

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, 2021

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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KPMG LLP Two Financial Center 60 South Street Boston, MA 02111

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, 2021. The Laboratory's major federal programs 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, 2021.

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, 2021, and have issued our report thereon dated June 6, 2022, which contained an unmodified opinion on those consolidated financial statements. Our audit was conducted for the purpose of forming an opinion on the consolidated financial statements as a whole. The accompanying schedule of expenditures of federal awards 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 auditing standards generally accepted in the United States of America. In our opinion, the schedule of expenditures of federal awards is fairly stated in all material respects in relation to the consolidated financial statements as a whole.



Boston, Massachusetts June 29, 2022



KPMG LLP Two Financial Center 60 South Street Boston, MA 02111

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 and its subsidiaries (the Laboratory), which comprise the Laboratory's consolidated balance sheet as of December 31, 2021, and the related consolidated statements of activities and changes in net assets, and consolidated cash flows for the year then ended, and the related notes to the consolidated financial statements, and have issued our report thereon dated June 6, 2022.

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 Laboratory'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 Laboratory'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

Boston, Massachusetts June 6, 2022

Schedule of Findings and Questioned Costs Year ended December 31, 2021

(1) Summary of Auditors' Results

Financial Statements

- Type of report issued on whether the 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: \$2,645,454
- 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.



KPMG LLP Two Financial Center 60 South Street Boston, MA 02111

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 and its subsidiaries (the Laboratory), which comprise the consolidated balance sheets as of December 31, 2021 and 2020, and the related consolidated statements of activities and changes in net assets, and consolidated 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, 2021 and 2020, and the changes in its consolidated net assets and its consolidated cash flows for the years then ended in accordance with U.S. generally accepted accounting principles.

Basis for Opinion

We conducted our audit 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 audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with 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 available to be 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 June 6, 2022 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.



Boston, Massachusetts June 6, 2022

Consolidated Balance Sheets
December 31, 2021 and 2020
(Dollars in thousands)

Assets		2021	2020
Cash and equivalents	\$	22,240	7,402
Short-term investments, at fair value		275,667	168,348
Accounts receivable, net		59,558	65,465
Contributions receivable, net		2,918	2,326
Goodwill and other intangible assets		44,428	_
Other assets		39,646	27,786
Long-term salary deferral plan investments		10,052	8,805
Long-term investments, at fair value		445,636	386,957
Long-lived assets, net		602,564	544,892
Total assets	\$	1,502,709	1,211,981
Liabilities			
Accounts payable and accrued expenses	\$	87,601	70,362
Deposits and deferred revenue		15,871	7,478
Bonds and note payable, net		345,076	199,718
Accrued salary deferral plan obligations		10,052	8,805
Accrued postretirement obligations		6,726	7,054
Total liabilities		465,326	293,417
Net assets without donor restrictions:			
The Jackson Laboratory		905,271	839,089
Noncontrolling interest		28,973	<u> </u>
Total net assets without donor restrictions		934,244	839,089
Net assets with donor restrictions		103,139	79,475
Total net assets	_	1,037,383	918,564
Total liabilities and net assets	\$	1,502,709	1,211,981

Consolidated Statement of Activities and Changes in Net Assets

Year ended December 31, 2021

(Dollars in thousands)

	Without donor restrictions	With donor restrictions	Total
Operating activities:			
Revenue and other support:			
Grants and research contracts \$	109,479	_	109,479
Contributions	881	3,573	4,454
Genetic resources and clinical and research services	419,043	_	419,043
Long-term investment return utilized	6,768	2,380	9,148
Other investment return	647	_	647
Other revenue	2,500		2,500
Total revenue	539,318	5,953	545,271
Net assets released from restrictions	4,493	(4,493)	
Total revenue and other support	543,811	1,460	545,271
Expenses:			
Research	155,701	_	155,701
Genetic resources and clinical and research services	271,945	_	271,945
Training	8,508	_	8,508
Institutional support	79,650		79,650
Total expenses	515,804		515,804
Increase in net assets from operating activities	28,007	1,460	29,467
Nonoperating activities:			
Grants and contributions for capital and long-term investments	2,726	4,099	6,825
Long-term investment gain above amounts utilized	34,036	18,105	52,141
Loss on extinguishment of debt	(67)	_	(67)
Other, net	(80)		(80)
Increase in net assets from nonoperating activities	36,615	22,204	58,819
Increase in net assets	64,622	23,664	88,286
Other changes in net assets:			
Cumulative translation adjustments	(291)	_	(291)
Contributed capital from noncontrolling interest partner	30,824		30,824
Total other changes in net assets	30,533		30,533
Total increase in net assets	95,155	23,664	118,819
Net assets, beginning of year	839,089	79,475	918,564
Net assets, end of year, attributable to The Jackson Laboratory \$	934,244	103,139	1,037,383

Consolidated Statement of Activities and Changes in Net Assets

Year ended December 31, 2020

(Dollars in thousands)

		Without donor restrictions	With donor restrictions	Total
Operating activities: Revenue and other support:				
Grants and research contracts	\$	106,968	_	106,968
Contributions		1,683	2,284	3,967
Genetic resources and clinical and research services		361,741	_	361,741
Long-term investment return utilized		4,909	2,188	7,097
Other investment return		3,863	_	3,863
Other revenue		957		957
Total revenue		480,121	4,472	484,593
Net assets released from restrictions		5,987	(5,987)	
Total revenue and other support		486,108	(1,515)	484,593
Expenses:				
Research		152,379	_	152,379
Genetic resources and clinical and research services		234,161	_	234,161
Training		7,623	_	7,623
Institutional support		67,879		67,879
Total expenses		462,042		462,042
Increase (decrease) in net assets from				
operating activities		24,066	(1,515)	22,551
Nonoperating activities:				
Grants and contributions for capital and long-term investme	nts	11,075	903	11,978
Long-term investment gain above amounts utilized		39,683	8,221	47,904
Other, net		827	<u> </u>	827
Increase in net assets from nonoperating activiti	es	51,585	9,124	60,709
Increase in net assets		75,651	7,609	83,260
Net assets, beginning of year		763,438	71,866	835,304
Net assets, end of year	\$	839,089	79,475	918,564

Consolidated Statements of Cash Flows

Years ended December 31, 2021 and 2020

(Dollars in thousands)

	_	2021	2020
Cash flows from operating activities:			
Increase in net assets	\$	118,819	83,260
Adjustments to reconcile increase in net assets to cash provided	*	,	,
by operating activities:			
Noncontrolling interest		(28,973)	_
Foreign currency translation adjustment		(291)	_
Loss on extinguishment of debt		67	_
Depreciation and amortization		51,384	47,442
Realized and unrealized net investment gains		(47,026)	(50,612)
Gain on disposal of long-lived assets		213	82
Contributions restricted for long-term investment and assets		(5,934)	(18,608)
Changes in operating assets and liabilities	_	26,631	(9,361)
Net cash provided by operating activities	_	114,890	52,203
Cash flows from investing activities:			
Acquisition and construction of long-lived assets		(68,817)	(57,968)
Acquisition of Charles River Laboratory Japan, Inc., net of cash acquired		(67,300)	<u> </u>
Capital contribution from joint venture partner		4,000	_
Proceeds from sales of investments		240,745	303,924
Purchases of investments	_	(355,717)	(337,548)
Net cash used in investing activities	_	(247,089)	(91,592)
Cash flows from financing activities:			
Repayment of bonds		(56,350)	(6,605)
Bond proceeds, net		201,597	
Repayment of note payable		(144)	(138)
Contributions restricted for long-term investment and assets	_	5,934	18,608
Net cash provided by financing activities	_	151,037	11,865
Net increase (decrease) in cash and equivalents		18,838	(27,524)
Cash and cash equivalents beginning of year		35,157	62,681
Cash and cash equivalents end of year	\$	53,995	35,157
Cash paid for interest	\$	8,049	8,405

Notes to Consolidated Financial Statements

December 31, 2021 and 2020

(1) Background

The Jackson Laboratory (the Laboratory) is a not-for-profit independent research organization focusing on research to advance 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.

In August 2021 the Laboratory's wholly-owned US subsidiary, Jackson Laboratory Holdings, LLC (JAX LLC) established a wholly-owned Japanese Subsidiary, The Jackson Laboratory Japan Holdings, Inc. (JAX Japan Holdings), incorporated under Japan law. On October 12, 2021 JAX Japan Holdings purchased the outstanding stock of Charles River Laboratory Japan, Inc. and renamed the entity as The Jackson Laboratory Japan, Inc. (JAX Japan). JAX Japan develops and provides scientific services, genetic resources and clinical information related to genetic resources primarily to the Japanese scientific community.

The total consideration transferred by the Laboratory was \$86,450, including cash of \$75,097 and the assumption of liabilities of \$11,353.

Cash consideration	\$	75,097
Liabilities assumed	_	11,353
Total consideration		86,450
Working capital received		19,150
Net consideration	\$	67,300

The Laboratory accounted for the business combination by applying the acquisition method of accounting in accordance with Accounting Standards Codification Topic 958-805, *Not-For-Profit Entities- Business Combinations*.

The following table summarizes the estimated fair values of the assets acquired and the liabilities assumed at the acquisition date. Determining the fair value of the assets acquired and the liabilities assumed

Notes to Consolidated Financial Statements

December 31, 2021 and 2020

requires judgment and involves the use of significant accounting estimates and assumptions, including assumptions with respect to future cash flows and discount rates, among others.

	Total at
	October 12, 2021
Assets acquired:	
Cash and cash equivalents	\$ 7,935
Accounts receivable	11,215
Prepaid and other current assets	1,294
Long-lived assets	17,599
Intangible assets	14,430
Other assets	3,979
Goodwill	29,998
Total assets acquired	86,450
Liabilities assumed:	
Accounts payable and accrued expenses	11,188
Other liabilities	165
Total liabilities assumed	11,353
Total assets acquired, liabilities	
assumed, and change in net assets	\$ 75,097

The Laboratory recorded a preliminary fair value of goodwill in the amount of \$29,998. In determining the preliminary value of goodwill, management is in the process of determining the final step-up fair value of certain long-lived and intangible assets with the assistance of an independent subject-matter specialist, and expects to complete this valuation and determine the final fair value of goodwill, within twelve months of the acquisition date. Factors contributing to goodwill that resulted from the acquisition include, but are not limited to, the increase in business opportunities from the Laboratory's presence in the Japanese market.

Notes to Consolidated Financial Statements

December 31, 2021 and 2020

The following table summarizes amounts attributed to JAX Japan since the acquisition date that are included in the accompanying consolidated financial statements for the period ended December 31, 2021:

	Octo	eriod from ober 12, 2021 ecember 31, 2021
Total operating revenue	\$	4,984
Total operating expense		4,326
Income from operations		658
Nonoperating net income		29
Net income	\$	687
Change in net assets: Net assets without donor restrictions Net assets with donor restrictions	\$	687 —
Total change in net assets	\$	687

In November 2020 JAX LLC established a wholly-owned Hong Kong subsidiary, Jackson Laboratory Hong Kong Holdings Limited (JAX HK), for the purpose of an operating venture in the People's Republic of China, The Jackson Laboratory Anitech Biotechnology (Beijing) Limited (JAX Beijing), incorporated under Chinese law. JAX HK holds a controlling interest in JAX Beijing. JAX Beijing develops and provides scientific services, genetic resources and clinical information related to genetic resources primarily to the Chinese scientific community.

During 2021, in accordance with the JAX Beijing joint-venture agreement, the non-controlling interest partner contributed capital of \$4,000 to JAX Beijing. Additionally, during 2021, in accordance with the JAX Beijing joint venture agreement, the non-controlling interest partner provided JAX Beijing with an exclusive right to utilize certain buildings and related land for JAX Beijing's operations. The value of the land and buildings, subject to the exclusive-use right, totaled \$26,824, which has been recognized as an in-kind capital contribution and is included as a component of long-lived assets in the Laboratory's consolidated balance sheet as of December 31, 2021. The value of the land and buildings is based on the historical cost to acquire these assets by the non-controlling interest partner.

Notes to Consolidated Financial Statements

December 31, 2021 and 2020

The reconciliation of a noncontrolling interest reported in net assets without donor restrictions is as follows:

	The Laboratory	JAX Beijing	Total
Net assets without donor restrictions at December 31, 2020	\$ 839,089	_	839,089
Operating income (loss) Nonoperating income	29,894 36,615	(1,887)	28,007 36,615
Excess (deficit) of revenues over expenses	66,509	(1,887)	64,622
Cumulative translation adjustments Contributed capital from non-controlling interest	(327)	36	(291)
partner		30,824	30,824
Change in net assets	66,182	28,973	95,155
Net assets without donor restrictions at December 31, 2021	\$ 905,271	28,973	934,244

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 respective subsidiaries, JAX Beijing and JAX Japan. All intercompany transactions have been eliminated in consolidation.

(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.

(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

Notes to Consolidated Financial Statements

December 31, 2021 and 2020

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 revenues are included in Genetic Resources and Clinical and Research Services revenue. These transactions are considered to be exchange transactions. Accounts receivable from such activities are reported net of allowance for uncollectible accounts.

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

Notes to Consolidated Financial Statements

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expenditures are recorded as deferred revenue until expended. The Laboratory received approximately 80% and 73%, respectively, of its revenue from grants and contracts from the National Institutes of Health (NIH) for the years ended December 31, 2021 and 2020. Connecticut Innovations, Inc. (CI) (note 8(b)) research and operating grants provided 8% and 11% of the grant revenue in 2021 and 2020, respectively. Indirect costs are billed and recovered in accordance with the terms of the grant agreements and represented \$37,680 and \$36,056, respectively, of revenue from grants for the years ended December 31, 2021 and 2020. Most NIH grants reimburse for indirect costs at an agreed percentage of direct costs incurred. CI reimburses eligible costs up to an annual maximum amount. The Laboratory applies the CI grant funds first to direct costs and then to indirect costs.

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. Facility-related costs related to information technology are allocated primarily on the basis of the estimated level of effort.

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Functional expenses incurred by type for the years ended December 31, 2021 and 2020 are presented below:

	December 31, 2021					
	_	Research	Genetic resources and clinical and research services	Training	Institutional support	Total
Salaries and wages	\$	67,475	98,395	3,136	34,852	203,858
Benefits		21,745	31,710	1,011	11,232	65,698
Employee recruitment, training,						
memberships and subscriptions	;	1,431	827	190	2,026	4,474
Purchased services and stipends		13,601	15,971	1,822	17,274	48,668
Supplies and shipping		18,147	63,170	322	1,384	83,023
Maintenance, utilities and						
insurance		10,692	20,369	511	5,122	36,694
Travel and meals		405	985	265	1,069	2,724
Interest expense		323	7,484	27	34	7,868
Depreciation .		21,747	24,965	1,123	3,361	51,196
Other expenses	_	135	8,069	101	3,296	11,601
Total	\$_	155,701	271,945	8,508	79,650	515,804

	December 31, 2020					
	_	Research	Genetic resources and clinical and research services	Training	Institutional support	Total
Salaries and wages	\$	68,489	81,274	3,201	31,166	184,130
Benefits		22,092	26,216	1,032	10,053	59,393
Employee recruitment, training,						
memberships and subscriptions	;	1,525	637	249	2,258	4,669
Purchased services and stipends		11,634	11,734	1,272	12,542	37,182
Supplies and shipping		16,429	64,672	198	2,106	83,405
Maintenance, utilities and						
insurance		10,931	15,279	531	4,961	31,702
Travel and meals		218	657	61	285	1,221
Interest expense		346	5,848	29	110	6,333
Depreciation		20,576	22,919	998	3,218	47,711
Other expenses	_	139	4,925	52	1,180	6,296
Total	\$_	152,379	234,161	7,623	67,879	462,042

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 \$4,511 and \$4,173 for the years ended December 31, 2021 and 2020, respectively.

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(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). Also included in operating revenue are research grant reimbursements of \$184 and \$1,321 for the years ended December 31, 2021 and 2020, for the purchase of equipment that became the property of the Laboratory upon acquisition. Depreciation charged to operating activities from research grant-funded equipment was \$921 and \$675 for the years ended December 31, 2021 and 2020, respectively.

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, investment return in excess of the amount appropriated under the Laboratory's spending formula, and grants to acquire land, buildings, and equipment are all reported as nonoperating activities. Postretirement plan charges above periodic benefit costs are also all presented 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, excluding amounts whose use is limited by internal designation.

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:

		2021	2020
Cash included in short-term investments on the consolidated balance sheets	Φ_	24 755	27.755
Cash and cash equivalents as reported in the consolidated	\$	31,755	27,755
balance sheets	_	22,240	7,402
Total cash and cash equivalents as shown in			
the consolidated statement of cash flows	\$_	53,995	35,157

(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.

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(h) Long-Lived Assets, Intellectual Property and Goodwill

Long-lived assets and intellectual property 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 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:

	<u>Years</u>
Buildings and improvements	15–50
Land improvements	5–15
Equipment and software	3–15

For intellectual property amortization is provided on a straight-line basis over an estimated useful life of fifteen years.

Goodwill is recorded at fair value. Goodwill is not amortized but is assessed on a recurring basis for impairment.

Management reviews long-lived assets, intellectual property and goodwill for impairment whenever events or circumstances indicate that the carrying value of these assets may not be recoverable. Management determined that no long-lived assets nor intangible assets and goodwill were impaired as of December 31, 2021 and 2020.

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.

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(i) Foreign currency translation

The Laboratory's accounting records in Japan and China are maintained in Japanese Yen and Chinese Yuan, respectively. The Foreign currency equivalents used to translate into U.S. Dollars as of and for the respective periods ended December 31, 2021 are as follows:

	Japanese Yen to one U.S. Dollar	Chinese Yuan to one U.S. Dollar	Hong Kong Dollar to one U.S. Dollar
Revenues and expenses at the average rate since acquisition date through December 31, 2021 Revenues and expenses at the average	0.00878	_	_
rate for the fiscal year ended December 31, 2021 Assets, liabilities, and net assets at the	_	0.1570	0.1287
current rate as of December 31, 2021	0.00869	0.1573	0.1283

An analysis of the unrestricted cumulative adjustments from foreign currency translation for the year ended December 31, 2021 is as follows:

Balance as of December 31, 2020	\$ _
Translation adjustment for fiscal 2021	 (291)
Balance as of December 31, 2021	\$ (291)

The effects of foreign currency translation as of and for the year ended December 31, 2020 were not material to warrant separate disclosure in the consolidated financial statements. The effects of foreign currency for 2020 were primarily related to genetic resources and clinical and research services expense.

(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.

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.

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(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.

(I) Reclassification

Certain prior-year items have been reclassified to conform with the current year presentation.

(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

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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 without donor restrictions are reported at estimated fair value. If an investment is held directly by the Laboratory and an active market with quoted prices exists, 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, 2021 and 2020 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.

There were no transfers between Level 1 and Level 2 for the fiscal years ended December 31, 2021 and 2020.

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The following tables summarize the Laboratory's investments by major category in the fair value hierarchy as of December 31, 2021 and 2020, as well as related strategy, liquidity and funding commitments:

		December 31, 2021			
				NAV or	
	_	Level 1	Level 2	equivalent	Total
Short-term investments:					
Cash and cash equivalents U.S. and global fixed income	\$	62,095	_	_	62,095
funds	_		213,572		213,572
Total short-term					
investments	_	62,095	213,572		275,667
Long-term investments (endowment): Money market accounts and					
certificates of deposit U.S. and global fixed		2,223	_	_	2,223
income funds		51,649	_	_	51,649
Equities: U.S. mid and large cap					
value funds		154,077	_	_	154,077
Global large cap	_	90,296		33,650	123,946
Total equities		244,373	_	33,650	278,023
Multiple hedged strategies ¹ Private equity and real		20,272	_	26,531	46,803
assets ¹	_			66,938	66,938
Total long-term					
investments	_	318,517		127,119	445,636
Total	\$_	380,612	213,572	127,119	721,303

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, 2021, the average remaining life of these partnerships is approximately six years.

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		December 31, 2020			
	_			NAV or	
	_	Level 1	Level 2	equivalent	Total
Short-term investments: Cash and cash equivalents U.S. and global fixed income	\$	57,069	_	_	57,069
funds	_		111,279		111,279
Total short-term investments	_	57,069	111,279		168,348
Long-term investments (endowment): Money market accounts and					
certificates of deposit U.S. and global fixed		6,497	_	_	6,497
income funds		32,874	_	900	33,774
Equities: U.S. mid and large cap					
value funds		149,625	_	_	149,625
Global large cap	_	135,725		17,172	152,897
Total equities		285,350	_	17,172	302,522
Multiple hedged strategies ¹ Private equity and real		_	_	11,806	11,806
assets ¹	_			32,358	32,358
Total long-term investments	_	324,721		62,236	386,957
Total	\$_	381,790	111,279	62,236	555,305

The redemption or liquidation is monthly to locked up. The lock-up periods have various terms with extensions of one to two years. As of December 31, 2020, the average remaining life of these partnerships is approximately seven 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 commitments associated with private limited partnerships as of December 31, 2021 and 2020 were

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\$29,644 and \$35,234, 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, 2021 and 2020 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:

	_	2021	2020
Financial assets:			
Cash and cash equivalents	\$	22,240	7,402
Contributions and accounts receivable, net		59,893	65,996
Short-term investments		275,667	168,348
Budgeted endowment payouts:			
Board-designated		8,777	6,768
Donor-restricted		2,525	2,380
Total financial assets available within one year		369,102	250,894
Liquidity resources:			
Bank line of credit	_	50,000	50,000
Total financial assets and liquidity resources			
available within one year	\$_	419,102	300,894

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, 2021 and 2020, the Laboratory had an additional \$340,183 and \$304,888, respectively, in Board-designated endowments not budgeted for spending which is available for general expenditure with Board approval.

(5) Endowment

The Laboratory's endowment consisted of 83 individual donor-restricted funds, as well as Board-designated funds held for the long-term support of the Laboratory's mission.

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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. Income and dividends are used to fund spending first, with net realized and unrealized appreciation providing incremental funding as needed. 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 spending distribution is reviewed and approved annually by the Investment Committee in conjunction with the recommended adoption of the annual budget by the Finance Committee.

(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 when they occur. There were no individual funds with deficiencies at December 31, 2021 and 2020.

Notes to Consolidated Financial Statements December 31, 2021 and 2020

(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, 2021 and 2020:

			2021	
	_	Without donor	With donor	
	_	restrictions	restrictions	Total
Donor-restricted endowments:				
Historical gift value	\$	_	30,081	30,081
Appreciation		_	66,595	66,595
Board-designated endowments	_	348,960		348,960
Total	\$ _	348,960	96,676	445,636
	_		2020	
		Without		
		donor	With donor	
	_	restrictions	restrictions	Total
Donor-restricted endowments:				
Historical gift value	\$	_	26,721	26,721
Appreciation		_	48,580	48,580
Board-designated endowments	-	311,656		311,656
Total	\$	311,656	75,301	386,957

Changes in endowment assets for the years ended December 31, 2021 and 2020 are as follows:

	December 31, 2021		
	Without donor restrictions	With donor restrictions	Total
Endowment, December 31, 2020	\$ 311,656	75,301	386,957
Cash contributions	_	3,358	3,358
Board transfer from operating funds to endowment	3,507	-	3,507
Investment return	40,804	20,485	61,289
Long-term investment return utilized	(6,768)	(2,380)	(9,148)
In-transit transactions	(239)	(88)	(327)
Endowment, December 31, 2021	\$ 348,960	96,676	445,636

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	December 31, 2020			
	Without donor restrictions	With donor restrictions	Total	
Endowment, December 31, 2019	\$ 240,600	65,804	306,404	
Cash contributions	_	1,303	1,303	
Board transfer from operating funds to endowment	31,500	_	31,500	
Investment return	44,592	10,409	55,001	
Long-term investment return utilized	(4,909)	(2,188)	(7,097)	
In-transit transactions	(127)	(27)	(154)	
Endowment, December 31, 2020	\$ 311,656_	75,301	386,957	

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, 2021 and 2020:

	 2021	2020
Due from provision of genetic resources and services	\$ 48,191	50,707
Amounts reimbursable under grants and contracts	11,002	11,783
Miscellaneous accounts receivable	 1,479	3,913
	60,672	66,403
Less allowance for uncollectibles	 (1,114)	(938)
Accounts receivable, net	\$ 59,558	65,465

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(7) Long-Lived Assets

Long-lived assets consisted of the following as of December 31, 2021 and 2020:

	2021	2020
Land and improvements	\$ 17,956	14,266
Buildings and improvements	758,045	662,845
Construction in progress	78,126	97,868
Equipment and software	219,684	200,177
	1,073,811	975,156
Less accumulated depreciation	(471,247)	(430,264)
Long-lived assets, net	\$ 602,564	544,892

The change in accounts payable for acquisition and construction of long-lived assets was an increase of \$4,175 for the year ended December 31, 2021 and a decrease of \$7,585 for the year ended December 31, 2020.

Commitments to third parties for the purchase of equipment, space renovation and construction projects were \$56,005 and \$16,269 as of December 31, 2021 and 2020, respectively.

(8) Debt

(a) Bonds and Note Payable

Bonds and note payable consisted of the following as of December 31, 2021 and 2020:

	 2021	2020
Series 2021 taxable bonds	\$ 203,340	
Series 2018 taxable bonds	143,280	148,145
Association of Bay Area Government for California fixed rate revenue bonds (ABAG Series 2012 bonds)		48,435
	346,620	196,580
Plus unamortized premium	_	3,101
Debt issuance costs	 (2,891)	(1,454)
Bonds payable, net	343,729	198,227
Note payable	 1,347	1,491
Bonds and note payable, net	\$ 345,076	199,718

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On March 16, 2021, the Laboratory issued taxable bonds in the amount of \$203,340. A portion of the proceeds were utilized to defease the remaining outstanding principal of \$48,435 on the Series 2012 ABAG bonds, resulting in a loss of \$67 from the extinguishment of debt. The remainder of the proceeds are intended for capital improvements. The bonds have a stated rate of fixed interest ranging from 2.692% to 3.468%, payable semiannually, over a 30 year term. Interest expense incurred during 2021 on the taxable bonds totaled \$5,482, net of capitalized interest of \$4,443. At December 31, 2021 accrued interest of \$3,462 is included in accrued expenses on the consolidated balance sheets. The remaining bond proceeds on hand of \$137,000 at December 31, 2021 are included in working capital on the consolidated balance sheet. 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 2021 and 2020 on the taxable bonds totaled \$5,900 and \$4,266, net of capitalized interest of \$0 and \$1,774, respectively. At December 31, 2021 and 2020 accrued interest of \$2,914 and \$2,986, respectively, is included in accrued expenses on the consolidated balance sheets.

The ABAG Series 2012 bonds were issued with a par amount of \$60,290 and a premium of \$6,066 at fixed interest rates ranging from 2.5% to 5% over a 25-year term. Interest expense incurred during 2021 and 2020 totaled \$0 and \$2,237, respectively.

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 5, 2023. Interest is payable monthly at the rate of BSBY plus 0.45%. The Laboratory did not utilize the unsecured line of credit during the year ended December 31, 2021 or 2020. The line of credit documents require the Laboratory to maintain certain reporting covenants but contains no financial covenants.

(b) CI Agreement

In 2012, the Laboratory entered into several agreements with various sub-units of the state of Connecticut to build a 183,500 square foot laboratory and operate a genomics medicine research program in Farmington, Connecticut. The major agreements include a funding agreement with CI, a ground lease with the University of Connecticut Health Center (UCHC), and a collaboration agreement with the University of Connecticut (UConn).

Under the agreements, UCHC provided a 99-year ground lease for the building site. The ground lease contains a provision whereby the land will transfer to the Laboratory upon reaching 600 employees in Connecticut. As of December 31, 2021 The Laboratory did not reach 600 employees in Connecticut. The ground lease also includes limitations on the sale and use of the facility. A collaboration agreement with UConn covers joint faculty appointments, grant applications, UConn assignment and funding of faculty to be located at the Laboratory's Farmington site, and other related matters.

The CI funding agreement provided forgivable loans to construct a building and for the purchase of equipment, as well as \$99,000 in grant commitments to support research and development over ten years. The Laboratory met the loan forgiveness requirements pursuant to the CI funding agreement and CI forgave the outstanding loans in 2018.

Notes to Consolidated Financial Statements

December 31, 2021 and 2020

As of December 31, 2021 and 2020, the Laboratory had incurred \$190,353 and \$187,633, respectively, in project-related costs, which are included in construction in progress, buildings and improvements, and equipment. The Laboratory may continue to draw funds up to an amount equivalent to the original loan amounts without incurring additional debt. The Laboratory drew funds totaling \$2,272 and \$5,594 for 2021 and 2020, respectively; these funds are realized as a contribution and are included in the nonoperating section of the consolidated statement of activities for the year ended December 31, 2021 and 2020. As of December 31, 2021 the Laboratory has an available balance of \$2,303 for future draws under the agreement. The contributions include no funds held in escrow by CI as retainage as of December 31, 2021 and 2020.

(c) Maturities of Long-Term Debt

Maturities of long-term debt as of December 31, 2021, were as follows:

	_A	Amounts due		
Year ending December 31:				
2022	\$	5,139		
2023		4,971		
2024		5,117		
2025		5,278		
2026		5,460		
Thereafter		322,002		
Total	\$	347,967		

(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 \$16,661 and \$15,813 for the years ended December 31, 2021 and 2020, 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 \$589 and \$594 in the years ended December 31, 2021 and 2020, respectively, the Laboratory has not funded the postretirement plan. The benefit obligation as of December 31, 2021 and 2020, respectively, is \$6,726 and \$7,054, and is reported as accrued postretirement obligations on the consolidated balance sheet.

(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

Notes to Consolidated Financial Statements

December 31, 2021 and 2020

related to the salary deferral plan each totaled \$10,052 and \$8,805 at December 31, 2021 and 2020, respectively.

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 \$1,333 and \$1,124 at December 31, 2021 and 2020, respectively, is included in accounts payable and accrued expenses, and the corresponding assets are included in other assets.

(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:

	 2021	2020
Donor-restricted endowments:		
Research	\$ 24,363	21,142
Training	2,029	1,832
Other programs	888	886
General purpose	2,801	2,861
Pledges receivable for endowment	 1,093	397
Total endowment	31,174	27,118
Purpose and time-restricted, and other:		
Unappropriated return	66,595	48,580
Other	 5,370	3,777
Total net assets with donor restrictions	\$ 103,139	79,475

(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, 2021 and 2020

(13) Subsequent Events

The Laboratory has evaluated subsequent events from the consolidated balance sheet date of December 31, 2021 through June 6, 2022, the date on which the consolidated financial statements were issued.

Supplementary Schedule of Expenditures of Federal Awards

Year ended December 31, 2021

	Federal assistance	Direct or pass-through	Passed through to	Total federal
Federal grantor/pass-through grantor	listing number	identifying number	subrecipients	expenditures
earch and Development Cluster:				
Department of Health and Human Services:				
Direct awards, National Institutes of Health (NIH):				
Environmental Health Human Genome Research	93 93.172	R01 ES029916A K99 HG011542A	\$ 11,623	741,707 99,587
Human Genome Research	93.172	R01 HG009900A	_	755,594
Human Genome Research	93.172	R01 HG010679A	347,344	752,452
Human Genome Research	93.172	R01 HG011253A	_	186,781
Human Genome Research	93.172	R25 HG007053B	_	61,649
Human Genome Research Human Genome Research	93.172 93.172	R25 HG010611A R35 HG011329A	_	25,632 84,699
Human Genome Research	93.172	U24 HG000330I	_	2,311,087
Human Genome Research	93.172	U24 HG007497C	1,142,531	2,731,369
Human Genome Research	93.172	U24 HG011449A	2,835	38,296
Human Genome Research	93.172	U24 HG011735A	_	217,588
Human Genome Research Human Genome Research	93.172 93.172	U41 HG000330H UM1 HG009409A	1,875	1,146,375 2,082,193
Research Related to Deafness and Communication Disorders	93.173	R01 DC015242A	1,075	347,949
Research Related to Deafness and Communication Disorders	93.173	R01 DC015242B	_	24,424
Research Related to Deafness and Communication Disorders	93.173	R01 DC018304A	363,389	699,349
Research Related to Deafness and Communication Disorders	93.173	R13 DC019012A		
Drug Abuse and Addiction Research Programs	93.279	P50 DA039841A	233,069	733,266
Drug Abuse and Addiction Research Programs Drug Abuse and Addiction Research Programs	93.279 93.279	R01 DA028420C R01 DA037927B	_	702,393 110,711
Drug Abuse and Addiction Research Programs	93.279	R01 DA045401A	_	92,133
Drug Abuse and Addiction Research Programs	93.279	R01 DA048890A	92,964	601,400
Drug Abuse and Addiction Research Programs	93.279	R13 DA052199A	_	14,758
Drug Abuse and Addiction Research Programs	93.279	R21 DA048634A	_	39,874
Drug Abuse and Addiction Research Programs Drug Abuse and Addiction Research Programs	93.279	R21 DA050837A R25 DA051342A	_	89,673
Drug Abuse and Addiction Research Programs Drug Abuse and Addiction Research Programs	93.279 93.279	R33 DA050837B	13,021	7,709 55,253
Drug Abuse and Addiction Research Programs	93.279	U01 DA041668A	10,021	279,064
Drug Abuse and Addiction Research Programs	93.279	U01 DA043809A	14,797	900,149
Drug Abuse and Addiction Research Programs	93.279	U01 DA051235A	2,219	61,567
Trans-NIH Research Support	93.310	U54 DK107967A	-	381,277
Trans-NIH Research Support Trans-NIH Research Support	93.310 93.310	U01 CA235493B DP2 GM126893A	124,314	380,076 475,985
Trans-NIH Research Support	93.310	U01 CA239108A	257,407	581,546
Trans-NIH Research Support	93.310	UM1 OD023222B		180,456
Trans-NIH Research Support – COVID 19	93.310	UM1 OD023222BC3	_	831,378
Research Infrastructure Programs	93.351	R13 OD010920F	_	8,124
Research Infrastructure Programs	93.351	P40 OD011102D		84,320
Research Infrastructure Programs Research Infrastructure Programs	93.351 93.351	P40 OD011102E R21 OD023803A	295,022	1,189,616 76,198
Research Infrastructure Programs	93.351	R21 OD023003A	22,643	105,922
Research Infrastructure Programs	93.351	R24 OD011190C		788,665
Research Infrastructure Programs	93.351	R24 OD021325B	_	826,877
Research Infrastructure Programs	93.351	R24 OD030037A	_	307,338
Research Infrastructure Programs	93.351	S10 OD026816A	_	6,168
Research Infrastructure Programs Research Infrastructure Programs – COVID 19	93.351 93.351	U42 OD010921C U42 OD010921C	166,364	1,111,047 202,687
Research Infrastructure Programs	93.351	U42 OD026635A	100,004	880,828
Research Infrastructure Programs	93.351	U54 OD020351A	_	46,064
Research Infrastructure Programs	93.351	U54 OD030187A	_	2,185,577
Research Infrastructure Programs	93.351	UM1 OD023222B	225,388	5,183,085
21st Century Cures Act – Beau Biden Cancer Moonshot Cancer Cause and Prevention Research	93.353 93.393	U24 CA224067B R01 CA255705A	301,707	728,290 842,885
Cancer Cause and Prevention Research	93.393	R21 CA256575A	_	56,243
Cancer Detection and Diagnosis Research	93.394	R33 CA236681A	_	369,870
Cancer Detection and Diagnosis Research	93.394	R33 CA247669A	_	476,863
Cancer Treatment Research	93.395	R01 CA219880A	12,196	609,618
Cancer Treatment Research	93.395	R37 CA237307A	34,052	370,320
Cancer Treatment Research Cancer Biology Research	93.395 93.396	U24 CA263963A R01 CA089713D	_	244,442 261,064
Cancer Biology Research	93.396	R01 CA089713E	_	285,360
Cancer Biology Research	93.396	R01 CA230031A	_	386,104
Cancer Biology Research	93.396	R01 CA237208A	_	516,450
Cancer Biology Research	93.396	R01 CA248317A	_	323,800
Cancer Biology Research	93.396	R01 CA251433A		418,408
Cancer Biology Research Cancer Biology Research	93.396 93.396	U01 CA271830A U01 AG077925A	5,360	22,877 69,606
Cancer Centers Support Grants	93.397	P30 CA034196H	_	2,047,695
Cancer Research Manpower	93.398	K99 CA226387A	_	19,460
Cancer Research Manpower	93.398	R25 CA122819D	_	82,532
Cancer Research Manpower	93.398	R25 CA172010B	_	76,707
Cancer Research Manpower	93.398	R25 CA233420A	_	84,298
Arthritis, Musculoskeletal and Skin Diseases Research Arthritis, Musculoskeletal and Skin Diseases Research	93.846 93.846	R01 AR078634A R21 AR075174A	11,040	390,483 114,007
, at a mass, massares and only biscass (1636ard)	93.847	F32 DK120298A	11,040	47,067
Diabetes, Digestive, and Kidney Diseases Extramural Research				12,650
Diabetes, Digestive, and Kidney Diseases Extramural Research Diabetes, Digestive, and Kidney Diseases Extramural Research – COVID 19	93.847	F32 DK120298A	_	12,000
Diabetes, Digestive, and Kidney Diseases Extramural Research – COVID 19 Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	R01 DK095735C	2,152	655,666
Diabetes, Digestive, and Kidney Diseases Extramural Research - COVID 19			2,152 74,099 39,212	

Supplementary Schedule of Expenditures of Federal Awards

Year ended December 31, 2021

Federal grantor/pass-through grantor	Federal assistance listing number	Direct or pass-through identifying number	Passed through to subrecipients	Total fede
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	R01 NS054154D	\$	141,
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	R01 NS102414A	260,517	619,
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	R01 NS125742A	200,517	6,
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	R21 NS105116A	6,267	75.
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	R21 NS114873A	- 0,207	152.
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	R21 NS116936A	_	102,
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	R24 NS098523A	_	100,
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	R25 NS078795C	_	20
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	R37 NS054154E	_	662
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	R61 NS115129A	_	622
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	U54 NS105539A	374,551	1,492
Allergy and Infectious Diseases Research	93.855	R01 Al121920A	12,281	
	93.855	R01 Al141609A	12,201	431 779
Allergy and Infectious Diseases Research				
Allergy and Infectious Diseases Research	93.855	R01 Al142086A	55,474	407
Allergy and Infectious Diseases Research	93.855	R01 Al149746B	17,189	499
Allergy and Infectious Diseases Research	93.855	R01 Al153344A	_	176
Allergy and Infectious Diseases Research	93.855	R21 Al133440A	_	14
Allergy and Infectious Diseases Research	93.855	R21 Al135221A	_	47
Allergy and Infectious Diseases Research	93.855	R21 Al145383A	_	148
Allergy and Infectious Diseases Research	93.855	U01 Al124297A	45,185	294
Allergy and Infectious Diseases Research – COVID 19	93.855	U01 AI124297ACV	- -	48
Allergy and Infectious Diseases Research	93.855	U19 AI142733A	814,316	2,530
Allergy and Infectious Diseases Research – COVID 19	93.855	U19 AI142733ACV	300,190	517
Biomedical Research and Research Training	93.859	F32 GM134599A	-	67
Biomedical Research and Research Training	93.859	K99 GM135540A		78
Biomedical Research and Research Training	93.859	R01 GM070683D	198,934	488
Biomedical Research and Research Training	93.859	R01 GM070083D R01 GM115518A	190,934	283
Biomedical Research and Research Training	93.859	R01 GM125736A	37,498	375
Biomedical Research and Research Training	93.859	R01 GM127531A	236,153	483
Biomedical Research and Research Training	93.859	R01 GM138541A	_	541
Biomedical Research and Research Training	93.859	R25 GM113979B	_	53
Biomedical Research and Research Training	93.859	R25 GM141520A	_	29
Biomedical Research and Research Training	93.859	R25 GM142036A	2,292	115
Biomedical Research and Research Training	93.859	R25 OD020205A	773	82
Biomedical Research and Research Training	93.859	R35 GM124922A	2,400	541
Biomedical Research and Research Training	93.859	R35 GM133415A	· <u> </u>	436
Biomedical Research and Research Training	93.859	R35 GM133495A	_	430
Biomedical Research and Research Training	93.859	R35 GM133562A	_	521
Biomedical Research and Research Training	93.859	R35 GM133711A	_	345
Biomedical Research and Research Training	93.859	R35 GM133724A	_	455
Child Health and Human Development Extramural Research	93.865	P41 HD062499B	_	600
			_	
Child Health and Human Development Extramural Research	93.865	P41 HD062499C		1,609
Child Health and Human Development Extramural Research	93.865	R01 HD093778A	_	473
Child Health and Human Development Extramural Research	93.865	R01 HD102363A	_	384
Child Health and Human Development Extramural Research	93.865	R01 HD103805A	191,666	334
Child Health and Human Development Extramural Research	93.865	R25 HD079344B	_	78
Child Health and Human Development Extramural Research	93.865	T32 HD007065H	_	104
Aging Research	93.866	P30 AG038070C	- -	1,007
Aging Research	93.866	R01 AG052608A	_	139
Aging Research	93.866	R01 AG054180A	28,676	505
Aging Research	93.866	R01 AG057914A	(7,862)	1,013
Aging Research	93.866	R01 AG069010A	102,046	364
Aging Research	93.866	R01 AG074012A	2,330	16
Aging Research	93.866	R01 AG075818A	2,330	
Aging Research		R13 AG064968A	_	51
Aging Research	93.866		_	.1
Aging Research	93.866	R13 AG069519A	_	11
Aging Research	93.866	R13 AG072861A	_	23
Aging Research	93.866	R56 AG060746A	86,682	147
Aging Research	93.866	RF1 AG055104A	94,819	917
Aging Research	93.866	RF1 AG063755A	281,777	985
Aging Research	93.866	T32 AG062409A	_	220
Aging Research	93.866	U01 AG022308D	_	1,713
Aging Research	93.866	U24 AG066346A	_	193
Aging Research	93.866	RF1 AG059778A	_	592
Vision Research	93.867	R01 EY011996D		31
			= = =	520
Vision Research	93.867	R01 EY019943C	_	
Vision Research	93.867	R01 EY027305A	_	367
Vision Research	93.867	R01 EY027860A	_	408
Vision Research	93.867	R01 EY028175A	_	454
Vision Research	93.867	R21 EY027894A	_	4
Vision Research	93.867	R01 EY028561A	_	471
	00.070	D04 M04004EA		26
Medical Library Assistance	93.879	R21 LM012615A	_	20

Supplementary Schedule of Expenditures of Federal Awards

Year ended December 31, 2021

Federal grantor/pass-through grantor	Federal assistance listing number	Direct or pass-through identifying number	Passed through to subrecipients	Total federal expenditures
Pass-through awards, NIH:				
Children's Hospital Medical Center				
Oral Diseases and Disorders Research The Forsyth Institute	93.121	R35 DE027557A CHMC	\$ —	20,809
Oral Diseases and Disorders Research	93.121	R01 DE016937D Forsyth	_	2,836
The Forsyth Institute				_,
Oral Diseases and Disorders Research	93.121	R37 DE016937D Forsyth	_	11,163
California Institute of Technology Human Genome Research	93.172	U24 HG010859A CALTECH		771,960
California Institute of Technology	93.172	024 HG010039A CALTECH	_	771,900
Human Genome Research	93.172	UM1 HG009443A CalTech	_	208,240
Geisinger Clinic				
Human Genome Research Oregon State University	93.172	R01 HG011799A Geisinger	_	5,353
Human Genome Research	93.172	RM1 HG010860A Oregano	_	102,194
The Broad Institute, Incorporated		3		
Human Genome Research	93.172	UM1 HG009435A Broad Institute	_	651,183
University Of Colorado Human Genome Research	93.172	RM1 HG010860B Colorado		66,889
University Of Southern California	95.172	TWITTIGOTOGOOD COIGIAGO		00,009
Human Genome Research	93.172	U41 HG002273F USC	_	495,019
University Of Washington				
Human Genome Research	93.172	R01 HG010169A UW	_	24,768
Trustees of the University of Pennsylvania National Center on Sleep Disorders Research	93.233	P01 HL094307B PENN	_	28,273
Trustees of the University of Pennsylvania	00.200			20,270
National Center on Sleep Disorders Research	93.233	P01 HL094307B UPenn	_	147,281
University Of Connecticut Mental Health Research Grants	93.242	R01 MH112739A Uconn		1,101
University of Connecticut Health Center	93.242	ROT MHTT2739A OCOIII	_	1,101
Alcohol Research Programs	93.273	R21 AA027858A UCHC	_	8,730
Emory University				
Drug Abuse and Addiction Research Programs	93.279	DP1 DA042103A Emory U	_	11,957
Emory University Drug Abuse and Addiction Research Programs	93.279	R01 DA042742A Emory U	_	6,963
Virginia Commonwealth University	30.273	Not Brioser services		0,500
Drug Abuse and Addiction Research Programs	93.279	U01 DA045299A VCU	_	140,387
University of Connecticut Health Center	00.000			007 707
Discovery and Applied Research for Technological Innovations California Institute of Technology	93.286	U01EB028898A / HL156349	_	627,707
Trans-NIH Research Support	93.310	U24 HG010859A CALTECH	_	1,099
Connecticut Children's Med Center				,
Trans-NIH Research Support	93.310	R61 HD105613A CCMC	_	124,033
Emory University	03 310	112 FC020462A Fman		02.564
Trans-NIH Research Support Medical College of Wisconsin	93.310	U2 ES030163A Emory	_	93,564
Trans-NIH Research Support	93.310	U24 HG010423A MCW	_	115,023
Medical College of Wisconsin				
Trans-NIH Research Support	93.310	U24 HG010423A MCW Lutz	_	123,726
Oregon Health & Science University National Center for Advancing Translational Sciences	93.350	U24 TR002306A OHSU	_	263,651
Oregon Health & Science University	93.330	024 11002300A 01130		203,031
National Center for Advancing Translational Sciences – COVID 19	93.350	U24 TR002306A OHSU	_	166,891
Tufts University School Of Medicine				
National Center for Advancing Translational Sciences University Of Colorado	93.350	UL1 TR002544A Tufts	_	22,357
National Center for Advancing Translational Sciences	93.350	U24 TR002306B Colorado	_	216,606
Oregon State University				.,
Research Infrastructure Programs	93.351	R24 OD011883B OSU	_	5,588
University Of Colorado	02.254	D24 OD044002D OH Denver		10 410
Research Infrastructure Programs University Of Massachusetts	93.351	R24 OD011883D CU Denver	_	18,418
Research Infrastructure Programs	93.351	R24 OD026440A UMA	_	293,884
Yale University				
21st Century Cures Act – Beau Biden Cancer Moonshot	93.353	U2C CA252979A Yale	_	66,339
Brigham And Women's Hospital Nursing Research	93.361	R21 NR017256A BWH	_	_
Moffitt Cancer Center	33.301	NZTINIOTZOON DVIN	_	_
Cancer Cause and Prevention Research	93.393	R01 CA219389A Moffit	_	28,841
University of Connecticut Health Center	22.222	D04 040552454 110110		=0.046
Cancer Cause and Prevention Research Cold Spring Harbor Laboratory	93.393	R01 CA252045A UCHC	_	52,019
Cancer Biology Research	93.396	R01 CA249002A CSHL	_	2,566
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Supplementary Schedule of Expenditures of Federal Awards

Year ended December 31, 2021

Federal grantor/pass-through grantor	Federal assistance listing number	Direct or pass-through identifying number	Passed through to subrecipients	Total federal expenditures
Cold Spring Harbor Laboratory	00.000	LIOA OAOOAOAOA OOLII DD	•	500.070
Cancer Biology Research University of California San Diego	93.396	U01 CA224013A CSHL PR	\$ —	533,978
Cancer Biology Research	93.396	U24 CA220341A UCSD	_	42,009
Oregon Health & Science University Cancer Control	93.399	UG1 CA189974B OHSU	_	38,712
Medical College of Wisconsin				
Cardiovascular Diseases Research University of Connecticut Health Center	93.837	P01 HL149620A MCW	_	134,454
Cardiovascular Diseases Research	93.837	R01 HL142787A UCHC	_	282,201
University Of Pittsburgh Cardiovascular Diseases Research	93.837	R01 HL142788A UPitt	_	58,466
Joan & Sanford I Weill Medical				
Arthritis, Musculoskeletal and Skin Diseases Research University of Connecticut Health Center	93.846	P50 AR070594A Cornell	_	602,501
Arthritis, Musculoskeletal and Skin Diseases Research	93.846	R01 AR060636C UCHC	_	63,482
University Of Massachusetts	93.847	U01 DK104218B UMA		168,561
Diabetes, Digestive, and Kidney Diseases Extramural Research University Of Wisconsin	93.047	001 DK 1042 18B OWA	_	100,501
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	RC2 DK125961A Wisc	_	160,876
Houston Methodist Research Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	R01 NS121405A JG MHRI	_	7,825
Scripps Translational Science				
Extramural Research Programs in the Neurosciences and Neurological Disorders University of Connecticut Health Center	93.853	R01 NS113583A Scripps	_	176,030
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	R01 NS102633B UCHC	_	3,322
University of Iowa Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	R01 NS055272E Iowa		55,666
Brigham And Women's Hospital	93.033	R01 N3033272E IOWA	_	55,000
Allergy and Infectious Diseases Research	93.855	R01 Al141529A BWH	_	170,791
Emory University Allergy and Infectious Diseases Research	93.855	U19 Al090023C Emory	_	163,206
Harvard Pilgrim Health Care		-		
Allergy and Infectious Diseases Research Nationwide Children's Hospital	93.855	R56 AI150864B HPHC	_	242,979
Allergy and Infectious Diseases Research	93.855	U01 AI131386A NCH	_	145,738
Nationwide Children's Hospital Allergy and Infectious Diseases Research – COVID 19	93.855	U01 AI131386ACV NCH		454.052
New York Blood Center, Incorporated	93.033	UUT AITST300ACV NCH	_	151,853
Allergy and Infectious Diseases Research	93.855	U01 AI160421A NYBC	_	27,701
The University of Texas Allergy and Infectious Diseases Research – COVID 19	93.855	R21 AI145400A Texas	_	13,952
Trustees of Boston University				
Allergy and Infectious Diseases Research University Of Massachusetts	93.855	R01 Al151051A BU	_	255,431
Allergy and Infectious Diseases Research	93.855	R01 Al132963A UMA	_	84,091
Yale University Allergy and Infectious Diseases Research	93.855	R01 Al136942A Yale		142,191
Dartmouth College	93.633	RUTATI30942A Tale	_	142,191
Biomedical Research and Research Training	93.859	P20 GM130454A Dartmouth	_	267,886
d'Vinci Interactive, Incorporated Biomedical Research and Research Training	93.859	R44 GM133222B d'Vinci	_	58,005
Georgia Regents University				
Biomedical Research and Research Training MDI Biological Laboratory	93.859	R01 GM121551A UGA	_	80,852
Biomedical Research and Research Training	93.859	P20 GM104318C MDIBL	_	56,943
MDI Biological Laboratory Biomedical Research and Research Training	93.859	P20 GM104318C MDIBL		68,391
University of Connecticut Health Center	93.639	F20 GW104316C WIDIBL	_	00,391
Biomedical Research and Research Training	93.859	R35 GM133600A UCHC	_	331,082
University Of Michigan Biomedical Research and Research Training	93.859	R01 GM124251A U Michigan	_	113,806
University Of Michigan		_		
Biomedical Research and Research Training Emory University	93.859	R01GM124061B Michigan	_	62,284
Child Health and Human Development Extramural Research	93.865	R01 HD102534A Emory	_	131,885
Massachusetts General Hospital	02.065	DOLLIDOSSOEOD MCLL Dulk		420.662
Child Health and Human Development Extramural Research University of California San Diego	93.865	P01 HD068250B MGH Bult	_	138,662
Child Health and Human Development Extramural Research	93.865	U54 HD104393A UCSD	_	71,726
Duke University Aging Research	93.866	UH3 AG056925B Duke	_	314,947
Emory University				
Aging Research	93.866	U54 AG065187A Emory	_	540,599

Supplementary Schedule of Expenditures of Federal Awards

Year ended December 31, 2021

Federal grantor/pass-through grantor	Federal assistance listing number	Direct or pass-through identifying number	Passed through to subrecipients	Total federal expenditures
MDI Biological Laboratory				
Aging Research Regents of the University of California	93.866	R01 AG068179A MDIBL	\$ —	1,032
Aging Research	93.866	RF1 AG057558A UC	_	72,037
TissueVision, Incorporated Aging Research	93.866	R44 AG062017B TissueVis	_	43,572
Trustees of Indiana University				
Aging Research Trustees of Indiana University	93.866	U01 AG060900A Indiana University	_	279,439
Aging Research	93.866	U54 AG054345A IU	_	2,460,971
Trustees of Indiana University Aging Research	93.866	U54 AG054345A Indiana	_	17,423
University of Connecticut Health Center				
Aging Research University of Connecticut Health Center	93.866	R01 AG052962A UCHC	_	64,359
Aging Research	93.866	R01 AG058814A UCHC	_	42,681
University of Connecticut Health Center Aging Research	93.866	R01 AG066679A UCHC		15,704
University of Arizona	93.000	RUT AGU00079A UCHC	_	15,704
Aging Research	93.866	R01 AG057931A Arizona	_	148,415
University of Minnesota Aging Research	93.866	R56 AG067573A University Minn	_	67,730
University Of Pittsburgh		·		
Aging Research University of Tennesee Health Science	93.866	R13 AG060708B UPitt	_	16,039
Aging Research	93.866	R01 AG070913A UTHSC	_	11,768
The Trustees of Columbia University	02.067	D04 EV0220624 Calumbia		117.027
Vision Research University of Rochester	93.867	R01 EY032062A Columbia	_	117,937
Vision Research	93.867	R01 EY027701A University Rochester		147,359
Total pass-through awards, NIH				14,396,968
Total Department of Health and Human Services			6,940,777	86,304,685
Pass through awards, (NIFA): University Of Connecticut Agriculture and Food Research Initiative (AFRI)	10.310	2020-67018-30852 UCHC		4,318
Total pass-through awards, NIFA				4,318
Total Department of Agriculture, National Institute of Food and Agriculture				4,318
National Science Foundation (NSF): Direct awards, NSF:				
Computer and Information Science and Engineering	47	CCF 1955712	_	158,678
Biological Sciences	47	DBI 1851697	_	92,178
Biological Sciences	47	DEB 1942620		206,173
Total direct awards, NSF				457,029
Pass-through awards, NSF: Azitra Inc.				
Engineering	47	1853071 NSF Azitra	_	14,679
Total pass-through awards, NSF			_	14,679
Total NSF				471,708
Department of Defense (DOD): Direct awards, DOD:				
Military Medical Research and Development	12	DOD Courtois W81XWH1910130	_	85,557
Military Medical Research and Development	12	DOD Ren W81XWH1810013	_	795
Military Medical Research and Development	12	DOD Stitzel W81XWH1810401	_	599,588
Military Medical Research and Development Military Medical Research and Development	12 12	DOD Stitzel W81XWH2110275 DOD Ucar W81XWH1810402	5,776	89,681 216,875
Military Medical Research and Development	12	DOD Verhaak W81XWH1910246		392,323
Total direct awards, DOD			5,776	1,384,819
Pass-through awards, DOD: Northwestern University				
Military Medical Research and Development	12.420	DOD W81XWH1910477 NU		16,260
Total pass-through awards, DOD				16,260
Total Department of Defense			5,776	1,401,079
Total research and development cluster			6,946,553	88,181,790

Notes to Supplementary Schedule of Expenditures of Federal Awards Year ended December 31, 2021

(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, 2021. 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.