	93.393	R01 CA252045A UCHC		3,114
Subtotal			_	772,859
Cancer Detection and Diagnosis Research	93.394	Direct	_	248,043
Cancer Detection and Diagnosis Research	93.394	Direct		123,894
Subtotal			_	371,937
Cancer Treatment Research	93.395	Direct	17,939	19,730
Cancer Treatment Research	93.395	Direct	30,564	334,541
Cancer Treatment Research	93.395	Direct	_	135,320
Cancer Treatment Research Seattle Children's Hospital	93.395 93.395	Direct R37 CA266777A SCRI	_	674,417 57,070
Seattle Children's Hospital	93.393	K37 CA200777A 3CKI		57,070
Subtotal			48,503	1,221,078
Cancer Biology Research	93.396	Direct	_	786,125
Cancer Biology Research	93.396	Direct		428,134
Cancer Biology Research	93.396	Direct	_	84,708
Cancer Biology Research	93.396	Direct	_	481,999
Cancer Biology Research	93.396	Direct	_	420,376
Cancer Biology Research	93.396	Direct	_	655,203
Cancer Biology Research	93.396	Direct	241,508	456,248
Cancer Biology Research	93.396	Direct	202,342	360,412
Cold Spring Harbor Laboratory	93.396	R01 CA249002A CSHL	_	68,695
Cold Spring Harbor Laboratory	93.396	U01 CA224013A CSHL PR	_	72,518
University California San Diego	93.396	U24 CA220341A UCSD		14,830
Subtotal			443,850	3,829,248
			440,000	
Cancer Centers Support Grants	93.397	Direct		2,264,433
Subtotal			_	2,264,433
Cancer Research Manpower	93.398	Direct	_	109,126
Cancer Research Manpower	93.398	Direct	_	91,553
Cancer Research Manpower	93.398	Direct		107,603
Subtotal			_	308,282
Cardiovascular Diseases Research				
Medical College of Wisconsin	93.837	P01 HL116264 MCW	_	15,352
Medical College of Wisconsin	93.837	P01 HL149620A MCW	_	58,475
Medical College of Wisconsin University of Connecticut Health Center	93.837 93.837	R01 HL151587 MCW	_	30,704
University of Connecticut Health Center University of Connecticut Health Center	93.837	R01 HL142787A UCHC R01 HL165220A UCHC	_	319,426
University of Arizona	93.837	P01 HL149620 Uarizona	_	282,803 37,894
University of Pittsburgh	93.837	R01 HL149620 Ganzona R01 HL142788A Upitt	_	37,694
University of Fittsburgh	93.637	KU1 HL142786A Upill		3,043
Subtotal				748,299
Lung Diseases Research				
Texas Biomedical Research Inst	93.838	R01 HL145411B Texas	_	36,462
University of Colorado	93.838	OT2 HL161847-AXX UCD	_	52,653
	55.555	0121121010117000000		
Subtotal				89,115
Arthritis, Musculoskeletal and Skin Diseases Research	93.846	Direct	_	396,901
Arthritis, Musculoskeletal and Skin Diseases Research	93.846	Direct	21,195	106,955
Arthritis, Musculoskeletal and Skin Diseases Research	93.846	Direct	21,100	6,729
Joan & Sanford I Weill Medical	93.846	P50 AR070594B Cornell	_	169,651
Univ of Connecticut Health Ctr	93.846	R01 AR081659A UCHC	_	408,834
Subtotal			21,195	1,089,070
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Direct	_	84,861
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Direct	_	541,648
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Direct	70,519	423,008
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Direct	16,480	1,026,855
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Direct	,	296,266
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Direct	_	70,874
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Direct	_	379,504
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Direct	_	173,176
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Direct	_	72,961
Joslin Diabetes Research Center	93.847	R01 DK131061A JDC	_	268,015

Supplementary Schedule of Expenditures of Federal Awards Year ended December 31, 2023

Federal grantor/pass-through grantor/ program or cluster title	Federal Assistance Listing number	Direct or pass-through identifying number	Passed through to subrecipients	Total federal expenditures
The Broad Institute, Inc	93.847	UM1 DK105554B Broad	\$	202,965
University of Massachusetts University of Miami	93.847 93.847	U01 DK104218B UMA R56 DK131087A U Miami	_	68,112 22,997
University of Wisconsin	93.847	RC2 DK125961A Wisc	_	13,488
Yale University	93.847	R01 DK129523A Yale		143,054
Subtotal			86,999	3,787,784
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Direct	_	31,430
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Direct	-	39,074
Extramural Research Programs in the Neurosciences and Neurological Disorders Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853 93.853	Direct Direct	433,604 6,012	853,664 36,663
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Direct	- 0,012	117,452
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Direct	_	66,798
Extramural Research Programs in the Neurosciences and Neurological Disorders Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853 93.853	Direct Direct	_	186,504 45,197
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Direct	4,441	193,093
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Direct	_	802,440
Extramural Research Programs in the Neurosciences and Neurological Disorders Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853 93.853	Direct Direct	_	620,676 52,210
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Direct	222,513	1,987,240
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Direct	1,805	3,068
Houston Methodist Research	93.853 93.853	R01 NS121405A JG MHRI RF1 NS124203A MGH Lutz	_	119,429
Massachusetts General Hospital Scripps Translational Science	93.853	RO1 NS124203A MGH LUIZ R01 NS113583A Scripps	_	357,393 158,337
Tufts University School of Medicine	93.853	R21 NS119958A Tufts	_	20,681
Washington Univ At St Louis	93.853	R01 NS128470A		54,731
Subtotal			668,375	5,746,080
Allergy and Infectious Diseases Research	93.855	Direct		(2)
Allergy and Infectious Diseases Research Allergy and Infectious Diseases Research	93.855 93.855	Direct Direct	33,767 19,400	336,881 684,885
Allergy and Infectious Diseases Research	93.855	Direct	826,648	2,163,759
Allergy and Infectious Diseases Research	93.855	Direct	926,910	2,353,548
Allergy and Infectious Diseases Research – COVID 19	93.855 93.855	Direct R01 AI141529A BWH	54,335	71,247
Brigham And Women's Hospital New York Blood Center, Inc.	93.855	U01 AI160421A NYBC	_	2,941 433,221
St. Jude Children's Research H	93.855	U19 AI168632B	_	117,060
Trustees of Boston University	93.855	R01 AI151051A BU	_	348,057
University of Colorado Denver University of Massachusetts	93.855 93.855	R21 AI155257A UC Denver U01 AI176310A Umass	_	29,876 12,204
Subtotal			1,861,060	6,553,677
Biomedical Research and Research Training	93.859	Direct	_	13,855
Biomedical Research and Research Training	93.859	Direct	235,947	483,988
Biomedical Research and Research Training Biomedical Research and Research Training	93.859 93.859	Direct Direct	_	(457) 380,707
Biomedical Research and Research Training	93.859	Direct	_	407,619
Biomedical Research and Research Training	93.859	Direct	_	125,724
Biomedical Research and Research Training Biomedical Research and Research Training	93.859 93.859	Direct Direct	2,524	102,884 349,021
Biomedical Research and Research Training	93.859	Direct		519,845
Biomedical Research and Research Training	93.859	Direct	_	470,084
Biomedical Research and Research Training Biomedical Research and Research Training	93.859 93.859	Direct Direct	_	345,622 455,538
d'Vinci Interactive, Inc	93.859	R44 GM133222B d'Vinci	_	41,509
Georgia Regents University	93.859	R01 GM121551A UGA	_	7,422
MDI Biological Laboratory The Ohio State University	93.859 93.859	P20 GM104318C MDIBL R01 GM136886A OSU	_	34,038 4,619
University of Connecticut Health Center	93.859	R35 GM133600A UCHC	_	288,969
Subtotal			238,471	4,030,987
The Radiological Society of North America	93.RD	75N92020D00021 RSNA		55,074
Subtotal				55,074
Child Health and Human Development Extramural Research	93.865	Direct	_	33,070
Child Health and Human Development Extramural Research	93.865	Direct	_	62,223
Child Health and Human Development Extramural Research Child Health and Human Development Extramural Research	93.865	Direct Direct	_	2,397,513
Child Health and Human Development Extramural Research	93.865 93.865	Direct	_	23,922 224,975
Child Health and Human Development Extramural Research	93.865	Direct	344,766	800,585
Child Health and Human Development Extramural Research	93.865	Direct	_	190,574
Child Health and Human Development Extramural Research Emory University	93.865 93.865	Direct R01 HD102534A Emory	_	159,958 295,052
Massachusetts General Hospital	93.865	P01 HD068250B MGH Bult	_	619
The Trustees of Columbia University	93.865	R01 HD055651A Columbia	_	130,393
University California San Diego University of California San Francisco	93.865 93.865	U54 HD110347A UCSD R01 HD107190A UCSF	_	298,415 23,113
University of California San Francisco University of Colorado Denver	93.865	R01 HD107190A UCSF R01 HD107793A UC Denver	_	23,113 155,405
Subtotal			344,766	4,795,817
Aging Research	93.866	Direct		35,878
Aging Research	93.866	Direct	_	1,116,896
Aging Research Aging Research	93.866 93.866	Direct Direct	_	10,294 288,637
Aging Research	93.866	Direct	85,310	643,198
Aging Research	93.866	Direct	266,253	298,873

Supplementary Schedule of Expenditures of Federal Awards Year ended December 31, 2023

Federal grantor/pass-through grantor/ program or cluster title	Federal Assistance Listing number	Direct or pass-through identifying number	Passed through to subrecipients	Total federal expenditures
Aging Research	93.866		\$ 24,436	62,296
Aging Research	93.866	Direct	25,279	197,910
Aging Research	93.866	Direct	49,344	386,163
Aging Research	93.866	Direct	_	43,155
Aging Research Aging Research	93.866 93.866	Direct Direct	_	44,968 4,699
Aging Research	93.866	Direct	_	41,077
Aging Research	93.866	Direct	_	94,680
Aging Research	93.866	Direct	8,553	47,080
Aging Research Aging Research	93.866 93.866	Direct Direct	29,404 59,030	167,681 316,302
Aging Research	93.866	Direct		305,123
Aging Research	93.866	Direct	_	277,530
Aging Research	93.866	Direct	106,844	145,410
Aging Research Aging Research	93.866 93.866	Direct Direct	_	338,492 261,298
Aging Research	93.866	Direct	_	1,828,107
Aging Research – COVID 19	93.866	Direct	_	37,684
Aging Research	93.866	Direct	_	138,298
Aging Research	93.866	Direct	32,123	2,039,381
Aging Research Duke University	93.866 93.866	Direct UH3 AG056925B Duke	_	942,403 102,310
Emory University	93.866	U54 AG065187A Emory	_	612,178
Regents of the University of California	93.866	RF1 AG057558A UC	_	15,812
TissueVision, Inc	93.866	R44 AG062017B TissueVis	_	9,297
Trustees of Boston University	93.866	R01 AG068179B BU	_	64,314
Trustees of Indiana University Trustees of Indiana University	93.866 93.866	R21 AG078575A IU R21 AG083791A Indiana	_	110,934
Trustees of Indiana University Trustees of Indiana University	93.866	U01 AG060900A Indiana Univ	_	17,557 5,398
Trustees of Indiana University	93.866	U54 AG054345C IU	_ _ _	3,388,269
University of Connecticut Health Center	93.866	P30 AG067988A UCHC	_	144,015
University of Connecticut Health Center	93.866	R01 AG058814A UCHC	_ _ _	30,039
University of Connecticut Health Center University of Connecticut Health Center	93.866 93.866	R01 AG066679A UCHC R21 AG077792A UCHC	_	1,465 245,182
University of Arizona	93.866	R01 AG057931A Arizona	_	178,226
University of Minnesota	93.866	RF1 AG079125A UMN	_	255,608
University of Pittsburgh	93.866	R13 AG060708C Upitt	_	58,444
University of Pittsburgh	93.866	U19AG074866-01A1UPITT	_	966,984
University of Tennessee Health Science University of Wisconsin	93.866 93.866	R01 AG070913A UTHSC RF1 AG081212A Wisc	_	3,584
	93.000	KF1 AG001212A WISC		25,206
Subtotal			686,576	16,348,335
Vision Research	93.867	Direct	_	579,975
Vision Research	93.867	Direct	_	299,925
Vision Research	93.867	Direct	_	402,808
Vision Research Vision Research	93.867 93.867	Direct Direct	=	194,675 342,840
Vision Research	93.867	Direct	_	136,863
The Trustees of Columbia University	93.867	R01 EY032062A Columbia	_	337,904
Trustees of Indiana University	93.867	U24 EY033269A Indiana	_	21,391
University of California San Francisco University of Rochester	93.867 93.867	R01 EY033015 UCSF R01 EY027701A Univ Rochester	_	53,744 29,361
University of Rochester	93.867	R01 EY035093A Univ Rochester	_	132,249
	30.007	TOTE TO SOUS OF OTHER TO SHEET		
Subtotal				2,531,735
Total Department of Health and Human Services Department of Agriculture, National Institute of Food and Agriculture:			9,521,189	94,619,971
Agriculture and Food Research Initiative (AFRI) University of Connecticut	10.310	2020-67018-30852 UCHC		(8,611)
Subtotal				(8,611)
Total Department of Agriculture, National Institute of Food and Agriculture				(8,611)
National Science Foundation (NSF): Mathematical and Physical Sciences	47.049	Direct		72,518
Subtotal	47.074	Direct		72,518
Biological Sciences Biological Sciences	47.074 47.074	Direct Direct	_	86,624 135,000
Biological Sciences	47.074	Direct	_	305,933
Subtotal				527,557
Education and Human Resources				
Carleton College	47.076	IUSE 1829135 Carleton	_	24,251
Subtotal				24,251
Total National Science Foundation				624,326
Department of Defense (DOD):				
Military Medical Research and Development	12.420	Direct	_	62,938
Military Medical Research and Development	12.420	Direct		55,528
Connecticut Children's Medical Center Moffitt Cancer Center	12.420 12.420	CCMC W81XWH2210177 Gell HT94252310947 Moffitt	_	106,025 3,339
Texas A&M University Health Science Center	12.420	DOD W81XWH2010150 Texas	_	4,281
·	:=::=:			
Subtotal				232,111
Total Department of Defense				232,111
Total Research and Development Cluster			9,521,189	95,467,797
Total Expenditures of Federal Awards			\$ 9,521,189	95,467,797

Notes to Supplementary Schedule of Expenditures of Federal Awards Year ended December 31, 2023

(1) Definition of Reporting Entity and Basis of Presentation

The accompanying schedule of expenditures of federal awards presents expenditures of all federal awards programs of The Jackson Laboratory (the Laboratory), including awards passed through to the Laboratory from other organizations (i.e., primary recipients), for the year ended December 31, 2023. The schedule is presented using the modified cash basis of accounting. Negative amounts (if any) on the schedule represent cash transfer adjustments to expenditures reported in a prior year. The Laboratory has not elected to utilize the 10% de minimus indirect cost rate in Part 200.514 of the Uniform Guidance.

For purposes of the schedule, federal awards include grants, contracts, and similar agreements entered into directly between the Laboratory and agencies and departments of the federal government and all subawards to the Laboratory by nonfederal organizations pursuant to federal grants, contracts, and similar agreements. The awards are categorized in accordance with the provisions of Title 2 U.S. Code of Federal Regulations Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Because the schedule presents only a selected portion of the operations of the Laboratory, it is not intended to and does not present the financial position, changes in net assets or cash flows of the Laboratory.