THE JACKSON LABORATORY

Financial Statements

December 31, 2017 and 2016

(With Independent Auditors' Report Thereon)

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

Independent Auditors' Report

The Board of Trustees
The Jackson Laboratory:

We have audited the accompanying financial statements of The Jackson Laboratory (the Laboratory), which comprise the balance sheets as of December 31, 2017 and 2016, the related statements of activities and cash flows for the years then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

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

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the organization's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the organization's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

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

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of The Jackson Laboratory as of December 31, 2017 and 2016, and the changes in its net assets and its cash flows for the years then ended, in accordance with U.S. generally accepted accounting principles.

KPMG LLP

Boston, Massachusetts
May 23, 2018

THE JACKSON LABORATORY

Balance Sheets

December 31, 2017 and 2016

(Dollars in thousands)

Assets		**2017**	**2016**
Cash and equivalents	$	8,288	9,602
Working capital investments, at fair value		199,401	191,083
Accounts receivable, net		37,089	32,739
Contributions receivable, net		4,225	5,838
Other assets		24,545	22,133
Long-term investments, at fair value		167,681	142,755
Long-lived assets, net		448,875	391,524
Total assets	$	890,104	795,674
Liabilities			
Accounts payable and accrued expenses	$	57,358	38,336
Deposits and deferred revenue		13,621	10,562
Bonds and note payable, net		92,191	96,244
Interest rate swaps, at fair value		4,256	5,463
Connecticut forgivable loans, at fair value		3,440	5,760
Accrued postretirement obligations		6,324	6,321
Total liabilities		177,190	162,686
Net assets:			
Unrestricted		646,485	571,598
Temporarily restricted		44,563	41,210
Permanently restricted		21,866	20,180
Total net assets		712,914	632,988
Total liabilities and net assets	$	890,104	795,674

See accompanying notes to financial statements

THE JACKSON LABORATORY

Statement of Activities

Year ended December 31, 2017

(Dollars in thousands)

	Unrestricted	Temporarily restricted	Permanently restricted	Total
Operating activities:				
Revenue and other support:				
Grants and research contracts	$ 87,906	—	—	87,906
Contributions	1,149	2,338	—	3,487
Genetic resources and clinical and research services	256,705	—	—	256,705
Long-term investment return utilized	2,716	1,441	—	4,157
Other investment return	15,022	—	—	15,022
Other revenue	3,704	—	—	3,704
Total revenue	367,202	3,779	—	370,981
Net assets released from restrictions	3,905	(3,907)	2	—
Total revenue and other support	371,107	(128)	2	370,981
Expenses:				
Research	122,749	—	—	122,749
Genetic resources and services	141,187	—	—	141,187
Training	8,092	—	—	8,092
Institutional support	63,129	—	—	63,129
Total expenses	335,157	—	—	335,157
Increase (decrease) in net assets from operating activities	35,950	(128)	2	35,824
Nonoperating activities:				
Grants and contributions for capital and long-term investments	7,017	—	1,684	8,701
Net assets released from restrictions for capital purposes	1,853	(1,853)	—	—
Long-term investment return above amounts utilized	15,578	5,334	—	20,912
Unrealized net gain on interest-rate swaps	1,207	—	—	1,207
Adjustment to fair value of Connecticut forgivable loans	13,084	—	—	13,084
Other	198	—	—	198
Increase in net assets from nonoperating activities	38,937	3,481	1,684	44,102
Increase in net assets	74,887	3,353	1,686	79,926
Net assets, beginning of year	571,598	41,210	20,180	632,988
Net assets, end of year	$ 646,485	44,563	21,866	712,914

See accompanying notes to financial statements.

THE JACKSON LABORATORY

Statement of Activities

Year ended December 31, 2016

(Dollars in thousands)

	Unrestricted	Temporarily restricted	Permanently restricted	Total
Operating activities:				
Revenue and other support:				
Grants and research contracts	$ 81,791	—	—	81,791
Contributions	1,309	918	—	2,227
Genetic resources and clinical and research services	230,818	—	—	230,818
Long-term investment return utilized	366	614	—	980
Other investment return	7,874	—	—	7,874
Other revenue	3,309	—	—	3,309
Total revenue	325,467	1,532	—	326,999
Net assets released from restrictions	1,713	(1,715)	2	—
Total revenue and other support	327,180	(183)	2	326,999
Expenses:				
Research	108,045	—	—	108,045
Genetic resources and services	129,570	—	—	129,570
Training	7,588	—	—	7,588
Institutional support	55,105	—	—	55,105
Total expenses	300,308	—	—	300,308
Increase (decrease) in net assets from operating activities	26,872	(183)	2	26,691
Nonoperating activities:				
Grants and contributions for capital and long-term investments	2,280	19	1,782	4,081
Long-term investment return above amounts utilized	5,945	1,026	—	6,971
Unrealized net gain on interest-rate swaps	991	—	—	991
Adjustment to fair value of Connecticut forgivable loans	7,748	—	—	7,748
Other	(121)	—	—	(121)
Increase in net assets from nonoperating activities	16,843	1,045	1,782	19,670
Increase in net assets	43,715	862	1,784	46,361
Net assets, beginning of year	527,883	40,348	18,396	586,627
Net assets, end of year	$ 571,598	41,210	20,180	632,988

See accompanying notes to financial statements.

THE JACKSON LABORATORY

Statements of Cash Flows

Years ended December 31, 2017 and 2016

(Dollars in thousands)

		2017	2016
Cash flows from operating activities:			
Increase in net assets	$	79,926	46,361
Adjustments to reconcile increase in net assets to cash provided by operating activities:			
Depreciation and amortization		34,733	35,091
Adjustment to fair value of Connecticut forgivable loans		(13,084)	(7,748)
Realized and unrealized net investment gains		(31,621)	(6,568)
Unrealized net gains on interest-rate swaps		(1,207)	(991)
Loss on disposal of long-lived assets		431	662
Contributions restricted for long-term investment and assets		(2,585)	(1,846)
Changes in operating assets and liabilities		28,414	(4,805)
Net cash provided by operating activities		95,007	60,156
Cash flows from investing activities:			
Acquisition and construction of long-lived assets		(102,745)	(34,273)
Proceeds from investments		91,263	69,456
Purchases of investments		(92,886)	(93,440)
Net cash used in investing activities		(104,368)	(58,257)
Cash flows from financing activities:			
Repayment of bonds		(3,605)	(3,470)
Repayment of note payable		(122)	(101)
Decrease in funds held in escrow		—	326
Draws under Connecticut forgivable loans		9,189	4,727
Contributions restricted for long-term investment and assets		2,585	1,846
Net cash provided by financing activities		8,047	3,328
Net (decrease)/increase in cash and equivalents		(1,314)	5,227
Cash and equivalents, beginning of year		9,602	4,375
Cash and equivalents, end of year	$	8,288	9,602
Cash paid for interest	$	4,318	3,800

See accompanying notes to financial statements.

(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.

(2) Summary of Significant Accounting Policies

2(a) Basis of Presentation

The Laboratory presents its financial statements on the accrual basis in accordance with U.S. generally accepted accounting principles (GAAP). All amounts presented in the notes to the financial statements are in thousands.

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 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 Connecticut Innovations, Inc. (CI) forgivable loans, obligations under a postretirement plan, liabilities under self-insured plans, allowances for uncollectible receivables, valuations of interest-rate swaps, and certain alternative investments.

2(b) Classification of Net Assets

Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) Subtopic 958-205, Classification of Donor Restricted Endowment Funds Subject to an Enacted Version of the Uniform Prudent Management of Institutional Funds Act (ASC 958-205), provides guidance on the net asset classification of donor-restricted endowment funds, and requires disclosures regarding both donor-restricted endowment funds and board-designated (quasi) endowment funds. The Laboratory is subject to the Maine Uniform Prudent Management of Institutional Funds Act (MUPMIFA) and, accordingly, classifies as temporarily restricted net assets the unappropriated and unspent balance above historic dollar value of its donor-restricted endowment funds. See note 5 for more information about the Laboratory's endowment.

The financial statements have been prepared to focus on the Laboratory as a whole and to present balances and transactions according to the existence or absence of donor-imposed restrictions. Accordingly, net assets and changes therein are classified as follows:

- Unrestricted Net Assets – Net assets not subject to donor-imposed stipulations but which may be designated for specific purposes by the Laboratory's Board of Trustees.

2(b) Classification of Net Assets (Continued)

- Temporarily Restricted Net Assets – Net assets subject to donor-imposed stipulations that may or will be released upon actions of the Laboratory meeting the donor-imposed stipulations and/or the passage of time. In addition, unspent appreciation of donor-restricted endowment funds in excess of their historic dollar value is classified as temporarily restricted net assets until appropriated by the Laboratory and spent in accordance with the standard of prudence imposed by MUPMIFA.
- Permanently Restricted Net Assets – Net assets subject to donor-imposed stipulations that they be maintained in perpetuity. Generally, the donors permit the Laboratory to use all or part of the income earned and/or capital gains, if any, on related investments for general or specific purposes.

Revenue is reported as an increase in unrestricted net assets unless its use is limited by donor-imposed restrictions or it is a gift pledge or remainder trust and included in temporarily restricted revenue until collected. Expenditures of temporarily restricted funds are reported in the program where expended with the release of the restriction shown as a decrease in temporarily restricted net assets and an offsetting increase in unrestricted net assets.

2(c) Revenue from Provision of Genetic Resources and Clinical and Research Services

Revenue from providing genetic resources and clinical and research services is recognized when the resources are shipped or the services are provided and is included in Genetic Resources and Clinical and Research Services revenue. Accounts receivable from such activities are reported net of allowance for uncollectible accounts.

2(d) Revenue from Grants and Research Contracts

The Laboratory recognizes revenue from grants and research contracts as related costs are incurred. Payments received in advance of expenditures are recorded as deferred revenue until expended. The Laboratory received approximately 75% and 73%, respectively, of its revenue from grants and contracts from the National Institutes of Health (NIH) for the years ended December 31, 2017 and 2016. CI research and operating grants provided 18% and 19% of the grant revenue in 2017 and 2016, respectively. Indirect costs are billed and recovered in accordance with the terms of the grant and represented $26,255 and $25,411, respectively, of revenue from grants for the years ended December 31, 2017 and 2016. 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 to direct costs and then to indirect costs. The loss or significant reduction of Connecticut funding or federal programs could have a material adverse effect on the Laboratory’s operations. The Laboratory is not aware that any federal program funding will be materially reduced. In addition, direct and indirect costs charged to federal programs are subject to audit and possible future adjustment. Management believes that the Laboratory is in compliance with applicable laws and regulations and that any possible adjustments would not be material to the financial statements.

2(e) Revenue from Contributions

Contributions, including unconditional promises to give, 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 temporarily restricted net assets and are reclassified to unrestricted net assets 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 permanently restricted net assets. Conditional promises to give are not recognized until they become unconditional, that is, when the conditions on which they depend are substantially met. Contributions of cash and publicly traded securities are classified in Level 1 of the fair value hierarchy (see note 2(n)). Contributions of assets other than cash or publicly traded securities are recorded at their estimated fair value at the date of gift. As no market for future contributions exists, pledges are classified in Level 3 of the fair value hierarchy. 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 as temporarily restricted nonoperating support until the assets are acquired or placed in service.

Donor-directed changes made in subsequent periods to their original restrictions are reported as reclassifications between the applicable net asset classes.

2(f) Programmatic Expenses

Expenses are presented on the 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.

(Continued)

(Dollars in thousands)

2(f) Programmatic Expenses (Continued)

Expenses incurred by type for the years ended December 31, 2017 and 2016 are presented below:

		December 31, 2017				
Program		**Research**	**Genetic resources and services**	**Training**	**Institutional support**	**Total**
Salaries and wages	$	54,167	53,546	2,740	28,359	138,812
Benefits		16,576	16,386	838	8,678	42,478
Employee recruitment, training, memberships and subscriptions		1,255	378	42	2,930	4,605
Purchased services and stipends		9,729	3,035	1,544	6,944	21,252
Supplies and shipping		14,291	32,842	565	2,040	49,738
Maintenance, utilities and insurance		6,914	9,927	531	7,012	24,384
Travel and meals		1,951	2,668	795	1,686	7,100
Financing costs		1,868	3,014	65	369	5,316
Depreciation		15,894	15,904	855	2,405	35,058
Other expenses		104	3,487	117	2,706	6,414
Total	$	122,749	141,187	8,092	63,129	335,157

		December 31, 2016				
Program		**Research**	**Genetic resources and services**	**Training**	**Institutional support**	**Total**
Salaries and wages	$	43,500	46,232	2,368	24,614	116,714
Benefits		13,424	14,267	731	7,596	36,018
Employee recruitment, training, memberships and subscriptions		1,283	394	32	3,396	5,105
Purchased services and stipends		10,276	4,762	1,191	6,353	22,582
Supplies and shipping		12,246	30,586	528	1,801	45,161
Maintenance, utilities and insurance		7,023	10,296	628	5,635	23,582
Travel and meals		1,559	2,564	792	1,713	6,628
Financing costs		1,899	3,013	91	371	5,374
Depreciation		16,792	15,119	1,133	2,422	35,466
Other expenses		43	2,337	94	1,204	3,678
Total	$	108,045	129,570	7,588	55,105	300,308

All direct and indirect costs of fundraising are expensed as incurred and are included in institutional support in the statements of activities. Direct fundraising expenses were $2,935 and $3,033 for the years ended December 31, 2017 and 2016, respectively.

2(g) Operating and Nonoperating Activities

The statement 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 services. Included in operating revenue is investment return appropriated to support operations under the endowment income spending formula approved by the Board of Trustees, as described in note 5(c). Also included in operating revenue are research grant reimbursements of $188 and $493 for the years ended December 31, 2017 and 2016, 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 $497 and $662 for the years ended December 31, 2017 and 2016, respectively.

Nonoperating revenue includes items not related to the Laboratory's recurring activities or revenue that may not be used for operations. Accordingly, 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. Changes in fair value of CI forgivable loans and interest-rate swaps, as well as postretirement plan charges above periodic benefit costs, are also all presented as nonoperating activities.

2(h) Cash and Equivalents

For the purpose of the statement of cash flows the Laboratory considers cash equivalents as investments with maturities at date of purchase of three months or less.

2(i) Self-Insurance Reserves

The Laboratory is self-insured for worker's compensation claims for a portion of its workers compensation program, and certain other healthcare benefits offered to active employees. 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 balance sheet date.

2(j) Long-Lived Assets

Long-lived assets in excess of $5 are reported at cost at date of acquisition or at fair value at date of donation in the case of gifts, which are classified in Level 3 of the fair value hierarchy. For assets placed in service, depreciation is provided using the straight-line method over the estimated useful lives of the 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.

(Continued)

2(j) Long-Lived Assets (Continued)

Depreciation is provided on a straight-line basis over the following estimated useful lives:

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

Management reviews long-lived assets for impairment whenever events or circumstances indicate that the carrying value of a long-lived asset may not be recoverable. Management determined that no long lived assets were impaired as of December 31, 2017 and 2016.

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.

2(k) Bonds and Notes Payable

CI forgivable loans are valued at fair value, reflecting the probability of forgiveness. All other debt is carried at cost.

Certain items related to the issuance of debt such as accounting, legal and auditing, as well as debt issuance costs and original issue discounts or premium are amortized over the period the related obligation is outstanding, generally using the interest method.

2(l) Derivative Instruments

The Laboratory utilizes interest-rate swap agreements with various counterparties to essentially convert its variable-rate debt to fixed rates and not for speculative purposes. The swaps' fair values and changes therein are recognized in the Laboratory's financial statements. Differences between the fixed and variable interest rates in effect are settled net monthly under each swap, increasing or decreasing interest expense. The estimated fair value of each swap is measured at each reporting date and presented as an asset (liability) based on the termination value as of that date using techniques such as discounted cash flow analysis and option pricing models that incorporate assumptions about future market interest rates. See footnote 8(d) for additional information on the interest rate swaps.

2(m) 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. 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 financial statements.

On December 22, 2017, the President signed into law H.R. 1, originally known as the Tax Cuts and Jobs Act. The new law includes several provisions that result in substantial changes to the tax treatment of tax-exempt organizations and their donors. The Laboratory has reviewed these provisions and the potential impact and concluded the enactment of H.R. 1 will not have a material effect on the operations of the organization.

2(n) 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 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 financial statement reporting date. Transfers between different levels of the fair value hierarchy are recorded as of the end of the reporting period.

(Continued)

2(n) Fair Value Measurements (Continued)

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.

2(o) Fair Value of Financial Instruments

The Laboratory discloses fair value information about all financial instruments, whether or not recognized in the balance sheets, for which it is practicable to estimate fair value. Such financial instruments consist of cash equivalents, receivables from customers, and accounts payable and accrued expenses.

(3) Investments

3(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 working capital 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 incorporating multiple strategies and managers. The Investment Sub-Committee of the Finance Committee oversees the Laboratory's endowment in accordance with the Board of Trustee-approved investment policy statement.

3(b) Basis of Reporting

Investments, including endowment and unrestricted operating investments 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.

(Continued)

3(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, 2017 and 2016 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, 2017 and 2016.

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(Dollars in thousands)

3(c) Classification in the Fair Value Hierarchy (Continued)

The following tables summarize the Laboratory's investments and other assets by major category in the fair value hierarchy as of December 31, 2017 and 2016, as well as related strategy, liquidity and funding commitments:

	December 31, 2017					
	Level 1	Level 2	NAV or equivalent	Total	Redemption or liquidation	Days' notice
Working capital investments:						
Money market accounts and certificates of deposit	$ 31,762	—	—	31,762	Daily	One
U.S. government agency bonds	—	2,017	—	2,017	Daily	One
Corporate bonds	—	20,039	—	20,039	Daily	One
U.S. and global fixed income funds	—	23,859	—	23,859	Daily	One
Multiple strategies	121,724	—	—	121,724	Daily	One
Total working capital investments	153,486	45,915	—	199,401		
Long-term investments (endowment):						
Money market accounts and certificates of deposit	8,716	—	—	8,716	Daily	One
U.S. and global fixed income funds	20,229	—	—	20,229	Daily	One
Equities:						
U.S. mid and large cap value funds	50,266	—	—	50,266	Daily	One
Global large cap	33,118	—	—	33,118	Daily	One
Total equities	83,384	—	—	83,384		
Multiple hedged strategies	48,203	—	1,226	49,429	Daily to locked-up	One to n/a
Private equity and real assets	—	—	5,923	5,923	Locked-up[1]	N/A
Total long-term investments	160,532	—	7,149	167,681		
Total	$ 314,018	45,915	7,149	367,082		

[1] The lock-up periods have various terms with extensions of one to two years. As of December 31, 2017, the average remaining life of these partnerships is approximately nine years.

(Dollars in thousands)

3(c) Classification in the Fair Value Hierarchy (Continued)

	December 31, 2016					
	Level 1	Level 2	NAV or equivalent	Total	Redemption or liquidation	Days' notice
Working capital investments:						
Money market accounts and certificates of deposit	$ 31,621	—	—	31,621	Daily	One
U.S. government agency bonds	—	3,046	—	3,046	Daily	One
Corporate bonds	—	25,357	—	25,357	Daily	One
U.S. and global fixed income funds	—	23,628	—	23,628	Daily	One
Multiple strategies	107,431	—	—	107,431	Daily	One
Total working capital investments	139,052	52,031	—	191,083		
Long-term investments (endowment):						
Money market accounts and certificates of deposit	2,089	—	—	2,089	Daily	One
U.S. and global fixed income funds	27,307	—	—	27,307	Daily	One
Equities:						
U.S. mid and large cap value funds	52,363	—	—	52,363	Daily	One
Global large cap	26,345	—	—	26,345	Daily	One
Global – developed markets	13,302	—	—	13,302	Daily	One
Total equities	92,010	—	—	92,010		
Multiple hedged strategies	4,840	—	12,877	17,717	Daily to locked-up	One to n/a
Private equity and real assets	—	—	3,632	3,632	Locked-up[1]	N/A
Total long-term investments	126,246	—	16,509	142,755		
Total	$ 265,298	52,031	16,509	333,838		

[1] The lock-up periods have various terms with extensions of one to two years. As of December 31, 2016, the average remaining life of these partnerships is approximately nine years.

(Dollars in thousands)

3(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-seven years. The aggregate amounts of unfunded commitments associated with private limited partnerships as of December 31, 2017 and 2016 were $25,360 and $12,587, respectively. The timing and amount of future capital calls expected to be exercised in any particular future year is uncertain.

Aggregate investment liquidity as of December 31, 2017 and 2016 is presented below based on redemption or sale period:

		Investment fair values	
		2017	**2016**
Investment redemption or sale period:			
Daily	$	359,933	317,329
Quarterly		923	4,909
Semi-annually to annually		108	7,402
Locked up		6,118	4,198
Total	$	367,082	333,838

(4) Investment Return

The following summarizes investment return for the years ended December 31, 2017 and 2016:

		2017	**2016**
Investment return:			
Interest and dividends	$	8,470	9,257
Realized net gains/(losses)		6,158	(241)
Unrealized net gains		25,463	6,809
Investment return	$	40,091	15,825

(Dollars in thousands)

(4) Investment Return (Continued)

Investment returns are included in the statements of activities as follows for the years ended December 31, 2017 and 2016:

		2017	2016
Investment return:			
Operating:			
Long-term investment return utilized	$	4,157	980
Other investment return		15,022	7,874
Nonoperating activities:			
Long-term investment return above amounts utilized		20,912	6,971
Investment return	$	40,091	15,825

Investment return is net of bank and advisory fees, which were $397 and $367 for the years ended December 31, 2017 and 2016, respectively.

(5) Endowment

The Laboratory's endowment consisted of approximately 67 individual donor-restricted funds, as well as Board-designated funds held for the long-term support of the Laboratory's mission.

For 2017 and 2016, donor-restricted funds were invested with an investment objective of a real total return of 5%. In contrast, Board-designated funds were invested with an investment objective of preserving value over the medium term while maintaining liquidity in the short term, defined as two years. The investment return objective was also an average annual real total return of 4%. Actual returns in any given year may vary from this amount.

5(a) Interpretation of Relevant Law

The Laboratory classifies as permanently restricted net assets the original value of gifts made to establish donor–restricted endowment funds and any additions to such funds. The remaining portion of a donor-restricted endowment fund that is not classified as permanently restricted net assets is classified as temporarily restricted net assets until appropriated for expenditure by the Laboratory in a manner consistent with the standard of prudence prescribed by MUPMIFA.

5(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 with a total return objective and is invested in a manner that emphasizes the diversification of assets across categories of asset classes with differing sources of long-term, risk-adjusted returns. Restricted assets may be invested with less liquidity and seek longer term returns through nonmarketable assets. The Laboratory may hold shares or units in institutional stock and fixed income funds as well as in alternative investment funds involving hedged strategies, private equity and real asset strategies. Funds with hedged strategies generally hold securities or other financial instruments for which a ready market exists and may include stocks, bonds, put or call options, swaps, currency hedges, credit default swaps and other instruments, and are valued accordingly. Private equity funds focus on investments not available in the public equity market. Real asset funds generally hold interests in commercial real estate, natural resources, or timber assets. Private equity and real asset strategies therefore often require the estimation of fair values by the fund managers in the absence of readily determinable market values. Because of the inherent uncertainties of valuation, these estimated fair values may differ significantly from values that would have been used had a ready market existed. Such valuations are determined by fund managers and generally consider variables such as operating results, comparable earnings multiples, projected cash flows, recent sales prices, and other pertinent information, and may reflect discounts for the illiquid nature of certain investments held.

5(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 Finance 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 Subcommittee in conjunction with the recommended adoption of the annual budget by the Finance Committee.

5(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 unrestricted net assets when they occur. Deficiencies totaled $0 and $54 at December 31, 2017 and 2016, respectively.

(Dollars in thousands)

5(e) Endowment Activity

The Laboratory's endowment consisted of the following at December 31, 2017 and 2016:

	2017			
	Unrestricted	Temporarily restricted	Permanently restricted	Total
Donor-restricted	$ —	38,707	20,047	58,754
Board-designated	108,927	—	—	108,927
Total	$ 108,927	38,707	20,047	167,681

	2016			
	Unrestricted	Temporarily restricted	Permanently restricted	Total
Donor-restricted	$ (54)	33,578	17,462	50,986
Board-designated	91,769	—	—	91,769
Total	$ 91,715	33,578	17,462	142,755

Changes in endowment assets for the years ended December 31, 2017 and 2016 are as follows:

	December 31, 2017			
	Unrestricted	Temporarily restricted	Permanently restricted	Total
Endowment, December 31, 2016	$ 91,715	33,578	17,462	142,755
Cash contributions	—	—	2,585	2,585
Board transfer from operating funds to endowment	1,500	—	—	1,500
Investment return	18,294	6,775	—	25,069
Long-term investment return utilized	(2,716)	(1,441)	—	(4,157)
Adjustment for underwater endowments	54	(54)	—	—
Net assets transferred per restrictions	—	(2)	2	—
In-transit transactions	80	(149)	(2)	(71)
Endowment, December 31, 2017	$ 108,927	38,707	20,047	167,681

(Continued)

(Dollars in thousands)

5(e) Endowment Activity (Continued)

	December 31, 2016			
	Unrestricted	Temporarily restricted	Permanently restricted	Total
Endowment, December 31, 2015	$ 84,187	32,565	15,947	132,699
Cash contributions	—	—	1,513	1,513
Board transfer from operating funds to endowment	1,500	—	—	1,500
Investment return	6,287	1,640	—	7,927
Long-term investment return utilized	—	(614)	—	(614)
Adjustment for underwater endowments	70	(70)	—	—
Net assets transferred per restrictions	—	(2)	2	—
In-transit transactions	(329)	59	—	(270)
Endowment, December 31, 2016	$ 91,715	33,578	17,462	142,755

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, 2017 and 2016:

	2017	2016
Due from provision of genetic resources and services	$ 27,133	25,225
Amounts reimbursable under grants and contracts	9,157	6,485
Miscellaneous accounts receivable	1,911	1,894
	38,201	33,604
Less allowance for uncollectibles	(1,112)	(865)
Accounts receivable, net	$ 37,089	32,739

(Dollars in thousands)

(7) Long-Lived Assets

Long-lived assets consisted of the following as of December 31, 2017 and 2016:

		2017	2016
Land and improvements	$	11,226	10,591
Buildings and improvements		510,422	506,449
Construction in progress		99,161	29,774
Equipment and software		155,109	144,202
		775,918	691,016
Less accumulated depreciation		(327,043)	(299,492)
Long-lived assets, net	$	448,875	391,524

The change in accounts payable for acquisition and construction of long-lived assets was an increase of $9,905 and a decrease of $2,303 for the years ended December 31, 2017 and 2016, respectively.

Commitments to third parties for the purchase of equipment, space renovation and construction projects were $32,258 and $29,596 as of December 31, 2017 and 2016, respectively.

(8) Bonds and Note Payable

8(a) Bonds and Note Payable

Bonds and note payable consisted of the following as of December 31, 2017 and 2016:

		2017	2016
Finance Authority of Maine Revenue Bonds (FAME Series 2012 Bonds)	$	33,165	35,155
Association of Bay Area Government for California fixed rate revenue bonds (ABAG Series 2012 bonds)		53,775	55,390
		86,940	90,545
Less unamortized discount		(169)	(180)
Plus unamortized premium		4,108	4,481
Debt issuance costs		(577)	(613)
Bonds payable, net		90,302	94,233
Note payable for real estate purchase		1,889	2,011
Bonds and note payable, net	$	92,191	96,244

(Continued)

8(a) Bonds and Note Payable (Continued)

The FAME Series 2012 bonds carry a variable interest rate and mature serially through July 1, 2031. A bank purchased the FAME Series 2012 bonds under a 10-year bond purchase agreement and supplemental letter agreement under which the Laboratory pays 67% of one-month LIBOR plus 1.02%. The agreements contain certain restrictive covenants, including meeting a semi-annual liquidity test, limits on incurring additional debt, and not allowing liens on property. Annually, in connection with providing the audited financial statements, the Laboratory may request an extension of the purchase agreement for up to nine additional years. In 2017, the Laboratory requested, and the bank granted a one year extension of the term of the original purchase agreement until 2027.

Should the financial institution holding the bonds under a direct purchase agreement accelerate the maturities of the obligation due to a subjective clause, under which conditions are not objectively determinable, the Laboratory would consider those obligations to be short-term in nature.

The Laboratory was in compliance with all financial covenants as of December 31, 2017 and 2016.

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. The proceeds were used to refund existing ABAG bonds and fund the further fit-out of the Sacramento facility.

In connection with the purchase of property located contiguous to the Laboratory’s Bar Harbor campus, the Laboratory entered into a $2,260 fifteen year note with the seller of the property. The note bears a fixed interest rate of 4% and requires monthly mortgage amortization payments.

8(b) Connecticut Innovations, Forgivable Loans

On January 5, 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).

The CI funding agreement provides a $145,000 forgivable loan to construct a building and fit it out; a $46,685 forgivable loan for the purchase of equipment over 10 years; and $99,000 in grant commitments to support research and development over ten years. The loans will be forgiven if the Laboratory meets an employment goal of 300 employees for a period of six months, including a minimum of 90 senior scientists with an average wage exceeding a minimum target. In order for forgiveness to occur, the employment goal must be reached within ten years, or within the extended period if the Laboratory exercises an option to extend. The loans accrue simple interest at 1% per year, which is forgivable according to the same terms as the loans. If the Laboratory does not meet the employment goal, CI may elect that the Laboratory forfeit the building and equipment. In the event this election is made, the Laboratory reserves the right to lease the facility from CI for an initial period of five years, followed by an optional renewal period of five years. The loans are non–recourse to the Laboratory.

(Dollars in thousands)

8(b) Connecticut Innovations, Forgivable Loans (Continued)

The Laboratory elected, under FASB ASC Topic 825, to report the forgivable loans at fair value. Therefore, the fair value of the loans is based on the probability that the Laboratory will meet the employment goals and the projected value of the underlying assets which collateralize the loans. An independent third-party valuation firm used a Monte Carlo simulation of key business plan assumptions to develop the fair value presented in the balance sheet. The change between funds drawn through December 31 under the loans and the fair value as of December 31, 2017 and 2016 is included in the nonoperating section of the statement of activities as an adjustment to fair value of Connecticut forgivable loans.

As part of the transaction, 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. 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.

As of December 31, 2017 and 2016, the Laboratory had incurred $161,328 and $152,139, respectively, in project-related costs, which are included in construction in progress, buildings and improvements, and equipment. As of December 31, 2017 and 2016, the Laboratory had cumulatively received advances and accrued interest under the CI forgivable loans of $167,206 and $156,444, respectively. The advances include no funds held in escrow by CI as retainage as of December 31, 2017 and 2016.

The following table summarizes the valuation techniques and significant unobservable inputs used by the Laboratory that are categorized within Level 3 of the fair value hierarchy as of December 31:

	December 31, 2017	Valuation technique	Unobservable inputs	Range (weighted average)
CI forgivable loans	$ 3,440	Third-party valuation based on Monte Carlo simulations	Employee annual salaries by position	$45–$351 ($82K)
			Employee annual salaries increases	1%–2.5% (1.7%)
			Employee benefits as a% of salaries	23.5%–26.5% (25.0%)
			Weighted case scenario probabilities	85% to 95% (90.00%)

(Dollars in thousands)

8(b) Connecticut Innovations, Forgivable Loans (Continued)

	Fair value at December 31, 2016	Valuation technique	Unobservable inputs	Range (weighted average)
CI forgivable loans	$ 5,760	Third-party valuation based on Monte Carlo simulations	Employee annual salaries by position	$45–$228 ($80k)
			Employee annual salaries increases	1%–2.5% (1.7%)
			Employee benefits as a% of salaries	23.5%–26.5% (25%)
			Weighted case scenario probabilities	75%–90% (83.33%)

8(c) Maturities of Long-Term Debt

Maturities of long-term debt as of December 31, 2017, were as follows:

	Amounts due
Year ending December 31:	
2018	$ 3,882
2019	4,043
2020	4,208
2021	4,389
2022	4,569
Thereafter	229,066
Total	$ 250,157

Included in “Thereafter” in the above table is $161,328 drawn through December 31, 2017 under the nonrecourse Connecticut loan agreements described in note 8(b). Such balance would be forgiven if the Laboratory meets certain employment goals as defined in the agreements.

8(d) Interest-Rate Swaps

The Laboratory entered into interest-rate swap agreements, including forward-starting swaps, to essentially convert the variable rate on the $33,165 of FAME borrowings outstanding to various fixed rates. The swaps’ notional amounts amortize at the same rate as and cover the entire related debt principal throughout the term of the bonds, which mature in 2031.

Because the swap fair values are primarily based on observable inputs, such as the interest yield curve, that are corroborated by market data, the swap fair values are categorized as Level 2 in the fair value hierarchy. The estimated fair value shown in the financial statements is based on the estimated termination value as of the end of the year.

(Continued)

(Dollars in thousands)

8(d) Interest-Rate Swaps (Continued)

As of December 31, 2017 and 2016, the following interest-rate swap agreements were outstanding:

	2017					
Counterparty	**Issue date**	**Effective date**	**Expiration date**	**Remaining notional amount**	**Swap fixed rate**	**Fair value asset (liability)**
1	6/12/2002	7/1/2002	7/1/2022	$ 8,855	3.920 %	$ (802)
2	6/11/2003	7/1/2003	7/1/2031	9,690	2.860	(829)
3	5/5/2005	7/1/2005	7/1/2031	5,765	3.271	(620)
4	6/20/2003	7/1/2012	7/1/2031	8,855	4.140	(1,454)
5*	6/20/2003	7/1/2022	7/1/2031	5,905	4.000	(551)
Totals						$ (4,256)

* As of December 31, 2017, represents a separate forward swap that effectively extends the initial swap expiration date through the related debt maturity date.

	2016					
Counterparty	**Issue date**	**Effective date**	**Expiration date**	**Remaining notional amount**	**Swap fixed rate**	**Fair value asset (liability)**
1	6/12/2002	7/1/2002	7/1/2022	$ 9,385	3.920 %	$ (1,151)
2	6/11/2003	7/1/2003	7/1/2031	10,255	2.860	(1,076)
3	5/5/2005	7/1/2005	7/1/2031	6,130	3.271	(812)
4	6/20/2003	7/1/2012	7/1/2031	9,385	4.140	(1,865)
5*	6/20/2003	7/1/2022	7/1/2031	5,905	4.000	(559)
Totals						$ (5,463)

* As of December 31, 2016, represents a separate forward swap that effectively extends the initial swap expiration date through the related debt maturity date.

The variable-rate side of the swaps is based on 67% of one-month LIBOR plus 1.02%. Swap agreements 3 and 4 contain a requirement for the Laboratory to post cash collateral if the aggregate mark-to-market value of the swaps exceeds a $5,000 liability as of any month-end. Swap agreements 1, 2, and 5 contain a requirement for the Laboratory to post cash collateral if the aggregate mark-to-market value of the swaps exceed an $8,000 liability as of any month end. The mark-to-market threshold amounts are exclusive. The counterparties are required to maintain a minimum credit rating as per the individual agreements.

Interest rate volatility, remaining outstanding principal and time to maturity will affect each swap's fair value at subsequent reporting dates. To the extent the Laboratory holds a swap through its expiration date, the swap's fair value will reach zero.

(Dollars in thousands)

(9) Employee Benefits

9(a) Defined Contribution Retirement Plan and Other Benefits

Subject to meeting certain eligibility requirements, all employees participate in a defined contribution 403(b) retirement plan administered by the Laboratory. Contribution expense was $10,936 and $9,414 for the years ended December 31, 2017 and 2016, respectively.

In addition, the Laboratory has supplemental pension obligations under employment agreements. The present value of the obligations is included in accrued expenses and is funded primarily through a split-interest life insurance arrangement. The cash value of the insurance policy is included in other assets. Life annuities were purchased to meet another obligation to provide additional retirement income. As of December 31, 2016 the cost of these annuities was included in other assets and was being amortized over the vesting period. During 2017 these annuity contracts were transferred to the employee.

9(b) Postretirement Medical Plan

The Laboratory maintains a 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 $552 and $490 in the years ended December 31, 2017 and 2016, respectively, the Laboratory has not funded the postretirement plan.

The impact of the changes in actuarial assumptions was an increase in the liability resulting in a loss of $188 and $880 for the years ended December 31, 2017 and 2016, respectively, included in the nonoperating section of the statements of activities.

Benefit obligations and funded status of the plan for the years ended December 31, 2017 and 2016 were as follows:

	Year ended December 31	
	2017	**2016**
Changes in benefit obligations:		
Benefit obligation at beginning of year	$ 6,321	5,659
Interest cost	256	235
Total actuarial loss	329	870
Medicare Part D subsidy with adjustment	(29)	47
Benefits paid, net of employee contributions	(553)	(490)
Benefit obligation at end of year	6,324	6,321

(Dollars in thousands)

9(b) Postretirement Medical Plan (Continued)

		Year ended December 31	
		2017	**2016**
Changes in plan assets:			
Fair value of plan assets at beginning of year	$	—	—
Employer contributions		552	490
Employee contributions		48	52
Benefits paid		(600)	(542)
Fair value of plan assets at end of year		—	—
Accrued benefit cost recognized in the balance sheet	$	(6,324)	(6,321)

Net periodic benefit cost consisted of the following components for the years ended December 31, 2017 and 2016:

		Year ended December 31	
		2017	**2016**
Interest cost	$	256	235
Medicare Part D subsidy		(67)	(73)
Amortization of net actuarial loss		113	43
Net periodic benefit cost recorded	$	302	205

The net loss and prior service credit for the postretirement plan that will be amortized into net periodic benefit cost in 2017 is $113. The weighted average assumptions related to the discount rate used to determine benefit obligations for 2017 and 2016 were 3.25% and 3.66%, respectively.

The discount rates used to determine net periodic benefit cost for the years ended December 31, 2017 and 2016 were 3.66% and 3.69%, respectively.

The assumed health care cost trend rates at December 31, 2017 and 2016 were as follows:

	2017	**2016**
Healthcare cost trend rate assumed for next year	6.0 %	6.0 %
Rate to which the cost trend rate is assumed to decline (the ultimate trend rate)	3.8 %	3.8 %
Year that the rate reaches the ultimate trend rate	2076	2076

(Dollars in thousands)

9(b) Postretirement Medical Plan (Continued)

Assumed health care trend rates have a significant effect on the amounts reported for the health care plans. An one-percentage-point change in assumed health care cost trend rates would have the following effects:

		One-point increase	One-point decrease
Effect on total of service and interest cost	$	23	(19)
Effect on total on postretirement benefit obligation		605	(524)

The Laboratory's estimated future benefit payment obligation for the retiree medical benefit pension plan future benefit payment obligations are as follows:

		Retiree medical benefits
Year ending December 31:		
2018	$	448
2019		450
2020		449
2021		446
2022		441
2023 through 2027		2,067

9(c) Deferred Compensation Program

The Laboratory maintains a nonqualified salary deferral plan (the 457(b) Plan) authorized under Section 457(b) of the Internal Revenue Code. The Laboratory holds an investment approximately matching the employee investment selections to assure funding is available to meet future liabilities. The liability at December 31, 2017 and 2016 was $5,626 and $4,294, respectively, and is included in accounts payable and accrued expenses. The investments valued at $5,626 and $4,294 as of December 31, 2017 and 2016, respectively, and are included in other assets.

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 $417 and $684 at December 31, 2017 and 2016, respectively, is included in accounts payable and accrued expenses, and the corresponding assets are included in other assets.

(Dollars in thousands)

(10) Restricted Net Assets

The Laboratory classifies gift pledges based on donor purpose restriction. Unrestricted pledges are shown as time restricted until collected.

10(a) Temporarily Restricted Net Assets

Temporarily restricted net assets consisted of the following as of December 31, 2017 and 2016:

		2017	2016
Time-restricted	$	1,521	1,133
Unappropriated return on donor-restricted endowments		38,707	33,578
Restricted for acquisition and construction of long-lived assets		26	1,833
Restricted for research, training and other programs		4,309	4,666
	$	44,563	41,210

10(b) Permanently Restricted Net Assets

Permanently restricted net assets consisted of the following as of December 31, 2017 and 2016:

		2017	2016
Research	$	15,887	13,343
Training		511	486
Other programs		873	865
General purposes		2,776	2,768
Total endowment		20,047	17,462
Pledges receivable		1,819	2,718
	$	21,866	20,180

10(c) Pledges Receivable and Remainder Trusts

As of December 31, net assets restricted for the following purposes included outstanding pledges and remainder trusts, net of allowance for uncollectible pledges and time-value discounts:

		2017	2016
Time-restricted only	$	790	790
Restricted for research, training, and other programs		1,230	1,944
Permanently restricted		1,819	2,718
	$	3,839	5,452

(Continued)

(Dollars in thousands)

10(d) Net Assets Released from Restrictions

Net assets released from restrictions consisted of the following for the years ended December 31, 2017 and 2016:

	Year ended December 31	
	2017	**2016**
Operating activities:		
Research programs	$ 3,160	1,045
Training programs	629	528
Other	116	137
Collection of unrestricted pledges	—	3
Transfer to permanently restricted	2	2
	$ 3,907	1,715

(11) Commitments and Contingencies

11(a) Leases

The Laboratory leases laboratory and office space and other equipment under leases accounted for as operating leases. Some of these leases have renewal options. Total rental expense was $179 and $473 for the years ended December 31, 2017 and 2016, respectively. Estimated future minimum lease payments under noncancelable facility and equipment operating leases as of December 31, 2017 are as follows:

	Amounts due
Year ending December 31:	
2018	$ 156
2019	77
2020	72
Total	$ 305

(12) 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.

(Continued)

(13) Related Party Transactions

Members of the Laboratory's Board of Trustees 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 of Trustees may participate in any decision in which he or she has a material financial interest.

Each trustee and member of senior management is required to certify compliance with the conflict of interest policy on an annual basis as well as disclose any potential related party transactions to the General Counsel's Office and the Audit Committee.

(14) Subsequent Events

On March 19, 2018, the Laboratory issued taxable bonds in the amount of $159,585. A portion of the proceeds were utilized to refund $33,460 of the 2018-2031 Series 2012 FAME bonds held in direct placement with TD Bank. The remainder of the proceeds are intended for capital improvements of the Laboratory.

Subsequent to the bond issuance, the Laboratory utilized $3,655 of working capital funds to terminate the outstanding interest-rate swaps related to the 2012 FAME bonds.

On May 16, 2018 the Laboratory entered into a one-year $25,000 unsecured revolving line of credit with Bank of America (BOA), to provide general working capital needs and other corporate purposes. Interest is payable monthly at the rate of LIBOR plus 0.45%. The Laboratory is required to maintain certain financial, rating agency and reporting covenants.

The Laboratory has evaluated subsequent events from the balance sheet date of December 31, 2017 through May 23, 2018, the date on which the financial statements were issued, and determined there are no other items to disclose.