NANOGEN INC
Form DEF 14A
April 30, 2007

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

SCHEDULE 14A INFORMATION

Proxy Statement Pursuant to Section 14(a)

of the Securities Exchange Act of 1934

Filed by the Registrant ¨ Filed by a Party other than the Registrant ¨

Check the appropriate box:

¨ Preliminary Proxy Statement

¨ **Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))**

x Definitive Proxy Statement

¨ Definitive Additional Materials

¨ Soliciting Material Pursuant to §240.14a-11(c) or §240.14a-12

NANOGEN, INC.

(Name of Registrant as Specified In Its Charter)

N/A

(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

Payment of Filing Fee (Check the appropriate box):

x No fee required.

¨ Fee computed on table below per Exchange Act Rules 14a-6(i)(4) and 0-11

(1) Title of each class of securities to which transaction applies:

(2) Aggregate number of securities to which transaction applies:

(3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined):

(4) Proposed maximum aggregate value of transaction:

(5) Total fee paid:

¨ Fee paid previously with preliminary materials.

¨ Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the form or schedule and the date of its filing.

(1) Amount Previously Paid:

(2) Form, Schedule or Registration Statement No.:

(3) Filing Party:

(4) Date Filed:

10398 Pacific Center Court

San Diego, California 92121

Tel: (858) 410-4600

Fax: (858) 410-4949

April 30, 2007

Dear Stockholder:

You are cordially invited to attend our Annual Meeting of Stockholders, which will be held on Wednesday, June 13, 2007 at 10:00 a.m. at Nanogen s principal executive offices located at 10398 Pacific Center Court, San Diego, California 92121.

The formal notice of the Annual Meeting and the Proxy Statement are attached.

After reading the Proxy Statement, please mark, date, sign and return, as soon as possible, the enclosed proxy card in the prepaid envelope to ensure that your shares will be represented. YOUR SHARES CANNOT BE VOTED UNLESS YOU SIGN, DATE AND RETURN THE ENCLOSED PROXY CARD OR ATTEND THE ANNUAL MEETING IN PERSON.

A copy of our Annual Report to Stockholders is also enclosed.

We look forward to seeing you at the meeting.

Sincerely Yours,

HOWARD C. BIRNDORF

Chairman of the Board and

Chief Executive Officer

Nanogen, Inc.

Notice of Annual Meeting of Stockholders

To Be Held June 13, 2007

The Annual Meeting of Stockholders of Nanogen, Inc. (the Company) will be held at the Company s principal executive offices located at 10398 Pacific Center Court, San Diego, California 92121 on June 13, 2007, at 10:00 a.m., for the following purposes, as more fully described in the proxy statement accompanying this notice:

1. To elect one Class III director.

2. To approve an amendment to the 1997 Stock Incentive Plan (1997 Stock Plan) to increase the number of shares authorized for issuance under the 1997 Stock Plan by 4,000,000 shares.

3. To ratify the appointment of Ernst & Young LLP as the Company s independent registered public accounting firm for the fiscal year ending December 31, 2007.

4. To transact such other business as may properly come before the Annual Meeting and any adjournment thereof.

The Board of Directors has fixed the close of business on April 16, 2007, as the record date for determining the stockholders entitled to notice of and to vote at the Annual Meeting and any adjournment thereof. A complete list of stockholders entitled to vote will be available at the Company s principal executive offices located at 10398 Pacific Center Court, San Diego, California 92121, for ten days prior to the meeting.

WHETHER OR NOT YOU INTEND TO BE PRESENT AT THE ANNUAL MEETING, WE URGE YOU TO MARK, DATE, SIGN AND RETURN THE ENCLOSED PROXY CARD PROMPTLY.

By order of the Board of Directors

William L. Respess, Esq.

Senior Vice President, General

Counsel and Secretary

April 30, 2007

NANOGEN, INC.

PROXY STATEMENT

This Proxy Statement is furnished in connection with the solicitation by the Board of Directors (the Board of Directors) of Nanogen, Inc., a Delaware corporation (Nanogen or the Company), of proxies in the accompanying form to be used at the Annual Meeting of Stockholders to be held at the Company s principal executive offices located at 10398 Pacific Center Court, San Diego, California 92121 on Wednesday, June 13, 2007 at 10:00 a.m., and at any adjournment or postponement of the Annual Meeting (the Annual Meeting).

This Proxy Statement and the accompanying form of proxy are being mailed to stockholders on or about May 5, 2007.

VOTING PROCEDURES

The shares represented by proxy received in response to this solicitation and not revoked will be voted at the Annual Meeting. If you hold your shares in your own name as a holder of record, you may instruct the proxy holders how to vote your shares by signing, dating and mailing the proxy card in the postage paid envelope that we have provided. In the event no directions are specified, the shares will be voted FOR the election of the nominee for Class III director listed in this Proxy Statement and FOR approval of proposals 2 and 3 described in the Notice of Annual Meeting and in this Proxy Statement. You may also vote by attending the Annual Meeting in person.

You may revoke or change your proxy vote at any time before it is actually voted at the Annual Meeting by sending a written notice of revocation or submitting another proxy with a later date to the Secretary of the Company. You may also revoke your proxy by attending and voting in person at the Annual Meeting, but your attendance at the Annual Meeting will not, by itself, constitute a revocation of your proxy. If your shares are registered in the name of a bank or other brokerage firm, you will receive instructions from them that you must follow in order to have your shares voted.

Who Can Vote

Stockholders of record at the close of business on April 16, 2007 are entitled to notice of and to vote at the Annual Meeting. As of April 16, 2007, the Company had 72,465,248 shares of common stock, $0.001 par value per share (Common Stock), outstanding and entitled to vote. Each holder of Common Stock is entitled to one vote for each share held as of the record date.

General Information on Voting

Holders of a majority of the outstanding shares of Common Stock must be present or represented by proxy at the Annual Meeting in order to have a quorum. Shares that are marked withheld or abstain are treated as being present for purposes of determining the presence of a quorum at the Annual Meeting. If you hold your Common Stock through a bank, broker or other nominee, the broker may be prevented from voting shares held in your account on some proposals (a broker non-vote) unless you have given voting instructions to your bank, broker or nominee. Shares that are subject to a broker non-vote are counted for purposes of determining whether a quorum exists.

Directors are elected by a plurality vote. Accordingly, the director nominee who receives the most votes cast in his or her favor will be elected. Votes that are withheld from a nominee will be excluded entirely from the election of the Class III director and will have no effect on the outcome. A broker non-vote has no effect in the outcome of the election of the director, as directors are elected by a plurality of the votes cast. Proposals 2 and 3 will be decided by the affirmative vote of a majority of shares present in person or represented by proxy and entitled to vote on each such matter. An abstention on Proposals 2 or 3 has the effect of a vote against the proposal because each proposal requires the affirmative vote of a majority of the shares present in person or represented by proxy and entitled to vote at the meeting. Broker non-votes will have no effect on the outcome of these proposals because under Delaware law shares represented by such broker non-votes are not considered shares present and entitled to vote with respect to such matters.

The Company will bear the expense of printing and mailing proxy materials. In addition to the solicitation of proxies by mail, solicitation may be made by the Company s directors, officers or other employees by telephone, facsimile or other means.

No additional compensation will be paid to such persons for such solicitation. The Company will reimburse brokerage firms and others for their reasonable expenses in forwarding solicitation materials to beneficial owners of the Company s Common Stock.

Management of the Company is not aware of any matters other than those described in this Proxy Statement that may be presented for action at the Annual Meeting. If any other matters properly come before the meeting, persons appointed by the enclosed form of proxy will have discretionary authority to vote such proxies as they decide.

Recommendations of the Board of Directors

The Company s Board of Directors recommends a vote:

FOR the election of the Class III nominee to the Board of Directors (Proposal 1);

FOR approval of the amendment to the 1997 Stock Incentive Plan (Proposal 2); and

FOR ratification of Ernst & Young LLP as our registered public accounting firm for fiscal year 2007 (Proposal 3).

IMPORTANT

WHETHER OR NOT YOU INTEND TO BE PRESENT AT THE ANNUAL MEETING, WE URGE YOU TO MARK, DATE AND SIGN THE ENCLOSED PROXY CARD AND RETURN IT AT YOUR EARLIEST CONVENIENCE IN THE ENCLOSED POSTAGE-PREPAID RETURN ENVELOPE. THIS WILL NOT LIMIT YOUR RIGHTS TO ATTEND OR VOTE AT THE ANNUAL MEETING.

PROPOSAL 1

ELECTION OF DIRECTORS

The Company s certificate of incorporation provides for a classified Board of Directors consisting of three classes having staggered terms of three years each. The Company s bylaws provide that the Board of Directors shall consist of not less than five nor more than nine members. The Board of Directors currently consists of two Class I directors, two Class II directors, and two Class III director. The Class I directors each have a term expiring at the 2008 annual meeting of stockholders, the Class II directors have a term expiring at the 2009 annual meeting and the Class III director has a term expiring at the 2010 annual meeting of stockholders.

The Nominating, Governance and Ethics Committee of the Board of Directors recommended, and the Board of Directors approved, Heiner Dreismann, Ph.D. as the nominee for election at the Annual Meeting to Class III of the Board of Directors. Dr. Dreisman has served as a director since October 31, 2006. If elected, Dr. Dreismann will serve for a term of three years expiring at the 2010 annual meeting of stockholders or until his successor shall have been elected and qualified. Dr. Dreismann has consented to be named as the nominee and agreed to serve if elected. If, however, he is unable to serve, proxies will be voted for such person as the Board of Directors may recommend.

Shares represented by proxy cannot be voted for a greater number of persons than the number of nominees named. The other directors of the Company will continue in office for their existing terms.

The Board of Directors unanimously recommends that stockholders vote FOR the election of the following nominee to the Board of Directors:

NOMINEE TO SERVE AS CLASS III DIRECTORS SERVING A TERM EXPIRING AT THE 2010 ANNUAL MEETING

Heiner Dreismann. Dr. Dreismann has been a director of Nanogen since October 31, 2006. Since 2006 Dr. Dreismann has served as the Chief Executive Officer of FasTraq, Inc. From 2000 to 2006, prior to joining the Company, he served as President and Chief Executive Officer of Roche Molecular Systems, Inc., an affiliate of the Roche Group. Dreismann held a number of additional positions at Roche, including head of global business development, head of business unit PCR Europe, and head of business unit microbiology, all for Roche Diagnostics. Dr. Dreismann received his M.A. in biology and his Ph.D. in microbiology/molecular biology both from Westfalische Wilheims University in Munster, Germany.

Set forth below is information regarding the continuing directors of Class I and Class II and the other current Class III director:

CURRENT CLASS I DIRECTORS SERVING A TERM EXPIRING AT THE 2008 ANNUAL MEETING

Howard C. Birndorf. Mr. Birndorf, a founder of Nanogen, has served as our Chairman of the Board since October 1993. From 1993 to April 2001 he served as Chief Executive Officer, from April 2001 to December 2002 he served as Executive Chairman, and since December 2002 he has served as Chief Executive Officer. Mr. Birndorf also served as our President, from January 2000 to September 2000, and as Chief Financial Officer, from December 1997 to July 1998 and from September 1993 to October 1997. Mr. Birndorf was a co-founder and Chairman Emeritus of Ligand Pharmaceuticals Incorporated, where from January 1988 to November 1991 he was President and Chief Executive Officer. He was also a co-founder, director and Executive Vice President of Gen-Probe Incorporated, co-founder and Vice President of Corporate Development at Hybritech Incorporated, co-founder and director of IDEC Pharmaceuticals Corporation, and was involved in the formation of Gensia Pharmaceuticals, Inc. (currently known as SICOR Inc.) where he was a director. From November 1991 to January 1993, Mr. Birndorf was President of Birndorf Technology Development, an investment and consulting company, and a founding director of Neurocrine Biosciences, Inc. He is a founding investor of Kiyon, Inc., chairman of the board of FasTraQ, Inc. and HA Cell Technology, and serves on the advisory board of Scripps Clinic-Green Hospital. In addition, Mr. Birndorf is currently a member of the Board of Directors of Jurilab, Ltd. He received the Life Sciences Legend award at bioFusion 2002. Mr. Birndorf received a B.A. in Biology from Oakland University and an M.S. in Biochemistry from Wayne State University. Mr. Birndorf received honorary Doctor of Science degrees from Oakland University and Wayne State University.

Robert E. Whalen. Mr. Whalen has been a director of Nanogen since April 2002. Mr. Whalen has been a Regional Vice President of Quest Diagnostics since March 2003 and prior to the acquisition of Unilab Corporation (Unilab) by Quest Diagnostics in February 2003, was Chief Executive Officer, President and a director of Unilab from December 1999 to February 2003. He was elected Chairman of the Board of Unilab in December 1999. From May 1997 to September 1999, Mr. Whalen served as Executive Vice President and, from September 1998 to September 1999, as Chief Operating Officer of Scripps Clinic, a 320-physician multi-specialty medical group located in Southern California. From the April 1995 merger of Roche Biomedical Laboratories and National Health Laboratories, Incorporated (NHL) until August 1996, Mr. Whalen served as Executive Vice President of Laboratory Corporation of America (LabCorp). Prior to his employment at LabCorp, Mr. Whalen held various senior level positions with NHL, which he joined in 1976. He served as Executive Vice President of NHL from 1993 to 1995, as Senior Vice President from 1991 to 1993 and as Vice President-Administration from 1985 to 1993. From 1979 to 1985, he was Vice

President-Division Manager of NHL. At NHL and later at LabCorp, Mr. Whalen oversaw human resources, client service and major regional laboratories in California, Washington, Nevada and Utah.

CURRENT CLASS II DIRECTORS SERVING A TERM EXPIRING AT THE 2009 ANNUAL MEETING

Stelios B. Papadopoulos. Mr. Papadopoulos has been a director of Nanogen since October 1999. He retired in September 2001 from CN Biosciences, Inc. (CNBI), an affiliate of Merck KGaA, Darmstadt, Germany. From January 2001 to September 2001, Mr. Papadopoulos served as Chief Executive Officer and a director of CNBI, and CEO of Merck KGaA s North American Laboratory Business. From August 2000 to December 2000 he acted as an assistant to the General Manager of Merck KGaA s Scientific Laboratory Products Division. From January 1999 to August 2000, he served as the CEO of CNBI. From January 1993 to December 1999, he served as the Chairman and CEO of CNBI. He previously served as President of Fisher Scientific Worldwide, Inc. (now Fisher Scientific International Inc.) from April 1988 to June 1992. From October 1987 to April 1988, he was President of Instrumentation Laboratory. Since March 2003, Mr. Papadopoulos has been serving as a director and as Chairman of the Audit Committee of US LABS, Inc. Mr. Papadopoulos received his B.S. in Aeronautical Engineering from Northrop Institute of Technology.

David R. Schreiber. Mr. Schreiber has been a director of Nanogen since June 2003. Since 2006, Mr. Schreiber has served as CEO of Atherotech, Inc., a diagnostics laboratory company focused on expanding lipid testing. . From November 1996 to July 2003, Mr. Schreiber served as the Senior Vice President, Chief Financial Officer and Secretary of Dianon Systems, Inc., a company that was acquired by the Laboratory Corporation of America (LabCorp.) in 2003 and from October 1999 to January, 2003, he served as a director of Dianon. From May 1994 until November 1996, Mr. Schreiber served as Vice President/General Manager-Midwest Region for Corning Clinical Laboratories, which is now Quest Diagnostics. From May 1990 to May 1994, he served as Vice President, Finance & Administration at Unilab Corporation and from August 1986 to May 1990 he served as Regional Controller of the Midwest Region of Corning Clinical Laboratories. Mr. Schreiber received his B.S. in Finance with a minor in Economics in 1982 and his MBA in 1984 from Northern Illinois University.

CURRENT CLASS III DIRECTOR SERVING A TERM EXPIRING AT THE 2007 ANNUAL MEETING

William G. Gerber, M.D. Dr. Gerber has been a director of Nanogen since June 2005. He is a Partner at Bay City Capital, a life sciences investment fund. He was most recently President and Chief Executive Officer of Epoch BioSciences until its merger with Nanogen in December, 2004. Prior to joining Epoch in September 1999, Dr. Gerber served as President and Chief Executive Officer at diaDexus LLC a joint venture established by Incyte Pharmaceuticals and SmithKline Beecham to apply genomics to the discovery of novel diagnostic products. Dr. Gerber previously served as Vice President and Chief Operating Officer of Onyx Pharmaceuticals, as President of Chiron Diagnostics, and as Senior Vice President and General Manager of the PCR Division with Cetus Corporation. Dr. Gerber is a member of the Board of Directors of Sangamo Biosciences, Conatus Pharmaceuticals, Gentiae Clinical Research, and Radiant Medical. In addition, he is Chairman of the Board of Directors of Pathway Diagnostics. He also served on and was President of the Board of Medical Quality Assurance, State of California. He received his M.D. and B.S. degrees from the University of California, San Francisco Medical Center after attending Dartmouth College.

Independence of the Board of Directors

Our Board of Directors has determined that each of our current directors, except for Mr. Birndorf, our Chairman of the Board and Chief Executive Officer, Dr. Gerber, and Dr. Dreismann, is independent within the meaning of the applicable Nasdaq listing standards. Dr. Gerber is not independent due to his consulting relationship with the Company in 2004 and 2005 described under the section Certain Transactions. Dr. Dreismann is not independent because he is the Chief Executive Officer of FasTraq, Inc. and in 2005 and 2006 Nanogen paid FasTraq amounts that exceeded the greater of 5% of the revenue of FasTraq or $200,000.

Board Committees

The Board of Directors has established a Compensation Committee, an Audit Committee, and a Nominating, Governance, and Ethics Committee. The Board of Directors has adopted a written charter for each of these committees, copies of which are available on our website at *www.nanogen.com* under our Investor Relations section.

Name	Age	Director	Compensation Committee	Audit Committee	Nominating, Governance, and Ethics Committee
Howard C. Birndorf	57	X			
Robert E. Whalen	64	X	X	X	X

William G. Gerber	60	X		
Stelios B. Papadopoulos	66	X	X	X

Name	Age	Director	Compensation Committee	Audit Committee	Nominating, Governance, and Ethics Committee
David Schreiber	47	X	X	X	X
Heiner Dreismann	53	X			

Compensation Committee. The current members of the Compensation Committee are Robert Whalen and David Schreiber. The Board of Directors believes that each of the current members of the Compensation Committee is independent in accordance with the listing standards of the Nasdaq Stock Market. The Compensation Committee held seven (7) meetings during 2006. The Compensation Committee s functions are to (i) discharge the Board of Directors responsibilities relating to the compensation of the Company s executive officers and (ii) approve and evaluate the executive officers compensation, plans, policies and programs.

The Compensation Committee is authorized to delegate its authority with respect to executive officer compensation to a subcommittee when appropriate. It is authorized to hire independent compensation consultants and other professionals to assist in the design, formulation, analysis and implementation of compensation programs for the Company s executive officers and other key employees. In 2006 the Company engaged the compensation consulting firm of Frederic W. Cook & Co., Inc. to review and make recommendations to improve the competitiveness of the Company s total compensation program, to align the program with the Compensation Committee s policies and to ensure that the program is designed to achieve the Compensation Committee s objectives. In determining or recommending the amount or form of executive officer compensation each year, the Compensation Committee generally takes into consideration the recommendations of compensation consultants engaged by the Company and/or the Compensation Committee, compensation surveys, such as the Radford Group surveys and the Biotech Employment Development Coalition (BEDC) survey of executive officer compensation, and also takes into consideration information received from the Company s Chief Executive Officer and Chief Operating Officer. In doing so, the Compensation Committee customarily considers the comparative relationship of the recommended compensation to the compensation paid by other similarly situated companies, individual performance, tenure, internal comparability and the achievement of certain other operational and qualitative goals identified in the Company s strategic plan.

Audit Committee. The current members of the Audit Committee are Stelios B. Papadopoulos, David Schreiber and Robert E. Whalen. The Board of Directors believes that each of the members of the Audit Committee is independent in accordance with the listing standards of the Nasdaq Stock Market and under the rules established by the SEC for members of audit committees. Additionally, the Board of Directors has determined that Mr. Papadopoulos is an audit committee financial expert as defined in SEC rules. The Audit Committee held five (5) meetings during 2006. The Audit Committee s functions are to (i) oversee our accounting and financial reporting processes and audits of our financial statements, (ii) assist the Board of Directors in oversight and monitoring of the integrity of our financial statements, our compliance with legal and regulatory requirements, our independent auditor s qualifications, independence and performance, and our internal accounting and financial controls, (iii) prepare an annual report to be included in our annual proxy statement, (iv) provide the Board of Directors with results of its monitoring and recommendations derived there from, and (v) provide the Board of Directors with additional information and materials as it may deem necessary to make the Board of Directors aware of significant financial matters that require the attention of the Board of Directors.

Nominating, Governance and Ethics Committee. The current members of the Nominating, Governance and Ethics Committee are David Schreiber, Stelios B. Papadopoulos and Robert E. Whalen. The Board of Directors believes that each member of the Nominating, Governance and Ethics Committee is independent in accordance with the listing standards of the Nasdaq Stock Market. The Nominating, Governance and Ethics Committee held one meeting in 2006.

The Nominating, Governance and Ethics Committee s functions are to select persons to be nominated to the full Board for membership, to develop and recommend to the Board governance and ethics principles applicable to the Company, oversee the evaluation of the Board of Directors and management, and recommend to the Board of Directors nominees for each committee of the Board. The Nominating, Governance and Ethics Committee will consider director candidates recommended by stockholders. To recommend candidates for consideration, stockholders should submit the candidates names and appropriate background and biographical information in writing to the Nanogen Nominating, Governance and Ethics Committee, 10398 Pacific Center Court, San Diego, California 92121. Assuming the appropriate information has been timely provided, the committee will give the same consideration to candidates recommended by Company stockholders as to those recommended by others.

The Nominating, Governance and Ethics Committee reviews the qualifications of potential nominees to determine whether they might make good candidates for consideration for membership on the Board of Directors. The process includes a review of the candidate s character, judgment, experience, independence, understanding of our business or other related industries and such other factors as the Committee determines are relevant in light of the needs of the Board of Directors and the Company. The

5

Committee will select qualified candidates and review its recommendations with the Board of Directors, which will decide whether to invite the candidate to be a nominee for election to the Board of Directors. Although the Committee has the authority to do so, it does not currently pay a fee to any third party to identify or assist in identifying or evaluating potential nominees.

Board Meetings and Committees

The Board of Directors held six (6) meetings during 2006. Each director attended more than 75% of the total number of meetings of the Board during his respective Board membership and the total number of meetings of the committees on which he served and which were held during the period in which he served on such committee.

Stockholder Communications with the Board

Although we do not have a formal policy regarding stockholder communications, stockholders may communicate with the Board of Directors, including the non-management directors, by sending a letter to the Nanogen Board of Directors, c/o Corporate Secretary, Nanogen, Inc. 10398 Pacific Center Court, San Diego, California 92121. Stockholders who would like their submission directed to a particular member of the Board of Directors may so specify.

Annual Meeting Attendance

Although we do not have a formal policy regarding attendance of the Board of Directors at our annual meetings of stockholders, directors are encouraged to attend our annual meetings. One director attended the Company s 2006 annual meeting of stockholders.

Company Code of Business Conduct and Ethics

We have adopted a Code of Business Conduct and Ethics, a code of ethics that applies to all employees, consultants and agents including our executive officers and directors. A copy of the Code of Business Conduct and Ethics is posted on our Internet site at *www.nanogen.com*. In the event we make any amendments to, or grant any waivers of, a provision of the Code of Business Conduct and Ethics that applies to the principal executive officer, principal financial officer, or principal accounting officer that requires disclosure under applicable SEC rules, we intend to disclose such amendment or waiver on our website at *www.nanogen.com*.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS, DIRECTORS AND MANAGEMENT

The following table sets forth information as of April 16, 2007 (except as noted below) as to our shares of Common Stock beneficially owned by (i) each of our directors, (ii) each of our executive officers in the Summary Compensation Table set forth herein, (iii) our current directors and executive officers as a group and (iv) each person known by us to be the beneficial owner of more than 5% of the outstanding shares of our Common Stock. Unless otherwise indicated, the beneficial ownership consists of sole voting and investment power with respect to the shares indicated, except to the extent that a spouse shares authority under applicable law. Except for shares of common stock held in brokerage accounts, which may, from time to time together with other securities in the account, serve as collateral for margin loans made in such accounts, none of the shares reported as beneficially owned have been pledged as security for any loan or indebtedness.

	Beneficial Ownership of Common Stock[1]	
	Number of Shares	Percentage of Class
Fisher Scientific International, Inc.[2] Liberty Lane Hampton, NH 03842	5,660,377	7.8%
Howard C. Birndorf[3] c/o Nanogen, Inc. 10398 Pacific Center Court San Diego, CA 92121	2,053,052	2.8%
David G. Ludvigson[4]	754,963	1.0%
Robert Saltmarsh[5]	158,977	*
Graham Lidgard[6]	368,080	*
William L. Respess[7]	261,583	*

Robert Whalen[8]	56,283	*
Stelios Papadopoulos[9]	86,283	*
David Schreiber[10]	52,283	*
William G. Gerber[11]	260,157	*
Heiner Dreisman[12]	8,113	*
All directors and executive officers as a group (9 persons)[13]	4,059,774	5.6%

* Less than one percent.

(1) Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission (the SEC), based on factors including voting and investment power with respect to shares. Percentage of beneficial ownership is based on the number of shares of the Company s common stock outstanding as of April 16, 2007. Shares of common stock issuable upon exercise of options currently exercisable, or exercisable within 60 days as of April 16, 2007 and shares of common stock issuable within 60 days as of April 16, 2007 pursuant to outstanding restricted stock units, are deemed outstanding for purpose of computing the percentage ownership of the person holding such options, but are not deemed outstanding for the computing the percentage ownership of any other person.

(2) Pursuant to a Schedule 13G filed on March 15, 2006, 5,660,377 shares of common stock.

(3) Includes 1,487,500 shares issuable upon the exercise of option within 60 days of April 16, 2007.

(4) Includes 742,208 shares issuable upon the exercise of options within 60 days of April 16, 2007.

(5) Includes 150,000 shares issuable upon the exercise of options within 60 days of April 16, 2007.

(6) Includes 359,375 shares issuable upon the exercise of options within 60 days of April 16, 2007.

(7) Includes 238,548 shares issuable upon the exercise of options within 60 days of April 16, 2007.

(8) Includes 25,000 shares issuable upon the exercise of options within 60 days of April 16, 2007.

(9) Includes 55,000 shares issuable upon the exercise of options within 60 days of April 16, 2007.

(10) Includes 25,000 shares issuable upon the exercise of options within 60 days of April 16, 2007.

(11) Includes 234,468 shares issuable upon the exercise of options within 60 days of April 16, 2007.

(12) Includes no shares issuable upon the exercise of options within 60 days of April 16, 2007.

(13) Includes six (6) Board members, one of whom is an executive officer, and four (4) other current executive officers.

COMPENSATION OF EXECUTIVE OFFICERS AND DIRECTORS

Executive Officers of the Company

The names of and certain biographical information of our current executive officers are as follows:

Name	Age	Position
Howard C. Birndorf	57	Chairman and Chief Executive Officer
David Ludvigson	56	President and Chief Operating Officer
Robert Saltmarsh	57	Chief Financial Officer
Graham Lidgard	59	Senior Vice President, Research and Development
William L. Respess	68	Senior Vice President, General Counsel, Secretary

Howard C. Birndorf. Mr. Birndorf, a founder of Nanogen, has served as our Chairman of the Board since October 1993. From 1993 to April 2001 he served as Chief Executive Officer, from April 2001 to December 2002 he served as Executive Chairman, and since December 2002 he has served as Chief Executive Officer. Mr. Birndorf also served as our President, from January 2000 to September 2000, and as Chief Financial Officer, from December 1997 to July 1998 and from September 1993 to October 1997. Mr. Birndorf was a co-founder and Chairman Emeritus of Ligand Pharmaceutical Incorporated, where from January 1988 to November 1991 he was President and Chief Executive Officer. He was also a co-founder, director and Executive Vice President of Gen-Probe Incorporated, co-founder and Vice President of Corporate Development at Hybritech Incorporated, co-founder and director of IDEC Pharmaceuticals Corporation, and was involved in the formation of Gensia Pharmaceuticals, Inc. (currently known as SICOR Inc.) where he was a director. From November 1991 to January 1993, Mr. Birndorf was President of Birndorf Technology Development, an investment and consulting company, and a founding director of Neurocrine Biosciences, Inc. He is a founding investor of Kiyon, Inc., chairman of the board of FasTraQ, Inc. and HA Cell Technology, and serves on the advisory board of Scripps Clinic-Green Hospital. In addition, Mr. Birndorf is currently a member of the Board of Directors of Jurilab, Ltd. He received the Life Sciences Legend award at bioFusion 2002. Mr. Birndorf received a B.A. in Biology from Oakland University and an M.S. in Biochemistry from Wayne State University. Mr. Birndorf received honorary Doctor of Science degrees from Oakland University and Wayne State University.

David G. Ludvigson. In June of 2004, Mr. Ludvigson was appointed to his current position of President and Chief Operating Officer. Mr. Ludvigson joined Nanogen full-time in May 2003 as Executive Vice President, Chief Financial Officer and Treasurer. Mr. Ludvigson was a director of Nanogen from 1996 until June 2003. Prior to joining Nanogen, he was President and Chief Executive Officer of Black Pearl, Inc. (Black Pearl), an event-based business intelligence software company, from November 2001 until January, 2003. Prior to Black Pearl, from August 2000 to January 2001, Mr. Ludvigson was President of InterTrust Technologies, a digital rights management software company. Prior to joining InterTrust Technologies, Mr. Ludvigson was a Senior Vice President and Chief Operating Officer of Matrix Pharmaceuticals, Inc. (Matrix) from October 1999 to August 2000. In addition, from 1998 to August 2000 he was also the Chief Financial Officer of Matrix. From February 1996 to June 1998, Mr. Ludvigson was President and Chief Operating Officer of NeTpower. From 1992 to 1995, Mr. Ludvigson was Senior Vice President and Chief Financial Officer of IDEC Pharmaceuticals. Prior to that time, he served as Senior Vice President of Sales and Marketing for Conner Peripherals and as Executive Vice President, Chief Financial Officer and a director of MIPS Computer Systems, Inc., a RISC microprocessor developer and systems manufacturer. Mr. Ludvigson is also a Director of Jurilab, Ltd., HX Diagnostics and Kiyon, Inc. Mr. Ludvigson received a B.S. and an M.A.S. from the University of Illinois.

Robert Saltmarsh. Mr. Saltmarsh has served as Nanogen s Chief Financial Officer since January 2005. Prior to that, he had served as Nanogen s Vice President of Corporate Development since September 2004. Prior to joining Nanogen, Mr. Saltmarsh consulted for a series of start-up companies from June 2002 to August 2004 and taught entrepreneurial finance at the University of California at Riverside from January to June 2004. Previously, he was Chief Financial Officer of Riffage.com from January 2000 to December 2000. Mr. Saltmarsh also served as Vice President of Finance and Treasurer at Silicon Graphics, Inc. from January 1996 to January 2000, and prior to that was Vice President of Finance and Treasurer at Apple Computer. He received a B.A. in Economics and an M.B.A. in Finance from the University of Michigan.

Graham Lidgard, Ph.D. Dr. Lidgard joined Nanogen as Senior Vice President, Research and Development, in January 2003 and has over 28 years of experience in the Clinical Diagnostics industry. He was previously vice president of research and development at Gen-Probe from January 1995 to June 2002 where he led the R&D organization to develop DNA probe products for blood screening and STD s as well as the fully automated probe system, TIGRIS. Prior to Gen-Probe he was a co-founder of Matritech Inc., a cancer diagnostics company in Massachusetts which he joined in January 1988, and held several positions with Coming Medical/Ciba Coming from July 1977 to January 1988 including program management, business development, marketing, technology acquisition and product development. Dr. Lidgard received his Ph.D. and B.S. in Biological Chemistry from the University of Manchester.

William L. Respess, Ph.D., J.D. Dr. Respess joined Nanogen as Senior Vice President, General Counsel, and Secretary, in April 2004 and has more than three decades of biotechnology experience in intellectual property, licensing and general corporate law. His experience includes positions as Vice President and General Counsel of AME from 2002 to 2004, Senior Vice President and General Counsel of Graviton Incorporated from 2000 to 2002, Senior Vice President and General Counsel of Ligand Pharmaceuticals Incorporated from 1988 to 2000, Vice President and General Counsel of Gen-Probe Incorporated from 1986 to 1988, Vice President and General Counsel of Hybritech Incorporated from 1983 to 1986 and Partner of Lyon & Lyon LLP, a leading intellectual property law firm. He received his J.D. from George Washington University and served as Law Clerk and Technical Advisor to the Honorable J. Lindsay Almond, Jr., on the United States Court of Customs and Patent Appeals. Dr. Respess also earned a Ph.D. in Organic Chemistry from Massachusetts Institute of Technology and a B.S. degree in Chemistry from Virginia Military Institute. He is a member of the American Intellectual Property Law Association and has been a frequent lecturer on intellectual property and licensing law.

Compensation Discussion and Analysis

Introduction. It is our intent in this Compensation Discussion and Analysis to inform our shareholders of the policies and objectives underlying the compensation programs for our executive officers. Accordingly, we will address and analyze each element of the compensation provided to our chief executive officer, our chief financial officer and the other executive officers named in the Summary Compensation Table which follows this discussion. We are engaged in a very competitive industry, and our success depends upon our ability to attract and retain qualified executives through competitive compensation packages. The Compensation Committee of our board of directors administers the compensation programs for our executive officers with this competitive environment in mind. However, we believe that the compensation paid to our executive officers should also be substantially dependent on our financial performance and the value created for our shareholders. For this reason, the Compensation Committee also utilizes our compensation programs to provide meaningful incentives for the attainment of our short-term and long-term strategic objectives and thereby reward those executive officers who make a substantial contribution to the attainment of those objectives.

In 2006, the Compensation Committee undertook an independent review of the company s compensation practices with the goals of assessing and ensuring competitive compensation practices while at the same time aligning compensation with the longer term interests of our shareholders. In conducting this review, the committee relied significantly on the work of an independent compensation consultant, Frederic W. Cook & Co. The compensation consultant s work included a review of all compensation elements for the Company s executive officers as well as a review of employment contract arrangements. For purposes of measuring the competitive levels of the various elements of our executive officer compensation plans and employment agreements, the Compensation Committee relied primarily on compensation data from Frederic W. Cook & Co. which was obtained from the most current proxy statement of fourteen small-cap diagnostics companies. For supplemental market data, the Compensation Committee also reviewed the 2006 Radford Biotechnology survey of executive officer compensation levels at companies within our and similar industries with 150-500 employees and compete with the company for executive talent. The 14 companies which comprised the peer group were as follows:

Biosite, Inc.	Solexa, Inc.
Molecular Devices Corp.	EXACT Sciences Corporation
Digene Corporation	BioVeris Corporation
Stratagene	Third Wave Technologies
Quidel Corporation	Luminex Corporation
Caliper	Monogram Biosciences, Inc.
Cepheid	Clinical Data, Inc.

While some changes were made in 2006, the recommendations of the compensation consultant have been largely implemented in the compensation practices and policies for 2007.

Compensation Policy for Executive Officers. We have designed the various elements comprising the compensation packages of our executive officers to achieve the following objectives:

attract, retain, motivate and engage executives with superior leadership and management capabilities,

provide an overall level of compensation to each executive officer which is externally competitive, internally equitable and performance-driven, and

ensure that total compensation levels are reflective of our financial performance and provide the executive officer with the opportunity to earn above-market total compensation for exceptional business performance.

Each executive officer s compensation package typically consists of three elements: (i) a base salary, (ii) a cash bonus based upon participation in a bonus pool tied to our attainment of pre-established financial objectives and, where appropriate, the individual officer s personal performance, and (iii) participation in long-term, stock-based incentive awards, in the form of stock options and restricted stock unit awards, designed to align and strengthen the mutuality of interests between our executive officers and our shareholders. In determining the appropriate level for each element of such compensation, the Compensation Committee has generally followed the practice of setting the compensation levels for our executive officers with consideration of the fiftieth and the seventy-fifth percentile of the relevant market data. In determining the appropriate level of each component of compensation for an executive officer, the Committee also subjectively reviews and evaluates the level of performance of the Company and the executive s level of individual performance and potential to contribute to the Company s future growth. Accordingly, an executive officer s actual compensation may be higher or lower than the range between the fiftieth and the seventy-fifth percentile for his or her position depending on Company performance and operating results and his or her individual performance. Consistent with our philosophy of emphasizing pay for performance, the total cash compensation packages are designed to pay above the target when the Company exceeds its goals and below the target when the Company does not achieve its goals.

Comparative Framework. For purposes of measuring the competitive levels of the various elements of our executive officer compensation package for the 2006 fiscal year, the Compensation Committee relied primarily on survey data from the Radford Group of executive officer compensation levels at companies within our and similar industries that are comparable in size with the Company and compete with the Company for executive talent. For supplemental market data, the Compensation Committee also reviewed the Biotech Employment Development Coalition (BEDC) survey of executive officer compensation levels of San Diego area biotech related businesses that are comparable in size and also compete with the Company for executive talent.

In analyzing the comparative market data, the Compensation Committee reviewed the average compensation data provided by the Radford Group and BEDC surveys with respect to base salary and bonus.

It is our objective to target the various elements of the compensation package provided each of our executive officers at the following percentiles when compared to the survey we use for the primary comparative market data for the year:

Base Salary	Between the 50th and 75th Percentile
Total Cash Compensation	Between the 50th and 75th Percentile

Comparative Analysis for 2006. When compared to the data drawn from the Radford Group survey, the elements of cash compensation provided to our executive officers for the 2006 fiscal year were at the following percentiles for most of our executive officers:

Base Salary	Between the 50th and 75th Percentile
Total Cash Compensation	Between the 50th and 75th Percentile

Elements of Compensation. Each of the three major elements comprising the compensation package for executive officers (salary, bonus and equity) is designed to achieve one or more of our overall objectives in fashioning a competitive level of compensation, tying compensation to the attainment of one or more of our strategic business objectives and subjecting a substantial portion of the executive officer s compensation to our financial success as measured in terms of our stock price performance. The manner in which the Compensation Committee has so structured each element of compensation may be explained as follows.

Salary. The Compensation Committee reviews the base salary level of each executive officer in the first quarter each year, with any salary adjustments for the year to be made retroactive to January 1 of that year, effective upon committee approval. The base salary for the executive officers named in the Summary Compensation Table is determined on the basis of their level of responsibility, experience and individual performance. Individual performance is measured on the achievement of objective personal goals and corporate goals established with the executive and approved by the Compensation Committee. The salary level for this group of executive officers was increased in 2006 by a low of approximately 2.5% to a high of approximately 6.3% from the level in effect for the 2005 fiscal year. For the 2006 fiscal year, the salary levels for our executive officer group ranged from a high of $505,000 to a low of $250,000.

Incentive Compensation. For the 2006 fiscal year, the Compensation Committee approved the 2006 Executive Officer Incentive Compensation Plan designed to advance our pay-for-performance policy by focusing the attention of our

executive officers on the attainment of key operational objectives for the year. The plan provided all of our executive officers with a direct financial incentive in the form of a bonus award to be paid in cash, stock or a combination thereof tied to our achievement of pre-established operational goals. For Mr. Lidgard only, 50% of his target bonus under the plan was based on his accomplishment of pre-determined individual performance objectives. In prior years our incentive compensation plans have provided for payouts based on a combination of operational goals and individual performance objectives, however, to advance our pay-for-performance philosophy, beginning in 2006 (except with respect to Mr. Lidgard) the incentive compensation plan goals were tied solely to operational goals.

The operational goals were tied to the following measures of our financial performance for the 2006 fiscal year, weighted as indicated: revenue (35% weighting), EBITDA (45% weighting) and completion of specific strategic initiatives (20% weighting). For each executive officer, bonus opportunities for the revenue and EBITDA goals were established at threshold, target and above-target levels of attainment of the operational goals, and the completion of strategic initiative goal was established at a target level of attainment, to be paid from a bonus pool established for them in a dollar amount not to exceed $1,196,250 for the 2006 fiscal year. No bonuses were payable under the plan for achievement of an operational goal unless that goal was attained at not less than the threshold level. At the time the goals were set in February, 2006, we believed that each goal was attainable at the established target level, but substantial uncertainty nevertheless existed as to the actual attainment of the goals at any of the established levels. The bonus opportunity set for each executive officer at target level was between 40 percent to 60 percent of his total direct compensation for the 2006 fiscal year.

As Senior Vice President, Research and Development, the committee deemed it advisable to tie fifty percent of the bonus award to Mr. Lidgard to his individual performance. The personal performance objectives for Mr. Lidgard were intended to focus his attention on the achievement of product development milestones.

For the purposes of determining whether the revenue and EBITDA objectives were met for the 2006 fiscal year, the Compensation Committee used the numbers we reported for financial statement purposes in accordance with generally accepted accounting principles in the U.S. (GAAP), adjusted for non-cash, non-recurring, extraordinary and certain other items. The determination of whether the strategic initiative goal and Mr. Lidgard s product development milestone was met was made in the Committee s discretion based on discussion with and input from the Chief Executive Officer and the President. In February 2007, the Compensation Committee determined that our financial performance for the 2006 year was at 82% level for the revenue goal, at 0% level for the EBITDA goal, that the strategic initiative goal had been met and Mr. Lidgard s product development milestones had been partially met and accordingly decided to award incentive bonuses totaling $410,235 from the pool.

Long-Term Incentives. We have structured our long-term incentive program for executive officers in the form of equity awards under our amended and restated 1997 Stock Incentive Plan. For many years stock option grants were the sole form of equity award granted to our executive officers, and we continue to use stock option grants in combination with other forms of equity awards available under the 1997 plan to provide long-term incentives to our executive officers. Generally in the past, the Compensation Committee approved the stock option grants in July each year in connection with the annual focal review of the performance of our executive officers and other key employees. Each grant is designed to align the interests of the executive officer with those of the shareholders and to provide each individual with a significant incentive to manage the company from the perspective of an owner with an equity stake in the business. Each grant allows the officer to acquire shares of our common stock at a fixed price per share (the closing selling price on the grant date) over a specified period, usually ten years. Options granted in past years generally vest and become exercisable in a series of installments over a two year service period, contingent upon the officer s continued employment with the company. Accordingly, each option will provide a return to the executive officer only to the extent he remains employed with us during the vesting period, and then only if the fair market value of the underlying shares appreciates over the period between grant and exercise of the option.

In 2005 we began to award restricted stock units (RSUs) as part of our long-term incentive program, and we granted RSU s again in 2006. We believe that RSUs are a valuable addition to our long-term incentive program for several reasons, including ongoing concerns over the dilutive effect of option grants on our outstanding shares, our desire to have a more direct correlation between the FAS 123(R) compensation expense we must take for financial accounting purposes and the actual value delivered to our executive officers and other employees, and the fact that the incentive effects of RSUs are less subject to market volatility than stock options. Each RSU entitles the recipient to one share of our common stock at the time of vesting without the payment of an exercise price or other consideration. The vesting of RSUs is tied to continued service with us, generally over a two year service period.

As part of the Company s pay for performance philosophy and in alignment with the compensation consultant s recommendation, in December 2006 the Compensation Committee awarded our executive officers stock options that vest based on the achievement of pre-established long-term performance milestones. The December 2006 option grants are designed to become vested only upon the Company s achievement of aggressive revenue and EBITDA targets within five and a half years following the option grant date. The option will vest 50% upon a change in control and 100% if the change in control price per share is above a target price per share.

In February 2007, the Compensation Committee modified the annual stock option grant process for executives and awarded the first of what it intends to be annual grants of performance-based stock options. Pursuant to the program, the company will award a pre-determined number of option shares if the company achieves its goals under the company s bonus plan for the prior fiscal year at above-target levels. If earned, such options are to be priced at an exercise price equal to the fair market value on the option grant date. Such options would then vest over a four year period, with twenty-five percent of the option shares to vest upon the executive officers s completion of one year of service following the option grant date, and the remaining option shares to vest monthly over the thirty six month period measured from the first anniversary of the option grant date.

The equity awards made during the 2006 fiscal year to our chief executive officer and the other executive officers named in the Summary Compensation Table are set forth in that table and the accompanying Grants of Plan-Based Awards table. In determining the total number of shares to award each executive officer in the combined form of stock options and RSUs, the Compensation Committee s objective was to bring the total direct compensation (salary, bonus and equity) of each executive officer to, or above, the median when compared to the Radford Group survey data. For such purpose, RSUs were valued at their closing selling price at issuance and option awards were valued using the fair value expense disclosed in the annual report on Form 10-K for the most recently completed fiscal year of each company in the group.

We believe that the new long-term incentive program involving a combination of RSUs and stock options will provide our executive officers with a competitive and more balanced equity compensation package, while at the same time reducing the total number of shares of our common stock issuable under those stock-based awards.

Market Timing of Equity Awards. The Compensation Committee does not engage in any market timing of the equity awards made to the executive officers or other award recipients. As mentioned, in the past, awards for existing executive officers and employees are made in connection with the focal review process which occurs in July each year. Beginning in 2007, equity awards for executives will be made in conjunction with the approval of the annual budget and the incentive compensation measurement metrics as set by the board of directors. These awards are tied to the board approval process for the annual budget and are priced on the option grant date. Accordingly, there is no established practice of timing our awards in advance of the release of favorable financial results or adjusting the award date in connection with the release of unfavorable financial developments affecting our business. Equity awards for new hires other than executive officers are typically approved at the end of the month of the employee s hire date. It is our intent that all stock option grants have an exercise price per share equal to the closing selling price per share on the approval date.

Officer Employment Agreements. In February, 2007 we entered into a series of employment agreements with our executive officers. Some of those agreements were in the form of an amendment and restatement of their existing employment agreements with us. The remaining agreements were intended to formalize the terms of the original offer letters which certain of our officers received from us in lieu of employment agreements and to adjust their individual compensation packages to assure that the elements of compensation provided to each of our executive officers remain uniform and consistent.

For purposes of measuring the competitive levels of the various elements of our executive officer employment agreements, the Compensation Committee relied primarily on compensation data from Frederic W. Cook & Co.

Past agreements with our executive officers included a single trigger change of control provision. Our compensation consultant advised the committee that double-trigger change of control provisions were the common accepted practice and recommended that the agreements be changed accordingly. Each of the agreements provides enhanced change in control severance benefits to the executive officer as compared to the agreements in place prior to February, 2007 should his employment with us terminate under certain circumstances, requires the executive to execute a general release prior to receiving any severance benefits under the agreement, and makes other additional changes to the executive officer s compensation package. For termination situations which are not associated with a change in control, the basic severance benefit is in the form of salary continuation and continued medical coverage over a six-month period (eighteen months for Mr. Birndorf). In addition, upon a termination not associated with a change in control, 50% of Mr. Respess unvested stock options will become vested on an accelerated basis. For terminations in connection with a change in control event, the severance package includes 12 months (24 months for Mr. Birndorf, and 18 months for Mr. Ludvigson) of salary continuation, the accelerated vesting of outstanding equity awards, a pro-rated bonus and continued health care coverage at our expense for a designated period. A limited tax gross-up payment will also be provided to compensate the executive officer for the portion of any parachute tax he may incur which is attributable to the accelerated vesting of his pre-December 2006 equity awards.

We believe that the change from single trigger to double trigger agreements and enhancement of the double trigger severance package is fair and reasonable when we consider the level of dedication and commitment that the executive officers have rendered us over their years of service, the contributions they have made to our growth and financial success, and the value we expect to receive from retaining their services prior to, and during, what we believe would be a complex and challenging transition period following a change of control transaction. In addition, Frederick W. Cook & Co. advised the Company that the double trigger compensation package was within the competitive range of comparable executive officer compensation packages at other companies of similar size and market capitalization.

We believe that the agreements achieve two important goals crucial to our long-term financial success, namely, the long-term retention of our senior executives and their commitment to the attainment of our strategic objectives. The agreements will allow our participating executive officers to continue to focus their attention on our business operations and strategic plans without undue concern over their own financial situations during periods when substantial disruptions and distractions might otherwise prevail. Frederick W. Cook & Co. advised the Company in designing the program and the Company retained its independent registered public accounting firm to perform certain tax calculations concerning the economic impact of the program upon both the company and the participating officers.

A summary of the material terms of the officer employment agreements, together with a quantification of the benefits available under the agreements to each of the executive officers named in the Summary Compensation Table, may be found in the section of the proxy statement entitled Executive Compensation and Other Information Employment Contracts, Termination of Employment and Change in Control Arrangements.

Executive Officer Perquisites. It is not our practice to provide our executive officers with any meaningful perquisites. We do, however, provide Mr. Birndorf with administrative assistant services for personal matters, and we have from time to time reimbursed Mr. Birndorf for the Company s use of his personal aircraft for business related travel.

Other Programs. Our executive officers are eligible to participate in our 401(k) employee savings plan and our employee stock purchase plan on the same basis as all other regular U.S. employees.

Deferred Compensation Programs. We do not maintain any non-qualified deferred compensation programs for our executive officers or any supplemental executive retirement plans. We believe that the equity award component of each executive officer s total direct compensation package should serve as a major source of wealth creation, including the accumulation of substantial resources to fund the executive officer s retirement years.

Compliance with Internal Revenue Code Section 162(m). Section 162(m) of the Internal Revenue Code disallows a tax deduction to publicly held companies for compensation paid to certain of their executive officers to the extent such compensation exceeds $1.0 million per covered officer in any year. The limitation applies only to compensation that is not considered to be performance-based under the terms of Section 162(m). The stock options granted to our executives have been qualified to be treated as performance based compensation. Non-performance-based compensation paid to our executive officers for 2006 did not exceed the $1.0 million limit per officer. However, as we have begun to include service-vesting restricted stock units as a component of equity compensation, it is likely that the non-performance-based compensation payable to our executive officers will exceed the $1.0 million limit in one or more future years. We believe that in establishing the cash and equity incentive compensation programs for our executive officers, the potential deductibility of the compensation payable under those programs should be only one of a number of relevant factors taken into consideration, and not the sole governing factor. For that reason,

we may deem it appropriate to provide one or more executive officers with the opportunity to earn incentive compensation, whether through cash bonus programs tied to our financial performance or through RSUs tied to the executive officer s continued service, which together with base salary in the aggregate may be in excess of the amount deductible by reason of Section 162(m) or other provisions of the Internal Revenue Code. We believe it is important to maintain cash and equity incentive compensation at the levels needed to attract and retain the executive officers essential to our success, even if all or part of that compensation may not be deductible by reason of the Section 162(m) limitation.

Summary Compensation Information

The following table provides certain summary information concerning the compensation earned for services rendered in all capacities to the Company and its subsidiaries for the year ended December 31, 2006 by the Company s Chief Executive Officer, Chief Financial Officer and each of the Company s three other most highly compensated executive officers whose total compensation for the 2006 year was in excess of $100,000 and who were serving as executive officers at the end of the 2006 Fiscal Year. No other executive officers who would have otherwise been includable in such table on the basis of total compensation for the 2006 Fiscal Year have been excluded by reason of their termination of employment or change in executive status during that year. The listed individuals shall be hereinafter referred to as the named executive officers. The Company does not sponsor a pension plan or a non-qualified deferred compensation plan.

Name and Principal Position (a)	Year (b)	Salary ($)(1) (c)	Bonus ($)(1) (d)	Stock Awards ($)(2) (e)	Option Awards ($)(3) (f)	Non- Equity Incentive Plan Compensation ($) (4) (g)	All Other Compensation ($) (h)	Total ($) (i)
Howard C. Birndorf, Chairman and Chief Executive Officer	2006	$ 505,000		$ 225,337	$ 455,382	$ 148,470	$ 34,319(5)	$ 1,368,508
David G. Ludvigson, President and Chief Operating Officer	2006	$ 350,000		$ 112,669	$ 600,559	$ 85,750	$ 4,850(6)	$ 1,153,828
Robert Saltmarsh, Chief Financial Officer	2006	$ 250,000		$ 56,334	$ 206,224	$ 49,000	$ 6,100(6)	$ 567,658
William L. Respess, Senior Vice President, General Counsel and Secretary	2006	$ 320,000		$ 56,334	$ 322,187	$ 62,720	$ 7,100(6)	$ 768,341
Graham Ligard, Senior Vice President, Research and Development	2006	$ 282,000	36,660(7)	$ 56,334	$ 168,115	$ 27,636	$ 7,100(6)	$ 577,845

(1) Includes amounts deferred at the named executive officer s election under the Company s 401(k) Defined Contribution Savings and Retirement Plan, a qualified deferred compensation plan under section 401(k) of the Internal Revenue Code.

(2) The amounts in column (e) do not reflect actual value received by the officer in 2006, but rather reflect the dollar amount recognized for financial statement reporting purposes for the fiscal year ended December 31, 2006, in accordance with FAS 123(R) of stock awards granted to each named executive officer and thus include amounts from awards granted in and prior to the 2006 year. Assumptions used in the calculation of this amount are included in footnote 7 to the Company s audited financial statements for the fiscal year ended December 31, 2006 included in the Company s Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 16, 2007.

(3) The amounts in column (f) do not reflect actual proceeds received, but rather these amounts reflect the dollar amount recognized for financial statement reporting purposes for the fiscal year ended December 31, 2006, in accordance with FAS 123(R) of stock options granted to each named executive officer and thus include amounts from awards granted in and prior to the 2006 year. Assumptions used in the calculation of this amount are included in footnote 7 to the Company s audited financial statements for the fiscal year ended December 31, 2006 included in the Company s Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 16, 2007.

(4) The amounts in column (g) reflect the cash awards to the named executive under the Company s 2006 Executive Officer Incentive Compensation Plan which is described in detail under the heading Incentive Compensation on page 10.

(5) The amount shown includes (i) $28,750, which represents the aggregate incremental cost to the company of administrative assistance service provided by the Company to Mr. Birndorf for his personal use, (ii) the premiums and miscellaneous expenses paid by the Company for supplemental medical and dental coverage provided to Mr. Birndorf under the Exec-U-Care program, which is in addition to the medical and dental coverage provided to all employees of the Company and (iii) the dollar value of life insurance premiums paid by the Company on behalf of Mr. Birndorf.

(6) Includes (i) the fair market value of shares of our common stock contributed as a matching contribution by the Company to the named executive officer s account under our 401(k) Defined Contribution Savings and Retirement plan on the date the matching contribution was approved by the Compensation Committee and (ii) the dollar value of life insurance premiums paid by the Company on behalf of the named executive officer.

(7) Reflects the portion of the cash award to Mr. Lidgard under the Company s 2006 Executive Officer Incentive Compensation Plan which was paid as a result of Mr. Lidgard s personal performance. The 2006 Executive Officer Incentive Compensation Plan is described in detail under the heading Incentive Compensation on page 10.

Grants of Plan-Based Awards

The following table provides certain summary information concerning each grant of an award made to a named executive officer in the 2006 Fiscal Year under a compensation plan.

		Estimated Possible Payouts Under Non-Equity Incentive Plan Awards (1)			Estimated Future Payouts Under Equity Incentive Plan Awards (2)			All Other Stock Awards:	All Other Option Awards:	Exercise or Base	
Name (a)	Grant Date (b)	Threshold ($) (c)	Target ($) (d)	Maximum ($) (e)	Threshold (#) (f)	Target (#) (g)	Maximum (#) (h)	Number of Shares of Stock or Units (#)(3) (i)	Number of Securities Underlying Options (#) (j)	Price of Option Awards ($/Sh) (k)	Grant Date FAS 123(R) Fair Value (l)
Howard Birndorf,	12/12/2006	151,500	303,000	454,500				100,000			
Chairman and Chief Executive Officer	12/12/2006					280,000				$ 2.09	$ 495,515
David G. Ludvigson,	12/12/2006	87,500	175,000	262,500				50,000			
President and Chief Operating Officer	12/12/2006					155,000				$ 2.09	$ 274,303
Robert Saltmarsh,	12/12/2006	50,000	100,000	150,000				25,000			
Chief Financial Officer	12/12/2006					95,000				$ 2.09	$ 168,121
William L. Respess,	12/12/2006	64,000	128,000	192,000				25,000			
Senior Vice President, General Counsel and	12/12/2006					95,000				$ 2.09	$ 168,121

Secretary								
Graham Lidgard, Senior Vice President, Research and Development	12/12/2006 12/12/2006	28,200	56,400	84,600	95,000	25,000	$ 2.09	$ 168,121

(1) Reflects the potential payouts under the Company s 2006 Executive Officer Incentive Compensation Plan based on Company performance during the 2006 year, and assumes that for each level of achievement each of the three operational goals were achieved at that level. The actual amounts earned under such plan are disclosed in the Summary Compensation Table in the column Non-Equity Incentive Plan Compensation.

(2) Reflects stock options granted under the Company s 1997 Stock Incentive Plan, which become vested only upon the Company s achievement of a revenue and EBITDA target within five and a half years following the option grant date. In addition, 50% of the option shares will vest on an accelerated basis upon a change in control of the Company and 100% of the option shares will vest on an accelerated basis upon a change in control of the Company if the change in control price per share is above a target price per share.

(3) Reflects restricted stock units (RSU s) granted under the Company s 1997 Stock Incentive Plan, which entitle the recipient to one share of our common stock at the time of vesting without the payment of an exercise price or other consideration. The RSU s become vested in twenty-four equal monthly installments over the two year period commencing on December 12, 2006, provided the executive officer remains in our employ through each such date. 50% of the vested the shares become issuable on December 12, 2007 and the remaining 50% of the vested shares become issuable on December 12, 2008, however the RSU s will become vested on an accelerated basis in the event of the executive s involuntary termination within 24 months following a change in control. In addition, the vested shares will become issuable on an accelerated basis upon the executive s termination of employment.

Outstanding Equity Awards at Fiscal Year-End

The following table provides certain summary information concerning outstanding equity awards held by the Named Executive Officers as of December 31, 2006.

	Option Awards					Stock Awards			
Name (a)	Number of Securities Underlying Unexercised Options (#) Exercisable (b)	Number of Securities Underlying Unexercised Options (#) Unexercisable (c)	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options (#) (d)	Option Exercise Price ($) (e)	Option Expiration Date (f)	Number of Shares or Units of Stock That Have Not Vested (#) (g)	Market Value of Shares or Units of Stock That Have Not Vested ($)(4) (h)	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not Vested (#) (i)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units of Other Rights That Have Not Vested ($) (j)
Howard Birndorf,	25,000			$ 4.50	1/22/2009				
	80,000			$ 11.94	1/25/2011				
	70,000			$ 6.00	7/26/2011				
Chairman and Chief Executive Officer	22,694			$ 5.11	1/25/2012				
	127,306			$ 5.11	1/25/2012				
	400,000			$ 1.90	7/26/2012				
	325,000			$ 3.45	7/18/2013				
	17,878			$ 4.70	7/29/2014				
	282,122			$ 4.70	7/29/2014				
		22,727		$ 4.40	7/29/2015				
	106,250	21,023		$ 4.40	7/29/2015				
			280,000(1)	$ 2.09	12/12/2016				
						100,000(2)	$ 187,000		
						100,000(3)	$ 187,000		
	1,456,250	43,750	280,000			200,000	$ 374,000		

	Option Awards					Stock Awards			
Name (a)	Number of Securities Underlying Unexercised Options (#) Exercisable (b)	Number of Securities Underlying Unexercised Options (#) Unexercisable (c)	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options (#) (d)	Option Exercise Price ($) (e)	Option Expiration Date (f)	Number of Shares or Units of Stock That Have Not Vested (#) (g)	Market Value of Shares or Units of Stock That Have Not Vested ($)(4) (h)	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not Vested (#) (i)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units of Other Rights That Have Not Vested ($) (j)
David G. Ludvigson,	36,666			$ 6.96	4/26/2011				
	10,000			$ 8.60	6/13/2011				
	10,000			$ 2.80	6/14/2012				
President and Chief Operating Officer	57,970			$ 3.45	7/18/2013				
	58,822			$ 3.45	7/18/2013				
	96,015			$ 3.45	7/18/2013				
	28,985			$ 3.45	7/18/2013				
	15,105	30,210		$ 6.62	6/1/2014				
	172,395	82,290		$ 6.62	6/1/2014				
	150,000			$ 4.70	7/29/2014				
	53,125	21,875		$ 4.40	7/29/2015				
			155,000(1)	$ 2.09	12/12/2016				
						50,000(2)	$ 93,500		
						50,000(3)	$ 93,500		
	689,083	134,375	155,000			100,000	$ 187,000		
Robert Saltmarsh,	24,841			$ 4.33	9/13/2014				
	159			$ 4.33	9/13/2014				
	56,250	43,750		$ 6.21	1/5/2015				
Chief Financial Officer	15,625	34,375		$ 6.21	1/5/2015				
	674	674		$ 4.40	7/29/2005				
	25,889	10,263		$ 4.40	7/29/2005				
			95,000(1)	$ 2.09	12/12/2016				
						25,000(2)	$ 46,750		
						25,000(3)	$ 46,750		
	123,438	89,062	95,000			50,000	$ 93,500		
William L. Respess,	33,702	33,333		$ 5.87	4/30/2014				
	99,637	33,328		$ 5.87	4/30/2014				
	50,000			$ 4.70	7/29/2004				
Senior Vice President, General Counsel and Secretary	491	491		$ 4.40	7/29/2005				
	26,071	10,447		$ 4.40	7/29/2005				
			95,000(1)	$ 2.09	12/12/2016				
						25,000(2)	$ 46,750		
						25,000(3)	$ 46,750		
	209,901	77,599	95,000			50,000	$ 93,500		
Graham Lidgard	58,139			$ 1.72	1/14/2013				
	64,257	2,604		$ 1.72	1/14/2013				
	75,000			$ 3.45	7/18/2013				
	25,000			$ 3.45	7/18/2013				

Senior Vice	24,201			$ 4.70	7/29/2014		
President,	75,799			$ 4.70	7/29/2014		
Research and		10,938		$ 4.40	7/29/2015		
Development	26,562			$ 4.40	7/29/2015		
			95,000(1)	$ 2.09	12/12/2016		
						25,000(2)	$ 46,750
						25,000(3)	$ 46,750
	348,958	13,542	95,000			50,000	$ 93,500

(1) Reflects stock options granted under the Company s 1997 Stock Incentive Plan on December 12, 2006, which become vested only upon the Company s achievement of a revenue and EBITDA target within five and a half years following the option grant date. In addition, 50% of the option shares will vest on an accelerated basis upon a change in control of the Company and 100% of the option shares will vest on an accelerated basis upon a change in control of the Company if the change in control price per share is above a target price per share.

(2) Reflects restricted stock units (RSU s) granted under the Company s 1997 Stock Incentive Plan, which entitle the recipient to one share of our common stock at the time of vesting without the payment of an exercise price or other consideration. The RSU s become vested in a single lump sum on the second anniversary of the July 25, 2005 grant date, provided the executive officer remains in our employ through such date, however the RSU s will become fully vested and issuable on an accelerated basis immediately prior to the closing of a change in control.

(3) Reflects restricted stock units (RSU s) granted under the Company s 1997 Stock Incentive Plan, which entitle the recipient to one share of our common stock at the time of vesting without the payment of an exercise price or other consideration. The RSU s become vested in twenty-four equal monthly installments over the two year period commencing on December 12, 2006, provided the executive officer remains in our employ through each such date. 50% of the vested the shares become issuable on December 12, 2007 and the remaining 50% of the vested shares become issuable on December 12, 2008, however the RSU s will become vested on an accelerated basis in the event of the executive s involuntary termination within 24 months following a change in control. In addition, the vested shares will become issuable on an accelerated basis upon the executive s termination of employment.

(4) Reflects the $1.87 per share closing selling price of the Company s common stock on December 31, 2006.

Option Exercises and Stock Vested

No stock options were exercised by any of the named executive officers during the 2006 fiscal year, and no shares of common stock subject to restricted stock or restricted stock unit award were vested during the year ended December 31, 2006. No stock appreciation rights were exercised by the named executive officers during the 2006 fiscal year, and none of those officers held any stock appreciation rights as of December 31, 2006.

Pension Benefits

Nanogen does not sponsor a tax-qualified defined benefit retirement plan or a supplemental executive retirement plan.

Nonqualified Deferred Compensation

Nanogen does not sponsor a nonqualified deferred compensation plan.

Employment, Severance and Change in Control Agreements

In February 2007, we entered into a series of employment agreements with our executive officers. Some of those agreements were in the form of an amendment and restatement of their existing employment agreements with us. The remaining agreements were intended to formalize the terms of the original offer letters which certain of our officers received from us in lieu of employment agreements and to adjust their individual compensation packages to assure that the elements of compensation provided to each of our executive officers remain uniform and consistent.

Each of the agreements provides severance benefits to the executive officer should his employment with us terminate under certain circumstances. For termination situations which are not associated with a change in control, the basic severance benefit is in the form of salary continuation and continued medical coverage over a six-month period (eighteen months for Mr. Birndorf). In addition, upon a termination of employment not associated with a change in control, 50% of Mr. Respess unvested stock options will become vested on an accelerated basis. For terminations in connection with a change in control event, the severance package includes 12 months of salary continuation (24 months for Mr. Birndorf, and 18 months for Mr. Ludvigson), the accelerated vesting of outstanding equity awards, a pro-rated bonus and continued health care coverage at our expense for a designated period. A limited tax gross-up payment will also be provided to compensate the executive officer for the portion of any parachute tax he may incur which is attributable to the accelerated vesting of his pre-December 2006 equity awards.

It is a condition to the receipt of any such severance package that the executive officer provide us with a general release of all claims he may have against us, and severance benefits will only continue over the applicable payment period if the executive officers does not engage in any business activity competitive with us and does not solicit any of our employees to work for him or any entity with which he is affiliated.

Our executive officers will also be entitled under their February 2007 agreements to certain benefits upon the occurrence of a change in control, namely, the accelerated vesting of any equity awards we made to them prior to December 12, 2006, and may also, at the discretion of our board of directors, become entitled to such accelerated vesting and a special transaction bonus in the event of a significant transaction.

For purposes of the various payments and benefits which may be triggered under the agreements in connection with a change in control, the following transactions will be deemed to constitute a change in control event:

a merger, consolidation or other reorganization, unless more than 50% of the outstanding voting power of the successor entity is owned, in substantially the same proportions, by the persons who were our stockholders immediately prior to the transaction,

certain changes in the composition of our board of directors, or

the acquisition of our outstanding securities by any person so as to make that person the beneficial owner of securities representing 50% or more of the total combined voting power of our outstanding securities.

The following is a description of the principal provisions of the December 2006 employment agreements with our executive officers, including the applicable severance and change in control benefits.

Howard C. Birndorf

Term. The amended and restated employment agreement we entered into with Howard C. Birndorf, our chief executive officer, has an initial term three-year ending in December 2009, subject to automatic renewal for one or more successive one-year terms. In the event we elect not to renew the agreement, Mr. Birndorf may elect to terminate his employment and thereby become entitled to receive salary continuation payments for a period of eighteen months and continued medical coverage for himself and his eligible dependents at our expense for a period of up to eighteen months.

Annual Compensation Package. During the term of the employment agreement, Mr. Birndorf will be entitled to base salary at the rate of $520,150 per year, subject to annual adjustment. He will also be entitled to an annual bonus of up to sixty percent of base salary contingent upon our achievement of performance goals determined by the Compensation Committee of our board of directors (the Achievement Bonus).

Change in Control Benefits. All stock options and other equity awards granted to Mr. Birndorf prior to December 12, 2006 will vest in full in the event we experience a change in control. Any stock options or other equity awards subsequently granted to him will be subject to such accelerated vesting provisions tied to a change in control as our Compensation Committee may establish at the time of such grant. However, each outstanding stock option or other equity award will vest in full automatically upon a change in control to the extent that option or award is not assumed, continued or replaced by the successor corporation. The option grant for 280,000 shares made to Mr. Birndorf on December 12, 2006 contains special vesting acceleration provisions pursuant to which the option will automatically vest as to fifty percent of all unvested shares at the time of a change in control and will vest as to all shares if the consideration payable per share of our outstanding common stock in consummation of the change in control exceeds a certain dollar threshold.

Significant Transaction Benefits. Mr. Birndorf may also receive substantially the same change in control vesting acceleration with respect to his pre-December 12, 2006 stock options and equity awards upon the occurrence of a significant transaction effecting a change in ownership (other than a change in control) which results, in the judgment of our board of directors, in significant additional value for our stockholders, such as the addition of a major new investor group or the formation of a significant joint venture. In addition, upon the occurrence of such a significant event, Mr. Birndorf may become entitled to a special cash transaction bonus equal to one hundred and eighty percent of his then-current rate of annual base salary (the Transaction Bonus). The Transaction Bonus will be in lieu of any Achievement Bonus for the year for which it is paid. Any such significant transaction benefits will be payable solely in the discretion of our board of directors.

Change in Control Severance Benefits. If Mr. Birndorf s employment is terminated by us without cause, or if he resigns by reason of a material reduction in his duties, authority and responsibilities, within twenty-four months following a change in control transaction, he will become entitled to the following payments and benefits:

(i) salary continuation payments for a period of twenty-four months;

(ii) a pro-rated Achievement Bonus payable in a lump sum, whether or not the performance objectives for the year are attained;

(iii) accelerated vesting of all outstanding unvested stock options and other equity awards; and

(iv) continued medical coverage for Mr. Birndorf and his eligible dependents at our expense for up to an eighteen-month period.

Limited Tax Gross-Up. Stock options and other equity awards granted to Mr. Birndorf under our 1997 Stock Incentive Plan (the Plan) prior to December 12, 2006 contain a special tax gross-up provision. Accordingly, if the aggregate amount of all payments or benefits provided Mr. Birndorf under his employment agreement with us and any other plans or agreements he may have with us would subject him to the excise tax imposed by Section 4999 of the Internal Revenue Code, then he will be entitled to receive a special tax payment from us in an amount sufficient to cover the portion of that excise tax, together with interest and penalties, allocable to the pre-December 12, 2006 stock options and equity awards granted to him under the Plan, plus all income and employment taxes and additional excise taxes on that tax payment.

Normal Severance. Should Mr. Birndorf s employment be terminated by us without cause, or should he resign by reason of a material reduction in his powers, duties and responsibilities, either before the occurrence of a change in control transaction or more than twenty-four months following a change in control transaction, then he will become entitled to salary continuation payments for a period of eighteen months and continued medical coverage for himself and his eligible dependents at our expense for a period of up to eighteen months.

Other Executive Officers

The employment agreements with each of our other executive officers, namely, Messrs. Ludvigson, Lidgard, Respess, and Saltmarsh are substantially the same except as to the rate of their individual base salary and target bonus and may be summarized as follows:

Term. The amended and restated employment agreement we entered into with each of our other executive officers has an initial three-year term ending in December 2009, subject to automatic renewal for one or more successive one-year terms. In the event we elect not to renew the agreement, the executive officer may elect to terminate his employment and thereby become entitled to receive salary continuation payments for a period of six months.

Annual Compensation Package. The annual rate of base salary and target bonus as a percentage of that salary is as follows for each of the executive officers:

Name	Base Salary	Target Bonus
D. Ludvigson	$ 360,500	$ 180,250
G. Lidgard	$ 290,460	$ 116,184
L. Respess	$ 329,600	$ 131,840
R. Saltmarsh	$ 257,500	$ 103,000

Payment of the target bonus will be contingent upon our achievement of performance goals determined annually by the Compensation Committee of our board of directors (the Achievement Bonus).

Change in Control Benefits. In the event we experience a change in control, each executive officer will be entitled to the same change in control vesting acceleration benefits described above for Mr. Birndorf. In addition, as with Mr. Birndorf, the option grants made to the executive officers on December 12, 2006 contain special vesting acceleration provisions pursuant to which the option will automatically vest as to fifty percent of all unvested shares at the time of a change in control and will vest as to all shares if the consideration payable per share of our outstanding common stock in consummation of the change in control exceeds a certain dollar threshold.

Significant Transaction Benefits. As is the case with Mr. Birndorf, each executive officer may also receive (i) the same change in control vesting acceleration benefits described above and (ii) a transaction bonus of fifty percent (one hundred percent for Mr. Ludvigson) of the executive officer s then-current rate of annual base salary upon the occurrence of a significant transaction effecting a change in ownership (other than a change in control) which results, in the judgment of our board of directors, in significant additional value for our stockholders. Any such Transaction Bonus will be in lieu of any Achievement Bonus for the year for which it is paid However, any such significant transaction benefits will be payable solely in the discretion of our board of directors.

Change in Control Severance Benefits. If the executive officer s employment is terminated by us without cause, or if he resigns by reason of a material reduction in his powers, duties and responsibilities, within twenty-four months following a change in control transaction, he will become entitled to the following payments and benefits:

(i) salary continuation payments for a period of twelve months (eighteen months for Mr. Ludvigson);

(ii) a pro-rated Achievement Bonus payable in a lump sum, whether or not the performance objectives for the year are attained;

(iii) accelerated vesting of all outstanding unvested stock options and other equity awards; and

(iv) continued medical coverage for the executive officer and his eligible dependents at our expense for up to a twelve-month period (eighteen months for Mr. Ludvigson).

Limited Tax Gross-Up. Stock options and other equity awards granted to the executive officer under our 1997 Stock Incentive Plan (the Plan) prior to December 12, 2006 contain a special tax gross-up provision. Accordingly, if the aggregate amount of all payments or benefits provided the executive officer under his employment agreement with us and any other plans or agreements he may have with us would subject him to the excise tax imposed by Section 4999 of the Internal Revenue Code, then he will be entitled to receive a special tax payment from us in an amount sufficient to cover the portion of that excise tax, together with interest and penalties, allocable to the pre-December 12, 2006 stock options and equity awards granted to him under the Plan, plus all income and employment taxes and additional excise taxes on that tax payment.

Normal Severance. Should the executive officer s employment be terminated by us without cause, or should he resign by reason of a material reduction in his authority, duties and responsibilities, either before the occurrence of a change in control transaction or more than twenty-four months following a change in control transaction, then he will become entitled to salary continuation payments for a period of six months and continued medical coverage for himself and his eligible dependents at our expense or a period of up to six months. In addition, upon a termination not associated with a change in control, 50% of Mr. Respess unvested equity awards will become vested on an accelerated basis.

Post-termination Exercise of Stock Options. Stock options granted to Mr. Respess which are vested at the time of his termination of employment for any reason will remain outstanding until the 10 year anniversary of the grant date of each such option, unless exercised by Mr. Respess prior to such date.

Quantification of Benefits

The charts below indicate the potential payments each of our executive officers would receive based upon the following assumptions:

(i) his employment terminated on December 31, 2006 under circumstances entitling him to severance benefits under his employment agreement,

(ii) as to any benefits tied to the executive s rate of base salary, the rate of base salary is assumed to be the executive s rate of base salary as of December 31, 2006,

(iii) as to any benefits tied to a change in control, the change in control is assumed to have occurred on December 31, 2006 and the change in control consideration paid per share of outstanding common stock is assumed to be equal to the closing selling price of our common stock on December 29, 2006, which was $1.87 per share, and

(iv) as to any benefits tied to a significant transaction, the significant transaction is assumed to occur on December 31, 2006 and our board of directors exercised its discretion to pay the maximum amount of significant transaction benefits payable under the employment agreement.

BENEFITS RECEIVED UPON TERMINATION IN CONNECTION WITH A CHANGE IN CONTROL

Executive	Salary Continuation ($)	Achievement Bonus ($)	Accelerated Equity ($)(1)	COBRA ($)	Special Tax Payment ($)(2)
Howard Birndorf	1,010,000	303,000	374,000	25,492	
David Ludvigson	525,000	175,000	187,000	29,916	
Graham Lidgard	282,000	112,800	93,891	14,367	
Larry Respess	320,000	128,000	93,500	14,367	
Robert Saltmarsh	250,000	100,000	93,500	8,536	

(1) Represents the intrinsic value of each stock option or other equity award which vests on an accelerated basis in connection with the change in control or termination of employment and is calculated by multiplying (i) the aggregate number of equity awards which vest on such an accelerated basis by (ii) the amount by which the $1.87 closing selling price of our common stock on December 29, 2006 exceeds any exercise price payable per vested share.

(2) Assumes that the presumption of Section 280G(b)(2)(C) of the Internal Revenue Code regarding agreements entered into within 1 year of a change in control can be rebutted, and such compensation was accordingly established in the ordinary course of business and not in contemplation of a change in control.

POTENTIAL BENEFITS PAYABLE IN CONNECTION WITH A SIGNIFICANT TRANSACTION

Executive	Transaction Bonus ($)(1)	Accelerated Equity ($) (2)
Howard Birndorf	909,000	374,000
David Ludvigson	350,000	187,000
Graham Lidgard	141,000	93,891
Larry Respess	160,000	93,500
Robert Saltmarsh	125,000	93,500

(1) Represents the maximum transaction bonus payable. If a significant transaction had actually occurred at the Company s stock price of $1.87 on December 31, 2007, no transaction bonus would have been payable to the named executive officers.

(2) Represents the intrinsic value of each pre-December 2006 stock option or other equity award which could potentially vest on an accelerated basis in connection with the significant transaction, and is calculated by multiplying (i) the aggregate number of pre-December 2006 equity awards which vest on such an accelerated basis by (ii) the amount by which the $1.87 closing selling price of our common stock on December 29, 2006 exceeds any exercise price payable per vested share.

BENEFITS RECEIVED UPON TERMINATION NOT IN CONNECTION WITH A CHANGE IN CONTROL

Executive	Salary Continuation ($)	COBRA ($)	Accelerated Vesting of Stock Options ($)
Howard Birndorf	757,500	25,492	
David Ludvigson	175,000	9,732	
Graham Lidgard	141,000	7,182	
Larry Respess	160,000	7,182	0(1)
Robert Saltmarsh	125,000	4,266	

(1) Represents the intrinsic value of each stock option or other equity award which vests on an accelerated basis in connection with termination of employment and is calculated by multiplying (i) the aggregate number of equity awards which vest on such an accelerated basis by (ii) the amount by which the $1.87 closing selling price of our common stock on December 29, 2006 exceeds any exercise price payable per vested share.

22

Compensation of Directors

The following table sets forth certain information regarding the compensation earned by or awarded to each non-employee director during the 2006 Fiscal Year who served on our Board of Directors in the 2006 Fiscal Year. The Company does not sponsor a non-equity incentive plan, a pension plan, or a non-qualified deferred compensation plan for its non-employee directors.

Name (a)	Fees Earned or Paid in Cash ($)(1) (b)	Stock Awards ($)(2) (c)	Option Awards ($)(3)(4) (d)	All Other Compensation ($) (e)	Total ($) (f)
Heiner Dreismann	2,000	15,822	1,600(5)	20,000(6)	39,422
William G. Gerber	11,750	25,000	13,658(7)		50,408
Stelios B. Papadopoulos	27,000	25,000			52,000
David Schreiber	25,500	25,000			50,500
Robert E. Whalen	19,500	25,000	4,125		48,623

(1) Consists of the meeting fees for service as members of the Company s board of directors. For further information concerning such fees, see the section below entitled *Director Annual Retainer and Meeting Fees*.

(2) The amounts in column (c) reflect the dollar amount recognized for financial statement reporting purposes for the fiscal year ended December 31, 2006, in accordance with FAS 123(R) of stock awards granted to each non-employee director as a retainer fee in the 2006 year. The grant date fair value of each annual retainer fee equity award granted during the 2006 fiscal year, computed in accordance with FAS 123(R), was $25,000, with the exception of Dr. Dreismann who received a pro rata retainer as a result of his joining the Board of Directors mid-term. The number of shares subject to such retainer fee award in 2006 was 14,204 shares (8,113 shares for Mr. Dreismann). For further information concerning such fees, see the section below entitled *Director Annual Retainer and Meeting Fees*.

(3) The amounts in column (d) do not reflect actual proceeds received, but rather these amounts reflect the dollar amount recognized for financial statement reporting purposes for the fiscal year ended December 31, 2006, in accordance with FAS 123(R) of stock options granted to each non-employee director and thus include amounts from awards granted in and prior to the 2006 year. Assumptions used in the calculation of this amount are included in footnote 7 to the Company s audited financial statements for the fiscal year ended December 31, 2006 included in the Company s Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 16, 2007.

(4) As of December 31, 2006 the following non-employee directors held options to purchase the following number of shares of the Company s common stock: Dr. Dreismann, 25,000 shares; Dr. Gerber, 246,968 shares; Mr. Papadopoulos, 55,000 shares; Mr. Schreiber, 25,000 shares; and Mr. Whalen, 25,000 shares. The following table shows the grant date, exercise price and number of shares outstanding for each outstanding option held by a non-employee director.

Name	Grant Date	Exercise Price	Number of Option Shares Outstanding
Dr. Dreismann	10/27/06	$ 1.95	25,000
Dr. Gerber	12/16/04	$ 4.15	14,164
Dr. Gerber	12/16/04	$ 15.51	46,730
Dr. Gerber	12/16/04	$ 4.32	46,730
Dr. Gerber	12/16/04	$ 4.17	35,048
Dr. Gerber	12/16/04	$ 6.59	46,730
Dr. Gerber	12/16/04	$ 4.15	32,566
Dr. Gerber	6/9/05	$ 3.67	25,000
Mr. Papadopoulos	10/29/99	$ 7.00	25,000
Mr. Papadopoulos	6/6/00	$ 35.00	10,000
Mr. Papadopoulos	6/13/01	$ 8.60	10,000
Mr. Papadopoulos	6/14/02	$ 2.80	10,000
Mr. Schreiber	6/12/03	$ 4.07	25,000
Mr. Whalen	4/26/02	$ 3.50	25,000

(5) Represents the dollar amount recognized for financial statement reporting purposes for the fiscal year ended December 31, 2006, in accordance with FAS 123(R), with respect to the 25,000 share option granted to Dr. Dreismann under our 1997 Stock Incentive Plan upon Mr. Dreismann s election to the board, the terms of which are described in more detail below under the heading *1997 Stock Incentive Plan*.

(6) Represents the aggregate amount of consulting fees paid by us in 2006 under our consulting agreement with Dr. Dreismann, the terms of which are described in more detail below under the heading *Heiner* Dreismann*, Ph.D. Consulting Agreement.*

(7) Dr. Gerber was the President, Chief Executive Officer and a Director of Epoch Biosciences, Inc., a company acquired by Nanogen on December 16, 2004. Dr. Gerber s vested options to purchase 221,968 shares of the Company s Common Stock (which were originally

granted to him under Epoch s stock option plans and subsequently converted into options to purchase shares of Nanogen Common Stock pursuant to the acquisition) remain outstanding during the duration of Dr. Gerber s service relationship with the Company as a non-employee Board member. In accordance with the terms of the applicable option agreements, Dr. Gerber s options will terminate and cease to remain outstanding upon the twelve month anniversary of the termination of Dr. Gerber s board service.

Directors Annual Retainer and Meeting Fees

Each non-employee Board member receives an annual retainer of $25,000 to be paid entirely in shares of our Common Stock, based on the closing stock price on the date of the Company s Annual Meeting of Stockholders. These shares are issued under our 1997 Stock Incentive Plan. Accordingly, on June 14, 2006, Messrs. Whalen, Papadopoulos, and Schreiber and Drs. Gerber and Dreismann each received 14,204 shares of our Common Stock. On October 27, 2006, Dr. Dreismann received a pro-rata retainer of 8,113 shares as a result of joining the Board of Directors mid-term. In addition, each non-employee Board member receives an annual retainer of $1,500, to be paid entirely in cash, for each Board committee on which he or she serves and the Chairmen of the Audit and Compensation Committees receive an additional annual cash retainer of $10,000 and $2,500, respectively, for their service on such committees. Non-employee Board members also receive the following additional cash payments: $2,000 per Board meeting attended ($750 per Board meeting participated in by phone) and $750 per Board committee meeting attended or participated in by phone.

1997 Stock Incentive Plan.

Pursuant to the 1997 Stock Incentive Plan, each non-employee Board member may elect to convert all or part of his or her annual cash retainer payments and/or meeting fees from us in the form of non-qualified stock options, restricted stock, stock units, or a combination thereof. In 2006, none of our non-employee Board members elected to convert their annual cash retainer payments and cash meeting fees into stock options, restricted stock or restricted stock units.

Upon initial appointment or election to the Board, a non-employee director will receive an option grant under our 1997 Stock Incentive Plan to purchase 25,000 shares of the our Common Stock at an exercise price equal to the fair market value of the option shares on the grant date. These options vest at a rate of 25% after one year and the remainder ratably over the remaining three years. The vesting of the option shares will accelerate if there is a Change of Control as defined in the plan. Accordingly, on October 27, 2006 Mr. Dreismann received an option to purchase 25,000 shares of our Common Stock at an exercise price per share of $1.95, the fair market value of our Common Stock on such date.

In the event any payment or benefit provided under the Company s 1997 Stock Incentive Plan to any Board member would subject that individual to the excise tax imposed by Section 4999 of the Internal Revenue Code relating to excess parachute payments, then such individual will be entitled to receive an additional payment from us in an amount equal to the amount of the excise tax imposed on such payment or benefit, together with any interest and penalties (a Gross-Up Payment) plus the income taxes and additional excise tax, together with any interest and penalties, imposed on the Gross-Up Payment.

Heiner Dreismann, Ph.D. Consulting Agreement

On October 1, 2006, the Company entered into an Independent Contractor Agreement for Consulting Services (the Consulting Agreement) with Dr. Dreismann, pursuant to which Dr. Dreismann agreed to provide certain technical consulting services on molecular diagnostic products and markets for the Company. In consideration for such services, the Company agreed to pay Dr. Dreismann a fee of $10,000 for the month of October, 2006 and $5,000 each month thereafter, provided that the total amount of payment to Dr. Dreismann under the Consulting Agreement shall not exceed $60,000 per year without written approval by the Company.

Compensation Committee Interlocks and Insider Participation

The following individuals served as members of our Compensation Committee during fiscal year 2006: David Schreiber and Robert Whalen, each of whom was an independent director during fiscal year 2006. During 2006, none of our officers or employees served on the compensation committee (or equivalent) or the board of directors of another entity whose executive officer(s) served on our Compensation Committee or Board.

Securities Authorized for Issuance under Equity Compensation Plans

The following table provides information with respect to the shares of our Common Stock that may be issued under our existing equity compensation plans as of December 31, 2006. The table excludes information related to the outstanding options granted under our equity compensation plans where no additional options may be granted. Footnote 7 to the table sets forth the total number of shares and weight average of the exercise price of the shares excluded from this table.

Plan Category

	A. Number of Shares to be Issued Upon Exercise of Outstanding Options, Warrants and Rights	B. Weighted Average Exercise Price of Outstanding Options, Warrants and Rights	C. Number of Shares Remaining Available for Future Issuance (Excluding Securities Reflected In Column A)
Equity compensation plans approved by stockholders[1]	7,543,767[2]	$ 4.39[3]	1,019,047[4]
Equity compensation plans not approved by stockholders[5]	1,164,601	$ 3.21	881,008[6]
Total	8,708,368	$ 4.22	1,900,055

(1) Consists of the Nanogen, Inc. 1998 Employee Stock Purchase Plan (the Purchase Plan), the Nanogen, Inc. Stock Bonus Plan (the Bonus Plan) and our three stock option plans: the 1993 Stock Option Plan, the 1995 Stock Option/Stock Issuance Plan and the 1997 Stock Incentive Plan.

(2) Includes 686,750 shares or our common stock subject to RSU s that will entitle each holder to one share of our common stock for each unit that vests over the holder s period of continued service. Excludes purchase rights accruing under the Employee Stock Purchase Plan which has a shareholder approved reserve of 1,100,000 shares. Under the Employee Stock Purchase Plan, each eligible employee may purchase up to 1,666 shares of Common Stock at semi-annual intervals on the last business day of June and December each year at a purchase price per share equal to 85% of the lower of (i) the closing selling price per share of Common Stock on the last trading day preceding the offering period in which that semi-annual purchase date occurs, or (ii) the closing selling price per share on the semi-annual purchase date.

(3) Calculated without taking into account 686,750 shares of our common stock subject to outstanding RSU s that will become issuable as those units vest, without any cash consideration or other payment required for such shares.

(4) Consists of shares available for issuance under the Bonus Plan, the 1998 Employee Stock Purchase Plan, and the 1997 Stock Incentive Plan. As of December 31, 2006, 178,390 shares were available for issuance under the Bonus Plan 342,641 and 498,016 shares were available for issuance under the 1998 Employee Stock Purchase Plan, and 1997 Stock Incentive Plan, respectively. The 308,016 shares available for issuance under the 1997 Stock Plan may be issued upon the exercise of stock options or stock appreciation rights granted under the plan or those shares may be issued pursuant to direct stock bonuses or restricted stock issuances, restricted stock units or other share right awards which vest upon the attainment of prescribed performance milestones or the completion of designated service periods. The 178,390 shares available under the Bonus Plan may be issued through direct stock bonuses or pursuant to restricted stock or restricted stock unit awards which vest upon the attainment of prescribed performance milestones or the completion of designated service periods.

(5) Consists of the Epoch Biosciences, Inc. 2003 Stock Incentive Plan. In connection with the acquisition of Epoch Biosciences, Inc., in December 2004, we assumed options to purchase 923,920 shares of Epoch Biosciences, Inc. common stock under the Epoch Biosciences, Inc. 2003 Stock Incentive Plan and converted them into options to purchase 0.4673 shares of Common Stock in accordance with the

exchange ratio in effect for that acquisition. The 881,008 shares available for issuance under Epoch Biosciences, Inc. 2003 Stock Incentive Plan, as of December 31, 2006, may be issued upon the exercise of stock options or stock appreciation rights granted under the plan or those shares may be issued pursuant to direct stock bonuses or restricted stock issuances, restricted stock units or other share right awards which vest upon the attainment of prescribed performance milestones or the completion of designated service periods.

(6) The Epoch Biosciences, Inc. 2003 Stock Incentive Plan contains a provision whereby the share reserve under the plan will automatically increase on the first business day of January each year that the plan remains in existence. The increase to the share reserve under the plan will be limited each year to 350,475 shares or such lesser number of shares as may be determined by the board. Any annual increase will be reduced to the extent necessary to ensure that the number of shares available under the plan (the shares subject to outstanding options plus the remaining unallocated shares available under the plan) does not at the time exceed 2,715,718 shares of our common stock. On January 1, 2007 the number of shares of Common Stock available for issuance under the assumed Epoch Biosciences, Inc. 2003 Stock Incentive Plan increased by 350,475 shares pursuant to the automatic share increase provisions of that plan.

(7) The table does not include information with respect to outstanding options granted under certain equity compensation plans assumed by us in connection with mergers and acquisitions and which no additional options may be granted. As of December 31, 2006 a total of 680,612 shares of Common Stock were subject to those assumed options, and the weighted average exercise price of those assumed options was $10.14 per share.

The Epoch Biosciences, Inc. 2003 Stock Incentive Plan

As of December 31, 2005, approximately 103,937 shares of Common Stock had been reserved for issuance under the Epoch Biosciences, Inc. 2003 Stock Incentive Plan (as assumed by the Company) to eligible individuals in our service or the service of our subsidiaries. Such eligible individuals include (i) employees, directors and officers of Epoch Biosciences, Inc or its subsidiaries whose service commenced prior to the December 16, 2004 date of the acquisition and (ii) employees, directors and executive officers of Nanogen or its subsidiaries (including Epoch Biosciences, Inc.) whose service commenced or commences after December 16, 2004. Awards under the assumed Epoch Biosciences, Inc. 2003 Stock Incentive Plan may be in the form of non-statutory stock option grants with an exercise price of not less than 100% of the fair market value of the Common Stock on the grant date, stock bonuses for services rendered, or stock issuances with a purchase price not less than 100% of the fair market value of the Common Stock on the award date. No option grants will have a maximum term in excess of 10 years, and each option grant or direct stock issuance will generally vest over one or more years of service. However, upon certain changes in control or ownership, those options and stock issuances may vest in whole or in part on an accelerated basis. As of December 31, 2005 options to purchase 459,688 shares of Common Stock were outstanding under the assumed Epoch Biosciences, Inc. 2003 Stock Incentive Plan, 563,625 shares of Common Stock had been authorized under such plan, and 103,937 shares of Common Stock remained available for future issuance. On January 1, 2006 and 2005 the number of shares of Common Stock available for issuance under the assumed Epoch Biosciences, Inc. 2003 Stock Incentive Plan increased by 350,475 shares pursuant to the automatic share increase provisions of that plan.

COMPENSATION COMMITTEE REPORT ON EXECUTIVE COMPENSATION

The Compensation Committee has reviewed and discussed the Compensation Discussion and Analysis contained in this proxy statement with management, and based on such review and such discussions, the Compensation Committee recommended to the Board of Directors that the Compensation Discussion and Analysis, as contained herein, be included in this Proxy Statement.

Compensation Committee
David Schreiber, Chairman
Robert Whalen

AUDIT COMMITTEE REPORT

The following is the report of the Audit Committee with respect to Nanogen s audited financial statements for the year ended December 31, 2006.

The purpose of the Audit Committee is to assist the Board in its general oversight of Nanogen s financial reporting, internal controls and audit functions. The Audit Committee is comprised solely of independent directors as defined by the listing standards of Nasdaq Stock Market, Inc.

The Audit Committee has reviewed and discussed the consolidated financial statements with management and Ernst & Young LLP, the Company s independent registered public accounting firm. Management is responsible for the preparation, presentation and integrity of Nanogen s financial statements; accounting and financial reporting principles; establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rule 13a-15(e)); establishing and maintaining internal control over financial reporting (as defined in Exchange Act Rule 13a-15(f)); evaluating the effectiveness of disclosure controls and procedures; evaluating the effectiveness of internal control over financial reporting; and evaluating any change in internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, internal control over financial reporting. Ernst & Young LLP is responsible for performing an independent audit of the consolidated financial statements and expressing an opinion on the conformity of those financial statements with accounting principles generally accepted in the United States of America, as well as expressing an opinion on (i) management s assessment of the effectiveness of internal control over financial reporting and (ii) the effectiveness of internal control over financial reporting.

During the course of 2006, management completed the documentation, testing and evaluation of Nanogen s system of internal control over financial reporting in response to the requirements set forth in Section 404 of the Sarbanes-Oxley Act of 2002 and related regulations. The Audit Committee was kept apprised of the progress of the evaluation and provided oversight and advice to management during the process. In connection with this oversight, the Committee received periodic updates provided by management and Ernst & Young LLP at each regularly scheduled Committee meeting. The Committee also held a number of special meetings to discuss issues as they arose. At the conclusion of the process, management provided the Committee with and the Committee reviewed a report on the effectiveness of the Company s internal control over financial reporting. The Committee also reviewed the report of management contained in the Company s Annual Report on Form 10-K for the year ended December 31, 2006 filed with the SEC, as well as Ernst & Young LLP s Report of Independent Registered Public Accounting Firm included in the Company s Annual Report on Form 10-K related to its audit of (i) the consolidated financial statements and financial statement schedule, (ii) management s assessment of the effectiveness of internal control over financial reporting and (iii) the effectiveness of internal control over financial reporting. The Committee continues to oversee the Company s efforts related to its internal control over financial reporting and management s preparations for the evaluation in 2007.

The Audit Committee has discussed with Ernst & Young LLP the matters required to be discussed by Statement on Auditing Standards No. 61, as amended, Communication with Audit Committees and PCAOB Auditing Standard No. 2, An Audit of Internal Control Over Financial Reporting Performed in Conjunction with an Audit of Financial Statements. In addition, Ernst & Young LLP has provided the Audit Committee with the written disclosures and the letter required by the Independence Standards Board Standard No. 1, as amended, Independence Discussions with Audit Committees, and the Audit Committee has discussed with Ernst & Young LLP their firm s independence.

Based on their review of the consolidated financial statements and discussions with and representations from management and Ernst & Young LLP referred to above, the Audit Committee recommended to the Board of Directors that the audited financial statements be included in Nanogen s Annual Report on Form 10-K for the year ended December 31, 2006, for filing with the Securities and Exchange Commission.

Audit Committee

Stelios B. Papadopoulos, Chairman
David Schreiber
Robert E. Whalen

PRINCIPAL ACCOUNTING FEES AND SERVICES

The following table sets forth the aggregate fees billed to the Company for the annual audits for the fiscal years ended December 31, 2006 and 2005, and all other fees billed to the Company during 2006 and 2005 to its principal accounting firm, Ernst & Young LLP:

	For the Years Ended December 31,	
	2006	2005
	(in thousands)	
Audit Fees	$ 770	$ 534
Audit-Related Fees	158	103
Tax Fees	4	
All Other Fees		2
Total	$ 932	$ 639

The Audit Committee has determined that the rendering of all non-audit services by Ernst & Young, LLP is compatible with maintaining the auditor s independence. The fees listed under Audit Fees above were incurred for service related to the annual audit of the Company s consolidated financial statements, reviews of interim consolidated financial statements and services that are normally provided in connection with statutory and regulatory filings and engagements. In 2006, audit fees also include fees incurred for the audits of management s assessment of the effectiveness of internal controls over financial reporting as required under the Sarbanes-Oxley regulations. The fees listed under Audit-Related Fees above were incurred for service related to accounting consultations and due diligence in connection with proposed acquisitions. The fees listed under All Other Fees above were incurred for service related to annual license fees for access to an on-line database of accounting and auditing literature. The Audit Committee approves non-audit services provided by Ernst & Young LLP on an ad hoc basis, and has vested authority with Stelios B. Papadopoulos, the chairman of the Audit Committee, to approve non-audit services as needed.

CERTAIN TRANSACTIONS

In June 2005, we signed a letter of agreement with FasTraQ, Inc. (FasTraQ) for the development of a certain future product. Our Chief Executive Officer and Chairman of the Board, Mr. Birndorf, is a director and an investor in FasTraQ and our newest director, Dr. Heiner Dreismann, became CEO of FasTraQ in 2006. In October and December 2005 we amended this letter of agreement. As a result of this agreement and related amendments we made an initial non-refundable payment of $500,000 in 2005 to begin the initial development of this product. As of December 31, 2005, we expensed the initial $500,000. In February 2006, we converted this letter of agreement into two executed contracts, a Development and License Agreement and a Collaboration Agreement. In February 2006, we committed to provide FasTraQ up to an additional $500,000 in funding based on certain milestones, of which $200,000 was paid in 2006 and expensed into research and development. In February 2007, the companies terminated these agreements by mutual agreement.

On August 3, 2006, we entered into research and development collaboration arrangements with Fisher Scientific International Inc., (Fisher Scientific) a related party, that owns approximately 5.7 million shares of our common stock, and Athena Diagnostic, a wholly-owned subsidiary of Fisher Scientific. We agreed to share certain technology and patent rights related to the development, manufacture and marketing of new molecular diagnostic products. Under these arrangements, Fisher Scientific has the option to provide up to $10 million in 2007 and 2008 for the research and development of infectious disease and molecular diagnostic tests that will be mutually agreed upon. These arrangements are included in non-binding general agreements, thus the obligation of the parties are subject to further negotiation and final terms of definitive collaboration agreements. On August 9, 2006, we entered into an exclusive distribution agreement with Fisher Scientific. There were approximately $42,000 of sales under this agreement in the year ended December 31, 2006.

William Gerber was the President, Chief Executive Officer and a Director of Epoch Biosciences, Inc., a company acquired by Nanogen in December 2004. On December 15, 2004, Dr. Gerber and the Company entered into a consulting agreement pursuant to which Dr. Gerber provided consulting services to the Company from time to time, as requested by Howard Birndorf or David Ludvigson, regarding the integration of the business of Epoch and other strategic issues facing the Company. The agreement terminated upon Dr. Gerber s election to our Board. Dr. Gerber received no cash compensation pursuant to the consulting agreement, however, his vested options to purchase 221,968 shares of the Company s Common Stock (which were originally granted to him under Epoch s stock option plans and subsequently converted into options to purchase shares of Nanogen Common Stock pursuant to the acquisition) remained outstanding during the duration of Dr. Gerber s service relationship with the Company, first pursuant to the consulting agreement and then as a non-employee Board member. In accordance with the terms of the applicable option agreements, Dr. Gerber s options will terminate and cease to remain outstanding upon the twelve month anniversary of the termination of Dr. Gerber s service relationship with the Company. The Company believes that the value attributable to the extended period that the vested option shares remain outstanding is in excess of $60,000.

Consistent with the requirement under NASDAQ stock market rules, pursuant to its Charter, the Audit Committee of the Board of Directors is responsible for reviewing and approving in advance all related party transactions as defined under Securities and Exchange Commission rules and regulations. While we do not have a formal written policy or procedure for the review, approval or ratification of related party transactions, the audit committee must review the material facts of any such transaction and approve that transaction. The transactions in 2006 with FasTraq and Fisher-Scientific were unanimously approved in advance by the disinterested members of the Board of Directors.

PROPOSAL 2

APPROVAL OF THE AMENDMENT OF THE

NANOGEN, INC. 1997 STOCK INCENTIVE PLAN

The Company s stockholders are being asked to approve an amendment to the Company s 1997 Stock Incentive Plan (the 1997 Stock Plan) that will increase the maximum number of shares of Common Stock authorized for issuance over the term of the plan by an additional 4,000,000 shares to 15,943,011 shares, and eliminate our ability to grant non-statutory stock options with an exercise price per share that is less than the fair market value of our Common Stock on the option grant date. The proposed share increase will assure that a sufficient reserve of Common Stock is available under the 1997 Stock Plan to attract and retain the services of key individuals, including those from recently acquired entities, essential to the Company s long-term growth and success.

The 1997 Stock Plan was adopted by the Board of Directors and was approved by the stockholders on August 1, 1997. The 1997 Plan replaced the 1993 Stock Plan and 1995 Stock Option/Stock Issuance Plans (collectively, the Prior Stock Plans). On April 27, 2007, the Board of Directors approved the amendment to the 1997 Stock Plan that is the subject of this Proposal 2, subject to the approval of the Company s stockholders at the Annual Meeting.

The following is a summary of the material terms and provisions of the 1997 Stock Plan, as amended. The summary, however, does not purport to be a complete description of all the provisions of the 1997 Stock Plan. Copies of the actual plan document may be obtained by any stockholder upon written request to the Secretary of the Company at the Company s principal offices in San Diego, California.

Description of the 1997 Stock Plan

Purpose

The purpose of the 1997 Stock Plan is to promote the interests of the Company and its stockholders by encouraging key individuals to acquire shares of the Company s Common Stock or to increase their proprietary interest in the Company. By providing the opportunity to acquire shares of Common Stock or to receive other equity incentives under the 1997 Stock Plan, the Company seeks to attract and retain those key employees upon whose judgment, initiative and leadership on which the success of the Company largely depends.

Administration and Eligibility

The 1997 Stock Plan is administered by the Board of Directors or its delegate, currently the Compensation Committee. The Board of Directors, or its delegate, selects the employees of the Company who will receive awards, determines the size of any award and establishes any vesting or other conditions. Employees, directors, consultants and advisors of the Company (or any subsidiary of the Company) are eligible to participate in the 1997 Stock Plan, although incentive stock options may be granted only to employees. The participation of the outside directors of the Company is limited to 25% of the shares available under the 1997 Stock Plan. As of April 16, 2007, approximately 275 employees (including five executive officers) and five non-employee board members were eligible to participate in the 1997 Stock Plan. In addition, consultants are eligible to receive awards under the 1997 Stock Plan.

No individual may receive options covering more than 750,000 shares or SARs covering more than 300,000 shares in any calendar year. Stockholders approval of this proposal will also constitute a reapproval of the 750,000 share option limitation and the 300,000 SAR limitation for purposes of Internal Revenue Code Section 162(m). This limitation will assure that any deductions to which we would otherwise be entitled either upon the exercise of stock options or stock appreciation rights granted under the 1997 Stock Plan with an exercise price per share equal to the fair market value per share of our Common Stock on the grant date or upon the subsequent sale of the shares purchased under those options will not be subject to the $1.0 million limitation on the income deductibility of compensation paid per covered executive officer imposed under Section 162(m).

The Board may at any time amend or terminate the 1997 Stock Plan, subject to the approval of the Company s stockholders to the extent required by applicable laws or regulations, including the regulations of any exchange (or the Nasdaq National Market) on which shares of the Company s Common Stock are at the time primarily traded. The termination or amendment of the plan shall not affect any award previously granted under the plan.

Shares Subject to the 1997 Stock Plan

The 1997 Stock Plan provides for awards in the form of restricted shares, stock units, options or stock appreciation rights (SARs), or any combination thereof. No payment is required upon receipt of an award, except that a recipient of newly issued restricted shares must pay at least the par value of such restricted shares to the Company.

The maximum number of shares of Common Stock which may be issued pursuant to restricted share awards, stock units, options and SARs under the 1997 Stock Plan is currently limited to 15,943,011 shares, including the 4,000,000 share increase that

stockholders are being asked to approve pursuant to this Proposal 2, and including all shares added to the 1997 Stock Plan pursuant to forfeitures and terminations under the Prior Stock Plans. Should any unvested shares issued under the 1997 Stock Plan or the prior stock plans be subsequently repurchased by the Company, at the original issue price paid per share, upon the individual s cessation of service prior to vesting in those shares, then the repurchased shares will be available for subsequent award and issuance under the 1997 Stock Plan. If any stock units, options or SARs are forfeited (including awards pursuant to the Prior Stock Plans), or if any options, SARs or other stock-based awards terminate for any other reason prior to the issuance of the total number of shares subject to those awards (including awards pursuant to the Prior Stock Plans), then the unissued shares subject to those awards will again become available for issuance under the 1997 Stock Plan.

The following share counting provisions will be in effect under the 1997 Stock Plan: (i) if restricted shares are forfeited before any dividends have been paid with respect to such shares, then such shares shall again become available for subsequent award and issuance under the plan, (ii) upon the settlement of stock units, only the number of shares of Common Stock actually issued in settlement of such stock units will reduce the number of shares available for issuance under the plan, and the balance shall become available for subsequent award and issuance under the plan, and (iii) if SARs are exercised, then only the number of shares of Common Stock actually issued in settlement of such SARs shall reduce the number of shares available for issuance under the plan, and the balance shall become available for subsequent awards and issuance under the plan.

Outstanding Grants

As of April 16, 2007, the following persons or groups had received stock options to purchase in the aggregate the indicated number of shares of Common Stock under the 1997 Stock Plan: (i) the Chief Executive Officer and the other remaining current or former officers named in the Summary Compensation Table: Mr. Birndorf options for 3,298,328 shares; Mr. Ludvigson options for 1,318,332 shares; Dr. Respess options for 570,000 shares; Dr. Lidgard options for 645,000 shares and Mr. Saltmarsh options for 495,000; (ii) all current executive officers of the Company as a group: options for 6,326,660 shares; (iii) all current directors who are not executive officers as a group: options for 376,968 shares; (iv) the nominee for Class III director: Mr. Dreismann options for 25,000 shares; (v) each associate of any of such current directors, executive officers or nominee, options for zero shares (vi) each person who has received five percent of options granted other than those included above, zero shares and (vii) all employees (excluding currently executive officers) of the Company, options for 6,819,055 shares.

As of April 16, 2007, the following persons or groups had received in the aggregate the indicated number of shares of restricted stock and/or stock units under the 1997 Stock Plan: (i) the Chief Executive Officer and the other remaining current or former officers named in the Summary Compensation Table: Mr. Birndorf 200,000 shares; Mr. Ludvigson 100,000 shares; Mr. Respess 50,000 shares; Dr. Lidgard 50,000 shares and Mr. Saltmarsh 50,000, (ii) all current executive officers of the Company as a group: 450,000 shares; (iii) all current directors who are not executive officers as a group: 122,974 shares; (iv) the nominee for Class III director: Mr. Dreismann for 8,113 shares; (v) each associate of any of such current director, executive officer or nominee: zero shares; (vi) each person who has received five percent of options granted other than those included above: zero shares; and (vii) all employees (excluding current executive officers) of the Company: approximately 113,776 shares.

As of April 16, 2007 options covering 8,997,017 shares of Common Stock were outstanding under the 1997 Stock Plan, 178,508 shares had been issued pursuant to restricted stock or stock unit awards, 686,750 restricted stock awards remain outstanding, 4,144,690 shares have been issued pursuant to the exercise of outstanding options under the 1997 Stock Plan, 425,097 shares have been repurchased and 2,361,143 shares remained available for future award and issuance (assuming stockholder approval of the increase which forms part of this Proposal).

On April 16, 2007, the closing price of the Company s Common Stock on the Nasdaq National Market was $1.85 per share. For all valuation purposes under the 1997 Stock Plan the fair market value per share of Common Stock on any relevant date is the closing price per share on that date on the Nasdaq National Market.

New Plan Benefits

On February 16, 2007, the Compensation Committee awarded 1,950,000 performance based stock options, on the basis of the 4,000,000 share increase which forms this Proposal Two, with an option exercise price per share equal to the fair market value of the Company s common stock on the option grant date. These performance based option grants are included in the Outstanding Grants disclosures in the paragraph above. The following table identifies the recipient of each such option, the option exercise price and the maximum number of shares subject to each such option.

Name and Position	Option Exercise Price Per Share ($)	Number of Option Shares
Howard Birndorf (Chairman and CEO)	$ 1.39	547,500
David Ludvigson (President and COO)	$ 1.39	300,000
Robert Saltmarsh (CFO)	$ 1.39	187,500
Graham Lidgard (SVP, Research & Development)	$ 1.39	187,500
William Respess (SVP, General Counsel, Secretary)	$ 1.39	187,500
All current executive officers as a group (13 persons including Named Executive Officers listed separately above)	$ 1.39	1,950,000

Restricted Stock and Restricted Stock Units

Restricted shares are shares of Common Stock that are subject to repurchase by the Company at the employee s purchase price in the event that the applicable vesting conditions are not satisfied, and they are nontransferable prior to vesting (except for

certain transfers to a trustee). A restricted share unit is a bookkeeping entry entitling the holder of the award to one share of the Company s Common Stock at a future date, generally upon the satisfaction of the applicable vesting conditions. Settlement of vested restricted share units may be made in cash, shares of Common Stock, or a combination of both, as determined by the plan administrator. Restricted shares have the same voting and dividend rights as other shares of Common Stock. Restricted share units do not carry voting rights, and may carry a right to dividend equivalents. The recipient of restricted shares or stock units may pay all projected withholding taxes relating to the award with shares of Common Stock rather than cash if permitted by the Compensation Committee.

Options

Options may include nonstatutory stock options (NSOs) as well as incentive stock options (ISOs) intended to qualify for special tax treatment. An option may provide that a new option will be granted automatically to the optionee when he or she exercises such option. Options may also be granted in combination with SARs. NSOs may also be awarded in combination with Restricted Shares or Stock Units. No individual may receive in any one calendar year options to purchase more than an aggregate of 750,000 shares of Common Stock.

The term of an ISO cannot exceed 10 years (five years for 10% stockholders), and the exercise price of an ISO must be at least equal to the fair market value of the Common Stock on the date of grant (or 110% of fair market value at the date of grant for 10% stockholders). The term of an NSO must be equal to or greater than the fair market value of the Common Stock on the date of grant.

The exercise price of an option may be paid in any lawful form permitted by the Board of Directors or its delegate, including (without limitation) the delivery of shares of Common Stock owned the optionee for the requisite period necessary to avoid a compensation expense to the Company for financial reporting purposes upon their delivery. The Board of Directors or its delegate may likewise permit optionees to satisfy their withholding tax obligation upon exercise of an NSO by surrendering a portion of their option shares to the Company. The 1997 Stock Plan also allows the optionee to pay the exercise price of an option by giving exercise/sale or exercise/pledge directions.

Stock Appreciation Rights

A SAR permits the participant to elect to receive any appreciation in the value of the underlying stock from the Company, either in shares of Common Stock or in cash or a combination of the two, with the Board of Directors or its delegate having the discretion to determine the form in which such payment will be made. The amount payable on exercise of a SAR is measured by the excess of the market value of the underlying stock at exercise over the exercise price. SARs may, but need not, be granted in conjunction with options. Upon exercise of a SAR granted in tandem with an option, the corresponding portion of the related option will be cancelled and cannot thereafter be exercised. Conversely, upon exercise of an option to which a SAR is attached, the SAR will be cancelled and will no longer be exercised to the extent that the corresponding option has been exercised. Unless otherwise permitted by the Board of Directors or its delegate, all options and SARs are nontransferable prior to the optionee s death.

Vesting

The Board of Directors or its delegate determines the number of restricted shares, stock units, options or SARs to be included in the award as well as the vesting and other conditions. The vesting conditions may be based on the employee s service, his or her individual performance, the Company s performance or other appropriate criteria. In general, the vesting conditions will be based on the employee s service after the date of grant. Vesting may be accelerated in the event of the employee s death, disability or retirement or in the event of a change in control with respect to the Company. The Board of Directors has in the past granted and may in the future grant options which provide for mandatory acceleration of vesting in the event of a change in control.

Other Provisions

For purposes of the 1997 Stock Plan, the term change in control is defined as any one of the following: (i) any person is or becomes the beneficial owner, directly or indirectly, of at least 50% of the combined voting power of the Company s outstanding securities ordinarily having the right to vote at elections of directors; (ii) upon a merger or consolidation of the Company with or into another corporation or entity or any other corporate reorganization in which over 50% of the combined voting power of the continuing or surviving entity immediately after the merger, consolidation or reorganization is owned by persons who were not stockholders of the Company immediately prior to the merger, consolidation or reorganization; or (iii) a change in the composition of the Board of Directors as a result of which fewer than half of the incumbent Directors are Directors who either (a) had been Directors 24 months prior to the change or (b) were elected or nominated with the affirmative votes of at least a majority of the Directors who had been Directors of the Company 24 months prior to the change and who were still in office at the time of the election or nomination.

33

In the event any payment or benefit provided under the 1997 Stock Plan to any individual would subject that individual to the excise tax imposed by Section 4999 of the Code relating to excess parachute payments, then such individual will be entitled to receive an additional payment from the Company in an amount equal to the amount of the excise tax imposed on such payment or benefit, together with any interest and penalties (a Gross-Up Payment) plus the income taxes and additional excise tax imposed on the Gross-Up Payment.

On April 26, 2002, the Board of Directors amended the 1997 Stock Plan by removing the provision of the Plan permitting the Company to reprice options under the Plan without stockholder approval. The 1997 Stock Plan now requires that the Company can only reprice options with the consent of the Company s stockholders.

Members of the Company s Board of Directors who are not employees of the Company are eligible for awards under the 1997 Stock Plan. However, such outside directors are not eligible for ISO grants. Total shares available to outside directors is limited to 25% of total shares available under the 1997 Stock Plan. Non-employee board members may elect to receive his or her annual retainer payment and/or meeting fees from the Company in the form of NSOs, restricted shares or restricted share units or a combination thereof, as determined by the plan administrator.

Federal Income Tax Consequences

The following discussion of the federal income tax consequences of the 1997 Stock Plan as it relates to share awards, nonqualified stock options and incentive stock options is intended to be a summary of applicable federal law. State and local tax consequences may differ.

Direct Stock Issuances

If a participant is awarded or purchases shares, the amount by which the fair market value of the shares of Common Stock on the date of award or purchase exceeds the amount paid for the shares of Common Stock will be taxed to the participant as ordinary income. The Company will be entitled to a deduction in the same amount. The participant s tax basis in the shares acquired is equal to the share s fair market value on the date of acquisition. Upon a subsequent sale of any shares of Common Stock, the participant will realize capital gain or loss (long-term or short-term, depending upon the period the shares of Common Stock were held for more than one year before the sale) in an amount equal to the difference between his or her basis in the shares and the sale price.

If a participant is awarded or purchases shares of Common Stock that are subject to a vesting schedule, the participant is deemed to receive an amount of ordinary income equal to the excess of the fair market value of the shares at the time those shares vest over the amount (if any) paid for such shares by the participant. The Company is entitled to a deduction equal to the amount of the income recognized by the participant.

Code Section 83(b) permits a participant to elect, within 30 days after the transfer of any shares subject to a vesting schedule to him or her, to be taxed at ordinary income rates on the excess of the fair market value of the shares at the time of the transfer over the amount (if any) paid by the participant for such shares. Withholding taxes will be collected at that time. If the participant makes a Section 83(b) election, any later appreciation in the value of the shares of Common Stock is not taxed as ordinary income, but instead is taxed as capital gain when the shares of Common Stock are sold or transferred.

Stock Appreciation Rights

No taxable income is recognized upon the participant s receipt of a stock appreciation right. The holder will recognize ordinary income in the year in which the stock appreciation right is exercised, in an amount equal to the excess of the fair market value of the underlying shares of common stock on the exercise date over the base price in effect for the exercised right, and the Company will be required to collect the withholding taxes applicable to such income from the holder.

Restricted Stock Units

No taxable income is recognized upon the participant s receipt of a restricted stock unit. The holder will recognize ordinary income in the year in which the shares subject to that unit are actually issued to the holder. The amount of that income will be equal to the fair market value of the shares on the date of issuance, and the Company will be required to collect the withholding taxes applicable to such income from the holder.

The Company will be entitled to an income tax deduction equal to the amount of ordinary income recognized by the holder at the time the shares are issued. The deduction will be allowed for the taxable year in which such ordinary income is recognized.

34

Options

Incentive stock options and nonqualified stock options are treated differently for federal income tax purposes. Incentive stock options are intended to comply with the requirements of Section 422 of the Code. Nonqualified stock options need not comply with such requirements.

An optionee generally does not recognize any taxable income for regular income tax purposes upon the grant or exercise of an incentive stock option. However, the amount by which the fair market value of the shares on the exercise date exceeds the exercise price paid for those shares will be includable in the optionee s income for alternative minimum tax purposes. If an optionee holds the shares acquired upon the exercise of an incentive stock option for at least two years following grant and at least one year following exercise, the optionee s gain, if any, upon a subsequent disposition of such shares is a capital gain (or loss). The measure of the gain is equal to the excess of the proceeds received on disposition over the optionee s basis in the shares (which generally equals the exercise price). If an optionee disposes of stock acquired pursuant to exercise of an incentive stock option before satisfying the one and two-year holding periods described above, the optionee will recognize both ordinary income and capital gain (or loss) in the year of disposition. The amount of the ordinary income will be the lesser of (i) the amount realized on disposition less the optionee s adjusted basis in the stock (usually the exercise price) or (ii) the excess of the fair market value of the shares on the exercise date over the exercise price paid for those shares. The balance of the consideration received on such a disposition will be capital gain, which will be long term if the shares are held for at least one year following exercise of the incentive stock option. The Company is not entitled to an income tax deduction on the grant or exercise of an incentive stock option or on the optionee s disposition of the shares after satisfying the holding period requirement described above. If the holding periods are not satisfied, the Company will be entitled to a deduction in the year the optionee disposes of the shares, in an amount equal to the ordinary income recognized by the optionee.

An optionee is not taxed on the grant of a nonqualified stock option. On exercise, however, the optionee recognizes ordinary income equal to the amount by which the fair market value of the purchased shares on the date of exercise exceed the exercise price paid for those shares. The Company is entitled to an income tax deduction in the year of exercise in the amount recognized by the optionee as ordinary income. Any gain on subsequent disposition of the shares is a capital gain, which will be long term if the shares are held for at least one year following exercise. The Company does not receive a deduction for this capital gain.

Deductibility of Executive Compensation.

The Company anticipates that any compensation deemed paid by the Company in connection with the disqualifying disposition of incentive stock option shares and the exercise of non-statutory options granted with an exercise price equal to the fair market value of the Company s common stock on the option grant date or stock appreciation rights will qualify as performance-based compensation for purposes of Internal Revenue Code Section 162(m) and will not have to be taken into account for purposes of the $1 million limitation per covered individual on the deductibility of the compensation paid to certain of our executive officers.

Accordingly, the compensation deemed paid with respect to options granted with an exercise price equal to the fair market value of the Company s common stock on the option grant date and stock appreciation rights granted under the 1997 Plan will remain deductible by us without limitation under Section 162(m). However, any compensation deemed paid by us in connection with shares issued under 1997 Plan as restricted stock or restricted stock units, or pursuant to options with an exercise price less than the fair market value of the Company s common stock on the option grant date will be subject to the $1 million limitation.

Any gross-up payment, together with the associated taxes, interest and penalties, made by the Company will not be deductible.

Accounting Treatment

Pursuant to the accounting standards established by Statement of Financial Accounting Standards No. 123R, Share-Based Payment, or SFAS 123R, the Company is required to recognize all share-based payments, including grants of stock options, RSUs and employee stock purchase rights, in our financial statements effective January 1, 2006. Accordingly, stock options that are granted to our employees and non-employee Board members will have to be valued at fair value as of the grant date under an appropriate valuation formula, and that value will have to be charged as stock-based compensation expense against our reported GAAP earnings over the designated vesting period of the award. Similar option expensing will be required for any unvested options outstanding on January 1, 2006, with the grant date fair value of those unvested options to be expensed against our reported earnings over the remaining vesting period. For shares issuable upon the vesting of RSUs awarded under the 1997 Plan, we will be required to expense over the vesting period a compensation cost equal to the fair market value of the underlying shares on the date of the award. If any other shares are unvested at the time of their direct issuance, the fair market value of those shares at that time will be charged to our reported earnings ratably over the vesting period. Such accounting treatment for RSUs and

direct stock issuances will be applicable whether vesting is tied to service periods or performance goals. The issuance of a fully-vested stock bonus will result in an immediate charge to our earnings equal to the fair market value of the bonus shares on the issuance date.

Stock options and stock appreciation rights granted to non-employee consultants will result in a direct charged to our reported earnings based on the fair value of the grant measured on the vesting date of each installment of the underlying shares. Accordingly, such charge will take into account the appreciation in the fair value of the grant over the period between the grant date and the vesting date of each installment comprising that grant. The measurement date for option grants awarded on the basis on the 4,000,000 share increase to the 1997 Plan will not be set unless and until such increase is approved by our stockholders. Accordingly, any increase in our stock price between the grant date and the date such approval is received will increase the fair value of the award to be charged as stock-based compensation against our reported GAAP earnings.

Required Vote

The affirmative vote of a majority of our outstanding voting shares present or represented and entitled to vote at the Annual Meeting, is required for approval of the amended and restated 1997 Plan. Should such stockholder approval not be obtained, then the proposed 4,000,000 share increase to the share reserve under the 1997 Plan will not be implemented, and the options awarded on the basis of the 4,000,000 share increase will terminate and cease to be outstanding. The 1997 Plan will, however, continue in effect, and option grants, SARs, direct stock issuances and other stock-based awards will continue to be made under the 1997 Plan as currently in effect until all the shares currently available for award and issuance under the 1997 Plan have been issued pursuant to such awards.

The Board of Directors recommends a vote FOR the adoption of the amendment

of the Nanogen, Inc. 1997 Stock Incentive Plan.

PROPOSAL 3

RATIFICATION OF APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Audit Committee has appointed the firm of Ernst & Young LLP (Ernst & Young) as the Company s independent registered public accounting firm for the fiscal year ending December 31, 2007. Stockholder ratification of the appointment is not required under the laws of the State of Delaware, but the Audit Committee and the Board of Directors have decided to ascertain the position of the stockholders on the appointment. The Audit Committee will reconsider the appointment if the appointment is not ratified. Representatives of Ernst & Young are expected to be present at the Company s Annual Meeting. They will have an opportunity to make a statement, if they desire to do so, and will be available to respond to appropriate questions.

Audit and Non-Audit Services Pre-Approval Policy and Procedures

The Audit Committee has established a policy for the pre-approval of all audit and permitted non-audit services of Ernst & Young. The policy sets forth the procedures and conditions for such pre-approval of services to be performed by the independent auditor. The policy utilizes a framework of general pre-approval for certain specified services and specific approval for all other services. Pursuant to its pre-approval policy, the Audit Committee has also delegated authority to pre-approve services to be performed by Ernst & Young to the Chairman of the Audit Committee, provided that the Chairman of the Audit Committee then reports his pre-approval to the other members of the Audit Committee at the next Audit Committee meeting.

The Board of Directors recommends a vote FOR ratification

of the appointment of Ernst & Young LLP.

STOCKHOLDER PROPOSALS

Proposals of stockholders submitted pursuant to Rule 14a-8 under the Securities and Exchange Act of 1934, as amended (the Exchange Act) and intended to be presented for consideration at the Company s 2008 annual meeting of stockholders must be received by the Secretary of the Company at the Company s principal executive offices at 10398 Pacific Center Court, San Diego, California 92121 not later than January 6, 2008 in order to be considered for inclusion in the Company s proxy materials for that meeting.

The Company s bylaws also establish an advance notice procedure with respect to certain stockholder proposals and director nominations. If a stockholder wishes to have a stockholder proposal considered at the Company s 2007 annual meeting of stockholders, the stockholder must give timely notice of the proposal in writing to the Secretary of the Company at the Company s principal executive offices at 10398 Pacific Center Court, San Diego, California 92121. To be timely, a stockholder s notice of the proposal must be delivered or mailed and received at the executive offices of the Company not less than 50 days nor more than 75 days prior to the proposed date of the annual meeting; provided, however, that if less than 65 days notice or prior public disclosure of the date of the annual meeting is given or made to stockholders, notice of the stockholder proposal to be timely must be received no later than the earlier of (a) the close of business on the 15th day following the day on which the Company s notice of the date of the annual meeting is mailed or public disclosure of the meeting date is given, whichever first occurs, and (b) two days prior to the date of the scheduled meeting.

HOUSEHOLDING OF PROXY MATERIALS

The SEC has adopted rules that permit companies and intermediaries (e.g., brokers) to satisfy the delivery requirements for proxy statements and annual reports with respect to two or more stockholders sharing the same address by delivering a single proxy statement addressed to those stockholders. This process, which is commonly referred to as householding, potentially means extra convenience for stockholders and cost savings for companies.

This year, a number of brokers with account holders who are our stockholders will be householding the proxy materials. A single proxy statement will be delivered to multiple stockholders sharing an address unless contrary instructions have been received from the affected stockholders. Once you have received notice from your broker that they will be householding communications to your address, householding will continue until you are notified otherwise or until you revoke your consent. If, at any time, you no longer wish to participate in householding and would prefer to receive a separate proxy statement and annual report, you may (1) notify your broker, (2) direct your written request to the Secretary of Nanogen at Nanogen s principal executive offices at 10398 Pacific Center Court, San Diego, California 92121, or (3) contact Nanogen directly at 1-877-626-6436. Stockholders who currently receive multiple copies of the proxy statement at their address and would like to request householding of their communications should contact their broker. In addition, Nanogen will promptly deliver, upon written or oral request at the address or telephone number above, a separate copy of the annual report and proxy statement to a stockholder at a shared address to which a single copy of the documents was delivered.

SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Under Section 16(a) of the Exchange Act, the Company s directors, executive officers, and any persons holding more than 10% of the Company s Common Stock are required to report their initial ownership of the Company s Common Stock and any subsequent changes in that ownership to the SEC. Each director, executive officer and greater than 10% stockholder is required by SEC regulations to furnish the Company with copies of all Section 16(a) forms he files. Based solely on a review of copies of such reports furnished to us and written representations that no other reports were required during the fiscal year ended December 31, 2006, we believe that all of the Company s directors and executive officers filed the required reports on a timely basis with the SEC.

OTHER MATTERS

The Board of Directors knows of no other business that will be presented at the Annual Meeting. If any other business is properly brought before the Annual Meeting, it is intended that proxies in the enclosed form will be voted in accordance with the judgment of the persons voting the proxies.

Any stockholder or stockholder s representative who, because of a disability, may need special assistance or accommodation to allow him or her to participate at the Annual Meeting may request reasonable assistance or accommodation from the Company by contacting Nanogen, Inc., 10398 Pacific Center Court, San Diego, California 92121, (858) 410-4600. To provide the Company sufficient time to arrange for reasonable assistance or accommodation, please submit all requests by June 1, 2007.

Whether you intend to be present at the Annual Meeting or not, we urge you to return your signed proxy card promptly.

By order of the Board of Directors

William L. Respess, Esq.

Senior Vice President,

General Counsel and Secretary

APPENDIX A

AMENDED AND RESTATED

1997 STOCK INCENTIVE PLAN OF

NANOGEN, INC.

ARTICLE 1.	INTRODUCTION	A-1
ARTICLE 2.	ADMINISTRATION	A-1
2.1	Committee Composition	A-1
2.2	Committee Responsibilities	A-1
ARTICLE 3.	SHARES AVAILABLE FOR GRANTS	A-1
3.1	Basic Limitation	A-1
3.2	Additional Shares	A-2
3.3	Dividend Equivalents	A-2
ARTICLE 4.	ELIGIBILITY	A-2
4.1	General Rules	A-2
4.2	Outside Directors	A-2
4.3	Incentive Stock Options	A-2
ARTICLE 5.	OPTIONS	A-2
5.1	Stock Option Agreement	A-2
5.2	Number of Shares	A-2
5.3	Exercise Price	A-2
5.4	Exercisability and Term	A-2
5.5	Effect of Change in Control	A-3
5.6	Modification or Assumption of Options	A-3
5.7	Other Requirements Prior to Company s Initial Public Offering	A-3
ARTICLE 6.	PAYMENT FOR OPTION SHARES	A-3
6.1	General Rule	A-3
6.2	Surrender of Stock	A-3
6.3	Exercise/Sale	A-3
6.4	Exercise/Pledge	A-3
6.5	Promissory Note	A-3
6.6	Other Forms of Payment	A-3
ARTICLE 7.	STOCK APPRECIATION RIGHTS	A-3
7.1	SAR Agreement	A-3
7.2	Number of Shares	A-3
7.3	Exercise Price	A-3
7.4	Exercisability and Term	A-4
7.5	Effect of Change in Control	A-4
7.6	Exercise of SARs	A-4
7.7	Modification or Assumption of SARs	A-4
ARTICLE 8.	RESTRICTED SHARES AND STOCK UNITS	A-4
8.1	Time, Amount and Form of Awards	A-4
8.2	Payment for Awards	A-4
8.3	Vesting Conditions	A-4
8.4	Form and Time of Settlement of Stock Units	A-4
8.5	Death of Recipient	A-4
8.6	Creditors Rights	A-5

ARTICLE 9.	VOTING AND DIVIDEND RIGHTS	A-5
9.1	Restricted Shares	A-5
9.2	Stock Units	A-5
ARTICLE 10.	PROTECTION AGAINST DILUTION	A-5
10.1	Adjustments	A-5
10.2	Reorganizations	A-5
ARTICLE 11.	AWARDS UNDER OTHER PLANS	A-5
ARTICLE 12.	PAYMENT OF DIRECTOR S FEES IN SECURITIES	A-5
12.1	Effective Date	A-5
12.2	Elections to Receive NSOs, Restricted Shares or Stock Units	A-5
12.3	Number and Terms of NSOs, Restricted Shares or Stock Units	A-5
ARTICLE 13.	LIMITATION ON RIGHTS	A-6
13.1	Retention Rights	A-6
13.2	Stockholders Rights	A-6
13.3	Regulatory Requirements	A-6
ARTICLE 14.	LIMITATION ON PAYMENTS	A-6
14.1	Gross-Up Payment	A-6
14.2	Determination by Accountant	A-6
14.3	Underpayments and Overpayments	A-6
14.4	Related Corporations	A-7
ARTICLE 15.	WITHHOLDING TAXES	A-7
15.1	General	A-7
15.2	Share Withholding	A-7
ARTICLE 16.	ASSIGNMENT OR TRANSFER OF AWARDS	A-7
16.1	General	A-7
16.2	Trusts	A-7
ARTICLE 17.	FUTURE OF THE PLAN	A-7
17.1	Term of the Plan	A-7
17.2	Amendment or Termination	A-7
ARTICLE 18.	DEFINITIONS	A-7
18.1	Award	A-7
18.2	Board	A-7
18.3	Change in Control	A-7
18.4	Code	A-8
18.5	Committee	A-8
18.6	Common Share	A-8
18.7	Company	A-8
18.8	Exchange Act	A-8
18.9	Exercise Price,	A-8
18.10	Fair Market Value	A-8
18.11	ISO	A-8
18.12	Key Employee	A-8
18.13	NSO	A-8
18.14	Option	A-8
18.15	Optionee	A-9
18.16	Outside Director	A-9

18.17	Parent	A-9
18.18	Participant	A-9
18.19	Plan	A-9
18.20	Restricted Share	A-9
18.21	SAR	A-9
18.22	SAR Agreement	A-9
18.23	Stock Award Agreement	A-9
18.24	Stock Option Agreement	A-9
18.25	Stock Unit	A-9
18.26	Subsidiary	A-9
ARTICLE 19. EXECUTION		A-9

AMENDED AND RESTATED

1997 STOCK INCENTIVE PLAN OF

NANOGEN, INC.

ARTICLE 1. INTRODUCTION

The Plan was adopted by the Board effective as of August 1, 1997, and was approved by the Company s stockholders as of August 1, 1997. The Plan is effective as of August 1, 1997. However, Articles 7, 8 and 9 shall not apply prior to the Company s initial public offering on April 14, 1998. The Plan was subsequently (a) amended and restated on June 30, 1999 to increase the number of shares available for issuance under the Plan in Section 3.1; (b) amended on April 14, 2000 for options issued on and after that date, to increase the period during which such options may be exercised after the death or disability of a Plan Participant to twelve months in Section 5.4; (c) amended and restated on June 6, 2000 to increase the number of shares available for issuance under the Plan in Section 3.1 by 1,000,000 shares; (d) amended and restated on June 13, 2001 to increase the number of shares available for issuance under the Plan in Section 3.1 by 1,500,000 shares; (e) amended and restated on April 26, 2001 to remove the ability of the Company in Section 5.6 to approve repricings of options issued pursuant to the Plan without stockholder approval; (f) amended and restated on June 14, 2002 to increase the number of shares available for issuance under the Plan by 750,000 shares; (g) amended and restated on June 12, 2003 to increase the number of shares available for issuance under the Plan by 1,000,000 shares; (h) amended and restated on February 13, 2004 to increase the number of shares available for issuance under the Plan by 1,100,000 shares; (i) amended and restated February 11, 2005 to increase the number of shares available for issuance under the Plan by 1,500,000 shares, (j) amended and restated May 5, 2006 to increase the number of shares available for issuance under the Plan by 1,500,000 shares and (k) amended and restated April 27, 2007 to increase the number of shares available for issuance under the Plan by 4,000,000 shares, subject to stockholder approval at the 2007 Annual Meeting, and to require that each option granted pursuant to the Plan on or after such date have an exercise price per share greater than or equal to the Fair Market Value of the Company s Common Shares on the option grant date.

The purpose of the Plan is to promote the long-term success of the Company and the creation of stockholder value by (a) encouraging Key Employees to focus on critical long-range objectives, (b) encouraging the attraction and retention of Key Employees with exceptional qualifications and (c) linking Key Employees 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, Options (which may constitute incentive stock options or nonstatutory stock options) or stock appreciation rights.

The Plan shall be governed by, and construed in accordance with, the laws of the State of California.

ARTICLE 2. ADMINISTRATION

2.1 **Committee Composition**. The Plan shall be administered by the Committee. Except as provided below, the Committee shall consist exclusively of directors of the Company, who shall be appointed by the Board. In addition, the composition of the Committee shall satisfy:

(a) Such requirements, if any, as the Securities and Exchange Commission may establish for administrators acting under plans intended to qualify for exemption under Rule 16b-3 (or its successor) under the Exchange Act; and

(b) Such requirements as the Internal Revenue Service may establish for outside directors acting under plans intended to qualify for exemption under section 162(m)(4)(C) of the Code.

The Board may act on its own behalf with respect to Outside Directors and may also appoint one or more separate committees composed of one or more officers of the Company who need not be directors of the Company and who need not satisfy the foregoing requirements, who may administer the Plan with respect to Key Employees who are not covered employees under section 162(m)(3) of the Code and who are not required to report pursuant to § 16(a) of the Exchange Act.

2.2 **Committee Responsibilities**. The Committee shall (a) select the Key Employees who are to receive Awards under the Plan, (b) determine the type, number, vesting requirements and other features and conditions of such Awards, (c) interpret the Plan and (d) make all other decisions relating to the operation of the Plan. The Committee may adopt such rules or guidelines as it deems appropriate to implement the Plan. The Committee s determinations under the Plan shall be final and binding on all persons.

ARTICLE 3. SHARES AVAILABLE FOR GRANTS

3.1 **Basic Limitation**. Common Shares issued pursuant to the Plan may be authorized but unissued shares or treasury shares. The aggregate number of Common Shares available for Restricted Shares, Stock Units, Options and SARs awarded under the Plan shall not exceed 15,943,011. Of the Common Shares available hereunder, no more than 25% in aggregate shall be available with respect to Outside Directors. The limitation of this Section 3.1 shall be subject to adjustment pursuant to Article 10. The number of Common Shares available under this Plan shall be increased by unexercised or forfeited Common Shares under the Company s 1993 and 1995 Stock Plans. As of April 16, 2007, 205,999 shares of Common Stock had been added to the Plan pursuant to the cancellations and forfeitures under the 1993 and 1995 Stock Plans.

3.2 **Additional Shares**. If Stock Units, Options or SARs are forfeited or if Options or SARs terminate for any other reason before being exercised, then the corresponding Common Shares shall again become available for Awards under the Plan. If Restricted Shares are forfeited before any dividends have been paid with respect to such Shares, then such Shares shall again become available for Awards under the Plan. If Stock Units are settled, then only the number of Common Shares (if any) actually issued in settlement of such Stock Units shall reduce the number available under Section 3.1 and the balance shall again become available for Awards under the Plan. If SARs are exercised, then only the number of Common Shares (if any) actually issued in settlement of such SARs shall reduce the number available under Section 3.1 and the balance shall again become available for Awards under the Plan.

3.3 **Dividend Equivalents**. Any dividend equivalents distributed under the Plan shall not be applied against the number of Restricted Shares, Stock Units, Options or SARs available for Awards, whether or not such dividend equivalents are converted into Stock Units.

ARTICLE 4. ELIGIBILITY

4.1 **General Rules**. Only Key Employees (including, without limitation, independent contractors who are not members of the Board) shall be eligible for designation as Participants by the Committee.

4.2 **Outside Directors**. The Committee may provide that the NSOs that otherwise would be granted to an Outside Director under this Plan shall instead be granted to an affiliate of such Outside Director. Such affiliate shall then be deemed to be an Outside Director for purposes of the Plan, provided that the service-related vesting and termination provisions pertaining to the NSOs shall be applied with regard to the service of the Outside Director.

4.3 **Incentive Stock Options**. Only Key Employees who are common-law employees of the Company, a Parent or a Subsidiary shall be eligible for the grant of ISOs. In addition, a Key Employee who owns more than 10% of the total combined voting power of all classes of outstanding stock of the Company or any of its Parents or Subsidiaries shall not be eligible for the grant of an ISO unless the requirements set forth in section 422(c)(6) of the Code are satisfied.

ARTICLE 5. OPTIONS

5.1 **Stock Option Agreement**. Each grant of an Option under the Plan shall be evidenced by a Stock Option Agreement between the Optionee and the Company. Such Option shall be subject to all applicable terms of the Plan and may be subject to any other terms that are not inconsistent with the Plan. The Stock Option Agreement shall specify whether the Option is an ISO or an NSO. The provisions of the various Stock Option Agreements entered into under the Plan need not be identical. Options shall be granted in consideration of services rendered to the Company or a Subsidiary. A Stock Option Agreement may provide that a new Option will be granted automatically to the Optionee when he or she exercises a prior Option and pays the Exercise Price in the form described in Section 6.2.

5.2 **Number of Shares**. Each Stock Option Agreement shall specify the number of Common Shares subject to the Option and shall provide for the adjustment of such number in accordance with Article 10. Options granted to any Optionee in a single calendar year shall in no event cover more than 750,000 Common Shares, subject to adjustment in accordance with Article 10.

5.3 **Exercise Price**. Each Stock Option Agreement shall specify the Exercise Price; provided that the Exercise Price shall in no event be less than 100% of the Fair Market Value of a Common Share on the date of grant. If any employee to whom an ISO is granted is a 10% shareholder, then the exercise price per share shall not be less than 110% of the Fair Market Value per Common Share on the option grant date.

5.4 **Exercisability and Term**. Each Stock Option Agreement shall specify the date when all or any installment of the Option is to become exercisable. The Stock Option Agreement shall also specify the term of the Option; provided that the term of an ISO shall in no event exceed 10 years from the date of grant, and in the event any employee to whom an ISO is granted is a 10% shareholder, then the term shall not exceed 5 years from the date of grant. A Stock Option Agreement may provide for accelerated exercisability in the event of the Optionee s death, disability or retirement or other events and may provide for expiration prior to the end of its term in the event of the termination of the Optionee s service.

Options may be awarded in combination with SARs, and such an Award may provide that the Options will not be exercisable unless the related SARs are forfeited. NSOs may also be awarded in combination with Restricted Shares or Stock Units, and such an Award may provide that the NSOs will not be exercisable unless the related Restricted Shares or Stock Units are forfeited.

Options must be exercised within 90 days of the termination of employment (twelve months for termination on account of death or disability).

5.5 **Effect of Change in Control**. The Committee may determine, at the time of granting an Option or thereafter, that such Option shall become fully exercisable as to all Common Shares subject to such Option in the event that a Change in Control occurs with respect to the Company.

5.6 **Modification or Assumption of Options**. Within the limitations of the Plan, the Committee may modify, extend or assume outstanding options or may accept the cancellation of outstanding options (whether granted by the Company or by another issuer) in return for the grant of new options for the same or a different number of shares and at the same or a different exercise price. The Committee may not, however, reprice any options without the consent of the stockholders of the Company. The foregoing notwithstanding, no modification of an Option shall, without the consent of the Optionee, alter or impair his or her rights or obligations under such Option.

5.7 **Other Requirements Prior to Company s Initial Public Offering**. Prior to the Company s initial public offering, Optionees shall receive Company financial statements at least annually.

ARTICLE 6. PAYMENT FOR OPTION SHARES

6.1 **General Rule**. The entire Exercise Price of Common Shares issued upon exercise of Options shall be payable in cash at the time when such Common Shares are purchased, except as follows:

(a) In the case of an ISO granted under the Plan, payment shall be made only pursuant to the express provisions of the applicable Stock Option Agreement. The Stock Option Agreement may specify that payment may be made in any form(s) described in this Article 6.

(b) In the case of an NSO, the Committee may at any time accept payment in any form(s) described in this Article 6.

6.2 **Surrender of Stock**. To the extent that this Section 6.2 is applicable, payment for all or any part of the Exercise Price may be made with Common Shares which have already been owned by the Optionee for more than six months. Such Common Shares shall be valued at their Fair Market Value on the date when the new Common Shares are purchased under the Plan.

6.3 **Exercise/Sale**. To the extent that this Section 6.3 is applicable, payment may be made by the delivery (on a form prescribed by the Company) of an irrevocable direction to a securities broker approved by the Company to sell Common Shares and to deliver all or part of the sales proceeds to the Company in payment of all or part of the Exercise Price and any withholding taxes.

6.4 **Exercise/Pledge**. To the extent that this Section 6.4 is applicable, payment may be made by the delivery (on a form prescribed by the Company) of an irrevocable direction to pledge Common Shares to a securities broker or lender approved by the Company, as security for a loan, and to deliver all or part of the loan proceeds to the Company in payment of all or part of the Exercise Price and any withholding taxes.

6.5 **Promissory Note**. To the extent that this Section 6.5 is applicable, payment may be made with a full-recourse promissory note; provided that the par value of the Common Shares shall be paid in cash.

6.6 **Other Forms of Payment**. To the extent that this Section 6.6 is applicable, payment may be made in any other form that is consistent with applicable laws, regulations and rules.

ARTICLE 7. STOCK APPRECIATION RIGHTS

7.1 **SAR Agreement**. Each grant of an SAR under the Plan shall be evidenced by an SAR Agreement between the Optionee and the Company. Such SAR shall be subject to all applicable terms of the Plan and may be subject to any other terms that are not inconsistent with the Plan. The provisions of the various SAR Agreements entered into under the Plan need not be identical. SARs may be granted in consideration of a reduction in the Optionee s other compensation.

7.2 **Number of Shares**. Each SAR Agreement shall specify the number of Common Shares to which the SAR pertains and shall provide for the adjustment of such number in accordance with Article 10. SARs granted to any Optionee in a single calendar year shall in no event pertain to more than 300,000 Common Shares, subject to adjustment in accordance with Article 10.

7.3 **Exercise Price**. Each SAR Agreement shall specify the Exercise Price. An SAR Agreement may specify an Exercise Price that varies in accordance with a predetermined formula while the SAR is outstanding.

7.4 **Exercisability and Term**. Each SAR Agreement shall specify the date when all or any installment of the SAR is to become exercisable. The SAR Agreement shall also specify the term of the SAR. An SAR Agreement may provide for accelerated exercisability in the event of the Optionee s death, disability or retirement or other events and may provide for expiration prior to the end of its term in the event of the termination of the Optionee s service. SARs may also be awarded in combination with Options, Restricted Shares or Stock Units, and such an Award may provide that the SARs will not be exercisable unless the related Options, Restricted Shares or Stock Units are forfeited. An SAR may be included in an ISO only at the time of grant but may be included in an NSO at the time of grant or thereafter. An SAR granted under the Plan may provide that it will be exercisable only in the event of a Change in Control.

7.5 **Effect of Change in Control**. The Committee may determine, at the time of granting an SAR or thereafter, that such SAR shall become fully exercisable as to all Common Shares subject to such SAR in the event that a Change in Control occurs with respect to the Company.

7.6 **Exercise of SARs**. The exercise of an SAR shall be subject to the restrictions imposed by Rule 16b-3 (or its successor) under the Exchange Act, if applicable. If, on the date when an SAR expires, the Exercise Price under such SAR is less than the Fair Market Value on such date but any portion of such SAR has not been exercised or surrendered, then such SAR shall automatically be deemed to be exercised as of such date with respect to such portion. Upon exercise of an SAR, the Optionee (or any person having the right to exercise the SAR after his or her death) shall receive from the Company (a) Common Shares, (b) cash or (c) a combination of Common Shares and cash, as the Committee shall determine. The amount of cash and/or the Fair Market Value of Common Shares received upon exercise of SARs shall, in the aggregate, be equal to the amount by which the Fair Market Value (on the date of surrender) of the Common Shares subject to the SARs exceeds the Exercise Price.

7.7 **Modification or Assumption of SARs**. Within the limitations of the Plan, the Committee may modify, extend or assume outstanding SARs or may accept the cancellation of outstanding SARs (whether granted by the Company or by another issuer) in return for the grant of new SARs for the same or a different number of shares and at the same or a different exercise price. The foregoing notwithstanding, no modification of an SAR shall, without the consent of the Optionee, alter or impair his or her rights or obligations under such SAR.

ARTICLE 8. RESTRICTED SHARES AND STOCK UNITS

8.1 **Time, Amount and Form of Awards**. Awards under the Plan may be granted in the form of Restricted Shares, in the form of Stock Units, or in any combination of both. Restricted Shares or Stock Units may also be awarded in combination with NSOs or SARs, and such an Award may provide that the Restricted Shares or Stock Units will be forfeited in the event that the related NSOs or SARs are exercised.

8.2 **Payment for Awards**. To the extent that an Award is granted in the form of newly issued Restricted Shares, the Award recipient, as a condition to the grant of such Award, shall be required to pay the Company in cash an amount equal to the par value of such Restricted Shares. To the extent that an Award is granted in the form of Restricted Shares from the Company s treasury or in the form of Stock Units, no cash consideration shall be required of the Award recipients.

8.3 **Vesting Conditions**. Each Award of Restricted Shares or Stock Units shall become vested, in full or in installments, upon satisfaction of the conditions specified in the Stock Award Agreement. A Stock Award Agreement may provide for accelerated vesting in the event of the Participant s death, disability or retirement or other events. The Committee may determine, at the time of making an Award or thereafter, that such Award shall become fully vested in the event that a Change in Control occurs with respect to the Company.

8.4 **Form and Time of Settlement of Stock Units**. Settlement of vested Stock Units may be made in the form of (a) cash, (b) Common Shares or (c) any combination of both, as determined by the Committee. The actual number of Stock Units eligible for settlement may be larger or smaller than the number included in the original Award, based on predetermined performance factors. Methods of converting Stock Units into cash may include (without limitation) a method based on the average Fair Market Value of Common Shares over a series of trading days. Vested Stock Units may be settled in a lump sum or in installments. The distribution may occur or commence when all vesting conditions applicable to the Stock Units have been satisfied or have lapsed, or it may be deferred to any later date. The amount of a deferred distribution may be increased by an interest factor or by dividend equivalents. Until an Award of Stock Units is settled, the number of such Stock Units shall be subject to adjustment pursuant to Article 10.

8.5 **Death of Recipient**. Any Stock Units Award that becomes payable after the recipient s death shall be distributed to the recipient s beneficiary or beneficiaries. Each recipient of a Stock Units Award under the Plan shall designate one or more beneficiaries for this purpose by filing the prescribed form with the Company. A beneficiary designation may be changed by filing the prescribed form with the Company at any time before the Award recipient s death. If no beneficiary was designated or if no designated beneficiary survives the Award recipient, then any Stock Units Award that becomes payable after the recipient s death shall be distributed to the recipient s estate.

8.6 **Creditors Rights**. A holder of Stock Units shall have no rights other than those of a general creditor of the Company. Stock Units represent an unfunded and unsecured obligation of the Company, subject to the terms and conditions of the applicable Stock Award Agreement.

ARTICLE 9. VOTING AND DIVIDEND RIGHTS

9.1 **Restricted Shares**. The holders of Restricted Shares awarded under the Plan shall have the same voting, dividend and other rights as the Company s other stockholders. A Stock Award Agreement, however, may require that the holders of Restricted Shares invest any cash dividends received in additional Restricted Shares. Such additional Restricted Shares shall be subject to the same conditions and restrictions as the Award with respect to which the dividends were paid. Such additional Restricted Shares shall not reduce the number of Common Shares available under Article 3.

9.2 **Stock Units**. The holders of Stock Units shall have no voting rights. Prior to settlement or forfeiture, any Stock Unit awarded under the Plan may, at the Committee s discretion, carry with it a right to dividend equivalents. Such right entitles the holder to be credited with an amount equal to all cash dividends paid on one Common Share while the Stock Unit is outstanding. Dividend equivalents may be converted into additional Stock Units. Settlement of dividend equivalents may be made in the form of cash, in the form of Common Shares, or in a combination of both. Prior to distribution, any dividend equivalents which are not paid shall be subject to the same conditions and restrictions as the Stock Units to which they attach.

ARTICLE 10. PROTECTION AGAINST DILUTION

10.1 **Adjustments**. In the event of a subdivision of the outstanding Common Shares, a declaration of a dividend payable in Common Shares, a declaration of a dividend payable in a form other than Common Shares in an amount that has a material effect on the price of Common Shares, a combination or consolidation of the outstanding Common Shares (by reclassification or otherwise) into a lesser number of Common Shares, a recapitalization, a spinoff or a similar occurrence, the Committee shall make such equitable adjustments as it, in its sole discretion, deems appropriate to preclude dilution or enlargement of rights in one or more of (a) the number of Options, SARs, Restricted Shares and Stock Units available for future Awards under Article 3, (b) the limitations set forth in Sections 5.2 and 7.2, (c) the number of NSOs to be granted to Outside Directors under Section 4.2, (d) the number of Stock Units included in any prior Award which has not yet been settled, (e) the number of Common Shares covered by each outstanding Option and SAR or (f) the Exercise Price under each outstanding Option and SAR. Except as provided in this Article 10, a Participant shall have no rights by reason of any issue by the Company of stock of any class or securities convertible into stock of any class, any subdivision or consolidation of shares of stock of any class, the payment of any stock dividend or any other increase or decrease in the number of shares of stock of any class.

10.2 **Reorganizations**. In the event that the Company is a party to a merger or other reorganization, outstanding Options, SARs, Restricted Shares and Stock Units shall be subject to the agreement of merger or reorganization. Such agreement may provide, without limitation, for the assumption of outstanding Awards by the surviving corporation or its parent, for their continuation by the Company (if the Company is a surviving corporation), for accelerated vesting and accelerated expiration (provided the Company has previously had its initial public offering), or for settlement in cash.

ARTICLE 11. AWARDS UNDER OTHER PLANS

The Company may grant awards under other plans or programs. Such awards may be settled in the form of Common Shares issued under this Plan. Such Common Shares shall be treated for all purposes under the Plan like Common Shares issued in settlement of Stock Units and shall, when issued, reduce the number of Common Shares available under Article 3.

ARTICLE 12. PAYMENT OF DIRECTOR S FEES IN SECURITIES

12.1 **Effective Date**. No provision of this Article 12 shall be effective unless and until the Board has determined to implement such provision.

12.2 **Elections to Receive NSOs, Restricted Shares or Stock Units**. An Outside Director may elect to receive his or her annual retainer payments and meeting fees from the Company in the form of cash, NSOs, Restricted Shares, Stock Units, or a combination thereof, as determined by the Board. Such NSOs, Restricted Shares and Stock Units shall be issued under the Plan. An election under this Article 12 shall be filed with the Company on the prescribed form.

12.3 **Number and Terms of NSOs, Restricted Shares or Stock Units**. The number of NSOs, Restricted Shares or Stock Units to be granted to Outside Directors in lieu of annual retainers and meeting fees that would otherwise be paid in cash shall be calculated in a manner determined by the Board. The terms of such NSOs, Restricted Shares or Stock Units shall also be determined by the Board.

ARTICLE 13. LIMITATION ON RIGHTS

13.1 **Retention Rights**. Neither the Plan nor any Award granted under the Plan shall be deemed to give any individual a right to remain an employee, consultant or director of the Company, a Parent or a Subsidiary. The Company and its Parents and Subsidiaries reserve the right to terminate the service of any employee, consultant or director at any time, with or without cause, subject to applicable laws, the Company s certificate of incorporation and by-laws and a written employment agreement (if any).

13.2 **Stockholders Rights**. A Participant shall have no dividend rights, voting rights or other rights as a stockholder with respect to any Common Shares covered by his or her Award prior to the issuance of a stock certificate for such Common Shares. No adjustment shall be made for cash dividends or other rights for which the record date is prior to the date when such certificate is issued, except as expressly provided in Articles 8, 9 and 10.

13.3 **Regulatory Requirements**. Any other provision of the Plan notwithstanding, the obligation of the Company to issue Common Shares under the Plan shall be subject to all applicable laws, rules and regulations and such approval by any regulatory body as may be required. The Company reserves the right to restrict, in whole or in part, the delivery of Common Shares pursuant to any Award prior to the satisfaction of all legal requirements relating to the issuance of such Common Shares, to their registration, qualification or listing or to an exemption from registration, qualification or listing.

ARTICLE 14. LIMITATION ON PAYMENTS

14.1 **Gross-Up Payment**. In the event that it is determined that any payment or transfer by the Company under the Plan to or for the benefit of (the Payment) would be subject to the excise tax imposed by section 4999 of the Code or any interest or penalties with respect to such excise tax (such excise tax, together with any such interest or penalties, are collectively referred to as the Excise Tax), then the Participant shall be entitled to receive an additional payment (a Gross-Up Payment) in an amount that shall fund the payment by the Participant of any Excise Tax on the Payment as well as all income taxes imposed on the Gross-Up Payment, any Excise Tax imposed on the Gross-Up Payment and any interest or penalties imposed with respect to taxes on the Gross-Up Payment or any Excise Tax.

14.2 **Determination by Accountant**. All mathematical determinations and all determinations of whether any of the Payments are parachute payments (within the meaning of section 280G of the Code) including all determinations of whether a Gross-Up Payment is required, of the amount of such Gross-Up Payment and of amounts determined under § 14.3 shall be made by the independent registered public accounting firm most recently selected by the Board (the Auditors), which shall provide its determination (the Determination), together with detailed supporting calculations regarding the amount of any Gross-Up Payment and any other relevant matters, both to the Company and to the Participant within seven business days of the Participant s termination date, if applicable, or such earlier time as is requested by the Company or by the Participant (if the Participant reasonably believes that any of the Total Payments may be subject to the Excise Tax). If the Accounting Firm determines that no Excise Tax is payable by the Participant, it shall furnish the Participant with a written statement that the Auditors have concluded that no Excise Tax is payable (including the reasons therefore) and that the Participant has substantial authority not to report any Excise Tax on the Participant s federal income tax return. If a Gross-Up Payment is determined to be payable, it shall be paid to the Participant within five business days after the Determination is delivered to the Company or the Participant. Any determination by the Auditors shall be binding upon the Company and the Participant, absent manifest error.

14.3 **Underpayments and Overpayments**. As a result of uncertainty in the application of section 4999 of the Code at the time of the initial determination by the Auditors hereunder, it is possible that Gross-Up Payments not made by the Company should have been made (Underpayments) or that Gross-Up Payments will have been made by the Company which should not have been made (Overpayments). In either event, the Auditors shall determine the amount of the Underpayment or Overpayment that has occurred. In the case of an Underpayment, the amount of such Underpayment shall promptly be paid by the Company to or for the benefit of the Employee. In the case of an Overpayment, the Employee shall, at the direction and expense of the Company, take such steps as are reasonably necessary (including the filing of returns and claims for refund), follow reasonable instructions from, and procedures established by, the Company and otherwise reasonably cooperate with the Company to correct such Overpayment; *provided, however,* that (i) the Employee shall in no event be obligated to return to the Company an amount greater than the net after-tax portion of the Overpayment that the Employee has retained or has recovered as a refund from the applicable taxing authorities and (ii) this provision shall be interpreted in a manner consistent with the intent of this Article 14, which is to make the Employee whole, on an after-tax basis, for the application of the Excise Tax, it being understood that the correction of an Overpayment may result in the Employee s repaying to the Company an amount which is less than the Overpayment.

14.4 **Related Corporations**. For purposes of this Article 14, the term Company shall include affiliated corporations to the extent determined by the Auditors in accordance with section 280G(d)(5) of the Code.

ARTICLE 15. WITHHOLDING TAXES

15.1 **General**. To the extent required by applicable federal, state, local or foreign law, a Participant or his or her successor shall make arrangements satisfactory to the Company for the satisfaction of any withholding tax obligations that arise in connection with the Plan. The Company shall not be required to issue any Common Shares or make any cash payment under the Plan until such obligations are satisfied.

15.2 **Share Withholding**. The Committee may permit a Participant to satisfy all or part of his or her withholding or income tax obligations by having the Company withhold all or a portion of any Common Shares that otherwise would be issued to him or her or by surrendering all or a portion of any Common Shares that he or she previously acquired. Such Common Shares shall be valued at their Fair Market Value on the date when taxes otherwise would be withheld in cash. Any payment of taxes by assigning Common Shares to the Company may be subject to restrictions, including any restrictions required by rules of the Securities and Exchange Commission.

ARTICLE 16. ASSIGNMENT OR TRANSFER OF AWARDS

16.1 **General**. An Award granted under the Plan shall not be anticipated, assigned, attached, garnished, optioned, transferred or made subject to any creditor s process, whether voluntarily, involuntarily or by operation of law, except as approved by the Committee. Notwithstanding the foregoing, ISOs and, prior to the Company s initial public offering, NSOs may not be transferable. However, this Article 16 shall not preclude a Participant from designating a beneficiary who will receive any outstanding Awards in the event of the Participant s death, nor shall it preclude a transfer of Awards by will or by the laws of descent and distribution.

16.2 **Trusts**. Neither this Article 16 nor any other provision of the Plan shall preclude a Participant from transferring or assigning Restricted Shares to (a) the trustee of a trust that is revocable by such Participant alone, both at the time of the transfer or assignment and at all times thereafter prior to such Participant s death, or (b) the trustee of any other trust to the extent approved in advance by the Committee in writing. A transfer or assignment of Restricted Shares from such trustee to any person other than such Participant shall be permitted only to the extent approved in advance by the Committee in writing, and Restricted Shares held by such trustee shall be subject to all of the conditions and restrictions set forth in the Plan and in the applicable Stock Award Agreement, as if such trustee were a party to such Agreement.

ARTICLE 17. FUTURE OF THE PLAN

17.1 **Term of the Plan**. The Plan, as set forth herein, was adopted as of August 1, 1997, and became effective August 1, 1997, except that Articles 7, 8 and 9 shall not be effective prior to the date of the Company s initial public offering on April 14, 1998. The Plan shall remain in effect until it is terminated under Section 17.2, except that no ISOs shall be granted after July 31, 2007.

17.2 **Amendment or Termination**. The Board may, at any time and for any reason, amend or terminate the Plan. An amendment of the Plan shall be subject to the approval of the Company s stockholders only to the extent required by applicable laws, regulations or rules. No Awards shall be granted under the Plan after the termination thereof. The termination of the Plan, or any amendment thereof, shall not affect any Award previously granted under the Plan.

ARTICLE 18. DEFINITIONS

18.1 Award means any award of an Option, an SAR, a Restricted Share or a Stock Unit under the Plan.

18.2 Board means the Company s Board of Directors, as constituted from time to time.

18.3 Change in Control shall mean the occurrence of any of the following events:

(a) The consummation of a merger or consolidation of the Company with or into another entity or any other corporate reorganization, if more than 50% of the combined voting power of the continuing or surviving entity s securities outstanding immediately after such merger, consolidation or other reorganization is owned by persons who were not stockholders of the Company immediately prior to such merger, consolidation or other reorganization;

(b) A change in the composition of the Board, as a result of which fewer than one-half of the incumbent directors are directors who either:

(A) Had been directors of the Company 24 months prior to such change; or

(B) Were elected, or nominated for election, to the Board with the affirmative votes of at least a majority of the directors who had been directors of the Company 24 months prior to such change and who were still in office at the time of the election or nomination; or

(c) Any person (as such term is used in sections 13(d) and 14(d) of the Exchange Act) by the acquisition or aggregation of securities is or becomes the beneficial owner, directly or indirectly, of securities of the Company representing 50% or more of the combined voting power of the Company s then outstanding securities ordinarily (and apart from rights accruing under special circumstances) having the right to vote at elections of directors (the Base Capital Stock); except that any change in the relative beneficial ownership of the Company s securities by any person resulting solely from a reduction in the aggregate number of outstanding shares of Base Capital Stock, and any decrease thereafter in such person s ownership of securities, shall be disregarded until such person increases in any manner, directly or indirectly, such person s beneficial ownership of any securities of the Company. Thus, for example, any person who owns less than 50% of the Company s outstanding shares, shall cause a Change in Control to occur as of any subsequent date if such person then acquires an additional interest in the Company which, when added to the person s previous holdings, causes the person to hold more than 50% of the Company s outstanding shares.

The term Change in Control shall not include the Company s initial public offering or a transaction, the sole purpose of which is to change the state of the Company s incorporation.

18.4 Code means the Internal Revenue Code of 1986, as amended.

18.5 Committee means a committee of the Board, as described in Article 2.

18.6 Common Share means one share of the common stock of the Company.

18.7 Company means Nanogen, Inc., a Delaware corporation.

18.8 Exchange Act means the Securities Exchange Act of 1934, as amended.

18.9 Exercise Price, in the case of an Option, means the amount for which one Common Share may be purchased upon exercise of such Option, as specified in the applicable Stock Option Agreement. Exercise Price, in the case of an SAR, means an amount, as specified in the applicable SAR Agreement, which is subtracted from the Fair Market Value of one Common Share in determining the amount payable upon exercise of such SAR.

18.10 Fair Market Value means the market price of Common Shares, determined by the Committee as follows:

(a) If the Common Shares were traded over-the-counter on the date in question but was not traded on the Nasdaq Stock Market or the Nasdaq National Market, then the Fair Market Value shall be equal to the mean between the last reported representative bid and asked prices quoted for such date by the principal automated inter-dealer quotation system on which the Common Shares are quoted or, if the Common Shares are not quoted on any such system, by the Pink Sheets published by the National Quotation Bureau, Inc.;

(b) If the Common Shares were traded over-the-counter on the date in question and were traded on the Nasdaq Stock Market or the Nasdaq National Market, then the Fair Market Value shall be equal to the last-transaction price quoted for such date by the Nasdaq Stock Market or the Nasdaq National Market;

(c) If the Common Shares were traded on a stock exchange on the date in question, then the Fair Market Value shall be equal to the closing price reported by the applicable composite transactions report for such date; and

(d) If none of the foregoing provisions is applicable, then the Fair Market Value shall be determined by the Committee in good faith on such basis as it deems appropriate.

Whenever possible, the determination of Fair Market Value by the Committee shall be based on the prices reported in the Western Edition of *The Wall Street Journal*. Such determination shall be conclusive and binding on all persons.

18.11 ISO means an incentive stock option described in section 422(b) of the Code.

18.12 Key Employee means (a) a common-law employee of the Company, a Parent or a Subsidiary, (b) an Outside Director and (c) a consultant or adviser who provides services to the Company, a Parent or a Subsidiary as an independent contractor. Service as an Outside Director or as an independent contractor shall be considered employment for all purposes of the Plan, except as provided in Sections 4.2 and 4.3.

18.13 NSO means a stock option not described in sections 422 or 423 of the Code.

18.14 Option means an ISO or NSO granted under the Plan and entitling the holder to purchase one Common Share.

18.15 Optionee means an individual or estate who holds an Option or SAR.

18.16 Outside Director shall mean a member of the Board who is not a common-law employee of the Company, a Parent or a Subsidiary.

18.17 Parent means any corporation (other than the Company) in an unbroken chain of corporations ending with the Company, if each of the corporations other than the Company owns stock possessing 50% or more of the total combined voting power of all classes of stock in one of the other corporations in such chain. A corporation that attains the status of a Parent on a date after the adoption of the Plan shall be considered a Parent commencing as of such date.

18.18 Participant means an individual or estate who holds an Award.

18.19 Plan means this 1997 Stock Incentive Plan of Nanogen, Inc., as amended from time to time.

18.20 Restricted Share means a Common Share awarded under the Plan.

18.21 SAR means a stock appreciation right granted under the Plan.

18.22 SAR Agreement means the agreement between the Company and an Optionee which contains the terms, conditions and restrictions pertaining to his or her SAR.

18.23 Stock Award Agreement means the agreement between the Company and the recipient of a Restricted Share or Stock Unit which contains the terms, conditions and restrictions pertaining to such Restricted Share or Stock Unit.

18.24 Stock Option Agreement means the agreement between the Company and an Optionee which contains the terms, conditions and restrictions pertaining to his or her Option.

18.25 Stock Unit means a bookkeeping entry representing the equivalent of one Common Share, as awarded under the Plan.

18.26 Subsidiary means any corporation (other than the Company) in an unbroken chain of corporations beginning with the Company, if each of the corporations other than the last corporation in the unbroken chain owns stock possessing 50% or more of the total combined voting power of all classes of stock in one of the other corporations in such chain. A corporation that attains the status of a Subsidiary on a date after the adoption of the Plan shall be considered a Subsidiary commencing as of such date.

ARTICLE 19. EXECUTION

To record the adoption of the Plan by the Board, the Company has caused its duly authorized officer to affix the corporate name and seal hereto.

NANOGEN, INC.

/s/ WILLIAM L. RESPESS
William L. Respess, Esq.

Senior Vice President, General Counsel and Secretary

PROXY

NANOGEN, INC.

PROXY SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS

FOR ANNUAL MEETING ON JUNE 13, 2007

William L. Respess and Robert W. Saltmarsh, or each of them, each with the power of substitution, are hereby authorized to represent as proxies and vote all shares of stock of Nanogen, Inc. (the Company) that the undersigned is entitled to vote at the Annual Meeting of Stockholders of the Company to be held at the Company s principal executive offices located at 10398 Pacific Center Court, San Diego, California 92121 on June 13, 2007 at 10:00 a.m. or at any postponement or adjournment thereof.

Shares represented by this proxy will be voted as directed by the stockholder. **If no such directions are indicated, the proxies will have authority to vote FOR the election of the director nominee listed in Item 1 and FOR Items 2 and 3.**

(CONTINUED AND TO BE SIGNED ON REVERSE SIDE)

SEE REVERSE SIDE SEE REVERSE SIDE

X Please mark votes as in this example.

The Board of Directors recommends a vote FOR the election of the director nominee listed in Item 1 and FOR Items 2 and 3.

1. To elect Heiner Dreismann to Class III of the Company s Board of Directors.

FOR THE NOMINEE ¨ ¨ WITHHELD FROM THE NOMINEE

¨ (FOR THE NOMINEE EXCEPT AS NOTED ABOVE.)

2. To approve an amendment of the 1997 Stock Option Plan to increase the number of shares authorized for issuance thereunder by 4,000,000 shares. ¨ ¨ ¨

3. To ratify the appointment of Ernst & Young LLP as the Company s independent registered public accounting firm. ¨ ¨ ¨

MARK HERE FOR ADDRESS CHANGE AND NOTE AT LEFT ¨

PLEASE MARK, SIGN, DATE AND MAIL THIS PROXY CARD PROMPTLY, USING THE ENCLOSED ENVELOPE.

Please sign exactly as your name(s) appear on this proxy. When singing as attorney, executor, administrator, trustee or guardian, please give full title as such. If shares are held jointly, each holder should sign.

Signature:_____ Date: _____ Signature: _____ Date: _____

PROXY

NANOGEN, INC.