NANOGEN INC
Form DEF 14A
April 29, 2005
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SCHEDULE 14A INFORMATION

Proxy Statement Pursuant to Section 14(a)

of the Securities Exchange Act of 1934

Filed by the Registrant x

Filed by a Party other than the Registrant ¨

Check the appropriate box:

¨ Preliminary Proxy Statement
x Definitive Proxy Statement
¨ Definitive Additional Materials
¨ Soliciting Material Pursuant to §240.14a-11(c) or §240.14a-12

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

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)(1) 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:

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10398 Pacific Center Court

San Diego, California 92121

Tel: (858) 410-4600

Fax: (858) 410-4949

April 30, 2005

Dear Stockholder:

You are cordially invited to attend our Annual Meeting of Stockholders, which will be held on Thursday, June 9, 2005 at 11:00 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

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Nanogen, Inc.

Notice Of Annual Meeting Of Stockholders

To Be Held June 9, 2005

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 9, 2005, at 11:00 a.m., for the following purposes:

1. To elect two Class I directors, one Class II director and 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 1,500,000 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, 2005.

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 15, 2005, 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, 2005

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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 June 9, 2005, and any adjournment 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 4, 2005.

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 nominees for Class I, Class II and Class III directors 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 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 voting in person at the Annual Meeting. 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 15, 2005 are entitled to notice of and to vote at the Annual Meeting. As of April 15, 2005 the Company had 47,771,773 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, each 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 I, Class II and Class III directors and will have no effect on the outcome. A broker non-vote has no effect in the outcome of the election of the directors, 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

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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 nominees 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 2005 (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.

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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 one Class III director. The Class I directors each have a term expiring at the Annual Meeting, the Class II directors have a term expiring at the 2006 annual meeting of stockholders and the Class III director has a term expiring at the 2007 annual meeting of stockholders. The Board of Directors also has proposed that two new members be added at this meeting that will increase the number of board seats by two.

The Nominating, Governance and Ethics Committee of the Board of Directors recommended, and the Board of Directors approved, Howard C. Birndorf and Robert E. Whalen as the nominees for election at the Annual Meeting to Class I of the Board of Directors. It has also recommended the addition of William G. Gerber and Frank H. Jellinek Jr. as the nominees to Class III and Class II, respectively, of the Board of Directors. Mr. Birndorf has served as a director since 1993 and Mr. Whalen has served as a director since 2002. Dr. Gerber and Mr. Jellinek are new director nominees and were recommended to the Nominating and Corporate Governance Committee by Mr. Birndorf. If elected, Mr. Birndorf and Mr. Whalen will each serve for a term of three years expiring at the 2008 annual meeting of stockholders, Dr. Gerber will serve a term of two years expiring at the 2007 annual meeting of stockholders and Mr. Jellinek will serve a term of one year expiring at the 2006 annual meeting of stockholders or until their respective successors shall have been elected and qualified. Mr. Birndorf, Mr. Whalen, Dr. Gerber and Mr. Jellinek have each consented to be named as the nominees and agreed to serve if elected. If, however, any of them is unable to serve, proxies will be voted for such persons 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 nominees to the Board of Directors:

NOMINEES TO SERVE AS CLASS I DIRECTORS SERVING A TERM EXPIRING AT THE 2008 ANNUAL MEETING

Howard C. Birndorf, age 55

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 was a founding director of Graviton, Inc., a wireless sensor company, chairman of the board of FASTRAQ and a director of the Cancer Center of the

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University of California, San Diego. Mr. Birndorf received a B.A. in Biology from Oakland University and an M.S. in Biochemistry from Wayne State University. Mr. Birndorf received an honorary Doctor of Science degree from Oakland University.

Robert E. Whalen, age 62

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.

NOMINEE TO SERVE AS CLASS II DIRECTOR SERVING A TERM EXPIRING AT THE 2006 ANNUAL MEETING

Frank H. Jellinek Jr., age 59

Mr. Jellinek, a new director nominee, is currently Chairman Emeritus of Fisher Scientific International (Fisher) and serves on Fisher s board of directors. Mr. Jellinek served as President, Chief Executive Officer and a director of Apogent Technologies Inc. (Apogent) from December 2000 to August 2004, when it was acquired by Fisher. He served as President and Chief Executive Officer of Apogent s subsidiary, Sybron Laboratory Products Corporation, from May 1998 to December 2000. He served as President of Apogent s subsidiary, Erie Scientific Company, from 1972 to 1998. He received an MBA from the Canisius College and a B.S. in business administration from Miami University.

NOMINEE TO SERVE AS CLASS III DIRECTOR SERVING A TERM EXPIRING AT THE 2007 ANNUAL MEETING

William G. Gerber, age 58

Dr. Gerber, a new director nominee, 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 Bioscienses and 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.

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Set forth below is information regarding the continuing directors of Class II and Class III:

CURRENT CLASS II DIRECTORS SERVING A TERM EXPIRING AT THE 2006 ANNUAL MEETING

Stelios B. Papadopoulos, age 64

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, age 45

Mr. Schreiber has been a director of Nanogen since June 2003. Mr. Schreiber has served on the board of directors of Specialty Laboratories since June 2004. 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

Val Buonaiuto, age 62

Mr. Buonaiuto has been a director of the Company since October 1999. Mr. Buonaiuto has been a Senior Advisor to Hitachi High Technologies from 1998 to the present. From 1991 to 1998 he served as President and Chief Executive Officer of Hitachi Instruments, Inc. Prior to joining Hitachi Instruments as Vice President, Sales and Marketing in 1987, Mr. Buonaiuto held the position as General Manager of Perkin-Elmer s Worldwide Instrument Sales and Service Operations. His professional experience spans the following areas: manufacturing, engineering, sales, service and operations and corporate management. Mr. Buonaiuto received his A.S. from Western Connecticut State University.

Board Meetings and Committees

The Board of Directors held twelve (12) meetings during 2004. 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.

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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 and the reasons therefore on our website at *www.nanogen.com*.

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, and each of our new director nominees, except for Mr. Gerber, is independent within the meaning of the applicable Nasdaq listing standards. Mr. Gerber is not independent due his consulting relationship with the Company described under the section Certain Transactions.

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.

Compensation Committee. The current members of the Compensation Committee are Val Buonaiuto and David Schreiber. The Board of Directors believes that each of the members of the Compensation Committee is independent in accordance with the listing standards of the Nasdaq Stock Market. The Compensation Committee held four (4) meetings during 2004. The Compensation Committee s functions are to (i) discharge the Board of Directors responsibilities relating to the compensation of the Company s executive officers, (ii) approve and evaluate the executive officers compensation, plans, policies and programs, and (iii) produce an annual report on executive compensation for inclusion in our proxy statement.

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 2004. 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 Val Buonaiuto, 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 (1) meeting in 2004.

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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 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.

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. Two directors attended the Company s 2004 annual meeting of stockholders.

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SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS, DIRECTORS AND MANAGEMENT

The following table sets forth information as of February 7, 2005 (except as noted below) as to shares of Common Stock of the Company beneficially owned by (i) each of the Company s directors and director nominees, (ii) each of the executive officers of the Company named in the Summary Compensation Table set forth herein, (iii) the current directors and executive officers of the Company as a group and (iv) each person known by the Company to be the beneficial owner of more than 5% of the outstanding shares of Common Stock of the Company.

Name and Address of Beneficial Owner	Beneficial Ownership of Common Stock (1)	
	Number of Shares	Percentage of Class
Citigroup, Inc. and Affiliates(2) 399 Park Avenue New York, NY 10043	2,955,788	6.20%
Grace Brothers, Ltd.(3) 1560 Sherman Avenue, Suite 900 Evanston, IL 60201	2,605,429	5.46%
Howard C. Birndorf(4) c/o Nanogen, Inc. 10398 Pacific Center Court San Diego, CA 92121	1,757,074	3.60%
Val Buonaiuto(5)	10,000	*
David G. Ludvigson(6)	438,316	*
Bruce Huebner	20,000	*
Graham Lidgard, Ph.D.(7)	186,372	*
Robert Whalen(8)	28,496	*
Stelios Papadopoulos(9)	65,267	*
David Schreiber(10)	17,204	*
William L. Respess(11)	36,000	*
Robert Saltmarsh(12)	34,375	*
William G. Gerber(13)	226,641	*
Frank H. Jellinek(14)	0	*
All directors and executive officers as a group (12 persons)(15)	2,815,072	5.66%

* 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 February 7, 2005. Shares of common stock issuable upon exercise of options currently exercisable, or exercisable within 60 days after February 7, 2005, 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/A filed on January 10, 2005 with the SEC by Citigroup Global Markets Inc. (CGM), CGM claimed it had shared voting power and shared dispositive power over 1,831,902 shares of common stock, Citigroup Financial Products Inc. (CFP) claimed it had shared voting power and shared

dispositive power over 1,832,162 shares of common stock, Citigroup Global Markets Holdings Inc. (CGM Holdings) claimed it had shared voting power and shared dispositive power over 2,927,222 shares of common stock, and Citigroup Inc. (Citigroup) claimed it had shared voting power and shared dispositive power over 2,955,788 shares of common stock. CGM, CFP, CGM Holdings and Citigroup each reported that the respective shares listed for each respective entity includes shares for which each such reporting entity disclaims beneficial ownership. CFP is the sole stockholder of CGM. CGM Holdings is the sole stockholder of CFP. Citigroup is the sole stockholder of CGM Holdings.

(3) Pursuant to a Schedule 13G filed on January 3, 2005 with the SEC by Grace Brothers, Ltd. (Grace), Grace and Spurgeon Corporation (Spurgeon) each claimed it had shared voting power and shared dispositive power over 2,090,463 shares of common stock, and Bradford T. Whitmore (Whitmore) claimed he had shared voting power and shared dispositive power over 2,090,463 shares of common stock and sole voting power and sole dispositive power over 514,966 shares of common stock. Whitmore and Spurgeon are the general partners of Grace.

(4) Includes 1,066,522 shares issuable upon the exercise of options within 60 days of February 7, 2005.

(5) Includes 10,000 shares issuable upon the exercise of options within 60 days of February 7, 2005.

(6) Includes 390,124 shares issuable upon the exercise of options within 60 days February 7, 2005.

(7) Includes 184,372 shares issuable upon the exercise of options within 60 days of February 7, 2005.

(8) Includes 18,229 shares issuable upon the exercise of options within 60 days of. February 7, 2005.

(9) Includes 55,000 shares issuable upon the exercise of options within 60 days of February 7, 2005.

(10) Includes 10,937 shares issuable upon the exercise of options within 60 days of February 7, 2005.

(11) Includes 16,666 shares issuable upon the exercise of options within 60 days of February 7, 2005.

(12) Includes 34,375 shares issuable upon the exercise of options within 60 days of February 7, 2005.

(13) Includes 221,968 shares issuable upon the exercise of options within 60 days of February 7, 2005.

(14) Includes -0- shares issuable upon the exercise of options within 60 days of February 7, 2005.

(15) Includes five Board members, one of whom is an executive officer, two proposed board members and four other current executive officers.

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COMPENSATION OF EXECUTIVE OFFICERS AND DIRECTORS

Executive Officers

The names of and certain biographical information of the Company s current executive officers are as follows:

Name	Age	Position
Howard C. Birndorf	55	Chairman and Chief Executive Officer
David Ludvigson	54	President and Chief Operating Officer
Graham Lidgard, Ph.D	56	Senior Vice President, Research and Development
William L. Respess	65	Senior Vice President, General Counsel, Secretary
Robert Saltmarsh	54	Chief Financial Officer

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 was a founding director of Graviton, Inc., a wireless sensor company, chairman of the board of FASTRAQ and a director of the Cancer Center of the University of California, San Diego. Mr. Birndorf received a B.A. in Biology from Oakland University and an M.S. in Biochemistry from Wayne State University. Mr. Birndorf received an honorary Doctor of Science degree from Oakland University.

David G. Ludvigson. Mr. Ludvigson joined Nanogen full-time in May 2003 as Executive Vice President, Chief Financial Officer and Treasurer. In June of 2004, Mr. Ludvigson was appointed to his current position of President and Chief Operating Officer. 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 Argonaut Technologies, Inc. and Kiyon, Inc. Mr. Ludvigson received a B.S. and an M.A.S. from the University of Illinois.

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 Corning Medical/Ciba Corning

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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.

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.

Summary Compensation Information

The following table provides certain summary information concerning the compensation earned by the Company s Chief Executive Officer and each of the four other most highly compensated executive officers of the Company whose salary and bonus for the 2004 fiscal year was in excess of $100,000, for services rendered in all capacities to the Company and its subsidiaries for the fiscal years ended December 31, 2002, 2003 and 2004. No other executive officers who would have otherwise been includable in such table on the basis of salary and bonus earned for the 2004 fiscal year has been excluded by reason of his or her termination of employment or change in executive status during that year. The listed individuals shall be hereinafter referred to as the Named Executive Officers.

Summary Compensation Table

		Annual Compensation			Long-Term Compensation Awards		
Name and Principal Position	**Year**	**Salary($)**	**Bonus($)**	**Other Annual Compensation ($)**	**Restricted Stock Awards($)**	**Securities Underlying Options(#)**	**All Other Compensation ($)(1)**
Howard C. Birndorf	2004	$ 485,000	$ 115,000(13)			300,000	$ 7,328(3)
Chief Executive Officer	2003	$ 420,000	$ 67,000(2)			325,000	$ 46,171(3)
	2002	$ 385,000	$ 100,000(4))			550,000	$ 83,318(3)

David G. Ludvigson	2004	$ 277,094	$ 235,000(6)(13)	450,000	$	1,360
	2003	$ 167,000(5)	$ 40,000(6)	265,000(7)	$	8,074(8)
President,						
Chief Operating Officer						
William L. Respess	2004	$ 210,385(9)	$ 44,000(13)	250,000	$	2,723
Senior Vice President,						
General Counsel and						
Secretary						
Graham Lidgard, Ph.D.	2004	$ 223,965	$ 54,000(13)	100,000	$	2,070
	2003	$ 204,000(10)		225,000	$	1,750
Senior Vice President,						
Research and						
Development						
Bruce A. Huebner	2004	$ 182,102(11)			$	865
	2003	$ 253,000		162,500	$	1,260
Former President and	2002	$ 20,833(12)		375,000	$	1,242
Chief Operating Officer						

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(1) Includes in 2004 $2,328, $1,360, $2,723, $2,070, and $865 of calculated imputed income attributed to Mr. Birndorf, Mr. Ludvigson, Mr. Respess, Mr. Lidgard, and Mr. Huebner, respectively, in connection with the excess group term life insurance. Includes in 2003 $2,171, $1,260, $324, and $1,750 of calculated imputed income attributed to Mr. Birndorf, Mr. Huebner, Mr. Ludvigson, and Mr. Lidgard, respectively, in connection with excess group term life insurance. Includes in 2002 $1,242 and $1,242 of calculated imputed income attributed to Mr. Birndorf and Mr. Huebner, respectively, in connection with excess group term life insurance.

(2) Represents the accrued portion of a guaranteed annual bonus of $100,000, which was eliminated in July 2003.

(3) Amount includes $5,000, $44,000 and $82,076 for the years ended December 31, 2004, 2003 and 2002, respectively, of payments Mr. Birndorf received from a local charter aircraft company related to the Company s use of his aircraft for business related travel. For further information concerning the arrangement see Certain Transactions below.

(4) $100,000 was paid pursuant to a guaranteed annual bonus.

(5) Mr. Ludvigson joined the Company as an employee in May 2003, and his salary for 2003 reflects a partial year of service.

(6) Includes a one-time sign-on bonus of $150,000 paid in 2004 and a $40,000 one-time sign-on bonus in 2003.

(7) Includes options to purchase an aggregate of 73,332 shares that were granted to Mr. Ludvigson in his capacity as a non-employee Board member at the time of grant.

(8) Represents payments in the aggregate of $7,750 made for attendance at Board meetings during the period of Mr. Ludvigson s service as a non-employee Board member.

(9) Mr. Respess joined the Company in April 2004, and his salary for 2004 reflects a partial year of service.

(10) Mr. Lidgard joined the Company in January 2003, and his salary for 2003 reflects a partial year of service.

(11) Amount represents partial year salary for Mr. Huebner through September 2004. Mr. Huebner resigned as President in June 2004 and terminated his employment on September 3, 2004.

(12) Mr. Huebner joined the Company as an employee in December 2002, and his salary for 2002 reflects a partial year of service.

(13) Represents the Named Executive Officer s discretionary bonus earned for the 2004 fiscal year but paid in February 2005

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Securities Authorized for Issuance Under Equity Compensation Plans

The following table provides information as of December 31, 2004 with respect to shares of the Company s Common Stock that may be issued under the Company s existing equity compensation plans. The table does not include information with respect to outstanding options granted under certain equity compensation plans assumed by the Company in connection with mergers and acquisitions and pursuant to which no additional options may be granted by the Company. Footnote 6 to the table sets forth the total number of shares of the Company s common stock issuable upon the exercise of those assumed options as of December 31, 2004 and the weighted average exercise price of those options.

Plan Category	A. Number of Shares to be Issued Upon Exercise of Outstanding Options	B. Weighted Average Exercise Price of Outstanding Options	C. Number of Shares Remaining Available for Future Issuance (Excluding Securities Reflected in Column A)
Equity compensation plans approved by stockholders (1)	4,778,578(2)	$ 4.93	791,346(3)
Equity compensation plans not approved by stockholders (4)	431,760	$ 5.08	575,516(5)
Total	5,210,338	$ 4.95	1,366,862

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

(2) Excludes purchase rights accruing under the Purchase Plan which has a shareholder approved reserve of 600,000 shares. Under the 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) Consists of shares available for issuance under the Purchase Plan, the Bonus Plan, the 1993 Stock Option Plan, the 1995 Stock Option/Stock Issuance Plan, and the 1997 Stock Incentive Plan. As of December 31, 2004, 137,414 shares were available for issuance under the Purchase Plan, 178,390 shares were available for issuance under the Bonus Plan, and 475,542 shares were available for issuance

under the 1997 Stock Incentive Plan, respectively. No further shares were available for issuance under the 1993 Stock Option Plan or the 1995 Stock Option/Stock Issuance Plan. The 475,542 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.

(4) Consists of the Epoch Biosciences, Inc. 2003 Stock Incentive Plan. In connection with the acquisition of Epoch Biosciences, Inc., 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. We also assumed the remaining unallocated reserve under the Epoch Biosciences, Inc. 2003 Stock Incentive Plan and converted that reserve into an additional 575,516 shares of Common Stock in accordance with such exchange ratio.

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(5) 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.

(6) The table does not include information with respect to outstanding options granted under certain equity compensation plans assumed by the Company in connection with mergers and acquisitions and pursuant to which no additional options may be granted by the Company. As of December 31, 2004 a total of 978,703 shares of Common Stock were subject to those assumed options, and the weighted average exercise price of those assumed options was $21.74 per share.

The Epoch Biosciences, Inc. 2003 Stock Incentive Plan

As of December 31, 2004, approximately 575,516 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, 2004 options to purchase 431,760 shares of Common Stock were outstanding under the assumed Epoch Biosciences, Inc. 2003 Stock Incentive Plan, 1,007,276 shares of Common Stock had been authorized under such plan, and 575,516 shares of Common Stock remained available for future issuance. On January 1, 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.

Employment, Severance and Change in Control Agreements

Effective as of June 3, 2001, the Company entered into an employment agreement with Howard C. Birndorf relating to his employment as Executive Chairman of the Company. The term of the agreement is three (3) years, subject to automatic renewal for successive additional three (3) year terms. In the event the agreement is not renewed, Mr. Birndorf will become entitled to salary continuation payments for a period of 18 months. The agreement originally provided Mr. Birndorf with (i) an annual base salary of $365,000, subject to adjustment annually, (ii) an annual guaranteed bonus of $100,000 and (iii) an additional bonus potential of up to 60% of his base salary contingent upon the Company s achievement of performance goals determined annually by the Board (the Achievement Bonus). In 2003, Mr. Birndorf became the Chief Executive Officer of the Company and a member of the Board of Directors. In connection therewith, Mr. Birndorf agreed to an amendment to his employment agreement pursuant to which his base salary was increased to $485,000 per year and his $100,000 guaranteed annual bonus was eliminated. In the event of a change in control or other significant event defined in his employment agreement, Mr. Birndorf will become entitled to a transaction bonus in the amount equal to 180% of his annual base salary (the Transaction Bonus), and accelerated vesting of all of his outstanding options, with such vesting to occur automatically upon a change of control or with the approval of the Board upon the occurrence of any other significant event. Any Transaction Bonus paid to Mr. Birndorf in connection with such a change in control or other significant event will be in lieu of any Achievement Bonus to which he

might otherwise become entitled for the year in which such Transaction Bonus is paid. If there is a change in control and Mr. Birndorf s employment is terminated without cause or there is a constructive termination of his employment, including a material reduction in his duties and responsibilities, he will become entitled to salary continuation payments for a period of 18 months. In the event Mr. Birndorf s employment with the Company is terminated without cause, or in the event of a constructive termination of his employment, in the absence of a change in control, he will become entitled to six months of salary continuation. During any period in which salary continuation payments are being made to Mr. Birndorf, he has agreed not to engage in any business activity that is competitive with the Company or hire or solicit any employee or exclusive consultant of the Company.

Effective as of January 24, 2003, the Company entered into an employment agreement with Graham Lidgard. The term of the agreement is three (3) years, subject to automatic renewal for successive additional three (3) year terms. In the event the agreement is not renewed, Mr. Lidgard will become entitled to salary continuation payments for a period of 6 months. Pursuant to this agreement Mr. Lidgard will receive an annual base salary of $210,000, subject to adjustment annually. Mr. Lidgard will also be entitled to a bonus of up 50% of his base salary contingent upon the Company s achievement of performance goals determined annually by the Board (the Achievement Bonus). In the event of a change in control or other significant event defined in his employment agreement, Mr. Lidgard will receive a transaction bonus in an amount equal to 50% of his annual base salary (the Transaction Bonus); and all his outstanding options will vest in full, either automatically upon a change of control or with the approval of the Board upon the occurrence of any other significant event. Any Transaction Bonus paid to Mr. Lidgard in connection with such a change in control or other significant event will be in lieu of any Achievement Bonus to which he might otherwise become entitled for the year in which such Transaction Bonus is paid. Mr. Lidgard is also entitled to six months of salary continuation in the event his employment with the Company is terminated without cause or in the event of a constructive termination, including a material reduction in his duties and responsibilities. In the event of Mr. Lidgard s disability, he will be entitled to salary continuation payments until the earlier of (i) 90 days following his termination date due to his disability or (ii) the date he becomes entitled to receive disability benefits payments under the disability insurance policy maintained by the Company. During any period in which salary continuation payments are being made he has agreed not to engage in any business activity that is competitive with the Company or hire or solicit any employee or exclusive consultant of the Company.

Effective December 1, 2002 the Company entered into an employment agreement with Bruce A. Huebner. Pursuant to his agreement, Mr. Huebner received an annual base salary of $250,000 and he was entitled to receive an annual bonus of up to 55% of his annual base salary contingent upon the Company s achievement of performance goals determined annually by the Board. Mr. Huebner s employment agreement with the Company terminated in June 2004 in connection with his resignation from the Company. On September 3, 2004 the Company and Mr. Huebner entered into a consulting agreement pursuant to which Mr. Huebner agreed to perform consulting services to the Company from time to time as requested by the Company during the period beginning on September 3, 2004 and ending on October 31, 2004. Mr. Huebner s consulting agreement extended the termination date of his 255,207 vested stock options until March 7, 2005.

May 1, 2003, the Company entered into an employment agreement with David Ludvigson whereby he became Executive Vice President, Chief Financial Officer and Treasurer. The agreement provided for an annual base salary of $250,000, a one time sign-on bonus of $40,000 and additional incentive compensation of up to 50% of Mr. Ludvigson s base salary, half of which was based solely on the discretion of the Board and the other half of which was contingent upon the Company s achievement of performance goals determined annually by the Board. In June 2004, Mr. Ludvigson became the Company s President and Chief Operating Officer and the Company entered into a new employment agreement with Mr. Ludvigson effective June 1, 2004. The agreement provides for an annual base salary of $300,000 and an annual bonus in the amount of up to 55% of his base salary composed as follows: up to 30% of his annual base salary may be awarded based on achievement of annual milestones subject to the approval of the Board of Directors and 25% of his annual salary may be awarded solely at the discretion of the Board of Directors. Mr. Ludvigson also received a one time bonus of $150,000 and an option to purchase 300,000 shares of Nanogen common stock at fair market value in connection with the June

2004 employment agreement, which options vest in equal monthly installments over a four year period. In the event of a change in control or other significant event defined in his employment agreement, Mr. Ludvigson will become entitled to a transaction bonus in the amount equal to two (2) times 50% of his annual base salary (the Transaction Bonus), and accelerated vesting of all of his outstanding options, with such vesting to occur automatically upon a change of control, or with the approval of the Board upon the occurrence of any other significant event. Any Transaction Bonus paid to Mr. Ludvigson in connection with such a change in control or other significant event will be in lieu of any annual bonus to which he might otherwise become entitled for the year in which such Transaction Bonus is paid. In the event Mr. Ludvigson s employment with the Company is terminated for any reason other than for cause, or in the event of a constructive termination of his employment, in the absence of a change in control, he will become entitled to six months of salary continuation and health insurance benefits.

On January 28, 2004, the Company entered into an employment agreement with William Respess relating to his employment as the Company s Senior Vice President, General Counsel and Secretary. The agreement provided for an annual base salary of $240,000 and a guaranteed annual bonus of $60,000. On May 3, 2004, the agreement was retroactively awarded to provide a base salary of $300,000, and eliminate the guaranteed bonus provision. Mr. Respess is eligible for an annual bonus in the amount of up to 50% of his base salary composed as follows: up to 25% of his annual base salary may be awarded based on annual milestones subject to the approval of the Board of Directors and up to 25% of his annual salary may be awarded solely at the discretion of the Board of Directors. In connection with his employment agreement, Mr. Respess also received an option to purchase 200,000 shares of Nanogen common stock at fair market value. The options vest in equal monthly installments over a four year period except that 25% will not vest until the first anniversary of Mr. Respess employment. In the event of a change in control or other significant event defined in his employment agreement, Mr. Respess may receive accelerated vesting of all of his outstanding options if determined by the Compensation Committee. In the event Mr. Respess employment with the Company is terminated for any reason other than for cause, or in the event of a constructive termination of his employment, in the absence of a change in control, he will become entitled to six months of salary continuation and health insurance benefits.

On December 20, 2004, the Company and Robert Saltmarsh entered into an employment agreement regarding the terms of Mr. Saltmarsh s employment. The agreement provides that Mr. Saltmarsh will receive an initial annual base salary of $240,000 and an annual achievement bonus of up to 50% of his base salary (the Achievement Bonus) based upon the achievement by the Company of its corporate goals as established and determined by the Board of Directors annually and for other achievements during the year as approved by the Compensation Committee. In addition, Mr. Saltmarsh is entitled to receive a transaction bonus equal to 50% of his base salary upon the occurrence of certain corporate transactions defined in the Employment Agreement (the Transaction Bonus). In the event Mr. Saltmarsh receives a Transaction Bonus, no Achievement Bonus will be paid to Mr. Saltmarsh in the year in which such Transaction Bonus is paid. In connection with his appointment as Chief Financial Officer, on January 5, 2005, the Compensation Committee of the Board of Directors granted Mr. Saltmarsh options to purchase 150,000 shares of the Company s common stock. The options vest in equal monthly installments over a four year period. In the event of a change in control or certain other corporate events, the agreement provides for accelerated vesting of all of his outstanding options, with such vesting to occur automatically upon a change of control, or with the approval of the Board upon the occurrence of any other significant event. If Mr. Saltmarsh s employment is terminated by the Company without cause or in the event of a constructive termination, the Company will continue to pay Mr. Saltmarsh s base salary for six months from the date of such termination as severance compensation. The agreement has an initial term of three years, subject to automatic renewal for successive additional three year terms. In the event the agreement is not renewed, Mr. Saltmarsh will become entitled to salary continuation payments for a period of six months. During any period in which salary continuation payments are being made to Mr. Saltmarsh, he has agreed not to engage in any business activity that is competitive with the Company or hire or solicit any employee or exclusive consultant of the Company.

In the event any payment or benefit provided to any individual under the Company s 1997 Stock Incentive Plan would subject that individual to the excise tax imposed by Section 4999 of the Internal Revenue Code

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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, together with any interest and penalties, imposed on the Gross-Up Payment.

Compensation of Directors

Each non-employee Board member receives an annual retainer of $25,000 to be paid entirely in shares of the Company s Common Stock, based on the closing stock price on the date of the Company s Annual Meeting of Stockholders. Accordingly, on June 9, 2004 Messrs, Whalen, Papadopoulos, Schreiber and Buonaiuto received 4,125 shares of the Company s Common Stock. 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. 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 the Company in the form of non-qualified stock options, restricted stock, stock units, or a combination thereof. None of the Company s non-employee Board members elected in 2004 to convert his 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 to purchase 25,000 shares of the Company s 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 the 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. All of the non-employee Board members elected to the Board in 2004 had previously served on the Board, and accordingly no 25,000 share option grants were awarded in 2004.

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 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, together with any interest and penalties, imposed on the Gross-Up Payment.

Compensation Committee Interlocks and Insider Participation

The following individuals served as members of the Company s Compensation Committee during 2004: Val Buonaiuto and David Schreiber, both of whom are independent directors. During 2004, none of our executive officers 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.

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Stock Options

The following tables summarize option grants to and exercises by the Company s Named Executive Officers during fiscal 2004, and the value of the options held by such persons at the end of fiscal 2004. None of the Named Executive Officers have been granted stock appreciation rights (SARs).

Option Grants in Fiscal 2004

	Individual Grants				Potential Realizable Value at Assumed Annual Rates of Stock Appreciation for Option Term(3)	
	Number of Securities Underlying Options Granted (#)	Percent of Total Options Granted to Employees in Fiscal Year 2004(1)	Exercise or Base Price ($/sh)(2)	Expiration Date	5%($)	10%($)
Howard C. Birndorf	300,000(4)	13.56%	$ 4.70	7/29/2014	$ 886,741	$ 2,247,177
David Ludvigson	300,000(5)	13.56%	$ 6.62	6/1/2014	$ 1,248,985	$ 3,165,173
David Ludvigson	150,000(6)	6.78%	$ 4.70	7/29/2014	$ 443,371	$ 1,123,588
Graham Lidgard, Ph.D	100,000(7)	4.52%	$ 4.70	7/29/2014	$ 295,580	$ 749,059
William L. Respess	200,000(8)	9.04%	$ 5.87	4/30/2014	$ 738,322	$ 1,871,054
William L. Respess	50,000(9)	2.26%	$ 4.70	7/29/2014	$ 147,790	$ 374,529
Bruce A. Huebner			$		$	$

(1) Based on 2,212,263 options granted during the fiscal year ended December 31, 2004.
(2) The exercise price on the date of grant was equal to 100% of the fair market value on the date of grant.
(3) The 5% and 10% assumed rates of appreciation are suggested by rules of the Securities and Exchange Commission and do not represent the Company s estimate or projection of the future Common Stock price. There can be no assurance that any of the values reflected in the table will be achieved.
(4) Options vest over a two-year period of service with the Company, with a six-month cliff.
(5) Options vest over a four-year period of service with the Company, beginning with the date of grant.
(6) Options vest over a two-year period of service with the Company, with a six-month cliff.
(7) Options vest over a two-year period of service with the Company, with a six-month cliff.
(8) Options vest over a four-year period of service with the Company, with a one-year cliff.
(9) Options vest over a two-year period of service with the Company, with a six-month cliff.

Aggregated Option Exercises in Fiscal 2004 and Value of Options

At End of Fiscal 2004

Name	Shares Acquired On Exercise	Value Realized- ($)(1)	Number of Securities Underlying Unexercised Options at End of Fiscal 2004 (#) Exercisable/Unexercisable	Value of Unexercised In-the-Money Options at End of Fiscal 2004($)(2) Exercisable/Unexercisable
Howard C. Birndorf			911,457/438,543	$ 3,494,523/$1,262,027
David Ludvigson	23,208	$ 86,585	299,499/448,959	$ 890,868/$735,805
Graham Lidgard, Ph.D			130,727/194,273	$ 614,759/$747,240
William L. Respess			0/250,000	$ 0/$431,000
Bruce A. Huebner	204,957	$ 641,252	50,250/0	$ 269,843/$0

(1) The value realized upon exercise is (i) the fair market value of the Company s Common Stock on the date of exercise, less the option exercise price per share, multiplied by (ii) the number of shares underlying the options exercised.

(2) The value of unexercised options is (i) the fair market value of the Company s Common Stock on December 31, 2004, $7.36 per share (the closing selling price of the Company s Common Stock on that date on the Nasdaq National Market), less the option exercise price of in-the-money options, multiplied by (ii) the number of shares underlying such options.

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COMPENSATION COMMITTEE REPORT ON EXECUTIVE COMPENSATION

The Company s executive compensation program is administered by the Compensation Committee of the Board of Directors. This report is submitted by the Compensation Committee to assist stockholders in their understanding of the Compensation Committee s objectives and procedures in establishing the compensation packages of the Company s executive officers and describes the basis on which compensation determinations for fiscal year 2004 were made by the Compensation Committee.

General Compensation Policy

The Compensation Committee s policy is to compensate executive officers based upon the achievement of Company performance objectives established with the Board of Directors and the individual contributions and achievements of each executive officer. The Company s existing compensation structure for executive officers generally includes a combination of (i) base salary that is competitive with the market and reflects individual performance, (ii) annual bonus awards payable in cash and tied to the achievement of individual and pre-established Company performance goals and (iii) long-term stock-based incentive awards designed to strengthen the mutuality of interests between the executive officers and the Company s stockholders.

The principal factors which the Compensation Committee considered in establishing the components of each executive officer s compensation package for the 2004 fiscal year are summarized below. The Compensation Committee may, however, at its discretion apply entirely different factors, particularly different measures of Company performance, in setting executive compensation for future fiscal years.

Base Salary

For comparative compensation purposes for the 2004 fiscal year, the Compensation Committee continued its practice of reviewing surveys prepared by The Radford Group and the Biotech Employment Development Coalition (BEDC) which include companies within and outside the industry which are comparable in size with the Company and which may compete with the Company for executive talent. The base salary for each officer was determined on the basis of the following factors: the salary levels in effect for comparable positions at the peer group companies (determined on the basis of the published survey data), the experience and personal performance of the officer and internal comparability considerations. The weight given to each of these factors differed from individual to individual, as the Compensation Committee deemed appropriate. The compensation level for the Company s executive officers for the 2004 fiscal year ranged from below the 50th percentile to above the 90th percentile of the base salary levels in effect for executive officers with comparable positions at the peer group companies, based on the published survey data.

In selecting the Radford and BECD Surveys for comparative compensation purposes, the Compensation Committee considered many factors not directly associated with the stock price performance of those companies, such as industry, development stage, organizational structure, number of employees, market capitalization and competition for similar executive talent. For that reason, there was no intent to establish a meaningful correlation between the companies included within the peer group identified for comparative compensation purposes and the companies included within the CRSP Total Return Index for Nasdaq Pharmaceutical Stock which the Company has selected as the industry index for purposes of the stock performance graph appearing later in this Proxy Statement.

Employment Agreements

The Company entered into employment agreements with two of its executive officers during 2004. In January 2004, the Company entered into an employment agreement with Larry Respess relating to his employment as the Company s Senior Vice President, General Counsel and Secretary. The agreement provided for an annual base salary of $240,000 and a guaranteed annual bonus of $60,000. On May 3, 2004, the agreement

was retroactively awarded to provide a base salary of $300,000, and eliminate the guaranteed bonus provision. Mr. Respess is eligible for annual bonus in the amount of up to 50% of his base salary composed as follows: up to 25% of his annual base salary may be awarded based on annual milestones subject to the approval of the Board of Directors and up to 25% of his annual salary may be awarded solely at the discretion of the Board of Directors. In approving the terms of Mr. Respess employment agreement, the Compensation Committee considered his more than three decades of biotechnology experience in intellectual property, licensing and general corporate law. In June 2004 the Company entered into an employment agreement with David Ludvigson as Executive Vice President, Chief Financial Officer and Treasurer, which superseded his previous employment agreement with the Company. Under the agreement, Mr. Ludvigson receives an annual base salary in the amount of $300,000 per year, a one time signing bonus in the amount of $150,000, and is eligible for a performance bonus as described below. In approving the terms of Mr. Ludvigson s compensation package, the Compensation Committee reviewed the recommendations of the Company s Chief Executive Officer, Mr. Ludvigson s experience and expected contributions to the Company s development and growth as well as data from the Radford survey**.** The terms of these employment agreements are summarized under the heading Employment, Severance and Change in Control Agreements. The Compensation Committee believes the employment agreements provide the competitive compensation package needed to retain the services of executive officers essential to the company s future growth and financial success and provide continuity and stability to the company s management team.

Annual Incentive Compensation

The annual target incentive bonus for each executive officer is based on a percentage of that officer s annual base pay (up to 60% for the Chief Executive Officer, up to 55% for the President, and up to 50% for each remaining executive officer) and is based upon two components: the achievement of Company performance objectives and each individual officer s contributions and performance. The first component is calculated based on an evaluation of the Company s 2004 annual corporate goals. The 2004 annual corporate goals included objectives related to the Company s product development programs as well as financial and operational targets based on revenue milestones and operating cash flow targets. The second component of the annual bonus is a discretionary calculation determined by the Compensation Committee and based on its assessment of each officer s personal contributions and achievements for the year. The actual dollar amounts of the 2004 bonus for the executive officers are set forth in the Summary Compensation Table.

Long Term Incentive Compensation

Long-term incentives are provided through stock option grants. During 2004, the Compensation Committee made option grants to Mr. Birndorf 300,000 shares, Mr. Ludvigson 450,000 shares, Mr. Lidgard 100,000 shares and Mr. Respess 250,000 shares. The grants are designed to align the interests of each executive officer with those of the Company s stockholders and 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 individual to acquire shares of the Company s common stock at a fixed price per share (the closing market price on the grant date) over a specified period of time (up to 10 years). Each option generally vests and becomes exercisable in installments over the executive officer s continued employment with the Company. Accordingly, the option will provide a return to the executive officer only if the executive officer remains employed by the Company during the applicable vesting period, and then only if the market price of the underlying shares appreciates over the option term.

Generally, a significant grant is made in the year that an executive officer commences employment. Thereafter, option grants may be made at varying times and in varying amounts based on the Compensation Committee s evaluation of the individual s position with the Company, his or her potential for future responsibility and promotion, his or her individual s performance in the recent period and the number and value of unvested options held by that individual at the time of the new grant. The relative weight given to each of these factors will vary from individual to individual at the Compensation Committee s discretion. Typically, the Company s executive officers receive a yearly option grant based on such factors.

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Executive Chairman and Chief Executive Officer Compensation

Howard C. Birndorf, the Company s Chief Executive Officer received $485,000 in base salary during fiscal year 2004. plus a bonus payment of $114,945 earned in 2004, but paid in February 2005. His base salary was at approximately the 75th percentile of the base salary levels in effect for other chief executive officers at the peer group of companies surveyed for comparative compensation purposes, and his bonus for the 2004 fiscal year was at the 50th percentile. In July 2003, Mr. Birndorf s annual rate of base salary was raised from $385,000 to $485,000 and his guaranteed bonus of $100,000 was eliminated. In maintaining his annual rate of base compensation in 2004, the Compensation Committee sought to maintain his base salary at a competitive level when compared with the base salary levels in effect for similarly situated chief executive officers. Mr. Birndorf s 2004 bonus was based upon the achievement of the Company s annual corporate goals and upon his individual performance in advancing the development and growth of the Company during 2004. The corporate goals upon which Mr. Birndorf s bonus for the 2004 fiscal year was in part based were the same as those in effect for the other executive officers.

Mr. Birndorf is a member of the Board of Directors, but did not participate in matters involving the evaluation of his performance or the setting of his compensation.

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 that compensation exceeds $1 million per covered officer in any fiscal year. The limitation applies only to compensation which is not considered to be performance-based. Non-performance based compensation paid to the Company s executive officers for the 2004 fiscal year did not exceed the $1 million limit per officer, and the Compensation Committee does not anticipate that the non-performance based compensation to be paid to the Company s executive officers for fiscal 2005 will exceed that limit. The Company s 1997 Stock Plan and the Epoch Biosciences, Inc. 2003 Stock Incentive Plan assumed by the Company have been structured so that any compensation deemed paid in connection with the exercise of option grants made under that plan by the Compensation Committee with an exercise price equal to the fair market value of the option shares on the grant date will qualify as performance-based compensation which will not be subject to the $1 million limitation. The Compensation Committee believes that in establishing the equity incentive compensation programs for the Company s 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 the Compensation Committee may provide one or more executive officers with the opportunity to earn equity compensation through awards that may be in excess of the amount deductible by reason of Section 162(m) or other provisions of the Internal Revenue Code. Because it is unlikely that the cash compensation payable to any of the Company s executive officers in the foreseeable future will approach the $1 million limit, the Compensation Committee has decided at this time not to take any action to limit or restructure the elements of cash compensation payable to the Company s executive officers. The Compensation Committee will reconsider this decision should the individual cash compensation of any executive officer ever approach the $1 million level.

This Compensation Committee Report shall not be deemed incorporated by reference by any general statement incorporating by reference this proxy statement into any filing under the Securities Act of 1933, as amended, or under the Securities Exchange Act of 1934, as amended, except to the extent the Company specifically incorporates this report by reference, and shall not otherwise be deemed filed under such Acts.

Compensation Committee

Val Buonaiuto, Chairman

David Schreiber

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REPORT OF THE AUDIT COMMITTEE

The following is the report of the Audit Committee with respect to Nanogen s audited financial statements for the year ended December 31, 2004.

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 National Association of Securities Dealers, 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 2004, 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, 2004 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 2005.

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, 2004, for filing with the Securities and Exchange Commission.

Audit Committee

Stelios B. Papadopoulos, Chairman

David Schreiber

Robert E. Whalen

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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, 2004 and 2003, and all other fees billed to the Company during 2004 and 2003 to its principal accounting firm, Ernst & Young LLP:

	For the Years Ended December 31,	
	2004	**2003**
(in thousands)		
Audit Fees	$ 583	$ 145
Audit-Related Fees	12	143
Tax Fees		
All Other Fees		3
Total	$ 595	$ 291

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 2004, 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. No material weaknesses were determined in the Company s internal controls. 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.

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STOCK PRICE PERFORMANCE GRAPH

The following graph shows the total stockholder return of an investment of $100 in cash on December 31, 1999, through December 31, 2004, for (i) Nanogen s Common Stock, (ii) the CRSP Total Return Index for The Nasdaq Stock Market (U.S. and Foreign) (the Nasdaq Composite Index) and (iii) the CRSP Total Return Index for Nasdaq Pharmaceutical Stocks (the Nasdaq Pharmaceutical Index). All values assume reinvestment of the full amount of all dividends and are calculated as of December 31 of each year. The comparisons in the graph are required by the Securities and Exchange Commission and are not intended to forecast or be indicative of possible future performance of the Company s Common Stock.

	Nanogen, Inc.	Nasdaq Composite Index	Nasdaq Pharmaceutical Index
12/31/99	$ 100.000	$ 100.000	$ 100.000
12/31/00	$ 43.242	$ 60.379	$ 124.732
12/31/01	$ 27.723	$ 47.616	$ 106.306
12/31/02	$ 7.447	$ 32.766	$ 68.691
12/31/03	$ 43.290	$ 49.424	$ 100.692
12/31/04	$ 35.362	$ 53.781	$ 107.242

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CERTAIN TRANSACTIONS

Mr. Birndorf owns an aircraft which is leased by a local charter aircraft company. For the year ended December 31, 2004, the Company paid approximately $13,000 to the local charter aircraft company for the Company s use of Mr. Birndorf s aircraft for business related travel. Mr. Birndorf receives approximately $1,500 per hour of usage when his aircraft is leased to outside parties, including the Company. Mr. Birndorf received $5,000 for the year ended December 31, 2004 as a result of the Company s use of Mr. Birndorf s aircraft. The Board believes that the terms of the charter arrangements are no less favorable to the Company than those that could be obtained from unrelated third parties, based on review of lease fees published by other charter companies.

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 Mr. Gerber and the Company entered into a consulting agreement pursuant to which Mr. Gerber provides 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 will terminate upon the earlier of (a) September 16, 2005 or (b) Mr. Gerber s election to the Board. Mr. Gerber has 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) will remain outstanding during the duration of Mr. Gerber s service relationship with the Company, either as a non-employee Board member or pursuant to the consulting agreement. In accordance with the terms of the applicable option agreements, Mr. Gerber s options will terminate and cease to remain outstanding upon the twelve month anniversary of the termination of Mr. 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.

The Company believes that the foregoing transactions were in its best interests. It is the Company s current policy that all transactions by the Company with officers, directors, and 5% stockholders or their affiliates will be entered into only if such transactions are approved by a majority of the disinterested directors, and are on terms no less favorable to the Company than could be obtained from unaffiliated parties.

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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 1,500,000 shares to 10,443,011 shares. 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 February 11, 2005, 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 15, 2005, approximately 205 employees (including 5

executive officers) and consultants and 4 non-employee board members were eligible to participate in 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 10,443,011 shares, including the 1,500,000 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 15, 2005, 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 2,037,496 shares; Mr. Ludvigson options for 771,666 shares; Mr. Respess options for 250,000 shares; Dr. Lidgard options for 325,000 shares; Mr. Saltmarsh options for 175,000 and Mr. Huebner options for 537,500 shares; (ii) all current executive officers of the Company as a group: options for 4,096,662 shares; (iii) all current directors who are not executive officers as a group: options for 160,000 shares; (iv) the nominees for Class I, Class II and Class III directors: Mr. Birndorf options for 2,037,496 shares; Mr. Whalen options for 25,000 shares; Mr. Gerber options for zero shares (Mr. Gerber s 221,968 options were issued under the Epoch Biosciences, Inc. 2003 Stock Incentive Plan and assumed by the Company); and Mr. Jellinek options for zero 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 executive officers) of the Company, options for 10,103,654 shares.

As of April 15, 2005, 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 zero

shares; (ii) all current executive officers of the Company as a group: zero shares; (iii) all current directors who are not executive officers as a group: 41,068 shares; (iv) the nominees for Class I and Class III directors: Mr. Birndorf zero shares; Mr. Whalen 10,267 shares; Mr. Gerber zero shares; and Mr. Jellinek zero 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 executive officers) of the Company: approximately zero shares.

As of April 15, 2005 options covering 4,958,801 shares of Common Stock were outstanding under the 1997 Stock Plan, 61,068 shares had been issued pursuant to restricted stock or stock unit awards, 3,679,497 shares have been issued pursuant to the exercise of outstanding options under the 1997 Stock Plan, and 1,743,645 shares remained available for future award and issuance (assuming stockholder approval of the increase which forms part of this Proposal).

On April 15, 2005, the closing price of the Company s Common Stock on the Nasdaq National Market was $3.43 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

No awards will be granted and no shares of Common Stock will be issued under the 1997 Stock Plan on the basis of the 1,500,000 share increase to the plan unless and until stockholder approval of such increase is obtained.

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 shall be determined at the time the option is granted, and the exercise price of an NSO may be less than, 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

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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.

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.

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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.

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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.

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Accounting Treatment

Under the accounting principles currently in effect, options granted under the 1997 Stock Plan with an exercise price equal to the fair market value of the shares on the grant date will not result in any direct charge to the Company s reported earnings. However, the fair value as determined using a valuation model of those options is required to be disclosed in the notes to the Company s financial statements, and the Company must also disclose, in footnotes to the financial statements, the pro-forma impact those options would have upon the Company s reported earnings were the fair value of those options at the time of grant treated as a compensation expense.

Option grants made under the 1997 Plan with exercise prices less than the fair market value of the shares on the grant date will result in a direct compensation expense to the Company in an amount equal to the excess of such fair market value over the exercise price. The expense must be amortized against the Company s earnings over the period that the option shares are to vest.

Option grants made to non-employee consultants (but not non-employee members of the Board of Directors) will result in a direct charge to the Company s reported earnings based upon the fair value of the option measured initially as of the grant date and then subsequently on the vesting date of each installment of the underlying option shares. Such charge will accordingly include the appreciation in the fair value of the option shares over the period between the grant date of the option and the vesting date of each installment of the option shares.

The number of outstanding options will be a factor in determining the Company s earnings per share on a fully-diluted basis.

Should one or more individuals be granted SARs under the 1997 Stock Plan, then such rights would result in a compensation expense to be charged against the Company s reported earnings. Accordingly, at the end of each fiscal quarter, the amount, if any, by which the fair market value of the shares of Common Stock subject to such outstanding SARs has increased from the prior quarter-end would be accrued as compensation expense, to the extent such fair market value is in excess of the aggregate exercise price in effect for those rights.

Direct stock issuances under the 1997 Stock Plan will result in a direct charge to the Company s reported earnings equal to the excess of the fair market value of the shares on the issuance date over the cash consideration (if any) paid for such shares. If the shares are unvested at the time of issuance, then any charge to the Company s reported earnings will be amortized over the vesting period. However, if the vesting of the shares is tied solely to performance milestones, then the issuance of those shares will be subject to mark to market accounting, and the Company will have to accrue compensation expense not only for the value of the shares on the date of issuance but also for all subsequent appreciation in the value of those which occurs prior to the vesting date. Similar accounting treatment will be in effect for any restricted stock units issued under the 1997 Stock Plan.

In December 2004, the Financial Accounting Standards Board (FASB) released Statement of Financial Accounting Standards No. 123R (revised 2004). The accounting standards established by that statement will require the expensing of stock options, commencing with our fiscal year which begins January 1, 2006, and will also change the accounting treatment of stock appreciation rights settled in stock. Accordingly, the foregoing summary of the applicable accounting treatment for stock options and stock appreciation rights will change, effective with our January 1, 2006, fiscal year, and the stock options and stock appreciation rights payable in stock which we grant to our employees and non-employee board members will have to be valued as of the grant date under an appropriate valuation formula, and that value will then have to be charged as a direct compensation expense against our reported earnings over the designated vesting period of the award. Similar option expensing will be required for any unvested options on the January 1, 2006, effective date, with the grant date fair value of those unvested options to be expensed against our earnings over the remaining vesting period. For shares issuable upon the vesting of restricted stock units awarded under the 1997 Plan, we would continue to accrue a

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compensation cost equal to the excess of the fair market value of the shares on the date of the restricted stock unit award over the cash consideration (if any) paid for such shares. If shares subject to a direct issuance under the 1997 Plan are unvested at the time of such direct issuance, then the fair market value of those shares at the time of issuance will continue to be treated as a charge to our reported earnings to be amortized ratably over the vesting period. However, such accounting treatment for the restricted stock units and direct stock issuances would be applicable whether vesting were tied to service periods or performance goals.

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 1,500,000 share increase to the share reserve under the 1997 Plan will not be implemented. 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.

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PROPOSAL 3

RATIFICATION 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 ended December 31, 2005. 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.

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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 2006 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 December 31, 2005 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 2006 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 to, 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 proposal to be timely must be received no later than the 15th day following the day on which such notice of the date of the annual meeting is mailed or public disclosure of the meeting date is given.

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 Securities and Exchange Commission. 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, 2004, we believe that all of the Company s directors and executive officers filed the required reports on a timely basis with the SEC.

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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 May 29, 2005.

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.

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APPENDIX A

AMENDED AND RESTATED

1997 STOCK INCENTIVE PLAN OF

NANOGEN, INC.

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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; and (i) amended and restated February 11, 2005 to increase the number of shares available for issuance under the plan by 1,500,000 shares, subject to stockholder approval at the 2005 Annual Meeting.

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

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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 10,443,011. 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 15, 2005 63,372 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 under an ISO shall in no event be less than 100% of the Fair Market Value of a Common Share on the date of grant and the Exercise Price under an NSO shall in no event be less than the par value of the Common Shares subject to such NSO. In the case of an NSO, a Stock Option Agreement may specify an Exercise Price that varies in accordance with a predetermined formula while the NSO is outstanding, provided that prior to the Company s initial public offering, the NSO Exercise Price shall be at least 85% (110% for 10% shareholders) of the Fair Market Value of a Common Share of Stock on the date of grant.

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, provided that prior to the Company s initial public offering, Options shall become exercisable pursuant to a schedule providing for at least 20% vesting per year over a five-year period (or, in the case of performance options, to the extent permitted under applicable regulations of the California Department of Corporations). 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. 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.

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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 adjustments as it, in its sole discretion, deems appropriate 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

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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

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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

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(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.

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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.

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

Senior Vice President, General Counsel and Secretary

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