

*In the opinion of Bond Counsel, under existing law and assuming compliance with the tax covenants described herein, and the accuracy of certain representations and certifications made by the Authority and the Borrower described herein, interest on the Bonds is excluded from gross income for Federal income tax purposes under Section 103 of the Internal Revenue Code of 1986, as amended (the "Code"). Bond Counsel is also of the opinion that such interest is not treated as a preference item in calculating the alternative minimum tax imposed under the Code with respect to individuals and corporations. Bond Counsel is further of the opinion that, under existing law, interest on the Bonds is exempt from personal income taxation imposed by the State of California. See "TAX MATTERS" herein regarding certain other tax considerations.*

**\$60,290,000**

**ABAG FINANCE AUTHORITY FOR NONPROFIT CORPORATIONS  
REVENUE BONDS (THE JACKSON LABORATORY)  
SERIES 2012**

**Dated:** Date of Delivery**Due:** July 1, as shown on the inside cover

**This cover page contains certain information for general reference only. It is not intended to be a summary of this issue. Investors must read the entire Official Statement to obtain information essential to the making of an informed investment decision.**

The ABAG Finance Authority for Nonprofit Corporations Revenue Bonds (The Jackson Laboratory) Series 2012 (the "Bonds") are being issued in fully-registered form in the name of Cede & Co., as nominee of The Depository Trust Company ("DTC"), which will act as securities depository for the Bonds. Purchasers of the Bonds will not receive physical certificates representing their beneficial ownership in the Bonds purchased. The principal of and interest and premium, if any, on the Bonds will be payable by Wells Fargo Bank, N.A., as trustee (the "Trustee"), to DTC from funds on deposit under an Indenture, dated as of October 1, 2012 (the "Indenture"), between the Authority (as hereafter defined) and the Trustee. DTC is required to remit such payments to its Participants for subsequent disbursement to the beneficial owners of the Bonds. Beneficial owners' rights will be governed as to such payments, the receipt of notices (including any notice of redemption) and other communications and various other matters by the rules and operating procedures applicable to the DTC book-entry system. See "BOOK-ENTRY SYSTEM" herein. Interest on the Bonds is payable by the Trustee on each January 1 and July 1 beginning on January 1, 2013 at the rates set forth on the inside cover hereof.

The Bonds are being issued by the ABAG Finance Authority for Nonprofit Corporations (the "Authority"), which will loan the proceeds of the Bonds to

**THE JACKSON LABORATORY**

(the "Borrower") pursuant to a Loan Agreement, dated October 1, 2012 (the "Loan Agreement"). Proceeds of the Bonds will be used by the Borrower to (i) refund a portion of the Authority's Revenue Bonds (The Jackson Laboratory) Series 2007, (ii) finance the construction, renovation, improvement, furnishing and equipping of certain research facilities of the Borrower, and (iii) pay costs incurred in connection with the issuance of the Bonds. See "PLAN OF FINANCE" and "ESTIMATED SOURCES AND USES OF PROCEEDS" herein.

The Authority is obligated to pay the Bonds solely from the Revenues (as hereinafter defined) received from the Borrower under the Loan Agreement and the other funds available therefor under the Indenture. The Borrower's payment obligations under the Loan Agreement are general, unsecured obligations of the Borrower.

**The bonds are subject to optional and mandatory redemption, as described herein.**

**THE BONDS ARE SPECIAL OBLIGATIONS OF THE AUTHORITY, PAYABLE SOLELY FROM AND SECURED BY THE PLEDGE OF REVENUES PURSUANT TO THE INDENTURE. NONE OF THE AUTHORITY, THE ASSOCIATION OF BAY AREA GOVERNMENTS ("ABAG") OR THE MEMBERS OF THE AUTHORITY OR ABAG SHALL BE DIRECTLY OR INDIRECTLY OR CONTINGENTLY OR MORALLY OBLIGATED TO USE ANY OTHER MONEYS OR ASSETS OF THE AUTHORITY, ABAG OR ANY OF ITS MEMBERS TO PAY ALL OR ANY PORTION OF DEBT SERVICE DUE ON THE BONDS. THE BONDS AND THE OBLIGATION TO PAY PRINCIPAL OF AND INTEREST THEREON AND ANY REDEMPTION PREMIUM WITH RESPECT THERETO DO NOT CONSTITUTE AN INDEBTEDNESS OR AN OBLIGATION OF THE AUTHORITY OR ABAG, THE STATE OF CALIFORNIA OR ANY POLITICAL SUBDIVISION THEREOF, WITHIN THE MEANING OF ANY CONSTITUTIONAL OR STATUTORY DEBT LIMITATION, OR A CHARGE AGAINST THE GENERAL CREDIT OR TAXING POWERS OF ANY OF THEM, BUT SHALL BE PAYABLE SOLELY FROM THE REVENUES DESCRIBED HEREIN. NO OWNER OF THE BONDS SHALL HAVE THE RIGHT TO COMPEL THE EXERCISE OF THE TAXING POWER OF THE STATE OF CALIFORNIA OR ANY POLITICAL SUBDIVISION THEREOF TO PAY ANY PRINCIPAL OF OR PREMIUM, IF ANY, OR INTEREST ON THE BONDS. NEITHER THE AUTHORITY NOR ABAG HAS ANY TAXING POWER.**

The Bonds are offered when, as and if issued by the Authority and accepted by the Underwriter subject to the approval of legality by Nixon Peabody LLP, Bond Counsel, and subject to certain other conditions. Certain legal matters will be passed upon for the Underwriter by Greenberg Traurig, LLP, for the Authority by Jones Hall PLC, and for the Borrower by Ropes & Gray LLP. It is expected that the Bonds will be available for delivery through the facilities of DTC in New York, New York on or about October 24, 2012.

**BofA Merrill Lynch**

Dated: October 11, 2012.

**\$60,290,000**  
**ABAG FINANCE AUTHORITY FOR NONPROFIT CORPORATIONS**  
**REVENUE BONDS**  
**(THE JACKSON LABORATORY)**  
**SERIES 2012**

**MATURITIES, AMOUNTS, INTEREST RATES, YIELDS AND CUSIPS**

**\$42,325,000 Serial Bonds**

<u>Maturity (July 1)</u>	<u>Principal Amount</u>	<u>Interest Rate</u>	<u>Yield</u>	<u>CUSIP Number<sup>†</sup></u>
2013	\$ 990,000	2.50%	0.45%	00037CSM3
2014	1,170,000	3.00	0.78	00037CSN1
2015	1,190,000	4.00	0.93	00037CSP6
2016	1,550,000	4.00	1.13	00037CSQ4
2017	1,615,000	5.00	1.39	00037CSR2
2018	1,695,000	5.00	1.66	00037CSS0
2019	1,780,000	5.00	1.94	00037CST8
2020	1,865,000	5.00	2.20	00037CSU5
2021	1,960,000	5.00	2.44	00037CSV3
2022	2,055,000	5.00	2.62	00037CSW1
2023	2,160,000	5.00	2.76*	00037CSX9
2024	2,265,000	5.00	2.89*	00037CSY7
2025	2,385,000	3.00	3.19	00037CSZ4
2026	2,450,000	5.00	3.03*	00037CTA8
2027	2,575,000	5.00	3.10*	00037CTB6
2028	2,710,000	3.25	3.49	00037CTC4
2029	2,795,000	5.00	3.22*	00037CTD2
2030	2,935,000	3.50	3.61	00037CTE0
2031	3,035,000	3.50	3.67	00037CTF7
2032	3,145,000	3.50	3.70	00037CTG5

**\$17,965,000 5.00% Term Bond maturing July 1, 2037 Yield 3.65%\* CUSIP<sup>†</sup> 00037CTH3**

\* Yield to first optional redemption date of July 1, 2022.

† The CUSIP Numbers set forth herein have been assigned by an independent company not affiliated with the Authority or the Borrower and are included solely for the convenience of the holders of the Bonds. None of the Underwriter, the Authority or the Borrower is responsible for the selection or uses of the CUSIP numbers, and no representation is made as to their correctness on the Bonds or as indicated above. The CUSIP number for a specific maturity is subject to being changed after the issuance of the Bonds as a result of various subsequent actions including, but not limited to, a refunding in whole or in part of such maturity or as a result of the procurement of secondary market portfolio insurance or other similar enhancement by investors that is applicable to all or a portion of certain maturities of the Bonds.

This Official Statement does not constitute an offer to sell the Bonds in any jurisdiction in which or to any person to whom it is unlawful to make such an offer. No dealer, salesperson or other person has been authorized by the ABAG Finance Authority for Nonprofit Corporations (the "Authority"), The Jackson Laboratory (the "Borrower") or Merrill Lynch, Pierce, Fenner & Smith Incorporated (the "Underwriter") to give any information or to make any representations, other than those contained herein, in connection with the offering of the Bonds and, if given or made, such information or representations must not be relied upon.

The information set forth herein under the caption "THE AUTHORITY" and "ABSENCE OF MATERIAL LITIGATION - The Authority" has been obtained from the Authority. All other information set forth herein has been obtained from the Borrower and other sources which are believed to be current and reliable, but is not to be construed as a representation by the Authority.

The Underwriter has provided the following sentence for inclusion in this Official Statement: The Underwriter has reviewed the information in this Official Statement in accordance with, and as part of, its responsibilities to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but the Underwriter does not guarantee the accuracy or completeness of such information.

Estimates and opinions included in this Official Statement should not be interpreted as statements of fact. Summaries of documents do not purport to be complete statements of their provisions. The information and expressions of opinion herein are subject to change without notice, and neither the delivery of this Official Statement nor any sale made hereunder shall, under any circumstances, create any implication that there has been no change in the affairs of the Authority or the Borrower since the date hereof.

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**IN CONNECTION WITH THIS OFFERING, THE UNDERWRITER MAY OVERALLOT OR EFFECT TRANSACTIONS THAT STABILIZE OR MAINTAIN THE MARKET PRICE OF THE BONDS AT LEVELS ABOVE THOSE WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME.**

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**THE BONDS HAVE NOT BEEN REGISTERED WITH THE UNITED STATES SECURITIES AND EXCHANGE COMMISSION UNDER THE SECURITIES ACT OF 1933, AS AMENDED, NOR HAS THE INDENTURE BEEN QUALIFIED UNDER THE TRUST INDENTURE ACT OF 1939, AS AMENDED, IN RELIANCE UPON EXEMPTIONS CONTAINED IN SUCH ACTS. IN MAKING AN INVESTMENT DECISION, INVESTORS MUST RELY ON THEIR OWN EXAMINATION OF THE BORROWER AND THE TERMS OF THE OFFERING, INCLUDING THE MERITS AND RISKS INVOLVED. THESE BONDS HAVE NOT BEEN RECOMMENDED BY ANY FEDERAL OR STATE SECURITIES COMMISSION OR REGULATORY AUTHORITY. FURTHERMORE, THE FOREGOING AUTHORITIES HAVE NOT CONFIRMED THE ACCURACY OR DETERMINED THE ADEQUACY OF THIS OFFICIAL STATEMENT. ANY REPRESENTATION TO THE CONTRARY MAY BE A CRIMINAL OFFENSE.**

#### **Cautionary Statements Regarding Forward-Looking Statements**

This Official Statement, including APPENDIX A, contains statements which should be considered "forward-looking statements," meaning they refer to possible future events or conditions. Such statements are generally identifiable by the words such as "plan," "expect," "estimate," "budget" or similar words. The achievement of certain results or other expectations contained in such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause actual results, performance or achievements described to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Neither the Authority nor the Borrower expect or intend to issue any updates or revisions to those forward-looking statements if or when its expectations, or events, conditions or circumstances on which such statements are based occur.

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## OFFICIAL STATEMENT

**\$60,290,000**

**ABAG FINANCE AUTHORITY FOR NONPROFIT CORPORATIONS  
REVENUE BONDS  
(THE JACKSON LABORATORY)  
SERIES 2012**

### INTRODUCTION

*This Introduction contains only a brief summary of certain of the terms of the Bonds being offered and a full review should be made of the entire Official Statement, including the cover page and the Appendices in order to make an informed investment decision. All statements contained in this Introduction are qualified in their entirety by reference to the entire Official Statement. The offering of the Bonds to potential investors is made only by means of the entire Official Statement.*

#### **General**

This Official Statement, including the cover page and Appendices hereto (this "Official Statement"), provides certain information in connection with the offering of \$60,290,000 aggregate principal amount of the ABAG Finance Authority for Nonprofit Corporations Revenue Bonds (The Jackson Laboratory), Series 2012 (the "Bonds").

The Bonds will be issued pursuant to the provisions of the Indenture of Trust, dated as of October 1, 2012 (the "Indenture"), between the ABAG Finance Authority for Nonprofit Corporations (the "Authority") and Wells Fargo Bank, N.A., as trustee (the "Trustee"). The Authority will lend the proceeds of the Bonds to The Jackson Laboratory (the "Borrower") pursuant to a Loan Agreement, dated as of October 1, 2012, between the Authority and the Borrower (the "Loan Agreement"). Capitalized terms used but not defined herein are defined in Appendix C - "SUMMARY OF CERTAIN PROVISIONS OF THE PRINCIPAL LEGAL DOCUMENTS - DEFINITIONS."

#### **The Bonds**

Interest will be payable each January 1 and July 1 beginning on January 1, 2013 at the rates set forth on the inside cover of this Official Statement.

#### **Sources of Payment of the Bonds**

The Authority is obligated to pay the Bonds solely from the Revenues received from the Borrower under the Loan Agreement and the other funds available therefor under the Indenture. Pursuant to the Indenture, the Authority has pledged to the Trustee for the benefit of the Bondholders all of the Revenues received thereunder.

Under the Loan Agreement, the Borrower has pledged its full faith and credit to the payment of the Loan Payments to be made thereunder, which are due in amounts and at the times necessary to pay the principal (whether at maturity or upon acceleration or prior redemption) of, premium, if any, and interest to the date of maturity or redemption of the Bonds, when due. The Borrower's payment obligations under the Loan Agreement are general, unsecured obligations of the Borrower. **There will be no reserve fund for the Bonds.** See "SECURITY AND SOURCES OF PAYMENT FOR THE BONDS" herein.

**THE BONDS ARE SPECIAL OBLIGATIONS OF THE AUTHORITY, PAYABLE SOLELY FROM AND SECURED BY THE PLEDGE OF REVENUES PURSUANT TO THE INDENTURE. NONE OF THE AUTHORITY, THE ASSOCIATION OF BAY AREA GOVERNMENTS ("ABAG") OR THE MEMBERS OF THE AUTHORITY OR ABAG SHALL BE DIRECTLY OR INDIRECTLY OR CONTINGENTLY OR MORALLY OBLIGATED TO USE ANY OTHER MONEYS OR ASSETS OF THE AUTHORITY, ABAG, OR ANY OF ITS MEMBERS TO PAY ALL OR ANY PORTION OF DEBT SERVICE DUE ON THE BONDS. THE BONDS AND THE OBLIGATION TO PAY PRINCIPAL OF AND**

**INTEREST THEREON AND ANY REDEMPTION PREMIUM WITH RESPECT THERETO DO NOT CONSTITUTE AN INDEBTEDNESS OR AN OBLIGATION OF THE AUTHORITY OR ABAG, THE STATE OF CALIFORNIA OR ANY POLITICAL SUBDIVISION THEREOF, WITHIN THE MEANING OF ANY CONSTITUTIONAL OR STATUTORY DEBT LIMITATION, OR A CHARGE AGAINST THE GENERAL CREDIT OR TAXING POWERS OF ANY OF THEM, BUT SHALL BE PAYABLE SOLELY FROM THE REVENUES DESCRIBED HEREIN. NO OWNER OF THE BONDS SHALL HAVE THE RIGHT TO COMPEL THE EXERCISE OF THE TAXING POWER OF THE STATE OF CALIFORNIA OR ANY POLITICAL SUBDIVISION THEREOF TO PAY ANY PRINCIPAL OF OR PREMIUM, IF ANY, OR INTEREST ON THE BONDS. NEITHER THE AUTHORITY NOR ABAG HAS ANY TAXING POWER.**

### **Book-Entry System**

When delivered, the Bonds will be registered in the name of Cede & Co., as nominee of The Depository Trust Company (“DTC”), which will act as securities depository for the Bonds. Purchases of the Bonds may be made in book-entry form only, through brokers and dealers who are, or who act through, the Participants (as hereinafter defined). Beneficial Owners (as hereinafter defined) of the Bonds will not receive physical delivery of certificated securities. Payments of principal, premium, if any, and interest on the Bonds are payable by the Trustee to DTC, which will in turn remit such payments to the Participants, which will in turn remit such payments to the Beneficial Owners of the Bonds. See “BOOK-ENTRY SYSTEM.”

### **Purposes**

The Authority will lend the proceeds of the Bonds to the Borrower pursuant to the Loan Agreement. Proceeds of the Bonds will be used by the Borrower to (i) to refund a portion of the Authority’s Revenue Bonds (The Jackson Laboratory) Series 2007 (the “2007 Bonds”), (ii) finance the construction, renovation, improvement, furnishing and equipping of certain research facilities of the Borrower, and (iii) pay costs incurred in connection with the issuance of the Bonds. See “PLAN OF FINANCE,” “ESTIMATED SOURCES AND USES OF PROCEEDS,” and Appendix A - “INFORMATION CONCERNING THE BORROWER- THE PROJECT.”

### **The Borrower**

The Borrower is a nonprofit corporation organized and existing under the laws of the State of Maine and qualified to do business in the State of California. The Borrower, also referred to herein as the “Laboratory” or “TJL,” is a mammalian research organization whose mission is to discover the genetic bases for human diseases and to enable research and education in the biomedical community. See Appendix A - “INFORMATION CONCERNING THE BORROWER” for a description of the Borrower.

### **Financial Condition of the Borrower**

Important information on the financial condition of the Borrower is set forth in Appendix A - “INFORMATION CONCERNING THE BORROWER” and in the Borrower’s financial statements and notes thereto set forth in Appendix B - “FINANCIAL STATEMENTS OF THE BORROWER,” all of which should be carefully reviewed.

### **Certain Information Related to this Official Statement**

The descriptions herein of the Indenture, the Loan Agreement and other agreements relating to the Bonds are qualified in their entirety by reference to such documents, and the description of the Bonds is qualified in its entirety by the form thereof and the information with respect thereto included in such documents. See Appendix C - “SUMMARY OF CERTAIN PROVISIONS OF THE PRINCIPAL LEGAL DOCUMENTS - THE INDENTURE” for a brief summary of the rights and duties of the Authority, the rights and remedies of the Trustee and the Bondholders upon an event of default, provisions relating to amendments of the Indenture and procedures for defeasance of Bonds.

All capitalized terms used in this Official Statement and not otherwise defined herein have the meanings ascribed thereto in the Indenture. See Appendix C - "SUMMARY OF CERTAIN PROVISIONS OF THE PRINCIPAL LEGAL DOCUMENTS - DEFINITIONS."

The information and expressions of opinion herein speak only as of their date and are subject to change without notice. Neither delivery of this Official Statement nor any sale made hereunder nor any future use of this Official Statement shall, under any circumstances, create any implication that there has been no change in the affairs of the Authority or the Borrower.

## PLAN OF FINANCE

### Refunding

A portion of the proceeds of the Bonds will be used to refund a portion of the Series 2007 Bonds (the "Refunded Bonds"). Such proceeds of the Bonds, together with other available funds, will be deposited into a Refunding Trust Fund, established under a Refunding Trust Agreement to be entered into between the Authority and Wells Fargo Bank, N.A., as Refunded Bond Trustee (the "Refunded Bond Trustee"). The amounts held in the Refunding Trust Fund are expected to be invested in United States Government Obligations and will be applied by the Refunding Bond Trustee to redeem the Refunded Bonds on July 1, 2015, at a redemption price of 102%, plus accrued interest to the date of redemption.

### The Project

A portion of the proceeds of the Bonds will be deposited in the Construction Fund and is expected to be applied to finance or reimburse the Borrower for the costs of certain capital improvements to the Borrower's research facility in Sacramento, California (the "Project"). The Project includes the fit-out of approximately 34,000 square feet of mouse breeding and 16,000 square feet of support space. In addition to the interior improvements, core infrastructure will be installed to support operations including additional boilers, chiller, another emergency generator, autoclaves, cage and bottle washers and other miscellaneous support equipment. The project will complete the build-out of the second floor of the facility, with the addition of eight mouse rooms. The first phase of the Project, consisting of three mouse rooms, is expected to be complete by mid-2013 and the remainder of the rooms are expected to be complete by January 2014. See "INVESTMENT CONSIDERATIONS - Project Completion and Construction Risks," and Appendix A - "INFORMATION CONCERNING THE BORROWER - THE PROJECT."

## ESTIMATED SOURCES AND USES OF PROCEEDS

The following table sets forth the estimated sources and uses of the proceeds of the Bonds and other available funds, rounded to the nearest dollar.

<b>Estimated Sources of Funds:</b>	
Par Amount of the Bonds	\$60,290,000
Other Available Funds	52
Net Premium	6,065,769
Total Estimated Sources	\$66,355,821
 <b>Estimated Uses of Funds:</b>	
Deposit to Refunding Trust Fund	\$39,067,163
Deposit to Construction Fund	26,667,096
Costs of Issuance <sup>(1)</sup>	621,562
Total Estimated Uses	\$66,355,821

<sup>(1)</sup> Includes underwriter's discount, legal, financing, consulting fees, rating agency fees, printing costs and other miscellaneous expenses related to the Bonds.

## THE BONDS

### General

The Bonds will mature in the years and in the principal amounts as set forth on the inside cover of this Official Statements. The Bonds will be dated their date of issuance and will bear interest at the rates set forth on the inside cover of this Official Statement. Interest on the Bonds is payable on January 1, 2013 and semi-annually thereafter on July 1 and January 1 of each year until maturity or redemption, to the persons whose names appear on the registration books of the Trustee as the holders thereof as of the close of business on the 15<sup>th</sup> day of the month preceding such interest payment date. The Bonds are issuable in denominations of \$5,000 or any integral multiple thereof. Interest on the Bonds will be calculated on the basis of a 360-day year of twelve 30-day months.

### Redemption

***Extraordinary Mandatory Redemption.*** The Bonds are subject to redemption prior to their respective stated maturities, at the option of the Authority (which option shall be exercised as directed in writing by the Borrower) as a whole or in part, on such redemption dates and in such amounts and of such maturities (or Sinking Fund Installments within a maturity) as may be specified by the Borrower, provided that, if the Borrower does not so specify, the Bonds shall be redeemed in inverse order of maturity, and by lot within such maturity, on the next Interest Payment Date, from hazard insurance or condemnation proceeds received with respect to the Facilities, at a Redemption Price equal to the principal amount thereof, plus accrued interest to the date fixed for redemption, without premium.

***Optional Redemption.*** The Bonds maturing before July 1, 2023 are not subject to optional redemption prior to their respective stated maturities. The Bonds maturing on or after July 1, 2023 are subject to redemption prior to their respective stated maturities, at the option of the Authority (which option shall be exercised as directed in writing by the Borrower), as a whole or in part, on such redemption dates and in such amounts and of such maturities (or Sinking Fund Installments within a maturity) as may be specified by the Borrower, provided that, if the Borrower does not so specify, the Trustee shall select the Bonds to be redeemed by lot in any manner which the Trustee in its sole discretion shall deem appropriate and fair, on July 1, 2022 or on any date thereafter at a Redemption Price equal to the principal amount of the Bonds called for redemption, plus accrued interest to the date fixed for redemption, without premium.

***Mandatory Sinking Fund Redemption.*** The Bonds maturing on July 1, 2037 also are subject to redemption in part prior to their stated maturity date from Sinking Fund Installments on each July 1, commencing on July 1, 2033, at the principal amounts set forth in the table below, together with interest accrued thereon to the date fixed for redemption, without premium.

<b><u>Payment Date</u></b> <b><u>(July 1)</u></b>	<b><u>Principal</u></b> <b><u>Amount</u></b>	<b><u>Payment Date</u></b> <b><u>(July 1)</u></b>	<b><u>Principal Amount</u></b>
2033	\$3,250,000	2036	\$3,765,000
2034	3,410,000	2037 <sup>†</sup>	3,955,000
2035	3,585,000		

<sup>†</sup> Maturity.

***Selection of Bonds for Redemption.*** Whenever provision is made in the Indenture for the redemption of less than all of the Bonds or any given portion thereof, the Trustee is required to select the Bonds to be redeemed, from all such Bonds subject to redemption or such given portion thereof not previously called for redemption, by lot in any manner which the Trustee in its sole discretion deems appropriate and fair; provided, however, that all redemptions will be in Authorized Denominations and that the Bonds which are not redeemed will be in Authorized Denominations.

**Notice of Redemption.** As long as the Bonds are registered in the name of DTC or its nominee, notice of redemption will be given, and Bonds will be selected for redemption, only as set forth in the Letter of Representations given by the Authority to DTC. See “BOOK-ENTRY SYSTEM.”

The Trustee will mail by overnight mail or courier service, or by other acceptable means, to the registered owners of all Bonds to be redeemed, at the registered addresses appearing in the registration books kept for such purpose, notice of redemption at least 30 days prior to the redemption date. Each notice of redemption is required to state the date of such notice, the date of issue of the Bonds, the redemption date, the redemption price, the place or places of redemption (including the name and appropriate address or addresses of the Trustee), the maturity, the CUSIP numbers, if any, and, in the case of Bonds to be redeemed in part only, the respective portions of the principal amount thereof to be redeemed, and will state whether there are any conditions for such Bonds to be redeemed and will describe such conditions. The failure by the Trustee to mail notice of redemption to any one or more of the respective Holders of any Bonds designated for redemption will not affect the sufficiency of the proceedings for redemption with respect to the Holders to whom such notice was mailed.

Any notice given pursuant to the above provisions may be rescinded by written notice given to the Trustee by an Authorized Representative of the Borrower no later than five Business Days prior to the date specified for redemption. The Trustee is required to give notice of such rescission as soon thereafter as practicable in the same manner, and to the same Persons, as notice of such redemption was given pursuant to the previous paragraph.

In addition to the foregoing notice, further notice will be given by the Trustee to certain registered securities depositories and information services as provided in the Indenture, but no defect in such further notice nor any failure to give all or any portion thereof will in any manner defeat the effectiveness of a call for redemption if notice thereof is given as prescribed in the Indenture.

If notice of redemption is given as described above (and so long as any conditions specified in such notice have been met and as such notice has not been rescinded) and moneys for payment of the Redemption Price of, together with interest accrued to the redemption date on, the Bonds (or portions thereof) so called for redemption are held by the Trustee, on the redemption date designated in such notice, the Bonds (or portions thereof) so called for redemption will become due and payable at the Redemption Price specified in such notice together with interest accrued thereon to the redemption date, interest on the Bonds so called for redemption will cease to accrue, said Bonds (or portions thereof) will cease to be entitled to any benefit or security under the Indenture and the Holders of said Bonds will have no rights in respect thereof except to receive payment of the Redemption Price and accrued interest to the date fixed for redemption from funds held by the Trustee for such payment.

### **BOOK-ENTRY SYSTEM**

The Authority, the Borrower, the Trustee and the Underwriter will have no responsibility or obligation to any Securities Depository, any Participants in the book-entry system, or the Beneficial Owners with respect to (a) the accuracy of any records maintained by the Securities Depository or any Participant, (b) the payment by the Securities Depository or by any Participant of any amount due to any Participant or Beneficial Owner, respectively, in respect of the principal, Purchase Price of, premium, if any, or interest on any Bond, or (c) the delivery of any notice by the Securities Depository or any Participant.

DTC will act as securities depository for the Bonds. The Bonds will be issued as fully registered bonds registered in the name of Cede & Co. (DTC’s partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully-registered Bond certificate will be issued for each maturity of the Bonds in the aggregate principal amount of such maturity and will be deposited with DTC.

DTC, the world’s largest securities depository, is a limited-purpose trust company organized under the New York Banking Law, a “banking organization” within the meaning of the New York Banking Law, a member of the Federal Reserve System, a “clearing corporation” within the meaning of the New York Uniform Commercial Code, and a “clearing agency” registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC’s participants (“Direct Participants”) deposit with DTC. DTC also facilitates the post-trade settlement among Direct

Participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between Direct Participants' accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation ("DTCC"). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly ("Indirect Participants" and together with Direct Participants, "Participants"). DTC has a Standard & Poor's Rating of AA+. The DTC Rules applicable to its Direct and Indirect Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at [www.dtcc.com](http://www.dtcc.com).

Purchases of Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the Bonds on DTC's records. The ownership interest of each actual purchaser of each Bond (the "Beneficial Owner") is in turn to be recorded on the Direct and Indirect Participants' records. Beneficial Owners will not receive written confirmation from DTC of their purchase, Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in Bonds, except in the event that use of the book-entry system for the Bonds is discontinued.

To facilitate subsequent transfers, all Bonds deposited by Direct Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of Bonds with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Bonds. DTC's records reflect only the identity of the Direct Participants to whose accounts such Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Beneficial Owners of the Bonds may wish to take certain steps to augment the transmission to them of notices of significant events with respect to the Bonds, such as redemptions, tenders, defaults, and proposed amendments to the Bond documents. For example, Beneficial Owners of the Bonds may wish to ascertain that the nominee holding the Bonds for their benefit has agreed to obtain and transmit notices to Beneficial Owners. In the alternative, Beneficial Owners may wish to provide their names and addresses to the registrar and request that copies of notices be provided directly to them.

Redemption notices shall be sent to DTC. If less than all of the Bonds within an issue are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such issue to be redeemed.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to the Bonds unless authorized by a Direct Participant in accordance with DTC's MMI procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the Authority as soon as possible after the Record Date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts the Bonds are credited on the Record Date (identified in a listing attached to the Omnibus Proxy).

Payment of the principal and purchase price of and interest on the Bonds will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts upon DTC's receipt of funds and corresponding detail information from the Borrower or the Trustee, on the payment date in accordance with their respective holdings shown on DTC's records. Payments by

Direct or Indirect Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in “street name,” and will be the responsibility of such Direct or Indirect Participant and not of DTC, the Trustee, the Borrower or the Authority, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of principal, purchase price and interest to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the Trustee; disbursement of such payments to Direct Participants will be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct and Indirect Participants.

DTC may discontinue providing its service as securities depository with respect to the Bonds at any time by giving reasonable notice to the Authority, the Borrower or the Trustee. Under such circumstances, in the event that a successor securities depository is not obtained, Bond certificates are required to be prepared and delivered as described in the Indenture.

The Authority or the Borrower may decide to discontinue use of the system of book-entry transfers through DTC (or a successor depository). In that event, Bond certificates will be prepared and delivered as described in the Indenture.

THE ABOVE INFORMATION CONCERNING DTC AND DTC’S BOOK-ENTRY SYSTEM HAS BEEN OBTAINED FROM SOURCES THAT THE AUTHORITY, THE BORROWER AND THE UNDERWRITER BELIEVE TO BE RELIABLE, BUT NONE OF THE AUTHORITY, THE BORROWER OR THE UNDERWRITER TAKES RESPONSIBILITY FOR THE ACCURACY THEREOF.

THE AUTHORITY, THE BORROWER, THE UNDERWRITER AND THE TRUSTEE WILL HAVE NO RESPONSIBILITY OR OBLIGATION TO SUCH DIRECT PARTICIPANTS OR THE PERSONS FOR WHOM THEY ACT AS NOMINEE WITH RESPECT TO THE PAYMENTS TO OR THE PROVIDING OF NOTICE FOR THE DIRECT PARTICIPANTS, OR THE INDIRECT PARTICIPANTS OR BENEFICIAL OWNERS.

**SO LONG AS CEDE & CO. IS THE REGISTERED OWNER OF THE BONDS, AS NOMINEE OF DTC, REFERENCES HEREIN TO THE BONDHOLDERS OR REGISTERED OWNERS OF THE BONDS SHALL MEAN CEDE & CO. AND SHALL NOT MEAN THE BENEFICIAL OWNERS OF THE BONDS.**

In the event of the discontinuance of the book-entry system for the Bonds, Bond certificates will be printed and delivered and the following provisions of the Indenture will apply: (a) principal of the Bonds will be payable upon surrender of the Bonds at the payment office of the Trustee and (b) Bonds may be transferred or exchanged for other Bonds of authorized denominations at the designated office of the registrar, without cost to the owner thereof except for any tax or other governmental charge.

## **SECURITY AND SOURCES OF PAYMENT FOR THE BONDS**

### **Pledge Under the Indenture and the Loan Agreement**

The Bonds are special, limited obligations of the Authority, and are payable from and are secured by a pledge of and lien on, all Revenues (subject to disbursement and application in accordance with the Indenture), which are defined in the Indenture as (i) all money held in the funds and accounts created under the Indenture (excluding money and investment earnings thereon in the General Fund, the Costs of Issuance Fund and the Rebate Fund), together with investment earnings thereon prior to disbursement in accordance with the Indenture; and (ii) all income, revenues, proceeds, obligations, securities and other amounts received by the Trustee derived from or in connection with the proceeds of the Bonds and the Loan Agreement (but excluding amounts payable pursuant to the Loan Agreement as Additional Payments or as indemnification or reimbursement of expenses of the Authority or the Trustee).

The obligations of the Borrower under the Loan Agreement constitute a general, unsecured obligation of the Borrower. See Appendix C - "SUMMARY OF CERTAIN PROVISIONS OF THE PRINCIPAL LEGAL DOCUMENTS - THE LOAN AGREEMENT." **There will be no reserve fund for the Bonds.**

**THE BONDS ARE SPECIAL OBLIGATIONS OF THE AUTHORITY, PAYABLE SOLELY FROM AND SECURED BY THE PLEDGE OF REVENUES PURSUANT TO THE INDENTURE. NONE OF THE AUTHORITY, ABAG, OR THE MEMBERS OF THE AUTHORITY OR ABAG SHALL BE DIRECTLY OR INDIRECTLY OR CONTINGENTLY OR MORALLY OBLIGATED TO USE ANY OTHER MONEYS OR ASSETS OF THE AUTHORITY, ABAG OR ANY OF ITS MEMBERS TO PAY ALL OR ANY PORTION OF DEBT SERVICE DUE ON THE BONDS. THE BONDS AND THE OBLIGATION TO PAY PRINCIPAL OF AND INTEREST THEREON AND ANY REDEMPTION PREMIUM WITH RESPECT THERETO DO NOT CONSTITUTE AN INDEBTEDNESS OR AN OBLIGATION OF THE AUTHORITY OR ABAG, THE STATE OF CALIFORNIA OR ANY POLITICAL SUBDIVISION THEREOF, WITHIN THE MEANING OF ANY CONSTITUTIONAL OR STATUTORY DEBT LIMITATION, OR A CHARGE AGAINST THE GENERAL CREDIT OR TAXING POWERS OF ANY OF THEM, BUT SHALL BE PAYABLE SOLELY FROM THE REVENUES DESCRIBED HEREIN. NO OWNER OF THE BONDS SHALL HAVE THE RIGHT TO COMPEL THE EXERCISE OF THE TAXING POWER OF THE STATE OF CALIFORNIA OR ANY POLITICAL SUBDIVISION THEREOF TO PAY ANY PRINCIPAL OF, PURCHASE PRICE, PREMIUM, IF ANY, OR INTEREST ON THE BONDS. NEITHER THE AUTHORITY NOR ABAG HAS ANY TAXING POWER.**

#### **INVESTMENT CONSIDERATIONS**

Purchase of the Bonds involves a degree of risk. In order to identify risk factors and make an informed investment decision, potential investors should be thoroughly familiar with this entire Official Statement, including the Appendices hereto, in order to make a judgment as to whether the Bonds are an appropriate investment. Certain risks associated with the purchase of the Bonds are described below and in Appendix A under the heading "Bondholders' Risks and Matters Affecting the Biomedical Research Industry." Such lists of possible factors, while not setting forth all the factors which must be considered, contain some of the factors which should be considered prior to purchasing the Bonds. The discussion of risk factors is not, and is not intended to be, comprehensive or exhaustive. Prospective purchasers of the Bonds should give careful consideration to the matters referred to in the summary below and in Appendix A. Such summaries should not be considered exhaustive, but rather informational only.

#### **Source of Payment for the Bonds**

The Bonds are payable from and secured by the Authority's pledge of Revenues, which consist primarily of payments to be made by the Borrower under the Loan Agreement. There can be no assurance that income and receipts will be realized by the Borrower in amounts sufficient to make payments under the Loan Agreement and thus sufficient to pay the principal or premium, if any, or interest on the Bonds.

Future economic and other conditions, including, without limitation, the destruction or loss of a substantial portion of the Borrower's facilities, a reduction in the flow of grant money from the National Institutes of Health (the "NIH") and other public and private sources, litigation, loss of endowment income, a loss of the Borrower's tax-exempt status, changes in state or federal laws regulating biomedical research, the Borrower's ability to attract and retain research scientists and scientific staff, and reductions in the amounts received by the Borrower through fundraising efforts, or an inability to increase contributions through fundraising efforts coupled with any of the foregoing, may adversely affect income and receipts of the Borrower. There can be no assurance that Borrower's income and receipts will not decrease. See Appendix A - "INFORMATION CONCERNING THE BORROWER."

#### **Borrower Indebtedness**

The Borrower is permitted to incur additional debt under the Loan Agreement. See Appendix C - "SUMMARY OF CERTAIN PROVISIONS OF THE PRINCIPAL LEGAL DOCUMENTS - LOAN AGREEMENT." Any indebtedness which may be incurred by the Borrower could have a material effect on the Borrower's operations, which may, among other things, limit the Borrower's ability to borrow additional amounts

for working capital, capital expenditures, acquisitions, debt service requirements and other purposes; require the Borrower to dedicate a significant portion of its cash flow to pay principal and interest on the Bonds and its other indebtedness, which will reduce the funds available for working capital, capital expenditures and other general administrative and educational purposes; and limit the Borrower's ability to plan for and react to changes in its business and industry thereby making the Borrower more vulnerable to adverse changes in general economic, industry and competitive conditions. Any of these factors could have a material adverse effect on the financial condition of the Borrower and its ability to pay Loan Payments with respect to the Bonds.

### **Insurance Coverage**

The insurance requirements imposed by the Loan Agreement are limited, and insurance proceeds may not be available to cover all claims or risks relating to the Project or the Borrower. Litigation could arise from the business activities of the Borrower, including from its status as an employer. Many of these risks are covered by insurance, but some may not be covered completely or at all. See Appendix A - "INFORMATION CONCERNING THE BORROWER."

Future increases in insurance premiums and future limitations on the availability of certain types of insurance coverage could have an adverse impact on the Borrower's financial condition and operations and, ultimately, could adversely impact the ability of the Borrower to make Loan Payments.

### **Investment of Funds Risk**

The Borrower invests its money pursuant to investment policies adopted from time to time by its Board of Trustees. See Appendix A - "INFORMATION CONCERNING THE BORROWER" and the audited financial statements of the Borrower attached as Appendix B for information regarding the investments of the Borrower. All investments made by the Borrower contain a degree of risk. Such risks include, but are not limited to, a lower rate of return than expected, loss of market value and loss or delayed receipt of principal. The occurrence of these events with respect to amounts invested by the Borrower could have a material adverse effect on the availability of funds for the payment of Loan Payments by the Borrower.

### **Tax-Exempt Status**

The Internal Revenue Code of 1986, as amended (the "Code") imposes a number of requirements that must be satisfied for interest on obligations such as the Bonds to be excludable from gross income for federal income tax purposes. These requirements, among other things, include limitations on the use of Bond proceeds, limitations on the investment earnings of Bond proceeds prior to expenditure, a requirement that certain investment earnings on Bond proceeds be paid periodically to the United States and a requirement that the Authority file an information report with the Internal Revenue Service ("IRS"). The Authority and the Borrower have covenanted in certain of the documents referred to herein that they will comply with such requirements.

Failure by the Borrower to comply with the requirements stated in the Code and related regulations, rulings and authorities may result in the treatment of interest on the Bonds as taxable, retroactively to the date of issuance of the Bonds. Moreover, the occurrence of one or more of the other events described in this section also could adversely affect the exclusion from gross income for federal or State income tax purposes of the interest on the Bonds.

**Bond Audit.** The IRS has an ongoing program of examining tax-exempt obligations to determine whether, in the view of the IRS, interest on such obligations is properly excluded from gross income for federal income tax purposes, and it is possible that the Bonds may be selected for examination under such program. If an examination is commenced, under current procedures, the IRS will treat the Authority as the relevant taxpayer under the Code, and the holders of the Bonds may have no right to participate.

The Borrower has not sought to obtain a private letter ruling from the IRS with respect to the Bonds, and the opinion of Bond Counsel as to the tax-exempt status of the Bonds (see "TAX MATTERS" herein) is not binding

on the IRS. An IRS examination of the Bonds could adversely affect the market value and liquidity of the Bonds or result in the loss of the tax-exempt status of the Bonds.

***Tax-Exempt Status of the Borrower.*** The tax-exempt status of the Bonds depends upon the maintenance by the Borrower of its status as an organization described in Section 501(c)(3) of the Code. The maintenance of such status is contingent on compliance with general rules promulgated in the Code and related regulations regarding the organization and operation of tax-exempt entities, including its operation for charitable purposes and its avoidance of transactions which may cause its assets to inure to the benefit of private individuals.

In recent years, the IRS has increased the frequency and scope of its audit and other enforcement activity regarding tax-exempt organizations and such organizations are increasingly subject to a greater degree of scrutiny by the IRS. The primary penalty available to the IRS under the Code with respect to a tax-exempt entity engaged in unlawful, private benefit is the revocation of tax-exempt status. Although the IRS has not frequently revoked the 501(c)(3) tax-exempt status of nonprofit organizations, it could do so in the future. Loss of tax-exempt status by the Borrower could result, among other consequences, in the Borrower being in default of certain of its covenants regarding the Bonds. Loss of tax-exempt status of the Borrower also would have material adverse consequences on the financial condition of the Borrower and would cause interest on the Bonds to become retroactively taxable.

Less onerous sanctions also have been imposed by the IRS, which sanctions focus enforcement on private persons who transact business with a tax-exempt organization rather than the tax-exempt organization itself, but these sanctions do not replace the other, more severe remedies available to the IRS as mentioned above.

***Unrelated Business Taxable Income.*** In recent years, the IRS and state, county and local taxing authorities have been undertaking audits and reviews of the operations of tax-exempt organizations with respect to their exempt activities and the generation of unrelated business taxable income (“UBTI”). The Borrower has not historically generated any significant amounts of UBTI. The Borrower may participate in activities which generate UBTI in the future. Management of the Borrower believes it has properly accounted for and reported UBTI; nevertheless, an investigation or audit could lead to a challenge which could result in taxes, interest and penalties with respect to unreported UBTI and in some cases could ultimately affect the tax-exempt status of the Borrower as well as the exclusion from gross income for federal income tax purposes of the interest on the Bonds.

***State Income Tax Exemption.*** The loss by the Borrower of its State income tax exemption could be adverse and material to the Borrower and to the value of the Bonds.

***Exemption from Property Taxes.*** In recent years, state, county and local taxing authorities have been undertaking audits and reviews of the operations of tax-exempt organizations with respect to their real property tax exemptions. The management of the Borrower believes that the Project is and will be exempt from State real property taxes; however, there can be no assurance that this will continue to be the case, and any loss of exemption could have a material adverse effect on the financial condition of the Borrower.

## **Bankruptcy and Limitations on Enforcement of Remedies**

The remedies available to the Trustee or the Holders upon an Event of Default under the Indenture or under the Loan Agreement are in many respects dependent upon judicial actions that are often subject to discretion and delay, and such remedies may not be readily available or may be limited. In particular, under the United States Bankruptcy Code, a bankruptcy case may be filed with respect to the Borrower. In general, the filing of any such petition operates as a stay against enforcement of the terms of the agreements to which the bankrupt entity is a party, and, in the bankruptcy process, executory contracts may be subject to assumption or rejection by the bankrupt party. In the event of any such rejection, the non-rejecting party or its assigns may become an unsecured claimant of the rejecting party. The various legal opinions to be delivered concurrently with the Bonds (including Bond Counsel’s approving opinion) will be qualified, as to the enforceability of the various legal instruments, by limitations imposed by bankruptcy, reorganization, insolvency or other similar laws affecting the rights of creditors generally and by general principles of equity applied in the exercise of judicial discretion.

## **THE AUTHORITY**

The Authority is a joint powers agency duly organized and existing under the laws of the State of California. The Authority was formed pursuant to the terms of a Joint Powers Agreement, dated as of April 1, 1990, as amended as of September 18, 1990 and June 9, 1992 (the "Joint Powers Agreement"), and the Joint Exercise of Powers Act (constituting Chapter 5, commencing with Section 6500, of Division 7 of Title 1 of the California Government Code) (the "Act"), in order to assist nonprofit corporations and other entities to obtain financing for projects located within the several jurisdictions of Authority members with purposes serving the public interest.

THE BONDS ARE SPECIAL OBLIGATIONS OF THE AUTHORITY, PAYABLE SOLELY FROM AND SECURED BY THE PLEDGE OF REVENUES PURSUANT TO THE INDENTURE. NONE OF THE AUTHORITY, ABAG OR THE MEMBERS OF THE AUTHORITY OR ABAG SHALL BE DIRECTLY OR INDIRECTLY OR CONTINGENTLY OR MORALLY OBLIGATED TO USE ANY OTHER MONEYS OR ASSETS OF THE AUTHORITY, ABAG OR ANY OF ITS MEMBERS TO PAY ALL OR ANY PORTION OF DEBT SERVICE DUE ON THE BONDS. THE BONDS AND THE OBLIGATION TO PAY PRINCIPAL OF AND INTEREST THEREON AND ANY REDEMPTION PREMIUM WITH RESPECT THERETO DO NOT CONSTITUTE AN INDEBTEDNESS OR AN OBLIGATION OF THE AUTHORITY OR ABAG, THE STATE OF CALIFORNIA OR ANY POLITICAL SUBDIVISION THEREOF, WITHIN THE MEANING OF ANY CONSTITUTIONAL OR STATUTORY DEBT LIMITATION, OR A CHARGE AGAINST THE GENERAL CREDIT OR TAXING POWERS OF ANY OF THEM, BUT SHALL BE PAYABLE SOLELY FROM THE REVENUES DESCRIBED HEREIN. NO OWNER OF THE BONDS SHALL HAVE THE RIGHT TO COMPEL THE EXERCISE OF THE TAXING POWER OF THE STATE OF CALIFORNIA OR ANY POLITICAL SUBDIVISION THEREOF TO PAY ANY PRINCIPAL OF, PURCHASE PRICE, PREMIUM, IF ANY, OR INTEREST ON THE BONDS. NEITHER THE AUTHORITY NOR ABAG HAS ANY TAXING POWER.

## **LEGALITY FOR INVESTMENT IN CALIFORNIA**

Obligations issued by the Authority under the Act are, under California law, securities in which all banks, savings banks, trust companies, savings and loan associations, investment companies and other persons carrying on a banking business, all insurance companies, insurance associations and other persons carrying on an insurance business, and all administrators, executors, guardians, trustees and other fiduciaries and all other persons whatsoever, who now are or may hereafter be authorized to invest in bonds or other obligations of the State, may properly and legally invest any funds, including capital belonging to them or within their control; and such obligations are securities which may properly and legally be deposited with and received by any state or municipal officer or agency of the State for any purpose for which the deposit of bonds or notes or other obligations of the State is now or may hereafter be authorized by law.

## **TAX MATTERS**

### **Federal Income Taxes**

The Internal Revenue Code of 1986, as amended (the "Code"), imposes certain requirements that must be met subsequent to the issuance and delivery of the Bonds for interest thereon to be and remain excluded from gross income for Federal income tax purposes. Noncompliance with such requirements could cause the interest on the Bonds to be included in gross income for Federal income tax purposes retroactive to the date of issue of the Bonds. Pursuant to the Indenture, the Loan Agreement and the Tax Certificate, the Authority and the Borrower have covenanted to comply with the applicable requirements of the Code in order to maintain the exclusion of the interest on the Bonds from gross income for Federal income tax purposes pursuant to Section 103 of the Code. In addition, the Authority and the Borrower have made certain representations and certifications in the Indenture, the Loan Agreement and the Tax Certificate. Bond Counsel will also rely on the opinion of Ropes & Gray LLP as to all matters concerning the status of the Borrower as an organization described in Section 501(c)(3) of the Code and exempt from federal income tax under Section 501(a) of the Code. Bond Counsel will not independently verify the accuracy of those representations and certifications or that opinion.

In the opinion of Nixon Peabody LLP, Bond Counsel, under existing law and assuming compliance with the aforementioned covenant, and the accuracy of certain representations and certifications made by the Authority and the Borrower described above, interest on the Bonds is excluded from gross income for Federal income tax

purposes under Section 103 of the Code. Bond Counsel is also of the opinion that such interest is not treated as a preference item in calculating the alternative minimum tax imposed under the Code with respect to individuals and corporations. Interest on the Bonds is, however, included in the adjusted current earnings of certain corporations for purposes of computing the alternative minimum tax imposed on such corporations.

### **State Taxes**

Bond Counsel is also of the opinion that, under existing law, interest on the Bonds is exempt from personal income taxation imposed by the State of California. Bond counsel expresses no opinion as to other state or local tax consequences arising with respect to the Bonds nor as to the taxability of the Bonds or the income therefrom under the laws of any state other than California.

### **Original Issue Discount**

Bond Counsel is further of the opinion that the difference between the principal amount of the Bonds maturing on July 1, 2025, July 1, 2028 and July 1, 2030 through July 1, 2032, inclusive (collectively the “Discount Bonds”) and the initial offering price to the public (excluding bond houses, brokers or similar persons or organizations acting in the capacity of underwriters or wholesalers) at which price a substantial amount of such Discount Bonds of the same maturity was sold constitutes original issue discount which is excluded from gross income for federal income tax purposes to the same extent as interest on the Bonds. Further, such original issue discount accrues actuarially on a constant interest rate basis over the term of each Discount Bond and the basis of each Discount Bond acquired at such initial offering price by an initial purchaser thereof will be increased by the amount of such accrued original issue discount. The accrual of original issue discount may be taken into account as an increase in the amount of tax-exempt income for purposes of determining various other tax consequences of owning the Discount Bonds, even though there will not be a corresponding cash payment. Owners of the Discount Bonds are advised that they should consult with their own advisors with respect to the state and local tax consequences of owning such Discount Bonds.

### **Original Issue Premium**

The Bonds other than the Discount Bonds (collectively, the “Premium Bonds”) are being offered at prices in excess of their principal amounts. An initial purchaser with an initial adjusted basis in a Premium Bond in excess of its principal amount will have amortizable bond premium which is not deductible from gross income for federal income tax purposes. The amount of amortizable bond premium for a taxable year is determined actuarially on a constant interest rate basis over the term of each Premium Bond based on the purchaser’s yield to maturity (or, in the case of Premium Bonds callable prior to their maturity, over the period to the call date, based on the purchaser’s yield to the call date and giving effect to any call premium). For purposes of determining gain or loss on the sale or other disposition of a Premium Bond, an initial purchaser who acquires such obligation with an amortizable bond premium is required to decrease such purchaser’s adjusted basis in such Premium Bond annually by the amount of amortizable bond premium for the taxable year. The amortization of bond premium may be taken into account as a reduction in the amount of tax-exempt income for purposes of determining various other tax consequences of owning such Bonds. Owners of the Premium Bonds are advised that they should consult with their own advisors with respect to the state and local tax consequences of owning such Premium Bonds.

### **Ancillary Tax Matters**

Ownership of the Bonds may result in other federal tax consequences to certain taxpayers, including, without limitation, certain S corporations, foreign corporations with branches in the United States, property and casualty insurance companies, individuals receiving Social Security or Railroad Retirement benefits, and individuals seeking to claim the earned income credit. Ownership of the Bonds may also result in other federal tax consequences to taxpayers who may be deemed to have incurred or continued indebtedness to purchase or to carry the Bonds. Prospective investors are advised to consult their own tax advisors regarding these rules.

Interest paid on tax-exempt obligations such as the Bonds is subject to information reporting to the Internal Revenue Service (the “IRS”) in a manner similar to interest paid on taxable obligations. In addition, interest on the

Bonds may be subject to backup withholding if such interest is paid to a registered owner that (a) fails to provide certain identifying information (such as the registered owner's taxpayer identification number) in the manner required by the IRS, or (b) has been identified by the IRS as being subject to backup withholding.

Bond Counsel is not rendering any opinion as to any Federal tax matters other than those described in the opinion attached as Appendix E. Prospective investors, particularly those who may be subject to special rules described above, are advised to consult their own tax advisors regarding the federal tax consequences of owning and disposing of the Bonds, as well as any tax consequences arising under the laws of any state or other taxing jurisdiction.

### **Changes in Law and Post Issuance Events**

Legislative or administrative actions and court decisions, at either the federal or state level, could have an adverse impact on the potential benefits of the exclusion from gross income of the interest on the Bonds for Federal or state income tax purposes, and thus on the value or marketability of the Bonds. This could result from changes to Federal or state income tax rates, changes in the structure of Federal or state income taxes (including replacement with another type of tax), repeal of the exclusion of the interest on the Bonds from gross income for Federal or state income tax purposes, or otherwise. For example, the President recently released legislative proposals that would, among other things, subject interest on tax-exempt bonds (including the Bonds) to a federal income tax for taxpayers with incomes above certain thresholds for tax years beginning after 2012. It is not possible to predict whether any legislative or administrative actions or court decisions having an adverse impact on the Federal or state income tax treatment of holders of the Bonds may occur. Prospective purchasers of the Bonds should consult their own tax advisors regarding the impact of any change in law on the Bonds .

Bond Counsel has not undertaken to advise in the future whether any events after the date of issuance and delivery of the Bonds may affect the tax status of interest on the Bonds. Bond Counsel expresses no opinion as to any Federal, state or local tax law consequences with respect to the Bonds, or the interest thereon, if any action is taken with respect to the Bonds or the proceeds thereof upon the advice or approval of other counsel.

### **APPROVAL OF LEGAL PROCEEDINGS**

Legal matters incident to the issuance of the Bonds are subject to the approving opinion of Nixon Peabody LLP, Bond Counsel. A complete copy of the proposed form of opinion of Bond Counsel is included herein as Appendix E. Bond Counsel undertakes no responsibility for the accuracy, completeness or fairness of this Official Statement. Approval of other legal matters will be passed upon for the Authority by Jones Hall PLC, for the Borrower by its counsel, Ropes & Gray LLP, and for the Underwriter by its counsel, Greenberg Traurig, LLP.

### **ABSENCE OF MATERIAL LITIGATION**

#### **The Authority**

There is no litigation that has been served on the Authority or, to the best knowledge of the Authority, that is otherwise pending or threatened seeking to restrain or enjoin the issuance, sale, execution or delivery of the Bonds, or in any way contesting or affecting the validity of the Bonds, the Indenture, the Loan Agreement or any proceeding of the Authority taken with respect to the issuance or sale thereof, the pledge or application of any moneys or security provided for the payment of the Bonds, or existence or powers of the Authority, or the authority of the Authority to enter into any document relating to the Indenture or the Bonds.

#### **The Borrower**

There are no actions, suits or proceedings which have been served on the Borrower or, to the Borrower's knowledge, are otherwise pending or threatened against the Borrower (i) seeking to restrain or enjoin the issuance or delivery of any of the Bonds or the collection of Revenues pledged under the Indenture or the payment of Loan Payments; (ii) in any way contesting or adversely affecting the authority for the issuance of the Bonds or the validity of the Bonds, the Indenture, or the Loan Agreement; (iii) contesting the existence or powers of the Borrower; (iv)

which, if determined adversely to it, would materially adversely affect the consummation of the transactions contemplated by the Loan Agreement or the ability of the Borrower to perform its obligations thereunder; or (v) contesting the Borrower's status as an organization described in Section 501(c)(3) of the Code. See also Appendix A - "INFORMATION CONCERNING THE BORROWER."

## **UNDERWRITING**

The Bonds are being purchased by Merrill Lynch, Pierce, Fenner & Smith Incorporated (the "Underwriter"). Pursuant to a bond purchase agreement, the Underwriter will agree, subject to certain conditions, to purchase the Bonds from the Authority at an aggregate price of \$66,156,671.79 (being the principal amount of the Bonds, plus net original issue premium of \$6,065,769.25, less an underwriter's discount of \$199,097.46). The Underwriter is obligated under the bond purchase agreement to purchase all of the Bonds if any are purchased, subject to certain terms and conditions set forth in the bond purchase agreement, including the approval of certain legal matters by counsel and certain other conditions. The bond purchase agreement provides that the Borrower will indemnify the Underwriter and the Authority and certain other parties against losses, claims, damages and liabilities arising out of any incorrect statements of information, including the omission of material facts, contained in this Official Statement pertaining to the Borrower and other specified matters.

The Underwriter intends to offer the Bonds to the public at the offering price stated on the inside cover page hereof. After the initial public offering, the public offering price may be varied from time to time by the Underwriter. The Underwriter reserves the right to join with dealers and other underwriters in offering the Bonds to the public. The Underwriter may offer and sell Bonds to certain dealers (including dealers depositing Bonds into investment trusts) at prices lower than the public offering prices. In connection with this offering, the Underwriter may over allot or effect transactions which stabilize or maintain the market price of the Bonds at a level above that which might otherwise prevail in the open market. Such stabilizing, if commenced, may be discontinued at any time.

The Underwriter and its affiliates are financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, principal investment, hedging, financing and brokerage activities. The Underwriter and its affiliates have, from time to time, performed, and may in the future perform, various investment banking services for the Authority and/or the Borrower, for which it received or will receive customary fees and expenses.

In the ordinary course of their various business activities, the Underwriter and its affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (which may include bank loans and/or credit default swaps) for their own account and for the accounts of their customers and may at any time hold long and short positions in such securities and instruments. Such investment and securities activities may involve securities and instruments of the Authority and/or the Borrower.

## **CONTINUING DISCLOSURE**

The Authority has determined that no financial or operating data concerning the Authority is material to an evaluation of the offering of the Bonds or to any decision to purchase, hold or sell Bonds, and the Authority will not provide any such information. The Borrower has undertaken all responsibilities for any continuing disclosure to the Bondholders as described below, and the Authority shall have no liability to the Bondholders or any other person with respect to Rule 15c2-12 promulgated by the Securities and Exchange Commission (the "Rule").

The Borrower has covenanted for the benefit of the Bondholders and beneficial owners of the Bonds to provide to the Trustee for dissemination as described below certain financial information and operating data relating to the Borrower by not later than six months following the end of the Borrower's fiscal year (which fiscal year currently begins on January 1 of each year and ends on December 31 (each such twelve-month period a "Fiscal Year")) (the "Annual Report"), commencing with the report for the 2012 Fiscal Year, and to provide notices of the occurrence of certain enumerated events. The Annual Report and event notices will be filed by the Borrower or the Dissemination Agent on behalf of the Borrower with the Municipal Securities Rulemaking Board (the "MSRB") through its Electronic Municipal Market Access system ("EMMA"). The specific nature of the information to be

contained in the Annual Report and the event notices is set forth in the Form of Continuing Disclosure Agreement (the “Continuing Disclosure Agreement”) set forth in Appendix D. The Borrower’s covenants contained in the Continuing Disclosure Agreement have been made in order to assist the Underwriter in complying with the Rule. The Borrower also made a continuing disclosure undertaking in connection with the 2007 Bonds. Certain of the Borrower’s financial statements required to be filed pursuant to the Borrower’s existing undertaking were filed with EMMA after the applicable deadline, and certain audited financial statements and annual reports were not filed as required by the existing undertaking. However, as of the date of this Official Statement, the Borrower now has filed all information required to be filed pursuant to such undertaking. The Borrower expects to make the filings required pursuant to the Continuing Disclosure Agreement directly with EMMA, and not through a dissemination agent, and will designate a senior staff person of the Borrower to be responsible for ensuring compliance with such filing requirements.

## **RATINGS**

Moody’s Investors Service, Inc. (“Moody’s”) has assigned the Bonds a rating of “A1.” Any explanation of the significance of such rating may only be obtained from Moody’s. There is no assurance that the foregoing rating will remain in effect for any given period of time or that the rating might not be lowered or withdrawn entirely, if in the judgment of the rating agency originally establishing the rating, circumstances so warrant. Except as otherwise provided in the Continuing Disclosure Agreement, the Authority, the Borrower, and the Underwriter have not undertaken any responsibility to bring to the attention of the Bondholders any proposed change in or withdrawal of such rating or to oppose any such proposed revision or withdrawal. Any such downward change in or withdrawal of a rating might have an adverse effect on the market price or marketability of the Bonds.

## **FINANCIAL STATEMENTS**

The statements of financial position of the Borrower as of May 31, 2011 and May 31, 2010, and the related statements of activities and cash flows for the years then ended, included in this Official Statement in Appendix B, have been audited by KPMG LLP, independent accountants (“KPMG”), as stated in KPMG’s report, dated October 24, 2011, also included in Appendix B.

The statement of financial position as of December 31, 2011 and the related statements of activities and cash flows for the seven-month period then ended, also included in this Official Statement in Appendix B, have been audited by KPMG, as stated in KPMG’s report, dated May 23, 2012, also included in this Official Statement in Appendix B.

The Borrower’s statement of financial position as of June 30, 2012, and the related statement of activities for the six-month period then ended, are included in this Official Statement in Appendix B-1. These financial statements have not been audited.

## **FINANCIAL ADVISOR**

Public Financial Management, Inc. (the “Financial Advisor”) has been retained by the Borrower to serve as its financial advisor in connection with the issuance of the Bonds. The Financial Advisor is not obligated to make, and has not undertaken, an independent verification of any of the information contained in this Official Statement and makes no guarantee as to the accuracy, completeness or fairness of such information. The Financial Advisor is an independent financial advisory and consulting firm and is not engaged in the underwriting or trading of municipal securities or other negotiable instruments.

## **VERIFICATION OF MATHEMATICAL COMPUTATIONS**

Grant Thornton LLP, a firm of independent public accountants, will deliver to the Borrower, on or before the settlement date of the Bonds, its verification report indicating that it has verified, in accordance with attestation standards established by the American Institute of Certified Public Accountants, the mathematical accuracy of (a) the mathematical computations of the adequacy of the cash and the maturing principal of and interest on the United States Government Obligations, to pay, when due, the maturing principal of, interest on and related call premium

requirements of the Refunded Bonds, and (b) the mathematical computations of yield used by Bond Counsel to support its opinion that interest on the Bonds will be excluded from gross income for federal income tax purposes.

The verification performed by Grant Thornton LLP will be solely based upon data, information and documents provided to Grant Thornton LLP by the Borrower and its representatives. Grant Thornton LLP has restricted its procedures to recalculating the computations provided by the corporation and its representatives and has not evaluated or examined the assumptions or information used in the computations.

#### **MISCELLANEOUS**

All quotations from and summaries and explanations of the Act, the Indenture, the Loan Agreement and of other statutes and documents contained herein do not purport to be complete, and reference is made to said documents and statutes for full and complete statements of their provisions. Copies of the Indenture and the Loan Agreement may be obtained upon request directed to the Underwriter or the Borrower and upon payment of the expenses incurred in connection therewith.

This Official Statement is submitted in connection with the sale of the Bonds and may not be reproduced or used, as a whole or in part, for any other purpose. Any statements in this Official Statement involving matters of opinion, whether or not expressly so stated, are intended as such and not as representations of fact. This Official Statement is not to be construed as a contract or agreement between the Authority or the Borrower and purchasers or owners of any of the Bonds.

Appendices A and B hereto contain certain information with respect to the Borrower. The information contained in such Appendices has been furnished by the Borrower and officers and officials of the Borrower, and the Authority makes no representation or warranties whatsoever with respect to the information contained in said Appendices.

The Authority is a conduit issuer and has not prepared or participated in the preparation of this Official Statement and is not responsible for the statements made herein except for the information under the captions "THE AUTHORITY" and "ABSENCE OF MATERIAL LITIGATION - The Authority" and the Authority will not participate in or be responsible for the offering, sale, or distribution of the Bonds.

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The execution of this Official Statement by the Chief Financial Officer of the Authority has been duly authorized by the Authority.

**ABAG FINANCE AUTHORITY FOR NONPROFIT  
CORPORATIONS**

By:     /s/ Herbert Pike      
Chief Financial Officer

The execution, delivery and distribution of this Official Statement by the Borrower have been duly authorized by the Borrower.

**THE JACKSON LABORATORY**

By:     /s/ Linda A. Jensen      
Chief Financial Officer

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**APPENDIX A**  
**INFORMATION CONCERNING THE BORROWER**

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## INTRODUCTION

The Jackson Laboratory (the “Laboratory”) is an independent, nonprofit research institute that strives to discover genomic solutions for better medicine and to empower the global biomedical community in its quest to improve human health. The Laboratory was founded in 1929 and its main 151-acre campus is in Bar Harbor, Maine. The Laboratory’s mission statement is as follows: “*We discover the genetic basis for preventing, treating and curing human disease, and we enable research and education for the global biomedical community.*”

The Laboratory also has a campus in Sacramento, California at which a portion of the proceeds of the Bonds will be spent to finance the build-out of a part of the existing building to expand mouse breeding space. (See “**THE PROJECT**,” below.) The Laboratory has commenced the establishment of a third campus in Farmington, Connecticut to focus more directly on the clinical application of genomic science. (See “**THE FACILITIES**,” below.)

For more than 80 years, the Laboratory has been a global leader in the development and use of the mouse as a model system to study the genomic basis for human development and disease. It conducts genetics research on a wide variety of illnesses, including cancer, type 1 and type 2 diabetes, neurodegenerative diseases such as Alzheimer’s and Parkinson’s, glaucoma, aging and leukemia. The Laboratory has a \$212 million operating budget for fiscal year 2012, which ends on December 31, 2012.

Since 1983, the Laboratory has been designated a National Cancer Center by the National Cancer Institute (“NCI”). Scientists at the Laboratory have made groundbreaking discoveries in disease pathways that have contributed to crucial medical advances. These discoveries include the identification of the link between cancer and viruses; discovery of the genetic component of immunity; use of bone marrow transplants to cure blood disorders; and development of important mouse models for, among other diseases, diabetes, obesity and glaucoma.

To support its mission, the Laboratory maintains a repository of approximately 6,000 different mouse strains that develop various genetically predisposed conditions. The Laboratory has sold its JAX<sup>®</sup> Mice to 20,000 researchers or laboratories in more than 900 institutions, located in more than 50 nations, and believes it is the third-largest global provider of research mice. The Laboratory distributed three million JAX<sup>®</sup> Mice in fiscal year 2011. Since 1993, the National Institutes of Health (“NIH”) has helped fund the repository and associated databases of genetic information, which include data about each strain’s genetic makeup, breeding characteristics, physical traits and development characteristics, as well as references to published research involving each strain. Scientists worldwide obtain mouse models from the repository and use the repository to hold and disseminate mouse models developed in their own research to others around the world. (See “**SCIENTIFIC PROGRAMS AND RESEARCH ACTIVITIES**,” below.)

The Laboratory employs nearly 1,400 research and other personnel in Bar Harbor, Maine, Farmington, Connecticut and Sacramento, California. Approximately 208 employees or 15% of employees hold Ph.D., M.D., or D.V.M. degrees. The Laboratory has 39 faculty members (each, a Principal Investigator) who lead independent research programs, apply for external funding, and educate and train students and postdoctoral fellows within their research laboratories. The Laboratory also

## APPENDIX A

provides centralized scientific services, including reproductive sciences and genotyping. These services, which are staffed by approximately 150 scientists and technicians, support the principal investigators' research needs, promote repository genetic quality, and contribute to the Laboratory's development of the mouse as a model system for biomedical research. Services are performed in the following areas: genotyping; high-throughput sequencing and gene expression technologies; histology; pathology; phenotyping; microscopy and *in vivo* imaging; cell biology and reproductive technologies; computational biology services; and surgical services to support both the principal investigators' laboratories and the mouse repository. The Laboratory plans to expand its research faculty and staff over the next several years in Bar Harbor, Sacramento and Farmington.

The research staff, at August 31, 2012, held 117 federal research grants totaling \$60 million and eight training and conference grants totaling \$0.6 million. Laboratory scientists publish their research in national and international peer-reviewed scientific journals, and their work is frequently cited by other researchers. In calendar year 2011, research personnel published 149 articles in peer-reviewed journals, and they have published more than 100 peer-reviewed articles to date in 2012. These scientific publications include numerous articles in high-impact journals, such as *Nature*, *Nature Genetics*, and *Science*. JAX<sup>®</sup> Mice have been referenced in more than 30,000 peer-reviewed publications. The Laboratory and its researchers have been recognized by a Nobel Prize, Lasker Award and other prestigious awards. In addition, its mice have been used by 26 Nobel laureates in their research.

### LABORATORY HISTORY

The Jackson Laboratory was founded in 1929 by Dr. Clarence Cook Little on the premise that the causes of cancer and other diseases could be discovered through mammalian genetic research. Dr. Little, who at various times served as the president of the University of Maine, the president of the University of Michigan and the managing director of the American Society for the Control of Cancer (now the American Cancer Society), believed that the key to mammalian genetics was the mouse – a creature strikingly similar to humans in its genetics and physiological makeup and ideally suited to developing experimental models of human illnesses. Roscoe B. Jackson, president of Hudson Motorcar Company, and Edsel Ford, son of Ford Motor Company founder, Henry Ford, provided the initial funds for establishing the Laboratory. The Laboratory's facility was constructed on donated land in Bar Harbor, Maine, immediately adjacent to the Acadia National Park.

After a forest fire in 1947 burned much of Bar Harbor and Mount Desert Island, destroying the Laboratory's buildings, equipment and library, and 60,000 mice, donations of equipment, work space, replacement mice, books and journals came from across the country. The Laboratory rebuilt and over the next several decades expanded significantly. To better serve the West Coast research community, the Laboratory established a presence in California with the build-out of a leased facility in West Sacramento in 2001. The Laboratory sought to accommodate continued growth by purchasing a building in Sacramento in 2007 and renovating it for mouse breeding and laboratory services. The Laboratory is seeking to expand this facility with the proceeds of the Bonds.

Recognizing the need to accelerate the clinical application of its research discoveries, the Laboratory sought a relationship with a medical school and major medical centers hosting clinical trials, and a location with proximity to a medical center. In January 2012, the Laboratory entered into an agreement with an agency of the state of Connecticut to establish The Jackson Laboratory for Genomic Medicine on the University of Connecticut Health Center campus in Farmington ("Jax Genomic Medicine"). In addition to collaborations with medical centers and health care systems, JAX Genomic Medicine will work closely with Laboratory scientists in Bar Harbor and Sacramento to enhance the translation of genomic information from mouse models and human clinical trials to medical therapies. To

further this expansion of the Laboratory's scientific base, the Board of Trustees recruited a medical doctor, Dr. Edison Liu, to head the Laboratory in 2012.

## SCIENTIFIC PROGRAMS AND RESEARCH ACTIVITIES

The Laboratory is a worldwide leader in mammalian genetics research and education and a major provider of genetic resources to the scientific community worldwide.

Laboratory scientists have pioneered the use of functional genomics, computational biology, novel tools and mice models to tackle critical questions in human health. Researchers are investigating the genetic components of biological processes and human diseases, including cancer, diabetes, anemia, heart disease and muscular dystrophy, among others. Research is conducted within the laboratories of principal investigators, in interdisciplinary centers and through collaborations with other institutions. The Laboratory also sponsors a wide range of education programs to share its knowledge gained through research and mouse breeding.

Research at the Laboratory is interdisciplinary and is conducted across several major areas:

- Cancer
- Genomics
- Bioinformatics and Computational Biology
- Developmental and Reproductive Biology
- Immunology/Inflammation/Hematology
- Metabolism
- Neurobiology
- Aging

*Cancer.* The Laboratory has been an NCI-designated Cancer Center since 1983. The Cancer Center emphasizes innovative approaches in cancer genomics, systems biology and pharmacology, and translational genomic medicine to ultimately enable advances in cancer treatment and prevention and improvement in the quality of life for cancer patients. The Center's program - Stem Cells to Therapy - encompasses research on understanding the role of cell-cycle and genome dynamics in the origins of cancer; analyzing the molecular pathways that influence cancer susceptibility and tumor progression; developing and testing improved methods for cancer detection and therapy; and modeling human genomic complexity as a means to identify genetic loci underlying cancer susceptibility. Research on these interconnected themes is based on the mouse, uses both forward and reverse genetics, and increasingly involves comparative, *in silico* (performed on computer or computer simulation) approaches. Current studies include investigations of cancer progression in "humanized" xenografted mouse models, the role of the stress response in cancers and longevity/aging, molecular mechanisms of DNA repair and models of chromosomal instability in leukemia, the role of chromosome three-dimensional structure in gene expression in cancer, and the role of cancer stem cells in human brain tumor development, with the goal of discovering novel, targeted therapeutic agents that can significantly improve clinical outcomes for patients with aggressive cancers. New faculty members at JAX Genomic Medicine are launching programs in human cancer genomics and cancer stem cell biology. One new resource is a bank of over 95 primary human tumor specimens propagated in mouse hosts that will be used in collaboration with Laboratory scientists and clinical centers for the development of genome-guided cancer therapeutics.

*Genomics.* Laboratory researchers are developing and using sophisticated new techniques to unravel the complexities of the human and mouse genome and applying this knowledge to normal human biology and disease, including cancer, addiction and behavior disorders, and eye disease. Tools include new technologies to probe the structure and function of the genome and transcriptome, novel statistical

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methods, mouse populations that mirror genetic variation in the human genome, bioinformatics tools to track and integrate data from multiple biological systems and levels, and computational methods to map complex genetic architecture and infer models that predict the outcomes of genetic and environmental variation.

For example, researchers recruited to JAX Genomic Medicine have recently developed a technique for detection of global chromatin interactions in the genome, which are important for understanding transcriptional regulation in mice and humans. In addition, scientists working together in the Center for Genome Dynamics (“CGD”) supported by the National Institute of General Medical Sciences are advancing systems genetics approaches to study the genetic and environmental factors shaping dynamic, genome-wide processes of epigenetic modification, recombination, gene expression and metabolism. The CGD is one of 13 National Centers for Systems Biology. Principal investigators include representatives from The Jackson Laboratory, University of Wisconsin-Madison and University of North Carolina. The advisory board includes representatives from Broad Institute, North Carolina State University and Washington University School of Medicine.

Researchers in the Laboratory’s Knockout Mouse Phenotyping (“KOMP”) Program, which is supported by the National Human Genome Research Institute are building a phenotype resource summarizing the function of thousands of genes in the mouse to create a resource for understanding human gene function. The incorporation of genomic technologies and information into medical decision-making and practice is a major focus of JAX Genomic Medicine.

*Bioinformatics and Computational Biology.* Laboratory scientists develop sophisticated tools for analysis, storage, organization and annotation of the ever-increasing amounts of available genetics data for internal use and for access by the research community. Computational researchers contribute to new methods that accelerate quantitative trait loci mapping and microarray analysis, models that allow researchers to determine what biological functions are performed by genes and proteins, and models that intuitively and precisely characterize the genetic architecture of disease. Computational biology is slated for growth at JAX Genomic Medicine. The first faculty hire in this area specializes in gene regulation, molecular evolution and the study of cellular process for lipid metabolism. Laboratory scientists also develop and maintain several key bioinformatics resources. The *Mouse Genomics Informatics Database System* (<http://www.informatics.jax.org>) comprises integrated databases that collectively provide access to data on the genetics, genomics and biology of the laboratory mouse. The *Mouse Phenome Database* (<http://phenome.jax.org/>) is a comprehensive collection of phenotypic data on 40 commonly used and genetically diverse inbred mouse strains, with genotype and phenotype information related to a variety of research areas, including aging, cancer susceptibility, neurological and behavioral disorders, hypertension, osteoporosis and obesity. The Laboratory provides access to these resources free of charge to the nonprofit scientific community and encourages researchers worldwide to contribute their new discoveries to these databases.

*JAX® Mice & Services (“JMS”) and Genetic Resource Science.* Laboratory researchers develop and provide mouse genetic resources and mouse related technologies, as well as maintain an extensive database of mouse strains and discoveries related to the genetics of each strain. Access to this database is free and available to the public. The group develops new disease models from spontaneous mutation-bearing mice that arise in the Laboratory’s colonies. Collectively, spontaneous mutant-developed models of genetic disease span a variety of phenotypic categories representative of many human diseases and syndromes. Phenotypes include neurological, neuromuscular and sensory (vision, hearing and balance) disorders, skeletal (craniofacial, spine and limb) dysmorphologies, growth defects, and renal/urinary disorders. Other mutations affect behaviors, coordinated movement, fertility and viability. In addition, researchers develop models of human disease through point mutations using gene-targeting vectors

designed to knock-in or knock-out specific genes. A particular area of focus is on rare and orphan diseases.

The Laboratory maintains a repository of mice, with approximately 6,000 different mouse strains, representing mouse models for much of the human disease spectrum. More than 600 new lines are added annually to the repository collection. Beginning in 2000, NIH funded a major new Laboratory research program to increase the number and availability of mouse models for human neurological diseases, including epilepsy, addiction and neurodegenerative disorders.

For the strains of mice most in demand, the Laboratory maintains colonies sufficient to allow researchers to order the mouse strain at the age they need at any time for delivery that week. JMS carefully plans its breeding to meet the seasonality of demand and follows patented breeding protocols to assure genetic consistency. The repository also includes smaller colonies for approximately 1,200 strains that are less in demand. These smaller colonies are frequently changed, as approximately 600 new strains enter the repository each year replacing a like-number of strains preserved through cryopreservation of embryos and sperm. The repository seeks new models used in published research and deemed scientifically important. Cryopreserved strains may be reanimated upon request.

As part of its mission, the Laboratory provides support for researchers, including an extensive mouse genome database described above, technical information support provided by Ph.D. scientists, and webinars on the use of mice in research - all available without charge. In addition, the Laboratory offers workshops on colony management and other mouse-related research at various locations around the world. Newsletters and other publications provide insights on mouse husbandry and breeding of various strains learned by the Laboratory from the care of its colonies. These activities all derive from JMS's expertise in mouse genetics and the use of the mouse in research. In addition, the Laboratory carefully monitors the health status and genetic makeup of its mice to assure the highest quality, and updates and enhances its knowledge of the mouse as a research model through the process of performing JMS breeding and services.

*Developmental and Reproductive Biology.* Researchers in Reproductive Biology examine egg and sperm production and associated problems to provide new ways to address reproductive disorders, such as infertility, and to develop better contraception methods. Developmental Biology faculty members investigate the basic processes from fertilized egg to functional being, which also hold key information about how human genes function. Research initiatives include investigations into mechanisms that coordinate the maturation of both the oocyte and cumulus cells, culminating in the ovulation of an egg ready for fertilization; genetic regulation of spermatogenesis and male fertility; development of novel mouse models of reproductive disorders and infertility through the ReproGenomics Program, supported by the National Institute for Communicable Diseases; identification of genes that regulate bone density, size and shape in skeletal development and defects; and development of mammalian neural networks at the cellular and molecular levels and research into how defects in these processes contribute to brain disorders such as autism and schizophrenia. Areas slated for growth include stem and progenitor cell biology and genomic programming, with new hires at JAX Genomic Medicine directing programs in stem cell functional genomics.

*Immunology/Inflammation/Hematology.* Laboratory scientists develop and use defined models to study the genetic basis for immune function in normal and disease biology, including aging, anemia, hematopoietic stem cell function and renewal, lupus and other autoimmune disorders. They are at the forefront of the new thinking about how the body's immune response and inflammation contribute to a variety of diseases, including cancer and diabetes. For example, researchers are studying DNA damage and repair systems in B- and T-lymphocytes as they relate both to development of normal immune response and to immune system pathologies, including the prevention and cure of lymphomas. Laboratory

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scientists have developed powerful experimental model systems for human autoimmunity and immunodeficiency, including “humanized” mouse models that support engraftment with human stem cells and with human peripheral blood lymphocytes. Humanized mice provide critical models for experimental investigation of human immune diseases without putting individuals at risk and have been used to study malignancy, anemia, infectious diseases and transplantation tolerance. Researchers have used humanized mice to explore the genetic control mechanisms of autoimmunity in insulin-dependent (type 1) diabetes. This work has direct clinical implications by identifying mechanisms and compounds that normally prevent autoimmunity and revealing strategies for interventions in humans at risk for type 1 diabetes.

*Metabolic Diseases.* Researchers at the Laboratory are investigating many different aspects of metabolic disease, including obesity, diabetes, atherosclerosis and hypertension. Their goal is to decipher the genetic basis for these diseases, which could ultimately lead to improved treatments and/or cures. Programs focus on molecular pathways underlying human metabolic disorders associated with obesity, heart disease and type 2 diabetes; genetic factors contributing to Alström syndrome, a rare inherited condition characterized by multiple disorders, including childhood obesity, retinal and inner ear degeneration, type 2 diabetes and elevation of fats in the bloodstream; identification of gene networks related to HDL cholesterol and the risk of heart disease; and the impact of high-fat diet on metabolic traits.

*Neurobiology.* Research at the Laboratory addresses a wide range of studies regarding neurological function and dysfunction, from developmental processes and sensory disorders to neuron degeneration. Researchers use novel mouse models to identify genetic and molecular mechanisms that underlie neuron death in the aging mammalian brain; epilepsy; neuromuscular degeneration and dysfunction leading to degenerative motor neuron diseases, such as amyotrophic lateral sclerosis (ALS); and vision and deafness disorders. Their work enhances progress toward prevention and development of effective therapies. For example, Laboratory scientists are currently experimenting with a newly discovered radiation treatment, which completely prevents glaucomatous neurodegeneration in the vast majority of treated animals, which may have clinical potential as a treatment for glaucoma.

## RESEARCH COLLABORATIONS

Laboratory faculty members maintain numerous external research collaborations and partnerships. From May 2011 to April 2012, Laboratory scientists published research with collaborators at 312 institutes, centers or schools in 27 other countries and in 36 states in the United States. The Laboratory’s independent research is further supported by collaborations with other research institutions to share scientific services, genetic and bioinformatics resources, and conduct joint training and education programs. The Laboratory is pursuing translational research opportunities with physician scientists at the two largest cancer care centers in Maine (Eastern Maine Medical Center in Bangor and the Maine Medical Center in Portland) and is establishing relationships with the University of Connecticut and Yale University. The Laboratory collaborates with the Cancer Center at the University of California at Davis for the development and growth of the PDX Tumor Bank Consortium. UC Davis was the founding member of the Consortium that has grown to include 20 other institutions around the country.

In addition, the Laboratory partners with 10 academic medical centers and research universities in the New York area – Columbia University, Cornell University, New York University, New York Presbyterian Hospital, Rockefeller University, Cold Spring Harbor Laboratory, Stony Brook University, Mount Sinai School of Medicine, North Shore-Long Island Jewish Health System and Memorial Sloan-Kettering Cancer Center – in the New York Genome Center (“NYGC”), a center for bioinformatics and genomics research. The NYGC is an independent, not-for-profit organization focusing on collaborative

research; its mission is to transform biomedical research and clinical care in New York and beyond by creating what will become one of the largest bioinformatics and genomics facilities in North America.

The Laboratory has also established a collaborative pre-doctoral program with the University of Maine and Tufts University.

**EDUCATION**

The Laboratory supports the education of Tufts University and University of Maine graduate students through mentoring by Laboratory faculty, research stipends and provision of laboratory space. In addition, the Laboratory offers postdoctoral fellowship programs and community outreach to students from kindergarten through grade 12 and science teachers. Each summer, more than 30 high school and college students participate in the Laboratory’s Summer Student Program. The program encourages students, including from populations traditionally less represented in the sciences, to pursue a career in science. The Laboratory offers an academic year teacher sabbatical, designed to give teachers a hands-on, in-depth learning and research experience to be integrated into their teaching. The program includes participation in Laboratory research with a mentor scientist and a three-credit course taught by University of Maine faculty on the Laboratory campus.

The Laboratory offers a wide array of courses, conferences and workshops designed to educate and train members of the scientific community in mammalian genetics. These programs offer state-of-the-art, hands-on training in the use of the Laboratory mouse and related resources in basic and translational research. In 2011, more than 700 scientists from around the world attended Laboratory courses. In addition, the Laboratory promotes education by sharing its cumulative knowledge with researchers around the world through its sponsored strain distribution program, technical information services and access to the mouse repository.

The Laboratory is a partner in the Institute for Molecular Biophysics (“IMB”), an interdisciplinary research center, with the University of Maine, Maine Medical Center Research Institute and affiliated institutes, including University of Heidelberg, Ecole Normale Superieure de Lyons and McGill University. The IMB provides an interdisciplinary forum to study fundamental biophysical phenomena. The IMB is located on the University of Maine campus in Orono, five miles north of Bangor, Maine.

**FACILITIES**

The laboratory has research and breeding facilities in three states: Maine, California and Connecticut. While each site has some overlap with work done elsewhere, the individual sites also have specific functions that are not performed at the other locations.

	<b>Bar Harbor, ME</b>	<b>Sacramento, CA</b>	<b>Farmington, CT</b>
<b>Activities</b>	Genetics Research	Mouse Breeding	Genomics Research
	Scientific Support Services	In Vivo Pharmacology Services	Bio-Informatics Center
	Mouse Breeding		Clinical Application of Genomics Research

**Bar Harbor, Maine:** The Maine facility is the Laboratory’s main campus and consists of 743,000 square feet of buildings located on 151 acres of land. It is located primarily at 600 Main Street,

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between the Gulf of Maine and Acadia National Park, approximately one mile from downtown Bar Harbor.



Laboratory and bioinformatics space is housed in buildings completed from 1947 to the most recent bioinformatics space completed in 2011. The campus includes *vivaria* (locations where animals are kept under natural conditions for research/study) for breeding, repository and research colonies. Separate buildings house importation/reproductive sciences and information technology. There are 35 principal investigators in Bar Harbor. The faculty primarily uses the mouse as its model or data from the mouse to study the genetic basis for human development and disease.

To be used as research models, mice must be bred, husbanded and distributed according to strict genetic, health and regulatory standards. The Laboratory maintains mouse breeding colonies in state-of-the-art *vivaria*. There are specially designed air-handling systems, autoclave systems for sterilizing all material entering the rooms, shower-in facilities and specially designed ventilated racks. The American Association for Accreditation of Laboratory Animal Care reviews the facility and its procedures to assure adherence to the animal care guidelines maintained by the National Research Council Commission on Life Sciences. The Bar Harbor animal facility was last accredited in 2009 and is currently undergoing re-accreditation. (Accreditation lasts for three years.) The Laboratory is under contract to purchase additional space in the nearby town of Ellsworth, Maine, which will be used for warehouse space and for future mouse breeding and administrative facilities.

**Sacramento, California:** The Sacramento facility, known as JAX-West, is located at 4910 Raley Boulevard, on 6.1 acres of land with a single building totaling nearly 229,000 square feet of space.



Like the Bar Harbor facility, the Sacramento facility includes state-of-the-art vivaria for breeding, repository and research colonies of mice. The proposed expansion will provide greater geographical reach to the Laboratory's breeding operations and additional space for mouse strains requiring more colony space. There are approximately 155 direct employees and temporary staff in Sacramento.

The Sacramento facility also includes laboratory space, in which the Laboratory provides *in vivo* pharmacology research services that involve the conduct of technical protocols and providing data or tissue back to the scientist, advancing its knowledge of the mouse as a research model in the process. Such *in vivo* services, as well as a PDX Cancer Tumor Bank, are offered only from the Sacramento facility.

The Sacramento facility is a Laboratory-retrofitted building originally constructed in 1991 by a previous owner. The Laboratory purchased the building in 2007 and partially renovated it into laboratory space and mouse vivaria. The ABAG Finance Authority for Nonprofit Corporations Revenue Bonds (The Jackson Laboratory) Series 2007 (the "2007 Bonds") funded \$35.1 million of the \$42.5 million initial purchase and renovation costs. In January 2009, the Laboratory completed the first phase of construction (114,000 square feet) consisting of five vivaria rooms and *in vivo* laboratory space. Following the initial occupancy and 2007 ABAG funding, the Laboratory built out additional space, including 11,600 square feet for three additional vivaria rooms at an approximate cost of \$13.8 million.

This is the facility that will be expanded during 2012 and 2013 using a portion of the proceeds of the Bonds. (See "**THE PROJECT**," below.)

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**Farmington, Connecticut:** On January 5, 2012, Connecticut Innovations, Incorporated (“CII”), a quasi-governmental agency, entered into an agreement with the Laboratory to fund the establishment of JAX Genomic Medicine through forgivable loans and direct grants. (See “**OUTSTANDING INDEBTEDNESS**,” below.) The purpose of JAX Genomic Medicine is to accelerate the development of genomics-based personalized medicine, working with academic and clinical research partners from Connecticut and around the world.

Funding for the building and equipment is provided by a forgivable loan from CII. CII will also provide grant support for research and operations.

The Laboratory retained Centerbrook Architects and Planners and Tsoi/Kobus & Associates to collaborate on the plan and design of the permanent facility. Gilbane, Inc. was named as program manager. Construction is scheduled to begin in January 2013 with occupancy expected in the fourth quarter of 2014 and final site improvements completed in 2015.



When constructed, JAX Genomic Medicine, to be located on a 16.2-acre parcel leased from the University of Connecticut Health Center, will consist of a Leadership in Energy and Environmental Design (LEED) gold certified biomedical research facility of approximately 188,000 gross square feet, with a mix of modern and efficient microbiology-based research laboratories; flexible and interactive bioinformatics research clusters intended to provide space for 30 principal investigators; adaptable scientific service cores; a state-of-the-art data center and satellite equipment rooms; collaboration, conferencing and training facilities; and supporting administrative facilities and infrastructure.

The Laboratory has completed renovations of temporary space totaling 11,500 square feet (9,500 square feet for administrative office and computational biology space and 2,000 square feet for wet laboratory space) to accommodate employees hired prior to the completion of the new facility. There are four faculty members currently located in Farmington.

### GOVERNANCE AND MANAGEMENT

The Laboratory governance is vested in a Board of Trustees (the “Board”), which provides strategic direction, financial oversight and fundraising support. The Board appoints the president, who also holds the titles of president and chief executive officer. The Nominating and Governance Committee proposes the slate of Board officers, including the chair, vice chairs, secretary and treasurer, and such other officers as the Board deems necessary (assistant treasurers and assistant secretaries), who are then elected by the Board at its annual meeting. The Laboratory has other officers as part of its management team, including several vice presidents and the chief financial officer, who report to the president.

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There also is a Board of Scientific Counselors (“BSC”) that provides advice to the president of the Laboratory on the Laboratory’s scientific activities, including research, education, training and genetics resources programs. The BSC also advises the president of the Laboratory on recruitment and promotion of scientific staff and scientific collaborations, as needed. The BSC is composed of at least nine members. The president and vice president of research appoint BSC members. Members of the BSC serve for three-year terms and work with the president and vice president of research to conduct regular faculty reviews. The appointment of the chair of the BSC requires the consent of the Board.

The Board consists of 15 to 27 members, including the president and the chair of the BSC, who serve as *ex officio* members. There presently are 22 members. Board members are divided into approximately three equal classes whose terms expire in different years. Terms are for three years and each member may serve up to four consecutive full three-year terms. The Board meets at least four times each year. The members of the Laboratory Board (the “Trustees”) and their occupations and terms are as follows:

<u>Name</u>	<u>Occupation</u>	<u>Current Term Expires</u>
David Baltimore, Ph.D.	Robert A. Milikan Professor of Biology, California Institute of Technology	2014
David R. Cabot	Senior Managing Director, Windhaven Investment Management	2015
Kathleen Corbet	Consultant	2015
Louis D’Ambrosio	President and CEO, Sears Holding Company	2014
Jeffrey M. Dunn, M.D.	Executive Vice President, MediQLogix	2013
David D. Elliman	Director and Principal, Elmrock Capital, Inc.	2013
Anthony B. Evnin, Ph.D.	General Partner, Venrock	2013
James J. Gallogly, <i>Treasurer</i>	Retired	2014
Peter F. Gerrity, <i>Secretary</i>	President, Gerrity Company, Inc.	2015
Richard S. Gurin	President, Board of Directors, Coastal Holdings	2013
Charles E. Hewett, Ph.D.	Executive Vice President and COO, The Jackson Laboratory	2014
Leo A. Holt, <i>Chair</i>	President, Holt Logistics Corp.	2014
Weslie R. Janeway, <i>Vice Chair</i>	President, Pyewacket Foundation	2013
Richard S. Lannamann	Vice Chair, Spencer Stuart & Associates	2013
Sam R. Little	Architect, Boles, Smyth Associates, Inc.	2014
Edison T. Liu, M.D.	President and CEO, The Jackson Laboratory	<i>Ex officio</i>
Thomas P. Maniatis, Ph.D.	Isidore S. Edelman Professor of Biochemistry, Columbia University	2013
Neal B. Milch, J.D.	President, Autarkic Holdings, Inc.	2014
Charles M. Rice, Ph.D.	Maurice R. and Corinne P. Greenberg Professor, The Rockefeller University	2014
David J. Roux	Chairman, Silver Lake Partners	2014
David Valle, M.D.	Henry J. Knott Professor and Director, McKusick-Nathan Institute of Genetic Medicine, Johns Hopkins University School of Medicine	<i>Ex officio</i>
Thomas S. Volpe	Chief Executive Officer, Volpe Investments	2014

The Laboratory also recognizes three different classes of Trustees who have all the rights and privileges of Trustees, except that of voting. Chairs Emeriti include former Board Chairs. Trustees Emeriti include persons who served with distinction on the Board (or its predecessor) for at least 12 years or were Trustees Emeriti at the time of the reorganization of the Laboratory’s governance structure in

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August 2007. Honorary Trustees include persons who have contributed significantly to the growth or reputation of the Laboratory. There are currently seven Chairs Emeriti, 13 Trustees Emeriti and 14 Honorary Trustees.

The Board delegates certain of its functions to standing committees. The permanent standing committees are the Executive Committee, the Advancement Committee, the Audit Committee, the Compensation and Human Resources Committee, the Finance Committee, the Nominating and Governance Committee and the Strategy Committee. Additional committees may be established by the Board from time to time, and the Board may assign to such committees whatever legally delegable duties and powers it deems advisable.

### EXECUTIVE MANAGEMENT

The president is responsible for leading and administering the Laboratory. Following the strategic imperatives adopted by the Board, the president develops the scientific and operating plans. Senior management is responsible for carrying out these plans. Below is a brief biography for each member of the senior management team.

***Edison T. Liu, M.D., President and Chief Executive Officer.*** Dr. Liu joined the Laboratory in January 2012 after serving as the founding executive director of the Genome Institute of Singapore (“GIS”) for 10 years. Dr. Liu is an international leader in cancer biology, genomics, human genetics and epidemiology. In Singapore, Dr. Liu helped develop that country’s research and development programs and also managed the Singapore Cancer Syndicate. He also was executive director of the Singapore Tissue Network and was an early member of the Bioethics Committee that advised that nation’s leadership on research ethics matters. Prior to GIS, Dr. Liu was the scientific director of the National Cancer Institute’s Division of Clinical Sciences in Bethesda, Maryland, where he managed the intramural clinical research arm. Dr. Liu spent nine years at the University of North Carolina at Chapel Hill (“UNC”), where he rose to the position of director of the UNC Lineberger Comprehensive Cancer Center’s Specialized Program of Research Excellence in Breast Cancer, director of the Laboratory of Molecular Epidemiology at UNC’s School of Public Health, chief of medical genetics, and chair of the Correlative Science Committee of the national cooperative clinical trials group Cancer and Leukemia Group B. At UNC, Dr. Liu held faculty positions in the departments of medicine, epidemiology, biochemistry and biophysics and in the curriculum in genetics. Since 2007, Dr. Liu has been president of the international Human Genome Organization. From 1982 to 1985, Dr. Liu was at the University of California, San Francisco, first in a hematology fellowship at Moffitt Hospital and then as a postdoctoral fellow in the laboratory of Nobel Laureate J. Michael Bishop, while also serving as an instructor in the School of Medicine. Dr. Liu received his B.S. in chemistry and psychology and his M.D. at Stanford University. He completed fellowships at Washington University’s Barnes Hospital in St. Louis, at Stanford, and at the University of California, San Francisco.

***Charles E. Hewett, Ph.D., Executive Vice President and Chief Operating Officer.*** Dr. Hewett serves as the Laboratory’s executive vice president and chief operating officer and as general manager of JAX<sup>®</sup> Mice & Services, the organization’s nonprofit research resources and services business. Since his arrival in 2004, he has overseen the launch of numerous research products and services; modernization of mouse breeding facilities; and completion of new research laboratories in Bar Harbor and the relocation and expansion of the Laboratory’s California operation. Dr. Hewett has also led the development of The Jackson Laboratory for Genomic Medicine and secured the State of Connecticut’s agreement to provide funding for its establishment. Dr. Hewett also served as a founding board member of the New York Genome Center. Prior to joining the Laboratory, as chief executive officer of Atlantic Energy Partners and Neptune Regional Transmission System, Dr. Hewett successfully developed a \$650 million underwater merchant D.C. electric transmission system connecting Long Island, N.Y., to New Jersey. At

the same time, he also served as vice president and secretary to the Board of the Cianbro Companies. In the mid-1990s, Dr. Hewett served for three years as the chief operating officer of the executive branch of the State of Maine during Governor Angus King's first term. He has also held chief executive posts in the international pharmaceutical industry, in electric generation and in natural resource management. He is a Phi Beta Kappa graduate in political economy from Williams College and holds M.F.S., M.S. and Ph.D. degrees from Yale University.

**Robert E. Braun, Ph.D., Associate Director/Chair of Research.** Dr. Braun joined the Laboratory in 2007. Prior to that he held the positions of Professor, Department of Genome Sciences, University of Washington School of Medicine and Director, Specialized Cooperative Centers Program in Reproductive Research and Co-director, Specialized Cooperative Centers Program in Contraceptive Research. After receiving a joint B.A. in molecular cellular developmental biology, chemistry and mathematics from the University of Colorado and his Ph.D. in microbiology from the Tufts University School of Medicine, Dr. Braun was a Postdoctoral Fellow in the Department of Biochemistry and Howard Hughes Medical Institute, University of Washington. Dr. Braun continued his research career at the University of Washington, spending a year as a visiting scientist at the Laboratory in 2001-2002. In addition to his duties as Associate Director/Chair of Research, Dr. Braun maintains his own research program focused on mammalian reproductive genetics.

**Leah Rae Donahue, Ph.D., Director of Genetic Resource Science.** Dr. Donahue joined the Laboratory in 1990 and oversees the scientific and resource generating activities of Genetic Resource Science ("GRS"), a group of doctorate. scientists and research assistants who are engaged in development and implementation of new technologies that enable expanded use of the mouse in biomedical research. GRS scientists make and distribute new mouse models; provide complete and easily accessible information pertinent to using mice as research tools; initiate and manage large-scale resource-generating projects; and conduct research to enhance these resources. Dr. Donahue also oversees management of the GRS repository operations, including the importation and cryopreservation of new mouse strains, execution of genetic quality control, curation of mouse strains, maintenance of the JAX<sup>®</sup> Strain database, and distribution of repository strains. Dr. Donahue holds a Ph.D. in nutrition sciences from the University of Maine and has over 20 years of experience developing mouse models of human disease. She also has expertise in endocrinology, skeletal biology and craniofacial dysmorphologies.

**Michael E. Hyde, Vice President for External Affairs and Strategic Partnerships.** Mr. Hyde joined the Laboratory in May 2006 as vice president for Advancement and External Relations. He currently oversees external relations, government relations and public relations. His accomplishments include helping negotiate the Laboratory's new JAX Genomic Medicine in Connecticut, establishing a new Communications Office, reorganizing fundraising efforts and creating The National Council, a network of Jackson supporters. Mr. Hyde represents the Laboratory on the board of directors of the Maine State Chamber of Commerce. His previous position was as vice president for university relations at Alfred University in Alfred, New York, where he led the private institution's fundraising, alumni, public relations and state government liaison efforts. Mr. Hyde holds undergraduate and graduate degrees from the University of Missouri, Columbia.

**Linda A. Jensen, Chief Financial Officer.** Ms. Jensen joined the Laboratory as the chief financial officer in October 2005. Ms. Jensen oversees Budgets & Planning, Financial Services and Treasury. Outside of the Laboratory, she serves on the Finance Committee of Friends of Acadia. She is also a member of the Treasurers' Club of Boston and the Financial Executives International, formerly serving as officer in both of these groups. Prior to her employment at the Laboratory, Ms. Jensen was the vice president – finance and chief financial officer at Select Energy Services in Natick, Massachusetts, for 18 years. Ms. Jensen received her M.S. degree in management from the Sloan School of Management at the Massachusetts Institute of Technology and her B.B.A. from the University of Michigan.

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### FINANCIAL AND OPERATING INFORMATION

As a nonprofit corporation, the Laboratory allocates its resources to accomplish its mission of research and education, generate funds for future development of programs, and provide operating flexibility. Through the consistent generation of operating surpluses and the recovery of investment values, the Laboratory has increased net assets by 38%, or \$87 million, over the past five and one-half fiscal years.

The Laboratory is funded by revenue from the sale of mice and services, federal, state and foundation grants, philanthropy, and investment returns. The Laboratory currently has only a modest endowment portfolio for a research organization of its size and, in an effort to increase the size of that portfolio, generally has limited its annual endowment spending to amounts required by donor specification. The balance of endowment portfolio appreciation is retained within the endowment. The Laboratory paces the expansion of its research efforts to match the resources available from JMS, philanthropy, investment income, and other funding sources. JMS is a capital intensive program and requires ongoing investment to assure state-of-the-art facilities and to expand capacity to serve the research community and the Laboratory's research mission. Normal upgrade and replacement of JMS facilities are typically funded through internally generated funds. Major expansions beyond what may be internally funded require identification of additional funding sources, including debt, grants and philanthropic support. As noted above, the expansion in Connecticut is partially funded by research and operating grants from CII. Subject to meeting annual reporting requirements and minimum hiring goals, CII will provide \$99 million in grants over 10 years. In addition, the Connecticut expansion requires raising additional annual funds and a capital campaign to raise an endowment to continue to support the operation after the CII grants are scheduled to cease.

Net operating surpluses are used to cover principal payments on bonds, fund additional capital requirements beyond funded depreciation, and contribute to the Board-designated endowment.

The summaries of financial information of the Laboratory set forth below in the table entitled "Comparative Statement of Activities" are derived from the financial statements for the fiscal years ended May 31, 2007, 2008, 2009, 2010 and 2011, which were audited by KPMG LLP ("KPMG"), independent accountants. In 2011, the Laboratory changed its fiscal year end to December 31 to better align its financial reporting cycle with employee benefit programs set up on a calendar basis, investment manager statements, and the courses and conference program schedule. In the transition to the new fiscal year end, the Laboratory had a stub period for the seven months from June 1 to December 31, 2011. The results of this seven-month period, which were audited by KPMG, also are included below.

The Laboratory's statements of financial position as of May 31, 2011 and May 31, 2010, and the related statements of activities and of cash flows for the years then ended, and the report thereon of KPMG dated October 24, 2011, and the statement of financial position as of December 31, 2011 and related statements of activities and of cash flows for the seven-month period then ended, and the report thereon of KPMG dated May 23, 2012, also are included as Appendix B to the Official Statement.

The Laboratory's statement of financial position as of June 30, 2012, and the related statements of activities and of cash flows for the six-month period then ended, are included as Appendix B-1 to the Official Statement. These statements have not been audited.

**Comparative Statement of Activities  
(in thousands)**

	Fiscal Years ended May 31					7 months ended December 31
	<u>2007</u> <sup>1</sup>	<u>2008</u> <sup>1</sup>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2011</u>
<b>REVENUE, GAINS AND OTHER SUPPORT</b>						
Grants and Contracts	\$ 62,785	\$ 62,488	\$ 61,468	\$ 60,042	\$ 64,955	\$ 38,059
Sale of Mice and Services	87,490	98,619	107,649	126,789	144,421	89,936
Contributions	2,316	1,636	3,693	2,492	2,224	1,479
Long-term investment return utilized	711	997	800	576	692	365
Other investment return	3,734	3,207	(34)	1,080	1,096	703
Other	1,008	1,135	1,376	1,384	1,354	1,210
<b>Total Revenue, Gains and Other Support</b>	<u>158,044</u>	<u>168,082</u>	<u>174,952</u>	<u>192,363</u>	<u>214,742</u>	<u>131,752</u>
<b>EXPENSES</b>						
Research	64,228	65,106	67,942	66,083	69,344	38,231
JAX ® Mice & Services	56,833	67,274	73,794	76,939	83,473	51,122
Training	3,334	5,445	3,920	3,419	2,925	1,907
Management and General	26,566	28,569	27,871	24,236	26,364	19,320
Impairment of JAX West assets	1,942					
<b>Total Expenses</b>	<u>152,903</u>	<u>166,394</u>	<u>173,527</u>	<u>170,677</u>	<u>182,106</u>	<u>110,580</u>
<b>EXCESS OF REVENUE, GAINS AND OTHER SUPPORT OVER EXPENSES</b>	5,141	1,688	1,425	21,686	32,636	21,172
Investment Return (Shortfall) in Excess of Amount Designated for Current Operations	11,057	(270)	(21,345)	9,987	10,098	(6,193)
Grants and Contributions for endowment and plant	4,170	1,980	1,413	6,555	6,918	2,120
Realized loss on interest rate swaps		(3,352)				
Unrealized change in fair value of interest	(858)	(2,525)	(3,384)	(365)	(335)	(3,480)
Other		(3,714)	(3,142)	8	284	(1,932)
<b>CHANGE IN NET ASSETS</b>	<u>19,510</u>	<u>(6,193)</u>	<u>(25,033)</u>	<u>37,871</u>	<u>49,601</u>	<u>11,687</u>
<b>NET ASSETS BEGINNING OF YEAR</b>	<u>229,937</u>	<u>249,447</u>	<u>243,254</u>	<u>218,221</u>	<u>256,092</u>	<u>305,693</u>
<b>NET ASSETS END OF YEAR</b>	<u>\$249,447</u>	<u>\$243,254</u>	<u>\$218,221</u>	<u>\$256,092</u>	<u>\$305,693</u>	<u>\$317,380</u>

<sup>1</sup> Certain amounts for fiscal years 2007 and 2008 have been adjusted to conform to the presentation in the Statement of Activities for fiscal year 2011.

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### MANAGEMENT'S DISCUSSION OF RECENT OPERATING ACTIVITIES

#### Summary Overview

Over the last two full fiscal years ended May 31, 2010 and 2011, the Laboratory has recovered from the decrease in the value of its endowment, and the mark to market on its treasury portfolio in fiscal year 2009 that largely reflected the overall decline in the stock market. Maintaining its research base and grant support, while improving its efficiency in JMS and reducing administrative costs, the Laboratory generated operating surpluses in fiscal years 2010 and 2011. Many of the efficiencies were put in place in response to the reduction in the value of the endowment, combined with the two-month decline in year-over-year mouse orders in December 2008 and January 2009. Accordingly, the Laboratory eliminated 110 positions, by not filling open positions and by laying off 55 employees, primarily in administration and JMS, and cut animal care technician hours. These adjustments allowed the Laboratory to weather the recession. When demand for laboratory mice again began to increase, the Laboratory met the demand by restoring the normal working hours of its animal care technicians. A portion of the increase in management and general expenses in fiscal year 2011 is related to the exploration of a potential expansion in Florida and ultimately the decision to expand into Connecticut.

The number of faculty and the level of grant revenue have remained relatively stable over the last five years. Certain of the NIH awards received in fiscal years 2010 and 2011 were funded by the American Recovery and Reinvestment Act ("ARRA"). The Laboratory also received in fiscal year 2011 a five-year grant, of \$5 million per year, for the KOMP Program, that served to mitigate the financial impact from the end of the ARRA grant programs in 2011. There has been modest turnover in faculty over the last five years with newly recruited faculty replacing grant-funded retiring or departing faculty. The Laboratory is engaged in faculty recruitment, particularly for the Farmington facility, and as a result four scientists started at the Farmington facility in 2012.

JMS revenue has grown at an average rate of 13% per year for each of the last five years with better outreach to the scientific community, improved customer experience, and a greater number of strains made available to the scientific community. JMS revenue also increased as a result of management-initiated strategies to expand JMS starting in fiscal year 2007, including the purchase and construction of the new, larger facility in Sacramento, improvements in animal health status, expanded and upgraded space in Bar Harbor, and greater outreach expenditures, as well as development of new service offerings that resulted in greater demand for mice and services.

To fund the California expansion, the Laboratory borrowed \$35.1 million through the issuance by the Authority of the 2007 Bonds, which included \$2 million to refinance a prior California borrowing. The outstanding balance (\$7 million) of a previous California borrowing was repaid in fiscal year 2009. The 2007 Bonds were converted from an auction rate mode to fixed rate mode in 2008, and in connection with the conversion, the Laboratory recognized a realized loss in fiscal year 2008 on the termination of the interest rate swaps related to the 2007 Bonds. Operating costs related to the new Sacramento facility started to be incurred with occupancy of the facility in January 2009. In connection with the expansion plan, in fiscal year 2008 the Laboratory recognized an impairment charge for the undepreciated value of the improvements to the former JAX-West location.

Contributions decreased in fiscal year 2008 as a result of the Laboratory's reorganization of governance structure in August 2007. Previously, members of a body known as the Laboratory "corporation" elected a Board of Governing Trustees from among the members. In fiscal year 2008, the "corporation" was eliminated and the Board of Trustees became self-perpetuating. This change was undertaken to improve the governance of the Laboratory. However, many former "corporation" members reduced or eliminated their contributions in the year it was implemented. The following year,

contributions recovered as the new Board increased its support for the Laboratory. Despite the worldwide economic downturn, the Laboratory has been able to keep donations otherwise relatively stable.

As mentioned above, in 2009 the instability in the global financial markets pushed stock values down and spiked interest rates, causing the endowment portfolio to report large unrealized losses from mark to market adjustments. In response, the Laboratory shifted its investments to higher quality and more liquid vehicles, realizing losses in the process. Investment requirements shifted from a minimum of investment grade corporate bonds to “AAA” rated corporate bonds and U.S. Treasury and agency bonds. Declining interest rates have offset an increase in invested balances since fiscal year 2009. Other revenue includes fees charged by the Laboratory for courses and conferences, royalties, miscellaneous research service fees and housing charges.

Other non-operating charges primarily comprise changes in funded status of pension and post-retirement medical plan liabilities, and \$4.1 million incurred in connection with the curtailment of the post-retirement medical plan in fiscal year 2008. This \$4.1 million payment to employees and retirees in exchange for relinquishing the expected benefit under the plan prevented the Laboratory from having to incur an additional projected \$13.6 million obligation for liability for retiree medical coverage.

### Sources of Revenue

The following table sets forth the percentage of total revenues, gains and other support of the Laboratory by source for each of the fiscal years in the five-year period ended May 31, 2011 and for the 7-month period ending December 31, 2011.

	<b>Total Revenues by Source</b>					<b>7 months</b>
	<b>Fiscal Years ended May 31</b>					<b>ended</b>
	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>December 31</b>
Grants and contracts	41.7%	39.0%	35.1%	31.2%	30.3%	28.9%
Sale of mice and services	53.1	56.7	61.5	65.9	67.3	68.3
Contributions	1.5	1.0	2.1	1.3	1.0	1.1
Long-term investment return	0.5	0.6	0.5	0.3	0.3	0.3
Other investment return	2.5	2.0	0.0	0.6	0.5	0.5
Other	<u>0.7</u>	<u>0.7</u>	<u>0.8</u>	<u>0.7</u>	<u>0.6</u>	<u>0.9</u>
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

### Grants and Contracts

The level of grant revenue is dependent upon attracting and retaining researchers who are successful in obtaining external funding for their research programs. The Laboratory has an Office of Sponsored Programs and a Scientific Program Development Office charged with assisting the faculty in preparing and submitting grant applications. The Scientific Program Development Office monitors funding opportunities and coordinates center grant and other collaborative grant applications. The major grant funding source for the research conducted at the Laboratory is the NIH. Most grants are awarded for five years with one year funded and four non-competitive renewals. New applications and competitive renewals are peer-reviewed and ranked for funding. An NIH council makes the actual awards. For the federal fiscal year 2011, the Laboratory ranked fifth among its peer independent research institutions in

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the receipt of federal grants. In addition, the Laboratory receives grants from private foundations supporting biomedical research including the Ellison Foundation and the March of Dimes Foundation, and two faculty members are supported by the Howard Hughes Medical Institute. The Laboratory's success rate on grant applications has ranged from 34.7% to 41.7% over the last five years compared to the overall success rate for NIH grant applications of 17.7% to 21.8% for the same time period. The higher success rate is credited to the research focus of the Laboratory, its strong infrastructure supporting research, and the experienced staff in the Office of Sponsored Programs and Office of Scientific Program Development.

CII grants are paid quarterly based on an annual request with a report due at the end of the year showing how the funds are expended. The principal condition on the funds is that they must be spent in Connecticut for the research and the operations of JAX Genomic Medicine. Unspent funds may be rolled forward into future years and future years' grants may be reduced if the Laboratory does not meet minimum staffing levels after the first three years of operation. However, the Laboratory may request that any previously reduced funds be restored as the business plan is adjusted and hiring exceeds the minimum.

Grants provided approximately 30% of the Laboratory's operating revenue for the fiscal year ended May 31, 2011. For that fiscal year, the Laboratory received approximately \$69 million in government and other private and public grants and contracts for research support and capital projects. This included \$58 million from the federal government, primarily from the NIH. The financial statements do not reflect direct support provided by the Howard Hughes Medical Institute to two faculty members' programs.

### Sources of Grants and Contracts Revenue (fiscal year ended May 31)

	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	7 months ended December 31 <u>2011</u>
NIH	\$56,487	\$54,552	\$51,864	\$52,196	\$57,450	\$32,895
Other Federal Agencies	432	294	604	572	928	610
Foundations	5,441	6,477	8,047	6,299	6,016	3,729
State	2,864	1,804	9	5,544	3,943	2,112
Other	<u>657</u>	<u>799</u>	<u>874</u>	<u>706</u>	<u>614</u>	<u>369</u>
<b>Total</b>	<b>\$65,881</b>	<b>\$63,926</b>	<b>\$61,398</b>	<b>\$65,317</b>	<b>\$68,951</b>	<b>\$39,715</b>

NIH awards provide funds to cover direct and indirect costs. Direct costs are those costs directly related to a research project, including wages of scientists and technicians, supplies and grant-specific equipment. In addition, federal grants cover indirect costs, which are also incurred in the performing of research, but have been incurred for purposes common to other Laboratory operations. Indirect costs include interest on long-term debt, depreciation, utilities, occupancy and facilities costs, and general and administrative services such as accounting, purchasing, human resources and the library.

The federal Office of Management and Budget has established regulations that govern indirect cost reimbursement recovery principles and procedures to ensure that the federal government bears a fair share of the total costs associated with research programs. While the cost principles are intended to provide for sharing and allocation of indirect costs, certain costs are not allowable. For example, fundraising and other specified miscellaneous costs are not reimbursable. Effective June 1, 2012, the Laboratory negotiated a 31-month indirect cost-rate agreement with the U.S. Department of Health and

Human Services that provides for indirect cost rates of 75% for its Bar Harbor and Sacramento campuses through December 31, 2014. A provisional rate of 89% was agreed upon for the Farmington campus, as a start-up operation. Provisional rates are subject to annual recalculation based on actual costs incurred. These indirect cost recovery rates are applicable to NIH research grants that allow overhead. Lower indirect cost rates apply to training grants and grants from some other federal agencies. The indirect costs that are recovered with respect to any individual grant are determined by applying the negotiated indirect cost rate to the total of the applicable grant's direct costs. The next indirect cost rate negotiation will be based on the actual cost ratios experienced in fiscal year 2013. Foundation grants carry various indirect rates with most ranging from zero to ten percent.

Given the current pressure on federal budgets, the NIH has communicated to the research community its intent to explore various ways to reduce the cost of research. The most recent budget included a lower cap on salaries that may be charged to NIH grants. Other reductions that have been discussed include potential restrictions on indirect cost recovery for depreciation and interest; limits on indirect cost recovery rates for general and administrative costs; and other adjustments to cost recovery rules. The Laboratory from time to time submits formal comments on proposed limits and participates in the Association of Independent Research Institutes to encourage the NIH to consider the unique needs of independent research organizations and to give time to organizations to adapt to new rules.

Due to the federal government's budget deficits, the NIH budget has been essentially flat for the last two years. To manage this reduction in funds, NIH eliminated inflationary adjustments for renewals and has reduced funding in some areas. Grants subject to competitive renewal are most vulnerable to reduction. The NIH recently announced another level of review for principal investigators who receive more than \$1.0 million per year in NIH direct cost support. Each institute within the NIH sets its own goals and priorities for scientific areas of promise. The NIH recently reorganized to shift emphasis to translational science and to encourage collaborations between basic science research and clinical practice. Expanding into more translational science at the Farmington facility was in part motivated by these changing NIH funding priorities. Given federal budget constraints, it is anticipated that the NIH will further reduce grant reimbursements through limiting various direct costs (such as principal investigator salaries), and/or limiting indirect cost recovery.

### **JAX<sup>®</sup> Mice & Services**

Revenue received from the sale of mice and services to the research community represented approximately 67% of the Laboratory's fiscal year 2011 operating revenue. The Laboratory believes it is the world's largest supplier to academic institutions, although it supplies only a relatively small portion of pharmaceutical and biotechnology industry needs for research mice. The Laboratory's top 10 customers account for approximately 25% of the Laboratory's mouse sales.

The growth in mice and services revenue is driven by biomedical researchers' need for the genetic quality and health status of JAX<sup>®</sup> Mice models and JMS' efforts to provide the latest disease models. In addition, over the last five years, an expansion of mouse-related research services offered by the Laboratory has contributed to the growth in revenue.

Revenue growth reflects a combination of growth in the number of mice sold, price increases, changes in the mix of mice sold, and the opening of the Laboratory's Sacramento facility in 2009. JMS revenue and costs are generated by the sale of mice from breeding colonies and the repository, as well as services. The Laboratory has experienced an increase in demand for breeding services as pharmaceutical, biotechnology and academic research organizations seek to outsource this service. To meet the increase in demand, the Laboratory is building out additional space in its Sacramento facility.

## **APPENDIX A**

JMS services are performed in accordance with a signed statement of work and are typically priced on a unit of service basis (e.g., housing costs per week) or per service requested (e.g., cryopreservation). Some studies are performed on a fixed price basis. For breeding services, in addition to a high standard of service, JMS offers a cost advantage due to its scale and the number of colonies it maintains. Other than breeding services, Ph.D. scientists supervise the studies or services.

### **Budget Process**

Management prepares an annual operating budget each year for presentation to the Finance Committee in November and approval by the Board of Trustees prior to the beginning of the new fiscal year. The budgeting process includes an overview of the funding environment as well as an articulation of the funding priorities for the Laboratory. The major priorities for the 2012 budget included faculty recruitment, a Director's Innovation Fund, improvements in information technology systems, JMS product development, and enhanced communications for fundraising capabilities. Revenue is estimated based on an evaluation of anticipated grant revenue and expected sales of mice and services, as well as other revenue. Operating expenditures are limited to assure that the operating surplus results in an amount sufficient to cover principal payments and a contingency. Budget requests are analyzed against the senior management team's priorities and to assure expenditures align with the strategic plan.

In addition to an annual budget, the Laboratory prepares forecasts after the first two quarters and monitors expenditures monthly.

### **Capital Planning**

The Budget and Planning group maintains a 10-year capital plan that includes replacement of end-of-life facilities, new buildings, build-out for new faculty, scientific and information technology equipment and applications. This plan is updated regularly with a focus on the next three years. As part of the annual budget approval process, the three-year capital plan is reviewed and the next year's capital budget is approved for expenditure. Funding for capital expenditures is only identified for the three-year plan, not the 10-year plan.

The capital budget is funded primarily from funded depreciation, grants (state and federal) and operating surplus in excess of principal payments. Capital campaigns are conducted for major expansion of research facilities and capital gifts are solicited for various projects.

In 2008, the Laboratory created a master plan for its Bar Harbor campus that identifies the location of potential future expansion. The plan for the Sacramento facility, formulated at the time the building was purchased in 2007, is to build out space as needed by the increase in the demand for mice and services. To balance production of mice between the coasts, expansion is targeted for the Sacramento campus.

The Laboratory currently has \$229 million in Board approved capital projects underway, including \$137 million related to the JAX Genomic Medicine research facility, to be funded in large part with CII funds as forgivable loans. At June 30, 2012, the unexpended balance on these approved capital projects totaled \$164 million.

### **Investment & Endowment Results**

Under the Laboratory's investment policy, the Board is responsible for establishing the level of risk that the organization is willing to assume in its investment strategy. The overall investment objective

of the Laboratory is to invest its assets in a prudent manner that will achieve a long-term rate of return sufficient to fund a portion of its annual operating activities and increase investment value after inflation. The Laboratory diversifies its investments among various asset classes, incorporating multiple strategies and managers. Major investment decisions are authorized by the Laboratory’s Investment Subcommittee of the Finance Committee, which oversees the Laboratory’s investment program in accordance with established guidelines. The investment subcommittee is made up of experienced investors who meet quarterly, or more frequently if needed, to evaluate performance and approve changes in the portfolio. The subcommittee reports to the Finance Committee quarterly. The Laboratory engages an investment consultant to support the committee on portfolio allocation, due diligence on investment managers and performance monitoring.

The Board of Trustees sets separate long-term investment return-objectives and risk parameters for donor-restricted and board-designated funds based on recommendations from the Finance Committee. Donor-restricted funds are invested with an investment objective of attaining an average annual real total return in excess of the spending rate over the long term with a risk profile equivalent to or less risky than the Standard & Poor’s Index of 500 stocks. In contrast, Board-designated funds are invested with an investment objective of preserving value over the medium term while maintaining liquidity in the short term, defined as two years. The Laboratory expects its donor-restricted endowment funds, over five years, to provide an average annual real rate of return of approximately five percent.

Actual returns in any given year may vary from this amount. To satisfy its long-term rate-of-return objectives, the Laboratory relies on a total return strategy in which investment returns are achieved through both capital appreciation (realized and unrealized) and current yield (interest and dividends). The Laboratory targets a diversified asset allocation, using active investment managers, within the following asset categories: equities, fixed income instruments and other investments. In addition, the Laboratory uses index funds and ETF investments to meet its allocations. Other investments include hedge funds, commodities, real assets and derivative strategies.

The Laboratory’s asset allocation targets are as follows:

	<b>Donor-restricted</b>	<b>Board designated</b>
Equities	50%	60%
Fixed income and cash	15	20
Other	<u>35</u>	<u>20</u>
	100%	100%

Equity investments include interests in U.S., international developed, emerging markets, and global equity funds. Other investments include marketable alternative assets, which aim to provide less volatile returns that are less correlated to the stock market, and commodity investments. Marketable alternative investments include fund of funds, short/long investment or high yield debt strategies and may include equity investments. Commodity investments are considered inflation hedging. The current asset allocation target does not have an allocation to private equity but as of June 30, 2012, the Laboratory had approximately \$1 million of the unrestricted Board designated endowment and \$2.5 million in the donor-restricted endowment invested in private equity funds. These are legacy investments that are locked up and in the process of being liquidated.

Investment return utilized for operations and other investment returns represent approximately 1.5% of the Laboratory’s operating revenue. Since fiscal year 2005, the Board has retained within the endowment the appreciation and earnings of the Board-designated endowment. It has also retained within the endowment the appreciation of donor-restricted endowments that provide for the Board to determine

## **APPENDIX A**

the use of the endowment earnings. In the last three budgets, the Board has allocated for programs support four percent of the 36-month average value of donor-restricted endowments with specified programs for support. This results in an effective allocation of approximately 2% of the donor-restricted endowment assets.

In addition to the endowment, the Laboratory earns interest on its short-term investment of treasury cash. Treasury cash represents accumulated operating surpluses earmarked for support of future research initiatives and capital projects. All cash in excess of requirements for minimum balances is invested in high-quality, short-term fixed income vehicles, primarily certificates of deposit, government agency bonds, and “AA” or better rated corporate bonds. From time to time, the Laboratory has invested a small portion of its treasury cash in equities or other investment vehicles.

The unaudited value of the endowment as of June 30, 2012 was \$83.7 million with \$33.5 million in donor-restricted funds and the balance unrestricted, or Board-designated funds.

### **THE PROJECT**

The proceeds of the Bonds will be used, in part, to refund a portion of the 2007 Bonds. The proceeds of the 2007 Bonds were used to finance a portion of the costs of acquiring and partially renovating the Laboratory’s Sacramento facility in 2007.

The proceeds of the Bonds also will be used to finance the fit-out of approximately 34,000 square feet of mouse breeding and 16,000 square feet of support space within the Sacramento facility (the “New Project”). In addition to the interior improvements, core infrastructure will be installed to support operations, including additional boilers, chiller, an additional emergency generator, autoclaves, cage and bottle washers and other miscellaneous support equipment. The New Project will complete the build-out of the first floor of the facility with the addition of eight vivaria rooms. The first phase of the New Project, consisting of three mouse rooms, is expected to be complete by mid-2013 and the remainder of the rooms are expected to be complete by January 2014. Once completed, the Laboratory will bring the vivaria rooms on line as demand necessitates over three to five years.

Design is nearly complete and permit applications for the first phase of the New Project were submitted to the City of Sacramento in August 2012 to allow for a phased construction and occupancy. The Laboratory is using the same construction management firm that originally constructed the facility and the completed expansions to date. This California firm has experience constructing state-of-the-art mouse vivaria, while working in occupied facilities.

When completed, the facility is expected to increase the Sacramento production capacity by approximately 77%. With nearly 30 vivaria rooms and an average room life of 25 to 30 years, the Laboratory typically builds or fully renovates one to two mouse rooms per year either in Maine or in California to meet increased demand and to update its facility. This project accelerates the schedule to obtain construction and financing cost savings from constructing and financing multiple rooms at the same time.

The New Project has an estimated \$26.7 million cost.

### **OUTSTANDING INDEBTEDNESS**

On August 31, 2012, the Laboratory issued \$42,640,000 in tax-exempt bonds through the Finance Authority of Maine (“FAME”). The proceeds of the bonds were used on October 1, 2012, to refund bonds issued in 2002 through FAME. The Laboratory issued the 2002 FAME bonds to refund prior bond

issuances and to finance facility expansion in Bar Harbor including research, mouse breeding and administrative space. The 2012 FAME bonds were purchased by a bank for a 10-year period at a variable rate calculated as a spread above 67% of one-month LIBOR. At the end of the initial 10-year period, the 2012 FAME bonds will be subject to mandatory tender, and at that time the Laboratory expects the bonds will be remarketed to new purchasers or refunded through a new issuance of bonds. The 2012 FAME bonds mature serially through July 1, 2031.

During the period 2002-2005, the Laboratory entered into a series of interest rate swaps with amortizations matching the FAME bond principal payments. Under the swaps, the Laboratory pays fixed rates varying from 3.271% to 4.140% and receives a variable rate payment of 67% of one-month LIBOR. The swap counterparties are Bank of America, N.A. and Morgan Stanley Capital Services, Inc. The swaps require the Laboratory to post collateral if the month-end swap termination value exceeds a threshold valuation of negative \$8 million and negative \$5 million, respectively. The Laboratory has not been required to post collateral to date.

The 2007 Bonds were issued on September 10, 2007 in the amount of \$35,075,000 in a weekly auction rate mode and converted to a fixed rate mode on April 23, 2008. These bonds carry fixed interest rates ranging from 3.6% to 5.75% for maturities from 2012 through 2038. The Laboratory will refund a portion of the 2007 Bonds with a portion of the proceeds of the Bonds.

In January 2012, the Laboratory entered into an agreement with CII, whereby CII will provide the Laboratory a \$145 million forgivable loan to construct and build out a genomics medicine research laboratory of at least 170,000 square feet and a \$46,685,000 forgivable loan to purchase furniture and equipment over 10 years. The loans bear simple interest at one percent annually. The loans are forgiven when the Laboratory reaches employment of 300 employees at an average annual wage that exceeds 125% of the state average annual wage, including at least 90 senior scientists, for six months. If the Laboratory reaches this level within 10 years but has not maintained it for the specified period, the Laboratory may request an 18-month extension to meet the employment goal. If at the end of the extension period, the Laboratory still has not met the employment goal, the Farmington facility, equipment, and any intellectual property developed in the Farmington facility revert to CII, and the Laboratory has an option to lease the facility for two five-year terms at a fair market rate. No monies are due from the Laboratory if the employment goal is not met. CII determines whether the Laboratory has satisfied the employment obligation, which is set forth in the agreement with CII. If the Laboratory does not agree with CII's determination, the agreement contains provisions for a mediation process.

## **FUNDRAISING AND PHILANTHROPY**

Over the past five years, the Laboratory has increased its focus on the area of private philanthropy. The Board of Trustees has been reorganized, in part to promote greater involvement in philanthropic activities, and several trustees with considerable personal wealth and influence have been recruited to the Board.

The Laboratory is currently in the early planning stages of a multi-phase, multi-million dollar campaign to substantially increase the endowment through endowed chairs, Director's Innovation Funds, and other fundraising strategies over the next 7 to 10 years.

## **INSURANCE**

The Laboratory carries property insurance, including California earthquake coverage to cover the replacement costs of its buildings and equipment. In addition, the Laboratory carries liability and business

## APPENDIX A

interruption insurance in amounts it believes are adequate for its operations. The business interruption insurance covers costs to recover from a casualty event.

### STAFFING AND EMPLOYEES

The Laboratory's employees are distributed across the Laboratory's Bar Harbor, Farmington and Sacramento sites, with the substantial majority primarily located in Bar Harbor. In addition, there is a small number of employees in various other locations, working to promote the Laboratory's interests in their respective regions, or whose specialty skill-sets allow for effective tele-commuting.

	<b>December 31,</b>
<b>Laboratory Staffing</b>	<b><u>2011</u></b>
Lab/Scientific	407
Repository/Mice	585
Administration	382
Post-Doctoral	<u>37</u>
<b>Total</b>	<b>1,411</b>

The Laboratory offers a range of benefits to its employees. All plans (including retirement obligations) are fully recognized on the balance sheet. The defined benefit plan was frozen in 1995 with no additional participants added or additional benefits accruing after that date. The Board has authorized management to terminate the plan, in settlement with the participants and in accordance with applicable law, when market conditions warrant. A post-retirement medical plan covers employees who retired before May 31, 2008 and faculty members eligible to retire in 2008. This plan is currently funded as benefit claims are paid. The Laboratory is self-insured for medical and extended medical leave benefits. With its successful wellness program, the Laboratory has seen the monthly cost per participant decrease in the last two years.

The Laboratory has no employees in unions or represented by collective bargaining agreements.

### LITIGATION

There are currently no litigation matters of material concern.

### BONDHOLDERS' RISKS AND MATTERS AFFECTING THE BIOMEDICAL RESEARCH INDUSTRY

In addition to the risks set forth in the forepart of the Official Statement, the following factors, among others, constitute risks with respect to the Bonds.

#### **In General**

Future revenues and expenses of the Laboratory will be affected by events and conditions relating generally to, among other things, the correctness of the design and success of the Laboratory's strategic plans, changes in private philanthropy, litigation, the Laboratory's ability to control expenses, legislation and government regulation. While the Laboratory reasonably expects to generate sufficient revenues in the future to cover its expenses, unanticipated events and circumstances may occur that cause variations from this expectation and the variations may be material (see also "**Research Funding**," below).

Accordingly, there can be no assurance that there will be sufficient revenues to make payments with respect to the Bonds. The following general factors, among others, could affect the level of revenues to the Laboratory or its financial condition or otherwise result in risks for Bondholders.

### **Research Funding**

Future funding of the Laboratory's research depends upon the continued availability of funds from the federal government and other public, private and commercial sources as well as the ability of the Laboratory's researchers to successfully compete for such funds. Federal legislation and policies to control the federal deficit, as well as other factors, could result in future reduction in the amount of research funding available from the federal government.

Currently, in an effort to secure NIH funding, the Laboratory attempts to align its programs with the NIH's strategic goals including: (i) promoting high-throughput technologies for large biology projects; (ii) funding innovative research; (iii) encouraging young investigators; and (iv) funding translational research (genes to drugs). There can be no assurance, however, that the Laboratory's focus will align with NIH's strategic goals in the future, or that the Laboratory's current levels of NIH funding can be maintained.

### **Economic Turmoil**

The recent economic turmoil has had negative repercussions upon the United States and global economies. Within the past several years, this turmoil has particularly affected the financial sector, prompting a number of banks and other financial institutions to seek additional capital, to merge and, in some cases, to cease operating. These events collectively have led to a scarcity of credit, lack of confidence in the financial sector, volatility in the financial markets, fluctuations in interest rates, reduced economic activity, increased business failures and increased consumer and business bankruptcies.

If the recent economic turmoil continues and the economy further weakens, research institutions could be materially and adversely affected in a number of ways, including reductions in philanthropy, reductions in research funding from public and private institutions, reduced investment income, reduced access to the credit markets and increased borrowing costs, any of which may negatively affect the operations or financial condition of the Laboratory.

### **Environmental Laws and Regulations**

Research institutions are subject to federal, state and local environmental and occupational health and safety laws and regulations that address, among other things, operations or facilities and properties owned or operated by the institution. The types of regulatory requirements faced by research institutions include: air and water quality control requirements; waste management requirements; specific regulatory requirements applicable to biohazards, radioactive substances, asbestos and polychlorinated biphenyls; requirements for providing notice to employees and members of the public about hazardous materials handled by or located at the institution; and requirements for training employees in the proper handling and management of hazardous materials and wastes.

In its role as an owner and/or operator of properties or facilities, the Laboratory may be subject to liability for investigating and remedying any hazardous substances that have come to be located on their property, including any such substances that may have migrated off the property. Typical operations include, but are not limited to, in various combinations, the handling, use, storage, transportation, disposal and/or discharge of hazardous, infectious, toxic, radioactive, flammable and other hazardous materials, wastes, pollutants or contaminants. As such, research institution operations are particularly susceptible to

## APPENDIX A

the practical, financial and legal risks associated with the obligations imposed by applicable environmental laws and regulations. Such risks may result in damage to individuals, property or the environment; may interrupt operations and/or increase their cost; may result in legal liability, damages, injunctions or fines and may result in investigations, administrative proceedings, civil litigation, criminal prosecution, penalties or other governmental agency actions; and may not be covered by insurance. There can be no assurance that the Laboratory will not encounter such risks in the future and such risks may result in material adverse consequences to the operations or financial condition of the Laboratory.

### **Non-Profit Tax Environment**

*Revision of IRS Form 990 for Nonprofit Corporations.* The IRS Form 990 is used by 501(c)(3) not-for-profit organizations to submit information required by the federal government for tax exemption. The revised Form 990 requires detailed public disclosure of compensation practices, corporate governance, loans to management and others, joint ventures and other types of transactions, political campaign activities and other areas the IRS deems to be compliance risk areas. The redesigned Form 990 is intended to result in enhanced transparency as to the operations of exempt organizations. It is also likely to result in enhanced enforcement, as the redesigned Form 990 will make a wealth of detailed information on compliance risk areas available to the IRS and other enforcement agencies.

*Revocation of Tax Exemption; Private Inurement.* Revocation of the tax-exempt status of the Laboratory under Section 501(c)(3) of the Internal Revenue Code (the “Code”) could subject the interest paid to Bondholders to federal income tax retroactively to the date of issuance of the Bonds. Section 501(c)(3) of the Code specifically conditions the continuing exemption of all organizations described in such section upon the requirement, among others, that no part of the net earnings of the organization inure to the benefit of any private individual. Any violation of the prohibition against private inurement may cause the organization to lose its status as tax exempt under Section 501(c)(3). The IRS has issued guidance in informal private letter rulings and general counsel memoranda on some situations that give rise to private inurement, but there is no definitive body of law, regulations or public advisory rulings that address many common arrangements. While the Laboratory believes that the arrangements between the Laboratory and private persons and entities are generally consistent with the IRS’s guidance, there can be no assurance concerning the outcome of an audit or other investigation by the IRS given the lack of clear authority interpreting the range of activities undertaken by the Laboratory.

Intermediate sanctions legislation enacted in 1996 imposes penalty excise taxes in cases where an exempt organization is found to have engaged in an “excess benefit transaction” with a “disqualified person.” Such penalty excise taxes may be imposed in lieu of revocation of exemption, or in addition to such revocation in cases where the magnitude or nature of the excess benefit calls into question whether the organization functions as a public charity. The tax is imposed both on the “disqualified person” receiving such excess benefit and on any officer, director, trustee or other person having similar powers or responsibilities who participated in the transaction willfully or without reasonable cause, knowing it to involve “excess benefit.” “Excess benefit transactions” include transactions in which a “disqualified person” receives unreasonable compensation for services, or receives other economic benefit from the organization that either exceeds fair value or is determined in whole or in part by the revenues of one or more activities of such organization. “Disqualified persons” include “insiders” such as board members, officers and senior management.

### **Construction Risk**

The Laboratory expects to begin construction of the New Project in the fourth quarter of calendar year 2012 with an expected occupancy of the first phase in the third quarter of the calendar year 2013. However, there can be no assurance that this schedule can be met. Uncontrollable delays are common in

the construction industry. Such delays caused by, for example, strikes, weather, or unavailability of materials, may delay completion of the New Project. Any of these factors could delay construction, result in cost overruns or even prevent completion of the New Project.

**Other Risk Factors**

In the future, the following factors, among others, may adversely affect the operations of research institutions, including the Laboratory or the market value of the Bonds, to an extent that cannot be determined at this time:

- (a) The occurrence of a natural or man-made disaster that could damage the Laboratory's facilities, interrupt utility service to the facilities, or otherwise impair the Laboratory's operations and the generation of revenues from the facilities; and
- (b) Adoption of a so-called "flat tax" federal income tax, a reduction in the marginal rates of federal income taxation or replacement of the federal income tax with another form of taxation, any of which might adversely affect the market value of the Bonds and the level of charitable giving to the Laboratory.
- (c) The mouse could be replaced as a biological model of the human, in which case the Laboratory's strong cash flow from sales of mice would be in jeopardy.
- (d) An outbreak of disease in animal colonies could diminish the sales of mice to other institutions.
- (e) The Laboratory will have more than one construction project ongoing at once that could have cost over-runs or other problems related to labor or material availability.

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**THE JACKSON LABORATORY**

Financial Statements

May 31, 2011 and 2010

(With Independent Auditors' Report Thereon)

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**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 statements of financial position of The Jackson Laboratory (the Laboratory) as of May 31, 2011 and 2010, and the related statements of activities and cash flows for the years then ended. These financial statements are the responsibility of the Laboratory's management. 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 of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Laboratory as of May 31, 2011 and 2010, and the changes in its net assets and its cash flows for the years then ended in conformity with U.S. generally accepted accounting principles.

**KPMG LLP**

October 24, 2011

**THE JACKSON LABORATORY**

Statements of Financial Position

May 31, 2011 and 2010

(In thousands)

	<u>2011</u>	<u>2010</u>
Assets:		
Cash and equivalents	\$ 4,681	9,159
Working capital investments, at fair value	87,360	56,503
Accounts receivable, net	20,770	20,057
Contributions receivable, net	3,598	2,367
Other assets	8,641	8,959
Restricted cash and investments	7,401	5,526
Long-term investments, at fair value	87,453	74,765
Long-lived assets, net	209,174	201,645
Total assets	<u>\$ 429,078</u>	<u>378,981</u>
Liabilities:		
Accounts payable and accrued expenses	\$ 38,070	35,588
Deposits and deferred revenue	5,451	5,647
Bonds and note payable, net	79,864	81,654
Total liabilities	<u>123,385</u>	<u>122,889</u>
Net assets:		
Unrestricted	262,173	220,316
Temporarily restricted	35,202	27,544
Permanently restricted	8,318	8,232
Total net assets	<u>305,693</u>	<u>256,092</u>
Total liabilities and net assets	<u>\$ 429,078</u>	<u>378,981</u>

See accompanying notes to financial statements.

**THE JACKSON LABORATORY**

Statement of Activities

Year ended May 31, 2011

(with comparative totals for the year ended May 31, 2010)

(In thousands)

	<u>Unrestricted</u>	<u>Temporarily restricted</u>	<u>Permanently restricted</u>	<u>2011 Total</u>	<u>2010 Total</u>
Operating activities:					
Revenue and other support:					
Grants	\$ 64,955	—	—	64,955	60,042
Contributions	968	1,256	—	2,224	2,492
JAX <sup>®</sup> Mice & Services	144,421	—	—	144,421	126,789
Long-term investment return utilized	692	—	—	692	576
Other investment return	1,096	—	—	1,096	1,080
Other revenue	1,354	—	—	1,354	1,384
Total revenue	<u>213,486</u>	<u>1,256</u>	<u>—</u>	<u>214,742</u>	<u>192,363</u>
Net assets released from restrictions	1,006	(1,006)	—	—	—
Total revenue and other support	<u>214,492</u>	<u>250</u>	<u>—</u>	<u>214,742</u>	<u>192,363</u>
Expenses:					
Research	69,344	—	—	69,344	66,613
JAX <sup>®</sup> Mice & Services	83,473	—	—	83,473	76,939
Training	2,925	—	—	2,925	2,889
New initiatives	967	—	—	967	177
Institutional support	25,397	—	—	25,397	24,059
Total expenses	<u>182,106</u>	<u>—</u>	<u>—</u>	<u>182,106</u>	<u>170,677</u>
Increase in net assets from operating activities	<u>32,386</u>	<u>250</u>	<u>—</u>	<u>32,636</u>	<u>21,686</u>
Nonoperating activities:					
Grants and contributions for capital and long-term investments	4,280	2,552	86	6,918	6,555
Long-term investment return above amounts utilized	5,043	5,055	—	10,098	9,987
Unrealized net losses on interest-rate swaps	(335)	—	—	(335)	(365)
Changes in actuarial assumptions related to the pension and postretirement benefit plans	284	—	—	284	8
Net assets released from restrictions for capital purposes	143	(143)	—	—	—
Other reclassifications	56	(56)	—	—	—
Increase in net assets from nonoperating activities	<u>9,471</u>	<u>7,408</u>	<u>86</u>	<u>16,965</u>	<u>16,185</u>
Increase in net assets	41,857	7,658	86	49,601	37,871
Net assets, beginning of year	220,316	27,544	8,232	256,092	218,221
Net assets, end of year	<u>\$ 262,173</u>	<u>35,202</u>	<u>8,318</u>	<u>305,693</u>	<u>256,092</u>

See accompanying notes to financial statements.

**THE JACKSON LABORATORY**

Statement of Activities

Year ended May 31, 2010

(In thousands)

	<u>Unrestricted</u>	<u>Temporarily restricted</u>	<u>Permanently restricted</u>	<u>2010 Total</u>
Operating activities:				
Revenue and other support:				
Grants	\$ 60,042	—	—	60,042
Contributions	1,008	1,484	—	2,492
JAX <sup>®</sup> Mice & Services	126,789	—	—	126,789
Long-term investment return utilized	576	—	—	576
Other investment return	1,080	—	—	1,080
Other revenue	1,384	—	—	1,384
Total revenue	<u>190,879</u>	<u>1,484</u>	<u>—</u>	<u>192,363</u>
Net assets released from restrictions	2,096	(2,096)	—	—
Total revenue and other support	<u>192,975</u>	<u>(612)</u>	<u>—</u>	<u>192,363</u>
Expenses:				
Research	66,613	—	—	66,613
JAX <sup>®</sup> Mice & Services	76,939	—	—	76,939
Training	2,889	—	—	2,889
New initiatives	177	—	—	177
Institutional support	24,059	—	—	24,059
Total expenses	<u>170,677</u>	<u>—</u>	<u>—</u>	<u>170,677</u>
Increase in net assets from operating activities	<u>22,298</u>	<u>(612)</u>	<u>—</u>	<u>21,686</u>
Nonoperating activities:				
Grants and contributions for capital and long-term investments	5,170	1,114	271	6,555
Long-term investment return above amounts utilized	6,139	3,846	2	9,987
Unrealized net losses on interest-rate swaps	(365)	—	—	(365)
Changes in actuarial assumptions related to the pension and postretirement benefit plans	8	—	—	8
Net assets released from restrictions for capital purposes	125	(125)	—	—
Other reclassifications	180	(150)	(30)	—
Increase (decrease) in net assets from nonoperating activities	<u>11,257</u>	<u>4,685</u>	<u>243</u>	<u>16,185</u>
Adjustments required under MUPMIFA and ASC 958-205	(10,200)	10,200	—	—
Increase in net assets	<u>23,355</u>	<u>14,273</u>	<u>243</u>	<u>37,871</u>
Net assets, beginning of year	<u>196,961</u>	<u>13,271</u>	<u>7,989</u>	<u>218,221</u>
Net assets, end of year	<u>\$ 220,316</u>	<u>27,544</u>	<u>8,232</u>	<u>256,092</u>

See accompanying notes to financial statements.

**THE JACKSON LABORATORY**

Statements of Cash Flows

Years ended May 31, 2011 and 2010

(In thousands)

	<b>2011</b>	<b>2010</b>
Cash flows from operating activities:		
Increase in net assets	\$ 49,601	37,871
Adjustments to reconcile increase in net assets to net cash provided by operating activities:		
Depreciation and amortization	17,622	18,822
Unrealized and realized net investment gains	(9,598)	(8,806)
Unrealized and realized net losses on interest-rate swaps	335	365
Loss on disposal of long-lived assets	62	228
Contributions restricted for long-term investment	(86)	(271)
Contributions for acquisition and construction of long-lived assets	(1,056)	(139)
Changes in actuarial assumptions	(284)	(8)
Change in operating assets and liabilities	289	(2,436)
Net cash provided by operating activities	56,885	45,626
Cash flows from investing activities:		
Decrease in funds held by bond trustee	—	350
Purchases of long-lived assets	(24,868)	(14,595)
Proceeds from sales of investments	63,841	26,413
Purchases of investments	(99,663)	(56,101)
Net cash used in investing activities	(60,690)	(43,933)
Cash flows from financing activities:		
Repayments of bonds	(1,815)	(1,825)
Proceeds from sale of long-lived assets	—	8
Contributions restricted for long-term investment	86	271
Contributions for acquisition and construction of long-lived assets	1,056	139
Net cash used in financing activities	(673)	(1,407)
Net (decrease) increase in cash and equivalents	(4,478)	286
Cash and equivalents, beginning of year	9,159	8,873
Cash and equivalents, end of year	\$ 4,681	9,159
Cash paid for interest	\$ 3,572	3,657

See accompanying notes to financial statements.

# THE JACKSON LABORATORY

## Notes to Financial Statements

May 31, 2011 and 2010

(In thousands)

### (1) Background

The Jackson Laboratory (the Laboratory) is a not-for-profit independent research organization focusing on research to advance human health. The mission of the Laboratory is to discover the genetic basis for preventing, treating, and curing human disease, and to enable research and education for the global biomedical community. This mission is carried out through: (1) conducting basic biomedical research; (2) training and educating scientists worldwide; and (3) providing scientific services and genetic resources to the global scientific community.

### (2) Summary of Significant Accounting Policies

#### (a) *Basis of Presentation*

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

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, and disclosure of contingent assets and liabilities, at the dates of the 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 judgment include obligations under pension and postretirement plans, liabilities under self-insured plans, allowances for uncollectible receivables, and valuations of interest-rate swaps and certain alternative investments.

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. 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.

#### (b) *Classification of Net Assets*

FASB 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). ASC 958-205 provides guidance on the net asset classification of donor-restricted endowment funds for a not-for-profit organization that is subject to an enacted version of the Uniform Prudent Management of Institutional Funds Act (UPMIFA), and requires comprehensive disclosures regarding both donor-restricted endowment funds and board-designated (quasi) endowment funds. The State of Maine enacted the Maine Uniform Prudent Management of Institutional Funds Act (MUPMIFA) effective June 2009 and the Laboratory reflected the change in classifications required under the law effective June 1, 2009, which resulted in the reclassification within donor-restricted endowment funds of \$10,200 in fiscal 2010 from unrestricted net assets to temporarily restricted net assets to reflect the unappropriated and unspent balance above historic dollar value. See note 5 for more information about the Laboratory's endowment.

## THE JACKSON LABORATORY

Notes to Financial Statements

May 31, 2011 and 2010

(In thousands)

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.
- **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 use of the related assets is limited by donor-imposed restrictions. Expenses are reported as decreases in unrestricted net assets.

*(c) Revenue from Provision of Genetic Resources and Services*

Revenue from providing genetic resources and services is recognized when the resources are shipped or the services are provided and is included in JAX Mice and Services revenue. Accounts receivable from such activities are reported net of allowance for uncollectible accounts.

*(d) Revenue from Grants and Contracts*

The Laboratory recognizes revenue from grants and contracts as related costs are incurred. Payments received in advance of expenditures are recorded as deferred revenue until expended; related cash received in advance is reported as restricted cash. The Laboratory received approximately 26% and 27% of its public support and revenue from grants and contracts with the National Institutes of Health (NIH) in 2011 and 2010, respectively. Indirect costs are billed and recovered as direct costs are incurred and represented \$23,402 and \$20,998, respectively, of revenue from grants in 2011 and 2010. The loss or significant reduction of these or other federal programs could have a material adverse effect on the Laboratory’s operations. However, the Laboratory is not aware that any such programs will be discontinued or 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.

## THE JACKSON LABORATORY

### Notes to Financial Statements

May 31, 2011 and 2010

(In thousands)

**(e) Revenue from Contributions**

Contributions, including unconditional promises to give, are recognized as revenue in the period received. Written promises to give that are scheduled to be received after the statement of financial position dates 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 assets other than cash are recorded at their estimated fair value at the date of gift. Contributions to be received after one year are discounted at rates commensurate with the risks involved. Amortization of the discount is recorded as additional contribution revenue in accordance with the donor-imposed restrictions, if any, on the contributions.

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.

**(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 related to the operation and maintenance of long-lived assets, depreciation and interest, are allocated on the basis of square footage utilized by the program categories.

Expenses incurred by type for the year ended May 31, 2011 with comparative totals for 2010 are presented below:

<u>Program</u>	<u>Research</u>	<u>JAX™ Mice &amp; Services</u>	<u>Training</u>	<u>New initiatives</u>	<u>Institutional support</u>	<u>2011 Total</u>	<u>2010 Total</u>
Salaries and wages	\$ 31,456	29,637	870	—	13,408	75,371	71,406
Benefits	11,272	11,034	317	—	3,027	25,650	25,329
Professional and temporary help fees	631	1,367	116	704	2,421	5,239	3,004
Supplies	8,889	21,545	507	76	1,887	32,904	29,061
Maintenance and utilities	5,207	7,228	280	83	3,479	16,277	14,106
Travel	1,115	1,339	187	102	405	3,148	3,017
Interest	1,309	2,542	—	—	41	3,892	3,670
Depreciation	8,684	8,610	137	—	197	17,628	18,759
Other expenses	781	171	511	2	532	1,997	2,325
Total	<u>\$ 69,344</u>	<u>83,473</u>	<u>2,925</u>	<u>967</u>	<u>25,397</u>	<u>182,106</u>	<u>170,677</u>

All direct and indirect costs of fund raising are expensed as incurred and are included in institutional support in the statements of activities. Direct fund-raising expenses were \$2,061 and \$1,852 in 2011 and 2010, respectively.

## THE JACKSON LABORATORY

### Notes to Financial Statements

May 31, 2011 and 2010

(In thousands)

New initiatives include start-up activities related to a new location or program. The majority of the costs shown in 2011 and 2010 relate to the establishment of The Jackson Laboratory – Florida to focus on personalized medicine. Plans for this expansion were terminated in June 2011.

**(g) *Operating and Nonoperating Activities***

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

Operating activities consist of the Laboratory's ongoing research and training programs, including the provision of genetic resources and 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(b). Also included in operating revenue are research grant reimbursements of \$500 and \$629 in 2011 and 2010, respectively, for the purchase of equipment that becomes the property of the Laboratory upon acquisition. Depreciation charged to operating activities from research grant-funded equipment purchased in current and prior years was \$708 and \$739 in 2011 and 2010, respectively.

Nonoperating revenue includes items not related to the Laboratory's recurring activities. 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 (below) the amount appropriated under the Laboratory's spending formula, and grants to acquire land, buildings, and equipment are all reported as nonoperating activities. Unrealized and realized gains or losses of interest-rate swaps, as well as net actuarial gains or losses on prior service costs from the post-retirement plan not yet recognized as a component of periodic benefit costs are also presented as nonoperating activities.

**(h) *Restricted Cash***

Restricted cash represents (1) payments received under grants in advance of expenditures restricted to the uses allowed under the grants; (2) restricted gifts received but not expended and endowment income allocated to operations but not expended.

**(i) *Cash Equivalents***

For the purpose of the statements of cash flows, the Laboratory considers operational cash invested and returned daily to be cash equivalents. Temporarily uninvested cash and equivalents related to long-term investments are not considered cash and equivalents. Because the statement of cash flows is prepared in accordance with a prescribed format under GAAP, certain items included in operations for purposes of the statements of activities differ from items reported as cash flows from operating activities.

**(j) *Long-Lived Assets***

Long-lived assets are reported at cost at date of acquisition or at fair value at date of donation in the case of gifts. 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

## THE JACKSON LABORATORY

### Notes to Financial Statements

May 31, 2011 and 2010

(In thousands)

not add to the value of the asset or materially extend asset lives is not capitalized. The Laboratory's threshold for capitalizing assets is \$5 for equipment and \$20 for building improvements.

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

	<u>Years</u>
Buildings and improvements	15 – 50
Land improvements	5 – 15
Equipment	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 May 31, 2011 or 2010.

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 specifically states otherwise.

The Laboratory accounts for conditional asset retirement obligations that are incurred as an asset is placed in service or an obligation is assumed. Once the Laboratory determines an obligation exists, it assesses whether or not the amount of the obligation can be reasonably estimated. If the amount of the obligation can be reasonably estimated, the Laboratory records the present value of the obligation; the corresponding cost is capitalized and is accreted and included in depreciation. The liabilities remain until settled.

**(k) Issuance of Bonds**

Bond issuance costs are capitalized and deferred as other assets, and original issue discounts are recorded as decreases to the carrying value of the related bonds. Such issuance costs and discounts are accreted over the life of the related bonds.

**(l) Inventories**

To the extent material, inventories are capitalized at the lower of cost or market, with cost determined on the moving average method for laboratory and stockroom items, and standard cost (adjusted for purchase price variances) for mice materials. The Laboratory did not record its ready for sale genetic resource inventory on the statements of financial position as of May 31, 2011 and 2010, which estimated cost was \$2,716 and \$2,822, respectively.

**(m) 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

## THE JACKSON LABORATORY

### Notes to Financial Statements

May 31, 2011 and 2010

(In thousands)

fixed and variable interest rates in effect monthly are settled net 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. This does not include the credit risk of the counterparty in the payable position, which would result in a reduction in the Laboratory's estimated liability below the termination value. However, such reduction would not be material to the overall estimated fair values.

In addition, the Laboratory utilizes foreign currency hedges to fix the exchange rate on payments due under contracts denominated in a currency other than dollars. The foreign currency hedge is structured to approximate a range of dates and amounts due in foreign currency. Such hedges are settled at the end of each month or at the term of the respective agreements.

**(n) Fair Value of Financial Instruments**

The Laboratory discloses fair value information about all financial instruments, whether or not recognized in the statement of financial position, for which it is practicable to estimate fair value. The Laboratory's financial instruments not carried at fair value are carried at net realizable value, which approximates fair value. Such financial instruments consist of cash and equivalents, receivables from customers, grantors and donors, restricted cash and accounts payable and accrued expenses (excluding employee benefit obligations, which are not financial instruments). As the Laboratory's 2002 Series bonds payable are at variable rates set by the market, their carrying value approximates fair value. Based on the market price for bonds of equivalent coupon, credit rating, and maturity as of May 31, 2011 and 2010, the estimated fair value of the 2007 ABAG bonds approximated its carrying value at those dates.

**(o) Fair Value Measurements**

Fair value represents the price that would be received upon the sale of an asset or paid upon the transfer of a liability in an orderly transaction between market participants as of the measurement date. GAAP establishes a fair value hierarchy that prioritizes inputs used to measure fair value into three levels:

- Level 1 – quoted prices (unadjusted) in active markets that are accessible at the measurement date for assets or liabilities;
- Level 2 – observable prices that are based on inputs not quoted in active markets, but corroborated by market data; and
- Level 3 – unobservable inputs are used when little or no market data is available.

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

## THE JACKSON LABORATORY

Notes to Financial Statements

May 31, 2011 and 2010

(In thousands)

determined based on the aforementioned hierarchy, except for investments measured using net asset value (NAV) as a practical expedient to estimate fair value.

**(p) *Reclassifications***

Certain 2010 amounts have been reclassified to conform to the 2011 presentation.

**(3) *Investments***

**(a) *Overall Investment Objective***

The overall investment objective of the Laboratory is to invest its assets in a prudent manner that will achieve a long-term rate of return sufficient to fund a portion of its annual operating activities and increase investment value after inflation. The Laboratory diversifies its investments among various asset classes incorporating multiple strategies and managers. Major investment decisions are authorized by the Laboratory's Investment Subcommittee of the Finance Committee, which oversees the Laboratory's investment program in accordance with established guidelines.

**(b) *Investment Strategies***

In addition to traditional stocks and fixed-income securities, the Laboratory may also hold shares or units in traditional institutional funds as well as in alternative investment funds involving hedged strategies, private equity and real asset strategies. Hedged strategies involve funds whose managers have the authority to invest in various asset classes at their discretion, including the ability to invest long and short. 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 employ venture capital strategies and focus on investments in early stage companies. 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.

**(c) *Basis of Reporting***

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 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 alternative investment funds 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.

## THE JACKSON LABORATORY

### Notes to Financial Statements

May 31, 2011 and 2010

(In thousands)

**(d) Classification in the Fair Value Hierarchy**

The Laboratory owns interest in alternative investment funds rather than in securities underlying each fund, and therefore it is generally required to consider such investments as Level 2 or 3, even though the underlying securities may not be difficult to value or may be readily marketable. To the extent NAV has been used as a practical expedient to estimate fair value of an investment, that investment's classification in the fair value hierarchy is based on the Laboratory's ability to redeem its interest at or near the date of the statement of financial position. Accordingly, 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.

The following tables summarize the Laboratory's investments and other assets by major category in the fair value hierarchy as of May 31, 2011, as well as related strategy, liquidity and funding commitments:

	2011				Redemption or liquidation	Days notice
	Level 1	Level 2	Level 3	Total		
Working capital investments:						
Cash and cash equivalents	\$ 36,157	—	—	36,157	Daily	One
U.S. agency bonds	—	17,855	—	17,855	Daily	One
Corporate bonds	—	10,026	—	10,026	Daily	One
U.S. and global core fixed income funds	8,363	14,959	—	23,322	Daily – Monthly	One – two
Total working capital investments	44,520	42,840	—	87,360		
Long-term investments (endowment):						
Cash and cash equivalents	7,239	—	—	7,239	Daily	One
U.S. and global core fixed income funds	31,259	6,305	—	37,564	Daily – Monthly	One – two
Equities:						
U.S. mid and large cap value fund	7,366	1,001	—	8,367	Daily	One
Mid and large cap value fund	—	7,052	—	7,052	Monthly	30 days
Global – developed markets	7,942	1,002	—	8,944	Daily	One
Global – emerging markets	3,413	—	—	3,413	Daily	One
Global – emerging markets	—	1,877	—	1,877	Quarterly	60 days
Equities total	18,721	10,932	—	29,653		

## THE JACKSON LABORATORY

### Notes to Financial Statements

May 31, 2011 and 2010

(In thousands)

	2011				Redemption or liquidation	Days notice
	Level 1	Level 2	Level 3	Total		
Hedged equity funds:						
Short/long global market equities	—	1,213	—	1,213	Quarterly	45 days
Multiple strategies	—	—	10,054	10,054	Semi-annual – locked-up	90 days
Hedged equity funds total	—	1,213	10,054	11,267		
Private equity and other	—	—	1,730	1,730	Locked-up <sup>1</sup>	None
Total long-term investments	57,219	18,450	11,784	87,453		
Total	\$ 101,739	61,290	11,784	174,813		

<sup>1</sup> The lock-up periods have various terms with extensions of one to two years. As of May 31, 2011, the average remaining life of these partnerships is approximately five years. Unfunded future commitments aggregate \$468. Of the outstanding commitments, \$150 will not be called unless extraordinary expenses arise during liquidation.

	2010				Redemption or liquidation	Days notice
	Level 1	Level 2	Level 3	Total		
Working capital investments:						
Cash and cash equivalents	\$ 25,588	—	—	25,588	Daily	One
U.S. agency bonds	—	10,745	—	10,745	Daily	One
Corporate bonds	—	12,034	—	12,034	Daily	One
U.S. and global core fixed income funds	8,136	—	—	8,136	Daily	One
Total working capital investments	33,724	22,779	—	56,503		
Long-term investments (endowment):						
Cash and cash equivalents	18,125	—	—	18,125	Daily	One
U.S. and global core fixed income funds	18,104	300	—	18,404	Daily	One
Equities:						
U.S. mid and large cap value fund	9,342	—	—	9,342	Daily	One
Mid and large cap value fund	—	—	6,609	6,609	Annual	60 days
Global – developed markets	4,893	—	—	4,893	Daily	One
Global – emerging markets	—	2,387	—	2,387	Quarterly	60 days
Equities total	14,235	2,387	6,609	23,231		

# THE JACKSON LABORATORY

## Notes to Financial Statements

May 31, 2011 and 2010

(In thousands)

	2010				Redemption or liquidation	Days notice
	Level 1	Level 2	Level 3	Total		
Hedged equity funds:						
Short/long global market equities	—	2,519	—	2,519	Quarterly	45 days
Multiple strategies	—	3,758	6,855	10,613	Semi-annual – locked-up <sup>1</sup>	90 days
Hedged equity funds total	—	6,277	6,855	13,132		
Private equity and other	—	—	1,873	1,873	Locked-up <sup>2</sup>	None
Total long-term investments	50,464	8,964	15,337	74,765		
Total	\$ 84,188	31,743	15,337	131,268		

<sup>1</sup> The lock-up periods have various terms with extensions of up to one to two years. Most of the Level 2 balance was redeemed in July 2010.

<sup>2</sup> The lock-up periods have various terms with extensions of one to two years. As of May 31, 2010, the average remaining life of these partnerships is approximately five years. Unfunded future commitments aggregate \$639. Of the outstanding commitments, \$150 will not be called unless extraordinary expenses arise during liquidation.

The Laboratory also owns corporate and agency bonds directly through a brokerage account, and although these assets are readily marketable and are considered to have daily liquidity, these bonds have been categorized as a Level 2 investment due to the pricing methodology used, which may not consistently utilize identical securities.

**(e) Level 3 Roll Forward**

The following tables present the Laboratory's activity for the fiscal years ended May 31, 2011 and 2010 for investments measured at fair value on a recurring basis classified in Level 3:

Level 3 roll forward FYE May 31, 2011	Domestic equities	Hedge funds	Private equity and other	2011 Total
Beginning value as of June 1, 2010	\$ 6,609	6,855	1,873	15,337
Transfers in (out)	(6,609)	225	—	(6,384)
Acquisitions	—	5,000	190	5,190
Dispositions	—	(3,725)	(167)	(3,892)
Realized investment gains, net	—	2,536	73	2,609
Unrealized investment losses, net	—	(837)	(239)	(1,076)
Fair value at May 31, 2011	\$ —	10,054	1,730	11,784

**THE JACKSON LABORATORY**

Notes to Financial Statements

May 31, 2011 and 2010

(In thousands)

<b>Level 3 roll forward FYE May 31, 2010</b>	<b>Domestic equities</b>	<b>Hedge funds</b>	<b>Private equity and other</b>	<b>2010 Total</b>
Beginning value as of June 1, 2009	\$ 5,685	6,215	2,062	13,962
Transfers in or (out)	—	1,357	—	1,357
Acquisitions	—	—	174	174
Dispositions	—	(5,386)	(515)	(5,901)
Interest and dividends	—	6	121	127
Realized investment gains, net	—	856	37	893
Unrealized investment gains (losses), net	924	3,807	(6)	4,725
Fair value at May 31, 2010	\$ <u>6,609</u>	<u>6,855</u>	<u>1,873</u>	<u>15,337</u>

**(f) Liquidity**

Private equity and real asset investments are generally made through limited partnerships. Under the terms of these agreements, the Laboratory is obligated to remit additional funding periodically as capital or liquidity calls are exercised by the manager. These partnerships have a limited existence, and under such agreements may provide for annual extensions for the purpose of disposing portfolio positions and returning capital to investors. However, depending on market conditions, the inability to execute the fund's strategy, and other factors, a manager may extend the terms of a fund beyond its originally anticipated existence or may wind the fund down prematurely. The Laboratory cannot anticipate such changes because they are based on unforeseen events, but should they occur they might result in less liquidity or return from the investment than originally anticipated. As a result, the timing and amount of future capital or liquidity calls in any particular future year are uncertain.

Aggregate investment liquidity as of May 31, 2011 is presented below based on redemption or sale period:

	<b>Investment fair values</b>
Investment redemption or sale period:	
Daily	\$ 131,623
Monthly	28,316
Quarterly	3,090
Lock up for life of fund	<u>11,784</u>
Total as of May 31, 2011	\$ <u>174,813</u>

## THE JACKSON LABORATORY

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(In thousands)

**(g) Exceptions to NAV**

An alternative investment in a hedge fund is in receivership and in the process of liquidating. Based on the uncertainty of the investment holdings and their value and the timing of the ultimate liquidation, the May 31, 2010 estimated fair value of the fund was adjusted to \$2,058 versus the reported NAV of \$2,780 based on management's review. As of May 31, 2011, the estimated fair value of the fund was adjusted to the reported NAV of \$2,337 based on updated information on the value of the underlying assets and potential liabilities.

**(4) Investment Return**

The following summarizes investment return for the years ended May 31:

	2011	2010
Investment return:		
Interest and dividends	\$ 2,288	2,837
Realized and unrealized net gains	9,598	8,806
Investment return	\$ 11,886	11,643

Investment returns are included in the statements of activities as follows for the years ended May 31:

	2011	2010
Investment return:		
Operating:		
Long-term investment return utilized	\$ 692	576
Other investment return	1,096	1,080
Nonoperating activities:		
Long-term investment return above amounts utilized	10,098	9,987
Investment return	\$ 11,886	11,643

Investment return is net of bank and advisory fees, which were \$236 and \$146 for the years ended May 31, 2011 and 2010, respectively.

**(5) Endowment**

The Laboratory's endowment consisted of 56 individual donor-restricted funds, for 2011 and 2010, respectively, established for a variety of purposes, including support of research, training, and the library, as well as board-designated funds held for the long-term support of the Laboratory's mission.

As of June 1, 2009 the Board of Trustees set separate long-term investment return objectives and risk parameters for donor-designated and board designated funds. Donor-designated funds are invested with an investment objective of attaining an average annual real total return in excess of the spending rate over the long term with a risk profile equivalent to the Standard & Poor's index of 500 stocks. In contrast,

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Board-designated funds are invested with an investment objective of preserving value and maintaining liquidity in the short term, defined as three years. The Laboratory expects its donor-designated endowment funds, over five years, to provide an average annual real rate of return of approximately 5%. Actual returns in any given year may vary from this amount.

The board-designated endowment fund is expected to return an average real rate of return of 3% over three years as the emphasis is on preserving nominal market value. To satisfy its long-term rate-of-return objectives, the Laboratory relies on a total return strategy in which investment returns are achieved through both capital appreciation (realized and unrealized) and current yield (interest and dividends). The Laboratory targets a diversified asset allocation to active investment managers within the following asset categories: equities, fixed income instruments, and other investments. Other investments include hedge, venture capital, real assets, and derivative strategies. The Laboratory's asset allocation targets are as follows:

	<b>Target asset allocations</b>	
	<b>Donor- designated</b>	<b>Board- designated</b>
Equities	50%	20%
Fixed income and cash	15	80
Other	35	—
	100%	100%

**(a) Relevant Law**

The Maine Uniform Prudent Management of Institutional Funds Act enacted by the state of Maine (MUPMIFA) requires the preservation of the fair value of the original gift as of the gift date if explicit donor stipulations require the gift or corpus to be kept in perpetuity. As a result, the Laboratory classifies as permanently restricted net assets (a) the original value of gifts donated to the permanent endowment for gifts received prior to June 1, 2009, (b) the current fair value of gifts received after May 31, 2009 with donor stipulations and (c) accumulations to the permanent endowment made in accordance with the direction of the applicable donor gift instrument at the time the accumulation is added to the fund.

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.

**(b) Endowment Spending Policy**

Consistent with the standard of prudence prescribed by MUPMIFA, the Board of Trustees considers the preservation of the funds, the mission of the Laboratory and the intent of the donor-restricted endowment, the expected total return of investments, and the possible effect of general price adjustments in making a determination to appropriate or to accumulate donor-restricted endowment funds. The investment and spending policies for endowment assets attempt to provide a predictable

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(In thousands)

stream of funding to programs supported by an endowment, while seeking to maintain the purchasing power of endowment assets. In addition, when considering appropriation of board-designated endowment balances, the Trustees consider the need to maintain unrestricted net assets at levels needed to meet liquidity covenants related to outstanding bonds. Accordingly, the Board of Trustees appropriated annually a portion of long-term investment return for spending. In 2011 and 2010, this appropriation was generally equal to 4% of the rolling three-year average fair value of investments attributable to donor-restricted endowment funds if the fund specified a use for the income other than general support of the Laboratory. For individual endowment funds established before June 1, 2009 that are below the historical dollar value, or “underwater,” no spending is allocated from the fund until the fund recovers.

(c) **Endowment Activity**

Endowment net assets consist of the following at May 31:

		<b>2011</b>			
		<b>Unrestricted</b>	<b>Temporarily restricted</b>	<b>Permanently restricted</b>	<b>Total</b>
Donor-restricted endowment funds	\$	—	28,873	8,318	37,191
Board-designated endowment funds		50,262	—	—	50,262
Total endowment net assets	\$	<u>50,262</u>	<u>28,873</u>	<u>8,318</u>	<u>87,453</u>
		<b>2010</b>			
		<b>Unrestricted</b>	<b>Temporarily restricted</b>	<b>Permanently restricted</b>	<b>Total</b>
Donor-restricted endowment funds	\$	(56)	23,574	8,232	31,750
Board-designated endowment funds		43,015	—	—	43,015
Total endowment net assets	\$	<u>42,959</u>	<u>23,574</u>	<u>8,232</u>	<u>74,765</u>

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Changes in endowment net assets for the years ended May 31, 2011 and 2010 are as follows:

	<u>Unrestricted</u>	<u>Temporarily restricted</u>	<u>Permanently restricted</u>	<u>Total</u>
Endowment net assets, May 31, 2010	\$ 42,959	23,574	8,232	74,765
Contributions	10	—	86	96
Board transfer from operating funds to endowment	2,250	—	—	2,250
Investment return	5,043	5,747	—	10,790
Long-term investment return utilized	—	(692)	—	(692)
In-transit transactions	—	244	—	244
	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
Endowment net assets, May 31, 2011	<u>\$ 50,262</u>	<u>28,873</u>	<u>8,318</u>	<u>87,453</u>

Before MUPMIFA became effective as of June 1, 2009, the Laboratory classified the unspent income and appreciation of donor-restricted funds where the donor has specified general use of the income as unrestricted. Upon adoption of MUPMIFA, the Laboratory reclassified the unspent income and appreciation as temporarily restricted.

	<u>Unrestricted</u>	<u>Temporarily restricted</u>	<u>Permanently restricted</u>	<u>Total</u>
Endowment net assets, May 31, 2009	\$ 41,379	9,584	7,959	58,922
Reclassification in accordance with MUPMIFA	<u>(10,200)</u>	<u>10,200</u>	<u>—</u>	<u>—</u>
Adjusted endowment net assets, June 1, 2009	31,179	19,784	7,959	58,922
Contributions	—	—	271	271
Board transfer from operating funds to endowment	5,780	—	—	5,780
Investment return	6,000	4,275	2	10,277
Long-term investment return utilized	—	(576)	—	(576)
In-transit transactions	—	91	—	91
	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
Endowment net assets, May 31, 2010	<u>\$ 42,959</u>	<u>23,574</u>	<u>8,232</u>	<u>74,765</u>

## THE JACKSON LABORATORY

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In-transit transactions are due to timing on transfers between the Laboratory's operational accounts and endowment accounts.

**(d) Underwater Endowments**

From time to time, the fair value of assets associated with individual donor-restricted endowment funds may fall below the level that the donor has permanently restricted. Aggregate deficiencies of this nature are funded by, and reported as decreases in, unrestricted net assets. There were no aggregate deficiencies as of May 31, 2011 and \$56 as of May 31, 2010. Subsequent gains that restore the fair value of the assets of the endowment fund to the required level are classified as an increase in unrestricted net assets.

**(6) Accounts Receivable**

Accounts receivable consisted of the following as of May 31:

	<b>2011</b>	<b>2010</b>
Due from provision of genetic resources and services	\$ 16,962	14,951
Amounts reimbursable under grants and contracts	4,653	6,015
	21,615	20,966
Less allowance for uncollectibles	(845)	(909)
Accounts receivable, net	\$ 20,770	20,057

**(7) Long-Lived Assets**

Long-lived assets consisted of the following as of May 31:

	<b>2011</b>	<b>2010</b>
Land and improvements	\$ 5,452	5,424
Buildings and improvements	284,703	271,039
Construction in progress	13,037	9,145
Equipment	79,667	74,915
	382,859	360,523
Less accumulated depreciation	(173,685)	(158,878)
	\$ 209,174	201,645

The increase in accounts payable for acquisition and construction of long-lived assets was \$352 and \$38 during the years ended May 31, 2011 and 2010, respectively.

Commitments to third parties for the purchase of equipment, space renovation and construction projects were \$13,903 and \$6,053 as of May 31, 2011 and 2010, respectively.

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(In thousands)

**(8) Bonds Payable and Related Instruments**

**(a) Bonds and Note Payable**

Bonds payable consisted of the following as of May 31:

	<b>2011</b>	<b>2010</b>
Finance Authority of Maine Revenue Bonds (FAME bonds)	\$ 45,755	47,320
Association of Bay Area Government for California fixed rate revenue bonds (2007 ABAG bonds)	34,375	34,625
	80,130	81,945
Less unamortized discount	(364)	(380)
Bonds payable, net	79,766	81,565
Note payable	98	89
Total bonds and note payable, net	\$ 79,864	81,654

The FAME bonds were issued on June 13, 2002 in the amount of \$56,135. Interest is at a variable weekly rate of 0.21% and 0.30% as of May 31, 2011 and 2010, respectively, not to exceed 10%. The multi-modal bonds are currently in a weekly interest rate mode. In this mode, the remarketing agent determines the rate weekly based on the rate required to remarket the bonds at par, given prevailing market conditions. The bonds mature serially through July 1, 2031. As long as the FAME bonds have not been converted to a fixed rate, bond holders may tender and receive 100% of principal. The Laboratory has entered into a remarketing agreement with an investment banker (remarketing agent) to sell any bonds tendered for payment.

As security for the FAME bonds, the Laboratory obtained a letter of credit from a financial institution, effective through December 31, 2015. As of May 31, 2011 and 2010, this letter of credit remained unused. An annual maintenance fee equal to 0.55% of the unused balance through December 2010 and 0.60% of the unused balance thereafter is required. The Laboratory incurred maintenance fees of \$326 and \$283 in 2011 and 2010, respectively, which are included in interest expense. The letter of credit contains certain restrictive covenants, including limits on entering into additional debt, restrictions on the purchase and sale of assets, and maintaining a long-term obligation rating on all of the Laboratory's outstanding unenhanced bond indebtedness of greater than Baa1, or equivalent. The Laboratory must meet a minimum liquidity ratio measured semi-annually. The Laboratory was in compliance with all such covenants as of May 31, 2011 and 2010.

Unamortized bond issuance costs, which are included in other assets, were \$791 and \$823 as of May 31, 2011 and 2010, respectively.

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The 2007 ABAG bonds were issued on September 10, 2007 in the amount of \$35,075 in a weekly auction rate mode and converted to a fixed rate mode on April 23, 2008. The bonds carry fixed rates ranging from 3.3% to 5.75% for maturities from 2011 through 2038.

**(b) *Maturities of Bonds Payable***

Scheduled annual principal repayments as of May 31, 2011, were as follows:

	<u>Amounts due</u>
Year ending May 31:	
2012	\$ 1,870
2013	1,925
2014	2,010
2015	2,070
2016	2,155
Thereafter	<u>70,100</u>
Total	<u>\$ 80,130</u>

If the FAME bonds, as described in note 8(a) are put by investors, the Laboratory is obligated to purchase the FAME bonds. In this case, the Laboratory would utilize the letter of credit. Should the financial institution issuing the letter of credit 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.

**(c) *Interest-Rate Swaps***

The Laboratory utilizes certain interest-rate swap agreements, including forward-starting swaps, to essentially convert a portion of the variable rate on its \$45,755 FAME borrowings to various fixed rates. The swaps' notionals 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, they 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 fiscal year. The Laboratory has determined that if a credit value adjustment were made to reflect the potential for the Laboratory to fail to perform under the swap agreements, the fair values would be less than the amounts reported; however, such adjustment would not be material to the overall estimated swap fair values.

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As of May 31, 2011, the following interest-rate swap agreements were outstanding:

Counterparty	Issue date	Effective date	Expiration date	Remaining notional amount	Swap fixed rate	Fair value at May 31 asset (liability)	
						2011	2010
Morgan Stanley	06/12/02	07/01/02	07/01/12	\$ 12,225	3.655%	\$ (811)	(757)
Bank of America	06/12/02	07/01/02	07/01/22	12,225	3.920	(1,822)	(1,765)
Bank of America	06/11/03	07/01/03	07/01/31	13,206	2.859	(830)	(706)
Morgan Stanley	05/05/05	07/01/05	07/01/31	8,045	3.271	(476)	(752)
Morgan Stanley*	06/20/03	07/01/12	07/01/31	11,340	4.140	(1,670)	(1,284)
Bank of America*	06/20/03	07/01/22	07/01/31	5,905	4.000	(139)	(149)
Totals						\$ (5,748)	(5,413)

\* 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. While variable tax-exempt rates have generally historically correlated with 67% of LIBOR, there have been periods of time when municipal rates have varied significantly from LIBOR, and resulted in interest costs that are higher or lower than the fixed-swap rate. The average weekly variable rate averaged 12 and 13 basis points in excess of 67% of LIBOR for 2011 and 2010, respectively. The Morgan Stanley swap agreements contain a requirement for the Laboratory to post cash collateral if the aggregate mark-to-market value of the Morgan Stanley swaps exceeds a \$5 million liability as of any month end. The Bank of America swap agreements contain a requirement for the Laboratory to post cash collateral if the aggregate mark-to-market value of the Bank of America swaps exceed a \$8 million liability as of any month end. The Morgan Stanley and Bank of America 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.

## (9) Employee Benefits

### (a) *Defined Contribution Retirement Plan*

Subject to meeting certain eligibility requirements, all employees participate in a defined contribution 403(b) retirement plan administered by the Laboratory. Participants may invest their account balances with the Teachers Insurance and Annuity Association and the College Retirement Equities Fund (TIAA-CREF). Prior to September 2010, participants also had the option of investing with the Principal Financial Group. All regular full- and part-time employees working at least 20 hours per week are eligible to participate in the plan after completing six months of service. The Laboratory contributes 5% of an employee's earnings with each bi-weekly payroll. In addition, the Laboratory matches employee contributions up to an additional 5% of earnings up to the maximum allowed contribution. Employees vest in the employer contributions as follows: Fifty percent after two full years of employment and 100% after four years of employment. Contribution expense was \$6,394 and \$6,210 in 2011 and 2010, respectively.

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(In thousands)

**(b) Defined Benefit Retirement Plan**

Prior to October 1, 1995, employees other than scientific and management staff participated in a contributory defined benefit pension plan (Pension Plan), the assets of which are administered by Principal Financial Group. Contributions by the Laboratory to the defined benefit plan are based upon Employee Retirement Income Security Act of 1974 (ERISA) minimum funding requirements. In 2011, the Laboratory made an additional contribution of \$1,000 in excess of the minimum funding requirements to reduce the unfunded balance. The Laboratory contributed \$1,585 and \$273 for the years ended May 31, 2011 and 2010, respectively. The Board has authorized the Retirement Committee to terminate the defined benefit retirement plan at the most appropriate time in the future.

In accordance with FASB ASC Topic 715 (ASC 715), actuarial loss of \$50 and gain of \$38 are included in the nonoperating section of the 2011 and 2010 statements of activities, respectively, representing the change in funded status not affecting periodic pension cost.

In addition, the Laboratory has a supplemental pension obligation under an employment agreement. The present value of the obligation 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.

The Pension Plan's investments include pooled separate accounts and, accordingly, the Laboratory utilizes the net asset value (NAV) or its equivalent reported by the Plan's custodian as a practical expedient to estimate the fair value of the investments. The level in the fair value hierarchy in which each investment's fair value is classified is based on the ability to redeem the investment at or near the date of the statement of financial position.

The following table summarizes the Pension Plan's investments by major category in the fair value hierarchy as of May 31, 2011 and 2010:

	May 31, 2011			
	Level 1	Level 2	Level 3	Totals
Fixed income	\$ —	4,458	—	4,458
U.S. equities	—	983	—	983
International equities	—	319	—	319
Real estate	—	—	110	110
	<u>\$ —</u>	<u>5,760</u>	<u>110</u>	<u>5,870</u>

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	<b>May 31, 2010</b>			<b>Totals</b>
	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	
Fixed income	\$ —	3,155	—	3,155
U.S. equities	—	714	—	714
International equities	—	149	—	149
Real estate	—	—	91	91
	<u>\$ —</u>	<u>4,018</u>	<u>91</u>	<u>4,109</u>

**(c) Postretirement Medical Plan**

The Laboratory maintains a postretirement medical plan covering certain retired employees with hire dates before 2003 and ten faculty members eligible to retire on May 31, 2008, and their dependents. Other than the payment of current benefits totaling \$756 and \$783 in 2011 and 2010, respectively, the Laboratory has not funded the postretirement plan. Contributions by retired employees are required for coverage of dependents. In addition, the Laboratory has agreed to provide \$3.6 per year towards the cost of medical coverage for each of the twelve retired employees not yet eligible for Medicare and meeting a combined years of service and age threshold.

The impact of the changes in actuarial assumptions for 2011 and 2010 was an increase in the liability resulting in a gain of \$333 and loss of \$30, respectively, included in the nonoperating section of the statements of activities.

**(d) Combined Disclosures – Defined Benefit Pension and Postretirement Medical Plans**

The Laboratory uses an annual measurement date of May 31 to determine the benefit obligations for its plans. Following are significant required disclosures on a combined basis:

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(In thousands)

Benefit obligations and funded status of the plans for the years ended May 31 were as follows:

	<b>Pension plan benefits</b>		<b>Retiree medical benefits</b>	
	<b>2011</b>	<b>2010</b>	<b>2011</b>	<b>2010</b>
Changes in benefit obligations:				
Benefit obligation at beginning of year	\$ 6,205	5,761	7,953	8,094
Interest cost	349	355	495	547
Actuarial (gain) loss	510	335	(333)	30
Medicare Part D subsidy with adjustment	—	—	141	65
Benefits paid	(320)	(246)	(756)	(783)
Benefit obligation at end of year	6,744	6,205	7,500	7,953
Changes in plan assets:				
Fair value of plan assets at beginning of year	4,109	3,716	—	—
Actual return on plan assets	496	366	—	—
Employer contributions	1,585	273	756	783
Employee contributions	—	—	88	112
Benefits paid	(320)	(246)	(844)	(895)
Fair value of plan assets at end of year	5,870	4,109	—	—
Accrued benefit cost recognized in the statements of financial position	\$ (874)	(2,096)	(7,500)	(7,953)

Accrued benefit cost is included in accounts payable and accrued expenses.

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(In thousands)

Net periodic benefit cost consisted of the following components for the years ended May 31:

	<b>Pension plan benefits</b>		<b>Retiree medical benefits</b>	
	<b>2011</b>	<b>2010</b>	<b>2011</b>	<b>2010</b>
Interest cost	\$ 349	355	495	547
Expected return on assets	(246)	(204)	—	—
Medicare Part D subsidy	—	—	(90)	(108)
Amortization of net actuarial loss	210	211	118	118
Net periodic benefit cost recorded	\$ 313	362	523	557

Weighted average assumptions used to determine benefit obligations as of May 31 were as follows:

	<b>Pension plan benefits</b>		<b>Retiree medical benefits</b>	
	<b>2011</b>	<b>2010</b>	<b>2011</b>	<b>2010</b>
Discount rate	5.04%	5.83%	4.55%	5.83%
Rate of compensation increase	N/A	N/A	N/A	N/A

Weighted average assumptions used to determine net periodic benefit cost for the years ended May 31 were as follows:

	<b>Pension plan benefits</b>		<b>Retiree medical benefits</b>	
	<b>2011</b>	<b>2010</b>	<b>2011</b>	<b>2010</b>
Discount rate	5.83%	6.30%	5.83%	6.30%
Expected long-term return on plan assets	5.50	5.50	N/A	N/A
Rate of compensation increase	N/A	N/A	N/A	N/A

The expected long-term rate of return has been established based on the ongoing investment of pension plan assets in a portfolio of high quality mutual funds and fixed income securities. The components of the expected long-term rate of return include annual expectations for a risk-free rate of return of 2.50% per year, plus long-term annual inflation of 3.00% per year.

The assumed health care cost trend rates at May 31 were as follows:

	<b>2011</b>	<b>2010</b>
Health care cost trend rate assumed for next year	8.00%	9.00%
Rate to which the cost trend rate is assumed to decline (the ultimate trend rate)	4.50	4.50
Year that the rate reaches the ultimate trend rate	2016	2016

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

	<b>Point increase</b>	<b>Point decrease</b>
Effect on total of service and interest cost	\$ 35	31
Effect on postretirement benefit obligation	600	532

The Laboratory's defined benefit pension plan weighted average asset allocations as of May 31, 2011 and 2010, by asset category, were as follows:

	<b>2011</b>	<b>2010</b>
Asset category:		
Fixed income	76%	77%
U.S. equities	17	17
International equities	5	4
Real estate	2	2
Total	100%	100%

The Laboratory maintains an investment policy for the defined benefit pension plan through the Retirement Committee. Given that the plan is frozen, the investment policy guidelines suggest that the assets will be held in fixed income securities, government backed securities, equities, and cash as needed to pay current benefits.

The Laboratory expects to make future contributions of \$302 to its defined benefit pension plan and \$641 (net of retiree contributions) to its postretirement benefit plan in the next fiscal year.

The Laboratory's estimated future benefit payments as of May 31, 2011 are as follows:

	<b>Pension plan benefits</b>	<b>Retiree medical benefits</b>
Fiscal year ending:		
2013	\$ 340	668
2014	372	673
2015	399	625
2016	414	603
2017 through 2021	2,278	2,702

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**(e) *The Medicare Prescription Drug Improvement and Modernization Act of 2003***

The Medicare Prescription Drug Improvement and Modernization Act of 2003 provided a federal subsidy to sponsors of retiree health care benefit plans that provide certain levels of prescription drug benefits. This subsidy has been applied and, accordingly, the subsidy has been considered in the measurement of accumulated postretirement benefit obligation and related net periodic benefit cost in the accompanying financial statements and notes.

**(f) *Healthcare and Workers' Compensation Programs***

The Laboratory is self-insured for the costs of healthcare coverage not funded by employees. Funds provided by employees for healthcare coverage during 2011 and 2010 were \$2,980 and \$2,805, respectively. Third-party stop-loss insurance covers annual aggregate costs over \$16,783 and individual claims in excess of \$150 per member per calendar year. The Laboratory's expense under the plan during 2011 and 2010 was \$10,359 and \$9,808, respectively. Accruals for known unpaid claims and estimated claims incurred but not reported are based on actual claims experience and other factors. As of May 31, 2011 and 2010, such accruals amounted to \$3,286 and \$1,707, respectively, and are included in accounts payable and accrued expenses.

The Laboratory participates in a group workers' compensation self-insured trust fund (the Fund) for its Maine employees and purchases workers' compensation insurance for employees located outside of Maine. Workers' compensation expense amounted to \$470 and \$602 in 2011 and 2010, respectively. The cost of Maine workers' compensation coverage is determined by the Fund assessments less any dividends received. The Fund maintains reinsurance to cover any occurrence over \$500.

**(g) *Deferred Compensation Program***

The Laboratory has a deferred compensation program under Section 457(f) of the Internal Revenue Code under which a portion of key employees' compensation is deferred and vested over time. The Laboratory funds the deferred compensation obligation through a Rabbi Trust. The liability of \$520 and \$736 at May 31, 2011 and 2010, respectively, is included in accrued expenses, and the corresponding Rabbi Trust assets are included in other assets because they are subject to claims of creditors of the Laboratory.

The Laboratory also maintains a nonqualified salary deferral plan (the 457(b) Plan) authorized under Section 457(b) of the Internal Revenue Code. This plan allows management and highly compensated employees (salaries over \$115) to defer up to \$16.5 of their salary each calendar year. The Laboratory's liability for an employee's deferred salary is adjusted for deemed investment gains or losses based on the employee's selection of an investment fund proxy. Distributions are made the earlier of death, disability, retirement, or cessation of employment. Under the 457(b) Plan, the Laboratory may add discretionary credits to an employee's account. The Laboratory holds investments approximately matching the employee investment selections to assure funding is available to meet future liabilities. The investments amounted to \$1,687 and \$1,089 at May 31, 2011 and 2010, respectively, and are included in other assets.

**THE JACKSON LABORATORY**

Notes to Financial Statements

May 31, 2011 and 2010

(In thousands)

**(10) Restricted Net Assets**

The Laboratory classifies gift pledges as time restricted until collected. When collected, a restricted gift is reclassified to its purpose restriction or if unrestricted, released from restriction.

**(a) Temporarily Restricted Net Assets**

Temporarily restricted net assets consisted of the following as of May 31:

	<u>2011</u>	<u>2010</u>
Contributions receivable and remainder trust, net	\$ 3,598	2,367
Unappropriated gains and income on donor-restricted endowments	28,538	23,483
Restricted for acquisition and construction of long-lived assets	1,476	208
Restricted for research, training and other programs	<u>1,590</u>	<u>1,486</u>
	<u>\$ 35,202</u>	<u>27,544</u>

**(b) Permanently Restricted Net Assets**

Permanently restricted net assets consisted of the following as of May 31:

	<u>2011</u>	<u>2010</u>
Endowments for:		
Research	\$ 4,775	4,748
Training	369	369
Other programs	665	660
General purposes	<u>2,509</u>	<u>2,455</u>
	<u>\$ 8,318</u>	<u>8,232</u>

## THE JACKSON LABORATORY

### Notes to Financial Statements

May 31, 2011 and 2010

(In thousands)

**(c) Net Assets Released from Restrictions**

Net assets released from restrictions consisted of the following for the years ended May 31:

	<u>2011</u>	<u>2010</u>
Operating activities:		
Research programs	\$ 871	1,861
Training programs	47	64
Other	88	171
	<u>1,006</u>	<u>2,096</u>
Nonoperating activities:		
Acquisition and construction of long-lived assets	143	125
Total net assets released from restrictions	<u>\$ 1,149</u>	<u>2,221</u>

**(11) Commitments and Contingencies**

**(a) Leases**

The Laboratory leases warehouse, office space, and other equipment under leases accounted for as operating leases having remaining terms from one to four years. Some of these leases have renewal options. Total rental expense was \$424 and \$653 in 2011 and 2010, respectively.

**(b) Legal Claims**

The Laboratory is subject to certain legal proceedings and claims that arise in the ordinary course of conducting its activities, including lawsuits claiming infringement of patent and trademark rights. 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.

**(c) Other Commitments**

In the ordinary course of business, the Laboratory enters into contracts to lock in the price of electricity not for speculative purposes, but to eliminate the variability in market pricing over several months for operational purposes. Such commitments are accounted for as costs are incurred and do not contain features that require them to be accounted for as derivative instruments.

# THE JACKSON LABORATORY

## Notes to Financial Statements

May 31, 2011 and 2010

(In thousands)

### (12) 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 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 Audit Committee. When such a relationship exists, the Laboratory requires such transactions be conducted at arm's length, with terms that are fair and reasonable to and for the benefit of the Laboratory. For senior management, the Laboratory requires annual disclosure of significant financial interests in, or governance, employment, consulting relationships with entities doing business with the Laboratory. When such relationships exist, measures are taken to appropriately manage the actual or perceived conflict in the best interest of the Laboratory.

The Laboratory purchases legal services from a firm in which a Trustee holds a partner position. In addition, the Laboratory subleases space and licenses intellectual property to a company in which a member of the faculty holds an ownership interest and serves as an advisor. Both of the transactions are on an arm's length basis. The Laboratory is a co-investor with two former Trustees in a limited partnership established to invest in a venture fund. Further, the Laboratory maintains deposits in a bank in which an officer of the Laboratory serves on the Board of Directors. The bank was selected in a competitive process.

### (13) Subsequent Events

- (a) The Laboratory is changing its fiscal year end from May 31 to December 31 effective December 31, 2011 and will report for a seven month period.
- (b) The Board of Trustees approved a change in the target asset allocation of the Board-designated portion of the endowment to:

Growth oriented investments	60%
Income generating investments	20
Real asset based investments	20

The Laboratory has evaluated subsequent events from the statement of financial position date of May 31, 2011 through October 24, 2011, the date on which the financial statements were issued, and determined there are no other items to disclose.

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**THE JACKSON LABORATORY**

Financial Statements

December 31, 2011

(With Independent Auditors' Report Thereon)

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**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 statement of financial position of The Jackson Laboratory (the Laboratory) as of December 31, 2011, and the related statements of activities and cash flows for the period from June 1, 2011 to December 31, 2011. These financial statements are the responsibility of the Laboratory's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit 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 of material misstatement. An audit includes consideration of internal control over financial reporting as a basis for designing 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 over financial reporting. Accordingly, we express no such opinion. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our 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, 2011, and the changes in its net assets and its cash flows for the period from June 1, 2011 to December 31, 2011 in conformity with U.S. generally accepted accounting principles.

**KPMG LLP**

May 23, 2012

# THE JACKSON LABORATORY

## Statement of Financial Position

December 31, 2011

(In thousands)

### Assets

Cash and equivalents	\$	9,545
Working capital investments, at fair value		103,150
Accounts receivable, net		19,887
Contributions receivable, net		2,816
Other assets		12,539
Long-term investments, at fair value		80,841
Long-lived assets, net		216,644
Total assets	\$	<u>445,422</u>

### Liabilities and Net Assets

Liabilities:		
Accounts payable and accrued expenses	\$	25,346
Interest rate swaps		9,228
Accrued pension and postretirement obligations		9,196
Deposits and deferred revenue		6,367
Bonds payable, net		77,905
Total liabilities		<u>128,042</u>
Net assets:		
Unrestricted		277,730
Temporarily restricted		31,257
Permanently restricted		8,393
Total net assets		<u>317,380</u>
Total liabilities and net assets	\$	<u>445,422</u>

See accompanying notes to financial statements.

**THE JACKSON LABORATORY**  
Statement of Activities  
Period from June 1, 2011 to December 31, 2011  
(In thousands)

	<u>Unrestricted</u>	<u>Temporarily restricted</u>	<u>Permanently restricted</u>	<u>Total</u>
Operating activities:				
Revenue and other support:				
Grants	\$ 38,059	—	—	38,059
Contributions	654	825	—	1,479
JAX <sup>®</sup> Mice & Services	89,936	—	—	89,936
Long-term investment return utilized	—	365	—	365
Other investment return	703	—	—	703
Other revenue	1,210	—	—	1,210
Total revenue	<u>130,562</u>	<u>1,190</u>	<u>—</u>	<u>131,752</u>
Net assets released from restrictions	<u>1,154</u>	<u>(1,154)</u>	<u>—</u>	<u>—</u>
Total revenue and other support	<u>131,716</u>	<u>36</u>	<u>—</u>	<u>131,752</u>
Expenses:				
Research	38,231	—	—	38,231
JAX <sup>®</sup> Mice & Services	51,122	—	—	51,122
Training	1,907	—	—	1,907
New initiatives	169	—	—	169
Institutional support	19,151	—	—	19,151
Total expenses	<u>110,580</u>	<u>—</u>	<u>—</u>	<u>110,580</u>
Increase in net assets from operating activities	<u>21,136</u>	<u>36</u>	<u>—</u>	<u>21,172</u>
Nonoperating activities:				
Grants and contributions for capital and long-term investments	1,579	466	75	2,120
Long-term investment return below amounts utilized	(2,327)	(3,866)	—	(6,193)
Unrealized net losses on interest-rate swaps	(3,480)	—	—	(3,480)
Pension and postretirement plan charges above net periodic benefit costs	(832)	—	—	(832)
Valuation adjustment for loan to New York Genome Center	(1,100)	—	—	(1,100)
Other reclassifications	(15)	15	—	—
Net assets released from restrictions for capital purposes	596	(596)	—	—
(Decrease) increase in net assets from nonoperating activities	<u>(5,579)</u>	<u>(3,981)</u>	<u>75</u>	<u>(9,485)</u>
Increase (decrease) in net assets	<u>15,557</u>	<u>(3,945)</u>	<u>75</u>	<u>11,687</u>
Net assets, beginning of period	<u>262,173</u>	<u>35,202</u>	<u>8,318</u>	<u>305,693</u>
Net assets, end of period	<u>\$ 277,730</u>	<u>31,257</u>	<u>8,393</u>	<u>317,380</u>

See accompanying notes to financial statements.

# THE JACKSON LABORATORY

## Statement of Cash Flows

Period from June 1, 2011 to December 31, 2011

(In thousands)

Cash flows from operating activities:	
Increase in net assets	\$ 11,687
Adjustments to reconcile increase in net assets to net cash provided by operating activities:	
Depreciation and amortization	10,680
Valuation adjustment for loan to New York Genome Center	1,100
Unrealized and realized net investment losses	6,734
Unrealized net losses on interest-rate swaps	3,480
Loss on disposal of long-lived assets	95
Contributions restricted for long-term investment	(38)
Contributions for acquisition and construction of long-lived assets	(1,316)
Pension and postretirement plan charges above net periodic benefit costs	832
Change in operating assets and liabilities, net	(626)
Net cash provided by operating activities	<u>32,628</u>
Cash flows from investing activities:	
Purchases of long-lived assets	(16,296)
Proceeds from sales of investments	122,323
Purchases of investments	(130,658)
Loan to New York Genome Center	(2,500)
Net cash used in investing activities	<u>(27,131)</u>
Cash flows from financing activities:	
Repayments of bonds	(1,987)
Contributions restricted for long-term investment	38
Contributions for acquisition and construction of long-lived assets	1,316
Net cash used in financing activities	<u>(633)</u>
Net increase in cash and equivalents	4,864
Cash and equivalents, beginning of period	<u>4,681</u>
Cash and equivalents, end of period	<u>\$ 9,545</u>
Cash paid for interest	\$ 2,960

See accompanying notes to financial statements.

# THE JACKSON LABORATORY

## Notes to Financial Statements

December 31, 2011

(In thousands)

### (1) Background

The Jackson Laboratory (the Laboratory) is a not-for-profit independent research organization focusing on research to advance human health. The mission of the Laboratory is to discover the genetic basis for preventing, treating, and curing human disease, and to enable research and education for the global biomedical community. This mission is carried out through: (1) conducting basic biomedical research; (2) training and educating scientists worldwide; and (3) developing and providing scientific services and genetic resources to the global scientific community and information related to genetic resources.

In 2011, the Laboratory changed its fiscal year end from May 31 to December 31. Accordingly, these financial statements present balances and activities as of December 31, 2011 and for the period from June 1, 2011 to December 31, 2011, respectively.

### (2) Summary of Significant Accounting Policies

#### (a) *Basis of Presentation*

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

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, and disclosure of contingent assets and liabilities, at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Management estimates requiring the application of significant judgment include obligations under pension and postretirement plans, liabilities under self-insured plans, allowances for uncollectible receivables, and valuations of interest-rate swaps and certain alternative investments.

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.

#### (b) *Classification of Net Assets*

FASB 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). ASC 958-205 provides guidance on the net asset classification of donor-restricted endowment funds for a not-for-profit organization that is subject to an enacted version of the Uniform Prudent Management of Institutional Funds Act (UPMIFA), and requires comprehensive 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 endowment funds. See note 5 for more information about the Laboratory's endowment.

## THE JACKSON LABORATORY

### Notes to Financial Statements

December 31, 2011

(In thousands)

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.
- 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. Expenses are reported as decreases in unrestricted net assets.

**(c) Revenue from Provision of Genetic Resources and Services**

Revenue from providing genetic resources and services is recognized when the resources are shipped or the services are provided and is included in JAX Mice and Services revenue. Accounts receivable from such activities are reported net of allowance for uncollectible accounts.

**(d) Revenue from Grants and Contracts**

The Laboratory recognizes revenue from grants and contracts as related costs are incurred. Payments received in advance of expenditures are recorded as deferred revenue until expended. The Laboratory received approximately 25% of its revenue from grants and contracts with the National Institutes of Health (NIH) for the period ended December 31, 2011. Indirect costs are billed and recovered as direct costs are incurred and represented \$14,045 of revenue from grants for the seven-month period ended December 31, 2011. The loss or significant reduction of these or other federal programs could have a material adverse effect on the Laboratory’s operations. However, the Laboratory is not aware that any such programs will be discontinued or 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.

# THE JACKSON LABORATORY

## Notes to Financial Statements

December 31, 2011

(In thousands)

**(e) Revenue from Contributions**

Contributions, including unconditional promises to give, are recognized as revenue in the period received. Written promises to give that are scheduled to be received after the statement of financial position 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 assets other than cash are recorded at their estimated fair value at the date of gift. Contributions to be received after one year are discounted at rates commensurate with the risks involved. 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.

**(f) Programmatic Expenses**

Expenses are presented on the statement of activities on a functional or programmatic basis, consisting of direct costs and indirect facility related costs. Facility related expenses, including costs related to the operation and maintenance of long-lived assets, depreciation and interest, are allocated on the basis of square footage utilized by the program categories.

Expenses incurred by type for the period ended December 31, 2011 are presented below:

<b>Program</b>	<b>Research</b>	<b>JAX<sup>®</sup> Mice &amp; Services</b>	<b>Training</b>	<b>New initiatives</b>	<b>Institutional support</b>	<b>Total</b>
Salaries and wages	\$ 18,535	17,527	540	—	8,363	44,965
Benefits	5,925	5,603	173	—	2,674	14,375
Professional services	476	1,121	35	14	2,579	4,225
Supplies	5,091	14,168	268	3	914	20,444
Maintenance and utilities	2,989	4,913	122	65	2,536	10,625
Travel	482	815	343	86	203	1,929
Interest	479	1,566	12	—	177	2,234
Depreciation	3,904	5,299	102	—	1,347	10,652
Other expenses	350	110	312	1	358	1,131
Total	<u>\$ 38,231</u>	<u>51,122</u>	<u>1,907</u>	<u>169</u>	<u>19,151</u>	<u>110,580</u>

All direct and indirect costs of fund raising are expensed as incurred and are included in institutional support in the statement of activities. Direct fund-raising expenses were \$1,231 for the period ended December 31, 2011.

# THE JACKSON LABORATORY

## Notes to Financial Statements

December 31, 2011

(In thousands)

**(g) *Operating and Nonoperating Activities***

The statement of activities reports 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(b). Also included in operating revenue are research grant reimbursements of \$169 for the purchase of equipment that became the property of the Laboratory upon acquisition. Depreciation charged to operating activities from research grant-funded equipment purchased in current period was \$478.

Nonoperating revenue includes items not related to the Laboratory's recurring activities. 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 (below) the amount appropriated under the Laboratory's spending formula, and grants to acquire land, buildings, and equipment are all reported as nonoperating activities. The change in value of interest-rate swaps, as well as pension and postretirement plan charges above periodic benefit costs are all presented as nonoperating activities.

**(h) *Cash Equivalents***

For the purpose of the statement of cash flows, cash equivalents consist of money market funds and investments with original maturities of three months or less and are carried at cost, which approximate fair value. Temporarily uninvested cash and equivalents related to long-term investments are not considered cash and equivalents. Because the statement of cash flows is prepared in accordance with a prescribed format under GAAP, certain items included in operations for purposes of the statement of activities differ from items reported as cash flows from operating activities.

**(i) *Long-Lived Assets***

Long-lived assets are reported at cost at date of acquisition or at fair value at date of donation in the case of gifts. 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. The Laboratory's threshold for capitalizing assets is \$5 for equipment and \$20 for building improvements.

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

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

## THE JACKSON LABORATORY

### Notes to Financial Statements

December 31, 2011

(In thousands)

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, 2011.

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 specifically states otherwise.

**(j) Issuance of Bonds**

Bond issuance costs are capitalized and deferred as other assets, and original issue discounts are recorded as decreases to the carrying value of the related bonds. Such issuance costs and discounts are amortized over the life of the related bonds.

**(k) 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. This does not include the credit risk of the counterparty in the payable position, which would result in a reduction in the Laboratory's estimated liability of approximately \$1,780 below the termination value.

**(l) Fair Value of Financial Instruments**

The Laboratory discloses fair value information about all financial instruments, whether or not recognized in the statement of financial position, for which it is practicable to estimate fair value. The Laboratory's financial instruments not carried at fair value are carried at net realizable value, which approximates fair value. Such financial instruments consist of cash and equivalents, receivables from customers, grantors and donors, and accounts payable and accrued expenses (excluding employee benefit obligations, which are not financial instruments). As the Laboratory's 2002 Series bonds payable are at variable rates set by the market, their carrying value approximates fair value. Based on the current market interest rates for bonds issued by institutions of equivalent credit rating and approximating the maturity as of December 31, 2011, the estimated fair value of the 2007 ABAG bonds exceeds its carrying value at that date by approximately \$4,200.

## THE JACKSON LABORATORY

### Notes to Financial Statements

December 31, 2011

(In thousands)

#### **(m) Fair Value Measurements**

Fair value represents the price that would be received upon the sale of an asset or paid upon the transfer of a liability in an orderly transaction between market participants as of the measurement date. GAAP establishes a fair value hierarchy that prioritizes inputs used to measure fair value into three levels:

- Level 1 – quoted prices (unadjusted) in active markets that are accessible at the measurement date for assets or liabilities;
- Level 2 – observable prices that are based on inputs not quoted in active markets, but corroborated by market data; and
- Level 3 – unobservable inputs are used when little or no market data is available.

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.

#### **(3) Investments**

##### **(a) Overall Investment Objective**

The overall investment objective of the Laboratory is to invest its assets in a prudent manner that will achieve a long-term rate of return sufficient to fund a portion of its annual operating activities and increase investment value after inflation. The Laboratory diversifies its investments among various asset classes incorporating multiple strategies and managers. Major investment decisions are authorized by the Laboratory's Investment Subcommittee of the Finance Committee, which oversees the Laboratory's investment program in accordance with established guidelines. The Laboratory engages an investment consultant to support the committee on portfolio allocation, due diligence on investment managers and performance monitoring.

# THE JACKSON LABORATORY

## Notes to Financial Statements

December 31, 2011

(In thousands)

**(b) *Investment Strategies***

In addition to traditional stocks and fixed-income securities, the Laboratory may also hold shares or units in traditional institutional funds as well as in alternative investment funds involving hedged strategies, private equity and real asset strategies. Hedged strategies involve funds whose managers have the authority to invest in various asset classes at their discretion, including the ability to invest long and short. 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 employ venture capital strategies and focus on investments in early stage companies. 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.

**(c) *Basis of Reporting***

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 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 alternative investment funds 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.

**(d) *Classification in the Fair Value Hierarchy***

The Laboratory owns interests in alternative investment funds rather than in securities underlying each fund, and therefore it is generally required to consider such investments as Level 2 or 3, even though the underlying securities may not be difficult to value or may be readily marketable. To the extent NAV has been used as a practical expedient to estimate fair value of an investment, that investment's classification in the fair value hierarchy is based on the Laboratory's ability to redeem its interest at or near the date of the statement of financial position. Accordingly, 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.

# THE JACKSON LABORATORY

## Notes to Financial Statements

December 31, 2011

(In thousands)

The following tables summarize the Laboratory's investments and other assets by major category in the fair value hierarchy as of December 31, 2011, as well as related strategy, liquidity and funding commitments:

	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Total</u>	<u>Redemption or liquidation</u>	<u>Days' notice</u>
Working capital investments:						
Cash and cash equivalents	\$ 45,448	—	—	45,448	Daily	One
U.S. government agency bonds	—	7,804	—	7,804	Daily	One
Corporate bonds	—	13,182	—	13,182	Daily	One
U.S. and global fixed income funds	16,523	20,193	—	36,716	Daily	One
Total working capital investments	<u>61,971</u>	<u>41,179</u>	<u>—</u>	<u>103,150</u>		
Long-term investments (endowment):						
Cash and cash equivalents	1,582	—	—	1,582	Daily	One
U.S. and global fixed income funds	9,223	5,189	—	14,412	Daily to Monthly	One to Five
Equities:						
U.S. mid and large cap value fund	10,694	7,564	—	18,258	Daily to Monthly	One to Thirty
Global large cap	3,175	3,375	—	6,550	Daily to Monthly	One to Thirty
Global – developed markets	7,348	—	—	7,348	Daily	One
Global – emerging markets	6,640	1,743	—	8,383	Daily to Quarterly	One to Sixty
Total equities	<u>27,857</u>	<u>12,682</u>	<u>—</u>	<u>40,539</u>		
Hedged equity funds:						
Short/long global market equities	—	1,047	—	1,047	Quarterly	Forty-Five
Multiple strategies	—	9,411	12,307	21,718	Monthly to locked-up	Five to N/A
Total hedged equity funds	<u>—</u>	<u>10,458</u>	<u>12,307</u>	<u>22,765</u>		
Private equity and other	—	—	1,543	1,543	Locked-up <sup>1</sup>	N/A
Total long-term investments	<u>38,662</u>	<u>28,329</u>	<u>13,850</u>	<u>80,841</u>		
Total	<u>\$ 100,633</u>	<u>69,508</u>	<u>13,850</u>	<u>183,991</u>		

<sup>1</sup> The lock-up periods have various terms with extensions of one to two years. As of December 31, 2011, the average remaining life of these partnerships is approximately five years. Unfunded future commitments aggregate \$334. Of the outstanding commitments, \$150 will not be called unless extraordinary expenses arise during liquidation.

## THE JACKSON LABORATORY

### Notes to Financial Statements

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(In thousands)

The Laboratory owns corporate and U.S. government agency bonds directly through a brokerage account, and although these assets are readily marketable and are considered to have daily liquidity, these bonds have been categorized as Level 2 investments due to the pricing methodology used, which may not consistently utilize identical securities.

**(e) Level 3 Roll Forward**

The following table presents the Laboratory's activity for the period ended December 31, 2011 for investments measured at fair value on a recurring basis and classified in Level 3:

<u>Level 3 roll forward</u>	<u>Hedge equity funds</u>	<u>Private equity and other</u>	<u>Total</u>
Fair value as of			
May 31, 2011	\$ 10,054	1,730	11,784
Transfers out	(2,843)	—	(2,843)
Acquisitions	6,400	135	6,535
Dispositions	(168)	(171)	(339)
Realized investment gains, net	—	116	116
Unrealized investment losses, net	(1,136)	(267)	(1,403)
Fair value at			
December 31, 2011	<u>\$ 12,307</u>	<u>1,543</u>	<u>13,850</u>

**(f) Liquidity**

Private equity and real asset investments are generally made through limited partnerships. Under the terms of these agreements, the Laboratory is obligated to remit additional funding periodically as capital or liquidity calls are exercised by the manager. These partnerships have a limited existence, and under such agreements may provide for annual extensions for the purpose of disposing portfolio positions and returning capital to investors. However, depending on market conditions, the inability to execute the fund's strategy, and other factors, a manager may extend the terms of a fund beyond its originally anticipated existence or may wind the fund down prematurely. The Laboratory cannot anticipate such changes because they are based on unforeseen events, but should they occur they might result in less liquidity or return from the investment than originally anticipated. As a result, the timing and amount of future capital or liquidity calls in any particular future year are uncertain.

# THE JACKSON LABORATORY

## Notes to Financial Statements

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Aggregate investment liquidity as of December 31, 2011 is presented below based on redemption or sale period:

	<u>Investment fair values</u>
Investment redemption or sale period:	
Daily	\$ 141,812
Monthly	20,628
Quarterly	7,701
Annual	8,018
Locked up	<u>5,832</u>
Total	<u>\$ 183,991</u>

#### (4) Investment Return

The following summarizes investment return for the period ended December 31, 2011:

Investment return:	
Interest and dividends	\$ 1,609
Realized net gains	1,844
Unrealized net losses	<u>(8,578)</u>
Investment return	<u>\$ (5,125)</u>

Investment returns are included in the statements of activities as follows for the period ended December 31, 2011:

Investment return:	
Operating:	
Long-term investment return utilized	\$ 365
Other investment return	703
Nonoperating activities:	
Long-term investment return below amounts utilized	<u>(6,193)</u>
Investment return	<u>\$ (5,125)</u>

Investment return is net of bank and advisory fees, which were \$165 for the period ended December 31, 2011.

#### (5) Endowment

The Laboratory's endowment consisted of 56 individual donor-restricted funds, established for a variety of purposes, including support of research, training, and the library, as well as board-designated funds held for the long-term support of the Laboratory's mission.

# THE JACKSON LABORATORY

## Notes to Financial Statements

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(In thousands)

The Board of Trustees sets separate long-term investment return objectives and risk parameters for donor-designated and board-designated funds. Donor-designated funds are invested with an investment objective of attaining an average annual real total return in excess of the spending rate over the long term with a risk profile equivalent to the Standard & Poor's index of 500 stocks. In contrast, Board-designated funds are invested with an investment objective of preserving value over the medium term while maintaining liquidity in the short term, defined as two years. The Laboratory expects its donor-designated endowment funds, over five years, to provide an average annual real rate of return of approximately 5%. Actual returns in any given year may vary from this amount.

The board-designated endowment fund is expected to return an average real rate of return of 5% over three years as the emphasis is on preserving market value while providing some inflation protection. To satisfy its long-term rate-of-return objectives, the Laboratory relies on a total return strategy in which investment returns are achieved through both capital appreciation (realized and unrealized) and current yield (interest and dividends). The Laboratory targets a diversified asset allocation to active investment managers within the following asset categories: equities, fixed income instruments, and other investments. Other investments include hedge, venture capital, real assets, and derivative strategies. The Laboratory's asset allocation targets are as follows:

	Target asset allocations	
	Donor-restricted	Board-designated
Equities	50%	60%
Fixed income and cash	15	20
Other	35	20
	100%	100%

(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.

(b) *Endowment Spending Policy*

Consistent with the standard of prudence prescribed by MUPMIFA, the Board of Trustees considers the preservation of the funds, the mission of the Laboratory and the intent of the donor-restricted endowment, the expected total return of investments, and the possible effect of general price adjustments in making a determination to appropriate or to accumulate donor-restricted endowment funds. The investment and spending policies for endowment assets attempt to provide a predictable stream of funding to programs supported by an endowment, while seeking to maintain the purchasing power of endowment assets. In addition, when considering appropriation of board-designated endowment balances, the Trustees consider the need to maintain unrestricted net

**THE JACKSON LABORATORY**

Notes to Financial Statements

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(In thousands)

assets at levels needed to meet liquidity covenants related to outstanding bonds. Accordingly, the Board of Trustees appropriated annually a portion of long-term investment return for spending. In the period ended December 31, 2011, this appropriation was generally equal to 4% of the rolling three-year average fair value of investments attributable to donor-restricted endowment funds if the fund specified a programmatic use for the income other than general support of the Laboratory. For individual endowment funds established before June 1, 2009 that are below historical dollar value, or “underwater,” no spending is allocated from the fund until the fund recovers.

**(c) Endowment Activity**

Endowment net assets consist of the following at December 31, 2011:

	<u>Unrestricted</u>	<u>Temporarily restricted</u>	<u>Permanently restricted</u>	<u>Total</u>
Donor-restricted endowment funds	\$ —	24,593	8,393	32,986
Board-designated endowment funds	<u>47,855</u>	<u>—</u>	<u>—</u>	<u>47,855</u>
Total endowment net assets	\$ <u><u>47,855</u></u>	<u><u>24,593</u></u>	<u><u>8,393</u></u>	<u><u>80,841</u></u>

Changes in endowment net assets for the period ended December 31, 2011 are as follows:

	<u>Unrestricted</u>	<u>Temporarily restricted</u>	<u>Permanently restricted</u>	<u>Total</u>
Endowment net assets, May 31, 2011	\$ 50,262	28,873	8,318	87,453
Contributions	—	—	75	75
Investment return	(2,327)	(3,501)	—	(5,828)
Long-term investment return utilized	—	(365)	—	(365)
In-transit transactions	<u>(80)</u>	<u>(414)</u>	<u>—</u>	<u>(494)</u>
Endowment net assets, December 31, 2011	\$ <u><u>47,855</u></u>	<u><u>24,593</u></u>	<u><u>8,393</u></u>	<u><u>80,841</u></u>

In-transit transactions are due to timing of transfers between the Laboratory’s operational accounts and endowment accounts.

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(In thousands)

#### (6) Accounts Receivable

Accounts receivable consisted of the following as of December 31, 2011:

Due from provision of genetic resources and services	\$	15,945
Amounts reimbursable under grants and contracts		<u>4,770</u>
		20,715
Less allowance for uncollectibles		<u>(828)</u>
Accounts receivable, net	\$	<u><u>19,887</u></u>

#### (7) Long-Lived Assets

Long-lived assets consisted of the following as of December 31, 2011:

Land and improvements	\$	5,528
Buildings and improvements		298,812
Construction in progress		14,561
Equipment		<u>79,534</u>
		398,435
Less accumulated depreciation		<u>(181,791)</u>
	\$	<u><u>216,644</u></u>

The increase in accounts payable for acquisition and construction of long-lived assets was \$1,921 for the period from June 1, 2011 through December 31, 2011.

Commitments to third parties for the purchase of equipment, space renovation and construction projects were \$7,899 as of December 31, 2011.

## THE JACKSON LABORATORY

### Notes to Financial Statements

December 31, 2011

(In thousands)

#### (8) Bonds Payable and Related Instruments

##### (a) Bonds Payable

Bonds payable consisted of the following as of December 31, 2011:

Finance Authority of Maine Revenue Bonds (FAME bonds)	\$	44,135
Association of Bay Area Government for California fixed rate revenue bonds (2007 ABAG bonds)		<u>34,125</u>
		78,260
Less unamortized discount		<u>(355)</u>
Bonds payable, net	\$	<u><u>77,905</u></u>

The FAME bonds were issued on June 13, 2002 in the amount of \$56,135. Interest is at a variable weekly rate of 0.15% as of December 31, 2011, not to exceed 10%. The multi-modal bonds are currently in a weekly interest rate mode. In this mode, the remarketing agent determines the rate weekly based on the rate required to remarket the bonds at par, given prevailing market conditions. The bonds mature serially through July 1, 2031. As long as the FAME bonds have not been converted to a fixed rate, bond holders may tender and receive 100% of principal. The Laboratory has entered into a remarketing agreement with an investment banker (remarketing agent) to sell any bonds tendered for payment.

As security for the FAME bonds, the Laboratory obtained a letter of credit from a financial institution, effective through December 31, 2015. As of December 31, 2011, this letter of credit remained unused. An annual maintenance fee equal to 0.60% of the unused balance is required. The Laboratory incurred maintenance fees of \$137, which are included in interest expense. The letter of credit contains certain restrictive covenants, including limits on entering into additional debt, restrictions on the purchase and sale of assets, and maintaining a long-term obligation rating on all of the Laboratory's outstanding unenhanced bond indebtedness of greater than Baa1, or equivalent. The Laboratory must meet a minimum liquidity ratio measured semi-annually. The Laboratory was in compliance with all such covenants as of December 31, 2011.

Unamortized bond issuance costs, which are included in other assets, were \$772 as of December 31, 2011.

The 2007 ABAG bonds were issued on September 10, 2007 in the amount of \$35,075 in a weekly auction rate mode and converted to a fixed rate mode on April 23, 2008. The bonds carry fixed rates ranging from 3.6% to 5.75% for maturities from 2012 through 2038.

## THE JACKSON LABORATORY

### Notes to Financial Statements

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(In thousands)

**(b) *Maturities of Bonds Payable***

Scheduled annual principal repayments as of December 31, 2011, were as follows:

	<u>Amounts due</u>
Year ending December 31:	
2012	\$ 1,925
2013	2,010
2014	2,070
2015	2,155
2016	2,220
Thereafter	<u>67,880</u>
Total	<u>\$ 78,260</u>

If the FAME bonds, as described in note 8(a), are put by investors the Laboratory is obligated to purchase the FAME bonds. In this case, the Laboratory may utilize the letter of credit. Should the financial institution issuing the letter of credit 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.

**(c) *Interest-Rate Swaps***

The Laboratory utilizes certain interest-rate swap agreements, including forward-starting swaps, to essentially convert the variable rate on \$44,135 of FAME borrowings outstanding to various fixed rates. The swaps' notionals 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, they 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 fiscal period. The Laboratory has determined that if a credit value adjustment were made to reflect the potential for the Laboratory to fail to perform under the swap agreements, the fair values would be less than the amounts reported; however, such adjustment varies over time depending upon the Laboratory's credit rating and the credit spread set by the market.

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## Notes to Financial Statements

December 31, 2011

(In thousands)

As of December 31, 2011, the following interest-rate swap agreements were outstanding:

Counterparty	Issue date	Effective date	Expiration date	Remaining notional amount	Swap fixed rate	Fair value asset (liability)
Morgan Stanley	06/12/02	07/01/02	07/01/12	\$ 11,790	3.655%	\$ (236)
Bank of America	06/12/02	07/01/02	07/01/22	11,790	3.920	(2,448)
Bank of America	06/11/03	07/01/03	07/01/31	12,800	2.859	(1,807)
Morgan Stanley	05/05/05	07/01/05	07/01/31	7,755	3.271	(1,410)
Morgan Stanley*	06/20/03	07/01/12	07/01/31	11,340	4.140	(2,908)
Bank of America*	06/20/03	07/01/22	07/01/31	5,905	4.000	(419)
Totals						<u>\$ (9,228)</u>

\* 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. While variable tax-exempt rates have generally historically correlated with 67% of LIBOR, there have been periods of time when municipal rates have varied significantly from LIBOR, and resulted in interest costs that are higher or lower than the fixed-swap rate. The average weekly variable rate averaged 3 basis points in excess of 67% of LIBOR for 2011. The Morgan Stanley swap agreements contain a requirement for the Laboratory to post cash collateral if the aggregate mark-to-market value of the Morgan Stanley swaps exceeds a \$5,000 liability as of any month end. The Bank of America swap agreements contain a requirement for the Laboratory to post cash collateral if the aggregate mark-to-market value of the Bank of America swaps exceed a \$8,000 liability as of any month end. The Morgan Stanley and Bank of America 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.

## (9) Employee Benefits

### (a) *Defined Contribution Retirement Plan*

Subject to meeting certain eligibility requirements, all employees participate in a defined contribution 403(b) retirement plan administered by the Laboratory. Participants invest their account balances with funds offered through the Teachers Insurance and Annuity Association and the College Retirement Equities Fund (TIAA-CREF). All regular full- and part-time employees working at least 20 hours per week are eligible to participate in the plan after completing six months of service. The Laboratory contributes 5% of an employee's earnings with each bi-weekly payroll. In addition, the Laboratory matches employee contributions up to an additional 5% of earnings up to the maximum allowed contribution. Employees vest in the employer contributions as follows: Fifty percent after two full years of employment and 100% after four years of employment. Contribution expense was \$3,817 for the period ended December 31, 2011.

## THE JACKSON LABORATORY

### Notes to Financial Statements

December 31, 2011

(In thousands)

**(b) Defined Benefit Retirement Plan**

Prior to October 1, 1995, employees other than scientific and management staff participated in a contributory defined benefit pension plan (Pension Plan), the assets of which are administered by Principal Financial Group. Contributions by the Laboratory to the defined benefit plan are based upon Employee Retirement Income Security Act of 1974 (ERISA) minimum funding requirements. The Laboratory contributed \$52 for the period from June 1, 2011 through December 31, 2011. The Board has authorized the Retirement Committee to terminate the defined benefit retirement plan at the most appropriate time in the future.

In accordance with FASB ASC Topic 715 (ASC 715), an actuarial loss of \$847 was included in the nonoperating section of the statement of activities, representing the change in funded status not affecting periodic pension cost.

In addition, the Laboratory has a supplemental pension obligation under an employment agreement. The present value of the obligation 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.

The Pension Plan's investments include pooled separate accounts and, accordingly, the Laboratory utilizes the net asset value (NAV) or its equivalent reported by the Plan's custodian as a practical expedient to estimate the fair value of the investments. The level in the fair value hierarchy in which each investment's fair value is classified is based on the ability to redeem the investment at or near the date of the statement of financial position.

The following table summarizes the Pension Plan's investments by major category in the fair value hierarchy as of December 31, 2011 as reported by Principal:

	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Totals</u>
Fixed income	\$ —	4,450	—	4,450
U.S. equities	—	423	—	423
International equities	—	141	—	141
Real assets	—	225	337	562
	<u>\$ —</u>	<u>5,239</u>	<u>337</u>	<u>5,576</u>

**(c) 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 \$349 in the period ended December 31, 2011, the Laboratory has not funded the postretirement plan. Contributions by retired employees are required for coverage of dependents. In addition, the Laboratory has agreed to provide \$3.6 per year towards the cost of medical coverage for retired employees not yet eligible for Medicare and meeting a combined years of service and age threshold.

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Notes to Financial Statements

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(In thousands)

The impact of the changes in actuarial assumptions for the period ended December 31, 2011 was an increase in the liability resulting in a gain of \$15 included in the nonoperating section of the statement of activities.

**(d) Combined Disclosures – Defined Benefit Pension and Postretirement Medical Plans**

The Laboratory uses an annual measurement date of December 31 to determine the benefit obligations for its plans. Following are significant required disclosures on a combined basis:

Benefit obligations and funded status of the plans for the period ended December 31, 2011 were as follows:

	<b>Pension plan benefits</b>	<b>Retiree medical benefits</b>
Changes in benefit obligations:		
Benefit obligation at beginning of period	\$ 6,744	7,500
Interest cost	193	211
Actuarial (gain) loss	704	(9)
Medicare Part D subsidy with adjustment	—	40
Benefits paid	(262)	(349)
Benefit obligation at end of period	7,379	7,393
Changes in plan assets:		
Fair value of plan assets at beginning of period	5,870	—
Actual return on plan assets	(84)	—
Employer contributions	52	349
Employee contributions	—	51
Benefits paid	(262)	(400)
Fair value of plan assets at end of period	5,576	—
Accrued benefit cost recognized in the statement of financial position	\$ (1,803)	(7,393)

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(In thousands)

Net periodic benefit cost consisted of the following components for the period ended December 31:

	<u>Pension plan benefits</u>	<u>Retiree medical benefits</u>
Interest cost	\$ 193	211
Expected return on assets	(186)	—
Medicare Part D subsidy	—	(34)
Amortization of net actuarial loss	127	53
Net periodic benefit cost recorded	<u>\$ 134</u>	<u>230</u>

Weighted average assumptions used to determine benefit obligations as of December 31 were as follows:

	<u>Pension plan benefits</u>	<u>Retiree medical benefits</u>
Discount rate	4.1%	3.8%
Rate of compensation increase	n/a	n/a

Weighted average assumptions used to determine net periodic benefit cost for the period ended December 31 were as follows:

	<u>Pension plan benefits</u>	<u>Retiree medical benefits</u>
Discount rate	5.04%	4.55%
Expected long-term return on plan assets	5.50	n/a
Rate of compensation increase	—	—

The expected long-term rate of return has been established based on the ongoing investment of pension plan assets in a portfolio of high quality mutual funds and fixed income securities. The components of the expected long-term rate of return include annual expectations for a risk-free rate of return of 2.50% per year, plus long-term annual inflation of 3.00% per year.

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The assumed health care cost trend rates at December 31, 2011 were as follows:

Healthcare cost trend rate assumed for next year	7.0%
Rate to which the cost trend rate is assumed to decline (the ultimate trend rate)	4.5%
Year that the rate reaches the ultimate trend rate	2016

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

	<u>One Point increase</u>	<u>One Point decrease</u>
Effect on total of service and interest cost	\$ 27	24
Effect on total on postretirement benefit obligation	642	565

The Laboratory's defined benefit pension plan's investment policy includes the following asset allocation guidelines:

	<u>Plan assets at December 31, 2011</u>	<u>Policy Range</u>
Asset category:		
Fixed income	80%	80%
U.S. equities	7.5%	7.5%
International equities	2.5%	2.5%
Real estate	10%	10%
Total	<u>100%</u>	<u>100%</u>

The Laboratory maintains an investment policy for the defined benefit pension plan through the Retirement Committee. Given that the plan is frozen, the investment policy guidelines suggest that the assets will be held in fixed income securities, government backed securities, equities, and cash as needed to pay current benefits.

The Laboratory expects to make future contributions of \$221 to its defined benefit pension plan and \$541 (net of retiree contributions) to its postretirement benefit plan in the next fiscal year.

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## Notes to Financial Statements

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(In thousands)

The Laboratory's estimated future benefit payments as of December 31, 2011 are as follows:

	<u>Pension plan benefits</u>	<u>Retiree medical benefits</u>
Year ending December 31:		
2012	\$ 324	541
2013	347	552
2014	372	561
2015	387	546
2016	407	536
2017 through 2021	2,229	2,453

(e) ***Healthcare and Workers' Compensation Programs***

The Laboratory is self-insured for the costs of healthcare coverage not funded by employees. Funds provided by employees for healthcare coverage during the period ended December 31, 2011 were \$1,844. Third-party stop-loss insurance covers annual aggregate costs over \$16,111 and individual claims in excess of \$150 per member per calendar year. The Laboratory's expense under the plan during the seven months ended December 31, 2011 was \$5,322. Accruals for known unpaid claims and estimated claims incurred but not reported are based on actual claims experience and other factors. As of December 31, 2011, such accruals amounted to \$3,286 and are included in accounts payable and accrued expenses.

The Laboratory participates in a group workers' compensation self-insured trust fund (the Fund) for its Maine employees and purchases workers' compensation insurance for employees located outside of Maine. Workers' compensation expense amounted to \$429 for the period ended December 31, 2011. The cost of Maine workers' compensation coverage is determined by the Fund assessments less any dividends received. The Fund maintains reinsurance to cover any occurrence over \$500.

(f) ***Deferred Compensation Program***

The Laboratory has a deferred compensation program under Section 457(f) of the Internal Revenue Code under which a portion of key employees' compensation is deferred and vested over time. The Laboratory funds the deferred compensation obligation through a Rabbi Trust. The liability of \$515 at December 31, 2011 is included in accounts payable and accrued expenses, and the corresponding Rabbi Trust assets are included in other assets because they are subject to claims of creditors of the Laboratory.

The Laboratory also maintains a nonqualified salary deferral plan (the 457(b) Plan) authorized under Section 457(b) of the Internal Revenue Code. This plan allows management and highly compensated employees (salaries over \$115) to defer up to \$16.5 of their salary each calendar year. The Laboratory's liability for an employee's deferred salary is adjusted for deemed investment gains or losses based on the employee's selection of an investment fund proxy. Distributions are made the

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earlier of death, disability, retirement, or cessation of employment. Under the 457(b) Plan, the Laboratory may add discretionary credits to an employee's account. The Laboratory holds investments approximately matching the employee investment selections to assure funding is available to meet future liabilities. The investments amounted to \$1,660 at December 31, 2011, and are included in other assets.

### (10) Restricted Net Assets

The Laboratory classifies gift pledges as time restricted until collected. When collected, a restricted gift is reclassified to its purpose restriction or if unrestricted, released from restriction.

#### (a) *Temporarily Restricted Net Assets*

Temporarily restricted net assets consisted of the following as of December 31, 2011:

Contributions receivable and remainder trust, net	\$	2,816
Unappropriated gains and income on donor-restricted endowments		24,593
Restricted for acquisition and construction of long-lived assets		2,216
Restricted for research, training and other programs		1,632
	\$	<u>31,257</u>

#### (b) *Permanently Restricted Net Assets*

Permanently restricted net assets consisted of the following as of December 31, 2011:

Endowments for:		
Research	\$	4,802
Training		375
Other programs		667
General purposes		2,549
	\$	<u>8,393</u>

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### Notes to Financial Statements

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(In thousands)

**(c) Net Assets Released from Restrictions**

Net assets released from restrictions consisted of the following for the seven months ended December 31, 2011:

Operating activities:		
Research programs	\$	842
Training programs		217
Other		49
Time restricted collections		46
		<hr/>
		1,154
Nonoperating activities:		
Acquisition and construction of long-lived assets		596
		<hr/>
	\$	<u>1,750</u>

**(11) Commitments and Contingencies**

**(a) Leases**

The Laboratory leases warehouse, office space, and other equipment under leases accounted for as operating leases having remaining terms from one to three years. Some of these leases have renewal options. Total rental expense was \$133 for the period ended December 31, 2011.

**(b) Legal Claims**

The Laboratory is subject to certain legal proceedings and claims that arise in the ordinary course of conducting its activities, including lawsuits claiming infringement of patent and trademark rights. 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.

**(c) Other Commitments**

In the ordinary course of business, the Laboratory enters into contracts to lock in the price of electricity not for speculative purposes, but to eliminate the variability in market pricing over several months for operational purposes. Such commitments are accounted for as costs are incurred and do not contain features that require them to be accounted for as derivative instruments.

**(12) 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.

## THE JACKSON LABORATORY

### Notes to Financial Statements

December 31, 2011

(In thousands)

Each trustee 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 Audit Committee. When such a relationship exists, the Laboratory requires such transactions be conducted at arm's length, with terms that are fair and reasonable to and for the benefit of the Laboratory. For senior management, the Laboratory requires annual disclosure of significant financial interests in, or governance, employment, consulting relationships with entities doing business with the Laboratory. When such relationships exist, measures are taken to appropriately manage the actual or perceived conflict in the best interest of the Laboratory.

The Laboratory subleases space and licenses intellectual property to a company in which a member of the faculty holds an ownership interest and serves as an advisor. Both of the transactions are on an arm's length basis. The Laboratory is a co-investor with two former Trustees in a limited partnership established to invest in a venture fund. Further, the Laboratory maintains deposits in a bank in which an officer of the Laboratory serves on the Board of Directors. The bank was selected in a competitive process.

#### **(13) Subsequent Events**

In January 2012, the Laboratory entered into several agreements with various sub-units of the state of Connecticut to build a 170,000 square foot laboratory and operate a genomics medicine research program in Farmington, Connecticut. The major agreements include a funding agreement with Connecticut Innovations, Incorporated (CI), which will provide a \$145,000 forgivable loan to construct the building; a \$46,685 forgivable loan for the purchase of equipment over 10 years; and \$99,000 in grant support of research and development over 10 years. The loans will be forgiven if the Laboratory meets an employment goal of 300 employees for a minimum of six months. If the employment goal is not reached, the building and equipment and any intellectual property developed at the location will revert to CI. The loans are non-recourse to any other assets of the Laboratory. The University of Connecticut Health Center (UCHC) is providing a ground lease for 98 years for the building site. The ground lease has a provision whereby the property will transfer to the Laboratory upon reaching 600 employees in Connecticut. Starting in May 2012, UCHC is leasing temporary space to the Laboratory while the permanent facility is being constructed. In addition, a collaboration agreement was entered into with the University of Connecticut (UConn) covering joint research grant applications, UConn provision of faculty support, and other related matters. As of December 31, 2011, the Laboratory had incurred \$661 in project related expenses, which are included in accrued expenses and construction in progress.

In connection with the Connecticut agreements, the Laboratory amended its letter of credit reimbursement agreement related to the FAME bonds to allow Connecticut to have a lien on the assets funded by Connecticut and to change the liquidity test to a minimum number of days of operating cash held in liquid unrestricted assets.

The Laboratory has evaluated subsequent events from the statement of financial position date of December 31, 2011 through May 23, 2012, the date on which the financial statements were issued, and determined there are no other items to disclose.

**THE JACKSON LABORATORY**

Financial Statements

June 30, 2012

(Unaudited)

**THE JACKSON LABORATORY**  
**Statements of Financial Position**  
**June 30, 2012**  
**(In thousands)**

Assets:	<b>June, 2012</b>
Cash and equivalents	\$ 15,815
Treasury Cash	106,976
Accounts receivable, net	23,530
Contributions receivable, net	2,464
Other assets	11,148
Long-term investments, at fair value	83,701
Long-lived assets, net	<u>227,762</u>
Total assets	<u>\$471,396</u>
Liabilities:	
Accounts payable and accrued expenses	\$ 24,998
Accrued pension and post-retirement obligations	9,492
Interest rate swaps	9,587
Deposits and deferred revenue	8,041
Bonds and note payable, net	77,663
Other long term liabilities	<u>2,593</u>
Total liabilities	<u>\$132,374</u>
Net assets:	
Unrestricted	301,229
Temporarily restricted	29,314
Permanently restricted	<u>8,479</u>
Total net assets	<u>339,022</u>
Total liabilities and net assets	<u>\$471,396</u>

Note: Accrued pension and post-retirement obligations is stated using discount factors used in the December 31, 2011 actuarial valuation.

**THE JACKSON LABORATORY**  
Statement of Activities  
Period from January 1, 2012 to June 30, 2012  
(In thousands)

	<u>Unrestricted</u>	<u>Temporarily restricted</u>	<u>Permanently restricted</u>	<u>6 months as of June, 2012 Total</u>
Operating activities:				
Revenue and other support:				
Grants	\$ 30,051			30,051
Contributions	382	385		767
JAX <sup>®</sup> Mice & Services	82,423			82,423
Long-term investment return utilized		214		214
Other investment return	773			773
Other revenue	893			893
Total revenue	<u>114,522</u>	<u>599</u>	<u>—</u>	<u>115,121</u>
Net assets released from restrictions	<u>517</u>	<u>(517)</u>		<u>—</u>
Total revenue and other support	<u>115,039</u>	<u>82</u>	<u>—</u>	<u>115,121</u>
Expenses:				
Research	30,252			30,252
JAX <sup>®</sup> Mice & Services	46,644			46,644
Training	1,075			1,075
New Initiatives	355			355
Institutional support	16,403			16,403
Total expenses	<u>94,729</u>	<u>—</u>	<u>—</u>	<u>94,729</u>
Increase in net assets from operating activities	<u>20,310</u>	<u>82</u>	<u>—</u>	<u>20,392</u>
Nonoperating activities:				
Grants and contributions for capital and long-term investments	34	1	86	121
Long-term investment return above (below) amounts utilized	983	504		1,487
Unrealized net losses on interest-rate swaps	(359)			(359)
Changes in actuarial assumptions related to the pension and postretirement ben	1			1
Net assets released from restrictions for capital purposes	2,515	(2,515)		—
Adjustment for fair market value of financial instrument	—			—
Other reclassifications	—	—		—
Increase (decrease) in net assets from nonoperating activities	<u>3,174</u>	<u>(2,010)</u>	<u>86</u>	<u>1,250</u>
(Decrease) increase in net assets	<u>23,484</u>	<u>(1,928)</u>	<u>86</u>	<u>21,642</u>
Net assets, beginning of year	<u>277,745</u>	<u>31,242</u>	<u>8,393</u>	<u>317,380</u>
Net assets, end of June 30, 2012	<u>\$ 301,229</u>	<u>29,314</u>	<u>8,479</u>	<u>339,022</u>

Note: This statement of activities reflects certain reclassifications made subsequent to the Laboratory's filing with the Municipal Securities Rulmaking Board through its Electronic Municipal Market Access system (EMMA) of its June 30, 2012 financial statements. Such recalssificiations were made to make the statement consistent with the Laboratory's annual audited financial statements for Fiscal Year 2011.

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## SUMMARY OF CERTAIN PROVISIONS OF THE PRINCIPAL LEGAL DOCUMENTS

The following is a summary of the legal documents which are not described elsewhere in the Official Statement. These summaries do not purport to be comprehensive and reference should be made to the Loan Agreement and the Indenture for a full and complete statement of their provisions. All capitalized terms not defined in the Official Statement have the meanings set forth in the Bond Indenture and the Loan Agreement.

### DEFINITIONS

The following are definitions of certain terms used in the Official Statement including the summaries of the Indenture and the Loan Agreement. Appendix E contains additional definitions of certain terms used in the Official Statement.

“Act” means Chapter 5 of Division 7 of Title 1 (commencing with Section 6500) of the Government Code of the State of California, as now in effect and as it may from time to time hereafter be amended or supplemented.

“Additional Payments” means the payments to be made by the Borrower to the Trustee or the Authority pursuant to the Loan Agreement.

“Administrative Fees and Expenses” means any application, commitment, financing or similar fee charged or reimbursement for administrative or other expenses, including, without limitation, counsel fees and expenses, incurred by the Authority or the Trustee, including Additional Payments.

“Authority” means, ABAG Finance Authority for Nonprofit Corporations, a joint exercise of powers agency organized and existing under the laws of the State.

“Authorized Denomination” means \$5,000 or any multiple of \$5,000 in excess thereof.

“Authorized Representative” means, with respect to the Authority, its President, Chief Financial Officer, Secretary or any other person as may be designated and authorized to sign for the Authority, and, with respect to the Borrower, the Chief Financial Officer, the Chief Operating Officer, or any other officer designated in writing by the Chief Financial Officer.

“Beneficial Owner” means, any Person which has or shares the power, directly or indirectly, to make investment decisions concerning ownership of any of the Bonds (including any Person holding Bonds through nominees, depositories or other intermediaries).

“Bonds” means ABAG Finance Authority For Nonprofit Corporations Revenue Bonds (The Jackson Laboratory) Series 2012 issued under the Indenture.

“Bond Counsel” means an attorney at law or a firm of attorneys, of nationally recognized standing in matters pertaining to the tax-exempt nature of interest on bonds issued by states and their political subdivisions, who is or are selected by the Authority and is or are duly admitted to the practice of law before the highest court of any state of the United States of America or the District of Columbia.

“Bond Registrar” means the Trustee or any Person maintaining the registration books with respect to ownership of the Bonds.

“Bond Year” means each one-year period that ends at the close of business on the day in the calendar year that is selected by the Borrower. The first and last Bond Years may be short periods. If no day is selected by the Borrower before the earlier of the final maturity of the Bonds or the date that is five years after Date of Issuance, each Bond Year ends on each anniversary of the Date of Issuance and on the final maturity of the Bonds.

## APPENDIX C

“Book-Entry Bonds” means any Bonds which are then held in book-entry form as provided in the Indenture.

“Borrower” means The Jackson Laboratory, a Maine nonprofit corporation qualified to do business in the State of California, and its successors or assigns permitted pursuant to the Loan Agreement.

“Business Day” means any day other than (i) a Saturday or a Sunday, or (ii) a day on which commercial banks in the city (or cities) in which is located the Designated Office of the Trustee, currently in Philadelphia, Pennsylvania, or any other paying agent, are authorized or required by law or executive order to close, or (iii) a day on which the New York Stock Exchange is closed.

“Certificate,” “Statement,” “Request” and “Requisition” of the Authority or the Borrower means, respectively, a written certificate, statement, request or requisition signed in the name of the Authority by an Authorized Representative of the Authority, or in the name of the Borrower by an Authorized Representative of the Borrower. Any such instrument and supporting opinions or representations, if any, may, but need not, be combined in a single instrument with any other instrument, opinion or representation, and the two or more so combined will be read and construed as a single instrument. If and to the extent required by the Indenture, each such instrument will include the statements provided for in the Indenture.

“Code” means the Internal Revenue Code of 1986, as amended, together with corresponding and applicable final, temporary or proposed regulations and revenue rulings issued or amended with respect thereto by the United States Treasury Department or Internal Revenue Service, to the extent applicable to the Bonds. All references in the Indenture to Sections, paragraphs or other subdivisions of the Code or the regulations promulgated thereunder will be deemed to be references to correlative provisions of any predecessor or successor code or regulations promulgated thereunder.

“Construction Fund” means the fund by that name established pursuant to the Indenture.

“Continuing Disclosure Agreement” means any continuing disclosure agreement or certificate executed between the Borrower and the Trustee, in its capacity as Dissemination Agent, which complies with S.E.C. Rule 15c2-12.

“Costs of Issuance Fund” means the fund by that name established pursuant to the Indenture.

“Date of Issuance” means October 24, 2012.

“Designated Office” means the agency office of the Trustee located in Philadelphia, Pennsylvania, or such other or additional offices as may be specified to the Authority and the Borrower with respect to either the Trustee or Bond Registrar.

“Dissemination Agent” means Wells Fargo Bank, N.A., a national banking association, or its successor appointed pursuant to the Continuing Disclosure Agreement.

“Electronic Notice” means notice given through means of telecopy, telegraph, telegram, telex, e-mail, facsimile transmission or other similar electronic means of communication confirmed by writing or written transmission.

“Event of Default” means any of the events specified in the Indenture.

“Facilities” means, as of any date, those facilities then owned and operated by the Borrower as research facilities.

“Favorable Opinion of Bond Counsel” means an opinion of Bond Counsel, addressed to the Authority, the Borrower and the Trustee to the effect that the action proposed to be taken is authorized or permitted by the laws of

the State and the Indenture and will not result in the inclusion of interest on the Bonds in gross income for federal income tax purposes.

“Fiscal Year” means the duly adopted fiscal year of the Borrower, initially the period from January 1 through December 31 of each year.

“Fitch” means Fitch, Inc., a corporation organized and existing under the laws of the State of Delaware, its successors and their assigns, or, if such corporation will be dissolved or liquidated or will no longer perform the functions of a securities rating agency, any other nationally recognized securities rating agency designated by the Borrower by notice in writing to the Authority and the Trustee.

“General Fund” means the fund by that name established by the Trustee pursuant to the Indenture.

“Holder,” “Bondholder” or “Owner” means the owner of a Bond as identified on the registration books of the Trustee.

“Indenture” means the Indenture of Trust, as originally executed or as it may from time to time be supplemented, modified or amended by any Supplemental Indenture.

“Interest Account” means the account by that name in the Revenue Fund established pursuant to the Indenture.

“Interest Payment Date” means each January 1 and July 1, beginning January 1, 2013.

“Investment Proceeds” means, with respect to the Bonds, any amounts actually or constructively received from investing the proceeds from the sale of such issue.

“Investment Securities” means any of the following investment securities that at the time are legal investments for moneys held thereunder and then proposed to be invested therein:

- (a) United State Government Obligations
- (b) Senior debt obligations issued by any federal agency or instrumentality of the United States.
- (c) Money market funds registered under the Federal Investment Company Act of 1940, whose shares are registered under the Federal Securities Act of 1933, and having a rating by S&P of AAAm-G; AAA-m; or AA-m and if rated by Moody’s having a rating of Aaa; Aa1; or Aa2, including funds for which the Trustee and its affiliates provide investment advisory or other management services.
- (d) Certificates of deposit secured at all times by collateral described in (A) and/or (B) above. Such certificates must be issued by commercial banks, savings and loan associations or mutual savings banks. The collateral must be held by a third party and the Holders must have a perfected first security interest in the collateral.
- (e) Certificates of deposit, savings accounts, deposit accounts or money market deposits which are fully insured by FDIC, including BIF and SAIF, including those of the Trustee and its affiliates.
- (f) Investment agreements with providers rated not lower than the second highest category (without regard to gradations within such category) by at least one nationally recognized rating agency, provided that if the investment agreement is guaranteed by a third party, then such rating requirement shall apply to the guarantor only, and provided further that if the provider is downgraded by one or more nationally recognized rating agency to below the second highest category, the agreement shall (i) be fully collateralized at 104% by obligations issued or guaranteed by the United States Treasury or at 105% by senior debt obligations rated at least “AA-” or “Aa3” by S&P and Moody’s issued by Fannie Mae, Federal Home Loan Bank, Freddie Mac, and the Federal Farm Credit Bank System, or (ii) terminate.

## APPENDIX C

(g) Collateralized investment agreements with providers rated not lower than the third highest category (without regard to gradations within such category) by at least one nationally recognized rating agency, provided that if the investment agreement is guaranteed by a third party, then such rating requirement shall apply to the guarantor only.

(h) Forward purchase and sale agreements with providers rated not lower than the third highest category (without regard to gradations within such category) by at least one nationally recognized rating agency, provided that if the investment agreement is guaranteed by a third party, then such rating requirement shall apply to the guarantor only, and provided further that eligible deliverables shall consist of obligations issued or guaranteed by the United States Treasury and senior debt obligations rated at least “AA-” or “Aa3” by S&P and Moody’s issued by Fannie Mae, Federal Home Loan Bank, Freddie Mac, and the Federal Farm Credit Bank System.

(i) Commercial paper rated, at the time of purchase, “Prime - 1” by Moody’s and “A-1” or better by S&P.

(j) Notes or bonds issued by any state or municipality which are rated by Moody’s and S&P in one of the two highest Rating Categories assigned by such Rating Agencies.

(k) Federal funds or bankers acceptances with a maximum term of one year of any bank which has an unsecured, unguaranteed obligation rating of “Prime - 1” or “A3” or better by Moody’s and “A-1” or “A” or better by S&P.

(l) Bonds, notes, debentures or other evidences of indebtedness issued or guaranteed by any corporation which are, at the time of purchase, “A3” or better by Moody’s and “A” or better by S&P.

“Issuance Costs” means all costs and expenses of issuance of the Bonds, including, but not limited to:

- (a) underwriter’s discount or fee;
- (b) counsel fees, including bond counsel, underwriter’s counsel, Authority’s counsel, and Borrower’s counsel, as well as any other specialized counsel fees incurred in connection with the issuance of the Bonds;
- (c) financial advisor fees and expenses incurred in connection with the issuance of the Bonds;
- (d) initial fees and first year annual fee and expenses of the Trustee, including Trustee counsel fees and expenses in connection with the issuance of the Bonds;
- (e) costs of printing the Official Statement for the Bonds;
- (f) publication or copying costs associated with the proceedings relating to the Bonds; and
- (g) initial fees and expenses, of the Authority (including the Authority’s initial bond administration fee) and the Rating Agency relating to the Bonds.

“Loan Agreement” means that certain loan agreement by and between the Authority and the Borrower, dated as of October 1, 2012, as originally executed and as it may from time to time be supplemented, modified or amended in accordance with the terms thereof and of the Indenture.

“Loan Default Event” means any of the events specified in the Loan Agreement.

“Loan Payments” means the payments so designated and required to be made by the Borrower pursuant to the Loan Agreement.

“Moody’s” means Moody’s Investors Service, Inc., a corporation organized and existing under the laws of the State of Delaware, its successors and their assigns, or, if such corporation will be dissolved or liquidated or will

no longer perform the functions of a securities rating agency, any other nationally recognized securities rating agency designated by the Borrower by notice in writing to the Authority and the Trustee.

“New Money Bonds” means the Project Bonds plus the Bonds, the proceeds of which are deposited in the Costs of Issuance Fund pursuant to the Indenture for purposes of paying Costs of Issuance related to the Project Bonds.

“Opinion of Bond Counsel” means an Opinion of Counsel by a nationally recognized bond counsel firm experienced in matters relating to the exclusion from gross income for federal income tax purposes of interest payable on obligations of state and political subdivisions.

“Opinion of Counsel” means a written opinion of counsel (who may be counsel for the Authority, the Trustee or the Borrower) selected by the Borrower and not objected to by the Trustee. If and to the extent required by the provisions of the Indenture, each Opinion of Counsel will include the statements provided for in the Indenture.

“Optional Redemption Account” means the account by that name in the Redemption Fund established pursuant to the Indenture.

“Order” has the meaning set forth in Appendix E to the Official Statement.

“Outstanding,” when used as of any particular time with reference to the Bonds, means (subject to the provisions of the Indenture) all Bonds theretofore, or thereupon being, authenticated and delivered by the Trustee under the Indenture except (1) Bonds theretofore canceled by the Trustee or surrendered to the Trustee for cancellation; (2) Bonds with respect to which all liability of the Authority will have been discharged in accordance with the Indenture, including Bonds (or portions of Bonds) referred to in the Indenture; and (3) Bonds for the transfer or exchange of or in lieu of or in substitution for which other Bonds will have been authenticated and delivered by the Trustee pursuant to the Indenture.

“Participants” means those broker-dealers, banks and other financial institutions from time to time for which a Securities Depository holds Book-Entry Bonds as securities depository.

“Payment Office” means the payment office of the Trustee, currently located in Minneapolis, Minnesota.

“Person” means an individual, corporation, firm, association, partnership, limited liability company, trust or other legal entity or group of entities, including a governmental entity or any agency or political subdivision thereof.

“Principal Account” means the account by that name in the Revenue Fund established pursuant to the Indenture.

“Project” means the improvements as more fully described in the Loan Agreement.

“Project Bonds” means the Bonds, the proceeds of which are deposited in the Construction Fund pursuant to the Indenture.

“Rating Agency” means Fitch, Moody’s or S&P to the extent they then are providing or maintaining a rating on the Bonds at the request of the Borrower, or in the event that Fitch, Moody’s or S&P no longer maintains a rating on the Bonds, any other nationally recognized rating agency then providing or maintaining a rating on the Bonds at the request of the Borrower.

“Rating Category” means a generic securities rating category, without regard to any refinement or gradation of such rating category by a numerical modifier or otherwise.

“Rebate Fund” means the Rebate Fund established pursuant to the Indenture.

## APPENDIX C

“Record Date” means, whether or not a Business Day, the fifteenth day of the month prior to any Interest Payment Date.

“Redemption Fund” means the fund by that name established pursuant to the Indenture.

“Redemption Price” means, with respect to any Bond (or portion thereof), the principal amount of such Bond (or portion) plus the applicable premium, if any, payable upon redemption thereof pursuant to the provisions of such Bond and the Indenture.

“Refunded Bond Trustee” means Wells Fargo Bank, N.A., as trustee for the Refunded Bonds.

“Refunded Bonds” means the Authority’s Revenue Bonds (The Jackson Laboratory) Series 2007 maturing on July 1, 2016 through July 1, 2037, inclusive.

“Refunding Bonds” means the Bonds, the proceeds of which are transferred to the Refunded Bond Trustee pursuant to the Indenture.

“Refunding Trust Agreement” means the Refunding Trust Agreement, dated as of October 1, 2012 between the Authority and the Refunded Bond Trustee.

“Regulations” means the Treasury Regulations promulgated under the provisions of the Internal Revenue Code of 1986.

“Representation Letter” means a letter from the Authority and the Trustee to the Securities Depository to qualify the Bonds for the Securities Depository’s book-entry system or to comply with any other similar procedures allowed by the Securities Depository as shall be necessary to so qualify the Bonds.

“Revenue Fund” means the fund by that name established pursuant to the Indenture.

“Revenues” means the amounts pledged under the Indenture to the payment of the principal of, redemption premium, if any, and interest on the Bonds, including the following: (a) all money held in the funds and accounts, together with investment earnings thereon received by the Trustee and which the Trustee is authorized to receive, hold and apply pursuant to the terms of the Indenture (excluding money and investment earnings thereon in the General Fund, the Costs of Issuance Fund and the Rebate Fund); and (b) all income, revenues, proceeds, obligations, securities and other amounts received by the Trustee and derived from or in connection with proceeds of the Bonds and the Loan Agreement, but excluding amounts payable as Additional Payments and the indemnification or reimbursement of the Authority and the Trustee.

“S&P” means Standard & Poor’s Ratings Services, a division of The McGraw-Hill Companies, Inc., a corporation organized and existing under the laws of the State of New York, its successors and their assigns, or, if such corporation will be dissolved or liquidated or will no longer perform the functions of a securities rating agency, any other nationally recognized securities rating agency designated by the Borrower by notice in writing to the Authority and the Trustee.

“Securities Depository” means The Depository Trust Company and its successors and assigns, or any other securities depository selected as set forth in the Indenture.

“Securities Depository Participant” means any broker-dealer, bank or other financial institution for which a Securities Depository holds Bonds as Security Depository from time to time.

“Sinking Fund Installment” means the amount required by the Indenture to be paid by the Authority on any single date for the retirement of any Bonds.

“Special Redemption Account” means the account by that name in the Redemption Fund established pursuant to the Indenture.

“State” means the State of California.

“Supplemental Indenture” means any indenture hereafter duly authorized and entered into between the Authority and the Trustee, supplementing, modifying or amending the Indenture; but only if and to the extent that such Supplemental Indenture is specifically authorized thereunder.

“Tax Certificate” means the tax certificate and agreement dated the Date of Issuance executed by the Borrower and the Authority and as it may be amended or supplemented from time to time.

“Tax-Exempt” means, with respect to interest on any obligations of a state or local government, including the Bonds, that such interest is excluded from the gross income of the Owners thereof (other than any Owner who is a “substantial user” of facilities financed with such obligations or a “related person” within the meaning of Section 147(a) of the Code) for federal income tax purposes, whether or not such interest is includable as an item of tax preference or otherwise includable directly or indirectly for purposes of calculating other tax liabilities, including any alternative minimum tax or environmental tax under the Code.

“Tax-Exempt Securities” means bonds, notes or other securities the interest on which is Tax-Exempt.

“Trustee” means Wells Fargo Bank, N.A., a national banking association organized and existing under and by virtue of the laws of the United States of America, or its successor, as Trustee as provided in the Indenture.

“Trustee Fee” means, with respect to the Bonds, the initial fee payable on the Date of Issuance for the Bonds and an amount payable on an annual basis in advance (except that the first payment accrued through the next annual payment date will be made on the Date of Issuance of the Bonds) in accordance with the letter agreement, between the Trustee and the Borrower as amended from time to time, with respect to the payment of all fees and expenses.

“United States Government Obligations” means, (a) with respect to the Bonds, any bonds or other obligations which as to principal and interest constitute direct obligations of, or are unconditionally guaranteed by, the United States of America, and (b) with respect to the 2007 Bonds, (1) direct obligations of the United States of America (including obligations issued or held in book-entry form on the books of the Department of Treasury of the United States of America) and obligations the timely payment of the principal of and interest on which are fully guaranteed by the United States of America, and (2) with consent of the Bond Insurer, if any, certificates or other instruments that evidence ownership of the right to the payment of the principal of and interest on obligations described in clause (1) provided that such obligations are held in the custody of a bank or trust company in a special account separate from the general assets of such custodian or (3) with consent of the Bond Insurer, if any, municipal obligations the timely payment of the principal of and interest on which is fully provided for by the deposit in trust or escrow of cash or obligations described in clauses (1) or (2).

## **THE LOAN AGREEMENT**

The Loan Agreement provides the terms of the loan of the proceeds of the Bonds to the Borrower and the repayment of and security for such loan by the Borrower. Certain provisions of the Loan Agreement are summarized below; this summary does not purport to be complete or definitive and is qualified in its entirety by reference to the full terms of the Loan Agreement.

### Loan of Proceeds, Payment of Bonds and Project Modification.

(A) The Borrower agrees that it will pay Loan Payments to the Trustee, for the account of the Authority, all sums necessary for the payment of the debt service on the Bonds, as follows:

(1) By 9:00 a.m., Pacific time, on or prior to the fourth Business Day immediately preceding each Interest Payment Date and any date on which principal of the Bonds is due and payable (whether at maturity, by redemption or by acceleration as provided in the Indenture) with respect to the Bonds and continuing until the principal of and premium, if any, and interest on the Bonds will have been

## APPENDIX C

fully paid (or provision for the payment thereof will have been made as provided in the Indenture), the Borrower will pay in funds which will be immediately available as of such time and date, as an installment in repayment of the loan from the Authority under the Loan Agreement, a sum equal to the aggregate amount payable on such date as principal of (whether at maturity, by redemption or by acceleration as provided in the Indenture) and premium, if any, and interest on the Bonds, at the Designated Corporate Trust Office of the Trustee.

(2) Each payment made pursuant to paragraph (1) above will at all times be sufficient to pay the total amount of interest and principal (whether at maturity or upon redemption or acceleration) and premium, if any, becoming due and payable on the Bonds on each Interest Payment Date and any date on which principal of the Bonds is due and payable; provided that on July 1 in each year, any amount held by the Trustee in the Revenue Fund on the due date for a Loan Payment under the Loan Agreement will be credited against the installment due on such date to the extent available for such purpose under the terms of the Indenture; and provided further that, subject to the provisions of this paragraph, if at any time the amounts held by the Trustee in the Revenue Fund are sufficient to pay all of the principal of and interest and premium, if any, on the Bonds as such payments become due, the Borrower will be relieved of any obligation to make any further payments under the provisions of the Loan Agreement. Notwithstanding the foregoing, if on any date the amount held by the Trustee in the Revenue Fund is insufficient to make any required payments of principal of (whether at maturity or upon redemption or acceleration) and interest and premium, if any, on the Bonds as such payments become due, the Borrower will forthwith pay such deficiency as a Loan Payment under the Loan Agreement.

(B) [Reserved]

(C) If the Borrower fails to make any payment required under the Loan Agreement by the due date, the Trustee will promptly notify the Authority, such notice to be given by telephone, telecopy or telegram followed by written notice.

(D) The Borrower may revise the Project from time to time, provided that the Corporation will first file with the Authority and the Trustee a Certificate describing the proposed revision and certifying that such revision (i) will not result in the Project or any portion thereof failing to qualify for financing under the Act, (ii) will not result in the completion of the Project after a date set forth in the Loan Agreement (unless such revision is necessary for reasons beyond the reasonable control of the Borrower), and (iii) does not increase the estimated unpaid costs of the Project beyond the sum of (a) the amount then in the Construction Fund (or held by the Borrower for Project purposes), (b) any investment income reasonably anticipated to be derived from the investment of moneys originally deposited in the Construction Fund, and (c) any other amount reasonably anticipated to be available therefor.

### Additional Payments.

In addition to the Loan Payments required to be made by the Borrower, the Borrower will also pay to the Trustee or to the Authority, as the case may be, Additional Payments as follows: (a) all taxes and assessments of any type or character charged to the Authority or to the Trustee affecting the amount available to the Authority or the Trustee from payments to be received under the Loan Agreement or in any way arising due to the transactions contemplated in the Loan Agreement (including taxes and assessments assessed or levied by any public agency or governmental authority of whatsoever character having power to levy taxes or assessments) but excluding any taxes based upon the capital and/or income of the Trustee or any other person other than the Borrower; provided, however, that the Borrower will have the right to protest any such taxes or assessments and to require the Authority or the Trustee, as the case may be, at the Borrower's expense, to protest and contest any such taxes or assessments assessed or levied upon them and that the Borrower will have the right to withhold payment of any such taxes or assessments pending disposition of any such protest or contest unless such withholding, protest or contest would materially adversely affect the rights or interests of the Authority or the Trustee; (b) the reasonable annual (or other regular) fees and expenses of the Trustee and its agents pursuant to the Indenture, and all reasonable fees, charges and expenses of the Trustee for any extraordinary services rendered by the Trustee under the Indenture, including without limitation any amounts payable to the Trustee by the Authority from Additional Payments pursuant to the Indenture, as and when the same become due and payable; (c) the reasonable fees and expenses of such accountants,

consultants, attorneys and other experts as may be engaged by the Authority or the Trustee to prepare audits, financial statements or opinions or provide such other services as are reasonably required under the Loan Agreement, the Indenture or the Tax Certificate; (d) the annual fee of the Authority and the fees and reasonable expenses of the Authority in connection with the loan to the Borrower under the Loan Agreement, the Bonds, the Indenture or any other documents contemplated by those documents, including without limitation reasonable expenses incurred by counsel to the Authority in connection with any litigation which may at any time be instituted involving such loan or the Bonds, the Indenture or any other related documents and reasonable expenses incurred by the Authority in supervision and inspection of the Borrower and its operations with respect to the use and application of such loan; and (e) such amounts as may be necessary to satisfy the rebate requirements in accordance with the Tax Certificate and to pay the cost of calculation of such rebate requirements.

#### Obligations of the Borrower Unconditional.

The Borrower pledges its full faith and credit to the payments it is required to make under the Loan Agreement. The obligations of the Borrower to make the Loan Payments and Additional Payments and to perform and observe the other agreements on its part contained in the Loan Agreement will be absolute and unconditional general obligations of the Borrower. Until such time as the principal of and premium, if any, and interest on all Bonds will have been fully paid (or provision for the payment thereof will have been made as provided in the Indenture), the Borrower (i) will not suspend or discontinue any Loan Payments or Additional Payments, (ii) will perform and observe all of its other agreements contained in the Loan Agreement and (iii) will not terminate the Loan Agreement for any cause, including, without limiting the generality of the foregoing, any change in the laws of the United States of America or of the State or any political subdivision of either or any failure of the Authority to perform and observe any agreement, whether express or implied, or any duty, liability or obligation arising out of or connected with the Loan Agreement. The Loan Agreement will be deemed and construed to be a “net contract,” and the Borrower will pay absolutely net the Loan Payments, Additional Payments and all other payments required thereunder, free of any deductions, without abatement, diminution or set-off other than those expressly provided therein.

#### Prepayments.

The Borrower may at any time prepay all or any part of the Loan Payments payable under the Loan Agreement by providing written notice at least ten (10) days prior to the last day by which the Trustee is permitted to give notice pursuant to the Indenture to the Trustee and the Authority specifying the date of such prepayment, for the purposes and at the prices set forth in the Indenture, and the Authority agrees that the Trustee will accept such prepayments when the same are tendered by the Borrower. All such prepayments will be deposited in the Revenue Fund and credited against the Loan Payments in the order of their due date or, at the election of the Borrower exercised in a Request of the Borrower, used for the redemption of Outstanding Bonds of such maturities, in the amounts and on the redemption dates specified in such Request; provided that the redemption date will be such as to comply with the optional redemption provisions of the Indenture and the notice provisions of the Indenture. Notwithstanding any such prepayment, the Borrower will not be relieved of its obligations under the Loan Agreement until all of the Bonds have been fully paid and retired (or provision for payment thereof will have been made as provided in the Indenture). Prepayments to be used to redeem Bonds pursuant to the Indenture will be deposited into the Special Redemption Account. Prepayments to be used to redeem Bonds pursuant to the Indenture will be deposited into the Optional Redemption Account.

The Borrower may also prepay all of its indebtedness under the Loan Agreement by providing for the payment of the Bonds in accordance with the Indenture, and, upon such prepayment, the Authority will provide for the defeasance of the Bonds in accordance with the Indenture.

If the Borrower is not in default in the payment of any Loan Payments or Additional Payments, the Authority, at the request of the Borrower, at any time when the aggregate moneys in the Revenue Fund established pursuant to the Indenture, including any prepayment deposited therein under the foregoing paragraph, are sufficient to effect redemption of all or part of the then Outstanding Bonds, and if such Bonds are then redeemable under the provisions of the Indenture, will forthwith take all steps that may be necessary to effect such redemption in accordance with the Request of the Borrower. The Authority agrees that it will redeem the Bonds pursuant to the Indenture only pursuant to a Request of the Borrower.

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### Investments.

The Borrower may direct the investment by the Trustee of moneys in the funds and accounts established pursuant to the Indenture, subject to the limitations set forth in the Indenture. The Borrower will covenant in the Loan Agreement that it will not direct the Trustee to make any investments, and that the Borrower itself will not make any investments of the proceeds of the Bonds, or any other funds in any way pledged to the security of or reasonably expected to be used to pay the Bonds, that would cause any of the Bonds to be “arbitrage bonds” subject to federal income taxation by reason of Section 103(b)(2) of the Code. The Borrower will not purchase any obligations of the Authority, pursuant to an arrangement, formal or informal, in an amount related to the amount of the loan made to the Borrower under the Loan Agreement. Nothing in this paragraph shall prohibit the Borrower from receiving Bonds by gift, bequest or devise or from purchasing Bonds in the secondary market other than pursuant to an arrangement related to the loan of the proceeds of the Bonds.

### No Liability of the Authority.

The Borrower is solely responsible for the payment of the Bonds. None of the Authority, the State or any political subdivision of the State shall be obligated to pay the Bonds or the interest thereon except from Revenues provided by the Borrower, and neither the faith and credit nor the taxing power of the State or of any political subdivision thereof shall be pledged to the payment of the principal of, the premium, if any, or the interest on the Bonds. The issuance of the Bonds will not directly or indirectly or contingently obligate the State or any political subdivision thereof to levy or to pledge any form of taxation whatever therefor or to make any appropriation for their payment. Neither the members of the Authority nor any officer thereof nor any person executing the Bonds will be liable personally on the Bonds or be subject to any personal liability or accountability by reason of the issuance thereof

### Maintenance of Corporate Existence; Consolidation, Merger, Sale or Transfer Under Certain Conditions.

(A) The Borrower covenants and agrees that, so long as any of the Bonds are Outstanding, it will maintain its existence as a nonprofit public benefit corporation qualified to do business in the State and an organization described in Section 501(c)(3) of the Code and will not dissolve, sell or otherwise dispose of all or substantially all of its assets or consolidate with or merge into another corporation or permit one or more other corporations to consolidate with or merge into it or acquire all or substantially all of the assets of any person or entity. Notwithstanding the foregoing, the Borrower may, without violating the covenants contained in the Loan Agreement, consolidate with or merge into another corporation, or acquire or permit one or more other corporations to consolidate with or merge into it, or sell or otherwise transfer to another corporation all or substantially all of its assets as an entirety and thereafter dissolve, or acquire all or substantially all of the assets of a person or entity, if:

(1) The surviving, resulting or transferee corporation, as the case may be:

(a) assumes in writing, if such corporation is not the Borrower, all of the obligations of the Borrower under the Loan Agreement;

(b) is not, after such transaction, otherwise in default under any provisions of the Loan Agreement; and

(c) is an organization described in Section 501(c)(3) of the Code, or a corresponding provision of the federal income tax laws then in effect.

(2) The Authority and the Trustee will have received a Certificate of the Borrower to the effect that the covenants under the Loan Agreement will be met after such consolidation, merger, sale or transfer; and

(3) The Trustee and the Authority will have received an Opinion of Bond Counsel to the effect that under existing law, such merger, consolidation, sale, acquisition or other transfer will not cause interest on the Bonds to be included in gross income for federal income tax purposes under Section 103 of the Code.

(B) If a merger, consolidation, sale or other transfer is effected, as provided in the Loan Agreement, the provisions of the Loan Agreement will continue in full force and effect, and no further merger, consolidation, sale or transfer will be effected except in accordance with the provisions of the Loan Agreement.

(C) The Borrower covenants and agrees to notify the Authority in writing within ten (10) Business Days following any merger, acquisition or affiliation involving the Borrower and an entity which has, or an entity affiliated with an entity which has, entered into a loan, lease or similar agreement with the Authority.

Insurance; Condemnation Proceeds.

So long as any Bonds remain Outstanding, the Borrower will maintain or cause to be maintained with respect to the Facilities, with insurance companies or by means of self-insurance, insurance of such type, against such risks and in such amounts as are customarily carried in connection with similar facilities located in the State of a nature similar to that of the Borrower, which insurance will include property damage, fire and extended coverage, public liability and property damage liability insurance in amounts estimated to indemnify the reasonably estimated damage, loss or liability. The Borrower will at all times also maintain worker's compensation coverage as required by the laws of the State.

If the Authority or the Trustee will so request in a Request of the Authority or the Trustee, the Borrower will provide to the Authority summaries or other evidence of its insurance coverage. All policies will name the Trustee and Authority as insured parties, beneficiary or loan payee as its interest may appear.

If prior to payment in full of the Bonds (or provision being made for payment in full in accordance with the provisions of the Indenture) any part of the Facilities is destroyed or damaged or taken under the exercise of the power of eminent domain and the operation of the remaining Facilities not so destroyed or damaged or taken might not, in the reasonable judgment of the Borrower, generate sufficient revenues to provide for the payment, as they become due of all Loan Payments and Additional Payments thereafter required with respect to the Bonds, the Borrower will either (i) apply the insurance or condemnation proceeds, together with applicable self-insurance reserves, to repair or replace the Facilities so destroyed or damaged or taken in such a manner that the operation of the resulting Facilities will, in the reasonable judgment of the Borrower, result in sufficient revenues being generated to provide for all payments required under the Loan Agreement, or (ii) to the maximum extent possible use the net insurance or condemnation proceeds, together with applicable self-insurance reserves, to prepay Loan Payments and redeem the Bonds in accordance with the provisions of the Loan Agreement and the Indenture.

Financial Statements of the Borrower and Reporting of Other Information.

The Borrower will furnish the following to the Authority and, upon request, the Trustee, so long as any Bonds remain Outstanding:

(A) its audited financial statements certified by an independent public accountant selected by the Borrower as of the end of each of its fiscal years as soon as accepted by its Board of Trustees but in any event within one hundred eighty (180) days after the end thereof, and to the Trustee each year such additional copies of its audited annual financial statements as the Trustee will reasonably request;

(B) a copy of any notice from a Rating Agency to the effect that any of the Borrower's unsecured debt is being rated or re-rated; and

(C) promptly upon the request of the Authority, or the Trustee, such other information regarding the financial position, results of operations, business or prospects of the Borrower as such party may reasonably request from time to time.

Inspection.

The Borrower will, at any reasonable time and from time to time, upon five (5) days prior written notice, permit the Authority and the Trustee, and their respective representatives and agents to (i) inspect the premises (in a

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manner reasonably designed to avoid disruption to the Borrower's research laboratory operations) and the books and records of the Borrower for the purpose of verifying compliance by the Borrower with the covenants contained in the Loan Agreement and all of the terms of the Act, (ii) examine and make copies of and abstracts from the records and books of account of the Borrower, (iii) discuss the affairs, finances and accounts of the Borrower with any of its officers or directors and (iv) communicate with the Borrower's independent certified public accountants.

### Tax Covenants.

(A) The Borrower covenants that it will not take any action, or fail to take any action, if such action or failure to take such action would result in the interest on the Bonds not being excluded from gross income for federal income tax purposes under Section 103 of the Code. Without limiting the generality of the foregoing, the Borrower covenants that it will comply with the requirements of the Tax Certificate, which is incorporated in the Loan Agreement as if fully set forth therein. This covenant will survive the payment in full or the defeasance of the Bonds.

(B) In the event that at any time the Borrower is of the opinion that for purposes of the Loan Agreement it is necessary or helpful to restrict or limit the yield on the investment of any moneys held by the Trustee under the Indenture, the Borrower will so instruct the Authority and the Trustee in a Request of the Borrower accompanied by an Opinion of Bond Counsel.

(C) Notwithstanding any provisions of the Loan Agreement, if the Borrower provides to the Trustee and the Authority an Opinion of Bond Counsel to the effect that any specified action required under the Loan Agreement is no longer required or that some further or different action is required to maintain the exclusion from federal income tax of interest on the Bonds, the Trustee may conclusively rely on such opinion in complying with the requirements of the Loan Agreement and the Tax Certificate, and the covenants under the Loan Agreement will be deemed to be modified to that extent.

### Continuing Disclosure.

The Borrower covenants and agrees that it will comply with and carry out all of the continuing disclosure requirements of Securities and Exchange Commission Rule 15c2-12, as applicable. Notwithstanding any other provision of the Loan Agreement, failure of the Borrower to comply with the such requirements will not be considered an event of default thereunder and the Trustee will have no right to accelerate all installments of the Loan Payments pursuant to the Loan Agreement as a result thereof, however, the Trustee at the written request of the Holders of at least a majority of the aggregate principal amount in Outstanding Bonds, will, (but only to the extent the Trustee has been tendered funds in an amount satisfactory to it or it has been otherwise indemnified from and against any loss, liability, cost or expense, including without limitation, fees and expense of its counsel and agents and additional fees and charges of the Trustee) or any Bondholder or Beneficial Owner may take such actions as may be necessary and appropriate, including seeking specific performance by court order, to cause the Borrower to comply with its obligations under the Loan Agreement. For purposes of the Loan Agreement, "Beneficial Owner" means any person which (a) has the power, directly or indirectly, to vote or consent with respect to, or to dispose of ownership of, any Bonds (including persons holding Bonds through nominees, depositories or other intermediaries), or (b) is treated as the owner of any Bonds for federal income tax purposes.

### Events of Default.

The following will be "events of default" under the Loan Agreement, and the terms "events of default" or "default" will mean, whenever they are used in the Loan Agreement, any one or more of the following events:

(A) The Borrower fails to make any payment described under in paragraphs (A) and (B) under the heading "Loan of Proceeds, Payment of Bonds and Project Modification" by its due date or the Borrower fails to make any other Loan Payment or Additional Payment by its due date, and failure continues for two (2) Business Days after such due date; or

(B) The Borrower fails to observe and perform any material covenant, condition or agreement on its part to be observed or performed under the Loan Agreement other than as referred to in paragraph (A) above for a period of thirty (30) days after written notice specifying such failure and requesting that it be remedied is given to the Borrower by the Authority or the Trustee provided, however, if the failure stated in the notice is correctable but cannot be corrected within the applicable period, the Trustee will not unreasonably withhold its consent to an extension of such time if corrective action is instituted by the Borrower within the applicable period and diligently pursued until the default is corrected; or

(C) Any of the representations or warranties of the Borrower made in the Loan Agreement or in any other document, certificate or writing furnished by the Borrower to the Authority in connection with the application for or the negotiation of the Loan Agreement or the issuance of the Bonds was false or incorrect in any material respect when made; or

(D) There is an unexcused default by the Borrower under any agreement or instrument to which it is a party relating to the borrowing of money either (i) in failing to pay any installment of principal or interest in an aggregate amount of \$250,000 or more, which default will not have been waived or excused within 90 days after the Borrower received notice of such default or (ii) as a result of which indebtedness in an amount of \$1,000,000 or more will have been accelerated and declared to be due and payable prior to its date of maturity; or

(E) The Borrower applies for or consents to the appointment of any receiver, trustee, or similar officer for it or for all or any substantial part of its property or admits in writing its inability to pay its debts as they mature; or such a receiver, trustee or similar officer is appointed without the application or consent of the Borrower and such appointment continues undischarged for a period of sixty (60) days; or the Borrower institutes (by petition, application, answer, consent or otherwise) any bankruptcy, insolvency, reorganization, arrangement, readjustment of debt, dissolution, liquidation or similar proceeding relating to it under the laws of any jurisdiction; or any such proceeding is instituted (by petition, application or otherwise) against the Borrower and remains undischarged for a period of sixty (60) days; or the Borrower makes a general assignment for the benefit of creditors.

#### Remedies on Default.

In the event any of the Bonds shall at the time be Outstanding and unpaid (and provision for the payment thereof shall not have been made as provided in the Indenture) and any event of default referred to under the heading "Events of Default" above shall have happened and be continuing the Authority or the Trustee may take any one or more of the following remedial steps:

(A) The Authority or the Trustee may, at its option, declare all installments of Loan Payments to be immediately due and payable, whereupon the same shall become immediately due and payable.

(B) The Authority or the Trustee may take whatever action at law or in equity that may appear necessary or desirable to collect the payments then due and thereafter to become due under the Loan Agreement, whether on the stated due date or by declaration of acceleration or otherwise, for damages or for specific performance or otherwise to enforce performance and observance of any obligation, condition or covenant of the Borrower under the Loan Agreement.

The term "all installments" means an amount equal to the entire principal amount of the then Outstanding Bonds, together with all interest accrued or to accrue on and prior to the next succeeding redemption date or dates on which the Bonds can be and actually are redeemed after giving notice to the Holders thereof as required by the Indenture (less moneys available for such purpose then held by the Trustee) plus any other payments due or to become due under the Loan Agreement, including, without limitation, any unpaid fees and expenses of the Authority, the Trustee and any paying agents of the Bonds which are then due or will become due prior to the time that the Bonds are paid in full and the trust established by the Indenture is terminated.

No remedy conferred in the Loan Agreement upon or reserved to the Authority or the Trustee is intended to be exclusive of any other available remedy or remedies, but each and every such remedy will be cumulative and will be in addition to every other remedy given under the Loan Agreement or now or hereafter existing at law or in

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equity or by statute. No delay in exercising or omission to exercise any right or power accruing upon any default will impair any such right or power or shall be construed to be a waiver thereof, but any such right or power may be exercised from time to time and as often as may be deemed expedient. In order to entitle the Authority or the Trustee to exercise any remedy reserved to it by the Loan Agreement, it will not be necessary to give any notice, other than such notice as may be expressly required in the Loan Agreement. The Trustee will be deemed a third party beneficiary of all covenants and conditions contained in the Loan Agreement.

### THE INDENTURE

#### General.

The Indenture sets forth the terms of each of the Bonds, the nature and extent of the security, various rights of the Bondholders, rights, duties and immunities of the Trustee and the rights and obligations of the Authority. Certain provisions of the Indenture are summarized below. Other provisions are summarized in the Official Statement under the caption "SECURITY AND SOURCES OF PAYMENT FOR THE BONDS." This summary does not purport to be complete or definitive and is qualified in its entirety by reference to the full terms of the Indenture.

### THE BONDS

#### Terms of the Bonds; Registration; Denominations; Payment of Principal and Interest

The Bonds will be issued as fully registered Bonds without coupons in Authorized Denominations. The Bonds initially will be registered in the name of "Cede & Co.," as nominee of the Securities Depository, and initially will be evidenced by one Bond certificate of each serial and term bond. Registered ownership of the Bonds, or any portion thereof, may not thereafter be transferred except as set forth in the Indenture.

The Bonds will be dated the Date of Issuance. The Bonds will be numbered in consecutive numerical order from 1 upwards.

The principal or Redemption Price of the Bonds will be payable in lawful money of the United States of America at the Payment Office of the Trustee upon surrender of the Bonds to the Trustee for cancellation, or such other address specified in writing by the Trustee to the Bondowner, subject to the terms and conditions of the Representation Letter; provided that the Trustee may agree with the Holder of any Bond that such Holder may, in lieu of surrendering the same for a new Bond, endorse on such Bond a record of partial payment of the principal of such Bond in the form set forth in the Indenture.

The Trustee will maintain a record of each such partial payment made in accordance with the foregoing agreement and such record of the Trustee will be conclusive. Such partial payment will be valid upon payment of the amount thereof to the Holder of such Bond, and the Authority and the Trustee will be fully released and discharged from all liability to the extent of such payment regardless of whether such endorsement will or will not have been made upon such Bond by the Holder thereof and regardless of any error or omission in such endorsement.

The Trustee will identify all payments (whether made by check or by wire transfer) of interest, principal and premium by CUSIP number of the Bonds.

Interest on the Bonds shall be payable from the date of authentication of the Bonds on each Interest Payment Date until the principal sum of each Bond has been paid; provided, however, that if at the maturity date of any Bond (or if the same is redeemable and shall be duly called for redemption, then at the date fixed for redemption) funds are available for the payment or redemption thereof in full accordance with the terms of the Indenture, such Bonds shall then cease to accrue interest. Interest shall be computed on the basis of a 360-day year consisting of twelve 30-day months. Subject to the terms and conditions of the Representation Letter, interest on the Bonds is payable by check mailed on each Interest Payment Date to the Holder of such Bond as of the Record Date at the address appearing on the bond registration books maintained by the Trustee; provided, however, that a Holder who owns an aggregate principal amount in excess of \$1,000,000 of Bonds and who, prior to the Record Date next

preceding any Interest Payment Date, shall have provided the Trustee with written wire transfer instructions, by written wire transfer, except for Bonds registered in the name of the Securities Depository, interest payable on such Bond is payable only upon presentation of such Bond to the Trustee, at the Payment Office.

#### Transfer of Bonds.

Subject to the provisions of the Indenture, any Bond may, in accordance with its terms, be transferred, upon the books required to be kept pursuant to the Indenture, by the Person in whose name it is registered, in person or by such Person's duly authorized attorney, upon surrender of such Bond for cancellation, accompanied by delivery of a written instrument of transfer, duly executed in a form approved by the Trustee.

Whenever any Bond or Bonds will be surrendered for transfer, the Authority will execute and the Trustee will authenticate and deliver a new Bond or Bonds, of the same maturity and for a like aggregate principal amount. The Trustee will require the Bondholder requesting such transfer to pay any tax or other governmental charge required to be paid with respect to such transfer, and the Trustee may also require the Bondholder requesting such transfer to pay a reasonable sum to cover expenses incurred by the Trustee or the Authority in connection with such transfer. The Trustee will not be required to transfer (i) any Bond during the fifteen (15) days preceding the date of redemption set forth in a notice of redemption, or (ii) any Bond called for redemption.

#### Exchange of Bonds.

The Bonds may be exchanged at the Payment Office of the Trustee for a like aggregate principal amount of Bonds of other Authorized Denominations of the same maturity. The Trustee shall require the Bondholder requesting such exchange to pay any tax or other governmental charge required to be paid with respect to such exchange and the Trustee may also require the Bondholder requesting such exchange to pay a reasonable sum to cover expenses incurred by the Trustee or the Authority in connection with such exchange. The Trustee shall not be required to exchange (i) any Bond during the fifteen (15) days immediately preceding the date on which notice of redemption of Bonds is given or (ii) any Bond called for redemption.

The Trustee will keep or cause to be kept sufficient books for the registration and transfer of the Bonds, which shall at all times (during regular business hours at the location where such books are kept) and upon reasonable prior written notice be open to inspection by any Bondholder or such Bondholder's agent duly authorized in writing, the Authority or the Borrower; and, upon presentation for such purpose, the Trustee shall, under such reasonable regulations as it may prescribe, register or transfer or cause to be registered or transferred, on such books, Bonds as provided in the Indenture.

#### Temporary Bonds.

The Bonds may be issued in temporary form exchangeable for definitive Bonds when ready for delivery. Any temporary Bond may be printed, lithographed or typewritten, will be of such denomination as may be determined by the Authority, will be in fully registered form without coupons and may contain such reference to any of the provisions of the Indenture as may be appropriate. Every temporary Bond will be executed by the Authority and be authenticated by the Trustee upon the same conditions and in substantially the same manner as the definitive Bonds. If the Authority issues temporary Bonds it will execute and deliver definitive Bonds as promptly thereafter as practicable, and thereupon the temporary Bonds shall be surrendered, for cancellation, in exchange therefor at the Designated Office of the Trustee, and the Trustee shall authenticate and deliver in exchange for such temporary Bonds an equal aggregate principal amount of definitive Bonds of Authorized Denominations of the same maturity. Until so exchanged, the temporary Bonds will be entitled to the same benefits under the Indenture as definitive Bonds authenticated and delivered under the Indenture.

#### Bonds Mutilated, Lost, Destroyed or Stolen.

If any Bond becomes mutilated, the Authority, at the expense of the Holder of said Bond, will execute, and the Trustee will thereupon authenticate and deliver, a new Bond of like tenor in exchange and substitution for the Bond so mutilated, but only upon surrender to the Trustee of the Bond so mutilated. Every mutilated Bond so

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surrendered to the Trustee shall be canceled by it. If any Bond shall be lost, destroyed or stolen, evidence of such loss, destruction or theft may be submitted to the Trustee and, if such evidence be satisfactory to it and indemnity satisfactory to it is given, the Authority, at the expense of the Holder, will execute, and the Trustee will thereupon authenticate and deliver, a new Bond of like tenor in lieu of and in substitution for the Bond so lost, destroyed or stolen (or if any such Bond has matured or is about to mature, instead of issuing a substitute Bond, the Trustee may pay the same without surrender thereof). The Trustee may require payment of a sum not exceeding the actual cost of preparing each new Bond issued as described in this paragraph and of the expenses which may be incurred by the Authority and the Trustee in complying with this paragraph. Any Bond issued as described in this paragraph in lieu of any Bond alleged to be lost, destroyed or stolen will replace the Bond alleged to be lost, stolen or destroyed as an original contractual obligation on the part of the Authority, and will be entitled to the benefits of the Indenture with all other Bonds secured by the Indenture.

### *APPLICATION OF PROCEEDS*

#### Establishment and Application of Costs of Issuance Fund.

The Trustee will establish, maintain and hold in trust a separate fund designated as the “Costs of Issuance Fund.” Moneys deposited in said fund shall be used to pay Costs of Issuance with respect to the Bonds upon Requisition of the Borrower filed with the Trustee, which will be in substantially the form set forth in the Indenture. At the end of six months from the date of initial execution and delivery of the Bonds, or upon earlier receipt of a Statement of the Borrower that amounts in said fund are no longer required for the payment of such Costs of Issuance, said fund shall be terminated, and any amounts then remaining in said fund will be transferred to the Construction Fund. Upon such transfer, the Costs of Issuance Fund will be closed.

#### Establishment and Application of Construction Fund.

(A) The Trustee will establish, maintain and hold in trust a separate fund designated as the “Construction Fund.”

(B) The moneys in the Construction Fund will be used and withdrawn by the Trustee, as directed by Requisition of the Borrower, substantially in the form set forth in the Indenture, submitted by the Authorized Representative of the Borrower, to pay the costs of the Project.

(C) Before any payment from the Construction Fund will be made, the Authorized Representative of the Borrower will file or cause to be filed with the Trustee a Requisition of the Borrower stating: (a) the item number of such payment; (b) the name of the Person to whom each such payment is due, which may be the Borrower in the case of reimbursement for costs of the Project theretofore paid by the Borrower; (c) the respective amounts to be paid; (d) the purpose by general classification for which each obligation to be paid was incurred; (e) that obligations in the stated amounts have been incurred by the Borrower and are presently due and payable and that each item thereof is a proper charge against the Construction Fund and has not been previously paid therefrom; (f) that there has not been filed with or served upon the Borrower notice of any lien, right to lien or attachment upon, or claim affecting the right to receive payment of, any of the amounts payable to any of the Persons named in such Requisition of the Borrower, which has not been released or will not be released simultaneously with the payment of such obligation, other than materialmen’s or mechanics’ liens accruing by mere operation of law; and (g) that the balance remaining in the Construction Fund after payment of such amounts, together with any investment income reasonably anticipated to be deposited in the Construction Fund pursuant to the Indenture and any other funds reasonably anticipated to be available therefor, will be sufficient to pay the costs of completing the Project.

(D) Upon receipt of each such Requisition of the Borrower, the Trustee, within three (3) Business Days, so long as there exists available moneys, will pay the amount set forth in such Requisition of the Borrower as directed by the terms thereof out of the Construction Fund. The Trustee need not make any such payment if it has received notice of any lien, right to lien or attachment upon, or claim affecting the right to receive payment of, any of the moneys to be so paid, which has not been released or will not be released simultaneously with such payment. The Trustee may rely on each Requisition in making disbursements and shall not be required to verify the truth or accuracy of any Requisition.

(E) Upon the completion of acquisition, construction, improvement and equipping of the Project, but in any event not later than 30 days following such completion, the Trustee will be furnished with a certificate of the Borrower, stating to the effect the date of such completion (the “Completion Date”) and that (i) the Project has been completed, (ii) payment, or provision therefor, of the cost of the Project has been made except for any costs not then due and payable or the liability for payment of which is being contested or disputed by the Borrower, (iii) no Event of Default exists under the Loan Agreement, and (iv) the acquisition, construction, improvement and equipping of the Project have been completed as of the Completion Date. Thereupon, any balance in the Construction Fund not reserved for the payment of the cost of the Project shall be deposited into the Revenue Fund and applied pursuant to the Indenture. Upon such transfer, the Construction Fund shall be closed.

#### Establishment and Application of Capitalized Interest Account.

The Trustee shall establish, maintain and hold in trust a separate account within the Revenue Fund, designated as the “Capitalized Interest Account” (the “Capitalized Interest Account”). Any moneys in the Capitalized Interest Account shall be applied by the Trustee to the payment of the interest on the New Money Bonds as it comes due until such account is depleted.

### *REVENUES*

#### Pledge and Assignment; Revenue Fund.

(A) Subject only to the provisions of the Indenture permitting the application thereof for the purposes and on the terms and conditions set forth therein, there are pledged to secure the payment of the principal of and premium, if any, and interest on the Bonds in accordance with their terms and the provisions of the Indenture, all of the Revenues and any other amounts (including proceeds of the sale of the Bonds) held in any fund or account established pursuant to the Indenture (other than the Rebate Fund). Said pledge will constitute a lien on and security interest in such assets and will attach, be perfected and be valid and binding from and after delivery by the Trustee of the Bonds, without any physical delivery thereof or further act.

(B) The Authority transfers in trust, grants a security interest in and assigns to the Trustee, for the benefit of the Holders from time to time of the Bonds, all of the Revenues and other assets pledged in the Indenture and all of the right, title and interest of the Authority in the Loan Agreement (except for (i) the right to receive any Administrative Fees and Expenses to the extent payable to the Authority, (ii) any rights of the Authority to reimbursement or indemnification, (iii) the obligation of the Borrower to make deposits pursuant to the Tax Certificate and (iv) as otherwise expressly set forth in the Loan Agreement). The Trustee will be entitled to and will collect and receive all of the Revenues, and any Revenues collected or received by the Authority shall be deemed to be held, and to have been collected or received, by the Authority as the agent of the Trustee and will forthwith be paid by the Authority to the Trustee. The Trustee also will be entitled to and will take all steps, actions and proceedings to enforce all of the rights of the Authority (other than those specifically retained by the Authority) under the Indenture or Loan Agreement, including, without limitation, the rights to enforce the remedies upon the occurrence and continuation of an Event of Default and all of the obligations of the Borrower under the Loan Agreement.

(C) All Revenues will be promptly deposited by the Trustee upon receipt thereof in a special fund designated as the “Revenue Fund” which the Trustee is directed to establish, maintain and hold in trust, except as otherwise provided in the Indenture and except that all moneys received by the Trustee and required by the Loan Agreement to be deposited in any account of the Redemption Fund, shall be promptly deposited in such account of the Redemption Fund. All Revenues deposited with the Trustee shall be held, disbursed, allocated and applied by the Trustee only as provided in the Indenture.

#### Allocation of Revenues.

On or before the dates specified below, the Trustee will transfer from the Revenue Fund and deposit into the following respective accounts (each of which the Trustee is directed to establish and maintain within the Revenue Fund) the following amounts, in the following order of priority, the requirements of each such account

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(including the making up of any deficiencies in any such account resulting from lack of Revenues sufficient to make any earlier required deposit) at the time of deposit to be satisfied before any transfer is made to any account subsequent in priority:

FIRST: on or before each Interest Payment Date, to the Interest Account, the amount of interest becoming due and payable on such Interest Payment Date on all Bonds then Outstanding, until the balance in said account is equal to said amount of interest; and

SECOND: to the Principal Account, on or before each July 1, commencing July 1, 2008, the amount of the Sinking Fund Installment becoming due and payable on such July 1, until the balance in said account is equal to said amount of such Sinking Fund Installment;

Any moneys remaining in the Revenue Fund after the foregoing transfers shall be retained in the Revenue Fund and will be allocated and applied as provided in the Loan Agreement and the Indenture.

### Application of Interest Account.

All amounts in the Interest Account shall be used and withdrawn by the Trustee solely for the purpose of paying interest on the Bonds as it shall become due and payable (including accrued interest on any Bonds purchased or redeemed prior to maturity pursuant to the Indenture).

### Application of Principal Account.

(A) All amounts in the Principal Account shall be used and withdrawn by the Trustee solely to purchase or redeem or pay Sinking Fund Installments or pay principal of the Bonds at maturity as provided within the Indenture.

(B) On each Sinking Fund Installment date established pursuant to the Indenture, the Trustee shall apply the Sinking Fund Installment required on that date to the redemption (or payment at maturity, as the case may be) of Bonds, upon the notice and in the manner provided in the Indenture; provided that, at any time prior to giving such notice of such redemption, the Trustee may apply moneys in the Principal Account to the purchase of Bonds at public or private sale, as and when and at such prices (including brokerage and other charges, but excluding accrued interest, which is payable from the Interest Account) as directed in writing by the Borrower, except that the purchase price (excluding accrued interest) shall not exceed the par amount of the Bonds so purchased. If, during the twelve-month period immediately preceding a Sinking Fund Installment payment date, the Trustee has purchased Bonds with moneys in the Principal Account, or, during said period and prior to giving said notice of redemption, the Borrower has deposited Bonds with the Trustee (together with a Request of the Borrower, to apply such Bonds to the Sinking Fund Installment due on said date), or Bonds were at any time purchased or redeemed by the Trustee from the Redemption Fund and allocable to said Sinking Fund Installment, such Bonds shall be applied, to the extent of the full principal amount thereof, to reduce said Sinking Fund Installment. All Bonds purchased or deposited pursuant to this subsection, if any, shall be cancelled by the Trustee. The Bonds purchased from the Principal Account, purchased or redeemed from the Redemption Fund, or deposited by the Borrower with the Trustee shall be allocated first to the next succeeding Sinking Fund Installment, then as a credit against such future Sinking Fund Installments as the Borrower may specify in writing.

### Application of Redemption Fund.

The Trustee shall establish, maintain and hold in trust a fund separate from any other fund established and maintained under the Indenture designated as the "Redemption Fund" and within the Redemption Fund a separate Optional Redemption Account and Special Redemption Account. All amounts deposited in the Optional Redemption Account and Special Redemption Account shall be used and withdrawn by the Trustee solely for the purpose of redeeming Bonds, in the manner and upon the terms and conditions specified in the Indenture, at the next succeeding date of redemption for which notice has been given and at the Redemption Prices then applicable to redemptions from the Optional Redemption Account and in the Special Redemption Account; provided that, at any time prior to giving such notice of redemption, the Trustee shall, upon direction of an Authorized Representative of

the Borrower, apply such amounts to the purchase of Bonds at public or private sale, as and when and at such prices (including brokerage and other charges, but excluding accrued interest, which is payable from the Interest Account) as an Authorized Representative of the Borrower may direct, except that the purchase price (exclusive of accrued interest) may not exceed the Redemption Price then applicable to such Bonds; and provided further that, in the case of the Optional Redemption Account, in lieu of redemption at such next succeeding date of redemption, or in combination therewith, amounts in such account may be transferred to the Revenue Fund and credited against Loan Payments in order of their due date as set forth in a Request of an Authorized Representative of the Borrower.

#### General Fund.

The Trustee shall establish, maintain and hold in trust a fund separate from any other fund established and maintained under the Indenture designated the "General Fund." The Trustee shall deposit into the General Fund the amounts received from the Borrower as Additional Payments. The Trustee also shall deposit into the General Fund payments received from the Borrower as payment for the costs of calculation of the Rebate Requirement (as defined below). The Trustee shall apply such money solely for the following purposes, in the following order of priority:

- (C) to the Trustee for the payment of Trustee Fees;
- (D) to the Trustee and then to the Authority for costs required to be paid or reimbursed under the Loan Agreement or the Indenture other than Trustee Fees; and
- (E) to the Authority for the cost of calculating the Rebate Requirement.

#### Rebate Fund.

(F) *Establishment.* The Trustee shall establish and maintain a fund separate from any other fund established and maintained under the Indenture designated as the Rebate Fund. All amounts at any time on deposit in the Rebate Fund shall be held by the Trustee in trust, to the extent required to satisfy the requirements to make rebate payments to the United States (the "Rebate Requirement") pursuant to Section 148 of the Code and the Treasury Regulations promulgated thereunder (the "Rebate Regulations"). Such amounts shall be free and clear of any lien under the Indenture and shall be governed by the Indenture and by the Tax Certificate.

(G) *Deposit.* Within 90 days of the end of each Bond Year (except as provided in the Indenture, in which case the time shall be 60 days), (a) the Borrower, pursuant to the Tax Certificate, shall calculate or cause to be calculated with respect to the Bonds, at its own expense, at the amount that would be considered "rebateable arbitrage" within the meaning of Section 1.148-2(a) of the Rebate Regulations, using as the "computation date" for this purpose the end of such Bond Year and shall provide the Authority with a copy of such calculations, and (b) upon the Borrower's written direction, the Trustee shall deposit to the Rebate Fund from deposits from the Borrower, if and to the extent required, amounts sufficient to cause the balance in the Rebate Fund to be equal to the amount of "rebateable arbitrage" so calculated.

(H) The Trustee shall not be required to deposit any amount to the Rebate Fund in accordance with the preceding sentence if the amount on deposit in the Rebate Fund prior to the deposit required to be made under the Indenture exceeds the amount of "rebateable arbitrage" calculated in accordance with the preceding sentence. Such excess may be withdrawn from the Rebate Fund to the extent permitted under the Indenture. The Borrower shall not be required to calculate the amount of "rebateable arbitrage" within the meaning of Section 1.148-2(a) of the Rebate Regulations, and the Trustee shall not be required to deposit any amount to the Rebate Fund in accordance with the Indenture, with respect to all or a portion of the proceeds of the Bonds (including amounts treated as proceeds of the Bonds) (a) to the extent such proceeds satisfy the expenditure requirements of Section 148(f)(4)(B) or Section 148(f)(4)(C) of the Code, whichever is applicable, and otherwise qualify for the exception to the Rebate Requirement pursuant to whichever of said sections is applicable, or (b) to the extent such proceeds are subject to an election by the Borrower under Section 148(f)(4)(C)(vii) of the Code to pay a 1 1/2% penalty in lieu of arbitrage rebate in the event any of the percentage expenditure requirements of Section 148(f)(4)(C) are not satisfied, or (c) to the extent such proceeds qualify for the exception to arbitrage rebate under Section 148(f)(4)(A)(ii) of the Code for amounts in a "bona fide debt service fund." In such event, and with respect to such amounts, the Borrower shall

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provide written direction to the Trustee that the Trustee shall not be required to deposit any amount to the Rebate Fund in accordance with the Indenture.

(I) *Withdrawal Following Payment of Bonds.* Any funds remaining in the Rebate Fund after redemption and final payment of all the Bonds and any amounts described in the Indenture, or provisions made therefor satisfactory to the Trustee, including accrued interest and payment of any applicable fees to the Trustee and the Authority, shall be withdrawn by the Trustee and remitted to the Borrower.

(J) *Withdrawal for Payment of Rebate.* Upon the Corporation's written direction, but subject to the exceptions contained in the Indenture to the requirement to calculate "rebateable arbitrage" and make deposits to the Rebate Fund, the Trustee shall pay to the United States, from amounts on deposit in the Rebate Fund, not later than 60 days after the end of (a) the fifth Bond Year, and (b) each fifth Bond Year thereafter, an amount that, together with all previous rebate payments, is equal to at least 90% of the sum of (x) the "rebateable arbitrage" calculated as of the end of such Bond Year in accordance with Section 1.148-2 of the Rebate Regulations, and (y) all previous rebate payments; and not later than 60 days after the payment of all Bonds, an amount equal to 100% of the "rebateable arbitrage" calculated as of the date of such payment (and any income attributable to the rebateable arbitrage determined to be due and payable) in accordance with Section 1.148-2 of the Rebate Regulations.

(K) *Rebate Payments.* Each payment required to be made under the Indenture shall be made to the Internal Revenue Service Center, Philadelphia, Pennsylvania 19255 (or to such other place as is then required) on or before the date on which such payment is due, and shall be accompanied by Internal Revenue Service Form 8038 T (or to such other place as is then required), which shall be completed by the Borrower for execution by the Authority and provided to the Trustee.

(L) *Deficiencies in the Rebate Fund.* In the event that, prior to the time any payment is required to be made from the Rebate Fund, the amount in the Rebate Fund is not sufficient to make such payment when such payment is due, the Borrower shall calculate the amount of such deficiency and direct the Trustee to deposit an amount received from the Borrower equal to such deficiency into the Rebate Fund prior to the time such payment is due.

(M) *Withdrawals of Excess Amounts.* In the event that immediately following the calculation required by the Indenture, but prior to any deposit made thereunder, the amount on deposit in the Rebate Fund exceeds the amount of "rebateable arbitrage" calculated in accordance with the Indenture, upon written instructions from the Borrower, the Trustee shall withdraw the excess from the Rebate Fund and credit such excess to the Interest Fund.

(N) *Record Keeping.* The Borrower shall retain records of all determinations made under the Indenture until six years after the retirement of the last obligation of the Bonds.

(O) *Survival of Defeasance.* Notwithstanding anything in the Indenture to the contrary, the Rebate Requirements shall survive the defeasance of the Bonds.

### Investment of Moneys in Funds and Accounts.

All moneys in any of the funds and accounts established pursuant to the Indenture will be invested by the Trustee, upon written direction of the Borrower, solely in Investment Securities. Amounts on deposit in the Rebate Fund will not be required to be invested only in Investment Securities. The directions of the Borrower are subject to the limitations set forth in the Indenture. All Investment Securities shall be acquired subject to the limitations as to maturities described under this heading set forth and such additional limitations or requirements consistent with the foregoing as may be established by Request of the Borrower. No Request of the Borrower will impose any duty on the Trustee inconsistent with its fiduciary responsibilities. In the absence of directions from the Borrower, the Trustee will make investments as set forth in the Indenture. The Trustee may make any and all investments permitted by the Indenture through its own investment department or that of its affiliates including the purchase of proprietary investments and payment of fees to the Trustee or its affiliates for such investments.

Moneys in all funds and accounts (other than the Rebate Fund) will be invested in Investment Securities maturing not later than the date on which it is estimated that such moneys will be required for the purposes specified in the Indenture. Investment Securities purchased under a repurchase agreement may be deemed to mature on the date or dates on which the Trustee may deliver such Investment Securities for repurchase under such agreement.

All interest, profits and other income received from the investment of moneys in the Rebate Fund will be deposited when received in such fund. All interest, profits and other income received from the investment of moneys in any other fund or account established pursuant to the Indenture other than the Construction Fund and the Costs of Issuance Fund will be deposited when received in the Revenue Fund. All interest, profits and other income derived from the investment of moneys in the Construction Fund will remain therein. Notwithstanding anything to the contrary contained in this paragraph, any amount of interest received with respect to any Investment Security equal to the amount of accrued interest, if any, paid as part of the purchase price of such Investment Security will be credited to the fund or account for the credit of which such Investment Security was acquired.

Investment Securities acquired as an investment of moneys in any fund or account established under the Indenture will be credited to such fund or account. For the purpose of determining the amount in any such fund or account all Investment Securities credited to such fund or account will be valued at market value.

The Trustee may commingle any of the amounts on deposit in the funds or accounts established pursuant to the Indenture (other than the Rebate Fund) into a separate fund or funds for investment purposes only, provided that all funds or accounts held by the Trustee under the Indenture will be accounted for separately as required by the Indenture. The Trustee or an affiliate may act as principal or agent in the making or disposing of any investment and shall be entitled to its customary fee therefor. The Trustee may sell at the best price reasonably obtainable, or present for redemption, any Investment Securities so purchased whenever it is necessary to provide moneys to meet any required payment, transfer, withdrawal or disbursement from the fund or account to which such Investment Security is credited, and, subject to the provisions of the Indenture with respect to the Trustee, neither the Authority nor the Trustee will be liable or responsible for any loss resulting from any investment made in accordance with the provisions of the Indenture.

The Authority acknowledges that to the extent the regulations of the Comptroller of the Currency or other applicable regulatory agency grant the Authority the right to receive brokerage confirmations of the security transactions, the Authority waives receipt of such confirmations. The Trustee will furnish to the Authority and the Borrower periodic statements of accounts which will include details of all investment transactions made by the Trustee.

#### *COVENANTS*

##### Punctual Payment.

The Authority will punctually cause to be paid the principal or Redemption Price and interest to become due in respect of all the Bonds, in strict conformity with the terms of the Bonds and of the Indenture, according to the true intent and meaning thereof, but only out of Revenues and other assets pledged for such payment as provided in the Indenture.

##### Extension of Payment of Bonds.

Except as set forth in the Indenture, the Authority shall not directly or indirectly extend or assent to the extension of the maturity of any of the Bonds or the time of payment of any claims for interest by the purchase or funding of such Bonds or claims for interest or by any other arrangement and in case the maturity of any of the Bonds or the time of payment of any such claims for interest will be extended, such Bonds or claims for interest shall not be entitled, in case of any default under the Indenture, to the benefits of the Indenture, except subject to the prior payment in full of the principal of all of the Bonds then Outstanding and of all claims for interest thereon which shall not have been so extended. Nothing in this paragraph will be deemed to limit the right of the Authority to issue obligations for the purpose of refunding any Outstanding Bonds, and such issuance will not be deemed to constitute an extension of maturity of Bonds.

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### Against Encumbrances.

The Authority will not create any pledge, lien, charge or other encumbrance upon the Revenues and other assets pledged or assigned under the Indenture while any of the Bonds are Outstanding, except as permitted under the Loan Agreement and the pledges and assignments created by the Indenture and will assist the Trustee in contesting any such pledge, lien, charge or other encumbrance which may be created. Subject to this limitation, the Authority expressly reserves the right to enter into one or more other indentures for any of its corporate purposes, including other programs under the Act, and reserves the right to issue other obligations for such purposes.

### Power to Issue Bonds and Make Pledge and Assignment.

The Authority is duly authorized pursuant to law to issue the Bonds and to enter into the Indenture and to pledge and assign the Revenues and other assets purported to be pledged and assigned, respectively, under the Indenture in the manner and to the extent provided in the Indenture. The Bonds and the provisions of the Indenture are and will be the legal, valid and binding limited obligations of the Authority in accordance with their terms, and the Authority and Trustee will at all times, to the extent permitted by law, defend, preserve and protect said pledge and assignment of Revenues and other assets and all the rights of the Bondholders under the Indenture against all claims and demands of all Persons whomsoever.

### Accounting Records and Financial Statements.

(A) The Trustee will at all times keep, or cause to be kept, proper books of record and account, prepared in accordance with the Trustee's accounting practices for books of record and account relating to similar trust accounts and in accordance with the customary standards of the industry for such books of record and account, in which complete and accurate entries will be made of all transactions made by it relating to the proceeds of Bonds, the Revenues, the Loan Agreement and all funds and accounts established pursuant to the Indenture. Such books of record and account will be available for inspection by the Authority, the Borrower, and any Bondholder, or his agent or representative duly authorized in writing, at reasonable hours, upon reasonable notice and under reasonable circumstances.

(B) The Trustee will furnish to each Bondholder who has filed his name and address with the Trustee for such purpose a copy of the most recent audited financial statements of the Borrower, as furnished to the Trustee pursuant to the Loan Agreement.

(C) The Trustee shall furnish monthly to the Authority and to the Borrower a complete financial statement (which may be in the form of its regular statements) covering receipts, disbursements, allocation and application of Revenues and the proceeds of the Bonds made by the Trustee; provided that the Trustee will not be obligated to provide an accounting for any fund or account that (i) has a balance of \$0.00 and (ii) has not had any activity since the last reporting date. The Trustee provides the Borrower with periodic statements of transactions and investments with respect to the various funds and accounts created pursuant to the Indenture. Such statements are provided as part of the ordinary services contemplated in the Indenture. As part of such service, the Trustee will at no additional charge, provide statements to a rebate analyst if so directed in writing by the Borrower at closing. In the event that the Borrower requests the Trustee to provide copies of previously issued statements to a rebate analyst or other person for the purpose of performing analysis or calculations relating to arbitrage rebate as required under the Indenture, Tax Certificate (or other financing agreement) or for any other reason, then the Trustee will be entitled to additional compensation for its services with respect to providing such additional statements. Such compensation will be paid to the Trustee prior to it releasing such statements.

### Tax Covenants.

(A) The Authority covenants that it will not take any action, or fail to take any action, if such action or failure to take such action would result in the interest on the Bonds not being excluded from gross income for federal income tax purposes under Section 103 of the Code. Without limiting the generality of the foregoing, the Authority will covenant that it will comply with the requirements of the Tax Certificate, which is incorporated in the

Indenture as if fully set forth therein. This covenant shall survive the payment in full or the defeasance of the Bonds.

(B) In the event that at any time the Authority is of the opinion that for purposes described under this heading “Tax Covenants,” that it is necessary or helpful to restrict or limit the yield on the investment of any moneys held by the Trustee under the Indenture, the Authority will so instruct the Trustee and the Borrower in a Written Request of the Authority accompanied by a supporting Opinion of Bond Counsel, and the Trustee will take such action as may be directed by the Borrower.

(C) Notwithstanding any provisions of described under this heading “Tax Covenants,” if the Authority provides to the Trustee an Opinion of Bond Counsel to the effect that any specified action required under under this heading “Tax Covenants” is no longer required or that some further or different action is required to maintain the exclusion from federal income tax of interest on the Bonds, the Trustee may conclusively rely on such opinion in complying with the requirements of this Section and the Tax Agreement, and the covenants described under this heading “Tax Covenants” shall be deemed to be modified to that extent.

#### Enforcement of Loan Agreement.

The Trustee will promptly collect all amounts due from the Borrower pursuant to the Loan Agreement, shall perform all duties imposed upon it pursuant to the Loan Agreement and will diligently enforce, and take all steps, actions and proceedings reasonably necessary for the enforcement of, all of the rights of the Authority and all of the obligations of the Borrower.

#### Amendment of Loan Agreement.

(A) Except as provided in the following paragraphs, the Authority will not amend, modify or terminate any of the terms of the Loan Agreement, or consent to any such amendment, modification or termination, unless the written consent of the Holders of a majority in principal amount of the Bonds then Outstanding to such amendment, modification or termination is filed with the Trustee, provided that no such amendment, modification or termination will reduce the amount of Loan Payments to be made to the Authority or the Trustee by the Borrower pursuant to the Loan Agreement, or extend the time for making such payments, without the written consent of all of the Holders of the Bonds then Outstanding.

(B) Notwithstanding the above provisions, the terms of the Loan Agreement may also be modified or amended from time to time and at any time by the Authority, without the necessity of obtaining the consent of any Bondholders, only to the extent permitted by law and only for any one or more of the following purposes:

(1) to add to the covenants and agreements of the Authority or the Borrower contained in the Loan Agreement other covenants and agreements thereafter to be observed, to pledge or assign additional security for the Bonds (or any portion thereof), or to surrender any right or power therein reserved to or conferred upon the Authority or the Borrower, provided, that no such covenant, agreement, pledge, assignment or surrender shall materially adversely affect the interests of the Holders of the Bonds;

(2) to make such provisions for the purpose of curing any ambiguity, inconsistency or omission, or of curing or correcting any defective provision, contained in the Loan Agreement, or in regard to matters or questions arising under the Loan Agreement, as the Authority may deem necessary or desirable and not inconsistent with the Loan Agreement or the Indenture, and which will not materially adversely affect the interests of the Holders of the Bonds;

(3) to maintain the exclusion from gross income of interest payable with respect to the Bonds; or

(4) to make any modification or amendment to the Loan Agreement.

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(C) In executing or consenting to any amendment to the Loan Agreement permitted under this heading “Amendment of Loan Agreement,” the Authority and the Trustee shall receive, and shall be fully protected in relying upon, a Favorable Opinion of Bond Counsel addressed to the Authority and the Trustee stating that the execution of such amendment is authorized or permitted by the Loan Agreement and the Indenture and applicable law, will upon the execution and delivery thereof be valid and binding obligations of the parties thereto, and that the execution and delivery thereof will not adversely affect the exclusion from federal gross income of interest on the Bonds.

### Waiver of Laws.

The Authority will not at any time insist upon or plead in any manner whatsoever, or claim or take the benefit or advantage of, any stay or extension law now or at any time hereafter in force that may affect the covenants and agreements contained in the Indenture or in the Bonds, and all benefit or advantage of any such law or laws is expressly waived by the Authority to the extent permitted by law.

### Further Assurances.

The Authority will make, execute and deliver any and all such further indentures, instruments and assurances as may be reasonably necessary or proper to carry out the intention or to facilitate the performance of the Indenture and for the better assuring and confirming unto the Holders of the Bonds of the rights and benefits provided in the Indenture.

### Continuing Disclosure.

Pursuant to the Loan Agreement, the Borrower has undertaken all responsibility for compliance with continuing disclosure requirements, and the Authority will have no liability to the Holders of the Bonds or any other Person with respect to S.E.C. Rule 15c2-12. Notwithstanding any other provision of the Indenture, failure of the Borrower or the Dissemination Agent to comply with the Continuing Disclosure Agreement shall not be considered an Event of Default; however, the Trustee may (and, at the request of any Participating Underwriter (as defined in the Rule) or the Holders of at least 25% aggregate principal amount of Outstanding Bonds, and upon receipt of indemnification satisfactory to it shall) or any Bondholder or Beneficial Owner may take such actions as may be necessary and appropriate, including seeking mandate or specific performance by court order, to cause the Borrower to comply with its obligations under the Loan Agreement or to cause the Trustee to comply with its obligations under the Loan Agreement.

## *EVENTS OF DEFAULT AND REMEDIES OF BONDHOLDERS*

### Events of Default.

The following events shall be Events of Default:

(A) default in the due and punctual payment of the principal or Redemption Price of any Bond when and as the same shall become due and payable, whether at maturity as therein expressed, by proceedings for redemption, by acceleration or otherwise or default in the redemption of any Bonds from Sinking Fund Installments in the amount and at the times provided therefor;

(B) default in the due and punctual payment of any installment of interest on any Bond when and as such interest installment shall become due and payable;

(C) default in any material respect by the Authority in the observance of any of the other covenants, agreements or conditions on its part in the Indenture or in the Bonds contained, if such default shall have continued for a period of thirty (30) days after written notice thereof, specifying such default and requiring the same to be remedied, shall have been given to the Authority and the Borrower by the Trustee, or to the Authority, the Borrower and the Trustee or the Holders of not less than twenty-five per cent (25%) in aggregate principal amount of the Bonds at the time Outstanding, unless (i) the Trustee shall agree in writing to an extension of such time prior to its

expiration or (ii) if the breach or failure be such that it cannot be corrected within the applicable period, corrective action is instituted by the Authority within the applicable period and is being diligently pursued; or

(D) a Loan Default Event.

Upon actual knowledge of the existence of any Event of Default, the Trustee shall notify the Borrower and the Authority in writing as soon as practicable; provided, however, that the Trustee need not provide notice of any Loan Default Event if the Borrower has expressly acknowledged the existence of such Loan Default Event in a writing delivered to the Trustee and the Authority.

#### Acceleration of Maturities.

Whenever any Event of Default referred to in the Indenture shall have happened and be continuing, the Trustee may take the following remedial steps:

(A) In the case of an Event of Default described above in paragraphs (A) or (B) under the heading “Events of Default”, the Trustee may notify the Authority of such Event of Default and declare the principal of all the Bonds then Outstanding, and the interest accrued thereon, to be due and payable immediately, and upon any such declaration the same shall become and shall be immediately due and payable, anything in the Indenture to the contrary notwithstanding;

(B) In the case of an Event of Default described above in paragraph (C) under the heading “Event of Default”, the Trustee may take whatever action at law or in equity is necessary or desirable to enforce the performance, observance or compliance by the Authority with any covenant, condition or agreement by the Authority under the Indenture; and

(C) In the case of an Event of Default described above in paragraph (D) under the heading “Event of Default”, the Trustee may take whatever action the Authority would be entitled to take, and shall take whatever action the Authority would be required to take, pursuant to the Loan Agreement in order to remedy the Loan Default Event.

Notwithstanding any other provision of the Indenture or any right, power or remedy existing at law or in equity or by statute, the Trustee shall not under any circumstance in which an Event of Default has occurred declare the entire unpaid aggregate principal amount of the Bonds Outstanding to be immediately due and payable.

Any such declaration is further subject to the condition that if, at any time after such declaration and before any judgment or decree for the payment of the moneys due shall have been obtained or entered, the Authority or the Borrower shall deposit with the Trustee a sum sufficient to pay all the principal (including any Sinking Fund Installments) or redemption price of and installments of interest on the Bonds, payment of which is overdue, with interest on such overdue principal at the rate borne by the respective Bonds, and the reasonable charges and expenses of the Trustee, and if any and all other defaults known to the Trustee (other than in the payment of principal of and interest on the Bonds due and payable solely by reason of such declaration) shall have been made good or cured to the satisfaction of the Trustee or provision deemed by the Trustee to be adequate shall have been made therefor, then, and in every such case, the Trustee shall, on behalf of the Holders of all of the Bonds, rescind and annul such declaration and its consequences and waive such default; but no such rescission and annulment shall extend to or shall affect any subsequent default, or shall impair or exhaust any right or power consequent thereon.

Notice of such declaration having been given as aforesaid, anything to the contrary contained in the Indenture or in the Bonds to the contrary notwithstanding, interest shall cease to accrue on such Bonds from and after the date set forth in such notice (which shall be not more than seven days from the date of such declaration).

Nothing contained in the Indenture, however, shall require the Trustee to exercise any remedies in connection with an Event of Default unless the Trustee shall have actual knowledge or shall have received written notice of such Event of Default.

## APPENDIX C

### Application of Revenues and other Funds After Default.

If an Event of Default shall occur and be continuing, all Revenues and any other funds then held or thereafter received by the Trustee under any of the provisions of the Indenture (subject to the provisions of the Indenture and other than moneys required to be deposited in the Rebate Fund) will be applied by the Trustee as follows and in the following order:

(A) To the payment of any expenses necessary in the opinion of the Trustee to protect the interests of the Holders of the Bonds and payment of reasonable fees and expenses of the Trustee (including reasonable fees and disbursements of its counsel) incurred and reasonably anticipated to be incurred in and about the performance of its powers and duties under the Indenture; and

(B) To the payment of the principal or Redemption Price of and interest then due on the Bonds (upon presentation of the Bonds to be paid, and stamping thereon of the payment if only partially paid, or surrender thereof if fully paid) subject to the provisions of the Indenture as follows:

(1) Unless the principal of all of the Bonds have become or have been declared due and payable,

FIRST: To the payment to the Persons entitled thereto of all installments of interest then due in the order of the maturity of such installments, and, if the amount available will not be sufficient to pay in full any installment or installments maturing on the same date, then to the payment thereof ratably, according to the amounts due thereon, to the Persons entitled thereto, without any discrimination or preference; and

SECOND: To the payment to the Persons entitled thereto of the unpaid principal (including Sinking Fund Installments) or Redemption Price of any Bonds which they have become due, whether at maturity or by call for redemption, in the order of their due dates, with interest on the overdue principal at the rate borne by the respective Bonds, and, if the amount available will not be sufficient to pay in full all the Bonds due on any date, together with such interest, then to the payment thereof ratably, according to the amounts of principal or Redemption Price due on such date to the Persons entitled thereto, without any discrimination or preference.

(2) If the principal of all of the Bonds have become or have been declared due and payable, to the payment of the principal and interest then due and unpaid upon the Bonds, with interest on the overdue principal at the rate borne by the respective Bonds, and, if the amount available will not be sufficient to pay in full the whole amount so due and unpaid, then to the payment thereof ratably, without preference or priority of principal over interest, or of interest over principal, or of any installment of interest over any other installment of interest, or of any Bond over any other Bond, according to the amounts due respectively for principal and interest, to the Persons entitled thereto without any discrimination or preference; and

(C) To the payment of any Rebate Requirement then due to the federal government of the United States of America.

### Trustee to Represent Bondholders.

Under the Indenture the Trustee is irrevocably appointed (and the successive respective Holders of the Bonds, by taking and holding the same, will be conclusively deemed to have so appointed the Trustee) as Trustee and true and lawful attorney-in-fact of the Holders of the Bonds for the purpose of exercising and prosecuting on their behalf such rights and remedies as may be available to such Holders under the provisions of the Bonds, the Indenture, the Loan Agreement, the Act and applicable provisions of any other law. Upon the occurrence and continuance of an Event of Default or other occasion giving rise to a right in the Trustee to represent the Bondholders, the Trustee in its discretion may, and upon the written request of the Holders of not less than twenty-five percent (25%) in aggregate principal amount of the Bonds then Outstanding and upon being indemnified to its satisfaction therefor, will, proceed to protect or enforce its rights or the rights of such Holders by such appropriate action, suit, mandamus or other proceedings as it will deem most effectual to protect and enforce any such right, at law or in equity, either for the specific performance of any covenant or agreement contained in the Indenture, or in

aid of the execution of any power therein granted, or for the enforcement of any other appropriate legal or equitable right or remedy vested in the Trustee or in such Holders under the Indenture, the Loan Agreement, the Act or any other law; and upon instituting such proceeding, the Trustee will be entitled, as a matter of right, to the appointment of a receiver of the Revenues and other amounts and assets pledged under the Indenture, pending such proceedings. If more than one such request is received by the Trustee from the Holders, the Trustee will follow the written request executed by the Holders of the greater percentage of Bonds then Outstanding in excess of twenty-five percent (25%). All rights of action under the Indenture or the Bonds or otherwise may be prosecuted and enforced by the Trustee without the possession of any of the Bonds or the production thereof in any proceeding relating thereto, and any such suit, action or proceeding instituted by the Trustee will be brought in the name of the Trustee for the benefit and protection of all the Holders of such Bonds, subject to the provisions of the Indenture.

#### Bondholders' Direction of Proceedings.

Anything in the Indenture to the contrary notwithstanding, the Holders of a majority in aggregate principal amount of the Bonds then Outstanding will, have the right, by an instrument or concurrent instruments in writing executed and delivered to the Trustee, and upon indemnifying the Trustee to its satisfaction therefor, to direct the method of conducting all remedial proceedings taken by the Trustee thereunder, provided that such direction will not be otherwise than in accordance with law and the provisions of the Indenture, and that the Trustee will have the right to decline to follow any such direction which in the opinion of the Trustee would be unjustly prejudicial to Bondholders not parties to such direction.

#### Limitation on Bondholders' Right to Sue.

No Holder of any Bond will have the right to institute any suit, action or proceeding at law or in equity, for the protection or enforcement of any right or remedy under the Indenture, the Loan Agreement, the Act or any other applicable law with respect to such Bond, unless (1) such Holder will have given to the Trustee written notice of the occurrence of an Event of Default; (2) the Holders of not less than twenty-five per cent (25%) in aggregate principal amount of the Bonds then Outstanding will have made written request upon the Trustee to exercise the powers granted in the Indenture or to institute such suit, action or proceeding in its own name, provided, however, that if more than one such request is received by the Trustee from the Holders, the Trustee will follow the written request executed by the Holders of the greater percentage of Bonds then Outstanding in excess of twenty-five percent (25%); (3) such Holder or said Holders will have tendered to the Trustee indemnity satisfactory to it against the costs, expenses and liabilities to be incurred in compliance with such request; and (4) the Trustee will have refused or omitted to comply with such request for a period of sixty (60) days after such written request will have been received by, and said tender of indemnity will have been made to, the Trustee.

In the Indenture such notification, request, tender of indemnity and refusal or omission are declared, in every case, to be conditions precedent to the exercise by any Holder of Bonds of any remedy thereunder or under law; it being understood and intended that no one or more Holders of Bonds will have any right in any manner whatever by such Holder's or Holders' action to affect, disturb or prejudice the security of the Indenture or the rights of any other Holders of Bonds, or to enforce any right under the Indenture, the Loan Agreement, the Act or other applicable law with respect to the Bonds, except in the manner therein provided, and that all proceedings at law or in equity to enforce any such right will be instituted, had and maintained in the manner therein provided and for the benefit and protection of all Holders of the Outstanding Bonds, subject to the provisions of the Indenture.

### *MODIFICATION OR AMENDMENT OF THE INDENTURE*

#### Amendments Permitted.

(A) The Indenture and the rights and obligations of the Authority and of the Holders of the Bonds and of the Trustee may be modified or amended from time to time and at any time by an indenture or indentures supplemental thereto, which the Authority and the Trustee may enter into when the written consent of the Borrower and the Holders of not less than a majority in aggregate principal amount of Bonds Outstanding) will have been filed with the Trustee and after receipt of a Favorable Opinion of Bond Counsel; provided that if such modification or amendment will, by its terms, not take effect so long as any particular Bonds and maturity remain Outstanding, the consent of the Holder of such Bonds will not be required and such Bonds will not be deemed to be Outstanding for

## APPENDIX C

the purpose of any calculation of Bonds Outstanding under this heading. No such modification or amendment will (1) extend the stated maturity of any Bond, or reduce the amount of principal thereof, or extend the time of payment or change the method of computing the rate of interest thereon, or extend the time of payment of interest thereon, or reduce any premium payable upon the redemption thereof, without the consent of the Holder of each Bond so affected, or (2) reduce the aforesaid percentage of Bonds, the consent of the Holders of which is required to effect any such modification or amendment, or permit the creation of any lien on the Revenues and other assets pledged under the Indenture prior to or on a parity with the lien created by the Indenture, or deprive the Holders of the Bonds of the lien created by the Indenture on such Revenues and other assets (except as expressly provided in the Indenture), without the consent of the Holders of all Bonds then Outstanding. It will not be necessary for the consent of the Bondholders to approve the particular form of any Supplemental Indenture, but it will be sufficient if such consent will approve the substance thereof. Promptly after the execution by the Authority and the Trustee of any Supplemental Indenture pursuant to the Indenture, the Trustee will mail a notice, setting forth in general terms the substance of such Supplemental Indenture to the Bondholders at the addresses shown on the registration books maintained by the Trustee. Any failure to give such notice, or any defect therein, will not, however, in any way impair or affect the validity of any such Supplemental Indenture.

(B) The Indenture and the rights and obligations of the Authority, of the Trustee and of the Holders of the Bonds may also be modified or amended from time to time and at any time by an indenture or indentures supplemental thereto, which the Authority and the Trustee may enter into with the consent of the Borrower but without the necessity of obtaining the consent of any Bondholders, only (i) to the extent permitted by law and (ii) after receipt by the Trustee of an approving Favorable Opinion of Bond Counsel, for any purpose that will not materially adversely affect the interests of the Holders, including (without limitation) for any one or more of the following purposes:

(1) to add to the covenants and agreements of the Authority contained in the Indenture other covenants and agreements thereafter to be observed, to pledge or assign additional security for the Bonds (or any portion thereof), or to surrender any right or power therein reserved to or conferred upon the Authority, provided, that no such covenant, agreement, pledge, assignment or surrender will materially adversely affect the interests of the Holders of the Bonds;

(2) to make such provisions for the purpose of curing any ambiguity, inconsistency or omission, or of curing or correcting any defective provision, contained in the Indenture, or in regard to matters or questions arising under the Indenture, as the Authority or the Trustee may deem necessary or desirable and not inconsistent with the Indenture, and which will not materially adversely affect the interests of the Holders of the Bonds;

(3) to modify, amend or supplement the Indenture in such manner as to permit the qualification thereof under the Trust Indenture Act of 1939, as amended, or any similar federal statute hereafter in effect, and to add such other terms, conditions and provisions as may be permitted by said act or similar federal statute, and which will not materially adversely affect the interests of the Holders of the Bonds;

(4) to facilitate and implement any book entry system (or any termination of a book entry system) with respect to the Bonds;

(5) to maintain the exclusion from gross income of interest payable with respect to the Bonds;

(6) to make any changes required by a Rating Agency in order to obtain or maintain a rating for the Bonds; or

(7) to modify, alter, amend or supplement the Indenture in any other respect which is not materially adverse to the Bondholders.

(C) The Trustee may in its discretion, but will not be obligated to, enter into any such Supplemental Indenture authorized by the Indenture which materially adversely affects the Trustee's own rights, duties or immunities under the Indenture or otherwise.

(D) Copies of any Supplemental Indenture must be sent to Moody's.

#### *DEFEASANCE*

##### Discharge of Indenture.

The Bonds may be paid by the Authority or the Trustee on behalf of the Authority in any of the following ways:

(A) by paying or causing to be paid the principal or Redemption Price of and interest on all Bonds Outstanding, as and when the same become due and payable;

(B) by depositing with the Trustee, in trust, at or before maturity, moneys or securities in the necessary amount to pay when due or redeem all Bonds then Outstanding; or

(C) by delivering to the Trustee, for cancellation by it, all Bonds then Outstanding.

If the Authority will also pay or cause to be paid all other sums payable thereunder by the Authority and the Borrower will have paid all Administrative Fees and Expenses payable to the Authority pursuant to the Loan Agreement, then and in that case at the election of the Authority (evidenced by a Certificate of the Authority filed with the Trustee signifying the intention of the Authority to discharge all such indebtedness and the Indenture), and notwithstanding that any Bonds will not have been surrendered for payment, the Indenture and the pledge of Revenues and other assets made under the Indenture and all covenants, agreements and other obligations of the Authority under the Indenture (except as otherwise provided) will cease, terminate, become void and be completely discharged and satisfied. In such event, upon the request of the Authority, the Trustee will cause an accounting for such period or periods as may be requested by the Authority to be prepared and filed with the Authority and will execute and deliver to the Authority all such instruments as may be necessary to evidence such discharge and satisfaction, and the Trustee will pay over, transfer, assign or deliver to the Borrower all moneys or securities or other property held by it pursuant to the Indenture which are not required for the payment or redemption of Bonds not theretofore surrendered for such payment or redemption; provided that in all events moneys in the Rebate Fund will be subject to the provisions of the Indenture.

(D) Upon the deposit with the Trustee, in trust, at or before maturity, of money or securities in the necessary amount (as provided in the Indenture) to pay or redeem any Outstanding Bond (whether upon or prior to its maturity or the redemption date of such Bond), provided that, if such Bond is to be redeemed prior to maturity, (a) notice of such redemption will have been given as in the Indenture provided or provision satisfactory to the Trustee will have been made for the giving of such notice, and (b) the Trustee and the Authority will have received (i) a verification report prepared by independent certified public accountants, or other verification agent satisfactory to the Trustee, to the effect that the payment of the principal of and redemption premium, if any, and interest on such Bonds then Outstanding and any and all other amounts required to be paid under the provisions of the Indenture has been provided for in the manner set forth in the Indenture, and (ii) a Favorable Opinion of Bond Counsel addressed and delivered to the Trustee and the Authority to the effect that so providing for the payment of such Bonds will not adversely affect the exclusion of the interest on such Bonds from gross income for federal income tax purposes, then all liability of the Authority in respect of such Bonds will cease, terminate and be completely discharged, except only that thereafter the Holder thereof will be entitled to payment of the principal of and interest on such Bonds by the Authority, and the Authority will remain liable for such payments, but only out of such money or securities deposited with the Trustee as aforesaid for their payment, subject, however, to the provisions of the Indenture.

## APPENDIX C

### Deposit of Moneys or Securities with Trustee

Whenever in the Indenture it is provided or permitted that there be deposited with or held in trust by the Trustee money or securities in the necessary amount to pay or redeem any Bonds, the money or securities to be so deposited or held may include money or securities held by the Trustee in the funds and accounts established pursuant to the Indenture (other than the Rebate Fund) and shall be:

(A) lawful money of the United States of America in an amount equal to the principal amount of such Bonds and all unpaid interest thereon to maturity, except that, in the case of Bonds which are to be redeemed prior to maturity and in respect of which irrevocable notice of such redemption shall have been given as in the Indenture provided or provision satisfactory to the Trustee will have been made for the giving of such notice, the amount to be deposited or held will be the principal amount or Redemption Price of such Bonds and all unpaid interest thereon to the redemption date; or

(B) United States Government Obligations (not callable by the issuer thereof prior to maturity), the principal thereof when due and interest thereon will provide money sufficient to pay the principal or Redemption Price of and all unpaid interest to maturity, or to the redemption date, as the case may be, on the Bonds to be paid or redeemed, as such principal or Redemption Price and interest become due; provided that, in the case of Bonds which are to be redeemed prior to the maturity thereof, notice of such redemption shall have been given as in the Indenture provided or provision satisfactory to the Trustee will have been made for the giving of such notice; provided, in each case, that the Trustee will have been irrevocably instructed (by the terms of the Indenture or by Request of the Authority) to apply such money to the payment of such principal or Redemption Price and interest with respect to such Bonds.

### Payment of Bonds After Discharge of Indenture.

Notwithstanding any provision of the Indenture to the contrary, any money held by the Trustee for the payment of principal or premium, if any, or interest on any Bonds and remaining unclaimed for such period of time as would render such funds subject to escheat under applicable escheat laws, will be escheated by the Trustee on behalf of the Borrower to the appropriate governmental authority under applicable escheat laws; provided, however, that prior to the escheat of such unclaimed funds the Trustee will (at the expense of the Borrower) provide such notice to Holders of Bonds which have not yet been paid at the addresses shown for such Holders on the registration books maintained by the Trustee as may be required under applicable escheat laws; and provided further, that if the Borrower will cause to be delivered to the Trustee an Opinion of Counsel to the effect that such unclaimed funds (or some portion of such unclaimed funds) are not subject to escheat under applicable escheat laws (and will not, under then existing escheat laws, become subject to escheat with the passage of time), then the Trustee will deliver such unclaimed funds to the Borrower free from the trusts created by the Indenture, and all liability of the Trustee with respect to such unclaimed funds will thereupon cease.

## FORM OF CONTINUING DISCLOSURE AGREEMENT

This Continuing Disclosure Agreement (this “Disclosure Agreement”) is executed and delivered by The Jackson Laboratory (with its successors, the “Borrower”) and Wells Fargo Bank, N.A. (with its successors, the “Trustee”), as Trustee in connection with the issuance of \$60,290,000 ABAG Finance Authority for Nonprofit Corporations Revenue Bonds (The Jackson Laboratory), Series 2012 (the “Bonds”). The Bonds are being issued by ABAG Finance Authority for Nonprofit Corporations (with its successors, the “Authority”) pursuant to an Indenture (the “Indenture”), dated as of October 1, 2012, between the Authority and the Trustee. The Authority and the Borrower will enter into a Loan Agreement, dated as of October 1, 2012 (the “Loan Agreement”), pursuant to which the Authority will loan to the Borrower the proceeds of the Bonds for the purpose of financing the Project as set forth in the Loan Agreement. The Borrower and the Trustee covenant and agree as follows:

**SECTION 1. Purpose of the Disclosure Agreement.** This Disclosure Agreement is being executed and delivered by the Borrower and the Trustee for the benefit of the Bondowners and in order to assist the Participating Underwriter (defined below) in complying with the Rule (defined below). The Borrower and the Trustee acknowledge that the Authority has undertaken no responsibility with respect to any reports, notices or disclosures provided or required under this Disclosure Agreement, and has no liability to any person, including any Bondowner, with respect to any such reports, notices or disclosures. The Trustee, except as provided in Section 3(c), has undertaken no responsibility with respect to any reports, notices or disclosures provided or required under this Disclosure Agreement, and has no liability to any person, including any Bondowner, with respect to any such reports, notices or disclosures except for its negligent failure to comply with its obligations under Section 3(c).

**SECTION 2. Definitions.** In addition to the definitions set forth in the Loan Agreement, which apply to any capitalized term used in this Disclosure Agreement unless otherwise defined in this Disclosure Agreement, the following capitalized terms shall have the following meanings:

“Annual Report” shall mean any Annual Report provided by the Borrower pursuant to, and as described in, Sections 3 and 4 of this Disclosure Agreement.

“Bondowner” shall mean the registered owner of a Bond and any beneficial owner thereof, as established to the reasonable satisfaction of the Trustee or the Borrower.

“Dissemination Agent” shall mean any Dissemination Agent or successor Dissemination Agent designated in writing by the Borrower and which has filed with the Borrower, the Trustee and the Authority a written acceptance of such designation. The same entity may serve as both Trustee and Dissemination Agent. In the absence of a third-party Dissemination Agent, the Borrower shall serve as the Dissemination Agent. The initial Dissemination Agent shall be the Borrower.

## APPENDIX D

“Listed Events” shall mean any of the events listed in Section 5(a) of this Disclosure Agreement.

“MSRB” means the Municipal Securities Rulemaking Board established pursuant to Section 15B(b)(1) of the Securities Exchange Act of 1934, or any successor thereto or to the functions of the MSRB contemplated by this Disclosure Agreement. Filing information relating to the MSRB is set forth in Exhibit B hereto.

“Participating Underwriter” shall mean the original underwriter of the Bonds required to comply with the Rule in connection with offering of the Bonds.

“Rule” shall mean Rule 15c2-12(b)(5) adopted by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as the same may be amended from time to time.

### SECTION 3. Provision of Annual Reports.

(a) Commencing with the Borrower’s fiscal year ending December 31, 2012, the Dissemination Agent, not later than 180 days after the end of each fiscal year (the “Annual Report Filing Deadline”), shall provide to the MSRB an Annual Report relating to such fiscal year, which shall include the information described in Section 4 of this Disclosure Agreement and the audited financial statements of the Borrower for such fiscal year. Not later than fifteen (15) Business Days prior to the Annual Report Filing Deadline, the Borrower (if it is not the Dissemination Agent) shall provide the Annual Report to the Dissemination Agent. In each case, the Annual Report may be submitted as a single document or as separate documents comprising a package, and may cross-reference other information as provided in Section 4 of this Disclosure Agreement; provided that the audited financial statements of the Borrower may be submitted separately from, and at a later date than, the balance of the Annual Report if such audited financial statements are not available as of the date set forth above. If the Dissemination Agent submits the audited financial statements of the Borrower at a later date, it shall provide unaudited financial statements by the above-specified deadline and shall provide the audited financial statements as soon as practicable after the audited financial statements become available. The Borrower shall submit the audited financial statements to the Dissemination Agent and the Trustee as soon as practicable after they become available and the Dissemination Agent shall submit the audited financial statements to the MSRB as soon as practicable thereafter. The Borrower shall provide a copy of each Annual Report to the Authority and the Trustee.

(b) The Dissemination Agent shall file a report with the Borrower, the Authority and the Trustee certifying that the Annual Report has been provided pursuant to this Disclosure Agreement and stating the date it was provided (the “Compliance Certificate”); such report shall include a certification from the Borrower that the Annual Report complies with the requirements of this Disclosure Agreement.

(c) If the Trustee has not received a Compliance Certificate by the Annual Report Filing Deadline, the Trustee shall send, and the Borrower hereby authorizes and directs the Trustee to submit on its behalf, a notice to the MSRB in substantially the form attached as Exhibit A.

(d) If the Dissemination Agent has not provided the Annual Report to the MSRB by the Annual Report Filing Deadline, the Borrower shall send, or cause the Dissemination Agent to send, a notice substantially in the form of Exhibit A irrespective of whether the Trustee submits such notice.

**SECTION 4. Content of Annual Reports.**

(a) The Borrower's Annual Report shall contain or incorporate by reference financial information and operating data for such fiscal year relating to the information of the type provided in Appendix A to the Official Statement dated October 11, 2012 pertaining to the Bonds, and in each case substantially in the same level of detail as is found in Appendix A to the Official Statement (i) under the heading "MANAGEMENT'S DISCUSSION OF RECENT OPERATING ACTIVITIES – Summary Overview;" in the tables entitled "Sources of Grants and Contracts Revenue," and under the subheadings "Growth in Mice and Services Revenue," "– Capital Planning," and "– Investment & Endowment Results" (unless otherwise described in the Borrower's audited financial statements in the same level of detail as found in Appendix A), (ii) under the heading "THE PROJECT" (until the Project is completed), (iii) under the heading "OUTSTANDING INDEBTEDNESS," (unless otherwise described in the Borrower's audited financial statements in the same level of detail as found in Appendix A), and (iv) under the heading "STAFFING AND EMPLOYEES."

The financial statements provided pursuant to Sections 3 and 4 of this Disclosure Agreement shall be prepared in conformity with generally accepted accounting principles, as in effect from time to time. Any or all of the items listed above may be incorporated by reference from other documents, including official statements of debt issues with respect to which the Borrower is an "obligated person" (as defined by the Rule), which (i) are available to the public on the MSRB Internet Web site, or (ii) have been filed with the Securities and Exchange Commission. The Borrower shall clearly identify each such other document so incorporated by reference.

**SECTION 5. Reporting of Significant Events**

(a) This Section 5 shall govern the giving of notices of the occurrence of any of the following events with respect to the Bonds:

1. Principal and interest payment delinquencies.
2. Non-payment related defaults, if material.
3. Unscheduled draws on debt service reserves reflecting financial difficulties.
4. Unscheduled draws on credit enhancements reflecting financial difficulties.
5. Substitution of credit or liquidity providers, or their failure to perform.

## APPENDIX D

6. Adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax status of the Bonds, or other material events affecting the tax-exempt status of the Bonds.
7. Modifications to rights of the Owners of the Bonds, if material.
8. Bond calls, if material, and tender offers.
9. Defeasance of the Bonds or any portion thereof.
10. Release, substitution or sale of property securing repayment of the Bonds, if material.
11. Rating changes.
12. Bankruptcy<sup>\*</sup>, insolvency, receivership or similar event of the Borrower.
13. The consummation of a merger, consolidation, or acquisition involving the Borrower or the sale of all or substantially all of the assets of the Borrower, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material.
14. Appointment of a successor or additional trustee or the change of name of a trustee, if material.

(b) Upon the occurrence of a Listed Event, the Borrower shall, in a timely manner not in excess of ten (10) business days after the occurrence of the event, file or cause to be filed a notice of such occurrence with the MSRB. The Borrower shall provide a copy of each such notice to the Authority and the Trustee. The Dissemination Agent, if other than the Borrower, shall have no duty to file a notice of an event described hereunder unless it is directed in writing to do so by the Borrower, and shall have no responsibility for verifying any of the information in any such notice or determining the materiality of the event described in such notice.

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<sup>\*</sup> As noted in the Rule, this event is considered to occur when any of the following occur: (i) the appointment of a receiver, fiscal agent or similar officer for the Borrower in a proceeding under the U.S. Bankruptcy Code or in any proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or business of the Borrower, or if such jurisdiction has been assumed by leaving the existing governing body and officials or officers in possession but subject to the supervision and orders of a court or governmental authority, or (ii) the entry of an order confirming a plan of reorganization, arrangement or liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the Borrower.

SECTION 6. Transmission of Information and Notices. Unless otherwise required by law, all notices, documents and information provided to the MSRB shall be provided in electronic format as prescribed by the MSRB and shall be accompanied by identifying information as prescribed by the MSRB.

SECTION 7. Termination of Reporting Obligation. The Borrower's obligations under this Disclosure Agreement shall terminate upon the defeasance, prior redemption or payment in full of all of the Bonds or upon delivery to the Trustee of an opinion of counsel expert in federal securities laws selected by the Borrower and acceptable to the Trustee to the effect that compliance with this Disclosure Agreement no longer is required by the Rule. If the Borrower's obligations under the Loan Agreement are assumed in full by some other entity, such person shall be responsible for compliance with this Disclosure Agreement in the same manner as if it were the Borrower and the original Borrower shall have no further responsibility hereunder.

SECTION 8. Dissemination Agent. The Borrower may, from time to time with notice to the Trustee and the Authority appoint or engage a third-party Dissemination Agent to assist it in carrying out its obligations under this Disclosure Agreement, and may, with notice to the Trustee and the Authority, discharge any such third-party Dissemination Agent, with or without appointing a successor Dissemination Agent. The Dissemination Agent (if other than the Borrower) may resign upon 30 days' written notice to the Borrower, the Trustee and the Authority.

SECTION 9. Amendment; Waiver. Notwithstanding any other provision of this Disclosure Agreement, the Borrower and the Trustee may amend this Disclosure Agreement (and the Trustee shall agree to any amendment so requested by the Borrower, subject to the last sentence of this Section 9) and any provision of this Disclosure Agreement may be waived, if such amendment or waiver is supported by an opinion of counsel expert in federal securities laws acceptable to both the Borrower and the Trustee to the effect that such amendment or waiver would not, in and of itself, violate the Rule. Without limiting the foregoing, the Borrower and the Trustee may amend this Disclosure Agreement if (a) such amendment is made in connection with a change in circumstances that arises from a change in legal requirements, change in law, or change in the identity, nature or status of the Borrower or of the type of business conducted by the Borrower, (b) this Disclosure Agreement, as so amended, would have complied with the requirements of the Rule at the time the Bonds were issued, taking into account any amendments or interpretations of the Rule, as well as any change in circumstances; and (c) (i) the Trustee determines, or the Trustee receives an opinion of counsel expert in federal securities laws and acceptable to the Trustee to the effect that, the amendment does not materially impair the interests of the Bondowners or (ii) the amendment is consented to by the Bondowners as though it were an amendment to the Indenture. The annual financial information containing the amended operating data or financial information will explain, in narrative form, the reasons for the amendment and the impact of the change in the type of operating data or financial information being provided. Neither the Trustee nor the Dissemination Agent shall be required to accept or acknowledge any amendment of this Disclosure Agreement if the amendment adversely affects its respective rights or immunities or increases its respective duties hereunder.

## APPENDIX D

SECTION 10. Additional Information. Nothing in this Disclosure Agreement shall be deemed to prevent the Borrower from disseminating any other information, using the means of dissemination set forth in this Disclosure Agreement or any other means of communication, or including any other information in any Annual Report or notice of occurrence of a Listed Event, in addition to that which is required by this Disclosure Agreement. If the Borrower chooses to include any information in any Annual Report or notice of occurrence of a Listed Event in addition to that which is specifically required by this Disclosure Agreement, the Borrower shall have no obligation under this Disclosure Agreement to update such information or include it in any future Annual Report or notice of occurrence of a Listed Event.

SECTION 11. Default. In the event of a failure of the Borrower or the Dissemination Agent to comply with any provision of this Disclosure Agreement, the Trustee may (and, at the request of Bondowners representing at least 25% in aggregate principal amount of Outstanding Bonds, shall), take such actions as may be necessary and appropriate, including seeking specific performance by court order, to cause the Borrower or the Dissemination Agent, as the case may be, to comply with its obligations under this Disclosure Agreement. Without regard to the foregoing, any Bondowner may take such actions as may be necessary and appropriate, including seeking specific performance by court order, to cause the Borrower or the Dissemination Agent, as the case may be, to comply with its obligations under this Disclosure Agreement. A default under this Disclosure Agreement shall not be deemed an Event of Default under the Loan Agreement or the Indenture, and the sole remedy under this Disclosure Agreement in the event of any failure of the Borrower or the Dissemination Agent to comply with this Disclosure Agreement shall be an action to compel performance.

SECTION 12. Duties, Immunities and Liabilities of Trustee and Dissemination Agent. The Dissemination Agent (if other than the Borrower) shall have only such duties as are specifically set forth in this Disclosure Agreement, and the Borrower agrees to indemnify and save the Dissemination Agent (if other than the Borrower), its officers, directors, employees and agents, harmless against any loss, expense and liabilities which it may incur arising out of or in the exercise or performance of its powers and duties hereunder, including the costs and expenses (including attorneys fees) of defending against any claim of liability, but excluding liabilities due to the Dissemination Agent's negligence or willful misconduct. Notwithstanding anything in this Disclosure Agreement to the contrary, in no event shall the Trustee, if it is serving as Dissemination Agent, be liable for special, indirect or consequential loss or damage of any kind whatsoever (including but not limited to lost profits), even if the Trustee has been advised of the likelihood of such loss or damage and regardless of the form of action; provided that such losses or damages are not the result of the Trustee's own negligence or willful misconduct. The obligations of the Borrower under this Section shall survive resignation or removal of the Dissemination Agent and payment of the Bonds. The Borrower covenants that whenever it is serving as Dissemination Agent, it shall take any action required of the Dissemination Agent under this Disclosure Agreement.

The Trustee shall have no obligation under this Disclosure Agreement to report any information to the MSRB or any Bondowner. If an officer of the Trustee obtains actual knowledge of the occurrence of an event described in Section 5 hereunder, whether or not such event is material, the Trustee shall timely notify the Borrower of such occurrence, provided, however, that any failure by the Trustee to give such notice to the Borrower shall not affect the Borrower's

obligations under this Disclosure Agreement or give rise to any liability by the Trustee for such failure.

SECTION 13. Beneficiaries. This Disclosure Agreement shall inure solely to the benefit of the Borrower, the Trustee, the Dissemination Agent, the Participating Underwriter and the Bondowners, and shall create no rights in any other person or entity.

SECTION 14. Disclaimer. No Annual Report or notice of a Listed Event filed by or on behalf of the Borrower under this Disclosure Agreement shall obligate the Borrower to file any information regarding matters other than those specifically described in Section 3, Section 4 and Section 5 hereof, nor shall any such filing constitute a representation by the Borrower or raise any inference that no other material events have occurred with respect to the Borrower or the Bonds or that all material information regarding the Borrower or the Bonds has been disclosed. The Borrower shall have no obligation under this Disclosure Agreement to update information provided pursuant to this Disclosure Agreement except as specifically stated herein.

SECTION 15. Notices. Unless otherwise expressly provided, all notices to the Authority, the Borrower, the Trustee and the Dissemination Agent shall be in writing and shall be deemed sufficiently given if sent by registered or certified mail, postage prepaid, or delivered or sent by facsimile during business hours to such parties at the address specified in the Loan Agreement and the Indenture or, as to all of the foregoing, to such other address as the addressee shall have indicated by prior written notice to the party giving notice.

SECTION 16. Governing Law. This instrument shall be governed by the laws of the State of New York.

**APPENDIX D**

Date: October 24, 2012

THE JACKSON LABORATORY

By \_\_\_\_\_  
Authorized Officer

WELLS FARGO BANK, N.A.,  
as Trustee

By \_\_\_\_\_  
Authorized Officer

**EXHIBIT A  
NOTICE TO MSRB OF FAILURE TO FILE ANNUAL REPORT**

Name of Issuer: ABAG Finance Authority for Nonprofit Corporations

Name of Bond Issue: Revenue Bonds (The Jackson Laboratory), Series 2012

Name of Obligated Person: The Jackson Laboratory

Date of Issuance: October 24, 2012

NOTICE IS HEREBY GIVEN that The Jackson Laboratory (the "Borrower") has not provided an Annual Report with respect to the above-named Bonds as required by the Continuing Disclosure Agreement, dated October 24, 2012, between the Borrower and Wells Fargo Bank, N.A., as Trustee.

Dated: \_\_\_\_\_

[WELLS FARGO BANK, N.A., as Trustee  
on behalf of] THE JACKSON  
LABORATORY

[cc: The Jackson Laboratory]

## APPENDIX D

### EXHIBIT B

Filing information relating to the Municipal Securities Rulemaking Board is as follows:

Municipal Securities Rulemaking Board  
<http://emma.msrb.org>

## FORM OF OPINION OF BOND COUNSEL

October 24, 2012

ABAG Finance Authority for  
Nonprofit Corporations  
101 Eighth Street  
Oakland, California 94607

Re: ABAG Finance Authority for Nonprofit Corporations  
Revenue Bonds (The Jackson Laboratory) Series 2012  
**(Final Opinion of Bond Counsel)**

Ladies and Gentlemen:

We have acted as bond counsel to the ABAG Finance Authority for Nonprofit Corporations (the "Authority") in connection with the Authority's issuance of \$60,290,000 aggregate principal amount of its Revenue Bonds (The Jackson Laboratory) Series 2012 (the "Bonds"). The Bonds are issued by the Authority pursuant to the provisions of Chapter 5 of Division 7 of Title 1 of the Government Code of the State of California (commencing with Section 6500) (the "Act") and an indenture of trust, dated as of October 1, 2012 (the "Indenture"), between the Authority and Wells Fargo Bank, National Association, as trustee (the "Trustee"). The proceeds of the sale of the Bonds will be used to make a loan to The Jackson Laboratory, a Maine nonprofit corporation qualified to do business in the State of California (the "Corporation"), pursuant to a loan agreement, dated as of October 1, 2012 (the "Loan Agreement"), between the Authority and the Corporation. Capitalized terms not otherwise defined herein shall have the meanings ascribed to such terms in the Indenture.

In such connection, we have examined originals or copies, certified or otherwise identified to our satisfaction, of such instruments, certificates and documents as we have deemed necessary or appropriate for the purposes of the opinions rendered below. In such examination, we have assumed the genuineness of all signatures, the authenticity and due execution of all documents submitted to us as originals and the conformity to the original documents of all documents submitted to us as copies. As to any facts material to our opinion, without having conducted any independent investigation, we have relied upon, and assumed the accuracy and truthfulness of, the aforesaid instruments, certificates and documents.

In rendering the opinions set forth below, we have relied upon, among other things, certain representations and covenants made by the parties in this transaction, including in the Indenture, the Loan Agreement and the Tax Certificate as to Arbitrage and the Provisions of Sections 103 and 141-150 of the Internal Revenue Code of 1986 in respect of the Bonds (the "Tax Certificate"). We call your attention to the fact that there are certain requirements with which the Authority and the Corporation must comply after the date of issuance of the Bonds in order for the interest on the Bonds to remain excluded from gross income for federal income tax purposes.

We have relied on the opinion of even date of Ropes & Gray LLP (the "Corporation Counsel Opinion"), counsel to the Corporation, to the effect that the Corporation qualifies as an organization described in Section 501(c)(3) of the Internal Revenue Code of 1986, as amended (the "Code") and the use of the property to be financed with the proceeds of the Bonds will not be "unrelated trade or business use" within the meaning of Section 513 of the Code. We note that such opinion is subject to a number of qualifications and limitations. Failure of the Corporation to be organized and operated in accordance with the Internal Revenue Service's requirements for the

## APPENDIX E

maintenance of its status as an organization described in Section 501(c)(3) of the Code, or use of the bond-financed facilities in activities that are considered unrelated trade or business activities of the Corporation within the meaning of Section 513 of the Code, may result in interest on the Bonds being included in gross income for federal income tax purposes, possibly from the date of issuance of the Bonds.

The opinions expressed herein are based upon an analysis of existing laws, regulations, rulings and court decisions and cover certain matters not directly addressed by such authorities. Such opinions may be affected by actions taken or omitted or events occurring after the date hereof. We have undertaken neither to determine, nor to inform any person, whether any such actions are taken or omitted or events do occur or whether any other matters come to our attention after the date hereof. We call attention to the fact that the rights and obligations under the Bonds, the Indenture, the Loan Agreement and the Tax Certificate may be subject to bankruptcy, insolvency, reorganization, arrangement, fraudulent conveyance, moratorium and other laws relating to or affecting creditors' rights, to the application of equitable principles, to the exercise of judicial discretion in appropriate cases, and to the limitations contained in applicable law regarding legal remedies against the Authority. We undertake no responsibility for the accuracy, completeness or fairness of the Official Statement or other offering material relating to the Bonds and express no opinion herein with respect thereto.

Based on and subject to the foregoing, and in reliance thereon, as of the date hereof, we are of the following opinions:

1. The Bonds have been duly authorized and issued under the Indenture.
2. The Indenture has been duly authorized, executed and delivered by the Authority and constitutes the legally valid and binding obligation of the Authority enforceable in accordance with its terms. The Indenture creates a valid pledge, to secure the payment of the principal of, premium, if any, and interest on the Bonds, of the Revenues (as that term is defined in the Indenture) except the Rebate Fund, subject to the provisions of the Indenture permitting the application of moneys and securities held by the Trustee under the terms of the Indenture for the purposes and on the terms and conditions set forth in the Indenture. The Indenture also creates a valid assignment to the Trustee, for the benefit of the holders from time to time of the Bonds, of the right, title and interest of the Authority in the Loan Agreement (to the extent more particularly described in the Indenture).
3. The Loan Agreement has been duly authorized, executed and delivered by the Authority and constitutes the legally valid and binding obligation of the Authority enforceable in accordance with its terms.
4. The Bonds constitute legally valid and binding limited obligations of the Authority enforceable in accordance with their terms and the terms of the Indenture. Neither the faith and credit nor the taxing power of the Authority, the State of California or of any political subdivision thereof is pledged to the payment of the principal of or the premium, if any, or interest on the Bonds. The Bonds are not a debt of the Authority or the State of California, and neither the Authority nor the State of California is liable for the payment thereof.
5. The Code sets forth certain requirements which must be met subsequent to the issuance and delivery of the Bonds for interest thereon to be and remain excluded from gross income for federal income tax purposes. Noncompliance with such requirements could cause the interest on the Bonds to be included in gross income for federal income tax purposes retroactive to the date of issuance of the Bonds. Pursuant to the Indenture, the Loan Agreement and the Tax Certificate, the Authority and the Corporation have covenanted to comply with the applicable requirements of the Code in order to maintain the exclusion of the interest on the Bonds from gross income for federal income tax purposes pursuant to Section 103 of the Code. In addition, the Authority and the Corporation have made certain representations and certifications in the Indenture, the Loan Agreement and the Tax Certificate. We have not independently verified the accuracy of those certifications and representations or the Corporation Counsel Opinion.

Under existing law, assuming compliance with the tax covenants described herein, and the accuracy of the aforementioned representations and certifications, interest on the Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Code. We are also of the opinion that such interest is not treated as a preference item in calculating the alternative minimum tax imposed under the Code with respect to individuals and

corporations. Interest on the Bonds is, however, included in the adjusted current earnings of certain corporations for purposes of computing the alternative minimum tax imposed on such corporations.

6. Bond Counsel is further of the opinion that the difference between the principal amount of the Bonds maturing on July 1, 2025, July 1, 2028 and July 1, 2030 through July 1, 2032, inclusive (collectively, the "Discount Bonds") and the initial offering price to the public (excluding bond houses, brokers, or similar persons or organizations acting in the capacity of underwriters or wholesalers) at which price a substantial amount of such Discount Bonds of the same maturity was sold constitutes original issue discount which is excluded from gross income for federal income tax purposes to the same extent as interest on the Bonds. Further, such original issue discount accrues actuarially on a constant interest rate basis over the term of each Discount Bond and the basis of each Discount Bond acquired at such initial offering price by an initial purchaser thereof will be increased by the amount of such accrued original issue discount. The accrual of original issue discount may be taken into account as an increase in the amount of tax-exempt income for purposes of determining various other tax consequences of owning the Discount Bonds, even though there will not be a corresponding cash payment.

7. Interest on the Bonds is exempt from personal income taxes of the State of California under present state law.

Except as stated in the preceding four paragraphs, we express no opinion as to any other federal, state or local tax consequences of the ownership or disposition of the Bonds. Furthermore, we express no opinion as to any federal, state or local tax law consequences with respect to the Bonds, or the interest thereon, if any action is taken with respect to the Bonds or the proceeds thereof upon the advice or approval of other counsel.

This opinion is expressly limited to the matters set forth above and we render no opinion, whether by implication or otherwise, as to any other matters. We call attention to the fact that the opinions expressed herein and the exclusion of interest on the Bonds from gross income for federal income tax purposes may be affected by actions taken or omitted or events occurring or failing to occur after the date hereof. We have not undertaken to determine, or inform any person, whether any such actions are taken, omitted, occur or fail to occur.

Respectfully submitted,

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