

AFFYMETRIX, INC.

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS TO BE HELD ON JUNE 11, 2008

TO OUR STOCKHOLDERS:

The 2008 annual meeting of stockholders of Affymetrix, Inc. will be held on Wednesday, June 11, 2008, beginning at 4:00 p.m., local time, at 3380 Central Expressway, Santa Clara, California 95051, for the following purposes:

1. To elect eight directors to serve until the next annual meeting of stockholders or until their successors are elected;
2. To ratify the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2008;
3. To approve an amendment to increase the maximum number of shares of our common stock authorized for issuance under our Amended and Restated 2000 Equity Incentive Plan by 4,200,000 shares; and
4. To transact such other business as may properly come before the meeting or any postponement or adjournment.

These items of business are more fully described in the proxy statement accompanying this notice. Our Board of Directors has fixed the close of business on April 16, 2008 as the record date for determination of the stockholders entitled to notice of, and to vote at, the meeting and any postponements or adjournments of the meeting.

We are pleased to take advantage of the new Securities and Exchange Commission rule allowing companies to furnish proxy materials to their stockholders via the Internet. We believe that this new e-proxy process will expedite stockholders' receipt of proxy materials and lower the costs and reduce the environmental impact of our annual meeting. Accordingly, we will mail to our stockholders of record and beneficial owners on or about May 1, 2008 a Notice of Internet Availability of Proxy Materials containing instructions on how to access this proxy statement and our Annual Report to Stockholders via the Internet and vote online. The Notice of Internet Availability of Proxy Materials also contains instructions on how you can receive a paper copy of the proxy materials.

Our proxy statement and Annual Report to Stockholders are available at <http://annualmeeting.affymetrix.com>.

All stockholders are cordially invited to attend the annual meeting in person. However, to assure your representation at the meeting, please vote as soon as possible.

By Order of the Board of Directors,

BARBARA A. CAULFIELD
Secretary

Santa Clara, California
April 28, 2008

AFFYMETRIX, INC.
3420 CENTRAL EXPRESSWAY
SANTA CLARA, CALIFORNIA 95051
(408) 731-5000

PROXY STATEMENT FOR 2008 ANNUAL MEETING OF STOCKHOLDERS

The enclosed proxy is solicited on behalf of the Board of Directors of Affymetrix, Inc. (the “Company”) for use at our 2008 annual meeting of stockholders, or at any postponement or adjournment of the meeting.

These proxy solicitation materials are first being made available on or about May 1, 2008, together with our 2007 Annual Report to Stockholders and our Form 10-K, to all stockholders of record at the close of business on April 16, 2008.

ABOUT THE MEETING

When and where is the meeting being held?

Our annual meeting of stockholders for 2008 is being held on Wednesday, June 11, 2008, beginning at 4:00 p.m., local time, at 3380 Central Expressway, Santa Clara, California 95051.

What is the purpose of the annual meeting?

At our 2008 annual meeting, stockholders will act on the matters outlined in the notice of annual meeting on the cover page of this proxy statement, namely,

- the election of directors;
- the ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for the current fiscal year;
- the approval of an amendment to increase the maximum number of shares of our common stock authorized for issuance under our Amended and Restated 2000 Equity Incentive Plan by 4,200,000 shares; and
- any other matters that may properly be presented at the meeting.

Who is entitled to notice of and to vote at the meeting?

You are entitled to receive notice of and to vote at our annual meeting (and any postponements or adjournments of the meeting) if our records indicate that you owned shares of our common stock at the close of business on April 16, 2008, the record date for the meeting. At the close of business on that date 69,405,809 shares of our common stock were outstanding and entitled to vote. You are entitled to one vote for each share held and you may vote on each matter to come before the meeting.

How can I receive a paper or email copy of this proxy statement?

Pursuant to the new rules recently adopted by the Securities and Exchange Commission (“SEC”), we are making this proxy statement and our Annual Report to Stockholders available to our stockholders electronically via the Internet. Accordingly, in compliance with this new e-proxy process, on or about May 1, 2008, we will mail to our stockholders of record and beneficial owners a Notice of Internet Availability of Proxy Materials (the “Notice”) containing instructions on how to access this

proxy statement and our Annual Report to Stockholders via the Internet and vote online. All stockholders will have the ability to access the proxy materials on a website referred to in the Notice and request to receive a printed set of the proxy materials by mail or an electronic copy by email. We do not currently intend to send paper copies of our proxy materials (other than the Notice) to stockholders by mail except to those stockholders who have so requested. As a result, if you want to be sure to receive our proxy materials by mail, you should follow the instructions for requesting such materials included in the Notice. If you would like to receive an email copy of our proxy materials, you should follow the instructions for requesting such materials included in the Notice.

What is the difference between holding shares as a stockholder of record and as a beneficial owner of shares held in “street name”?

Stockholder of Record. If your shares are registered directly in your name with our transfer agent, American Stock Transfer & Trust Company, you are considered the stockholder of record with respect to those shares, and the Notice will be sent directly to you.

Beneficial Owner of Shares Held in Street Name. If your shares are held in an account at a brokerage firm, bank, broker-dealer, or other similar organization, then you are the beneficial owner of shares held in “street name,” and the Notice will be forwarded to you by that organization. The organization holding your account is considered the stockholder of record for purposes of voting at the annual meeting. As a beneficial owner, you have the right to direct that organization on how to vote the shares held in your account.

What is “householding” and how does it affect me?

Under SEC rules, delivery of each Notice of Internet Availability of Proxy Materials in one mailing envelope (or delivery of one proxy statement and annual report, if applicable), to two or more investors sharing the same mailing address is permitted, under certain conditions. This procedure, called “householding,” is available if all of the following criteria are met:

- You have the same address as other stockholders registered on our books;
- You have the same last name as the other stockholders; and
- Your address is a residential address or post office box.

If you are eligible for householding, but you and other stockholders of record with whom you share an address currently receive multiple copies of the Notice of Annual Meeting and Proxy Statement and the accompanying documents, or if you hold stock in more than one account, and in either case you wish to receive only a single copy of each of these documents for your household, please contact Broadridge, Attention: Householding, 51 Mercedes Way, Edgewood, NY 11717. Stockholders who participate in householding will continue to be mailed separate proxy cards (to the extent we send proxy cards by mail).

If you participate in householding and wish to receive a separate copy of this proxy statement and the accompanying documents, or if you do not wish to participate in householding and prefer to receive separate copies of these documents in the future, please contact Broadridge as indicated above. A separate copy of the annual report or proxy statement will be sent to you upon request.

Beneficial owners can request information about householding from their banks, brokers or other holders of record.

If I am a stockholder of record of Affymetrix shares, how do I vote?

If you are a stockholder of record, you may vote in person at the annual meeting. We will give you a ballot when you arrive.

If you do not wish to vote in person or if you will not be attending the annual meeting, you may vote by proxy. You can vote by proxy over the Internet by following the instructions provided in the Notice, or, if you receive paper copies of proxy materials by mail, you can also vote by mail or by telephone in accordance with the instructions on the proxy card. Stockholders of record who vote by mail should mail completed proxy cards to American Stock Transfer & Trust Company, 6201 - 15th Avenue, Brooklyn, NY 11219; Attention: Proxy Department.

If I am the beneficial owner of shares held in street name, how do I vote?

If you are a beneficial owner of shares held in street name and you wish to vote in person at the annual meeting, you must obtain a valid proxy from the organization that holds your shares.

If you do not wish to vote in person or you will not be attending the annual meeting, you may vote by proxy. You may vote by proxy over the Internet by following the instructions provided in the Notice, or if you receive paper copies of the proxy materials by mail, you can also vote by mail or by telephone in accordance with the instructions on the proxy card.

Can I change my vote after I have voted?

You may revoke your proxy and change your vote at any time before the proxy is exercised at the meeting. You may vote again on a later date on the Internet or by telephone (only your latest Internet or telephone proxy submitted prior to the meeting will be counted), or by signing and returning a new proxy card with a later date, or by attending the meeting and voting in person. However, your attendance at the annual meeting will not automatically revoke your proxy unless you vote again at the meeting or specifically request in writing that your prior proxy be revoked.

What constitutes a quorum?

The meeting will be held if a majority of the shares of common stock issued and outstanding on the record date are present at the meeting, either in person or by proxy. This is called a quorum for the transaction of business. At the record date, there were 69,405,809 shares of common stock issued and outstanding. Accordingly, the presence of the holders of common stock representing at least 34,702,905 shares will be required to establish a quorum.

Your shares will be counted for purposes of determining if there is a quorum if you are present in person at the meeting, or have properly submitted a proxy card. Votes “for” and “against,” and proxies received but marked as “abstentions” and “broker non-votes” will each be counted as present for purposes of determining the presence of a quorum.

What vote is required to approve each item?

The election of directors requires a plurality of the votes cast “for” the election of directors. “Plurality” means that the eight nominees who receive the highest number of votes will be elected as directors. In the election of directors, votes may be cast in favor of or withheld with respect to any or all nominees; votes that are withheld will be excluded entirely from the vote and will have no effect on the outcome of the vote except to the extent that the failure to vote for an individual results in another individual receiving a higher number of shares.

The affirmative vote of the holders of a majority of the shares of common stock present in person or represented by proxy and entitled to vote on the item will be required (a) to ratify the appointment of Ernst & Young LLP as our independent registered public accounting firm for the current fiscal year and (b) to approve an amendment to increase the maximum number of shares of our common stock authorized for issuance under our Amended and Restated 2000 Equity Incentive Plan by 4,200,000 shares. If any other matter is properly submitted to the stockholders at the annual meeting, its

adoption generally will require the affirmative vote of the holders of a majority of the shares of common stock present in person or represented by proxy and entitled to vote on that matter.

In accordance with Delaware law, only votes cast “for” a matter constitute affirmative votes. A properly executed proxy marked “abstain” with respect to any matter will not be voted, although it will be counted for purposes of determining whether there is a quorum. Since abstentions will not be votes cast for the particular matter, they will have the same effect as negative votes or votes against that matter.

If you hold your shares in “street name” through a broker or other nominee, your broker or nominee may not be permitted to exercise voting discretion with respect to some of the matters to be acted upon. Thus, if you do not give your broker or nominee specific instructions with respect to a non-discretionary matter, your shares will not be voted on such matter and will not be counted as shares entitled to vote on such matter. However, shares represented by such “broker non-votes” will be counted in determining whether there is a quorum. As “broker non-votes” are not considered entitled to vote they will have no effect on the outcome other than reducing the number of shares present in person or by proxy and entitled to vote from which a majority is calculated.

What are the Board’s recommendations?

Our Board of Directors recommends that you vote:

“FOR” the election of the eight directors;

“FOR” ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2008; and

“FOR” the approval of the amendment to the Amended and Restated 2000 Equity Incentive Plan.

Who will count the vote?

MacKenzie Partners, Inc. will act as the inspector of elections and will tabulate the votes.

When will the voting results be announced?

The voting results will be announced at the meeting and published in our Quarterly Report on Form 10-Q for the second quarter of fiscal year 2008.

Is Affymetrix paying the cost of this proxy solicitation?

We will pay the costs of the solicitation. We may request banks and brokers and other custodians, nominees and fiduciaries to solicit their customers who own our shares and will reimburse them for their reasonable out-of-pocket expenses. Our employees, directors, officers and others may solicit proxies on our behalf, personally or by telephone, without additional compensation. In addition, we have hired MacKenzie Partners, Inc. to serve as proxy solicitor. We will pay MacKenzie Partners a fee of \$7,500, plus reasonable expenses, for these services.

Is the meeting being webcast?

Yes. If you choose to listen to the webcast, go to the *Investors* section of our website (www.affymetrix.com) before the meeting time, and follow the instructions for downloading the webcast. If you miss the annual meeting, you can listen to a re-broadcast of the webcast on our website until June 11, 2009.

YOUR VOTE IS IMPORTANT. WHETHER OR NOT YOU PLAN TO ATTEND THE MEETING, PLEASE VOTE AS SOON AS POSSIBLE.

GOVERNANCE OF THE COMPANY

Who are the current members of the Board?

The current members of the Board are the eight nominees set forth in Proposal No. 1 below under the heading “Election of Directors” and David B. Singer. Each of the current members other than Mr. Singer has been nominated to stand for re-election at our annual meeting. By mutual agreement between the Board and Mr. Singer, the Board did not nominate Mr. Singer to stand for re-election at our annual meeting.

Is a majority of the directors independent?

Yes. As required by the NASDAQ listing standards and our *Corporate Governance Guidelines*, a majority of the Board is “independent” as defined by the NASDAQ listing standards. The Board is required to make an affirmative determination at least annually as to the independence of each director. The Board has determined that eight of its current members (Paul Berg, Ph.D., Susan D. Desmond-Hellmann, M.D., M.P.H., John D. Diekman, Ph.D., Vernon R. Loucks, Jr., Robert H. Trice, Ph.D., Robert P. Wayman, John A. Young and David B. Singer) are independent. As required by NASDAQ listing standards and our *Corporate Governance Guidelines*, the independent directors hold regularly scheduled meetings at which only independent directors are present.

Does Affymetrix have a lead independent director?

Yes. The Board of Directors has elected a non-management director to serve in a lead capacity to coordinate the activities of the other non-management directors, preside at executive sessions, function as principal liaison on Board-wide issues between the independent directors and the Chairman and to perform such other duties and responsibilities as the Board of Directors may determine. John A. Young was elected as our lead independent director in August 2007 and re-elected in February 2008 to serve in such capacity for fiscal year 2008.

How often did the Board meet in 2007?

The Board held six meetings in 2007. Under our *Corporate Governance Guidelines* directors are expected to be active and engaged in discharging their duties and to keep themselves informed about our business and operations. Directors are expected to attend all Board meetings and meetings of each committee on which they serve and to prepare themselves for those meetings. During 2007, each of our directors attended at least 75% of the total number of meetings of the Board and the total number of meetings held by all committees of the Board on which he or she served.

Does Affymetrix have a policy with respect to attendance of directors at the annual meeting of stockholders?

Under our *Corporate Governance Guidelines* directors are encouraged to attend our annual meeting of stockholders. Six of our directors serving on the Board at the time attended last year’s annual meeting.

What is the role of the Board’s committees?

The Board currently has three standing committees: Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee. Each member of these committees is independent as defined by applicable NASDAQ and SEC rules. Each of the committees has a written charter approved by the Board. In addition, the Board has established the Perlegen Oversight Committee to oversee transactions between Perlegen Sciences, Inc. and Affymetrix. Under our *Corporate Governance Guidelines*, committee members are appointed by the Board based on the

recommendation of the Nominating and Corporate Governance Committee, except that members of the Nominating and Corporate Governance Committee are appointed by the independent members of the Board. The current members of the committees are as follows:

<u>Director</u>	<u>Audit</u>	<u>Compensation</u>	<u>Nominating and Corporate Governance</u>	<u>Perlegen Oversight</u>
Paul Berg, Ph.D.		✓		
Susan D. Desmond-Hellmann, M.D., M.P.H.		✓		✓
John D. Diekman, Ph.D.	✓		✓(Chair)	
Vernon R. Loucks, Jr.				✓(Chair)
Robert H. Trice, Ph.D.	✓			✓
Robert P. Wayman	✓(Chair)			
John A. Young		✓(Chair)	✓	

Audit Committee. The function of the Audit Committee, as more fully set forth in its charter, is to assist the Board in fulfilling its responsibility to oversee our financial statements, our financial reporting process and our system of internal control over financial reporting. A copy of the Audit Committee charter is available on our website (www.affymetrix.com) in the *Corporate Governance* section under the *Investors* link.

The Audit Committee consists of three members, Dr. Diekman, Dr. Trice and Mr. Wayman, its Chairman. The Board has determined that each of the Audit Committee members is independent within the meaning of the NASDAQ listing standards, applicable SEC regulations and our *Corporate Governance Guidelines* and has the financial literacy required by the NASDAQ listing standards. The Board has also determined that Mr. Wayman is qualified as an “audit committee financial expert” within the meaning of applicable SEC regulations and has the accounting and related financial sophistication required by NASDAQ listing standards. The Audit Committee held six meetings during 2007. The Audit Committee Report for 2007 is included below.

Compensation Committee. The Compensation Committee consists of three members, Dr. Berg, Dr. Desmond-Hellmann and Mr. Young, its Chairman. Each of the members of the Compensation Committee is independent within the meaning of the NASDAQ listing standards. The functions of the Compensation Committee, as more fully set forth in its charter, are to oversee our compensation policies generally, evaluate senior executive performance and oversee and determine compensation for senior executives and to review and recommend to the Board actions regarding director compensation. A copy of the Compensation Committee charter is available on our website (www.affymetrix.com) in the *Corporate Governance* section under the *Investors* link. The Compensation Committee held ten meetings during 2007. The Compensation Committee Report for 2007 is included below. For further information about the Compensation Committee’s process for determining executive compensation, see “Compensation Discussion and Analysis” below.

Nominating and Corporate Governance Committee. The Nominating and Corporate Governance Committee consists of two members, Mr. Young and Dr. Diekman, its Chairman. Each of the members of the Nominating and Corporate Governance Committee is independent within the meaning of the NASDAQ listing standards. As more fully set forth in its charter, the Nominating and Corporate Governance Committee is responsible for searching for and identifying director nominees and recommending them to the Board for election, recommending directors for appointment to the Board committees, establishing criteria for Board membership, evaluating the Board and its committees at least annually and recommending any proposed changes to the Board. In addition, the Nominating and Corporate Governance Committee is responsible for developing, evaluating the adequacy of and overseeing compliance with our *Corporate Governance Guidelines* and *Code of Business Conduct and Ethics* and recommending any proposed changes to the Board. Copies of the Nominating and

Corporate Governance Committee charter and our *Corporate Governance Guidelines* are available on our website (www.affymetrix.com) in the *Corporate Governance* section under the *Investors* link. The Nominating and Corporate Governance Committee held two meetings in 2007.

Perlegen Oversight Committee. Transactions between Perlegen Sciences, Inc. and Affymetrix are overseen by a committee of the Affymetrix Board of Directors, whose members are Dr. Desmond-Hellmann, Dr. Trice and Mr. Loucks, its Chairman. None of these individuals hold positions with or securities of Perlegen. The Perlegen Oversight Committee did not hold any meeting in 2007.

How are nominees for the Board selected?

The Nominating and Corporate Governance Committee makes a periodic assessment of the Board and Board members. In making its assessment and in identifying and evaluating director nominees, the Committee will consider the membership criteria described below, taking into account the enhanced independence, financial literacy and financial expertise standards that may be required under applicable SEC regulations or NASDAQ listing standards, as well as the current challenges and needs of the Board and Affymetrix. The Nominating and Corporate Governance Committee uses multiple sources for identifying and evaluating director nominees, including referrals from current directors, recommendations by stockholders and input from third party executive search firms. In evaluating director nominees, the Nominating and Corporate Governance Committee evaluates all candidates under consideration, as it deems appropriate.

The Nominating and Corporate Governance Committee charter requires the Committee to establish criteria for Board and committee membership which are as follows:

- personal characteristics:
 - a reputation for the highest personal and professional ethics, integrity and values;
 - an inquiring and independent mind; and
 - practical wisdom and mature judgment;
- experience at the policy-making level in business, government, education, technology or public interest;
- expertise that is useful to Affymetrix and complementary to the background and experience of other Board members;
- willingness to devote the required amount of time to perform the duties and responsibilities of Board membership;
- commitment to serve on the Board over a period of several years to develop knowledge about our principal operations;
- willingness and capacity to represent the best interests of all stockholders and objectively appraise management performance; and
- absence of involvement in activities or interests that create a conflict with the director's responsibilities to Affymetrix and its stockholders.

Will the Nominating and Corporate Governance Committee consider director candidates nominated by stockholders?

Stockholders may recommend director nominees for consideration by the Nominating and Corporate Governance Committee by writing to the Corporate Secretary, specifying the nominee's name and qualifications for Board membership and providing confirmation of the nominee's consent to serve as a director. Following verification that the person submitting the recommendation is a

stockholder of the Company, all properly submitted recommendations are brought to the attention of the Nominating and Corporate Governance Committee at a regularly scheduled Committee meeting.

If a stockholder properly recommends a director nominee, the Nominating and Corporate Governance Committee will give due consideration to that nominee and will use the same criteria used for evaluating other director nominees, in addition to considering the information relating to the director nominee provided by the stockholder.

Stockholders also may nominate directors for election at our annual meeting of stockholders by following the provisions set forth in our bylaws. The deadline for stockholder nominations is disclosed elsewhere in this proxy statement under the caption "Deadline for Receipt of Stockholder Proposals".

How do stockholders communicate with the Board?

Stockholders and other parties interested in communicating directly with the Board of Directors may do so by writing to: Affymetrix, Inc., Attention: Board of Directors, 3420 Central Expressway, Santa Clara, CA 95051 or by electronic mail to: Affymetrix_BoardOfDirectors@affymetrix.com.

Pursuant to a process approved by the Board, the Corporate Secretary reviews all correspondence received by us and addressed to members of the Board and regularly forwards to the Board a summary of such correspondence and copies of all correspondence that, in the opinion of the Corporate Secretary, deal with the functions of the Board or Board committees or otherwise require the Board's attention. Directors may at any time review a log of all correspondence received by us that is addressed to members of the Board and request copies of any such correspondence. Concerns relating to accounting, internal controls or auditing matters are immediately brought to the attention of our internal audit department and handled in accordance with procedures established by the Audit Committee to address such matters.

Does Affymetrix have a Code of Ethics?

We strive to foster a culture of honesty, integrity and accountability. Our *Code of Business Conduct and Ethics* sets forth our key guiding principles, policies and procedures for employment at Affymetrix. The Code is applicable to all of our directors, officers and employees, including our Principal Executive Officer, Principal Financial Officer and Principal Accounting Officer. The *Code of Business Conduct and Ethics* is available on our website (www.affymetrix.com) in the *Corporate Governance* section under the *Investors* link. Waivers of the Code for executive officers and directors may be granted only by the Board. Waivers of the Code for other employees may only be granted by our General Counsel. Amendments to the Code must be approved by the Board. We intend to provide disclosure of any such amendments or waivers on our website (www.affymetrix.com) in the *Corporate Governance* section under the *Investors* link.

How are directors compensated?

Cash. Each non-employee director receives an annual cash retainer fee of \$45,000 per year. Each non-employee director who serves on the Compensation Committee also receives an annual fee of \$12,500, with the chairman receiving an additional \$5,000. Each non-employee director who serves on the Nominating and Corporate Governance Committee and the Perlegen Oversight Committee also receives an annual fee of \$10,000, with respect to each committee, with the chairman of each of these committees receiving an additional \$7,500. Each non-employee director who serves on the Audit Committee also receives an annual fee of \$20,000, with the chairman receiving an additional \$10,000. In 2007, Dr. Berg also received \$30,594 for his services as Board liaison to the Scientific Advisory Board.

Option and Stock Awards. Each new non-employee director receives an option to purchase 20,000 shares upon election to the Board. These options vest in equal installments on each of the first two anniversaries of the date of grant so long as the director is serving on the Board on each vesting date. In addition, on the date of the first Board meeting immediately following each annual stockholders meeting, each non-employee director is granted (a) an option to purchase 11,047 shares, which vests in full one year after the date of grant and has an exercise price equal to the fair market value of the common stock on the date of such grant, or (b) 4,547 restricted stock units, which vest in equal installments over three years from the date of grant.

COMPENSATION OF DIRECTORS

The following table sets forth compensation for the non-employee directors for fiscal year 2007. Dr. Fodor receives no separate compensation for his service as a director.

Name	Fees Earned or Paid in Cash \$(1)	Stock Awards \$(2)(3)	Option Awards \$(2)(3)	Non-Equity Incentive Plan Compensation (\$)	Change in Pension Value and Non-Qualified Deferred Compensation Earnings	All Other Compensation (\$)	Total (\$)
Paul Berg, Ph.D.	88,094(4)	—	145,989	—	—	—	234,083
Susan D. Desmond-Hellmann, M.D.	70,000	—	145,989	—	—	—	215,989
John D. Diekman, Ph.D. . .	82,500	—	145,989	—	—	—	228,489
Vernon R. Loucks, Jr.	62,500	—	145,989	—	—	—	208,489
David B. Singer	45,000	—	145,989	—	—	—	190,989
Robert H. Trice, Ph.D. . . .	75,000	16,661	224,846	—	—	—	316,507
Robert P. Wayman	75,000	16,661	77,162	—	—	—	168,823
John A. Young	72,500	16,661	89,336	—	—	—	178,497

- (1) This column represents the cash compensation received in 2007 for Board and committee services.
- (2) At December 31, 2007, each of our directors held the following number of options and restricted stock units: Dr. Berg, 71,047 options; Dr. Desmond-Hellmann, 51,047 options; Dr. Diekman, 71,047 options; Mr. Loucks, 41,047 options; Mr. Singer, 51,047 options; Dr. Trice, 30,000 options and 4,547 restricted stock units; Mr. Wayman, 20,000 options and 4,547 restricted stock units; and Mr. Young, 60,000 options and 4,547 restricted stock units. For grants during 2007, the grant date fair value for each restricted stock unit was \$25.22, and for each option was \$10.52, except for the 20,000 share option granted to Mr. Wayman on March 19, 2007, which had a grant date fair value of \$11.72.
- (3) The reported dollar value of stock awards and option awards is equal to the compensation expense recognized in our 2007 financial statements under FAS123 with respect to all equity awards made to the directors during 2007 and prior years. See Note 14—Stockholders' Equity of our Annual Report on Form 10-K for the year ended December 31, 2007 regarding assumptions underlying valuation of our equity awards. The calculation for the expense recognized for stock options includes such factors as the number of shares, stock price on the grant date, expected term of the award and other factors, and so stock options that currently have exercise prices above our stock price are still considered to have a value for this purpose. The actual value of an option, if any, will depend on the future market price of the Company's common stock and the option holder's individual exercise and sale decisions. The calculation for the expense recognized for stock awards is based on the fair market value of our common stock on the grant date.
- (4) This amount includes payment of \$30,594 to Dr. Berg in 2007 for his service as Board liaison to the Company's Scientific Advisory Board.

**PROPOSAL NO. 1
ELECTION OF DIRECTORS**

Nominees

Our bylaws provide for a Board consisting of at least six but not more than eleven directors. The term of office of all of our current directors will expire at the 2008 annual meeting. Currently, we have nine directors. By mutual agreement between the Board and Mr. Singer, Mr. Singer is not standing for re-election at the 2008 annual meeting. Our Board has reduced its size to eight members as of the date of the 2008 annual meeting and eight directors are to be elected at the meeting. Unless otherwise instructed, the proxy holders will vote the proxies received by them for the eight nominees named below, each of whom is currently a director and each of whom has consented to serve if elected.

If any director nominee is unable or unwilling to serve as a nominee at the time of the annual meeting, the proxies may vote either: (1) for a substitute nominee designated by the present Board to fill the vacancy; or (2) for the balance of the nominees, leaving a vacancy. Alternatively, the Board may choose to reduce the size of the Board to less than eight, as permitted by our Bylaws. The Board has no reason to believe that any of our nominees will be unwilling or unable to serve if elected as a director.

The names of the nominees, and certain information about them as of the record date, are set forth below. The nominees were selected by the Board upon the recommendation of the Nominating and Corporate Governance Committee.

<u>Name</u>	<u>Age</u>	<u>Principal Occupation</u>	<u>Director Since</u>
Stephen P.A. Fodor, Ph.D.	54	Founder, Chairman and Chief Executive Officer of Affymetrix, Inc.	1993
Paul Berg, Ph.D.	81	Cahill Professor in Cancer Research and Biochemistry, Emeritus; Director, Emeritus, Beckman Center for Molecular and Genetic Medicine, Stanford University School of Medicine	1993
Susan D. Desmond-Hellmann, M.D., M.P.H. .	50	President, Product Development, Genentech, Inc.	2004
John D. Diekman, Ph.D.	65	Managing Partner, 5AM Ventures	1993
Vernon R. Loucks, Jr.	73	Chairman, The Aethena Group, LLC; Former Chairman and Chief Executive Officer, Baxter International, Inc.	1993
Robert H. Trice, Ph.D.	61	Senior Vice President, Business Development, Lockheed Martin Corporation	2006
Robert P. Wayman	62	Executive Vice President and Chief Financial Officer (Retired), Hewlett-Packard Company	2007
John A. Young	76	President and Chief Executive Officer (Retired), Hewlett-Packard Company	1993

Stephen P.A. Fodor, Ph.D., is our Founder, Chairman and Chief Executive Officer. Dr. Fodor has served as our director since 1993, Chief Executive Officer since 1997 and Chairman since 1999. At

various times between 1993 and 1997, Dr. Fodor served as our President, Chief Operating Officer and Chief Technology Officer. Dr. Fodor was Vice President and Director of Physical Sciences at the Affymax Research Institute from 1989 to 1993. Dr. Fodor is also a founder and the Chairman of the Board of Perlegen Sciences, Inc. (“Perlegen”), a genomics company formed in September 2000 by the Company and currently partly owned by the Company. Dr. Fodor also serves as a director of Sunesis Pharmaceuticals, Inc. and a Trustee of the Carnegie Institution of Washington.

Paul Berg, Ph.D., has served as a director since 1993. Dr. Berg is Cahill Professor of Cancer Research and Biochemistry, Emeritus and Director, Emeritus of the Beckman Center for Molecular and Genetic Medicine at the Stanford University School of Medicine. He received the Nobel Prize in Chemistry in 1980, the National Medal of Science in 1983, and is a member of the National Academy of Sciences, the Royal Society, London, and the French Academy of Sciences. Dr. Berg also serves as the Board liaison to our Scientific Advisory Board. Dr. Berg also serves as a director of Gilead Sciences, Inc. and is on the Advisory Board of Schering-Plough BioPharma, a subsidiary of Schering-Plough Corp. Dr. Berg is also a member of the Scientific Advisory Boards of Perlegen and Burrill & Company.

Susan D. Desmond-Hellmann, M.D., M.P.H., has served as a director since 2004. Dr. Desmond-Hellmann is President, Product Development at Genentech, Inc. Dr. Hellmann joined Genentech in 1995 as a clinical scientist, was named Chief Medical Officer in 1996, and became executive vice president, Development and Product Operations, in 1999.

John D. Diekman, Ph.D., has served as a director since 1993. Dr. Diekman has served as a managing partner of 5AM Ventures, a life sciences investment partnership, since August 2002. From June 1998 until July 2002, Dr. Diekman served as a managing director of Bay City Capital, a life sciences merchant bank. Dr. Diekman served as Chairman of the Company from 1993 to August 1999 and served as Vice Chairman from July 1999 to December 1999. Dr. Diekman served as Chief Executive Officer of the Company from July 1995 to March 1997. Prior to such time, Dr. Diekman served as President and Chief Operating Officer of Affymax N.V. from 1991 to March 1995 and as Chairman of the Board of Affymax from 1994 to July 1995.

Vernon R. Loucks, Jr. has served as a director since 1993. Mr. Loucks has served as Chairman of The Athena Group, LLC, a private equity firm, since January 2001. From January 2003 to November 2003, Mr. Loucks served as Chief Executive Officer of Segway Inc., a company providing solutions to short-distance travel. From February 1998 through December 2000, Mr. Loucks served as Chairman of InLight, Inc. Mr. Loucks served as Chief Executive Officer of Baxter International, Inc. from 1980 to December 1998 and Chairman of Baxter from 1980 to December 1999. Mr. Loucks also serves as a director of Anheuser-Busch Companies, Inc., Emerson Electric Co., Edwards Lifesciences Corporation, MedAssets, Inc. and Segway Inc.

Robert H. Trice, Ph.D., has served as a director since 2006. Dr. Trice has been Senior Vice President for Business Development at Lockheed Martin Corporation since October 1998.

Robert P. Wayman has served as a director since 2007. Mr. Wayman served as Executive Vice President and Chief Financial Officer of Hewlett-Packard Company (“HP”) from 1984 until his retirement in December of 2006. Mr. Wayman also served as Interim Chief Executive Officer of HP from February 2005 through March 2005 and served on the Board of Directors of HP from February 2005 to March 2007 and from 1993 to 2002. Mr. Wayman has served as a director of Sybase Inc. since 1995.

John A. Young has served as a director since 1993. Mr. Young retired as President and Chief Executive Officer of Hewlett-Packard Company in October 1992 after a career with the company which began in 1958. He serves as a director of Vermillion, Inc., (formerly CIPHERGEN Biosystems, Inc.), Fluidigm Corporation, Nanosys, Inc. and Perlegen. He is a member of the National Academy of

Engineering. He served as co-chairman of President Clinton’s Committee of Advisors on Science and Technology from 1993 to 2000. Mr. Young holds a B.S.E.E. from Oregon State University and an M.B.A. from Stanford University.

There are no family relationships among our directors or executive officers.

THE BOARD RECOMMENDS THAT THE STOCKHOLDERS VOTE “FOR” THE ELECTION OF THE NOMINEES NAMED ABOVE.

**PROPOSAL NO. 2
RATIFICATION OF APPOINTMENT OF INDEPENDENT REGISTERED
PUBLIC ACCOUNTING FIRM**

The Audit Committee has appointed Ernst & Young LLP, independent registered public accounting firm, to audit our consolidated financial statements for the fiscal year ending December 31, 2008. Ernst & Young LLP has audited our consolidated financial statements since our inception. Representatives of Ernst & Young LLP are expected to be present at the annual meeting, will have the opportunity to make a statement if they desire to do so, and are expected to be available to respond to questions. Services provided to us by Ernst & Young LLP are described under “*Fees Paid to Ernst & Young LLP*” below.

Stockholder ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm is not required by our by-laws or otherwise. The Board, however, is submitting the appointment of Ernst & Young LLP to the stockholders for ratification as a matter of good corporate practice. If the stockholders fail to ratify the appointment, the Audit Committee and the Board will reconsider whether or not to retain that firm. Even if the appointment is ratified, the Audit Committee in its discretion may direct the appointment of different independent auditors at any time during the year if it determines that such a change would be in the best interests of Affymetrix and its stockholders.

THE BOARD UNANIMOUSLY RECOMMENDS A VOTE “FOR” THE RATIFICATION OF THE APPOINTMENT OF ERNST & YOUNG LLP AS OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE FISCAL YEAR ENDING DECEMBER 31, 2008.

Fees Paid to Ernst & Young LLP

During fiscal years 2006 and 2007, the aggregate fees billed by Ernst & Young LLP for professional services were as follows:

	Fiscal Year Ended	
	December 31, 2007	December 31, 2006
Audit Fees(1)	\$1,784,000	\$1,598,119
Audit-Related Fees(2)	\$ 240,000	\$ 585,000
Tax Fees(3)	\$ 337,000	\$ 159,206
All Other Fees(4)	\$ 6,000	\$ 6,000

- (1) Fees for audit services include fees associated with the audits of (i) our consolidated financial statements and (ii) management’s assessment and the effectiveness of our internal control over financial reporting, the reviews of our quarterly reports on Form 10-Q, and statutory audits required internationally. Audit fees also include amounts associated with SEC registration statements and consents.
- (2) Audit-related services consist primarily of accounting consultations on various transactions. In fiscal 2007 audit-related fees also included amounts associated with due

diligence and other related services provided in connection with our acquisition of USB Corporation. In fiscal 2006, audit-related fees also included amounts associated with the internal review of our historical stock option granting practices. No such fees were incurred during fiscal 2007.

- (3) Tax fees consist primarily of tax consultation services.
- (4) The amount listed as “All Other Fees” consists of fees for products and services other than those services reported above.

Audit Committee Pre-Approval of Audit and Permissible Non-Audit Services of Independent Registered Public Accounting Firm

As required by the Audit Committee charter, the Audit Committee pre-approves the engagement of Ernst & Young LLP for all audit and permissible non-audit services. The Audit Committee annually reviews the audit and permissible non-audit services performed by Ernst & Young LLP and reviews and approves the fees charged by Ernst & Young LLP. The Audit Committee has considered the role of Ernst & Young LLP in providing tax and audit services and other permissible non-audit services to Affymetrix and has concluded that the provision of such services was compatible with the maintenance of Ernst & Young LLP’s independence in the conduct of its auditing functions.

REPORT OF THE AUDIT COMMITTEE

The following Report of the Audit Committee does not constitute soliciting material and is not deemed to be filed with the Securities and Exchange Commission, or the SEC, and is not to be incorporated by reference in any filing of the Company under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date of this proxy statement and irrespective of any general incorporation language in such filing.

The Audit Committee has an established charter that specifies that the function of the Audit Committee is to assist the Board in fulfilling its oversight responsibility relating to our financial statements and our financial reporting process and our system of internal control over financial reporting. The full text of the Audit Committee charter is available on our website at www.affymetrix.com.

Management has the primary responsibility for our financial statements and our reporting process, including our system of internal control over financial reporting. The independent registered public accounting firm is responsible for auditing our consolidated financial statements and expressing an opinion as to their conformity with generally accepted accounting principles and an opinion on both management’s assessment and on the effectiveness of internal control over financial reporting.

As part of its oversight of our financial reporting process, the Audit Committee reviewed and discussed both with management and our independent registered public accounting firm, the annual and quarterly financial statements prior to their issuance. These reviews included discussion with the independent registered public accounting firm of matters required to be discussed under *Statement on Auditing Standards No. 61 (Communication with Audit Committees)*, as amended by *Statement on Auditing Standards No. 90 (Audit Committee Communications)*, including discussions of the accounting principles, the reasonableness of significant judgments, the clarity of disclosures in the financial statements and such other matters as are required to be discussed with the Audit Committee under generally accepted auditing standards. In addition, the Audit Committee has received the written disclosures and the letter from the independent registered public accounting firm required by the *Independence Standards Board Standard No. 1 (Independence Discussions with Audit Committees)*, as currently in effect, and discussed with the registered public accounting firm their independence from the Company. Finally, the Audit Committee has considered and concluded that the provision of audit-

related and tax services, which are comprised of tax consultations, preparation of tax returns, and audit-related accounting consultations on various transactions by the independent registered public accounting firm, is compatible with maintaining the registered public accounting firm's independence.

The Audit Committee met six times during the fiscal year ended 2007. The Audit Committee schedules its meetings with a view to ensuring that it devotes appropriate attention to all of its responsibilities. The Audit Committee meetings include, whenever appropriate, executive sessions with our independent registered public accounting firm and with our internal auditors, in each case without the presence of our management. The Audit Committee discussed with our independent registered public accounting firm the overall scope and plans for their audits. The Audit Committee meets with the independent registered public accounting firm, with and without management present, to discuss the results of their audits and reviews, their evaluations of our system of internal control over financing reporting, and the overall quality of our financial reporting.

In reliance on the reviews and discussions referred to above, and subject to the limitations on the role and responsibilities of the Audit Committee referred to above and in the Audit Committee charter, the Committee recommended to the Board of Directors (and the Board has approved) that the audited consolidated financial statements be included in the Annual Report on Form 10-K for the year ended December 31, 2007 for filing with the Securities and Exchange Commission. The Audit Committee has also recommended the ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2008.

Respectfully submitted on April 28, 2008 by the members of the Audit Committee of the Board of Directors:

John D. Diekman, Ph.D.
Robert H. Trice, Ph.D.
Robert P. Wayman, *Chairman*

**PROPOSAL NO. 3
AMENDMENT TO INCREASE THE MAXIMUM NUMBER OF SHARES
AUTHORIZED FOR ISSUANCE UNDER OUR
AMENDED AND RESTATED 2000 EQUITY INCENTIVE PLAN BY 4,200,000 SHARES**

Stockholders are being asked to approve an amendment to our Amended and Restated 2000 Equity Incentive Plan (the "Plan") to increase the number of shares reserved for issuance under the plan by 4,200,000 shares.

Overview of Plan Amendment

The purpose of the Plan is to promote the long-term success of Affymetrix and the creation of stockholder value by (a) encouraging our employees, outside directors and consultants to focus on critical long-range objectives, (b) encouraging the attraction and retention of employees, outside directors and consultants with exceptional qualifications and (c) linking employees, outside directors and consultants directly to stockholder interests through increased stock ownership. The plan seeks to achieve this purpose by providing for awards in the form of restricted shares, stock units, stock options, stock appreciation rights ("SARs"), or other equity based awards. In furtherance of these purposes (and taking into account stockholders' interests), we are asking stockholders to approve an amendment to the Plan to increase share availability by 4,200,000 shares.

Reasons for the Amendment

The Plan, which was initially adopted by the Board and approved by our stockholders in 2000 and amended in 2004, authorized the issuance of 7,500,000 shares (as adjusted for our two for one stock

split in August 2000 and reflecting an additional 2,500,000 shares authorized in 2004). We have not asked for approval of more shares from stockholders since 2004. Neither the Plan nor any of our other stock plans has a provision for automatic increases in shares (commonly called an evergreen provision). As of December 31, 2007, there were outstanding options to purchase 3,310,828 shares under the Plan with 591,394 shares available for future issuance. There were also outstanding options to purchase 2,177,921 shares under other stock plans and 459,072 shares available under our 1998 Stock Incentive Plan (which is limited to grants to non-officer employees).

The Board believes that options and other equity-based incentives are important tools to enable us to attract and retain the best available candidates for positions at Affymetrix. We do not currently have enough shares available for issuance under the Plan and our other stock plans to enable us to make sufficient equity compensation grants commensurate with our peers and competitors for the near future. As a result, without an increase in shares, we may lack the ability to attract and retain the best available personnel for positions of substantial responsibility (particularly in officer roles) and offer equity compensation that is commensurate with that of our peers and competitors.

Stock-based compensation is a fundamental component of our compensation program. Our equity compensation program is designed to attract and retain employees, many of whom view equity incentives as a key component of their compensation. Stock-based compensation encourages and rewards employee performance and helps align employee interests with those of our stockholders. We currently grant stock-based awards to new employees, upon the promotion of certain existing employees, and on a periodic supplemental basis to certain existing employees who are considered high performers. We need additional shares in order to ensure that we are able to continue to grant stock-based awards as we hire additional employees and to continue to motivate existing high performing employees and align their interests with those of our stockholders.

The 4,200,000 shares requested represent approximately 6.05% of our outstanding common shares as of April 16, 2008. We have developed guidelines that we plan to continue to use for new hires and for annual performance based grants to employees who we determine to be top performers through our performance management process. We believe that these guidelines are commensurate with the companies that we consider to be our peers and competitors. While our employees continue to view equity compensation as a key component of their overall compensation, we are sensitive to the concerns of our stockholders regarding dilution.

We believe that the Plan contains provisions that are consistent with the interests of our stockholders and with our corporate governance practices:

- *No Stock Option Repricings.* The Plan prohibits the repricing of stock options without the approval of our stockholders. This provision applies to both direct repricings—lowering the exercise price of a stock option—and indirect repricings—canceling an outstanding stock option and granting a replacement stock option with a lower exercise price.
- *No Discount Stock Options.* The Plan prohibits the grant of stock options with an exercise price of less than the fair market value of our common stock on the date the stock option is granted. As described below, we have vesting restrictions on restricted stock awards.
- *No Evergreen Provision.* The Plan does not have an “evergreen” feature. This means we are asking for a specific number of shares now and will not increase that amount without stockholder approval.
- *Performance-Based Awards.* The Compensation Committee has the authority to structure awards so that the shares of common stock subject to those awards will vest only upon the achievement of certain pre-established corporate performance goals, as further described below.

Summary Description of the Plan

The primary features of the Plan are summarized below.

Number of Shares. Affymetrix is requesting that an additional 4,200,000 shares of common stock be reserved for issuance. In general, if awards granted under the Plan are forfeited or otherwise returned to Affymetrix (for example, through share withholding for taxes), then the corresponding common stock will again become available for grant.

Eligibility. Directors, employees and consultants of Affymetrix, its subsidiaries and its affiliates are eligible to be granted stock options, SARs, restricted shares and stock units.

Administration. The Plan may be administered by the Board or by a committee of the Board (in either case, referred to as the “Committee” in this description). The Compensation Committee of the Board presently administers our stock plans. The Committee has full power to select, from among the persons eligible for awards, the individuals to whom awards will be granted, determine the type, number, vesting requirements and other features and conditions of each award, interpret the plan, and make all other decisions relating to the operation of the plan.

Stock Options. The Plan permits the granting of stock options that are intended to qualify as incentive stock options (“ISOs”) under section 422 of the Internal Revenue Code of 1986, as amended (the “Code”), and nonstatutory stock options (“NSOs”) that do not so qualify. The option exercise price for any option will be determined by the Committee but will not be less than 100% of the fair market value of the common stock on the date of grant. The term of each option will be fixed by the Committee, but may not exceed ten years from the date of the grant. The Committee may modify, extend or assume outstanding options (except that the Committee may not directly or indirectly reprice outstanding options without stockholder approval). The Plan provides that no optionee may receive options covering more than 1,000,000 shares in any calendar year.

Stock Appreciation Rights. The Plan permits the granting of stock appreciation rights, entitling the holder upon exercise to receive an amount in any combination of cash or common stock of Affymetrix (as determined by the Committee), not greater in value than the increase since the date of grant in the value of the shares covered by such right. The Plan provides that no participant may receive stock appreciation rights covering more than 1,000,000 shares in any calendar year.

Restricted Stock. Restricted shares of the common stock may be sold or awarded by the Committee subject to such conditions and restrictions as they may determine which may include the attainment of performance goals. For any award that is to vest solely on the basis of employment, the award must vest over a minimum period of three years. To the extent that an award consists of newly issued restricted shares, the consideration will consist of cash, cash equivalents, or past services rendered, as the Committee may determine. The holders of restricted shares awarded under the Plan have the same voting, dividend and other rights as holders of common stock, except that restrictions on the use of dividends may be imposed.

Stock Units. Stock units representing the equivalent of shares of common stock (including restricted stock units) may be granted. Stock units have no voting rights unless and until shares of stock are issued pursuant to the terms of the stock unit award. Vesting and dividend rights of stock units are determined by the Committee. For any award that is to vest solely on the basis of employment, the award may vest over a minimum period of three years. No cash consideration is required to be paid by stock unit award recipients.

Performance-Based Awards. In the event the Committee determines it is important to assure that the compensation attributable to one or more issuances under the program will qualify as performance-based compensation which will not be subject to the \$1 million limitation on the income tax

deductibility of the compensation paid per executive officer which is imposed under Section 162(m) of the Code, the Committee has the authority to structure one or more share right awards so that the shares of common stock subject to those awards will be issuable upon the achievement of certain pre-established corporate performance goals. The performance goals may consist of any of the following: (1) net sales or product and product related revenue; (2) earnings from operations, earnings before or after taxes, earnings before or after interest, depreciation, amortization or extraordinary or special items, (3) net income or net income per Common Share (basic or diluted); (4) return on assets, return on investment, return on capital, or return on equity; (5) cash flow, free cash flow, cash flow return on investment, or net cash provided by operations; (6) interest expense after taxes; (7) economic value created; (8) operating margin; (9) share price or total stockholder return; and (10) strategic business criteria (including without limitation meeting specified market penetration, geographic business expansion goals, cost targets, customer satisfaction, employee satisfaction; management of employment practices and employee benefits; supervision of information technology; and goals relating to acquisitions or divestitures of specified affiliates or business units of the Company or of affiliates). The Compensation Committee will determine the performance goals for any individual award and will be responsible for reviewing and approving the assessment of achievement of those goals. Performance-based awards granted to any person may not represent more than 500,000 shares in any calendar year. In the event of a cash-based performance award, the value of an award granted to any individual during any calendar year may not exceed \$5,000,000.

Other Equity-Based Awards. The Committee may determine to grant other equity-based awards, subject to the terms of the Plan.

Change of Control. The Committee may determine, at the time of granting an award or thereafter, that such award will become exercisable or vested as to all or part of the shares of common stock subject to such award in the event that a change in control occurs with respect to Affymetrix or in the event that the recipient is subject to an involuntary termination after a change in control.

Anti-Dilution Provisions. In the event of a stock-split of the outstanding common stock or a dividend payable in common stock, a corresponding adjustment will be made automatically to the number or exercise price of the options, restricted shares, stock units or SARs awarded pursuant to the Plan. The Committee may also make such adjustments as it deems appropriate in the event of a recapitalization, spin-off or other similar occurrence.

Future of the Plan. The Board may amend or terminate the Plan at any time. If required by applicable law or regulation (including Nasdaq requirements), we will seek stockholder approval of the amendment. We have amended the Plan to provide that, if not terminated earlier, the Plan will terminate on February 6, 2018.

New Plan Benefits

Awards under the Plan are discretionary. Therefore, it is not possible to determine the benefits that will be received in the future by participants in the Plan. In 2007, our named executive officers received equity awards with respect to an aggregate of 259,400 shares.

Federal Income Tax Consequences

Neither the optionee nor Affymetrix incurs any federal tax consequences as a result of the grant of an option granted at fair market value on the grant date. The optionee has no taxable income upon exercising an ISO (except that the alternative minimum tax may apply), and we receive no deduction when an ISO is exercised. The tax treatment of a disposition of shares acquired on exercise of an ISO depends on how long the shares have been held. If the shares are sold more than two years after the option grant date and more than one year after the exercise date, then the optionee will recognize

long-term capital gain. If the shares are sold before these two periods are satisfied, the optionee recognizes ordinary income equal to the “spread” on the date of exercise, and any additional gain or loss will be capital gain or loss. Affymetrix is not entitled to a deduction in connection with a disposition of option shares, except in the case of a disposition of shares acquired under an ISO before the applicable holding periods have been satisfied. Upon exercising an NSO, the optionee generally must recognize ordinary income equal to the “spread” between the exercise price and the fair market value of our common stock on the date of exercise, and Affymetrix ordinarily will be entitled to a deduction for the same amount to the extent permitted by applicable tax laws. In the case of an employee, the option spread when an NSO is exercised is subject to income tax withholding. Any additional gain or loss at the time of disposition of shares acquired on exercise of an NSO will be capital gain or loss.

Generally, stock-based awards such as restricted stock, restricted units and SARs will be taxed as ordinary income to the recipient upon vesting or settlement, as applicable, with Affymetrix being eligible for a corresponding tax deduction to the extent permitted by applicable tax laws.

THE BOARD RECOMMENDS A VOTE “FOR” THE APPROVAL OF THE AMENDMENT TO THE AMENDED AND RESTATED 2000 EQUITY INCENTIVE PLAN.

STOCK OWNERSHIP OF PRINCIPAL STOCKHOLDERS AND MANAGEMENT

The following table sets forth the beneficial ownership of our shares of common stock as of March 31, 2008 by:

- each person known to us to beneficially own more than five percent of our outstanding shares of common stock;
- each director and nominee for director;
- each of the officers named in the Summary Compensation Table below; and
- all directors and executive officers as a group.

Unless otherwise indicated, the address of each of the individuals named below is: c/o Affymetrix, Inc., 3420 Central Expressway, Santa Clara, California 95051.

<u>Name and Address of Beneficial Owner</u>	<u>Shares Beneficially Owned(1)</u>	<u>Percentage of Shares Beneficially Owned(1)(2)</u>
Greater than 5%		
Barclays Global Investors, NA.(3) 45 Fremont Street San Francisco, CA 94105	3,545,998	5.11%
Citadel Investment Group, L.L.C.(4) 131 S. Dearborn Street Chicago, IL 60603	3,861,403	5.56%
FMR LLC(5) 82 Devonshire Street Boston, MA 02109	10,157,695	14.63%
Manning & Napier Advisors, Inc.(6) 290 Woodcliff Drive Fairport, NY 14450	3,908,212	5.63%
Mazama Capital Management, Inc.(7) One Southwest Columbia Street, Suite 1500 Portland, OR 97258	5,202,447	7.50%
PRIMECAP Management Company(8) 225 South Lake Avenue #400 Pasadena, CA 91101	5,714,755	8.23%
T. Rowe Price Associates, Inc.(9) 100 E. Pratt Street Baltimore, MD 21202	7,196,840	10.37%
Directors and Executive Officers		
John C. Batty(10)	39,200	*
Paul Berg, Ph.D.(11)	123,536	*
Barbara A. Caulfield(12)	70,950	*
Susan D. Desmond-Hellmann, M.D., M.P.H.(13)	40,000	*
John D. Diekman, Ph.D.(14)	221,796	*
Stephen P.A. Fodor, Ph.D.(15)	860,397	1.23%
James R. Gibson II(16)	19,836	*
Kevin M. King(17)	87,656	*
Vernon R. Loucks, Jr.(18)	38,096	*
David B. Singer(19)	56,332	*
Robert H. Trice, Ph.D.(20)	30,000	*
Robert P. Wayman(21)	10,000	*
John A. Young(22)	142,666	*
All directors and executive officers as a group (13 persons)(23)	1,740,465	2.47%

* Represents beneficial ownership of less than one percent of the common stock.

(1) Beneficial ownership is determined in accordance with the rules of the SEC. In computing the number of shares beneficially owned by a person and the percentage of ownership of that person,

shares of common stock subject to options held by that person that are currently exercisable or exercisable within 60 days of March 31, 2008 are deemed outstanding. Those shares, however, are not deemed outstanding for the purpose of computing the percentage ownership of other persons. The persons named in this table have sole voting and investment power with respect to all shares of common stock shown as beneficially owned by them, subject to community property laws where applicable and except as indicated in the other footnotes to this table.

- (2) Percentage of beneficial ownership is based on 69,408,308 shares of common stock outstanding as of March 31, 2008.
- (3) Barclays Global Investors, N.A. (“Barclays”), as set forth on Schedule 13G filed with the SEC on February 5, 2008, has sole voting power with respect to 1,215,846 shares, and sole dispositive power with respect to 1,447,542 shares. Barclays Global Fund Advisors, a Barclays affiliate, has sole voting power and sole dispositive power with respect to 2,098,456 shares.
- (4) Citadel Investment Group, L.L.C. (“Citadel LLC”) as set forth on Schedule 13G filed with the SEC on February 26, 2008. Citadel LLC, Citadel Investment Group II, L.L.C., Citadel Limited Partnership, Kenneth Griffin, Citadel Holdings I LP, Citadel Holdings II LP, Citadel Advisors LLC, Citadel Equity Fund Ltd., Citadel Derivatives Group LLC and Citadel Derivatives Trading Ltd. have shared voting and shared dispositive powers with respect to 3,861,403 shares.
- (5) FMR LLC, as set forth on Schedule 13G/A filed with the SEC on February 14, 2008, has sole voting power with respect to 360,864 shares and sole dispositive power with respect to 10,157,695 shares.
- (6) Manning & Napier Advisors, Inc., as set forth on Schedule 13G/A filed with the SEC on February 8, 2008, has sole voting power with respect to 3,382,897 shares and sole dispositive power with respect to 3,908,212 shares.
- (7) Mazama Capital Management, Inc., as set forth on Schedule 13G filed with the SEC on February 8, 2008, has sole voting power with respect to 2,293,525 shares and sole dispositive power with respect to 5,202,477 shares.
- (8) PrimeCap Management Company, as set forth on Schedule 13G/A filed with the SEC on February 14, 2008, has sole voting power with respect to 2,293,955 shares and sole dispositive power with respect to 5,714,755 shares.
- (9) T. Rowe Price Associates, Inc. (“T. Rowe Price”), as set forth on Schedule 13G/A filed with the SEC on February 13, 2008. T. Rowe Price has sole voting power with respect to 1,110,300 shares and sole dispositive power with respect to 7,196,840 shares. T. Rowe Price Mid-Cap Growth Fund, Inc. has sole voting power with respect to 3,500,000 shares.
- (10) Includes no shares issuable upon exercise of options exercisable within 60 days of March 31, 2008.
- (11) Includes 60,000 shares issuable upon exercise of options exercisable within 60 days of March 31, 2008.
- (12) Includes 47,000 shares issuable upon exercise of options exercisable within 60 days of March 31, 2008.
- (13) Includes 40,000 shares issuable upon exercise of options exercisable within 60 days of March 31, 2008.
- (14) Includes 60,000 shares issuable upon exercise of options exercisable within 60 days of March 31, 2008, 81,398 shares held by John D. Diekman and Susan P. Diekman, as trustees of a revocable trust dated June 30, 1995, and 400 shares held in Mr. Diekman’s retirement account.

- (15) Includes 712,500 shares issuable upon exercise of options exercisable within 60 days of March 31, 2008.
- (16) Includes 6,350 shares issuable upon exercise of options exercisable within 60 days of March 31, 2008.
- (17) Includes 10,000 shares issuable upon exercise of options exercisable within 60 days of March 31, 2008.
- (18) Includes 30,000 shares issuable upon exercise of options exercisable within 60 days of March 31, 2008 and 8,096 shares held by Mr. Loucks' wife.
- (19) Includes 40,000 shares issuable upon exercise of options exercisable within 60 days of March 31, 2008.
- (20) Includes 30,000 shares issuable upon exercise of options exercisable within 60 days of March 31, 2008.
- (21) Includes 10,000 shares issuable upon exercise of options exercisable within 60 days of March 31, 2008.
- (22) Includes 60,000 shares issuable upon exercise of options exercisable within 60 days of March 31, 2008.
- (23) Includes 1,105,850 shares issuable upon exercise of options exercisable within 60 days of March 31, 2008.

SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) of the Securities Exchange Act of 1934 requires our executive officers and directors and persons who beneficially own more than ten percent of our common stock to file with the SEC initial reports of beneficial ownership and reports of changes in beneficial ownership of common stock. Executive officers, directors and ten percent stockholders are required by SEC regulations to furnish us with copies of all Section 16(a) forms they file. To the best of our knowledge, during the year ended December 31, 2007, all executive officers, directors and ten percent stockholders complied with all Section 16(a) filing requirements, except that a late Form 4 was filed on August 20, 2007 for Kevin King, our President, with respect to 6,541 shares of common stock withheld by us on July 8, 2007 in satisfaction of taxes due on vesting of a restricted stock award and 12,000 shares of common stock sold by him on August 8, 2007. This information is based solely on review of the copies of such reports furnished to us and written representations that no other reports were required.

EQUITY COMPENSATION PLAN INFORMATION

The following table summarizes, as of December 31, 2007, the number of options issued under our stock option plans and the number of options available for future issuance under these plans.

<u>Plan Category</u>	<u>(a)</u>	<u>(b)</u>	<u>(c)</u>
	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column(a))
Equity compensation plans approved by security holders(1)	4,191,026	\$30.93	591,394
Equity compensation plans not approved by security holders	1,297,723(2)	\$30.84	459,072(3)
Total	<u>5,488,749</u>	<u>\$30.91</u>	<u>1,050,466</u>

- (1) Includes the Amended and Restated 1993 Stock Plan and the Amended and Restated 1996 Non-Employee Directors Stock Option Plan, which have expired, and the Amended and Restated 2000 Equity Incentive Plan (but does not include the shares requested under Proposal 2).
- (2) Includes options under the 1998 Stock Plan plus options to purchase an aggregate of 57,690 shares outstanding under the Affymetrix/GMS 1998 Stock Plan, the Affymetrix/Neomorphic 1998 Stock Plan and the Affymetrix/ParAllele 2001 Stock Plan (“Acquired Plans”), each of which was assumed in connection with acquisitions by Affymetrix and under which no future awards will be issued.
- (3) The only non-stockholder-approved plan under which shares remain available for issuance of future awards is the 1998 Stock Incentive Plan, or the 1998 Stock Plan. Approximately 47,000 shares remain unissued under the Acquired Plans and we do not intend to issue any future awards under these plans.

1998 Stock Incentive Plan

In 1998, the Board adopted the non-stockholder-approved Affymetrix 1998 Stock Incentive Plan, or the 1998 Stock Plan. Our directors and officers are not eligible to receive grants under the 1998 Stock Plan. Options granted under the 1998 Stock Plan expire no later than ten years from the date of grant. The option price is required to be at least 100% of the fair market value of the common stock on the date of grant. Vesting terms of options or restricted stock granted under the 1998 Stock Plan from time to time are determined by the Board.

MANAGEMENT

Our executive officers, and their ages as of the record date and positions are as follows:

<u>Name</u>	<u>Age</u>	<u>Position</u>
Stephen P.A. Fodor, Ph.D.	54	Founder, Chairman and Chief Executive Officer
John C. Batty.	53	Executive Vice President and Chief Financial Officer
Barbara A. Caulfield	60	Executive Vice President, General Counsel and Secretary
Kevin M. King	51	President

Stephen P.A. Fodor, Ph.D. See “Election of Directors.”

John C. Batty joined us in June 2007 as Executive Vice President and Chief Financial Officer. Mr. Batty served as Senior Vice President of Finance and Chief Financial Officer of Credence Systems

Corporation from 2005 to 2007. From 1999 to 2005, Mr. Batty held several management positions with Network Equipment Technologies Inc., a global provider of networking technology platforms, most recently as its Chief Operating Officer from 2001 to 2004.

Barbara A. Caulfield, Esq. joined us in July 2001 as Executive Vice President, General Counsel and Secretary. From 1994 until June 2001, Ms. Caulfield was a partner at the law firms of Latham & Watkins and Orrick, Herrington & Sutcliffe. Previously, Ms. Caulfield served as United States District Judge for the Northern District of California from 1991 to 1994. As a partner at Orrick, Herrington & Sutcliffe, Ms. Caulfield represented Affymetrix in various legal matters. Orrick, Herrington & Sutcliffe continues to provide legal services to Affymetrix from time to time.

Kevin M. King has been our President since September 2007. Mr. King joined us in January 2007 as President of Life Sciences Business and Executive Vice President. From February 2005 until June 2006, Mr. King served as President and Chief Executive Office of Thomson Healthcare. From 1997 to 2004, Mr. King held various managerial positions at General Electric—Healthcare, most recently as Vice President and General Manager of Global Clinical Systems from June 2000 to November 2004.

COMPENSATION DISCUSSION AND ANALYSIS

Compensation Principles and Practices

We call our compensation program a “Total Rewards” program to reflect our view that our compensation and benefits should be viewed at an aggregate level, with the following primary guiding principles:

- Aligning compensation strategy with our business objectives;
- Creating a positive work environment that includes recognition based on merit and a focus on customer satisfaction;
- Attracting, retaining and motivating employees by offering a competitive compensation and benefits package; and
- Using long-term equity awards to align employee and stockholder interests.

The Compensation Committee reviews and provides oversight of our compensation and benefit policies generally and determines compensation for our executive officers. The compensation for our Chief Executive Officer is recommended by the Compensation Committee and approved by the full Board. The Compensation Committee strives to achieve a Total Rewards package for Affymetrix executives that is closely tied to both individual and corporate performance, as well as aligned with the interests of stockholders.

The Compensation Committee has retained the outside compensation consulting firm of Hewitt Associates on an ongoing basis to inform the Compensation Committee on market practices, programs and compensation levels; evaluate our compensation practices; and assist in developing and implementing the executive compensation program and philosophy.

The Compensation Committee also gives considerable weight to the recommendations of members of senior management, including Dr. Fodor, our Chief Executive Officer. The Compensation Committee believes this involvement of management is appropriate because they understand the daily contributions of other officers. For example, although Dr. Fodor does not recommend the form or amount of his own compensation, he recommends to the Compensation Committee the bonus amounts for the other executive officers based on his review of each individual’s performance for the year, company performance and market data.

Elements of Executive Compensation

Our executive officers' compensation currently has the following primary components:

- base salary;
- annual cash bonuses based on corporate and individual performance;
- long-term incentives in the form of stock options and restricted stock awards; and
- change in control and other benefits.

In determining compensation for our executive officers, the Compensation Committee considers a variety of factors. For the 2007 compensation, the most important factors include whether the company has achieved its specific financial and strategic goals and the individual's contribution to the achievement of these goals. For 2007, these goals were to:

- achieve revenue and operating profit targets;
- successfully commercialize our innovations; and
- increase customer satisfaction.

Other factors that are taken into account by the Compensation Committee include:

- extraordinary performance by an individual during the year;
- retention concerns;
- the executive's tenure and experience;
- the executive's historical compensation;
- comparison to other executive officers (to those at Affymetrix as well as other companies).

The Compensation Committee reviews market data and compensation surveys in order to be informed of the market levels for executive compensation for our peer companies. The compensation survey that we use is provided by a third-party and our "peer companies" are a group of biotechnology companies with similar employee population sizes and high technology companies with revenues between \$200 and \$500 million. We use this group of companies as our benchmark because we feel that these companies are likely to compete with us in the recruitment of senior personnel. In determining an executive's compensation, the Compensation Committee approves compensation levels that result in pay at average market levels or higher than average market levels as compared to our peer companies, based on the factors described above.

In reviewing executives' overall Total Rewards package, the Compensation Committee considers an aggregate view of base salary and bonus opportunity, accumulated equity award gains, and the dollar value of benefits and perquisites, but generally views the various components of compensation as related but distinct. The Compensation Committee does not believe that significant compensation derived from one component of compensation should negate or reduce compensation from other components because the different components are meant to achieve different goals.

Base Salary

Base salaries for our executives are established based on the scope of their responsibilities, taking into account competitive market compensation paid by other companies for similar positions. Base salaries for our executive officers are intended to be competitive with the compensation paid to executives with comparable qualifications, experience and responsibilities in the same or similar businesses of comparable size. Base salaries are reviewed annually and adjusted from time to time to realign salaries with market levels. Salaries for our executive officers were generally raised less than

10% during 2007 based on individual responsibilities, performance, experience and review of compensation surveys. Executives with the greatest level of responsibility and accountability have the highest base salaries to reflect the time commitment, level of risk and experience associated with those positions. Therefore, our Chief Executive Officer and our President have higher base salaries than other executive officers. The level of salary paid to our Chief Executive Officer also reflects his scientific contribution to Affymetrix.

Bonus Program

Our bonus program is designed to reward participants based on attainment of specified levels of corporate financial and strategic goals as well as subjective factors related to the individual's performance.

Although we use pre-established financial goals as a baseline for determining the aggregate level of funding of our bonus pool for the year, we do not pay executive officers' bonuses on a fixed formula. We consider a combination of achievement of financial goals and strategic goals, and other factors specific to the individual. In its determination of any pay-out under the bonus program, the Compensation Committee retains broad discretion to reduce or refuse to authorize any award under the bonus program despite attainment of any specific objectives but also to grant bonuses based on individual performance even if corporate performance targets are not met.

Each named executive officer has an assigned target bonus level, expressed as a percent of base salary for the fiscal year, which for fiscal 2007 ranged from 30% to 75% of base salary. As with our base salary levels, executives with the greatest level of responsibility and accountability have the highest bonus target levels in order to place a significant portion of their total compensation at risk to reflect the impact they have on our overall corporate performance. As further described below, after review of the corporate financial and strategic performance for the year, the Compensation Committee establishes a general funding level for our bonus program, and then reviews individual factors in approving the actual bonus payment for each named executive officer.

Financial Goals. At the beginning of fiscal 2007, management established our financial goals as follows: (1) to achieve total revenues in the range of \$365 million to \$385 million and (2) to return the Company to profitability. Based on these financial goals, the financial measures for funding our bonus program are (i) total revenue, given a weighting of 60%, and (ii) operating profit (excluding all stock-based expenses), given a weighting of 40%. We chose these measures because we believe that these are consistent indicators of our core operating results.

Strategic Goals. The Compensation Committee also gave significant weight to the more subjective strategic goals and considered them an important part of measuring the success for the year. For 2007, the most important strategic goals related to (1) successfully commercializing innovations and (2) increasing customer satisfaction.

For fiscal 2007, we achieved total revenue of \$371.3 million (an increase from 2006) and operating profit (excluding all stock based expenses) of approximately \$17.0 million, and returned the Company to profitability. We also achieved our strategic goals by the timely launching of a number of new products, including our SNP 6.0 array, and significantly increasing our customer satisfaction. After taking into account the achievement of our financial and strategic goals, the Compensation Committee determined that the bonus pool for fiscal 2007 should be fully funded.

For fiscal 2007, our named executive officers received an average of 125% (not taking into account the special bonus paid to Ms. Caulfield described below) of his or her target bonus relating to such individual's performance in fiscal 2007. We paid Dr. Fodor, Mr. King and Mr. Batty bonuses well above their target levels because of each person's contribution to the business operations in 2007 to establish new products and successfully return the Company to profitability. In addition, in the case of Dr. Fodor

and Mr. King, the Compensation Committee took into consideration their success in recruiting and building a new management team during fiscal 2007 and the increased responsibilities given to Mr. King in promoting him to President of Affymetrix.

The Compensation Committee also retains the discretion to approve special bonuses at any time based on individual performance. During April 2007, the Compensation Committee approved a special bonus for Ms. Caulfield, our General Counsel, in the amount of \$950,000, in consideration for her success in building a strong in-house litigation team and the successful outcome of the first phase of the Company's litigation against Illumina in March 2007, whereby the jury returned a verdict finding infringement by Illumina of certain of our patents.

The Compensation Committee periodically reviews the status of compensation levels for our executive officers. Our targets are set each year and may not be an indication of the levels of targets chosen for the following year. For example, the percentage increase we target may differ each year depending on the rate of success, market response and other factors. Goals may vary as we establish ourselves in new products and markets.

Equity Incentives

Overview. Our equity awards program is intended to align the long-term interests of executives with the interests of stockholders by offering potential gains if our stock price increases. We believe that the use of stock-based awards offers the best approach to achieving these long-term goals. Our equity program is designed to encourage our employees to work towards the long-term success of Affymetrix and to encourage their long-term employment by imposing vesting schedules over several years.

Types of Equity Awards. We use a combination of stock options and restricted stock awards. Because of the direct relationship between the value of an option and the increased market price of our common stock, we feel that stock options continue to be appropriate to motivate our executive officers to manage Affymetrix in a manner that is consistent with both the interests of our stockholders and our business objectives. In addition, we grant restricted stock awards as a result of the evolution of accounting treatment of equity incentive programs (meaning both stock options and restricted stock awards are accounting expenses), the fact that the smaller restricted stock awards have less impact on stockholder dilution, and the importance of retaining our executive officers and key employees in both good and bad market conditions.

Grants During 2007. Guidelines for executive equity award grants are based on each individual executive's position, responsibilities, performance and contribution to the achievement of our long-term goals and competitive equity award data from biotechnology and high technology companies. During 2007, the Compensation Committee approved equity awards for our named executive officers (other than Dr. Fodor, who did not receive any equity grants during fiscal 2007) as disclosed under the "Grants of Plan-Based Awards" table in this proxy statement. With respect to our annual grants of equity awards, the aggregate value of these annual awards measured by initial Black-Scholes value for each individual was set between the 50th and 75th percentile relative to peer companies for similar positions. In addition, we granted Mr. King and Mr. Batty new hire equity awards at higher than average market levels as an incentive for these executive officers to join the Company.

Perquisites and Other Personal Benefits

To remain competitive in the market for a high caliber management team, we provide some of our executive officers with fringe benefits. The Compensation Committee periodically reviews the benefits made available to executive officers to ensure that they are in line with market practice and reasonable under the circumstances. The Compensation Committee has approved the use of a private jet service for business and personal travel by Dr. Fodor at an annual cost not to exceed \$150,000. The

Compensation Committee continues to believe this benefit is appropriate given the time commitments expected from the chief executive officer and the cap on the financial cost to Affymetrix (with the actual cost for fiscal 2007 well below the maximum approved amount), but periodically reviews this and the other benefits provided to our executives. We also provide relocation benefits to employees, including executive officers. In order to motivate Mr. King to relocate from the east coast, and because of the importance we placed on his hiring and operational position with Affymetrix, we provided him with significant relocation benefits during 2007 as described in “Summary Compensation Table”, including assistance with the sale of his home as described under “Related Party Transactions” in this proxy statement.

Deferred Compensation and Other Plans

We have a deferred compensation plan that allows certain of our employees, including executive officers, to defer the receipt of cash compensation. This is not a funded plan, and we do not make matching contributions to the deferred compensation plan.

Executive officers are eligible to participate in all of our employee benefit plans, such as medical, dental, vision, group life, and accidental death and dismemberment insurance and our 401(k) plan (with matching contributions from Affymetrix), in each case on the same basis as other employees, subject to applicable law. Executive officers are also eligible to participate in our long-term disability plan on the same basis as other employees except that the long-term disability benefit for executive officers is 66⅔% of their monthly salary whereas the benefit for all other employees is 60% of their monthly salary.

Change in Control and Severance Arrangements

We have a change in control and severance plan that provides for the treatment of outstanding options and the receipt of severance benefits for employees (including all of our named executive officers) who are terminated, or whose jobs are adversely affected, as a result of a change in control. The purpose of this policy is to mitigate some of the risk that exists for executives working in a company of our size while there remains significant acquisition activity in the biotechnology industry. We believe the policy helps attract and retain qualified executives who could have other job alternatives that may appear to them to be less risky absent this policy. In the event there was a potential change in control, we believe that severance packages resulting from terminations related to change in control transactions would provide an incentive for these executives and other employees to continue to help successfully execute such a transaction from its early stages until closing while providing reasonable protection to our employees against a significant downsizing or restructuring that could result from a change in control. Our Board of Directors may amend or terminate this plan at any time prior to a change in control, and the Compensation Committee periodically evaluates the benefits provided by this plan.

Accounting and Tax Considerations

For proposed equity awards, the Compensation Committee reviews the estimated employee stock-based compensation expenses in accordance with SFAS 123R. This valuation is one of the considerations used in reviewing the market competitiveness of individual equity awards.

We generally try to utilize available tax deductions whenever appropriate. The Compensation Committee, when determining executive compensation programs, considers all relevant factors, including the tax deductions that may result from such compensation, and weighs against that, our need to attract, retain and reward high-performing executives. We have, and will continue to, pay compensation to executive officers that may not be fully deductible if we believe that is necessary to attract, retain and reward high-performing executives. Stock options granted under our stock plans

generally are intended to qualify as performance-based compensation under Section 162(m) of the Internal Revenue Code of 1986, as amended, which limits the deductibility of non-performance-based compensation paid to certain covered employees that exceeds \$1 million in any year, but the restricted stock awards we have granted to date are not eligible for this deduction. We will continue to review the Company's executive compensation plans periodically to determine what changes, if any, should be made as the result of the limitation on deductibility.

COMPENSATION COMMITTEE REPORT

We have reviewed and discussed the Compensation Discussion and Analysis in this proxy statement with management. Based on our review and discussion with management, we have recommended to the Board of Directors that the Compensation Discussion and Analysis be included in this proxy statement and in Affymetrix' Annual Report on Form 10-K for the year ended December 31, 2007.

Submitted by: John A. Young, Chairman
Paul Berg, Ph.D.
Susan D. Desmond-Hellmann, M.D., M.P.H.
Members of the Compensation Committee

Notwithstanding anything to the contrary set forth in any of the Company's previous filings under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, that incorporate future filings, including this proxy statement, in whole or in part, the foregoing Compensation Committee Report shall not be incorporated by reference into any such filings.

EXECUTIVE COMPENSATION

Summary Compensation Table

The following table sets forth the compensation earned by our named executive officers for services rendered to the Company and its subsidiaries during the fiscal years ended December 31, 2007 and 2006.

Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Stock Awards (\$)*	Option Awards (\$)*	Non-Equity Incentive Plan Compensation \$	Change in Pension Value and Nonqualified Deferred Compensation Earnings (\$)	All Other Compensation \$(1)	Total (\$)
Stephen P.A. Fodor Founder, Chairman and Chief Executive Officer	2007	630,673	—	66,243	286,629	635,000	—	73,256(2)	1,691,801
	2006	606,154	—	37,505	291,184	—	—	47,468(2)	982,311
John C. Batty(3) Executive Vice President and Chief Financial Officer	2007	186,923	—	80,279	33,474	140,000	—	4,393	445,069
Barbara A. Caulfield Executive Vice President and General Counsel	2007	411,577	950,000(4)	71,633	146,409	210,000	—	20,523	1,810,142
	2006	387,596	—	28,128	121,499	—	—	76,715(5)	613,938
James R. Gibson II Principal Accounting Officer, Vice President and Corporate Controller	2007	227,323	—	58,110	34,530	76,000	—	570	396,533
	2006	193,493	—	6,251	29,181	—	—	628	229,553
Kevin M. King(6) President	2007	432,692	100,000(7)	700,578	120,032	400,000	—	230,746(8)	1,984,048

* The reported dollar value of stock awards and option awards is equal to the compensation expense recognized in our fiscal year end financial statements under FAS123R with respect to restricted stock awards and stock options, respectively, made to the named executive officers during that fiscal year and prior years. See Note 14—Stockholders' Equity of our Annual Report on Form 10-K for the year ended December 31, 2007 regarding assumptions underlying valuation of our equity awards. The calculation for the expense recognized for stock options includes such factors as the number of shares, stock price on the grant date, expected term of the award and other factors, and so stock options that currently have exercise prices above our stock price are still considered to have a value for this purpose. The actual value of an option, if any, will depend on the future market price of the Company's common stock and the option holder's individual exercise and sale decisions. For a description of restricted stock and option awards made during fiscal 2007, exercised and vesting during 2007, and outstanding at the end of fiscal 2007, see the tables set forth below.

- (1) Includes discretionary matching contributions made under our tax qualified employee savings and retirement plan commonly known as a 401(k) plan and premiums paid by us on term life insurance policies for the benefit of the named executive officers.
- (2) Includes \$56,088 and \$31,892 in aggregate incremental costs to Affymetrix associated with the personal jet service for Dr. Fodor in 2007 and 2006, respectively. These jet service costs are measured by the payments actually made by the Company to the third-party provider of the jet services and may be different than the amount attributed to Dr. Fodor as income for tax purposes.
- (3) In June 2007, Mr. Batty was appointed as Executive Vice President and Chief Financial Officer. His compensation reflects this partial year of service.
- (4) Represents a \$950,000 special bonus awarded to Ms. Caulfield during 2007 as described above in "Compensation Discussion and Analysis".
- (5) Includes the amounts described in footnote (1). In addition, for 2006, includes \$41,239 in aggregate incremental costs to Affymetrix for the car service for Ms. Caulfield's daily commute to and from the Company's headquarters and a tax reimbursement payment in the amount of \$19,810 for taxes owed by Ms. Caulfield as a result of income imputed to her for use of the car service.
- (6) In January 2007, Mr. King joined us as President, Life Science Business and Executive Vice President, and in September 2007, Mr. King was appointed our President.
- (7) Represents a \$100,000 sign-on bonus when Mr. King joined the Company.

- (8) Includes the amounts described in footnote (1), a \$46,332 housing allowance that was paid to Mr. King in fiscal 2007 and payments totaling \$173,169 that represent reimbursement of relocation expenses, the carrying costs of Mr. King's residence in New Jersey pending sale and the costs of providing temporary housing to Mr. King in the Bay Area.

Grants of Plan-Based Awards

The following table sets forth information regarding stock options, restricted stock awards and incentive plan awards granted to our named executive officers during fiscal 2007.

Name	Grant Date	Estimated Possible Payouts Under Non-Equity Incentive Plan Awards(1)			Estimated Possible Payouts Under Equity Incentive Plan Awards			All Other Stock Awards: Number of Shares of Stock or Units (#)(2)	All Other Option Awards: Number of Securities Underlying Options (#)(2)	Exercise Price of Base Option Awards (\$/sh)	Grant Date Fair Value of Stock and Option Awards (\$)(3)
		Threshold (\$)(6)	Target (\$)	Maximum (\$)(6)	Threshold (\$)	Target (\$)	Maximum (\$)				
Stephen P.A. Fodor	(4)	—	476,250	—				—	—	—	—
John C. Batty	06/18/07 06/18/07		97,200(5)	—			30,000	30,000	26.61	332,868 798,300	
Barbara A. Caulfield	06/06/07 06/06/07		207,000	—			8,000	20,000	25.71	214,406 205,680	
James R. Gibson II	01/17/07 06/06/07 06/06/07		69,000	—			7,500 2,200	5,700	25.71	188,250 61,106 56,562	
Kevin M. King	01/08/07 01/08/07 06/06/07 06/06/07		292,500	—			60,000 16,000	40,000 40,000	24.68 25.71	405,472 1,480,800 428,812 411,360	

- (1) There is no threshold or maximum bonus amount with respect to any named executive officer. This column represents the target bonus for each executive officer for fiscal 2007. The amount of the bonus payment actually paid is based on a combination of company and individual performance factors as described in "Compensation Discussion and Analysis" above and is reported in the "Summary Compensation Table" above.
- (2) Each of the stock and option awards reported in this table vest in equal annual installments over four years from the grant date, except as follows:
- Mr. King's 60,000 restricted stock awards granted on January 8, 2007 vested with respect to 20,000 shares on July 8, 2007 and 10,000 shares on January 8, 2008, and the remaining shares will vest in equal installments of 15,000 shares on January 8, 2009 and January 8, 2010.
 - Mr. Gibson's 7,500 restricted stock awards granted on January 17, 2007 vest in equal installments over three years starting January 17, 2009.
- All of the stock options have seven-year terms.
- (3) This column represents the full grant date fair valuation of each equity award computed under SFAS 123R. See Note 14—Stockholders' Equity of our Annual Report on Form 10-K for the year ended December 31, 2007 regarding assumptions underlying valuation of our equity awards.
- (4) Dr. Fodor was not granted any stock or option awards in 2007.
- (5) Mr. Batty joined us in June 2007. His target bonus amount is pro-rated based on his start date.

Outstanding Equity Awards at Fiscal Year End

The following table sets forth information regarding outstanding stock options and restricted stock awards as of December 31, 2007 for the named executive officers.

Name	Option Awards					Stock Awards			
	Number of Securities Underlying Unexercised Options: Exercisable (#)	Number of Securities Underlying Unexercised Options: Unexercisable (#)	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options (#)	Option Exercise Price (\$)	Option Expiration Date	Number of Shares or Units of Stock that Have Not Vested (#)	Market Value of Shares or Units of Stock that Have Not Vested (\$)(1)	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights that Have Not Vested (#)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested (\$)
Stephen P.A. Fodor, Ph.D.	300,000	—		24.4375	06/30/2009				
	300,000	—		47.8516	10/01/2010				
	80,000	20,000(2)		32.9850	11/15/2011				
	16,250	48,750(3)		27.8150	05/26/2013				
						9,000(4)	208,260		
John C. Batty	—	30,000(5)		26.6100	06/18/2014				
						30,000(6)	694,200		
Barbara A. Caulfield	32,000	8,000(7)		32.9850	11/15/2011				
	7,500	22,500(8)		27.8150	05/26/2013				
	—	20,000(9)		25.7100	06/06/2014				
						14,750(10)	341,315		
James R. Gibson II	1,350	900(11)		30.4450	11/04/2011				
	2,500	7,500(12)		27.8150	05/26/2013				
	—	5,700(13)		25.7100	06/06/2014				
						11,200(14)	259,168		
Kevin M. King	—	40,000(15)		24.6800	01/08/2014				
	—	40,000(16)		25.7100	06/06/2014				
						56,000(17)	1,295,840		

- (1) Assumes a stock price of \$23.14 a share, which was the closing market price of the Company's stock on December 31, 2007 (the last trading day of fiscal 2007).
- (2) Options vested with respect to 50,000 shares on December 31, 2005, equal installments of 15,000 shares on November 15, 2006 and November 15, 2007, and will vest with respect to 20,000 shares on November 15, 2008.
- (3) Options vest in four equal annual installments of 16,250 shares from the grant date of May 26, 2006.
- (4) These 9,000 restricted stock awards were granted on May 26, 2006 and vest in four equal annual installments from the grant date.
- (5) Options vest in four equal annual installments of 7,500 shares from the grant date of June 18, 2007.
- (6) These 30,000 restricted stock awards were granted on June 18, 2007 and vest in four equal annual installments from the grant date.
- (7) Options vested with respect to 20,000 shares on December 31, 2005, equal installments of 6,000 shares on November 15, 2006 and November 15, 2007, and will vest with respect to 8,000 shares on November 15, 2008.
- (8) Options vest in four equal annual installments of 7,500 shares from the grant date of May 26, 2006.
- (9) Options vest in four equal annual installments of 5,000 shares from the grant date of June 6, 2007.
- (10) 6,750 restricted stock awards were granted on May 26, 2006 and 8,000 restricted stock awards were granted on June 6, 2007. All restricted stock awards vest in four equal annual installments from the grant date.
- (11) Options vested in equal installments of 675 shares on November 4, 2006 and November 4, 2007, and will vest with respect to 900 shares on November 4, 2008.
- (12) Options vest in four equal annual installments of 2,500 shares from the grant date of May 26, 2006.
- (13) Options vest in four equal annual installments of 1,425 shares from the grant date of June 6, 2007.

- (14) 1,500 restricted stock awards were granted on May 26, 2006 and vest in four equal annual installments from the grant date. 7,500 restricted stock awards were granted on January 17, 2007 and vest in three equal annual installments commencing on the second anniversary of the grant date. 2,200 restricted stock awards were granted on June 6, 2007 and vest in four equal annual installments from the grant date.
- (15) Options vest in four equal annual installments of 10,000 shares from the grant date of January 8, 2007.
- (16) Options vest in four equal annual installments of 10,000 shares from the grant date of June 6, 2007.
- (17) 40,000 restricted stock awards were granted on January 8, 2007 and vested with respect to 10,000 shares on January 8, 2008 and will vest with respect to the remaining shares in equal installments of 15,000 shares on January 8, 2009 and January 8, 2010. 16,000 restricted stock awards were granted on June 6, 2007 and vest in four equal annual installments from the grant date.

Options Exercised and Stock Vested

The following table sets forth certain information regarding options and stock awards exercised and vested, respectively, during 2007 for the named executive officers.

Name	Option Awards		Stock Awards	
	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise (\$)(1)	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting (\$)(2)
Stephen P.A. Fodor, Ph.D.	89,441	861,624	3,000	76,470
John C. Batty	—	—	—	—
Barbara A. Caulfield	90,000	640,531	2,250	57,353
James R. Gibson II.	—	—	500	12,745
Kevin M. King	—	—	20,000	511,600

- (1) The amount in this column reflects the sale price of our common stock on the date of exercise minus the exercise price of the applicable stock options.
- (2) The amount in this column reflects the closing price of our common stock on the date of vesting multiplied by the number of shares acquired on vesting.

Nonqualified Deferred Compensation

Name	Executive Contributions in last FY(\$)(1)	Registrant Contributions in last FY(\$)	Aggregate Earnings/Loss in last FY(\$)(2)	Aggregate Withdrawals/Distributions(\$)	Aggregate Balance at last FYE(\$)
Stephen P.A. Fodor, Ph.D.	—	—	4	10,585	—
Barbara A. Caulfield	—	—	(398)	52,551	—

- (1) Under the deferred compensation plan, certain highly compensated individuals are permitted to defer all or a portion of their base salary and/or bonus, specifying a date (or termination of employment) at which the individual will receive the payment, plus any earnings made on deferred payments. The deferred compensation plan has been designed to not incur any additional tax or interest under Section 409A of the Internal Revenue Code. All amounts are also payable in the event of the death of the participant.
- (2) The individual deferring compensation has an account under the plan which may accrue earnings based on the performance of a variety of mutual funds the individual chooses. The Company does not guarantee any rate of return on the compensation deferred and does not make any contribution on behalf of the individual other than the amounts it would otherwise have paid in current salary and/or bonus.

Change in Control and Severance Arrangements

Change in Control Severance. The Company has a change in control policy, which may be amended or terminated by the Board at any time prior to a change in control. The policy applies to all employees and directors, but our named executive officers receive greater benefits.

Upon a qualifying termination (as described below) in connection with, or within 12 months following, a change in control, a named executive officer will receive:

- full vesting of all stock options;
- 18 months of salary;
- 18 months of continued health benefits; and
- 6 months of outplacement services.

A “qualifying termination” means an involuntary termination without cause, or resignation because of a material reduction in base salary, bonus opportunity or job title from that in effect immediately prior to a change in control.

The following table shows the severance benefits that would be received by each named executive officer upon a qualifying termination following a change in control, assuming the individual was terminated on December 31, 2007 and based on such individual’s base salary for fiscal 2007 as set forth in the Summary Compensation Table above.

<u>Name</u>	<u>Cash Severance (\$)</u>	<u>Accelerated Option Value (\$)(1)</u>	<u>Other Benefits Value (\$)(2)</u>
Stephen P.A. Fodor, Ph.D.	952,500	—	32,210
John C. Batty	540,000	—	33,774
Barbara A. Caulfield	621,000	—	32,210
James R. Gibson II	345,000	—	28,300
Kevin M. King	675,000	—	32,315

- (1) The value of accelerated vesting of the options is based solely on the excess, if any, of \$23.14 per share, the closing price of our common stock on December 31, 2007, over the exercise price of the unvested portion (as of December 31, 2007) of the individual’s stock options. All of the unvested stock options held by our named executive officers as of December 31, 2007 have exercise prices higher than the closing price of our common stock on December 31, 2007, if our stock value is higher at the time of any actual termination of employment, additional stock options could have value. The amounts do not include the value of restricted stock, which is not currently included under our change in control policy but may be included in the future. The value of unvested restricted stock held by the named executive officers is set forth above under “Outstanding Equity Awards at Fiscal Year End”.
- (2) Represents the estimated value of health, dental and vision insurance coverage and outplacement services.

Compensation Committee Interlocks and Insider Participation in Compensation Decisions

During 2007, none of our executive officers served on the compensation committee or board of any other company whose executive officers serve as a member of our board or compensation committee.

CERTAIN TRANSACTIONS

Related Person Transaction Policy

Under a written policy that has been adopted by our Board of Directors, we review all transactions involving us in which any of our directors, director nominees, significant shareholders and executive officers or their immediate family members are participants to determine whether such person has a direct or indirect material interest in the transaction. All directors, director nominees and executive officers are required to promptly notify our Secretary of any proposed transaction involving us in which such person has a direct or indirect material interest. Such proposed transaction is then reviewed by either our Board as a whole or a designated committee thereof consisting of a majority of independent directors to determine whether or not to approve or ratify the transaction based on the following criteria:

- The character and materiality of the related person's interest in the transaction;
- The commercial reasonableness of the terms of the transaction;
- The benefit or lack thereof to the company;
- The opportunity costs of alternate transactions;
- The actual or apparent conflict of interest of the related person; and
- Any other matters the reviewing body deems appropriate.

After such review, the reviewing body approves or ratifies the transaction only if it determines that the transaction is in, or not inconsistent with, the best interests of the Company and our stockholders. On an annual basis, the reviewing body reviews previously approved transactions with related parties under the standard described above to determine whether such transactions should continue. Transactions involving Perlegen Sciences, Inc. that would otherwise be subject to the related person transaction policy set forth above are instead reviewed by the Perlegen Oversight Committee, as described below.

Relocation Assistance

As part of our December 2006 offer letter with Mr. King, we agreed to provide him with relocation assistance in selling his primary residence in New Jersey through a third-party service provider. Consistent with this agreement, we arranged through a relocation services firm for the purchase of Mr. King's house in September 2007 for \$2,225,000, which was an appraised value of Mr. King's house as determined by independent real estate professionals. This relocation assistance was approved by the Compensation Committee. As a result of market conditions and other factors, we recognized a loss of approximately \$400,000 upon the resale of the house in April 2008.

Extension of Credit

In January 2008, Ms. Caulfield repaid an outstanding loan with a balance of \$1.2 million plus accrued interest, which had been made to her pursuant to an extension of credit originally offered to her in July 2001 in connection with her joining Affymetrix. After this extension of credit was made, federal legislation was enacted prohibiting such extension of credit to executive officers and, accordingly, no future extensions of credit will be made by the Company to our executive officers.

Director and Executive Officer Indemnification Agreements

We have entered into indemnification agreements with each of our directors and executive officers. These agreements require us to indemnify our directors and executive officers to the fullest extent permitted by Delaware law.

Perlegen Sciences, Inc.

Perlegen Sciences, Inc. is engaged in the business of scanning human genomes in an effort to identify variations and patterns within the human genome to discover genetic characteristics associated with disease, identify responsiveness to drug therapy and create targeted medicines. We formed Perlegen in 2000 as a wholly-owned subsidiary and spun it off in March 2001 in a private equity financing which raised approximately \$101 million. Following several subsequent rounds of private equity financings by Perlegen and our sale of a portion of our Perlegen shares to third parties for cash, our ownership interest, including that of our affiliates, was approximately 22% as of December 31, 2007. We also have certain commercial and licensing arrangements with Perlegen which are described in our Annual Report on Form 10-K for the fiscal year ended December 31, 2007.

Dr. Fodor, our chairman and CEO, also serves as chairman of the Board of Perlegen, and he holds shares representing approximately 0.84% of Perlegen's stock as of December 31, 2007. Dr. Fodor received no cash compensation from Perlegen in 2006 and received \$15,000 related to Perlegen board service in 2007. Dr. Fodor has also received, as a director of Perlegen, options to acquire 25,000 shares in each of 2005 and 2006 and 50,000 shares in 2007. We have the right to name two representatives to the Perlegen board of directors, and these positions are currently occupied by Dr. Fodor and Mr. Young, both members of our board of directors. Dr. Berg, who is another of our directors, is a member of Perlegen's scientific advisory board. Dr. Maxine F. Singer, who is the mother of our current director David B. Singer, is a member of Perlegen's board of directors. Mr. Young, Dr. Berg and Dr. Maxine F. Singer receive customary fees and hold options to purchase Perlegen stock as a result of their positions with Perlegen. Dr. Diekman and Dr. Berg, both members of our board of directors, each serves as a trustee of separate trusts that invested an aggregate of approximately \$577,000 in the private rounds of Perlegen financings in 2001, 2003 and 2005. Transactions between Perlegen and Affymetrix are overseen by a committee of the Affymetrix board of directors, whose members are Mr. Loucks, Dr. Desmond-Hellmann and Dr. Trice. None of these individuals hold positions with or securities of Perlegen.

OTHER MATTERS

We are not aware of any matters that are expected to come before the 2008 annual meeting other than those referenced in this proxy statement. If any other matters properly come before the meeting, it is the intention of the persons named as proxy holders in the proxy card to vote the shares they represent as the Board may recommend.

DEADLINE FOR RECEIPT OF STOCKHOLDER PROPOSALS

Proposals of stockholders that are intended to be included in our proxy statement for our 2009 annual meeting must be received by us no later than January 1, 2009 in order that they may be included in the proxy statement and form of proxy relating to that meeting.

Stockholders intending to present a proposal at the 2009 annual meeting, but not to include the proposal in our proxy statement, must comply with the requirements set forth in our bylaws. The bylaws require, among other things, that a stockholder must submit a written notice of intent to present such a proposal to the Secretary at our principal executive offices not less than 75 days prior to the first anniversary of the preceding year's annual meeting of stockholders (as long as the date of the annual meeting is not advanced more than 30 days or delayed more than 75 days after the anniversary date). Therefore, we must receive notice of such proposal for the 2009 annual meeting no later than

March 28, 2009. If the notice is received after March 28, 2009, it will be considered untimely and we will not be required to present it at the 2009 annual meeting.

BY ORDER OF THE BOARD OF DIRECTORS

BARBARA A. CAULFIELD

Secretary

April 28, 2008