Consolidated Financial Statements and
Report of Independent Certified Public Accountants

COLD SPRING HARBOR LABORATORY

For the years ended December 31, 2020 and 2019

COLD SPRING HARBOR LABORATORY

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REPORT OF INDEPENDENT CERTIFIED PUBLIC ACCOUNTANTS

To the Board of Trustees of
Cold Spring Harbor Laboratory

We have audited the accompanying consolidated financial statements of Cold Spring Harbor Laboratory (the "Laboratory"), which comprise the consolidated balance sheets as of December 31, 2020 and 2019, and the related consolidated 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 consolidated financial statements in accordance with accounting principles generally accepted in the United States of America; this includes 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.

Auditor's responsibility
Our responsibility is to express an opinion on these consolidated 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 consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Laboratory's preparation and fair presentation of the consolidated 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 Laboratory'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 consolidated financial statements.

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

GrantThornton

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Cold Spring Harbor Laboratory as of December 31, 2020 and 2019, and the changes in their net assets and their cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Grant Thornton LLP

Melville, New York
April 30, 2021

COLD SPRING HARBOR LABORATORY
Consolidated Balance Sheets
As of December 31, 2020 and 2019

Assets	2020	2019
Cash and cash equivalents	$ 108,990,728	$ 92,612,941
Grants receivable	8,898,818	8,600,047
Contributions receivable, net	112,118,879	136,070,457
Investments	730,782,048	674,813,273
Investment in employee residences	6,420,336	6,966,747
Restricted use assets	3,709,586	2,435,247
Other assets	6,831,860	5,860,267
Land, buildings, and equipment, net	266,300,564	255,045,989
Total assets	$ 1,244,052,819	$ 1,182,404,968
Liabilities and net assets:		
Liabilities		
Accounts payable and accrued expenses	$ 17,736,905	$ 12,607,178
Deferred revenue	54,961,017	68,131,842
Interest rate swap	41,196,290	33,067,453
Bonds payable	95,940,233	95,873,965
Total liabilities	209,834,445	209,680,438
Commitments and contingencies		
Net assets		
Without donor restrictions	598,160,188	529,961,474
With donor restrictions	436,058,186	442,763,056
Total net assets	1,034,218,374	972,724,530
Total liabilities and net assets	$ 1,244,052,819	$ 1,182,404,968

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

COLD SPRING HARBOR LABORATORY
Consolidated Statements of Activities
For the years ended December 31, 2020 and 2019

	Without Donor Restrictions	With Donor Restrictions	2020 Total	2019 Total
Revenue and other support				
Public support - contributions and nonfederal grant awards	$ 26,460,192	$ 20,777,846	$ 47,238,038	$ 151,965,602
Federal grant awards	41,310,029	-	41,310,029	52,296,078
Indirect cost allowances	32,496,274	-	32,496,274	36,391,296
Investment return utilized	35,260,137	-	35,260,137	33,925,072
Royalty & license revenue	14,063,144	-	14,063,144	14,525,176
Program fees	6,027,763	-	6,027,763	8,980,991
Publications sales	9,665,668	-	9,665,668	9,803,707
Dining services	301,592	-	301,592	5,154,640
Rooms and apartments	1,162,678	-	1,162,678	4,060,359
Miscellaneous	945,231	-	945,231	951,499
Net assets released from restrictions	45,537,186	(45,537,186)	-	-
Total revenue and other support	213,229,894	(24,759,340)	188,470,554	318,054,420
Expenses				
Research	107,061,748	-	107,061,748	117,365,794
Educational programs	13,907,463	-	13,907,463	19,782,548
Publications	9,611,376	-	9,611,376	9,054,869
Banbury Center conferences	1,418,130	-	1,418,130	2,378,243
DNA Learning Center programs	4,467,315	-	4,467,315	4,046,329
Cold Spring Harbor School of Biological Sciences programs	2,973,914	-	2,973,914	3,372,646
General and administrative	25,309,666	-	25,309,666	27,747,660
Total expenses	164,749,612	-	164,749,612	183,748,089
Excess (deficiency) of revenue and other support over expenses	48,480,282	(24,759,340)	23,720,942	134,306,331
Other changes in net assets				
Investment return excluding amount utilized	27,847,269	18,054,470	45,901,739	63,240,542
Change in fair value of interest rate swap	(8,128,837)	-	(8,128,837)	(7,786,417)
Increase (decrease) in net assets	68,198,714	(6,704,870)	61,493,844	189,760,456
Net assets at beginning of year	529,961,474	442,763,056	972,724,530	782,964,074
Net assets at end of year	$ 598,160,188	$ 436,058,186	$ 1,034,218,374	$ 972,724,530

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

COLD SPRING HARBOR LABORATORY
Consolidated Statements of Cash Flows
For the years ended December 31, 2020 and 2019

	2020	2019
Cash flows from operating activities		
Increase in net assets	$ 61,493,844	$ 189,760,456
Adjustments to reconcile increase in net assets to net cash used in operating activities:		
Change in fair value of interest rate swap	8,128,837	7,786,417
Depreciation and amortization	14,740,266	12,983,279
Donated equipment	-	(39,000)
Amortization of deferred bond costs	66,268	66,268
Net appreciation in fair value of investments	(75,871,001)	(89,294,070)
Contributions restricted for long-term investment	(3,911,559)	(15,008,418)
Changes in assets and liabilities:		
Grants receivable	(298,771)	(869,255)
Contributions receivable, net	20,319,211	(89,218,475)
Restricted use assets	(1,274,339)	(459,955)
Other assets	(971,593)	325,793
Accounts payable and accrued expenses	5,129,727	(340,996)
Deferred revenue	(13,170,825)	(13,254,474)
Net cash provided by operating activities	14,380,065	2,437,570
Cash flows from investing activities		
Capital expenditures	(25,994,841)	(18,569,632)
Proceeds from sales and maturities of investments	256,049,061	141,495,081
Purchases of investments	(236,146,835)	(192,007,335)
Net change in investment in employee residences	546,411	(155,399)
Net cash used in investing activities	(5,546,204)	(69,237,285)
Cash flows from financing activities		
Contributions restricted for long-term investment	154,116	249,663
Contributions restricted for investment in capital	3,757,443	14,758,755
Decrease in contributions receivable	3,632,367	23,325,281
Net cash provided by financing activities	7,543,926	38,333,699
Net increase (decrease) in cash and cash equivalents	16,377,787	(28,466,016)
Cash and cash equivalents at beginning of year	92,612,941	121,078,957
Cash and cash equivalents at end of year	$ 108,990,728	$ 92,612,941
Supplemental disclosure:		
Interest paid	$ 3,860,777	$ 3,680,812
Purchases of capital expenditures in accounts payable	$ 1,974,654	$ 772,157
Lease liability of right of use asset	$ 944,193	$ -

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

1. DESCRIPTION OF BUSINESS

Discussion of Operations

Cold Spring Harbor Laboratory (the "Laboratory") is organized as an educational corporation under the laws of New York State. The Laboratory's primary objectives are to conduct research in cancer, neurobiology, bioinformatics, genomics, plants, and related subjects; to disseminate information; and to provide instruction and training through courses, meetings, publications, and a wide range of other educational activities. A substantial portion of the Laboratory's revenue is derived from federal government grants, which are awarded on a competitive basis. If there were a significant cutback in federal government research funding, it could have a material impact on the operations and cash flows of the Laboratory.

The Laboratory operates a graduate education program and confers the degrees of Doctor of Philosophy, Master of Science, and Doctor of Science, Honorary. The program was approved by the Board of Regents of the State of New York and operates under the name "Cold Spring Harbor Laboratory, School of Biological Sciences" ("SBS"). Funding has been provided through the establishment of an endowment dedicated to the graduate school.

The consolidated financial statements of the Laboratory include two wholly owned subsidiaries. The first, the Robertson Research Fund, Inc. ("Robertson"), is a not-for-profit organization incorporated in Delaware in 1972 to provide funds for the benefit of the Laboratory on a continuing basis, unless the Laboratory ceases to be exempt from taxation under the Internal Revenue Code. Robertson is administered by a nine-member board of trustees, five of whom represent the Laboratory. The Laboratory is entitled to receive all of the income of Robertson. In years when the distribution has been less than the total annual income of the fund, the difference has been reinvested along with the principal of the fund to offset the effects of inflation and to provide for future programs at the Laboratory.

The second, Cold Spring Harbor Asia (SIP) Ltd. ("CSH Asia"), is a wholly owned for-profit subsidiary established in Suzhou, People's Republic of China, in 2008. CSH Asia was created to expand the educational outreach of the Laboratory with the creation of a meetings and conferences program at a state-of-the-art conference center, owned by a private company, located in Suzhou. CSH Asia has an exclusive license to conduct scientific conferences and training courses in academic life sciences and applied biological sciences at the conference center. The license, originally a 10-year term expiring in 2018, was renewed for an additional ten year term through December 31, 2028.

All intercompany accounts and transactions have been eliminated in consolidation.

The COVID-19 pandemic, whose effects first became known in January 2020, had a broad and negative effect disrupting both the domestic and global economies. In its consolidated financial statements for the year ended December 31, 2019, the Laboratory noted the possibility of an adverse impact on the Laboratory's 2020 financial activities. As reported in the consolidated statement of activities for the year ended December 31, 2020, the Laboratory saw revenue declines in federal programs, indirect cost revenues, and program fees including dining, and rooms and apartments, associated with the cancellation of nearly all of its in-person programs. These declines were a direct result of the impact of the pandemic, and federal and state requirements to restrict travel, require social distancing, and maintain a reduced on-site workforce. The Laboratory began operating at reduced on-site staff levels beginning in March of 2020. However, the Laboratory maintained a robust research operation working both remotely and on-site throughout the pandemic, including both "wet" and "dry" lab research, and saw an increase in grant submissions. Some in-person programs were able to

1. DESCRIPTION OF BUSINESS (CONTINUED)

successfully pivot to virtual programs. Efforts put in place to reduce expenses and preserve capital in response to revenue declines offset a significant portion of the lost revenues. Despite the disruption in operations as a result of the impact of the pandemic, the Laboratory achieved a surplus of revenue over expenses in 2020.

Tax Status

The Laboratory and Robertson are exempt from federal income taxes under Section 501(c)(3) of the Internal Revenue Code. Accordingly, they are not subject to income taxes except to the extent there is taxable income from activities that are not related to their exempt purposes. The Laboratory receives income from unrelated activities, including advertising income on its journals and various alternative investment vehicles. The Laboratory recognizes the effects of income tax positions only if those positions are more likely than not of being sustained. CSH Asia was established as a taxable organization in China.

Provisions for both local and unrelated business income taxes are included in accounts payable and accrued expenses in the 2020 and 2019 consolidated balance sheets. The Laboratory estimates unrelated business income tax expense of $30,000 in 2020 and paid $12,966 in 2019.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

The Laboratory prepares its consolidated financial statements on the accrual basis of accounting in accordance with standards established by the Financial Accounting Standards Board ("FASB") for external financial reporting by not-for-profit organizations. Those standards require the classification of activities and net assets into two classes of net assets as follows:

Net assets without donor restrictions - Net assets that are not subject to donor-imposed restrictions, including the carrying value of all land, buildings, and equipment. Items that affect this net asset category include revenue and expenses associated with the primary objectives of the Laboratory, as well as gifts without restrictions, including those designated by the Board of Trustees of the Laboratory ("Trustees") to function as endowments. In addition, changes to this category of net assets include gifts with restrictions whose donor-imposed restrictions were met in the year received, through the passage of time or through fulfillment of the restricted purpose.

Net assets with donor restrictions - Net assets subject to donor-imposed restrictions that will be met by either the actions of the Laboratory or the passage of time. Expirations of donor restrictions on net assets are reported as net assets released from restrictions in the accompanying consolidated statement of activities. This category also includes net assets subject to donor-imposed restrictions to be maintained permanently by the Laboratory, the investment-related income from which is available to support research, education, and training. Realized and unrealized gains (losses) are added to (subtracted from) these net assets if so required by the donor. Absent specific donor requirements, gains are available to support research and educational activities.

Cash and Cash Equivalents

Cash and cash equivalents consist principally of short-term money market funds earmarked for operations and other uses. Cash equivalents approximated $95,205,000 and $86,083,000 at December 31, 2020 and 2019, respectively.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Use of Estimates

The preparation of consolidated financial statements in conformity with U.S. generally accepted accounting principles ("U.S. GAAP") requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingencies at the date of the consolidated financial statements, and revenue and expenses recognized during the reporting period. Actual results could differ from those estimates. Significant estimates and assumptions include the valuation of alternative investments, collectability of receivables, the interest rate swap liability, amortization of deferred revenue, the determination of medical and prescription benefit costs and the related liability, and the allocation of expenses to their functional classification.

Fair Value Measurements

The Laboratory classifies its assets and liabilities measured at fair value into three levels based on the inputs used to measure them (see Note 5):

Level 1 - Quoted prices in active markets for identical assets or liabilities. Level 1 assets and liabilities include debt and equity securities that are traded in an active exchange market, as well as U.S. Treasury securities.

Level 2 - Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities. Level 2 assets and liabilities may include debt securities with quoted market prices that are traded less frequently than exchange-traded instruments. The Laboratory did not possess any Level 2 assets at December 31, 2020 or 2019.

Level 3 - Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. Level 3 assets and liabilities include financial instruments whose value is determined using pricing models, discounted cash flow methodologies, or similar techniques, as well as instruments for which the determination of fair value requires significant management judgment or estimation. This category generally includes certain private debt and equity instruments.

Fair value estimates are made at a specific point in time, based on available market information and judgments about the asset or liability, including estimates of timing, amount of expected future cash flows, and the credit standing of the issuer. In some cases, the fair value estimates cannot be substantiated by comparison to independent markets. In addition, the disclosed fair value may not be realized in the immediate settlement of the financial asset or the disclosed fair values do not reflect any premium or discount that could result from offering for sale at one time an entire holding of a particular financial asset. Potential taxes and other expenses that would be incurred in an actual sale or settlement are not reflected in amounts disclosed.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Investments

Investments are stated at fair value. Contributions of investment securities are recorded at their fair value at the date of the gift and are sold as soon as practicable following receipt. Publicly traded investments are valued at the last reported sales price on the date of valuation, as quoted on major securities exchanges. Securities that are not traded on major securities exchanges are valued based on quotations received from leading vendors.

Pooled investments are funds that are not held at the Laboratory's or Robertson's custodian bank. These funds are part of multiple investors' commingled funds that are invested in one or more asset classes by a fund manager. The Laboratory and Robertson invest in limited partnerships, limited liability corporations, and offshore investment funds for the purpose of earning returns from alternative investment strategies. These investments are presented, under procedures established by the fund management, at net asset value or its equivalent, which generally represents the Laboratory's or Robertson's proportionate share of the net assets of the investment managers, as reported by them and reviewed by Laboratory management for reasonableness.

The proportionate share of net assets subject to the investment manager's estimates of fair value may differ significantly, due to the inherent uncertainty of the valuations, from the values that would have been used had a ready market existed. The proportionate share of the change in fair values of the investment managers is recorded as an increase or a decrease in investment return, in other changes in net assets, in the consolidated statement of activities.

Included in investments are common and preferred stocks that do not have a readily determinable fair value which were received by the Laboratory from biotechnology companies in return for various rights to Laboratory-developed intellectual property. Upon the receipt of founders stock from a newly formed company, the value of each share of stock is based on the amount paid per share by the outside investor(s). The amount is reduced by an appropriate valuation allowance, reflecting the high risk associated with start-up companies and limitations on the transferability of such stock, to arrive at the initial cost basis of the stock. The values of the stocks are not adjusted until either a) the company is determined to have no value, at which time the value of the stock is written off; b) the company is sold, at which time a gain or loss is recognized; or c) the company completes an initial public offering (IPO) and its stock becomes publicly traded on a securities exchange. At the time of the IPO, the value of the stock is increased to fair value based on the quoted price of the stock. The fair value is reduced by an appropriate valuation allowance if the stock is restricted by governmental or contractual requirements or the Laboratory owns a large block of stock that could not be sold without potentially affecting the market price.

Contributions Receivable

Contributions receivable are recorded at their estimated net realizable value (discounted to present value at a risk-adjusted rate), less a reserve for bad debts.

Land, Buildings, and Equipment

Land, buildings, and equipment are reported at cost. Donated books and periodicals and other assets are recorded at appraised value as of the date of gift. Depreciation is computed on the straight-line basis over the estimated useful lives (ranging from three to forty years) of all buildings and equipment. Land, buildings, and equipment and other long-lived assets are reviewed for impairment whenever events or changes in

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

circumstances indicate that the carrying value of the asset may not be recoverable. Long-lived assets deemed to be permanently impaired are written down to fair value. There were no impairment charges in 2020 and 2019.

Derivative Instrument

The Laboratory measures its derivative instrument (interest rate swap) at fair value. The fair value of the derivative held is based upon values provided by third-party financial institutions. It is not held for speculation purposes.

Deferred Revenue

On June 12, 2018, the Laboratory entered into a royalty purchase agreement for the right, title and interest in, and to, the future sales ("Purchased Receivables") associated with a drug created based upon patented Laboratory technology. The Laboratory received a $127,500,000 upfront payment. The payment was distributed in accordance with the Laboratory's commercial relations policy. The Laboratory accounted for the retained portion of the sale of the Purchased Receivables in accordance with Accounting Standards Codification ("ASC") 470-10-25, *Sales of Future Revenues or Various Other Measures of Income*, which resulted in the deferral of revenue recognition over the life of the patent using the units of revenue method. Future revenues require amortization for the period being calculated by computing a ratio of the proceeds received to the total payments expected to be made over the term of the agreement and then applying that ratio to the period's cash payment. The retained cash proceeds received from the investor were designated by the Trustees to function as an endowment, whereby the income generated from such funds will be used to support ongoing research programs. For the years ending December 31, 2020 and 2019, the Laboratory recognized approximately $13 million each year in royalty revenue pertaining to the Purchased Receivables.

Deferred revenue also includes advances received on grants deemed to be exchange transactions and amounts received for publication subscriptions and fees received but not yet earned. Revenue is recognized in future periods as fees are earned, expenses are incurred, and publications are shipped or made available to the subscriber.

Revenue

The Laboratory receives grants and contributions from a number of sources, including the federal government, foreign governments, private foundations, and other donors in support of primary programs of research and education. In 2019, the Laboratory adopted Accounting Standards Update ("ASU") 2018-08, *Clarifying the Scope and the Accounting Guidance for Contributions Received and Contributions Made*. ASU 2018-08 clarified and improved the scope and the accounting guidance for contributions received and made, including guidance to help an entity evaluate whether transactions should be accounted for as contributions (nonreciprocal transactions) or as exchange (reciprocal) transactions and determine whether a contribution is conditional. As required by ASU 2018-08, the Laboratory applied the requirements to agreements that either were not completed as of December 31, 2018 or entered into after January 1, 2019.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Beginning in 2019, with the adoption of ASU 2018-08, the Laboratory recognizes government and private contracts and grants as either contributions or exchange transaction revenues, depending on whether the transaction is reciprocal or nonreciprocal. For contributions, revenue is recognized when a contribution becomes unconditional, that is, when the conditions on which they depend are substantially met. Grants are evaluated as to whether they qualify as exchange transactions or contributions. Grants that are treated as exchange transactions are reported as revenue without donor restrictions when expenses are incurred in accordance with the terms of the agreement. The excess of amounts received in exchange transactions over the amount of expenditures incurred are classified as deferred revenue on the consolidated balance sheets.

If a contract or grant agreement contains a right of return or right of release from the respective obligation provision on the part of the grantor and the agreement also contains a barrier to be overcome, the Laboratory recognizes revenue for these conditional contributions when the related barrier to entitlement has been overcome. The Laboratory's conditional contributions, representing cost reimbursable federal contracts, totaled approximately $954,500 and $2,791,000 at December 31, 2020 and 2019, respectively, which will be recognized as revenues as conditions are met. Funds received in advance of conditions being met are reported as deferred revenue within the accompanying consolidated balance sheets.

In addition, the Laboratory receives payments from customers for goods or services associated with the educational programs offered by the Laboratory. Educational programs include programs through the Banbury Conference Center, DNA Learning Center, and the Meetings and Courses program. These programs generate revenues through program fees, dining services, and rooms and apartment fees. In accordance with FASB ASC Topic 606, *Revenue from Contracts with Customers* ("ASC 606"), the Laboratory recognizes revenue when control of promised goods or services are transferred to outside parties in an amount that reflects the consideration the Laboratory expects to be entitled to in exchange for those goods or services.

Indirect Cost Allowances

Indirect cost allowances recovered under certain government and other grants are accrued in the period the research is performed. For federal grants, these accruals are based on an approved indirect cost rate negotiated with the cognizant government granting agency. In 2016, the Laboratory negotiated a new agreement establishing predetermined rates for the years 2017 through 2019 and a provisional rate beginning in 2020 until amended. As required under the agreement a proposal was submitted to set a rate for periods beginning in 2020. A new rate determination has yet to be finalized. The Laboratory believes that, except for unforeseen changes in the federal regulations, the Laboratory should not be subject to a revision of its indirect cost rate through the end of 2021. For nongovernment grants, indirect cost recoveries are accrued at various rates as allowed by the grantor.

Royalty and License Revenue

Royalty and license revenues result from the transfer of intellectual property rights developed by Laboratory employees. In accordance with the Laboratory's policy, royalty and license revenues are distributed to the inventor, author or collaborator, and the Laboratory using an income sharing formula. The portion retained and recognized by the Laboratory is recorded on the consolidated statement of activities as royalty and license revenue.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Accounting Standards Update

In February 2016, the FASB issued ASU No. 2016-02, Leases (Topic 842) ("ASU 2016-02"), originally effective for the Laboratory for the year ended December 31, 2019. In April 2020 the FASB voted to defer the effective date of ASU 2016-02. The provisions of ASU 2016-02 are now effective for the Laboratory for the year ended December 31, 2020. The guidance in ASU 2016-02 supersedes the FASB's previous lease guidance in ASC Topic 840, Leases, and most industry-specific guidance.

The Laboratory adopted ASU 2016-02 through a cumulative-effect adjustment. This standard requires lessees to recognize leases on the balance sheet as right-of-use (ROU) assets and lease liabilities based on the value of the discounted future lease payments. In adopting ASU 2016-02, the Laboratory elected to use practical expedients, including but not limited to, not reassessing past lease accounting and not recording assets or liabilities for leases with terms of one year or less. Upon adoption, a ROU asset and lease liability of approximately $791,200 and $944,200, respectively, were recorded for the property located at 50 Gordon Drive, Syosset, New York. By opting not to retrospectively change the consolidated balance sheet for the year ended December 31, 2019, the presentation in the year of adoption between the two years is not comparable. The commitment of this lease is further described in Note 17 – Commitments and Contingencies.

In March 2020, the FASB issued ASU No. 2020-04, Facilitation of the Effects of Reference Rate Reform on Financial Reporting ("ASU 2020-04"). ASU 2020-04 provides optional expedients and exceptions for applying U.S. GAAP to contracts and other transactions that reference the London Interbank Offered Rate ("LIBOR") or another reference rate expected to be discontinued as a result of reference rate reform. The provisions of ASU No. 2020-04 are effective for certain reference rate-related contract modifications that occur during the period March 12, 2020 through December 31, 2022. The Laboratory adopted ASU 2020-04 during fiscal 2020 and applied the practical expedient under the ASU permitting adopters to change the designated benchmark interest rate. As a result, the adoption did not have a material impact on the Laboratory's financial statements. The change of the designated benchmark interest rate is further discussed in Note 10 – Bonds Payable.

3. LIQUIDITY AND AVAILABILITY OF FINANCIAL RESOURCES

The Laboratory regularly monitors the availability of resources required to meet operating needs and other contractual commitments, while also striving to maximize the investment of its available funds. For purposes of analyzing resources available to meet general expenditures over a 12-month period, the Laboratory considers all expenditures related to its ongoing activities of research, educational programs and publications, as well as, the conduct of services to support those activities.

The Laboratory's Trustees have designated a portion of its net assets without donor restrictions for endowment and other purposes. These amounts are identified in the table below as board designated funds. These funds are invested for long-term appreciation and current income but remain available and may be spent at the discretion of the Trustees.

In addition to financial assets available to meet general expenditures over the next 12 months, the Laboratory operates with a balanced budget and anticipates collecting sufficient revenue, including federal funds, to cover general expenditures not covered by donor-restricted resources. The Laboratory typically generates positive cash flows from operations, as evidenced by the statement of cash flows for calendar years 2020 and 2019.

3. LIQUIDITY AND AVAILABILITY OF FINANCIAL RESOURCES (CONTINUED)

As of December 31, 2020, financial assets and liquidity resources available within one year for general expenditure were as follows:

	2020
Financial assets due within one year:	
Cash and cash equivalents	$ 108,990,728
Grants receivable, net	8,898,818
Contributions receivable due within one year	34,633,833
Investments	730,782,048
	883,305,427
Less:	
Amounts unavailable for general expenditures within one year due to:	
Donor-restricted gifts for research programs	24,419,988
Donor-restricted gifts for capital projects	11,786,205
Donor-restricted gifts for educational programs	1,882,873
Restricted by donor in perpetuity	119,366,467
Unappropriated accumulated endowment gains	183,694,533
Total amounts unavailable due to donor restrictions or law	341,150,066
Total financial assets available to management for general expenditure before amounts subject to the Trustees' approval	542,155,361
Less board designated funds:	
Quasi-endowment	418,937,403
Reserve for recruiting	8,545,109
Reserve for capital expansion	59,574,159
	487,056,671
Total financial assets available for general expenditure before endowment draw	55,098,690
Plus:	
Amounts authorized for appropriation within one year	28,439,346
Total financial assets available for general expenditure within one year	$ 83,538,036

3. LIQUIDITY AND AVAILABILITY OF FINANCIAL RESOURCES (CONTINUED)

As of December 31, 2019, financial assets and liquidity resources available within one year for general expenditure were as follows:

		2019
Financial assets due within one year:		
Cash and cash equivalents	$	92,612,941
Grants receivable, net		8,600,047
Contributions receivable due within one year		38,296,052
Investments		674,813,273
		814,322,313
Less:		
Amounts unavailable for general expenditures within one year due to:		
Donor restricted gifts for research programs		25,040,639
Donor restricted gifts for capital projects		8,126,479
Donor restricted gifts for educational programs		1,728,701
Restricted by donor in perpetuity		119,212,352
Unappropriated accumulated endowment gains		165,556,759
Total amounts unavailable due to donor restrictions or law		319,664,930
Total financial assets available to management for general expenditure before amounts subject to the Trustee's approval		494,657,383
Less board designated funds:		
Quasi-endowment		385,625,718
Reserve for recruiting		8,720,757
Reserve for capital expansion		40,000,000
		434,346,475
Total financial assets available for general expenditure before endowment draw		60,310,908
Plus:		
Amounts authorized for appropriation within one year		26,523,220
Total financial assets available for general expenditure within one year	$	86,834,128

4. INVESTMENTS

Fair value of investments at December 31 is as follows:

	2020	2019
Mutual funds:		
Money market	$ 57,785,135	$ 73,133,365
Large/mid cap growth	95,687,938	103,711,819
Diversified fixed income	29,502,240	22,279,740
Stocks - domestic	3,749,469	4,122,161
Alternative investments:		
Multi-strategy, fund of funds, and absolute return	132,976,272	142,967,824
Long/short equity	283,855,142	196,830,898
Global/international equity	96,199,814	119,539,801
Emerging markets	21,232,539	5,058,968
Private investments	9,793,499	7,168,697
	$ 730,782,048	$ 674,813,273

Money market mutual funds represent cash held for investment on a short-term basis as part of the investment portfolio, which will be invested upon the direction of the Investment Committees of the Laboratory or of Robertson, as applicable.

Stocks principally include publicly traded common stock holdings in domestic organizations. Also included are the Laboratory's investments in common and preferred stock holdings in biotechnology companies principally received for Laboratory-developed intellectual property, as discussed in Note 2. The biotechnology companies have a fair value of approximately $532,000 and $624,000 for the years ended December 31, 2020 and 2019, respectively, net of a valuation allowance of approximately $2,093,000 on the shares that do not have a readily determinable fair value.

4. INVESTMENTS (CONTINUED)

The alternative investment portfolio includes limited partnerships, limited liability corporations, and offshore investment funds. The underlying investments include, among other financial instruments, futures and forward contracts, options, and securities sold but not yet purchased, intended to hedge against changes in the market value of investments. These financial instruments involve varying degrees of off-balance sheet risk. All investments are exposed to various risks, such as interest rate, market, and credit risks.

Due to the level of risk associated with certain investments, it is at least reasonably possible that changes in the values of investments will occur in the near term and such changes could materially affect the consolidated balance sheet.

Alternative investments are diversified across five basic investment strategies as follows (amounts included are as of December 31, 2020):

Multi-strategy, fund of funds, and absolute return ($132,976,272) - represent investments in a broad range of investment strategies that seek to exploit opportunities as they occur in the markets due to temporary dislocations or structural inefficiencies. This category includes managers that utilize a fund of funds philosophy.

Long/short equity ($283,855,142) - primarily investments in funds that, in turn, invest in liquid marketable securities, attempting to realize gains through the identification of mispriced securities, involving buying long equities that are expected to increase in value and selling short equities that are expected to decrease in value.

Global/international equity ($96,199,814) - consists of investments in both growth and value oriented equity securities of companies located outside the United States. Investment instruments include convertible investment grade securities, options, warrants, physical currencies, spot and forward currency contracts.

Emerging markets ($21,232,539) - an absolute return focused investment in debt and equity securities in emerging markets. Debt securities include both dollar-denominated and local currency sovereign debt, corporate debt, and inflation-protected securities.

Private investments ($9,793,499) - consists of investments in private funds, including buyouts and growth capital, international private equity, and other stressed and distressed opportunities. At December 31, 2020, the Laboratory had outstanding commitments of $19,016,278.

Alternative investments contain various redemption restrictions with required written notice ranging from five to seventy-five days. In addition, certain of these investments are restricted by initial lockup periods.

4. INVESTMENTS (CONTINUED)

As of December 31, 2020, the following table summarizes the composition of the alternative investments at fair value of such investments by the various redemption provisions and lockup periods:

Redemption Period	Amount
Weekly-Monthly	$ 230,580,409
Two to three months	119,731,970
Semiannual	34,168,583
Annual	106,472,689
Lockups expiring 2022	43,258,315
No redemptions	9,845,300
	$ 544,057,266

5. FAIR VALUE OF FINANCIAL ASSETS

The following tables present the Laboratory's fair value hierarchy for those assets measured at fair value on an annual basis as of December 31:

	2020			
Financial Assets	Fair Value	Level 1	Level 2	Level 3
Investment in employee residences	$ 6,420,336	$ -	$ -	$ 6,420,336
Limited liability partnership (1)	246,000	-	-	246,000
Investments:				
Mutual funds:				
Money market	57,785,135	57,785,135	-	-
Large/mid cap growth	95,687,938	95,687,938	-	-
Diversified fixed income	29,502,240	29,502,240	-	-
Stocks - domestic	3,749,469	3,216,954	-	532,515
Subtotal	186,724,782	186,192,267	-	532,515
Investments at net asset value ("NAV"):				
Alternative investments:				
Multi-strategy, fund of funds, and absolute return	132,976,272	-	-	-
Long/short equity	283,855,142	-	-	-
Global/international equity	96,199,814	-	-	-
Emerging markets	21,232,539	-	-	-
Private investments	9,793,499	-	-	-
Subtotal	544,057,266	-	-	-
Total investments	730,782,048	186,192,267	-	532,515
Total assets at fair value	$ 737,448,384	$ 186,192,267	$ -	$ 7,198,851

(1) Included in other assets on the consolidated balance sheets.

5. FAIR VALUE OF FINANCIAL ASSETS (CONTINUED)

Financial Assets	2019 Fair Value	Level 1	Level 2	Level 3
Investment in employee residences	$ 6,966,747	$ -	$ -	$ 6,966,747
Limited liability partnership [(1)]	246,000	-	-	246,000
Investments:				
Mutual funds:				
Money market	73,133,365	73,133,365	-	-
Large/mid cap growth	103,711,819	103,711,819	-	-
Diversified fixed income	22,279,740	22,279,740	-	-
Stocks - domestic	4,122,161	3,498,161	-	624,000
Subtotal	203,247,085	202,623,085	-	624,000
Investments at NAV:				
Alternative investments:				
Multi-strategy, fund of funds, and absolute return	142,967,824	-	-	-
Long/short equity	196,830,898	-	-	-
Global/international equity	119,539,801	-	-	-
Emerging markets	5,058,968	-	-	-
Private investments	7,168,697	-	-	-
Subtotal	471,566,188	-	-	-
Total investments	674,813,273	202,623,085	-	624,000
Total assets at fair value	$ 682,026,020	$ 202,623,085	$ -	$ 7,836,747

(1) Included in other assets on the consolidated balance sheets.

6. CONTRIBUTIONS RECEIVABLE, NET

Contributions receivable, net, consist of the following at December 31:

	2020	2019
Contributions receivable	$ 112,250,974	$ 137,332,073
In-kind receivable	21,881,510	22,642,606
	134,132,484	159,974,679
Less: discount to present value at rates ranging from 0.13% to 3.83%	(20,973,605)	(22,773,222)
Reserve for bad debts	(1,040,000)	(1,131,000)
Contributions receivable, net	$ 112,118,879	$ 136,070,457

6. CONTRIBUTIONS RECEIVABLE, NET (CONTINUED)

Contributions receivable are expected to be collected as follows:

	2020	2019
Within one year	$ 34,633,833	$ 38,296,052
One to five years	57,579,384	81,839,384
More than five years	41,919,267	39,839,243
	$ 134,132,484	$ 159,974,679

Unconditional promises to give are recognized initially at fair value as contributions revenue in the period such promises are made by donors. Fair value is estimated giving consideration to anticipated future cash receipts (after allowance is made for uncollectible contributions) and discounting such amounts at a risk-adjusted rate commensurate with the duration of the donor's payment plan. In subsequent periods, the discount rate is unchanged and the allowance for uncollectible contributions is reassessed and adjusted if necessary. Amortization of the discounts is recorded as additional contribution revenue. Contributions receivable at December 31, 2020 included twenty-six individual pledges, three of which represent approximately 77% of the amount due, with a total of $72 million due from a single donor, and $77 million due from Trustees.

Also included in contributions receivable is the Laboratory's interest in charitable remainder unitrusts. In accordance with the terms of the trusts, the Laboratory will receive a defined interest upon the death of the designated beneficiaries. The Laboratory's interest, net of the present value discount, approximated $9,695,000 and $6,498,000 at December 31, 2020 and 2019, respectively.

On October 1, 2019, the Laboratory entered into a lease agreement with a third-party to open the DNA Learning Center at City Tech in Brooklyn, New York. The agreement provides for the Laboratory to make below market rental payments through September 30, 2049. The Laboratory is recording this lease as an in-kind pledge receivable. For the years ended December 31, 2020, and 2019, the net fair market value of the in-kind lease pledge is valued at $12,642,224 and $12,881,870, respectively.

7. RESTRICTED USE ASSETS

Restricted use assets principally include a supplemental executive retirement plan ("SERP") established by the Laboratory for certain members of its management and scientific staff. The Laboratory has established a grantor trust, whereby the assets and income of the trust are assets and income of the Laboratory. At December 31, 2020 and 2019, the fair value of the assets in the trust was $2,411,965 and $2,034,419, respectively.

8. INVESTMENT IN EMPLOYEE RESIDENCES

Investment in employee residences consists of (a) notes receivable collateralized by mortgages on residential properties owned by several senior employees; and (b) the Laboratory's percentage ownership in residences inhabited by employees. Upon sale of these residences, the Laboratory will either share in market value fluctuations of the real estate in proportion to its ownership in the residence or receive reimbursement of the

8. INVESTMENT IN EMPLOYEE RESIDENCES (CONTINUED)

outstanding mortgage balance. These investments were authorized by the Trustees to enable such employees to purchase local residences. All costs of property ownership, including real estate taxes, are borne by the employees.

9. LAND, BUILDINGS, AND EQUIPMENT

Land, buildings, and equipment at December 31 consist of the following:

	2020	2019
Land and land improvements	$ 18,710,029	$ 18,568,793
Buildings	330,334,516	318,074,306
Furniture, fixtures, and equipment	29,995,174	29,008,093
Laboratory equipment	81,036,935	75,258,106
Library books and periodicals	365,630	365,630
Construction in progress	14,235,111	8,784,367
	474,677,395	450,059,295
Less accumulated depreciation and amortization	(208,376,831)	(195,013,306)
Land, buildings, and equipment, net	$ 266,300,564	$ 255,045,989

Construction in progress at December 31, 2020 represents the cost of various campus renovations ongoing at the Laboratory. In 2019, the Laboratory began a renovation of the DNA Learning Center at City Tech with accumulated costs of approximately $10.8 million and $1.9 million reported at December 31, 2020 and 2019, respectively. Anticipated completion of the project is scheduled for May 2021.

10. BONDS PAYABLE

On April 1, 1999, the Laboratory executed an agreement to obtain $42.2 million of bond financing through the Nassau County Industrial Development Agency ("NCIDA"). Approximately $5 million of the proceeds were used to reimburse the Laboratory for the purchase of property and a building located in Woodbury, New York. Approximately $10 million of the proceeds were used, together with other available funds, to finance renovation, equipping, and furnishing of the building. The property, purchased on June 1, 1998, houses additional research facilities and the editorial offices of the Cold Spring Harbor Laboratory Press. The remaining $27 million of the proceeds were used to refund $20 million 1989 Series bonds and $7 million 1993 Series bonds issued through the NCIDA. The bonds require principal payments only at maturity on January 1, 2034; bear interest at a variable daily rate, which is payable on a monthly basis (0.09% as of December 31, 2020); and are secured by a revolving letter-of-credit agreement issued by a financial institution scheduled to expire on June 24, 2021. The interest rate is negotiated with the bondholders by the remarketing agent. The agreement contains certain covenants, including those relating to net worth as defined, capital expenditures, restrictions of additional liens on certain Laboratory property, and assumption of additional debt. The Laboratory was in compliance with the required covenants as of December 31, 2020 and 2019, and expects to renew the agreement upon expiration.

10. BONDS PAYABLE (CONTINUED)

On June 27, 2006, the Laboratory executed an agreement to obtain $55 million of bond financing through the NCIDA for the purpose of paying a portion of the cost of construction, installation, and equipping of six research buildings and a chiller building, consisting of approximately 120,000 square feet of space, on the Laboratory's main campus in Laurel Hollow. The bonds, originally issued as auction rate securities, bore interest at a seven-day auction rate. On June 25, 2008, the interest rate mode on the bonds was converted to a variable daily rate. On June 19, 2012, the interest rate mode on the bonds was converted to a bank purchase rate consisting of a fixed percent of the sum of LIBOR, the rate equal to the British Bankers Association 30-day LIBOR Rate (one-month LIBOR), plus a spread. On April 2, 2020, the bank purchase rate was converted to a fixed percent of the sum of the federal funds rate (reported daily as H.15), plus a spread. The entire outstanding principal amount was purchased by a single financial institution under an agreement that terminates on June 19, 2025, unless extended. The agreement contains certain covenants, including those relating to net worth as defined, capital expenditures, restrictions of additional liens on certain Laboratory property, and assumption of additional debt. The Laboratory was in compliance with the required covenants as of December 31, 2020 and 2019. Upon termination of the agreement, the bonds may thereafter be converted in whole or in part to bear interest at any of the acceptable rates of interest under the bond documents until maturity on January 1, 2042. The bonds require annual principal payments beginning January 1, 2035. Interest is payable the first business day of each month, and the interest rate resets at the end of each month (0.66% as of December 31, 2020).

In April 2006, the Laboratory entered into an interest rate swap agreement with a notional principal amount of $97.2 million to mitigate the risk of interest rates associated with the Series 1999 and Series 2006 bond issues. Under the terms of the original agreement, the Laboratory paid interest at a predetermined fixed rate of 3.81% and received 68% of one-month LIBOR on the notional principal amount. The swap agreement had an effective date of October 1, 2006 and a termination date of January 1, 2042. On December 10, 2008, the swap agreement was amended and the Laboratory paid interest at a predetermined fixed rate of 3.80% and received 68% of 3-month LIBOR on the notional principal amount. On October 18, 2018, the swap agreement was amended, and the Laboratory now pays interest at a predetermined fixed rate of 3.80% and receives 68% of the federal funds rate (reported daily as H.15), plus a spread on the notional principal amount.

The fair value of the interest rate swap was a liability of $41,196,290 and $33,067,453 at December 31, 2020 and 2019, respectively. The fair value of the interest rate swap was determined using pricing models developed based on the federal funds rate and other observable market data (Level 2 inputs). The change in fair value is reported as other changes in net assets in the accompanying consolidated statement of activities. According to the agreement with JPMorgan Chase Bank, N.A., when the fair value of the liability exceeds $40 million, the Laboratory is required to post collateral equal to the amount in excess. At December 31, 2020 the Laboratory had posted collateral in the amount of $860,104.

In connection with the bond issues, financing costs of approximately $2,357,000 were capitalized and are being amortized over the life of the bond issues. The financing costs are included in bonds payable as a direct deduction to the outstanding balance of $97.2 million at December 31, 2020 and 2019. Financing costs, net of amortization, were $1,259,767 and $1,326,035 at December 31, 2020 and 2019, respectively.

Interest expense on bonds outstanding during 2020 and 2019 was approximately $3,882,800 and $3,698,700, respectively. The effective average interest rate on all of the bonds outstanding during 2020 and 2019 approximated 3.99% and 3.81%, respectively.

11. NET ASSETS WITH DONOR RESTRICTIONS

Net assets with donor restrictions at December 31 are available for the following purposes or periods as follows:

	2020	2019
Net assets subject to expenditure for specified purposes or time periods:		
Capital projects	$ 12,084,056	$ 9,848,063
Research programs	26,613,061	29,827,856
Educational programs	14,525,097	14,800,845
Time restricted	79,774,972	103,517,183
Total subject to expenditure for specified purposes or time periods	132,997,186	157,993,947
Endowments subject to the Laboratory's spending policy:		
Donor contributions to be maintained in perpetuity:		
Primary program services	76,214,231	76,160,115
School of Biological Sciences programs	41,640,432	41,540,432
Operation and improvement of Banbury Center facilities	1,511,804	1,511,804
Total donor contributions to be maintained in perpetuity	119,366,467	119,212,351
Unappropriated income on endowment funds available to support:		
Primary program services	145,078,647	131,997,380
School of Biological Sciences programs	21,251,834	17,230,883
Operation and improvement of Banbury Center facilities	17,364,052	16,328,495
Total unappropriated income on endowment funds	183,694,533	165,556,758
Total endowment subject to appropriation under the Laboratory's spending policy	303,061,000	284,769,109
Total net assets with donor restrictions	$ 436,058,186	$ 442,763,056

The following table summarizes the net assets released from restrictions for the years ended December 31:

	2020	2019
Purpose restrictions accomplished	$ 14,473,868	$ 45,981,449
Time restriction expired	31,063,318	5,534,529
	$ 45,537,186	$ 51,515,978

12. INVESTMENT RETURN UTILIZED

Investment return utilized includes amounts appropriated from donor-restricted endowment funds, as reported in Note 13, and investment return on working capital funds. The following tables summarize the Laboratory's total investment return for the years ended December 31:

	2020		
	Without Donor Restrictions	With Donor Restrictions	Total
Interest and dividends on investments	$ 1,407,164	$ 598,200	$ 2,005,364
Net appreciation of investments	61,700,242	17,456,270	79,156,512
Total investment gain	63,107,406	18,054,470	81,161,876
Investment return utilized	(35,260,137)	-	(35,260,137)
Investment return excluding amount utilized	$ 27,847,269	$ 18,054,470	$ 45,901,739

	2019		
	Without Donor Restrictions	With Donor Restrictions	Total
Interest and dividends on investments	$ 4,304,320	$ 1,973,211	$ 6,277,531
Net appreciation of investments	65,259,711	25,628,372	90,888,083
Total investment gain	69,564,031	27,601,583	97,165,614
Investment return utilized	(33,925,072)	-	(33,925,072)
Investment return excluding amount utilized	$ 35,638,959	$ 27,601,583	$ 63,240,542

13. ENDOWMENT FUNDS

The Laboratory's endowment, including Robertson, consists of approximately 160 individual funds established for a variety of purposes. Its endowment includes both donor-restricted endowment funds and funds designated by the Trustees to function as endowments. As required by U.S. GAAP, net assets associated with the endowment funds, including funds designated by the Trustees to function as endowments, are classified and reported based on the existence or absence of donor-imposed restrictions. The Laboratory's management and investment of donor-restricted endowment funds are subject to the provisions of the New York Prudent Management of Institutional Funds Act ("NYPMIFA"). The Laboratory adopted NYPMIFA as of December 31, 2010 for all institutional endowment assets. The Laboratory and Robertson have interpreted the law as not requiring the preservation of the fair value of the original gift as of the gift date of the donor-restricted endowment funds absent explicit donor stipulations to the contrary. As a result of this interpretation, the Laboratory classifies as endowment funds within net assets with donor restrictions (a) the original value of gifts donated to the endowment, (b) the original value of subsequent gifts to the endowment, and (c) accumulations to the endowment made in accordance with the explicit direction of the applicable donor gift instrument at the time the accumulation is added to the fund. The remaining portion of the net assets with donor restrictions within the endowment fund are those net assets that have not yet been appropriated for expenditure by the Laboratory in a manner consistent with the standard of prudence prescribed by NYPMIFA.

The Laboratory's investment policy for its endowment and similar funds emphasizes long-term capital appreciation as a primary source of return while balancing the dual objectives of growth in capital and principal preservation. Investments are expected to earn long-term returns sufficient to maintain or grow the purchasing power of assets, net of spending and investment expenses, within acceptable risk parameters. The portfolio is invested in domestic and international equities, private, and other nontraditional investments, broadly diversified fixed income and cash equivalents. The portfolio is expected to earn returns higher than the "market" as represented by a benchmark constructed as a blended rate of indices. The portfolio oversight rests with the Investment Committees of the Laboratory and Robertson, including the selection of external managers, the allocation of investments, and the type of investments.

The following factors are considered in making a determination to appropriate or accumulate donor-restricted endowment funds:

(1) The duration and preservation of the fund
(2) The purposes of the Laboratory and the donor-restricted endowment fund
(3) General economic conditions
(4) The possible effect of inflation or deflation
(5) The expected total return from income and the appreciation of investments
(6) Other resources of the Laboratory
(7) Where appropriate and circumstances would otherwise warrant, alternatives to expenditure
(8) The investment policies of the Laboratory

In accordance with the spending policies of the Laboratory and Robertson, the Trustees authorized a 4.5% spend-down on endowment funds based on a 12-quarter moving average of the market value of endowment investments. If interest, dividends, and gains are not sufficient to support the current year drawdown, the balance is provided from prior year earnings. If investment return is in excess of the authorized spending level, the balance is reinvested.

13. ENDOWMENT FUNDS (CONTINUED)

In accordance with the above spending, $26,389,108 and $25,641,340 were made available to support operations of the Laboratory for the years ended December 31, 2020 and 2019, respectively. The total planned appropriation for expenditure for the year ending December 31, 2021 is $28,439,346.

From time to time, the fair value of assets associated with individual donor-restricted endowment funds may fall below the level that the donor or NYPMIFA requires the Laboratory to maintain as a fund of perpetual duration. In accordance with U.S. GAAP, deficiencies of this nature are reported in net assets with donor restrictions and totaled $1,359,965 and $1,769,409 at December 31, 2020 and 2019, respectively. These deficiencies resulted from unfavorable market fluctuations that occurred shortly after the investment of new donor-restricted contributions and continued appropriation for certain programs that was deemed prudent by the Trustees. Amounts included in reported deficiencies, which resulted from specific language of the gift instrument requiring appropriation regardless of fund balance were $1,041,943 and $1,438,645 at December 31, 2020 and 2019, respectively.

The following table presents endowment net asset composition by type of fund as of December 31:

	2020				
		With Donor Restrictions			
	Without Donor Restrictions	Original Gift	Accumulated Gains (Losses)	Total	Total Endowment Funds
Donor-restricted:					
Underwater	$ -	$ 8,407,732	$ (1,359,965)	$ 7,047,767	$ 7,047,767
Other	-	110,958,735	185,054,498	296,013,233	296,013,233
Board-designated	418,937,403	-	-	-	418,937,403
Total endowment funds	$ 418,937,403	$ 119,366,467	$ 183,694,533	$ 303,061,000	$ 721,998,403

13. ENDOWMENT FUNDS (CONTINUED)

The following table presents the changes in endowment net assets for the year ended December 31:

	2020		
	Without Donor Restrictions	With Donor Restrictions	Total
Endowment net assets at beginning of year	$ 385,625,719	$ 284,769,109	$ 670,394,828
Investment income	850,523	598,200	1,448,723
Net appreciation (realized and unrealized)	53,385,853	17,456,271	70,842,124
Total investment return	54,236,376	18,054,471	72,290,847
Contributions	-	237,420	237,420
Appropriation of endowment assets for expenditure	(26,389,108)	-	(26,389,108)
Transfer to board-designated endowment	5,464,416	-	5,464,416
Endowment net assets at end of year	$ 418,937,403	$ 303,061,000	$ 721,998,403

Included in amounts above is approximately $4.3 million in pledges receivable.

The following table presents endowment net asset composition by type of fund as of December 31:

	2019				
		With Donor Restrictions			
	Without Donor Restrictions	Original Gift	Accumulated Gains (Losses)	Total	Total Endowment Funds
Donor-restricted:					
Underwater	$ -	$ 8,407,732	$ (1,769,409)	$ 6,638,323	$ 6,638,323
Other	-	110,804,619	167,326,167	278,130,786	278,130,786
Board-designated	385,625,719	-	-	-	385,625,719
Total endowment funds	$ 385,625,719	$ 119,212,351	$ 165,556,758	$ 284,769,109	$ 670,394,828

13. ENDOWMENT FUNDS (CONTINUED)

The following table presents the changes in endowment net assets for the year ended December 31:

	2019		
	Without Donor Restrictions	**With Donor Restrictions**	**Total**
Endowment net assets at beginning of year	$ 284,223,891	$ 256,843,486	$ 541,067,377
Investment income	2,987,715	1,973,211	4,960,926
Net appreciation (realized and unrealized)	58,292,585	25,628,371	83,920,956
Total investment return	61,280,300	27,601,582	88,881,882
Contributions	-	324,041	324,041
Appropriation of endowment assets for expenditure	(25,641,340)	-	(25,641,340)
Transfer to board-designated endowment	65,762,868	-	65,762,868
Endowment net assets at end of year	$ 385,625,719	$ 284,769,109	$ 670,394,828

Included in amounts above is approximately $4.5 million in pledges receivable.

14. ALLOCATED EXPENSES

Expenses are reported in the accompanying consolidated statement of activities by their program classifications. The Laboratory's primary program services are research, education, instructional training through meetings, courses and conferences, and publications. Expenses reported as general and administrative are incurred in support of these primary program services.

The Laboratory allocates certain types of expenses that relate to more than one program or supporting activity. Expenses of this nature include, but are not limited to, depreciation, interest, operations and maintenance of plant, library, direct research support, and information technology. Amounts have been allocated to the specific programs and support services using methods such as square footage, usage, and other financial methods determined by management and are consistently applied.

	2020			2019		
	Direct Program Expenses	Allocated Expenses	Total	Direct Program Expenses	Allocated Expenses	Total
Research	$ 71,015,717	$ 36,046,031	$ 107,061,748	$ 83,280,214	$ 34,085,580	$ 117,365,794
Educational programs	10,027,017	3,880,446	13,907,463	16,002,804	3,779,744	19,782,548
Publications	8,703,268	908,108	9,611,376	8,163,230	891,639	9,054,869
Banbury Center conferences	820,046	598,084	1,418,130	1,692,901	685,342	2,378,243
DNA Learning Center programs	4,085,211	382,104	4,467,315	3,523,755	522,574	4,046,329
SBS programs	2,953,247	20,667	2,973,914	3,353,366	19,280	3,372,646
General and administrative	19,506,125	5,803,541	25,309,666	21,767,170	5,980,490	27,747,660
	$ 117,110,631	$ 47,638,981	$ 164,749,612	$ 137,783,440	$ 45,964,649	$ 183,748,089

15. FUNCTIONAL EXPENSES

Beginning in 2018, the Laboratory adopted ASU 2016-14, which includes the requirement for all not-for-profits to present an analysis of expenses by function and nature in a separate statement or in the notes to the financial statements. The following table represents functional expenses by natural category reported for research, educational, and publication categories, including direct conduct or management of those programs. In addition, general and administrative and fundraising costs are included as categories as required by ASU 2016-14. Included in general and administrative costs are all other unallocated costs associated with administration, accounting, human resources, sponsored programs, public affairs and dining. The salary and benefits of the chief executive officer are allocated 50% to research programs, 40% to general and administrative costs and 10% to fundraising based on estimated effort throughout the year. These allocations are determined by management to be of a reasonable basis and are consistently applied.

15. FUNCTIONAL EXPENSES (CONTINUED)

The following table presents the functional expenses for the year ended December 31, 2020:

	Research	Educational Programs/ Conferences	Publications	General and Administrative	Fundraising	Total
Salaries, benefits and taxes	$ 50,276,505	$ 13,133,754	$ 4,929,901	$ 15,913,583	$ 1,554,834	$ 85,808,577
Supplies and office expense	18,131,895	2,962,057	122,851	733,971	43,737	21,994,511
Third party costs	13,177,001	-	-	-	-	13,177,001
Service contracts and repairs	2,667,816	76,012	47,300	281,521	190	3,072,839
Professional services	836,048	550,432	560,941	1,525,078	97,131	3,569,630
Printing and publications	1,455,809	69,113	2,452,443	292,713	18,469	4,288,547
Software licensing	1,236,711	444,601	102,122	282,313	5,000	2,070,747
Travel	270,336	234,429	40,393	23,239	2,566	570,963
Conferences	104,917	1,429,728	349	13,948	-	1,548,942
Occupancy	4,250,617	1,690,980	239,493	750,137	-	6,931,227
Interest	3,084,846	257,857	112,158	711,456	-	4,166,317
Depreciation	11,272,115	1,486,556	178,469	1,803,126	-	14,740,266
Miscellaneous	297,132	431,303	824,956	1,244,357	12,297	2,810,045
	$ 107,061,748	$ 22,766,822	$ 9,611,376	$ 23,575,442	$ 1,734,224	$ 164,749,612

The following table presents the functional expenses for the year ended December 31, 2019:

	Research	Educational Programs/ Conferences	Publications	General and Administrative	Fundraising	Total
Salaries, benefits and taxes	$ 50,968,530	$ 14,337,274	$ 4,658,328	$ 15,930,005	$ 1,480,562	$ 87,374,699
Supplies and office expense	19,534,452	3,487,204	170,647	1,906,634	35,427	25,134,364
Third party costs	22,558,716	105,148	-	-	-	22,663,864
Service contracts and repairs	2,504,592	808,688	51,340	304,011	157	3,668,788
Professional services	821,941	1,848,254	202,871	2,115,560	116,453	5,105,079
Printing and publications	1,829,410	351,062	2,438,648	259,717	22,830	4,901,667
Software licensing	1,234,278	564,853	83,993	262,252	-	2,145,376
Travel	484,041	1,243,083	138,837	564,199	12,033	2,442,193
Conferences	657,092	2,956,699	60	25,849	221	3,639,921
Occupancy	4,120,058	1,085,583	224,076	762,007	-	6,191,724
Interest	2,973,883	244,003	101,838	674,174	-	3,993,898
Depreciation	9,330,245	1,470,119	185,659	1,997,256	-	12,983,279
Miscellaneous	348,556	1,077,796	798,572	1,227,791	50,522	3,503,237
	$ 117,365,794	$ 29,579,766	$ 9,054,869	$ 26,029,455	$ 1,718,205	$ 183,748,089

16. RETIREMENT PLAN

The Laboratory's employees are covered under a 401(a) defined-contribution retirement plan (the "Plan"). The Laboratory remits contributions to the Plan at Fidelity Investments based on a predetermined percentage of the participants' salaries. Total contributions under the Plan approximated $4,921,000 and $4,607,000 for the years ended December 31, 2020 and 2019, respectively.

17. COMMITMENTS AND CONTINGENCIES

The Laboratory has an operating lease for office space at 50 Gordon Drive, Syosset, New York. The lease does not contain any material residual value guarantees or material restrictive covenants and has a remaining lease term of three years. The right-of-use asset and lease liability were recognized at the lease commencement date based on the present value of the lease payments over the lease term. A risk adjusted rate of 2.69% was used to determine the present value of the lease payments, which are recognized on a straight-line basis over the lease term. The operating lease cost was approximately $308,600 and $299,700 for the years ended December 31, 2020 and 2019, respectively. Additionally, the lease arrangement requires the Laboratory to make variable payments outside of the regular rent payment, to cover such things as property taxes, utilities and property maintenance. Included in the consolidated balance sheet at December 31, 2020 are a right-of-use asset of approximately $791,200, reported in other assets, and the related lease liability, reported in accounts payable and accrued expenses, of approximately $944,200. The future minimum rental payments required under the lease as of December 31, 2020 are approximately $318,000, $327,000 and $337,000 for the remaining three years through December 31, 2023.

The Laboratory is self-insured for employee medical and prescription benefits beginning January 1, 2008. Under the provisions of this plan, an insurance carrier provided claims processing and administration functions, as well as stop-loss coverage over a stipulated level of claims for the twelve-month period ended December 31, 2020. The expense for the program was approximately $10,753,000 and $11,170,000 for the years ended December 31, 2020 and 2019, respectively. The Laboratory accrued approximately $1.2 million for liabilities relating to claims incurred but not reported which are included in accounts payable and accrued expenses for both the years ended December 31, 2020 and 2019.

The Laboratory is currently, and has in the past been, a party to routine litigation incidental to its business. The impact of the final resolution of these matters on the Laboratory's change in net assets or liquidity in a particular reporting period is not known. Management is of the opinion, however, that the ultimate outcome of such matters will not have a materially adverse effect upon the Laboratory's financial condition or liquidity.

18. SUBSEQUENT EVENTS

The Laboratory evaluated events subsequent to December 31, 2020 through April 30, 2021, the date on which the consolidated financial statements were issued and noted the following.

The COVID-19 pandemic continues to disrupt commerce and financial markets around the world. The extent of the impact of COVID-19 on the future operational and financial performance of the Laboratory will depend on certain developments, including the continued duration and spread of the virus, the pace of vaccinations, and the economic outlook for recovery. There may still be short- and longer-term implications for the operations of the Laboratory. The Laboratory will continue to make every effort to mitigate the current and future impacts of COVID-19. Accordingly, the extent to which COVID-19 may impact the consolidated financial position and changes in net assets and cash flows is uncertain and the accompanying consolidated financial statements include no adjustments relating to the anticipated future effects of this pandemic.