NANOGEN INC
Form PRE 14A
April 29, 2008

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 14A INFORMATION

Proxy Statement Pursuant to Section 14(a)

of the Securities Exchange Act of 1934

Filed by the Registrant ¨

Filed by a Party other than the Registrant ¨

Check the appropriate box:

x Preliminary Proxy Statement

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

¨ Definitive Proxy Statement

¨ Definitive Additional Materials

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

NANOGEN, INC.

(Name of Registrant as Specified In Its Charter)

N/A

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

Payment of Filing Fee (Check the appropriate box):

x No fee required.

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

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

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

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(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):

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(4) Proposed maximum aggregate value of transaction:

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(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:

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

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(3) Filing Party:

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(4) Date Filed:

10398 Pacific Center Court

San Diego, California 92121

Tel: (858) 410-4600

Fax: (858) 410-4949

[ ], 2008

Dear Stockholder:

You are cordially invited to attend our Annual Meeting of Stockholders, which will be held on Wednesday, June 25, 2008 at 10:00 a.m., Pacific Time, 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

10398 Pacific Center Court

San Diego, California 92121

Tel: (858) 410-4600

Fax: (858) 410-4949

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS

TO BE HELD JUNE 25, 2008

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 25, 2008, at 10:00 a.m., Pacific Time, for the following purposes, as more fully described in the proxy statement accompanying this notice:

1. To elect Class I directors.

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

3. To approve an amendment to the Employee Stock Purchase Plan to increase the number of shares authorized for issuance under the plan by 500,000 shares.

4. To approve and ratify the debt restructuring transaction completed in March 2008 in which the Company exchanged an aggregate of $12,917,000 in principal amount of its 6.25% Senior Convertible Notes with the Company s 9.75% Senior Secured Convertible Notes (the Notes) with an aggregate principal amount of $15,500,400, the issuance of shares of common stock upon conversion of the Notes and issuance of other securities of the Company pursuant to the terms of the debt restructuring.

5. To ratify the appointment of Ernst & Young LLP as the Company s independent registered public accounting firm for the fiscal year ending December 31, 2008.

6. 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 [ ], 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

[ ], 2008

NANOGEN, INC.

PROXY STATEMENT

This Proxy Statement is furnished in connection with the solicitation by the Board of Directors (the Board of Directors) of Nanogen, Inc., a Delaware corporation (Nanogen or the Company), of proxies in the accompanying form to be used at the Annual Meeting of Stockholders to be held at the Company s principal executive offices located at 10398 Pacific Center Court, San Diego, California 92121 on Wednesday, June 25, 2008 at 10:00 a.m., Pacific Time, and at any adjournment or postponement of the Annual Meeting (the Annual Meeting).

This Proxy Statement and the accompanying form of proxy are being mailed to stockholders on or about [ ], 2008.

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 directors listed in this Proxy Statement and FOR approval of proposals 2, 3, 4 and 5 described in the Notice of Annual Meeting and in this Proxy Statement. You may also vote by attending the Annual Meeting in person, but you are not required to attend the meeting to vote. In addition, if your shares are registered in your own name, you may vote over the Internet at *http://proxyvote.com*, or by telephone at 1-800-690-6903. Votes submitted over the Internet or by telephone must be received before 5:00 p.m. Eastern Daylight Time [ ], 2008. Instructions for voting over the Internet or by telephone are also set forth in the enclosed proxy card.

You may revoke or change your proxy vote at any time before it is actually voted at the Annual Meeting by sending a written notice of revocation or submitting another proxy with a later date to the Secretary of the Company. You may also revoke your proxy by attending and voting in person at the Annual Meeting, but your attendance at the Annual Meeting will not, by itself, constitute a revocation of your proxy.

Who Can Vote

Stockholders of record at the close of business on [ ], 2008 are entitled to notice of and to vote at the Annual Meeting. As of [ ], 2008, the Company had [ ] shares of common stock, $0.001 par value per share (Common Stock), outstanding and entitled to vote. Each holder of Common Stock is entitled to one vote for each share held as of the record date.

General Information on Voting

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

Directors are elected by a plurality vote. Accordingly, the director nominees who receive 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 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, 3, 4 and 5 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, 3, 4 or 5 has the effect of a vote against the proposal because each proposal requires the affirmative vote of a majority of the shares present in person or represented by proxy and entitled to vote at the meeting. Broker non-votes will have no effect on the outcome of these proposals because under Delaware law shares represented by such broker non-votes are not considered shares present and entitled to vote with respect to such matters, therefore broker non-votes will be excluded from voting tabulation for these proposals.

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

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

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

Recommendations of the Board of Directors

The Company s Board of Directors recommends a vote:

FOR the election of the Class I nominees to the Board of Directors (Proposal 1);

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

FOR approval of the amendment to the Employee Stock Purchase Plan (Proposal 3);

FOR approval and ratification of the debt restructuring transaction completed in March 2008 (Proposal 4); and

FOR ratification of Ernst & Young LLP as our registered public accounting firm for fiscal year 2008 (Proposal 5).

IMPORTANT

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

PROPOSAL 1

ELECTION OF DIRECTORS

The Company s certificate of incorporation provides for a classified Board of Directors consisting of three classes having staggered terms of three years each. The Company s bylaws provide that the Board of Directors shall consist of not less than five or 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 2008 annual meeting of stockholders, the Class II directors have a term expiring at the 2009 annual meeting and the Class III director has a term expiring at the 2010 annual meeting of stockholders.

The Nominating, Governance and Ethics Committee of the Board of Directors recommended, and the Board of Directors approved, Howard C. Birndorf and Robert E. Whalen as the nominees for election at the Annual Meeting to Class I of the Board of Directors. Robert E. Whalen has served as a director since April 2002. If elected, both Class I directors will serve for a term of three years expiring at the 2010 annual meeting of stockholders or until his successor shall have been elected and qualified. Howard C. Birndorf and Robert E. Whalen has consented to be named as the nominee and agreed to serve if elected. If, however, either or both are 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 nominee to the Board of Directors:

NOMINEES TO SERVE AS CLASS I DIRECTORS SERVING A TERM EXPIRING AT THE 2011 ANNUAL MEETING

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

Robert E. Whalen. Mr. Whalen has been a director of Nanogen since April 2002. Mr. Whalen has been a Regional Vice President of Quest Diagnostics since March 2003 and prior to the acquisition of Unilab Corporation (Unilab) by Quest Diagnostics in February 2003, was Chief Executive Officer, President and a director of Unilab from December 1999 to February 2003. He was elected Chairman of the Board of Unilab in December 1999. From May 1997 to September 1999, Mr. Whalen served as Executive Vice President and, from September 1998 to September 1999, as Chief Operating Officer of Scripps Clinic, a 320-physician multi-specialty medical group located in Southern California. From the April 1995 merger of Roche Biomedical

Laboratories and National Health Laboratories, Incorporated (NHL) until August 1996, Mr. Whalen served as Executive Vice President of Laboratory Corporation of America (LabCorp). Prior to his employment at LabCorp, Mr. Whalen held various senior level positions with NHL, which he joined in 1976. He served as Executive Vice President of NHL from 1993 to 1995, as Senior Vice President from 1991 to 1993 and as Vice President-Administration from 1985 to 1993. From 1979 to 1985, he was Vice President-Division Manager of NHL. At NHL and later at LabCorp, Mr. Whalen oversaw human resources, client service and major regional laboratories in California, Washington, Nevada and Utah.

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

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

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

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

CURRENT CLASS III DIRECTOR SERVING A TERM EXPIRING AT THE 2010 ANNUAL MEETING

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

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 Dr. Dreismann, are independent within the meaning of

the applicable independence standards under NASDAQ rules. Dr. Dreismann is not independent because he is the Chief Executive Officer of FasTraq, Inc. and in 2005 and 2006 Nanogen paid FasTraq amounts that exceeded the greater of 5% of the revenue of FasTraq or $200,000. There were no payments made by Nanogen to FasTraq during 2007.

Board Committees

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

Name	Age	Director	Compensation Committee	Audit Committee	Nominating, Governance, and Ethics Committee
Howard C. Birndorf	58	X			
Robert E. Whalen	65	X	X	X	X
Stelios B. Papadopoulos	67	X		X	X

Name	Age	Director	Compensation Committee	Audit Committee	Nominating, Governance, and Ethics Committee
David Schreiber	48	X	X	X	X
Heiner Dreismann	54	X			

Compensation Committee. The current members of the Compensation Committee are Robert Whalen and David Schreiber. The Board of Directors believes that each of the current members of the Compensation Committee is independent in accordance with the applicable independence standards under NASDAQ rules. The Compensation Committee held four (4) meetings during 2007. The Compensation Committee s functions are to (i) discharge the Board of Directors responsibilities relating to the compensation of the Company s executive officers and (ii) approve and evaluate the executive officers compensation, plans, policies and programs.

The Compensation Committee is authorized to delegate its authority with respect to executive officer compensation to a subcommittee when appropriate and to hire independent compensation consultants and other professionals to assist in the design, formulation, analysis and implementation of compensation programs for the Company s executive officers and other key employees.

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

Audit Committee. The current members of the Audit Committee are Stelios B. Papadopoulos, David Schreiber and Robert E. Whalen. The Board of Directors believes that each of the members of the Audit

Committee is independent in accordance with applicable independence standards under NASDAQ rules 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 six (6) meetings during 2007. The Audit Committee s functions are to (i) oversee our accounting and financial reporting processes and audits of our financial statements, (ii) assist the Board of Directors in oversight and monitoring of the integrity of our financial statements, our compliance with legal and regulatory requirements, our independent auditor s qualifications, independence and performance, and our internal accounting and financial controls, (iii) prepare an annual report to be included in our annual proxy statement, (iv) provide the Board of Directors with results of its monitoring and recommendations derived there from, and (v) provide the Board of Directors with additional information and materials as it may deem necessary to make the Board of Directors aware of significant financial matters that require the attention of the Board of Directors.

Nominating, Governance and Ethics Committee. The current members of the Nominating, Governance and Ethics Committee are David Schreiber, Stelios B. Papadopoulos and Robert E. Whalen. The Board of Directors believes that each member of the Nominating, Governance and Ethics Committee is independent in accordance with applicable independence standards under NASDAQ rules. The Nominating, Governance and Ethics Committee held one meeting in 2007.

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.

Board Meetings and Committees

The Board of Directors held ten (10) meetings during 2007. Each director attended more than 75% of the aggregate of total number of meetings of the Board during his respective Board membership and total number of meetings of the committees on which he served and which were held during the period in which he served on such committee.

Stockholder Communications with the Board

Although we do not have a formal policy regarding stockholder communications, stockholders may communicate with the Board of Directors, including the non-management directors, by sending a letter to the Nanogen Board of Directors, c/o Corporate Secretary, Nanogen, Inc. 10398 Pacific Center Court, San Diego,

California 92121. Stockholders who would like their submission directed to a particular member of the Board of Directors may so specify.

Annual Meeting Attendance

Although we do not have a formal policy regarding attendance of the Board of Directors at our annual meetings of stockholders, directors are encouraged to attend our annual meetings. There were no directors in attendance of the 2007 Annual Meeting.

Company Code of Business Conduct and Ethics

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

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS, DIRECTORS AND MANAGEMENT

The following table sets forth information as of April 7, 2008 (except as noted below) as to our shares of Common Stock beneficially owned by (i) each of our directors, (ii) each of our executive officers in the Summary Compensation Table set forth herein, (iii) our current directors and executive officers as a group and (iv) each person known by us to be the beneficial owner of more than 5% of the outstanding shares of our Common Stock. Unless otherwise indicated, the beneficial ownership consists of sole voting and investment power with respect to the shares indicated, except to the extent that a spouse shares authority under applicable law. Except for shares of common stock held in brokerage accounts, which may, from time to time together with other securities in the account, serve as collateral for margin loans made in such accounts, none of the shares reported as beneficially owned have been pledged as security for any loan or indebtedness.

	Beneficial Ownership of Common Stock[1]	
	Number of Shares	Percentage of Class
Fisher Scientific International, Inc.[2]	5,660,377	7.7%
Liberty Lane		
Hampton, NH 03842		
Howard C. Birndorf[3]	2,215,552	3.0%
c/o Nanogen, Inc.		
10398 Pacific Center Court		
San Diego, CA 92121		
David G. Ludvigson[4]	911,213	1.0%
Robert Saltmarsh[5]	237,102	*
Graham Lidgard[6]	408,705	*
William L. Respess[7]	375,641	*
Robert Whalen[8]	74,399	*
Stelios Papadopoulos[9]	104,399	*
David Schreiber[10]	70,399	*
Heiner Dreismann[11	36,124	*
All directors and executive officers as a group (9 persons)[12	4,286,039	5.8%

* Less than one percent.

(1) Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission (the SEC), based on factors including voting and investment power with respect to shares. Percentage of beneficial ownership is based on the number of shares of the Company s common stock outstanding as of April 7, 2008. Shares of common stock issuable upon exercise of options currently exercisable, or exercisable within 60 days as of April 7, 2008 and shares of common stock issuable within 60 days as of April 7, 2008 pursuant to outstanding restricted stock units, are deemed outstanding for purpose of computing the percentage ownership of the person holding such options or restricted stock units, but are not deemed outstanding for computing the percentage ownership of any other person.

(2) Pursuant to a Schedule 13G filed on March 15, 2006 with the SEC, Fisher Scientific International, Inc. had sole power to vote or to direct the vote of 5,660,377 shares of common stock and had sole power to dispose or to direct the disposition of 5,660,377 shares of common stock. The address of principal business office of Fisher Scientific International, Inc, is Liberty Lane, Hampton, NH 03842.

(3) Includes 1,500,000 shares issuable upon the exercise of option within 60 days of April 7, 2008.

(4) Includes 823,458 shares issuable upon the exercise of options within 60 days of April 7, 2008.

(5) Includes 178,125 shares issuable upon the exercise of options within 60 days of April 7, 2008.

(6) Includes 362,500 shares issuable upon the exercise of options within 60 days of April 7, 2008.

(7) Includes 287,500 shares issuable upon the exercise of options within 60 days of April 7, 2008.

(8) Includes 25,000 shares issuable upon the exercise of options within 60 days of April 7, 2008.

(9) Includes 55,000 shares issuable upon the exercise of options within 60 days of April 7, 2008.

(10) Includes 25,000 shares issuable upon the exercise of options within 60 days of April 7, 2008.

(11) Includes 9,895 shares issuable upon the exercise of options within 60 days of April 7, 2008.

(12) Includes five (5) Board members, one of whom is an executive officer, and four (4) other current executive officers.

COMPENSATION OF EXECUTIVE OFFICERS AND DIRECTORS

Executive Officers of the Company

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

Name	Age	Position
Howard C. Birndorf	58	Chairman and Chief Executive Officer
David Ludvigson	57	President and Chief Operating Officer
Nicholas J. Venuto	37	Chief Financial Officer
Graham Lidgard	60	Senior Vice President, Research and Development
William L. Respess	69	Senior Vice President, General Counsel, Secretary

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

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

Nicholas J. Venuto. Mr. Venuto joined Nanogen in June 2003 as director of finance and was appointed the Chief Financial Officer effective in February 2008. He has over fifteen years of experience in finance, primarily focused in the life science and technology industries. Prior to joining the Company and since January 2000, he held various senior finance and accounting roles at Graviton, Inc., most recently Vice President, Finance and

Corporate Secretary. From 1992 through 2000, Mr. Venuto served as a financial auditor for Ernst & Young LLP. He received a Bachelor of Accounting degree from University of San Diego and is a Certified Public Accountant.

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

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

Compensation Discussion and Analysis

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

In 2006, the Compensation Committee undertook a comprehensive review of the compensation programs in effect for our executive officers in order to assess the competitiveness of those programs and to align such compensation with the longer term interests of our shareholders. In conducting this review, the Compensation Committee relied significantly on the work of Frederic W. Cook & Co (FWC), an independent compensation consulting firm engaged directly by the Compensation Committee. FWC reviewed all of the compensation programs in effect for our executive officers, including the compensation and benefits provided under their employment agreements. For purposes of measuring the competitiveness of the various elements of compensation provided under such programs and employment agreements, the Compensation Committee relied primarily on

compensation data derived by FWC from the most current proxy statements of an identified peer group comprised of fourteen small-cap diagnostics companies. The 14 companies within such peer group were as follows:

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

For supplemental market data, the Compensation Committee also reviewed in 2006 and in 2007 the Radford Biotechnology survey of executive officer compensation levels at companies with 150-to-500 employees within our industry as well as those in similar industries that compete with us for executive talent. While some changes resulting from this comprehensive review were made in 2006, such as the award of stock option grants with performance-milestone vesting, the recommendations the Compensation Committee received from FWC were primarily implemented in connection with the compensation programs established for the 2007 fiscal year, as described below.

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

- attract, retain, motivate and engage executives with superior leadership and management capabilities,
- provide an overall level of compensation to each executive officer which is externally competitive, internally equitable and performance-driven, and
- ensure that total compensation levels are reflective of our financial performance and provide the executive officer with the opportunity to earn above-market total compensation for exceptional business performance.

Each executive officer s compensation package typically consists of three elements: (i) a base salary, (ii) a cash bonus based upon participation in a bonus pool tied to our attainment of pre-established financial objectives and, where appropriate, the individual officer s personal performance, and (iii) participation in long-term, stock-based incentive awards, in the form of stock options and restricted stock unit awards, designed to align and strengthen the mutuality of interests between our executive officers and our shareholders. In determining the appropriate level for each element of such compensation, the Compensation Committee has generally followed the practice of setting the compensation levels for our executive officers between the fiftieth and the seventy-fifth percentiles of the compensation levels in effect for comparable positions of the peer group companies. However, the Compensation Committee also takes into account the Company s overall financial performance and its evaluation of each executive officer s individual performance level and his or her potential contribution to the Company s future growth. Accordingly, an executive officer s actual compensation may be higher or lower than the targeted fiftieth to seventy-fifth percentile range for his or her position. Consistent with our philosophy of emphasizing pay for performance, the overall objective of the cash compensation programs for our executive officers is to pay above the target when the Company exceeds its goals and below the target when the Company does not achieve its goals.

Officer Employment Agreements. In February, 2007 we entered into a series of employment agreements with our executive officers. Some of those agreements were in the form of an amendment and restatement of their existing employment agreements with us. The remaining agreements were intended to formalize the terms of the original offer letters which certain of our officers received from us in lieu of employment agreements and to adjust their individual compensation packages to assure that the elements of compensation provided to each of our executive officers remain uniform and consistent. For purposes of measuring the competitive levels of the various elements of our executive officer employment agreements, the Compensation Committee relied primarily on the peer group compensation data provided by FWC.

Under our prior agreements with our executive officers, certain benefits were triggered upon the occurrence of a change of control event. Based on the recommendations of FWC, the 2007 employment agreements impose a double-trigger requirement (change in control and an involuntary termination) for the payment of change in control benefits. The double trigger severance benefits under the 2007 agreements are larger than those that were previously in effect under the single trigger agreements and require the executive to execute a general release. Those severance benefits include includes 12 months (24 months for Mr. Birndorf, and 18 months for Mr. Ludvigson) of salary continuation, the accelerated vesting of outstanding equity awards, a pro-rated bonus and continued health care coverage at our expense for a designated period. A limited tax gross-up payment will be provided to compensate the executive officer for the portion of any parachute tax he or she may incur as a result of the accelerated vesting of his or her pre-December 2006 equity awards, but the 2007 agreements do not extend this tax gross-up payment to awards made after December 2006 or to the other benefits provided under the employment agreements.

For termination situations which are not associated with a change in control, the basic severance benefits are in the form of salary continuation and medical coverage over a six-month period (eighteen months for Mr. Birndorf). In addition, 50% of Mr. Respess unvested stock options will vest on an accelerated basis.

We believe that the change from single trigger to double trigger agreements and enhancement of the double trigger severance package is fair and reasonable in consideration of the dedication and commitment that the executive officers have rendered us over their years of service and the value we expect to receive from retaining their services prior to, and during, what we believe would be a complex and challenging transition period following a change of control transaction. The acceleration of their outstanding equity awards is also appropriate in our view, because those awards are designed to serve as the primary vehicle for the executive officers to accumulate financial resources for retirement. We do not provide our executive officers with any defined benefit pension plans or supplemental executive retirement plans, and the only other opportunity for the accumulation of retirement income is through the limited deferral of compensation under our 401(k) savings plan. In addition, FWC advised the Compensation Committee that the double trigger severance package provided under the 2007 employment agreements was within the competitive range of comparable severance benefits for executive officers at other companies of similar size and market capitalization.

We also believe that the employment agreements with our executive officers achieve two important goals crucial to our long-term financial success, namely, the long-term retention of our senior executives and their commitment to the attainment of our strategic objectives. The agreements will allow our participating executive officers to continue to focus their attention on our business operations and strategic plans without undue concern over their own financial situations during periods when substantial disruptions and distractions might otherwise prevail.

In December 2007, Robert Saltmarsh, the Vice President and Chief Financial Officer, notified the Company of his decision to retire at the end of February 2008. We promoted Nicholas Venuto, our then Executive Director of Finance, to the position of Vice President and Chief Financial Officer, effective in February, 2008. In connection with his promotion, the Compensation Committee increased Mr. Venuto s annual base salary from $183,000 to $220,000 and granted him an option to purchase 100,000 shares of the Company s common stock at an exercise price of $0.485 per share, the fair market value of the Company s common stock on the option grant date. The option vests in equal monthly installments over a four year period. In February 2008, we entered into a formal employment agreement with Mr. Venuto, which is substantially similar to the agreement we entered into in February 2007 with our other executive officers. For purposes of measuring the competitive level of Mr. Venuto s compensation package, the Compensation Committee relied primarily on compensation data from the Radford Group survey of executive officer compensation levels. Based on this data, the Compensation Committee concluded that Mr. Venuto s compensation was between the 10th and 25th percentile levels when compared to chief financial officer positions within the peer group.

A summary of the material terms of the officer employment agreements, together with a quantification of the severance benefits payable under those agreements to each of the executive officers named in the Summary

Compensation Table and Mr. Venuto, may be found in the section of the proxy statement entitled Executive Compensation and Other Information Employment Contracts, Termination of Employment and Change in Control Arrangements.

Comparative Framework. For purposes of measuring the competitive levels of the various components of our executive officer compensation program for the 2007 fiscal year, the Compensation Committee relied primarily on the peer group data provided by FWC and, to a lesser extent, on survey data from the Radford Group survey of executive officer compensation levels at companies that are within our industry or in similar industries and are comparable in size with us and compete with us for executive talent. The Compensation Committee also reviewed the Biotech Employment Development Coalition (BEDC) survey of executive officer compensation levels at San Diego area biotech related businesses that are comparable in size and also compete with us for executive talent.

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

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

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

Comparative Analysis for 2007. When compared to the peer group data provided by FWC, the elements of cash compensation provided to our executive officers for the 2007 fiscal year were at the following percentiles for most of our executive officers:

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

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

Salary. The Compensation Committee reviews the base salary level of each executive officer in the first quarter each year, with any salary adjustments for the year to be made retroactive to January 1 of that year. The base salary for the executive officers named in the Summary Compensation Table is determined on the basis of their level of responsibility, experience and individual performance. The Compensation Committee believes that this component of compensation should provide a level of security and stability from year to year and not be dependent to any material extent on the Company s financial performance. In addition, each of the named executive officers has an existing employment agreement with the Company which sets a minimum annual salary, subject to periodic upward adjustment at the discretion of the Compensation Committee. The salary level for the named executive officers was increased in 2007 by 3% from the level in effect for the 2006 fiscal year based on analysis of comparable salaries and the local job market conditions. For the 2007 fiscal year, the salary levels for our executive officer group ranged from a high of $520,000 to a low of $258,000.

However, in order to preserve the Company s cash resources, no salary increases were affected for the 2008 fiscal year. Instead, the each of the named executive officers were granted additional stock options, as described under the heading Long-Term Incentives below.

Incentive Compensation. For the 2007 fiscal year, the Compensation Committee implemented the 2007 Executive Officer Incentive Compensation Plan (the 2007 Incentive Plan), designed to advance our

pay-for-performance policy by focusing the attention of our executive officers on the attainment of key operational objectives for the year. The plan provided all of our executive officers with a direct financial incentive in the form of a bonus award to be paid in cash, stock or a combination thereof tied to our achievement of two pre-established operational goals.

The operational goals were tied to the following measures of our financial performance for the 2007 fiscal year, weighted as indicated: revenue (30% weighting) and EBITDA (70% weighting). For each executive officer, bonus opportunities were established at threshold, target and maximum levels of attainment of each of the operational goals. Any bonuses earned on the basis of the attained levels were to be paid from a bonus pool in a dollar amount not to exceed $1,236,000 for the 2007 fiscal year.

The various levels of attainment established for the revenue and EBITDA operational goals for the 2007 fiscal year (the 2007 Operational Goals) were as follows:

	Threshold	Target	Maximum
Revenue ($ in millions)	37.5	43.2	48.5
EBITDA ($ loss in millions)	(25.6)	(22.4)	(19.0)

The dollar amount of the potential bonus at each of the various levels of attainment of the 2007 Operational Goals were as follows for the named executive officers:

Name	Performance Goal	Threshold ($)	Target ($)	Maximum ($)
Howard Birndorf	Revenue	46,814	93,627	140,441
	EBITDA	109,232	218,463	327,695
David Ludvigson	Revenue	27,038	54,075	81,113
	EBITDA	63,088	126,175	129,263
Graham Lidgard	Revenue	8,714	17,428	26,141
	EBITDA	20,332	40,664	60,997
Larry Respess	Revenue	19,776	39,552	59,328
	EBITDA	46,144	92,288	138,432
Robert Saltmarsh	Revenue	15,450	30,900	46,350
	EBITDA	36,050	72,100	108,150

For Mr. Lidgard, our Senior Vice President, Research and Development, the Compensation Committee deemed it advisable to tie fifty percent of his bonus award to his accomplishment of specific individual performance goals. Accordingly, for Mr. Lidgard only, 50% of his target bonus under the Incentive Plan was based on company performance tied to the 2007 Operational Goals and the other 50% was tied his accomplishment of the following pre-determined individual performance objectives intended to focus his attention on the achievement of the following product development milestones: meet the new product development plan for the NC400 microarray, real-time PCR and Point of Care businesses; meet cash flow management objectives including budgeted expenses and contract revenues; support the implementation of alternative business strategies including partnerships and OEM product opportunities.

For the purposes of determining whether the revenue and EBITDA objectives were met for the 2007 fiscal year, the Compensation Committee used the numbers we reported for financial statement purposes in accordance with generally accepted accounting principles in the U.S. (GAAP), adjusted for non-cash, non-recurring, extraordinary items and certain other items. The Compensation Committee s determination as to whether Mr. Lidgard s product development milestones were met was based on the input received from our Chief Executive Officer and our President and further discussions with them. In February 2008, the Compensation Committee determined that our financial performance for the 2007 year was at 51% level for the revenue goal, at 0% level for the EBITDA goal, and Mr. Lidgard s product development milestones had been partially met.

Accordingly the Compensation Committee awarded incentive bonuses totaling $146,838 from the pool. The actual 2007 bonuses were paid either in cash or in shares of our common stock at the recipient s election, with the shares of common stock to be valued at the closing price on the second trading day after the announcement of financial results for the period ended December 31, 2007.

For the 2008 fiscal year, the Compensation Committee approved the 2008 Executive Officer Incentive Compensation Plan, designed to focus the attention of our executive officers on the attainment of the following measures of our financial performance for the 2008 fiscal year, weighted as indicated: revenue (30% weighting), EBITDA (50% weighting) and Fourth Quarter EBITDA (20% weighting). For each executive officer, bonus opportunities were established for each goal at threshold, target and above-target levels of attainment, with the actual bonuses earned under such plan to be paid from a bonus pool in a dollar amount not to exceed $1,236,000 for the 2008 fiscal year.

To ensure a smooth transition in connection with Mr. Saltmarsh s retirement from his position with the Company as Vice President and Chief Financial Officer and Mr. Venuto s promotion to such position, the Compensation Committee approved a cash retention bonus in December 2007 in the amount of $65,000 to be paid to Mr. Saltmarsh on February 28, 2008, provided he remained in the Company s employ through such date. Mr. Saltmarsh remained employed by the Company through such date and accordingly received the retention bonus.

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

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

As part of the Company s pay for performance philosophy and in accordance with FWC s recommendation, the Compensation Committee made a special stock option award to each our executive officers in December 2006 for the following number of shares: Mr. Birndorf, 280,000 shares; Mr. Ludvigson, 155,000 shares; Mr. Lidgard, 95,000 shares; Mr. Respess, 95,000 shares; and Mr. Saltmarsh, 95,000 shares. Each option has an exercise price per share equal to the fair market value of our common stock on the option grant date and will vest on the achievement of aggressive revenue and EBITDA targets within a five and a half year period measured from the grant date. In addition, each option contains a vesting acceleration provision pursuant to which 50% of

the option will vest upon a change in control, and 100% will vest if the change in control is at a price per share of our common stock above a pre-set target price.

In February 2007, the Compensation Committee also structured the annual stock option grants to our executive officers so that vesting was tied to the attainment of pre-established performance objectives. Each option had an exercise price per share equal to the fair market value of the Company s common stock on the option grant date and would vest in whole or in part on the basis of the levels at which the 2007 Operational Goals under the 2007 Incentive Plan were attained . Any options which vested on the basis of the attained levels of the 2007 Operational Goals were subject to a further service vesting requirement over a four year period, with twenty-five percent of the option shares to vest upon the executive officer s completion of one year of service measured from the grant date, and the remaining option shares to vest monthly over the next thirty six months of continued service. To the extent the 2007 Operational Goals were not attained at the above-target levels, all or a portion of the option would be immediately forfeited at the close of the 2007 fiscal year. The number of option shares allocated to each 2007 Operational Goal was as follows for the named executive officers:

Name	Performance Goal	Threshold Number of Option Shares	Target Number of Option Shares	Above Target Number of Option Shares
Howard Birndorf	Revenue	54,750	109,500	164,250
	EBITDA	127,750	255,500	383,250
David Ludvigson	Revenue	30,000	60,000	90,000
	EBITDA	70,000	140,000	210,000
Graham Lidgard	Revenue	18,750	37,500	56,250
	EBITDA	43,750	87,500	131,250
Larry Respess	Revenue	18,750	37,500	56,250
	EBITDA	43,750	87,500	131,250
Robert Saltmarsh	Revenue	18,750	37,500	56,250
	EBITDA	43,750	87,500	131,250

Based on the Company s performance in 2007, the Compensation Committee determined that 16% of the option shares had been earned and accordingly, only the following number of option shares subject to the February 2007 option grants remain outstanding:

Name	Number of Option Shares
Howard Birndorf	21,900
David Ludvigson	12,000
Graham Lidgard	7,500
Larry Respess	7,500

Mr. Saltmarsh s employment with the Company terminated prior to any of the February 2007 option grants becoming vested and exercisable; accordingly all of his February 2007 option shares have terminated.

In determining the total number of shares to award each executive officer in the combined form of stock options and RSUs for the 2007 fiscal year, the Compensation Committee reviewed data provided by FWC, but the Compensation Committee did not seek to bring the total direct compensation (salary, bonus and equity) of each executive officer to a specific percentile of the total direct compensation for comparable positions at the peer group companies.

In March 2008, the Company s executive officers were granted performance-based stock options, subject to shareholder approval of an increase to the available reserve under the Corporation s 1997 Stock Incentive Plan.

The options will terminate prior to becoming exercisable, to the extent the performance goals under the 2008 Executive Officer Incentive Compensation Plan are not attained at one or more pre-determined levels. To the extent earned, the options will vest over a four-year period, with twenty-five percent of the option shares to vest upon the executive officer s completion of one year of service measured from the grant date, and the remaining option shares to vest monthly over the next thirty six months of continued service period measured from the first anniversary of the option grant date. The maximum number of option shares that can be earned pursuant to the March 2008 grant is as follows for each executive officer: Mr. Birndorf, 547,500 shares; Mr. Ludvigson, 300,000 shares; Mr. Lidgard, 187,500 shares; Mr. Respess, 187,500 shares; and Mr. Venuto, 187,500 shares.

In March 2008, the Compensation Committee granted options for the following number of shares to each executive officer in lieu of a salary increase for the 2008 year: Mr. Birndorf, 208,547 shares; Mr. Ludvigson, 144,537 shares; Mr. Lidgard, 116,546 shares; Mr. Respess, 132,148 shares; and Mr. Venuto, 0 shares. Each option will vest in a series of 48 successive equal monthly installments over a four year period of service measured from January 1, 2008. Each option has an exercise price per shares equal to the closing price of our common stock on the grant date.

Market Timing of Equity Awards. The Compensation Committee does not engage in any market timing of the equity awards made to the executive officers or other award recipients, and there is no established practice of timing our awards in advance of the release of favorable financial results or adjusting the award date in connection with the release of unfavorable financial developments affecting our business. It is our intent that all stock option grants have an exercise price per share equal to the closing selling price per share on the effective date of the grant.

Executive Officer Perquisites. It is not our practice to provide our executive officers with any meaningful perquisites. We do, however, provide Mr. Birndorf with administrative assistant services for personal matters and supplemental medical and dental coverage under the Exec-U-Care program. The dollar value of these perquisites was approximately $37,725 for the 2007 fiscal year.

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

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

Compliance with Internal Revenue Code Section 162(m). Section 162(m) of the Internal Revenue Code disallows a tax deduction to publicly held companies for compensation paid to certain of their executive officers to the extent such compensation exceeds $1.0 million per covered officer in any year. The limitation applies only to compensation that is not considered to be performance-based under the terms of Section 162(m). The stock options granted to our executives are intended to qualify as performance based compensation. Non-performance-based compensation paid to our executive officers for 2007 did not exceed the $1.0 million limit per officer. However, as we continue to use service-vesting restricted stock units as a component of equity compensation, it is likely that the non-performance-based compensation payable to our executive officers will exceed the $1.0 million limit in one or more future years. We believe that in establishing the cash and equity incentive compensation programs for our executive officers, the potential deductibility of the compensation payable under those programs should be only one of a number of relevant factors taken into consideration, and not the sole governing factor. For that reason, we may deem it appropriate to provide one or more executive officers with the opportunity to earn incentive compensation, whether through cash bonus programs tied to our financial performance or through RSUs tied to the executive officer s continued service, which together with base salary in the aggregate may be in excess of the amount deductible by reason of Section 162(m) or other provisions of the

Internal Revenue Code. We believe it is important to maintain cash and equity incentive compensation at the levels needed to attract and retain the executive officers essential to our success, even if all or part of that compensation may not be deductible by reason of the Section 162(m) limitation.

Summary Compensation Information

The following table provides certain summary information concerning the compensation earned for services rendered in all capacities to the Company and its subsidiaries for the year ended December 31, 2007 by the Company s Chief Executive Officer, Chief Financial Officer and each of the Company s three other most highly compensated executive officers whose total compensation for the 2007 year was in excess of $100,000 and who were serving as executive officers at the end of the 2007 Fiscal Year. No other executive officers who would have otherwise been includable in such table on the basis of total compensation for the 2007 Fiscal Year have been excluded by reason of their termination of employment or change in executive status during that year. The listed individuals shall be hereinafter referred to as the named executive officers. The Company does not sponsor a pension plan or a non-qualified deferred compensation plan.

Name and Principal Position (a)	Year (b)	Salary ($)(1) (c)	Bonus ($)(1) (d)	Stock Awards ($)(2) (e)	Option Awards ($)(3) (f)	Non- Equity Incentive Plan Compensation ($) (4) (g)	All Other Compensation ($) (h)	Total ($) (i)
Howard C. Birndorf,	2007	$ 520,150		$ 230,932	$ 100,814	$ 46,814	$ 37,725(5)	$ 936,435
Chairman and Chief Executive Officer	2006	$ 505,000		$ 225,337	$ 445,382	$ 148,470	$ 34,319	$ 1,358,508
David G. Ludvigson,	2007	$ 360,500		$ 115,466	$ 422,812	$ 27,038	$ 5,516(6)	$ 931,332
President and Chief Operating Officer	2006	$ 350,000		$ 112,669	$ 600,559	$ 85,750	$ 4,850	$ 1,153,828
Robert Saltmarsh,	2007	$ 257,500		$ 57,733	$ 185,281	$ 15,450	$ 6,266(6)	$ 522,230
Former Vice President and Chief	2006	$ 250,000		$ 56,334	$ 206,224	$ 49,000	$ 6,100	$ 567,658
Financial Officer (7)								
William L. Respess,	2007	$ 329,600		$ 57,733	$ 254,988	$ 19,776	$ 11,180(6)	$ 673,277
Senior Vice President, General Counsel	2006	$ 320,000		$ 56,334	$ 322,187	$ 62,720	$ 7,100	$ 768,341
and Secretary								
Graham Ligard,	2007	$ 290,600	29,046(8)	$ 57,733	$ 8,485	$ 8,714	$ 6,266(6)	$ 400,844
Senior Vice President, Research and	2006	$ 282,000	36,660(9)	$ 56,334	$ 168,115	$ 27,636	$ 7,100	$ 577,845
Development								

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

(2) The amounts in column (e) do not reflect actual value received by the officer in 2007 and 2006, but rather reflect the dollar amount recognized for financial statement reporting purposes for the fiscal years ended December 31, 2007 and 2006, in accordance with FAS 123(R) of stock awards granted to each named executive officer and thus include amounts from awards granted in and prior to the applicable year. Assumptions used in the calculation of these amounts are included in footnote 8 to the Company s audited financial statements for the fiscal year ended December 31, 2007 included in the Company s Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 31, 2008.

(3) The amounts in column (f) do not reflect actual proceeds received, but rather these amounts reflect the dollar amount recognized for financial statement reporting purposes for the fiscal years ended December 31, 2007 and 2006, in accordance with FAS 123(R) of stock options granted to each named executive officer and thus include amounts from awards granted in and prior to the applicable year. Assumptions used in the calculation of this amount are included in footnote 8 to the Company s audited financial statements for the fiscal year ended December 31, 2007 included in the Company s Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 31, 2007.

(4) The amounts in column (g) for the 2007 fiscal year reflect the cash awards to the named executive under the Company s 2007 Executive Officer Incentive Compensation Plan which is described in detail under the heading Incentive Compensation on page [ ].

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(5) The amount shown includes (i) $29,375, which represents the aggregate incremental cost to the company of administrative assistance service provided by the Company to Mr. Birndorf for his personal use, (ii) the premiums and miscellaneous expenses paid by the Company for supplemental medical and dental coverage provided to Mr. Birndorf under the Exec-U-Care program, which is in addition to the medical and dental coverage provided to all employees of the Company and (iii) the dollar value of life insurance premiums paid by the Company on behalf of Mr. Birndorf.

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

(7) Mr. Saltmarsh retired from his position as Vice President and Chief Financial Officer in February 2008.

(8) Reflects the portion of the cash award to Mr. Lidgard under the Company s 2007 Executive Officer Incentive Compensation Plan which was paid as a result of Mr. Lidgard s personal performance. The 2007 Executive Officer Incentive Compensation Plan is described in detail under the heading Incentive Compensation on page 14.

(9) Reflects the portion of the cash award to Mr. Lidgard under the Company s 2006 Executive Officer Incentive Compensation Plan which was paid as a result of Mr. Lidgard s personal performance.

Grants of Plan-Based Awards

The following table provides certain summary information concerning each grant of an award made to a named executive officer in the 2007 Fiscal Year under a compensation plan.

		Estimated Possible Payouts Under Non-Equity Incentive Plan Awards (1)			Estimated Future Payouts Under Equity Incentive Plan Awards (2)				
Name (a)	**Grant Date (b)**	**Threshold ($) (c)**	**Target ($) (d)**	**Maximum ($) (e)**	**Threshold (#) (f)**	**Target (#) (g)**	**Maximum (#) (h)**	**Exercise or Base Price of Option Awards ($/Sh) (i)**	**Grant Date FAS 123(R) Fair Value ($) (j)**
Howard Birndorf,	2/16/2007	156,045	312,090	468,135					
Chairman and Chief Executive Officer	2/16/2007				182,500	365,000	547,500(2)	1.39	558,107
David G. Ludvigson,	2/16/2007	90,125	180,250	270,375					
President and Chief Operating Officer	2/16/2007				100,000	200,000	300,000(2)	1.39	305,812
Robert Saltmarsh,	2/16/2007	51,500	103,000	154,500					
Chief Financial Officer	2/16/2007				62,500	125,000	187,500(2)	1.39	191,133
William L. Respess,	2/16/2007	65,920	131,840	197,760					
Senior Vice President, General Counsel and Secretary	2/16/2007				62,500	125,000	187,500(2)	1.39	191,133
Graham Lidgard,	2/16/2007	58,092	116,184	174,276					
Senior Vice President, Research and Development	2/16/2007				62,500	125,000	187,500(2)	1.39	191,133

(1) Reflects the potential payouts under the Company s 2007 Executive Officer Incentive Compensation Plan based on Company performance during the 2007 year, and assumes that for each level of achievement each of the three operational goals were achieved at that level. The actual amounts earned under such plan are disclosed in the Summary Compensation Table in the column Non-Equity Incentive Plan Compensation.

(2) Reflects stock options granted under the Company s 1997 Stock Incentive Plan, which vest based on the levels at which the goals under the 2007 incentive Plan were attained. Any options which vested on the basis of the attained levels of the 2007 Incentive Plan are subject to a further service vesting requirement over a four year period, with twenty-five percent of the option shares to vest upon the executive officer s completion of one year of service measured from the grant date, and the remaining option shares to vest monthly over the next thirty-six months of continued service. The actual number of option shares earned under such awards is disclosed in the Compensation Discussion and Analysis under the heading Long-Term Incentives.

Outstanding Equity Awards at Fiscal Year-End

The following table provides certain summary information concerning outstanding equity awards held by the Named Executive Officers as of December 31, 2007.

	Option Awards					Stock Awards	
Name (7) (a)	Number of Securities Underlying Unexercised Options (#) Exercisable (b)	Number of Securities Underlying Unexercised Options (#) Unexercisable (c)	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options (#) (d)	Option Exercise Price ($) (e)	Option Expiration Date (f)	Number of Shares or Units of Stock That Have Not Vested (#) (g)	Market Value of Shares or Units of Stock That Have Not Vested ($)(8) (h)
Howard Birndorf,	25,000			4.50	1/22/2009		
Chairman and Chief	80,000			11.94	1/25/2011		
Executive Officer	70,000			6.00	7/26/2011		
	22,694			5.11	1/24/2012		
	127,306			5.11	1/24/2012		
	400,000			1.90	7/25/2012		
	325,000			3.45	7/17/2013		
	17,878			4.70	7/28/2014		
	282,122			4.70	7/28/2014		
	22,727			4.40	7/28/2015		
	127,273			4.40	7/28/2015		
			280,000(1)	2.09	12/12/2016		
			547,500(2)	1.39	2/16/2017		
						50,000(3)	18,000
	1,500,000		827,500			50,000	18,000
David G. Ludvigson,	36,666			6.96	4/26/2011		
President and Chief	10,000			8.60	6/13/2011		
Operating Officer	10,000			2.80	6/14/2012		
	57,970			3.45	7/18/2013		
	58,822			3.45	7/18/2013		
	96,015			3.45	7/18/2013		
	28,985			3.45	7/18/2013		
	30,210	15,105(4)		6.62	6/1/2014		
	232,290	22,395(4)		6.62	6/1/2014		
	150,000			4.70	7/29/2014		
	75,000			4.40	7/29/2015		
			155,000(1)	2.09	12/12/2016		
			300,000(2)	1.39	2/16/2017		
						25,000(3)	9,000
	785,958	37,500	455,000			25,000	9,000

	Option Awards					Stock Awards	
Name (7) (a)	Number of Securities Underlying Unexercised Options (#) Exercisable (b)	Number of Securities Underlying Unexercised Options (#) Unexercisable (c)	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options (#) (d)	Option Exercise Price ($) (e)	Option Expiration Date (f)	Number of Shares or Units of Stock That Have Not Vested (#) (g)	Market Value of Shares or Units of Stock That Have Not Vested ($)(8) (h)
Robert Saltmarsh,	24,841			4.33	9/13/2014		
Former Vice President	159			4.33	9/13/2014		
and Chief Financial	78,125	21,875(4)(5)		6.21	1/5/2015		
Officer (6)	31,250	18,750(4)(5)		6.21	1/5/2015		
	1,348			4.40	7/29/2005		
	36,152			4.40	7/29/2005		
			95,000(1)(5)	2.09	12/12/2016		
			187,500(2)(5)	1.39	2/16/2017		
						12,500(3)(6)	4,500
	171,875	40,625	282,500			12,500	4,500
William L. Respess,	50,369	16,666(4)		5.87	4/30/2014		
Senior Vice President,	132,965			5.87	4/30/2014		
General Counsel and	50,000			4.70	7/29/2014		
Secretary	982			4.40	7/29/2015		
	36,518			4.40	7/29/2015		
			95,000(1)	2.09	12/12/2016		
			187,500(2)	1.39	2/16/2017		
						12,500(3)	4,500
	270,834	16,666	282,500			12,500	4,500
Graham Lidgard	58,139			1.72	1/14/2013		
Senior Vice President,	66,861			1.72	1/14/2013		
Research and	75,000			3.45	7/18/2013		
Development	25,000			3.45	7/18/2013		
	24,201			4.70	7/29/2014		
	75,799			4.70	7/29/2014		
	10,938			4.40	7/29/2015		
	26,562			4.40	7/29/2015		
			95,000(1)	2.09	12/12/2016		
			187,500(2)	1.36	2/16/2017		
						12,500(3)	4,500
	362,500		282,500			12,500	4,500

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

(2) Reflects stock options which will terminate prior to becoming exercisable unless the Company achieves its goals under the 2007 Executive Officer Incentive Compensation Plan at predetermined levels. Any options which vested on the basis of the attained levels under the 2007 Executive Officer Incentive Compensation Plan, were subject to a service vesting requirement over a four year period, with twenty-five percent of the option shares to vest upon the executive officer s completion of one year of service following the option

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grant date, and the remaining option shares to vest monthly over the thirty six month period thereafter. Upon a change in control before December 31, 2007, 100% of the option shares would become vested and exercisable. In the event of change in control following such date, the outstanding option shares would become vested and exercisable upon the termination of the optionee under certain circumstances. Based on the Company s performance in 2007, the Compensation Committee determined in February 2008 that 16% of the option shares subject to such option grants remain outstanding: Mr. Birndorf, 21,900 shares; Mr. Ludvigson, 12,000 shares; Mr. Lidgard, 7,500 shares; Mr. Respess, 7,500 shares.

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

(4) Options vest over a four year period of service with the Company measured from the grant date, with 25% of the option shares vesting after twelve months of service and the balance vesting monthly thereafter. Each option shall become fully vested and exercisable upon a change in control of the Company. The options held by the named executive officers that vest in accordance with the schedule are as follows:

Name	Option Grant Date	Total Number of Shares Granted	Number of Shares Exercised Before January 1, 2008
David G. Ludvigson,	6/1/2004	45,315	
President and Chief Operating Officer	6/1/2004	254,685	
Robert Saltmarsh,	1/5/2005	100,000	
Former Vice President and Chief Financial Officer	1/5/2005	50,000	
William L. Respess,			
Senior Vice President, General Counsel and Secretary	4/30/2004	67,035	

(5) In connection with his resignation in February 2008, Mr. Saltmarsh forfeited the following unvested shares:

Expiration Date	Number of Unvested Shares as of December 31, 2007	Number of Unvested Shares Mr. Saltmarsh Forfeited Upon Termination
1/5/2015	21,875	21,875
1/5/2015	18,750	18,750
12/12/2016	95,000	95,000
2/16/2017	187,500	187,500

(6) In connection with his resignation in February 2008, Mr. Saltmarsh forfeited 10,417 of the 12,500 unvested restricted stock units identified in the table above.

(7) Each executive officer s outstanding equity awards contain special accelerated vesting provisions, as described under the heading employment, Severance and Change in Control Agreements.

(8) Reflects the $0.36 per share closing selling price of the Company s common stock on December 31, 2007.

Option Exercises and Stock Vested

The following table sets forth for each of the named executive officers the number and value of shares of the Corporation s common stock subject to each restricted stock unit award that vested during the year ended December 31, 2007.

	Stock Awards	
Name (a)	**Number of Shares Acquired on Vesting (#) (b)**	**Value Realized on Vesting ($)(1) (c)**
Howard Birndorf, Chairman and Chief Executive Officer	50,000	20,144
David G. Ludvigson, President and Chief Operating Officer	25,000	10,072
Robert Saltmarsh, Former Vice President and Chief Financial Officer	12,500	5,036
William L. Respess, Senior Vice President, General Counsel and Secretary	12,500	5,036
Graham Lidgard Senior Vice President, Research and Development	12,500	5,036

(1) Value realized is determined by multiplying (i) the market price of the common stock on the applicable vesting date by (ii) the number of shares as to which each award vested on such date.

Pension Benefits

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

Nonqualified Deferred Compensation

Nanogen does not sponsor a nonqualified deferred compensation plan.

Employment, Severance and Change in Control Agreements

The following is a description of the principal provisions of the employment agreements we have entered into with our executive officers.

Howard C. Birndorf

Term. The amended and restated employment agreement we entered into with Howard C. Birndorf, our chief executive officer, has an initial term three-year ending on January 1, 2010, subject to automatic renewal for one or more successive one-year terms. In the event we elect not to renew the agreement, Mr. Birndorf may elect to terminate his employment and thereby become entitled to receive salary continuation payments for a period of eighteen months and continued medical coverage for himself and his eligible dependents at our expense for a period of up to eighteen months.

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

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Change in Control Benefits. All stock options and other equity awards granted to Mr. Birndorf prior to December 12, 2006 will vest in full in the event we experience a change in control. Any stock options or other equity awards subsequently granted to him will be subject to such accelerated vesting provisions tied to a change in control as our Compensation Committee may establish at the time of such grant. However, each outstanding stock option or other equity award will vest in full automatically upon a change in control to the extent that option or award is not assumed, continued or replaced by the successor corporation.

The 50,000 restricted stock units (RSU s) granted to Mr. Birndorf on December 12, 2006 will become vested on an accelerated basis in the event of the executive s involuntary termination within 24 months following a change in control.

The option grant for 280,000 shares made to Mr. Birndorf on December 12, 2006 contains special vesting acceleration provisions pursuant to which the option will automatically vest as to fifty percent of all unvested shares at the time of a change in control and will vest as to all shares if the consideration payable per share of our outstanding common stock in consummation of the change in control exceeds a certain dollar threshold.

The option grant for 280,000 shares made to Mr. Birndorf on February 16, 2007 contains special vesting acceleration provisions pursuant to which the option will automatically vest as to one hundred percent of the option shares upon a change in control before December 31, 2007. In the event of change in control following such date, the outstanding option shares would become vested and exercisable upon the termination of the optionee under certain circumstances.

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

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

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

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

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

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

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

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

Other Executive Officers

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

Term. The amended and restated employment agreement we entered into with each of our other executive officers has an initial three-year term ending on January 1, 2010, subject to automatic renewal for one or more successive one-year terms. In the event we elect not to renew the agreement, the executive officer may elect to terminate his employment and thereby become entitled to receive salary continuation payments for a period of six months.

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

Name	Base Salary	Target Bonus
D. Ludvigson	$ 360,500	$ 180,250
G. Lidgard	$ 290,460	$ 116,184
L. Respess	$ 329,600	$ 131,840
R. Saltmarsh	$ 257,500	$ 103,000
N. Venuto	$ 220,000	$ 77,000

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

Change in Control Benefits. In the event we experience a change in control, each executive officer will be entitled to the same change in control vesting acceleration benefits described above for Mr. Birndorf. In addition, as with Mr. Birndorf:

The option grants made to the executive officers on December 12, 2006 contain special vesting acceleration provisions pursuant to which the option will automatically vest as to fifty percent of all unvested shares at the time of a change in control and will vest as to all shares if the consideration payable per share of our outstanding common stock in consummation of the change in control exceeds a certain dollar threshold.

The restricted stock unit awards made to the executive officers on December 12, 2006 will become vested on an accelerated basis in the event of the executive s involuntary termination within 24 months following a change in control.

The option grants made to the executive officers on February 16, 2007 contains special vesting acceleration provisions pursuant to which the option will automatically vest as to one hundred percent of the option shares upon a change in control before December 31, 2007. In the event of change in control following such date, the outstanding option shares would become vested and exercisable upon the termination of the optionee under certain circumstances.

Significant Transaction Benefits. As is the case with Mr. Birndorf, each executive officer (except for Mr. Venuto) may also receive (i) the same change in control vesting acceleration benefits described above and

(ii) a transaction bonus of fifty percent (one hundred percent for Mr. Ludvigson) of the executive officer s then-current rate of annual base salary upon the occurrence of a significant transaction effecting a change in ownership (other than a change in control) which results, in the judgment of our board of directors, in significant additional value for our stockholders. Any such Transaction Bonus will be in lieu of any Achievement Bonus for the year for which it is paid. However, any such significant transaction benefits will be payable solely in the discretion of our board of directors.

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

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

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

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

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

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

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

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

Quantification of Benefits

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

(i) his employment terminated on December 31, 2007 under circumstances entitling him to severance benefits under his employment agreement,

(ii) as to any benefits tied to the executive s rate of base salary, the rate of base salary is assumed to be the executive s rate of base salary as of December 31, 2007,

(iii) as to any benefits tied to a change in control, the change in control is assumed to have occurred on December 31, 2007 and the change in control consideration paid per share of outstanding common stock is

assumed to be equal to the closing selling price of our common stock on December 31, 2007, which was $0.36 per share, and

(iv) as to any benefits tied to a significant transaction, the significant transaction is assumed to occur on December 31, 2007 and our board of directors exercised its discretion to pay the maximum amount of significant transaction benefits payable under the employment agreement.

In February 2008, our Chief Financial Officer, Robert Saltmarsh, announced his retirement. Mr. Saltmarsh was not entitled to any severance benefits in connection with his resignation.

BENEFITS RECEIVED UPON TERMINATION IN CONNECTION WITH A CHANGE IN CONTROL

Executive	Salary Continuation ($)	Achievement Bonus ($)	Accelerated Equity ($)(1)	COBRA ($)
Howard Birndorf	1,040,300	312,090	18,000	23,112
David Ludvigson	540,750	180,250	9,000	37,356
Graham Lidgard	290,460	116,184	4,500	18,129
Larry Respess	329,600	131,840	4,500	18,129

(1) Represents the intrinsic value of each stock option or other equity award which vests on an accelerated basis in connection with the change in control or termination of employment and is calculated by multiplying (i) the aggregate number of equity awards which vest on such an accelerated basis by (ii) the amount by which the $0.36 closing selling price of our common stock on December 31, 2007 exceeds any exercise price payable per vested share.

Based on the $0.36 closing selling price of our common stock on December 31, 2007, the Company believes that no limited tax gross-up payment would have been made in connection with a change in control on December 31, 2007.

POTENTIAL BENEFITS PAYABLE IN CONNECTION WITH A SIGNIFICANT TRANSACTION

Executive	Transaction Bonus ($)(1)	Accelerated Equity ($) (2)
Howard Birndorf	936,270	18,000
David Ludvigson	360,500	9,000
Graham Lidgard	145,230	4,500
Larry Respess	164,800	4,500

(1) Represents the maximum transaction bonus payable. If a significant transaction had actually occurred at the Company s stock price of $0.36 on December 31, 2007, no transaction bonus would have been payable to the named executive officers.

(2) Represents the intrinsic value of each pre-December 2006 stock option or other equity award which could potentially vest on an accelerated basis in connection with the significant transaction, and is calculated by multiplying (i) the aggregate number of pre-December 2006 equity awards which vest on such an accelerated basis by (ii) the amount by which the $0.36 closing selling price of our common stock on December 31, 2007 exceeds any exercise price payable per vested share.

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

Executive	Salary Continuation ($)	COBRA ($)
Howard Birndorf	780,225	23,112
David Ludvigson	180,250	12,453
Graham Lidgard	145,230	9,064
Larry Respess	164,800	9,064

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Compensation of Directors

The following table sets forth certain information regarding the compensation earned by or awarded to each non-employee director during the 2007 Fiscal Year who served on our Board of Directors in the 2007 Fiscal Year. The Company does not sponsor a non-equity incentive plan, a pension plan, or a non-qualified deferred compensation plan for its non-employee directors.

Name (a)	Fees Earned or Paid in Cash ($)(1) (b)	Stock Awards ($)(2) (c)	Option Awards ($)(3)(4) (d)	All Other Compensation ($) (e)	Total ($) (f)
Heiner Dreismann	8,241	25,000	8,987(5)	60,000(6)	102,228
Stelios B. Papadopoulos	28,000	25,000			53,000
David Schreiber	21,982	25,000			46,982
Robert E. Whalen	20,232	25,000			45,232

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

(2) The amounts in column (c) reflect the dollar amount recognized for financial statement reporting purposes for the fiscal year ended December 31, 2007, in accordance with FAS 123(R) of stock awards granted to each non-employee director as a retainer fee in the 2007 year. The grant date fair value of each annual retainer fee equity award granted during the 2007 fiscal year, computed in accordance with FAS 123(R), was $25,000. The number of shares subject to such retainer fee award in 2007 was 18,116 shares. For further information concerning such fees, see the section below entitled *Director Annual Retainer and Meeting Fees*.

(3) The amounts in column (d) do not reflect actual proceeds received, but rather these amounts reflect the dollar amount recognized for financial statement reporting purposes for the fiscal year ended December 31, 2007, in accordance with FAS 123(R) of stock options granted to each non-employee director and thus include amounts from awards granted in and prior to the 2007 year. Assumptions used in the calculation of this amount are included in footnote 8 to the Company s audited financial statements for the fiscal year ended December 31, 2007 included in the Company s Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 31, 2008.

(4) As of December 31, 2007 the following non-employee directors held options to purchase the following number of shares of the Company s common stock: Dr. Dreismann, 25,000 shares; Mr. Papadopoulos, 55,000 shares; Mr. Schreiber, 25,000 shares; and Mr. Whalen, 25,000 shares. The following table shows the grant date, exercise price and number of shares outstanding for each outstanding option held by a non-employee director.

Name	Grant Date	Exercise Price	Number of Option Shares Outstanding
Dr. Dreismann	10/27/06	$ 1.95	25,000
Mr. Papadopoulos	10/29/99	$ 7.00	25,000
Mr. Papadopoulos	6/6/00	$ 35.00	10,000
Mr. Papadopoulos	6/13/01	$ 8.60	10,000
Mr. Papadopoulos	6/14/02	$ 2.80	10,000
Mr. Schreiber	6/12/03	$ 4.07	25,000
Mr. Whalen	4/26/02	$ 3.50	25,000

(5) Represents the dollar amount recognized for financial statement reporting purposes for the fiscal year ended December 31, 2007, in accordance with FAS 123(R), with respect to the 25,000 share option granted to Dr. Dreismann under our 1997 Stock Incentive Plan upon Mr. Dreismann s election to the board, the terms of which are described in more detail below under the heading *1997 Stock Incentive Plan*.

(6) Represents the aggregate amount of consulting fees paid by us in 2007 under our consulting agreement with Dr. Dreismann, the terms of which are described in more detail below under the heading *Heiner* Dreismann*, Ph.D. Consulting Agreement.*

Directors Annual Retainer and Meeting Fees

Each non-employee Board member receives an annual retainer of $25,000 to be paid entirely in shares of our Common Stock, based on the closing stock price on the date of the Company s Annual Meeting of Stockholders. These shares are issued under our 1997 Stock Incentive Plan. Accordingly, on June 13, 2007, Messrs. Whalen, Papadopoulos, Schreiber and Dreismann each received 18,116 shares of our 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 Chairman of the Audit and Compensation Committees receive an additional annual cash retainer of $10,000 and $2,500, respectively, for their service on such committees. Non-employee Board members also receive the following additional cash payments: $2,000 per Board meeting attended ($750 per Board meeting participated in by phone) and $750 per Board committee meeting attended or participated in by phone.

1997 Stock Incentive Plan.

Pursuant to the 1997 Stock Incentive Plan, each non-employee Board member may elect to convert all or part of his or her annual cash retainer payments and/or meeting fees from us in the form of non-qualified stock options, restricted stock, stock units, or a combination thereof. In 2007, none of our non-employee Board members elected to convert their annual cash retainer payments and cash meeting fees into stock options, restricted stock or restricted stock units.

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

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

Heiner Dreismann, Ph.D. Consulting Agreement

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

Compensation Committee Interlocks and Insider Participation

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

Securities Authorized for Issuance under Equity Compensation Plans

The following table provides information with respect to the shares of our Common Stock that may be issued under our existing equity compensation plans as of December 31, 2007. The table excludes information related to the outstanding options granted under our equity compensation plans where no additional options may be granted. Footnote 7 to the table sets forth the total number of shares and weight average of the exercise price of the shares excluded from this table.

Plan Category

	A. Number of Shares to be Issued Upon Exercise of Outstanding Options, Warrants and Rights	B. Weighted Average Exercise Price of Outstanding Options, Warrants and Rights	C. Number of Shares Remaining Available for Future Issuance (Excluding Securities Reflected In Column A)
Equity compensation plans approved by stockholders[1]	8,639,521[2]	$ 3.51[3]	3,207,263[4]
Equity compensation plans not approved by stockholders[5]	1,668,040	$ 2.54	728,044[6]
Total	10,307,561	$ 3.35	3,935,307

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

(2) Includes 195,000 shares or our common stock subject to RSU s that will entitle each holder to one share of our common stock for each unit that vest over the holder s period of continued service. Excludes purchase rights accruing under the Employee Stock Purchase Plan which has a shareholder approved reserve of 1,600,000 shares. Under the Employee Stock Purchase Plan, each eligible employee may purchase up to 1,666 shares of Common Stock at semi-annual intervals on the last business day of June and December each year at a purchase price per share equal to 85% of the lower of (i) the closing selling price per share of Common Stock on the last trading day preceding the offering period in which that semi-annual purchase date occurs, or (ii) the closing selling price per share on the semi-annual purchase date.

(3) Calculated without taking into account 195,000 shares of our common stock subject to outstanding RSU s that will become issuable as those units vest, without any cash consideration or other payment required for such shares.

(4) Consists of shares available for issuance under the Bonus Plan, the 1998 Employee Stock Purchase Plan, and the 1997 Stock Incentive Plan. As of December 31, 2007, 178,390 shares were available for issuance under the Bonus Plan 195,595 and 2,833,278 shares were available for issuance under the 1998 Employee Stock Purchase Plan, and 1997 Stock Incentive Plan, respectively. The 2,833,278 shares available for issuance under the 1997 Stock Plan may be issued upon the exercise of stock options or stock appreciation rights granted under the plan or those shares may be issued pursuant to direct stock bonuses or restricted stock issuances, restricted stock units or other share right awards which vest upon the attainment of prescribed performance milestones or the completion of designated service periods. The 178,390 shares available under the Bonus Plan may be issued through direct stock bonuses or pursuant to restricted stock or restricted stock unit awards which vest upon the attainment of prescribed performance milestones or the completion of designated service periods.

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

them into options to purchase 0.4673 shares of Common Stock in accordance with the exchange ratio in effect for that acquisition. The 728,044 shares available for issuance under Epoch Biosciences, Inc. 2003 Stock Incentive Plan, as of December 31, 2007, may be issued upon the exercise of stock options or stock appreciation rights granted under the plan or those shares may be issued pursuant to direct stock bonuses or restricted stock issuances, restricted stock units or other share right awards which vest upon the attainment of prescribed performance milestones or the completion of designated service periods.

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

(7) The table does not include information with respect to outstanding options granted under certain equity compensation plans assumed by us in connection with mergers and acquisitions and which no additional options may be granted. As of December 31, 2007 a total of 680,612 shares of Common Stock were subject to those assumed options, and the weighted average exercise price of those assumed options was $10.14 per share.

The Epoch Biosciences, Inc. 2003 Stock Incentive Plan

As of December 16, 2004, approximately 431,760 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. On January 1, 2007, 2006 and 2005 the number of shares of Common Stock available for issuance under the assumed Epoch Biosciences, Inc. 2003 Stock Incentive Plan increased by 350,475 shares pursuant to the automatic share increase provisions of that plan. As of December 31, 2007 options to purchase 1,668,040 shares of Common Stock were outstanding under the assumed Epoch Biosciences, Inc. 2003 Stock Incentive Plan, 2,396,084 shares of Common Stock had been authorized under such plan, and 728,044 shares of Common Stock remained available for future issuance.

COMPENSATION COMMITTEE REPORT ON EXECUTIVE COMPENSATION

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

Compensation Committee

David Schreiber, Chairman

Robert Whalen

AUDIT COMMITTEE REPORT

The following is the report of the Audit Committee with respect to Nanogen s audited financial statements for the year ended December 31, 2007.

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

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

During fiscal year 2007, the Audit Committee reviewed, discussed and provided input on the Company s audited consolidated financial statements contained in the Company s Annual Report on Form 10-K for the fiscal year ended December 31, 2007. The Audit Committee also met regularly with Ernst & Young LLP to evaluate and approve the Company s internal controls and the overall quality of the Company s financial reporting. The Audit Committee also met with the Company s Chief Executive Officer and Chief Financial Officer to discuss and act, as necessary, on accounting issues. The Audit Committee also reviewed the report of management contained in the Company s Annual Report on Form 10-K for the year ended December 31, 2007 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.

The Audit Committee continues to oversee the Company s efforts related to its internal control over financial reporting and management s preparations for the evaluation in 2008.

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 fiscal year ended December 31, 2007, for filing with the Securities and Exchange Commission.

Audit Committee

Stelios B. Papadopoulos, Chairman

David Schreiber

Robert E. Whalen

PRINCIPAL ACCOUNTING FEES AND SERVICES

The following table sets forth the aggregate fees billed to the Company for the annual audits for the fiscal years ended December 31, 2007 and 2006, and all other fees billed to the Company during 2007 and 2006 by its principal accounting firm, Ernst & Young LLP:

	For the Years Ended December 31,	
	2007	2006
	(in thousands)	
Audit Fees	$ 1,051	$ 770
Audit-Related Fees	211	158
Tax Fees		4
All Other Fees		
Total	$ 1,262	$ 932

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 2007, audit fees also include fees incurred for the audit of the effectiveness of internal controls over financial reporting as required under the Sarbanes-Oxley regulations. The fees listed under Audit-Related Fees above were incurred for service related to accounting consultations and due diligence in connection with proposed acquisitions. The fees listed under All Other Fees above were incurred for service related to annual license fees for access to an on-line database of accounting and auditing literature. The Audit Committee approves non-audit services provided by Ernst & Young LLP on an ad hoc basis, and has vested authority with Stelios B. Papadopoulos, the chairman of the Audit Committee, to approve non-audit services as needed.

CERTAIN TRANSACTIONS

In June 2005, we signed a letter of agreement with FasTraQ, Inc. (FasTraQ) for the development of a certain future product. Our Chief Executive Officer and Chairman of the Board, Mr. Birndorf, is a director and an investor in FasTraQ and our newest director, Dr. Heiner Dreismann, became CEO of FasTraQ in 2006. In October and December 2005 we amended this letter of agreement. As a result of this agreement and related amendments we made an initial non-refundable payment of $500,000 in 2005 to begin the initial development of this product. As of December 31, 2005, we expensed the initial $500,000. In February 2006, we converted this letter of agreement into two executed contracts, a Development and License Agreement and a Collaboration Agreement. In February 2006, we committed to provide FasTraQ up to an additional $500,000 in funding based on certain milestones, of which $200,000 was paid in 2006 and expensed into research and development. In February 2007, the companies terminated these agreements by mutual agreement. There were no additional funds provided to FasTraQ during 2007.

In October 2006, we signed a consulting agreement with Mr. Dreismann, one of our Board members, and the agreement was amended in November 2006, and again in September 2007. Mr. Dreismann received $60,000 and $20,000 in compensation under this agreement during 2007 and 2006, respectively. Total compensation under the agreement is capped at a maximum of $5,000 per month.

On August 3, 2006, we entered into research and development collaboration arrangements with Fisher Scientific International Inc., (Fisher Scientific) a related party, that owns approximately 5.7 million shares of our common stock, and Athena Diagnostic, a wholly-owned subsidiary of Fisher Scientific. We agreed to share certain technology and patent rights related to the development, manufacture and marketing of new molecular diagnostic products. Under these arrangements, Fisher Scientific has the option to provide up to $10 million in 2007 and 2008 for the research and development of infectious disease and molecular diagnostic tests that will be mutually agreed upon. These arrangements are included in non-binding general agreements, thus the obligation of the parties are subject to further negotiation and final terms of definitive collaboration agreements. On August 9, 2006, we entered into an exclusive distribution agreement with Fisher Scientific. There were approximately $265,000 and $42,000 of sales under this agreement in the years ended December 31, 2007 and 2006, respectively.

In February 2008, we entered into a distribution and license agreement with Fisher under which we will provide certain distribution and technology access rights to Fisher. As part of the agreement, Fisher has agreed to fund a development program related to the development, manufacture and marketing of new molecular diagnostic products on a cost incurred based. Upon commercial launch of the new products, Fisher has agreed to certain minimum purchases over a six-year period.

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

PROPOSAL 2

APPROVAL OF THE AMENDMENT OF THE

NANOGEN, INC. 1997 STOCK INCENTIVE PLAN

The Company s stockholders are being asked to approve an amendment to the Company s 1997 Stock Incentive Plan (the 1997 Stock Plan) that will increase the maximum number of shares of Common Stock authorized for issuance over the term of the plan by an additional 4,000,000 shares to 19,943,011 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 April 16, 2008, 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 7, 2008, approximately 227 employees (including 5 executive officers) and 4 non-employee board members were eligible to participate in the 1997 Stock Plan. In addition, consultants are eligible to receive awards under the 1997 Stock Plan.

No individual may receive options covering more than 750,000 shares or stock appreciation rights (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-share 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 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 19,943,011 shares, including the 4,000,000-share increase that stockholders are being asked to approve pursuant to this Proposal 2, and including all shares added to the 1997 Stock Plan pursuant to forfeitures and terminations under the Prior Stock Plans. Should any unvested shares issued under the 1997 Stock Plan or the prior stock plans be subsequently repurchased by the Company, at the original issue price paid per share, upon the individual s cessation of service prior to vesting in those shares, then the repurchased shares will be available for subsequent award and issuance under the 1997 Stock Plan. If any stock units, options or SARs are forfeited (including awards pursuant to the Prior Stock Plans), or if any options, SARs or other stock-based awards terminate for any other reason prior to the issuance of the total number of shares subject to those awards (including awards pursuant to the Prior Stock Plans), then the unissued shares subject to those awards will again become available for issuance under the 1997 Stock Plan.

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

Outstanding Grants

As of April 7, 2008, the following persons or groups had received stock options to purchase in the aggregate the indicated number of shares of Common Stock under the 1997 Stock Plan: (i) the Chief Executive Officer and the other remaining current or former officers named in the Summary Compensation Table: Mr. Birndorf options for 3,645,828 shares; Mr. Ludvigson options for 1,618,332 shares; Dr. Respess options for 757,500 shares; Dr. Lidgard options for 832,000 shares and Mr. Venuto options for 220,000 shares; (ii) all current executive officers of the Company as a group: options for 6,853,114 shares; (iii) all current directors who are not executive officers as a group: options for 130,000 shares; (iv) the nominee for Class I director: Mr. Whalen options for 25,000 shares; (v) each associate of any of such current directors, executive officers or nominee, options for zero shares (vi) each person who has received five percent of options granted other than those included above, zero shares and (vii) all employees (excluding current executive officers) of the Company, options for 7,193,521 shares.

As of April 7, 2008, the following persons or groups had received in the aggregate the indicated number of shares of restricted stock and/or stock units under the 1997 Stock Plan: (i) the Chief Executive Officer and the

other remaining current or former officers named in the Summary Compensation Table: Mr. Birndorf 200,000 shares; Mr. Ludvigson 100,000 shares; Mr. Respess 50,000 shares; Dr. Lidgard 50,000 shares and Mr. Venuto 15,000, (ii) all current executive officers of the Company as a group: 415,000 shares; (iii) all current directors who are not executive officers as a group: 174,423 shares; (iv) the nominee for Class I director: Mr. Whalen 49,398 shares; (v) each associate of any of such current director, executive officer or nominee: zero shares; (vi) each person who has received five percent of options granted other than those included above: zero shares; and (vii) all employees (excluding current executive officers) of the Company: approximately 341,952 shares.

As of April 7, 2008 options covering 10,150,010 shares of Common Stock were outstanding under the 1997 Stock Plan, 749,575 shares had been issued pursuant to restricted stock or stock unit awards, 182,500 restricted stock awards remain outstanding, 4,144,690 shares have been issued pursuant to the exercise of outstanding options under the 1997 Stock Plan, 425,094 shares have been repurchased and 5,141,330 shares remained available for future award and issuance (assuming stockholder approval of the increase which forms part of this Proposal).

On April 7, 2008, the closing price of the Company s Common Stock on the Nasdaq National Market was $0.42 per share. For all valuation purposes under the 1997 Stock Plan the fair market value per share of Common Stock on any relevant date is the closing price per share on that date on the Nasdaq National Market.

New Plan Benefits

On April 2, 2008, the Compensation Committee awarded performance based stock options covering a maximum of 1,860,000 shares on the basis of the 4,000,000-share increase which forms this Proposal 2, with an option exercise price per share equal to the fair market value of the Company s common stock on the option grant date. These performance-based option grants are included in the Outstanding Grants disclosures in the paragraph above. The following table identifies the recipient of each such option, the option exercise price and the maximum number of shares subject to each such option:

Name and Position	Option Exercise Price Per Share ($)	Number of Option Shares
Howard Birndorf, Chairman and Chief Executive Officer	0.42	547,500
David G. Ludvigson, President and Chief Operating Officer	0.42	300,000
Nicholas J. Venuto, Vice President and Chief Financial Officer	0.42	187,500
William L. Respess, Senior Vice President, General Counsel and Secretary	0.42	187,500
Graham Lidgard Senior Vice President, Research and Development	0.42	187,500
All current executive officers as a group (10 persons including Named Executive Officers listed separately above)	0.42	1,860,000

Restricted Stock and Restricted Stock Units

Restricted shares are shares of Common Stock that are subject to repurchase by the Company at the employee s purchase price in the event that the applicable vesting conditions are not satisfied, and they are nontransferable prior to vesting (except for certain transfers to a trustee). A restricted share unit is a bookkeeping entry entitling the holder of the award to one share of the Company s Common Stock at a future date, generally

upon the satisfaction of the applicable vesting conditions. Settlement of vested restricted share units may be made in cash, shares of Common Stock, or a combination of both, as determined by the plan administrator. Restricted shares have the same voting and dividend rights as other shares of Common Stock. Restricted share units do not carry voting rights, and may carry a right to dividend equivalents. The recipient of restricted shares or stock units may pay all projected withholding taxes relating to the award with shares of Common Stock rather than cash if permitted by the Compensation Committee.

Options

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

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

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

Stock Appreciation Rights

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

Vesting

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

Other Provisions

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

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

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

Members of the Company s Board of Directors who are not employees of the Company are eligible for awards under the 1997 Stock Plan. However, such outside directors are not eligible for ISO grants. Total shares available to outside directors are 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.

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 exceeds the exercise price paid for those shares. The Company is entitled to an income tax deduction in the year of exercise in the amount recognized by the optionee as ordinary income. Any gain on subsequent disposition of the shares is a capital gain, which will be long term if the shares are held for at least one year following exercise. The Company does not receive a deduction for this capital gain.

Deductibility of Executive Compensation.

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

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

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

Accounting Treatment

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

Stock options and stock appreciation rights granted to non-employee consultants will result in a direct charged to our reported earnings based on the fair value of the grant measured on the vesting date of each installment of the underlying shares. Accordingly, such charge will take into account the appreciation in the fair

value of the grant over the period between the grant date and the vesting date of each installment comprising that grant. The measurement date for option grants awarded on the basis on the 4,000,000-share increase to the 1997 Plan will not be set unless and until such increase is approved by our stockholders. Accordingly, any increase in our stock price between the grant date and the date such approval is received will increase the fair value of the award to be charged as stock-based compensation against our reported GAAP earnings.

Required Vote

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

The Board of Directors recommends a vote FOR the adoption of the amendment of the Nanogen, Inc. 1997 Stock Incentive Plan.

PROPOSAL 3

APPROVAL OF THE AMENDMENT OF THE

NANOGEN, INC. EMPLOYEE STOCK PURCHASE PLAN

The Company s stockholders are being asked to approve an amendment to the Company s Employee Stock Purchase Plan (the Purchase Plan) which will increase the maximum number of shares of Common Stock authorized for issuance over the term of the Purchase Plan by an additional 500,000 shares from 1,100,000 shares to 1,600,000 shares. The purpose of the share increase is to ensure that the Company will continue to have a sufficient reserve of Common Stock available under the Purchase Plan to provide eligible employees of the Company and its participating subsidiaries with the opportunity to acquire a proprietary interest in the Company through participation in a payroll-deduction based employee stock purchase plan under Section 423 of the Internal Revenue Code of 1986, as amended (the Code).

The Purchase Plan was adopted by the Board of Directors in November 1997 and became effective in April 1998 in connection with the initial public offering of the Company s Common Stock. On April 16, 2008, the Board of Directors adopted the amendment to the Purchase Plan which is the subject of this Proposal 3, subject to the approval of the Company s stockholders.

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

Description of the Purchase Plan

Purpose

The purpose of the Purchase Plan is to provide a means by which eligible employees of the Company or its subsidiaries may be given an opportunity to purchase shares of the Company s Common Stock at a discount to the market price. The Company, by means of the Purchase Plan, seeks to attract and retain key employees, and to provide incentives for employees to exert maximum efforts for the success of the Company.

Administration

The Purchase Plan currently administered by the Compensation Committee of the Board of Directors. In its capacity as plan administrator, the Compensation Committee has the final power to construe and interpret the Purchase Plan and the rights granted under it and has full authority, subject to the provisions of the Purchase Plan, to determine when and how rights to purchase stock of the Company will be granted, the provisions of each offering of such rights and whether any subsidiary of the Company will be eligible to participate in the Purchase Plan. For purposes of the Purchase Plan, subsidiary will have the meaning as set forth in Section 424 of the Code.

Stock Subject to the Purchase Plan

Currently, the total number of shares of Common Stock that may be sold pursuant to the Purchase Plan may not exceed 1,100,000 shares, subject to adjustment as described below. The proposed amendment to the Purchase Plan would increase the number of shares of Common Stock that may be sold under the Purchase Plan from 1,100,000 to 1,600,000. If rights granted under the Purchase Plan terminate without having been exercised, the Common Stock not purchased will become available again for issuance under the Purchase Plan.

As of April 7, 2008, 146,436 shares of the Company s Common Stock have been sold under the Purchase Plan and 195,595 shares of Common Stock remain available for purchase under the Purchase Plan.

As of April 7, 2008 the fair market value of a share of the Company s Common Stock was $0.42.

Eligibility

Any employee who has been employed by the Company or by any subsidiary participating in the Purchase Plan on the day preceding an offering period for at least one month and who is customarily employed on a basis requiring at least 20 hours of service per week for at least five months per year is eligible to participate in the Purchase Plan. As of April 7, 2008, the Company had approximately 227 employees who were eligible to participate in the Purchase Plan, including five executive officers.

No rights to purchase shares of Common Stock may be granted under the Purchase Plan to any person who, at the time of grant, owns (or is deemed to own) stock possessing more than 5% or more of the total combined voting power or value of all classes of stock of the Company or any subsidiary. In addition, an eligible employee will not be granted rights to purchase Common Stock under the Purchase Plan and other employee stock purchase plans of any parent or subsidiary of the Company that, in the aggregate, accrue at a rate that exceeds $25,000 of the fair market value of the stock (determined at the time such rights are granted) for each calendar year such rights are outstanding. No participant may purchase more than a maximum of 1,666 shares of the Company s Common Stock during any accumulation period. The plan administrator may exclude from participation in one or more offerings under the Purchase Plan certain employees of the Company who are highly compensated employees within the meaning of Section 423(b)(4)(D) of the Code.

Offerings

Shares of Common Stock are offered under the Purchase Plan through a series of successive offering periods, each with a maximum duration of twenty-four months. Two overlapping offering periods commence in each calendar year on each January 1 and July 1. Once an eligible employee is enrolled in the Purchase Plan, such offering period will continue to apply to him or her until the earliest of (1) the end of such 24 month offering period, (2) the end of his or her participation in the Purchase Plan, or (3) his or her re-enrollment in a subsequent offering period as described below. If the fair market value of the Company s Common Stock on the last trading day before the commencement of the offering period is higher than on the last trading day before the commencement of any subsequent offering period, the participant will automatically be re-enrolled in such subsequent offering period. When a participant reaches the end of an offering period, but his or her participation is to continue, then such eligible employee shall automatically be re-enrolled for the offering period that commences after the end of the prior offering period. The Board may specify a maximum number of shares that may be purchased by all eligible employees in an offering.

At the time the participant joins the offering period, he or she will be granted a purchase right to acquire shares of Common Stock at semi-annual intervals over the remainder of the offering period. The six month semi-annual intervals begin on January 1 and July 1 each year, and are referred to herein as accumulation periods. Purchase dates occur on the last business day of each accumulation period.

Terms of Rights

The following is a summary description of the terms of rights under the Purchase Plan.

Participation. An eligible employee may participate in an offering by delivering an enrollment form to the Company. The enrollment form authorizes payroll deductions of not less than 1% and not more than 15% of the employee s earnings during the purchase period.

Purchase Price. The purchase price of each share of Common Stock acquired under the Purchase Plan is equal to 85% of the lower of the fair market value of the Common Stock at either the last trading day preceding the commencement of the applicable offering period or the last day of the applicable accumulation period. Under

the Purchase Plan, the fair market value of a share of Common Stock is the closing price for which the Common Stock was sold on the Nasdaq National Market on the relevant trading day described above.

Payment of Purchase Price; Payroll Deduction. The purchase price payable for the shares of Common Stock is accumulated during each accumulation period through payroll deductions, on each payday during the eligible employee s participation in the Purchase Plan. A participant may change the rate of his or her payroll deductions by filing a new enrollment form with the Company not later than one week prior to the last working day prior to the commencement of the accumulation period for which such change is to be effective. If an eligible employee wishes to discontinue employee contributions entirely, he or she may do so by filing a new enrollment form at any time. Payroll withholding will cease as soon as reasonably practicable after such form has been received by the Company. All payroll deductions made for a participant are credited to his or her plan account under the Purchase Plan and deposited with the general funds of the Company. No interest is credited on any funds deposited in any participant s plan account. An eligible employee may not make any additional payments into his or her plan account.

Purchase of Stock. In connection with offerings made under the Purchase Plan, the plan administrator may specify a maximum number of shares any employee may purchase and a maximum aggregate number of shares that may be purchased in the offering by all eligible employees. Notwithstanding the foregoing, no participant may purchase more than a maximum of 1,666 shares of Common Stock with respect to any accumulation period. If the aggregate number of shares to be purchased upon exercise of rights granted in the offering would exceed the maximum aggregate number of shares that may be purchased, as designated by the plan administrator, the plan administrator may make a pro rata allocation of shares available in a uniform and equitable manner. Unless the employee s participation is discontinued, his or her right to purchase shares is exercised automatically at the end of the purchase period at the applicable price.

Withdrawal. A participant may elect to withdrawal from the Purchase Plan by filing the prescribed form with the Company at any time before the last day of the accumulation period. As soon as reasonably practicable thereafter, payroll deductions will cease and the entire amount will be credited to the eligible employee s plan account in cash, without interest. No partial withdrawals are permitted. Upon such withdrawal, the employee will not be able to rejoin the offering period and must wait until the start of a new officering period to resume participation in the Purchase Plan.

Termination of Employment. Rights granted pursuant to any offering under the Purchase Plan terminate immediately upon cessation of an employee s employment for any reason and the Company will distribute to such employee or such employee s named beneficiary all of his or her accumulated payroll deductions without interest.

Restrictions on Transfer. Rights granted under the Purchase Plan may not be transferred and may be exercised only by the person to whom such rights are granted.

Effects of Certain Corporate Events. The aggregate number of shares of Common Stock offered under the Purchase Plan, the limitation on the maximum number of shares of Common Stock that may be purchased by a participant during any one accumulation period, in total by all participants, and the purchase price of shares of Common Stock that any eligible employee has elected to purchase will be adjusted proportionately by the plan administrator for any increase or decrease in the number of outstanding shares of Common Stock resulting from a subdivision or consolidation of, the payment of a stock dividend, any other increase or decrease in such shares effected without receipt or payment of consideration by the Company or the distribution of the shares of a subsidiary to the Company s stockholders.

In the event of a dissolution or liquidation of the Company, or a merger or consolidation to which the Company is a constituent corporation, the Purchase Plan will terminate unless the plan of merger, consolidation or reorganization provides otherwise, and all amounts that have been withheld but not yet applied to purchase

Common Stock under the Purchase Plan will be refunded, without interest. The Purchase Plan will in no event be construed to restrict in any way the Company right to undertake a dissolution, liquidation, merger, consolidation or other reorganization.

Stock Issuances

The table below shows, as to each of the Company s executive officers named in the Summary Compensation Table of this Proxy Statement and the various indicated individuals and groups, the number of shares of Common Stock purchased under the Purchase Plan between the April 13, 1998 effective date of the Purchase Plan and the December 31, 2007 purchase date.

Purchase Plan Transactions

Name	Title	Number of Purchased Shares
Howard C. Birndorf	Chairman and Chief Executive Officer	
David G. Ludvigson	President and Chief Operating Officer	14,994
Robert Saltmarsh	Chief Financial Officer	8,330
Graham Lidgard	Senior Vice President, Research and Development	9,593
William L. Respess	Senior Vice President, General Counsel, Secretary	
All current executive officers as a group (7 persons)		62,376
All employees, including current officers who are not executive officers, as a group (227 persons)		842,029

New Plan Benefits

No purchase rights will be granted and no shares of Common Stock will be issued under the Purchase Plan on the basis of the 500,000-share increase for which stockholder approval is sought under this Proposal 3, unless such stockholder approval is obtained.

Duration, Amendment and Termination

The Board has the right to amend, suspend or terminate the Purchase Plan at any time and without notice. The Purchase Plan may also be amended or terminated immediately upon action by the Board should the financial accounting rules currently applicable to employee stock purchase plans such as the Purchase Plan be revised so as to require the Company to recognize compensation cost in connection with the shares offered for purchase under the Purchase Plan. Except for antidilution adjustments and reorganizations described above, any increase in the aggregate number of shares of Common Stock to be issued under the Purchase Plan will be subject to approval by a vote of the stockholders of the Company. In addition, any other amendment of the Purchase Plan will be subject to approval by a vote of the stockholders of the Company to the extent required by applicable law or regulation.

Federal Income Tax Consequences

The Company intends that a right to purchase stock of the Company granted under the Purchase Plan be considered issued under an employee stock purchase plan as that term is defined in Section 423(b) of the Code.

The following summarizes the Federal income tax consequences of an employee s participation in the Purchase Plan and is not intended to be a complete description of the tax consequences. This summary does not address Federal employment taxes, foreign, state and local income taxes and other taxes that may be applicable.

Grant of Option; Exercise of Option (Purchase of Stock). An eligible employee will not recognize taxable income on the date the employee is granted an option under the Purchase Plan (i.e., the first day of the offering period). In addition, the employee will not recognize taxable income on the date the option is exercised (i.e., the date the shares are purchased under the Purchase Plan, generally the last day of an accumulation period).

Sale of Common Stock After the Holding Period. If an employee does not sell or otherwise dispose of the shares of Common Stock purchased upon exercise of his or her option under the Purchase Plan within two years after the date on which the option is granted or within one year after the date on which the shares of Common Stock are purchased (the Holding Period), or if the employee dies while owning the shares of Common Stock, the employee will be taxed in the year in which he or she sells or disposes of the shares of Common Stock, or the year closing with his or her death, whichever applies, as follows:

The employee will recognize ordinary income in an amount equal to the lesser of:

The excess, if any, of the fair market value of the shares of Common Stock on the date on which such shares are sold or otherwise disposed, or the date on which the employee died, over the amount paid for the shares of Common Stock, or

The excess of the fair market value of the shares of Common Stock on the date the option was granted over the option price (determined assuming that the option was exercised on the date granted) for such shares of Common Stock; and

The employee will recognize as capital gain any further gain realized (after increasing the tax basis in the shares of Common Stock by the amount of ordinary income recognized as described above).

Sale of Common Stock During the Holding Period. If the employee sells or otherwise disposes of the shares of the Common Stock purchased upon exercise of his or her option under the Purchase Plan before the Holding Period expires, and the amount realized is greater than or equal to the fair market value of the shares of Common Stock on the date of exercise, the employee will be taxed in the year in which he or she sells or disposes of the shares of Common Stock as follows:

The employee will recognize ordinary income to the extent of the excess of the fair market value of the shares of Common Stock on the date on which the option was exercised over the option price for such shares of Common Stock; and

The employee will recognize as capital gain any further gain realized (after increasing the tax basis in the shares of Common Stock by the amount of ordinary income recognized as described above).

If the employee sells or otherwise disposes of the shares of Common Stock before the Holding Period expires, and the amount realized is less than the fair market value of the shares of Common Stock on the date of exercise, the employee will be taxed in the year in which he or she sells or disposes of the shares of Common Stock as follows:

The employee will recognize ordinary income to the extent of the excess of the fair market value of the shares of Common Stock on the date on which the option was exercised over the option price for such shares of Common Stock; and

The employee will recognize capital loss to the extent the fair market value of the shares of Common Stock on the date of exercise exceeds the amount realized on the sale or other disposition.

Company Tax Deduction. If a participant sells or otherwise disposes of the purchased shares within the Holding Period, the Company will be entitled to a tax deduction for the taxable year in which such disposition

occurs, equal in amount to the amount by which the fair market value of the purchased shares on the purchase date exceed the purchase price paid for those shares. If the participant sells or otherwise disposes of the purchased shares after the Holding Period, the Company will not be entitled to an income tax deduction with respect to such disposition.

Accounting Treatment

Pursuant to the accounting standards established by Statement of Financial Accounting Standards No. 123R, Share-Based Payment, or SFAS 123R, the fair value of each purchase right which is granted or vests under the Purchase Plan after December 31, 2005 will be charged as a direct compensation expense to our reported earnings over the offering period to which that purchase right pertains. The fair value of each such purchase right will be determined as of its grant date.

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 amendment of the Purchase Plan. Should such stockholder approval not be obtained, then the proposed 500,000-share increase to the share reserve under the Purchase Plan will not be implemented. The Purchase Plan will, however, continue in effect, and stock purchased made thereunder will continue to be made under the Purchase Plan as currently in effect until all the shares available for under the Purchase Plan have been purchased.

The Board of Directors recommends a vote FOR the adoption of the amendment of the Nanogen, Inc. Employee Stock Purchase Plan.

PROPOSAL 4

APPROVAL AND RATIFICATION OF THE MARCH 2008 DEBT RESTRUCTURING

Background and Introduction

In August 2007, we completed a debt financing transaction (the August 2007 Debt Financing) in which we issued and sold an aggregate of $20,000,000 of our 6.25% Senior Convertible Notes due 2010 (the Old Notes) to a group of institutional investors. In that transaction, we agreed to seek stockholder approval of the August 2007 Debt Financing in order to eliminate certain pricing floors on anti-dilution adjustments to the conversion price of the Old Notes and exercise prices of related warrants. In February 2008, we held a Special Meeting of Stockholders in which our stockholders approved the August 2007 Debt Financing. Such approval improved our ability to raise capital through equity financing transactions and provided us with more flexibility to negotiate a restructuring of the Old Notes with their holders (the Holders).

Subsequent to the August 2007 Debt Financing, we continued to explore financing opportunities to fund our operations. During that process, we negotiated a restructuring transaction with Holders (the Debt Restructuring) in order to allow us, among other things, to complete a royalty financing transaction in which we sold certain rights of Epoch Biosciences, Inc., our wholly-owned subsidiary (Epoch), to receive royalty interest payment under a license agreement with Applera Corporation (ABI) for an aggregate cash payment of $10,000,000 (the Royalty Sale). We completed the Debt Restructuring on March 27, 2008 and the Royalty Sale on March 28, 2008.

In the Debt Restructuring, we entered into an Amendment and Exchange Agreement (the Exchange Agreement) with each Holder, pursuant to which an aggregate of $12,917,000 in principal amount of the Old Notes were exchanged (the Exchange Offer) with an aggregate of $15,500,400 in principal amount of newly issued 9.75% Senior Secured Convertible Notes due 2010 (the Notes). The Notes are convertible initially into an aggregate of 22,784,653 shares of our common stock at an initial conversion price of $0.6803 per share. Neither the Notes nor shares of our common stock issuable upon conversion of the Notes are registered under the Securities Act of 1933 as amended. We also granted a first priority security interest in substantially all of our assets for the benefit of Holders to secure our obligations under the Notes. Upon closing of the Debt Restructuring, an aggregate of $7,000,000 in principal amount of the Old Notes remains outstanding and its conversion price, as well as exercise prices of related warrants issued to Holders in the August 2007 Debt Financing, were adjusted to an amount equal to $0.6803 per share. Pursuant to the terms of the Exchange Agreement, we agreed to seek stockholder approval of the Debt Restructuring on or prior to our 2008 Annual Meeting of Stockholders.

What We Are Asking the Stockholders to Approve

The Company s stockholders are being asked to approve and ratify the debt restructuring transaction that was completed in March 2008. Specifically, we are seeking stockholder approval of the Exchange Offer and the issuance or potential issuance of our securities pursuant to the terms of the Debt Restructuring, including issuance of the Notes, shares of our common stock upon conversion of the Notes, shares of our common stock as interest payments under the Notes, and any additional shares of common stock that may be issued to Holders pursuant to anti-dilution adjustment to the conversion price of the Notes in the event of a future dilutive transaction by the Company, which may include, but are not limited to, any future restructuring or financing transactions with Holders, whether related to the Notes or not.

If Proposal 4 is approved, it will eliminate the $0.6803 floor on anti-dilution adjustments to the conversion price of the Notes, in the event of future issuances of shares of our common stock (or securities convertible into or exercisable for common stock) at a price per share that is less than the then current conversion price of the Notes. As described in more detail below, we believe that stockholder approval of Proposal 4 will provide us with more flexibility not only to raise capital by removing certain restrictions on our ability to conduct equity

financing in the future, but also to restructure our debt with existing Holders. We will need to raise more money in the immediate future to continue our business operations and fund our research and development activities; therefore stock approval of Proposal 4 is critical in ensuring that we will have the ability to do so.

The following discussion includes summaries of the Exchange Agreement, the Notes and the Security Agreement, copies of form which are attached to this proxy statement as Appendices C, D, and E, respectively. These summaries are qualified in their entirety by reference to those documents.

Basic Terms of the Notes

The initial maturity date of the Notes is August 27, 2010, subject to extension under certain circumstances, including an extension in the event of a default or change in control on the scheduled maturity date. The Notes bear interest at 9.75% per annum, payable quarterly in arrears commencing on March 31, 2008. The interest will be paid in cash or, subject to certain conditions, in shares of our common stock (the Common Stock), or a combination of cash and shares of Common Stock. Upon and during the occurrence of an Event of Default (as defined in the Notes), the interest rate under the Notes will increase to 12% per annum. In addition, in the event that any payment of principal or other amounts payable under the Notes or other transaction documents in the offering are not paid when due, such past due amounts are subject to a late charge of 15% per annum from the date due until paid.

The principal amount of the Notes, together with any accrued and unpaid interest and any late charges (the Conversion Amount), will be convertible at the option of the Holders, at any time following their issuance, into shares of Common Stock at the initial conversion price of $0.6803 per share, subject to certain limitations on beneficial ownership. The Conversion Amount will also include the net present value of interest on the Note calculated at a 6.25% discount rate upon any conversion event or redemption event, subject to certain limitations.

The conversion prices will be subject to certain adjustments set forth in the Notes, including full ratchet anti-dilution protection for the Notes in respect of any equity or convertible securities issuances within eighteen months of the issuance of the Notes and weighted-average anti-dilution protection thereafter, subject to customary exceptions and a limitation on the reduction of the conversion price below $0.6803 without subsequent stockholder approval (the Conversion Price Floor). The Exchange Offer was completed at a price at or above the greater of the book value or market value of the Common Stock immediately preceding the execution of the Exchange Agreement.

The Notes contain the following mandatory redemption provisions:

On the first date of each month commencing on April 1, 2008 and prior to January 1, 2009, we will redeem an aggregate principal amount of the Notes equal to $80,000, and $160,000 after January 1, 2009 (Monthly Installment Amount).

On the date that is the earlier of second business day following (i) the date on which we announce quarterly operating results and (ii) 45th day after the end of each fiscal quarter or, with respect to the last fiscal quarter, 90th day after the end of such quarter, we will redeem an aggregate principal amount of the Notes equal to the greater of (i) $10,000 for each fiscal quarter prior to January 1, 2009 or $20,000 for each fiscal quarter after January 1, 2009 and (ii) the product of 5% (for each quarter prior to January 1, 2009) or 10% (for each quarter after January 1, 2009) multiplied by our consolidated product revenue for such prior fiscal quarter minus the aggregate Monthly Installment Amount paid for such quarter.

We will pay $80,000 of Monthly Installment Amount for the month of March, 2008. For the first quarter of 2008, we will redeem an aggregate principle amount of the Notes equal to the greater of (i) $3,333 or (ii) the five percent (5%) of one-third (1/3) of our consolidated product revenue for the first quarter of 2008 minus $80,000 paid by us for the month of March, 2008.

If we sell, convey, transfer or dispose all or any part of our business, property or assets, except for certain permitted asset dispositions, we are required to use 50% of the net cash proceeds from such asset disposition to redeem the Notes.

If we offer or sell any debt, equity, or equity equivalent securities, subject to certain exceptions, we are required to use 20% of the aggregate net cash proceeds in excess of $10,000,000 to redeem the Notes.

The Notes contain event of default provisions (Event of Default) that are substantially similar to those set forth in the terms of the Old Notes, including suspension of our Common Stock from trading, failure to cure conversion failures or maintain sufficient shares of common stock available for conversion, breaches of covenants, breaches of material representations, failure to repay certain indebtedness exceeding $250,000, the occurrence of bankruptcy or similar events, default under our material agreements, and the rendering of a final judgment in excess of $500,000 not covered by insurance.

Upon occurrence of an Event of Default, any Holder may require us to redeem all or a portion of its Note at a redemption price in cash equal to the greater of (i) the product of (x) the Conversion Amount (as defined in the Notes) to be redeemed and (y) the applicable redemption premium (as described below), and (ii) the product of (A) the Conversion Amount divided by the conversion price in effect at such time as the Holder delivers the redemption notice and (B) the greater of (1) closing sale price of the Common Stock on the date immediately preceding the Event of Default, and (2) the closing sale price of the Common Stock on the date immediately after the Event of Default and (3) the closing sale price of the Common Stock on the date the Holder delivers the redemption notice. The applicable redemption premium is 120%, except for the occurrence of bankruptcy or similar event, in which case the applicable redemption premium is 100%.

In connection with a Change of Control (as defined in the Notes), the Holder will have the right to require us to redeem all or any portion of their Notes at a redemption price (the Change of Control Redemption Price) in cash equal to the sum of (1) accrued and unpaid interest and late charges and (2) the greater of (i) the product of (x) the Conversion Amount (excluding interest and late charges) being redeemed and (y) the quotient determined by dividing (A) the greater of the closing sale price of the Common Stock immediately prior to the consummation of the Change of Control, the closing sale price of the Common Stock immediately following the public announcement of such proposed Change of Control and the closing sale price of the Common Stock immediately prior to the public announcement of such proposed Change of Control by (B) the then applicable conversion price, and (ii) the Conversion Amount (excluding interest and late charges) being redeemed.

In the event of a Change of Control, we have the right to redeem all of the Notes at a price in cash equal to the sum of (1) accrued and unpaid interest on the Notes and late charges and (2) the greater of (i) the product of (x) the Conversion Amount (excluding interest and late charges) of the Notes being redeemed and (y) the quotient determined by dividing (A) the greater of the closing sale price of the Common Stock immediately prior to the consummation of the Change of Control, the closing sale price of the Common Stock immediately following the public announcement of such proposed Change of Control and the closing sale price of the Common Stock immediately prior to the public announcement of such proposed change of control by (B) the then applicable conversion price, and (ii) if the acquirer is a publicly traded company, 120% of the Conversion Amount (excluding interest and late charges) of the Notes being redeemed.

Upon the occurrence of certain Fundamental Transaction (as defined in the Notes), we will be required to reaffirm our obligations under the Notes so as to provide a confirmation that following the consummation of the Fundamental Transaction, the Notes will be convertible into either (i) Common Stock or other shares of publicly traded Common Stock (or their equivalent) of the Company, or the Company as the Successor Entity (as defined in the Notes), or (ii) if we are not a publicly traded entity following the Fundamental Transaction, the securities or other cash or assets that the Holder would have received had it converted the Notes immediately prior to the consummation of the Fundamental Transaction.

The Notes contain covenants which, among other things, restrict our ability to and ability of our subsidiaries to:

- incur additional indebtedness other than in connection with existing indebtedness or certain permitted indebtedness under the terms of the Notes;
- grant liens on the Company s assets other than certain ordinary permitted liens;
- make distributions on or repurchase shares of Common Stock;
- transact businesses with its affiliates;
- create new subsidiaries;
- sells, convey or dispose of its business or assets except for certain permitted asset dispositions; and
- effect certain equity and debt financing.

Security Agreement

To secure our obligations under the Notes, we entered into a Security Agreement with Portside Growth & Opportunity Fund, as collateral agent for the Holders, pursuant to which we granted a security interest in substantially all of our assets and stock to the collateral agent. Certain assets are excluded from such security interest, including (i) more than 65% of capital stock of foreign subsidiaries of the Company; (ii) receivables sold pursuant to a factoring agreement with GE Capital Finance S.p.A. in Italy; (iii) intellectual property assets securing the obligations of the Company and its subsidiaries under certain royalty sales transaction; (iv) cash collateral securing the letter of credit for the benefit of Holders, and (v) assets covering certain permitted liens set forth in the terms of the Notes. The Security Agreement contains customary representations, warranties and covenants.

Why We Are Seeking Stockholder Approval of Proposal 4

We are seeking stockholder approval of the Debt Restructuring and the issuance of Common Stock upon conversion of the Notes in order to (i) eliminate the Conversion Price Floor contained in the Notes; (ii) improve our ability to raise capital and restructure our existing debt; (iii) comply with the NASDAQ Marketplace Rules relating to stockholder approval, and (iv) fulfill a covenant made by us under the Exchange Agreement.

Elimination of Pricing Floors. In the event we issue shares of our common stock or securities convertible into share of our common stock at prices below the applicable conversion price of the Notes, or dilutive issuances , the anti-dilution provisions in the Notes prohibit us to adjust the conversion price or the exercise price to below the Conversion Price Floor. If these pricing floors are eliminated, then following future dilutive issuances, it is possible for such conversion price to be adjusted to a price that is below the market price of the common stock as of the closing of the Debt Restructuring. As such, Holders will receive full benefit of the anti-dilution protection. In addition, it will also be possible for the number of shares of common stock to be issued upon conversion of the Notes to equal or exceed 20% of the outstanding shares or voting power as of the closing of the Debt Restructuring.

Improved Ability to Raise Capital and Restructure our Debt. We will need to raise more money in the immediately future to continue our business operations and fund our research and development activities, and to further develop our current products, bring our products to market and enhance our manufacturing and marketing capabilities. We depend heavily on equity financing to fund our operations. However, our agreements with Holders prohibit us from issuing or selling shares of our common stock, warrants or other equity securities at a price per share that is less than the conversion price of the Notes without first obtaining stockholder approval to eliminate the Conversion Price Floor. If stockholder approval is obtained, it will remove this restriction and provide us with more flexibility to raise capital through equity financing in the future.

In addition, stockholder approval of Proposal 4 covers any future issuance of our securities to Holders pursuant to anti-dilution adjustment to conversion price of the Notes in the event of a dilutive financing transaction by the Company, which may include a further restructuring of the Notes or the Old Notes. This will provide us with more flexibility to restructure our debt with existing Holders by eliminating the need to seek further approval from NASDAQ or our stockholders in the event we wish to issue shares of our common stock at a discount to market value. In summary, stockholder approval of Proposal 4 is critical in ensuring that we will have the ability to raise the necessary capital to continue our operations, while providing us with more flexibility to restructure our debt.

NASDAQ Marketplace Rules. Rule 4350(i) of the NASDAQ Marketplace Rules requires stockholder approval for the issuance of securities other than in a public offering at a price per share less than the greater of the book or market value of a company s stock, where the amount of securities being issued represents 20% or more of an issuer s outstanding listed securities or 20% or more of the voting power outstanding before the issuance.

We are subject to the NASDAQ Marketplace Rules because our common stock is listed on the NASDAQ Global Market. The issuance of the Notes in the Debt Restructuring, and the issuance of shares of common stock upon conversion of the Notes, did not require stockholder approval under NASDAQ Marketplace Rule 4350(i) because of the applicable Conversion Price Floor and Exercise Price Floor. We are seeking stockholder approval pursuant to Rule 4350(i) so that under the terms of the Notes, if stockholder approval is obtained, the Conversion Price Floor is eliminated. In addition, it will also be possible for the number of shares of common stock to be issued upon conversion of the Notes to equal or exceed 20% of the outstanding shares or voting power as of the closing of the Debt Restructuring.

Covenant of the Debt Restructuring. Similar to the covenant requiring us to seek stockholder approval in the August 2007 Debt Financing, the Exchange Agreement in the Debt Restructuring includes a covenant that requires us to seek stockholder approval of the Debt Restructuring in accordance NASDAQ Marketplace Rules on or prior to our annual stockholders meeting in 2008. We will satisfy this obligation by seeking and obtaining stockholder approval of Proposal 4.

No Appraisal Rights

Under Delaware law, stockholders are not entitled to appraisal or other similar rights in connection with Debt Restructuring.

Effects of the Approval of this Proposal 4 on Current Stockholders

If stockholders approve Proposal 4, then the conversion price of the Notes would be adjusted downward if we issue or sell our securities at a price less than the current conversion price of the Notes. As a result, the issuance of Common Stock upon a future conversion of Notes or exercise of existing warrants could potentially result in additional and significant dilution to the voting interest of our existing stockholders.

If we obtained stockholder approval of Proposal 4, the total number of shares of common stock that may be issued upon conversion of the Notes, and as interest payment under the Notes, may exceed 20% of outstanding shares or voting power as of the closing of the Debt Restructuring. The 22,784,653 shares of Common Stock initially issuable upon conversion of the Note represent approximately [ ]% of the shares of Common Stock outstanding as of the Record Date prior to the issuance of such shares of Common Stock and, assuming such shares of common stock are issued, represent a significant dilution of the voting interests of existing stockholders. The issuance of shares of common stock pursuant to the Notes will also have a dilutive effect on earnings per share and may adversely affect the market price of our common stock. Furthermore, we may enter into future financing or restructuring transactions that would trigger anti-dilution adjustment of the Notes, thereby causing a reduction in the conversion price of the Notes. Since approval of Proposal 4 includes an

approval of future issuance of additional shares to Holders pursuant to anti-dilution provisions set forth in the Notes, such issuance may cause additional or significant dilution to existing stockholders.

If the stockholders approve Proposal 4, we will no longer be subject to the restrictions under our agreements with Holders to sell shares of our common stock at a discounted price, which will improve our ability to raise capital and fund our operations through equity financing. It is critical that we raise more money in the immediate future to continue our operations; therefore it is important that we obtain stockholder approval of Proposal 4. In addition, as described above, stockholder approval of Proposal 4 will provide us with more flexibility to restructure the Notes or the Old Notes by eliminating the need to seek further approval from NASDAQ or stockholders for issuance of shares of common stock to Holders pursuant to anti-dilution adjustments under the Notes. Finally, if the stockholders approve Proposal 4, we will have satisfied our obligations under the Exchange Agreement to seek stockholders approval of the Debt Restructuring and comply with NASDAQ Marketplace Rules as described above.

There are other risks associated with the issuance of the Notes and shares of our common stock pursuant to the terms of the Debt Restructuring. These risks are described in more detail under the heading Risk Factors in our Annual Report on Form 10-K for the fiscal year ended December 31, 2007. You are encouraged to read the Annual Report before casting your vote.

Approval Required

The affirmative vote of a majority of shares present in person or represented by proxy and entitled to vote is required to approve Proposal 4.

Further Information

The terms of the Notes and other transaction documents related to the Debt Restructuring are complex and only briefly summarized above. For further information on the Debt Restructuring and the rights of the holders of the Notes, please refer to the Current Report on Form 8-K filed on March 14, 2008, March 28, 2008, March 31, 2008 and the transaction documents filed as exhibits to such reports.

The Board of Directors recommends a vote FOR the approval and ratification of the March 2008 debt restructuring as set forth in Proposal 4.

PROPOSAL 5

RATIFICATION OF APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Audit Committee has appointed the firm of Ernst & Young LLP (Ernst & Young) as the Company s independent registered public accounting firm for the fiscal year ending December 31, 2008. 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 that you vote FOR ratification of the appointment of Ernst & Young LLP.

STOCKHOLDER PROPOSALS

Proposals of stockholders submitted pursuant to Rule 14a-8 under the Securities and Exchange Act of 1934, as amended (the Exchange Act) and intended to be presented for consideration at the Company s 2009 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 30, 2008 in order to be considered for inclusion in the Company s proxy materials for that meeting.

The Company s bylaws also establish an advance notice procedure with respect to certain stockholder proposals and director nominations. If a stockholder wishes to have a stockholder proposal considered at the Company s 2009 annual meeting of stockholders, the stockholder must give timely notice of the proposal in writing to the Secretary of the Company at the Company s principal executive offices at 10398 Pacific Center Court, San Diego, California 92121. To be timely, a stockholder s notice of the proposal must be delivered or mailed and received at the executive offices of the Company not less than 50 days nor more than 75 days prior to the proposed date of the annual meeting; provided, however, that if less than 65 days notice or prior public disclosure of the date of the annual meeting is given or made to stockholders, notice of the stockholder proposal to be timely must be received no later than the earlier of (a) the close of business on the 15th day following the day on which the Company s notice of the date of the annual meeting is mailed or public disclosure of the meeting date is given, whichever first occurs, and (b) two days prior to the date of the scheduled meeting.

HOUSEHOLDING OF PROXY MATERIALS

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

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

SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Under Section 16(a) of the Exchange Act, the Company s directors, executive officers, and any persons beneficially owning more than 10% of the Company s Common Stock are required to report their initial ownership of the Company s Common Stock and any subsequent changes in that ownership to the SEC. Each director, executive officer and greater than 10% stockholder is required by SEC regulations to furnish the Company with copies of all Section 16(a) forms he files. Based solely on a review of copies of such reports furnished to us and written representations that no other reports were required during the fiscal year ended December 31, 2007, we believe that all of the Company s directors and executive officers filed the required reports on a timely basis with the SEC.

OTHER MATTERS

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

Any stockholder or stockholder s representative who, because of a disability, may need special assistance or accommodation to allow him or her to participate at the Annual Meeting may request reasonable assistance or accommodation from the Company by contacting Nanogen, Inc., 10398 Pacific Center Court, San Diego, California 92121, (858) 410-4600. To provide the Company sufficient time to arrange for reasonable assistance or accommodation, please submit all requests by June 1, 2008.

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

By order of the Board of Directors

William L. Respess, Esq.

Senior Vice President,

General Counsel and Secretary

APPENDIX A

AMENDED AND RESTATED

1997 STOCK INCENTIVE PLAN OF

NANOGEN, INC.

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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; (i) amended and restated February 11, 2005 to increase the number of shares available for issuance under the Plan by 1,500,000 shares, (j) amended and restated May 5, 2006 to increase the number of shares available for issuance under the Plan by 1,500,000 shares, (k) amended and restated on April 27, 2007 to increase the number of shares available for issuance under the Plan by 4,000,000 shares and to require that each option granted pursuant to the Plan on or after such date have an exercise price per share greater than or equal to the Fair Market value of the Company s Common Shares on the option grant date and (l) amended and restated on April 16, 2008 to increase the number of shares available for issuance under the Plan by 4,000,000 shares, subject to stockholder approval at the 2008 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 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 19,943,011. Of the Common Shares available hereunder, no more than 25% in aggregate shall be available with respect to Outside Directors. The limitation of this Section 3.1 shall be subject to adjustment pursuant to Article 10. The number of Common Shares available under this Plan shall be increased by unexercised or forfeited Common Shares under the Company s 1993 and 1995 Stock Plans. As of April 7, 2008, 205,999 Common Shares had been added to the Plan pursuant to the cancellations and forfeitures under the 1993 and 1995 Stock Plans.

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

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

ARTICLE 4. ELIGIBILITY

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

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

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

ARTICLE 5. OPTIONS

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

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

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

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

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

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

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

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

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

ARTICLE 6. PAYMENT FOR OPTION SHARES

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

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

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

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

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

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

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

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

ARTICLE 7. STOCK APPRECIATION RIGHTS

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

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

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

7.4 **Exercisability and Term**. Each SAR Agreement shall specify the date when all or any installment of the SAR is to become exercisable. The SAR Agreement shall also specify the term of the SAR. An SAR Agreement may provide for accelerated exercisability in the event of the Optionee s death, disability or retirement or other events and may provide for expiration prior to the end of its term in the event of the

termination of the Optionee s service. SARs may also be awarded in combination with Options, Restricted Shares or Stock Units, and such an Award may provide that the SARs will not be exercisable unless the related Options, Restricted Shares or Stock Units are forfeited. An SAR may be included in an ISO only at the time of grant but may be included in an NSO at the time of grant or thereafter. An SAR granted under the Plan may provide that it will be exercisable only in the event of a Change in Control.

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

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

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

ARTICLE 8. RESTRICTED SHARES AND STOCK UNITS

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

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

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

8.4 **Form and Time of Settlement of Stock Units**. Settlement of vested Stock Units may be made in the form of (a) cash, (b) Common Shares or (c) any combination of both, as determined by the Committee. The actual number of Stock Units eligible for settlement may be larger or smaller than the number included in the original Award, based on predetermined performance factors. Methods of converting Stock Units into cash may include (without limitation) a method based on the average Fair Market Value of Common Shares over a series of trading days. Vested Stock Units may be settled in a lump sum or in installments. The distribution may occur

or commence when all vesting conditions applicable to the Stock Units have been satisfied or have lapsed, or it may be deferred to any later date. The amount of a deferred distribution may be increased by an interest factor or by dividend equivalents. Until an Award of Stock Units is settled, the number of such Stock Units shall be subject to adjustment pursuant to Article 10.

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

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

ARTICLE 9. VOTING AND DIVIDEND RIGHTS

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

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

ARTICLE 10. PROTECTION AGAINST DILUTION

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

10.2 **Reorganizations**. In the event that the Company is a party to a merger or other reorganization, outstanding Options, SARs, Restricted Shares and Stock Units shall be subject to the agreement of merger or

reorganization. Such agreement may provide, without limitation, for the assumption of outstanding Awards by the surviving corporation or its parent, for their continuation by the Company (if the Company is a surviving corporation), for accelerated vesting and accelerated expiration (provided the Company has previously had its initial public offering), or for settlement in cash.

ARTICLE 11. AWARDS UNDER OTHER PLANS

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

ARTICLE 12. PAYMENT OF DIRECTOR S FEES IN SECURITIES

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

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

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

ARTICLE 13. LIMITATION ON RIGHTS

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

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

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

ARTICLE 14. LIMITATION ON PAYMENTS

14.1 **Gross-Up Payment**. In the event that it is determined that any payment or transfer by the Company under the Plan to or for the benefit of (the Payment) would be subject to the excise tax imposed by section

4999 of the Code or any interest or penalties with respect to such excise tax (such excise tax, together with any such interest or penalties, are collectively referred to as the Excise Tax), then the Participant shall be entitled to receive an additional payment (a Gross-Up Payment) in an amount that shall fund the payment by the Participant of any Excise Tax on the Payment as well as all income taxes imposed on the Gross-Up Payment, any Excise Tax imposed on the Gross-Up Payment and any interest or penalties imposed with respect to taxes on the Gross-Up Payment or any Excise Tax.

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

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

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

ARTICLE 15. WITHHOLDING TAXES

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

15.2 **Share Withholding**. The Committee may permit a Participant to satisfy all or part of his or her withholding or income tax obligations by having the Company withhold all or a portion of any Common Shares that otherwise would be issued to him or her or by surrendering all or a portion of any Common Shares that he or

she previously acquired. Such Common Shares shall be valued at their Fair Market Value on the date when taxes otherwise would be withheld in cash. Any payment of taxes by assigning Common Shares to the Company may be subject to restrictions, including any restrictions required by rules of the Securities and Exchange Commission.

ARTICLE 16. ASSIGNMENT OR TRANSFER OF AWARDS

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

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

ARTICLE 17. FUTURE OF THE PLAN

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

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

ARTICLE 18. DEFINITIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

18.15 Optionee means an individual or estate that 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 that holds an Award.

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

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

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

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

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

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

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

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

ARTICLE 19. EXECUTION

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

NANOGEN, INC.

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

Senior Vice President, General Counsel and Secretary

APPENDIX B

NANOGEN, INC.

EMPLOYEE STOCK PURCHASE PLAN

SECTION 1. PURPOSE OF THE PLAN.

The Plan was adopted by the Company s Board of Directors on November 21, 1997, and amended by the Board of Directors and approved by the Company s stockholders effective as of April 3, 1998. The Plan effective date was the effective date of the Company s initial public offering. The Plan was further amended by the Board of Directors to increase the number of shares available under the Plan from 300,000 shares to 450,000 shares and the amendment was approved by the Company s stockholders effective June 13, 2001. The Plan was amended on February 13, 2004 to increase the number of shares available under the Plan from 450,000 shares to 600,000 shares, and the amendment was approved by the stockholders at the 2004 Annual Meeting. The Plan was amended on May 5, 2006 to increase the number of shares available under the Plan from 600,000 shares to 1,100,000 shares and the amendment was approved by the stockholders at the 2006 Annual Meeting. The Plan was amended on April 16, 2008 to increase the number of shares under the Plan from 1,100,000 shares to 1,600,000 shares, subject to stockholder approval at the 2008 Annual Meeting.

The purpose of the Plan is to provide Eligible Employees with an opportunity to increase their proprietary interest in the success of the Company by purchasing Stock from the Company on favorable terms and to pay for such purchases through payroll deductions. The Plan is intended to qualify under section 423 of the Internal Revenue Code of 1986, as amended.

SECTION 2. ADMINISTRATION OF THE PLAN.

(a) The Committee. The Plan shall be administered by the Committee. The interpretation and construction by the Committee of any provision of the Plan or of any right to purchase Stock granted under the Plan shall be conclusive and binding on all persons.

(b) Rules and Forms. The Committee may adopt such rules and forms under the Plan as it considers appropriate.

SECTION 3. ENROLLMENT AND PARTICIPATION.

(a) Offering Periods. While the Plan is in effect, two overlapping Offering Periods shall commence in each calendar year. Except for the first Offering Period, Offering Periods shall consist of the twenty-four (24) month periods commencing on each January 1 and July 1. The first Offering Period commenced on the effective date of the Company s initial public offering and ended on December 31, 1999.

(b) Accumulation Periods. While the Plan is in effect, two Accumulation Periods shall commence in each calendar year. Except for the first Accumulation Period, Accumulation Periods shall consist of the six (6) month periods commencing on each January 1 and July 1. The first Accumulation Period shall commence on the effective date of the Company s initial public offering and end on June 30, 1998.

(c) Enrollment. Any individual who, on the day preceding the first day of an Offering Period, qualifies as an Eligible Employee may elect to become a Participant in the Plan for such Offering Period by executing the enrollment form prescribed for this purpose by the Committee.

(d) Duration of Participation. Once enrolled in the Plan, a Participant shall continue to participate until he or she ceases to be an Eligible Employee, withdraws from the Plan or reaches the end of the Accumulation Period in which he or she discontinued contributions. A Participant who discontinued contributions under Section 4(d) or

withdrew from the Plan under Section 5(a) may again become a Participant, if he or she then is an Eligible Employee, by following the procedure described in Subsection (c) above.

(e) Applicable Offering Period. For purposes of calculating the Purchase Price under Section 7(b), the applicable Offering Period shall be determined as follows:

(i) Once a Participant is enrolled in the Plan for an Offering Period, such Offering Period shall continue to apply to him or her until the earliest of (A) the end of such Offering Period, (B) the end of his or her participation under Subsection (d) above or (C) re-enrollment in a subsequent Offering Period under Paragraph (ii) below.

(ii) In the event that the Fair Market Value of Stock on the last trading day before the commencement of the Offering Period in, which the Participant is enrolled is higher than on the last trading day before the commencement of any subsequent Offering Period, the Participant shall automatically be re-enrolled for such subsequent Offering Period.

(iii) When a Participant reaches the end of an Offering Period but his or her participation is to continue, then such Participant shall automatically be re-enrolled for the Offering Period that commences immediately after the end of the prior Offering Period.

SECTION 4. EMPLOYEE CONTRIBUTIONS.

(a) Frequency of Payroll Deductions. A Participant may purchase shares of Stock under the Plan solely by means of payroll deductions. Payroll deductions, as designated by the Participant pursuant to Subsection (b) below, shall occur on each payday during participation in the Plan.

(b) Amount of Payroll Deductions. An Eligible Employee shall designate on the enrollment form the portion of his or her Compensation that he or she elects to have withheld for the purchase of Stock. Such portion shall be a whole percentage of the Eligible Employee s Compensation, but not less than one percent (1%) nor more than fifteen percent (15%).

(c) Changing Withholding Rate. If a Participant wishes to change the rate of payroll withholding, he or she may do so by filing a new enrollment form with the Company not later than one week prior to the last working day prior to the commencement of the Accumulation Period for which such change is to be effective.

(d) Discontinuing Payroll Deductions. If a Participant wishes to discontinue employee contributions entirely, he or she may do so by filing a new enrollment form at any time. Payroll withholding shall cease as soon as reasonably practicable after such form has been received by the Company.

SECTION 5. WITHDRAWAL FROM THE PLAN.

(a) Withdrawal. A Participant may elect to withdraw from the Plan by filing the prescribed form with the Company at any time before the last day of an Accumulation Period. As soon as reasonably practicable thereafter, payroll deductions shall cease and the entire amount credited to the Participant s Plan Account shall be refunded to him or her in cash, without interest. No partial withdrawals shall be permitted.

(b) Re-enrollment After Withdrawal. A former Participant who has withdrawn from the Plan shall not be a Participant until he or she re-enrolls in the Plan under Section 3(b).

SECTION 6. TERMINATION OF EMPLOYMENT OR DEATH.

(a) Termination of Employment. Termination of employment as an Eligible Employee for any reason, including death, shall be treated as an automatic withdrawal from the Plan under Section 5(a). (A transfer from one Participating Company to another shall not be treated as a termination of employment.)

(b) Death. In the event of the Participant s death, the amount credited to his or her Plan Account shall be paid to a beneficiary designated by him or her for this purpose on the prescribed form or, if none, to the Participant s estate. Such form shall be valid only if it was filed with the Company before the Participant s death.

SECTION 7. PLAN ACCOUNTS AND PURCHASE OF SHARES.

(a) Plan Accounts. The Company shall maintain a Plan Account on its books in the name of each Participant. Whenever an amount is deducted from the Participant s Compensation under the Plan, such amount shall be credited to the Participant s Plan Account. No interest shall be credited to Plan Accounts.

(b) Purchase Price. The Purchase Price for each share of Stock purchased at the close of an Accumulation Period shall be the lower of:

(i) Eighty-five percent (85%) of the Fair Market Value of such share on the last trading day before the commencement of the applicable Offering Period (as determined under Section 3(e)); or

(ii) Eighty-five percent (85%) of the Fair Market Value of such share on the last trading day in such Accumulation Period.

(c) Number of Shares Purchased. As of the last day of each Accumulation Period, each Participant shall be deemed to have elected to purchase the number of shares of Stock calculated in accordance with this Subsection (c), unless the Participant has previously elected to withdraw from the Plan in accordance with Section 5(a). The amount then in the Participant s Plan Account shall be divided by the Purchase Price, and the number of shares that results shall be purchased from the Company with the funds in the Participant s Plan Account. The foregoing notwithstanding, no Participant shall purchase more than a maximum of 1,666 shares of Stock with respect to any Accumulation Period nor shares of Stock in excess of the amounts set forth in Sections 8 and 12(a). The Committee may determine with respect to all Participants that any fractional share, as calculated under this Subsection (c), shall be rounded down to the next lower whole share.

(d) Available Shares Insufficient. In the event that the aggregate number of shares that all Participants elect to purchase during an Accumulation Period exceeds the maximum number of shares remaining available for issuance under Section 12(a), then the number of shares to which each Participant is entitled shall be determined by multiplying the number of shares available for issuance by a fraction, the numerator of which is the number of shares that such Participant has elected to purchase and the denominator of which is the number of shares that all Participants have elected to purchase.

(e) Issuance of Stock. Certificates representing the shares of Stock purchased by a Participant under the Plan shall be issued to him or her as soon as reasonably practicable after the close of the applicable Accumulation Period, except that the Committee may determine that such shares shall be held for each Participant s benefit by a broker designated by the Committee (unless the Participant has elected that certificates be issued to him or her). Shares may be registered in the name of the Participant or jointly in the name of the Participant and his or her spouse as joint tenants with right of survivorship or as community property.

(f) Unused Cash Balances. An amount remaining in the Participant s Plan Account that represents the Purchase Price for any fractional share shall be carried over in the Participant s Plan Account to the next Accumulation Period. Any amount remaining in the Participant s Plan Account that represents the Purchase Price for whole shares that could not be purchased by reason of Subsection (c) above or Section 12(a) shall be refunded to the Participant in cash, without interest.

(g) Failure of Shareholders to Approve Plan. In the event shareholders of the Company do not approve this Plan, the Participant s Plan Account shall be repaid to the Participant in cash and no Company shares will be purchased for the Participant under this Plan.

Any other provision of the Plan notwithstanding, no Participant shall be granted a right to purchase Stock under the Plan if:

(a) Such Participant, immediately after his or her election to purchase such Stock, would own stock possessing more than five percent (5%) of the total combined voting power or value of all classes of stock of the Company or any parent or Subsidiary of the Company; or

(b) Under the terms of the Plan, such Participant s rights to purchase stock under this and all other qualified employee stock purchase plans of the Company or any parent or Subsidiary of the Company would accrue at a rate that exceeds $25,000 of the fair market value of such stock (determined at the time when such right is granted) for each calendar year for which such right or option is outstanding at any time.

Ownership of stock shall be determined after applying the attribution rules of section 424(d) of the Internal Revenue Code of 1986, as amended. For purposes of this Section 8, each Participant shall be considered to own any stock that he or she has a right or option to purchase under this or any other plan, and each Participant shall be considered to have the right to purchase 1,666 shares of Stock under this Plan with respect to each Accumulation Period.

SECTION 8. RIGHTS NOT TRANSFERABLE.

The rights of any Participant under the Plan, or any Participant s interest in any Stock or moneys to which he or she may be entitled under the Plan, shall not be transferable by voluntary or involuntary assignment or by operation of law, or in any other manner other than by beneficiary designation or the laws of descent and distribution. If a Participant in any manner attempts to transfer, assign or otherwise encumber his or her rights or interest under the Plan, other than by beneficiary designation or the laws of descent and distribution, then such act shall be treated as an election by the Participant to withdraw from the Plan under Section 5(a).

SECTION 9. NO RIGHTS AS AN EMPLOYEE.

Nothing in the Plan shall be construed to give any person the right to remain in the employ of a Participating Company. Each Participating Company reserves the right to terminate the employment of any person at any time, with or without cause.

SECTION 10. NO RIGHTS AS A STOCKHOLDER.

A Participant shall have no rights as a stockholder with respect to any shares that he or she has purchased, or may have a right to purchase, under the Plan until the date of issuance of a stock certificate for such shares.

SECTION 11. STOCK OFFERED UNDER THE PLAN.

(a) Authorized Shares. The aggregate number of shares of Stock available for purchase under the Plan shall be 1,600,000, subject to adjustment pursuant to this Section 12.

(b) Anti-dilution Adjustments. The aggregate number of shares of Stock offered under the Plan, the 1,666-share limitation described in Section 7(c) and the price of shares that any Participant has elected to purchase shall be adjusted proportionately by the Committee for any increase or decrease in the number of outstanding shares of Stock resulting from a subdivision or consolidation of shares, the payment of a stock dividend, any other increase or decrease in such shares effected without receipt or payment of consideration by the Company or the distribution of the shares of a Subsidiary to the Company s stockholders.

(c) Reorganizations. In the event of a dissolution or liquidation of the Company, or a merger or consolidation to which the Company is a constituent corporation, the Plan shall terminate unless the plan of

merger, consolidation or reorganization provides otherwise, and all amounts that have been withheld but not yet applied to purchase Stock hereunder shall be refunded, without interest. The Plan shall in no event be construed to restrict in any way the Company s right to undertake a dissolution, liquidation, merger, consolidation or other reorganization.

SECTION 12. AMENDMENT OR DISCONTINUANCE.

The Board of Directors shall have the right to amend, suspend or terminate the Plan at any time and without notice. Except as provided in Section 12, any increase in the aggregate number of shares of Stock to be issued under the Plan shall be subject to approval by a vote of the stockholders of the Company. In addition, any other amendment of the Plan shall be subject to approval by a vote of the stockholders of the Company to the extent required by an applicable law or regulation.

SECTION 13. DEFINITIONS.

(a) Accumulation Period means a six (6) month period during which contributions may be made toward the purchase of Stock under the Plan, as determined pursuant to Section 3(b).

(b) Board of Directors means the Board of Directors of the Company, as constituted from time to time.

(c) Committee means a committee of the Board of Directors, consisting of one or more directors appointed by the Board of Directors.

(d) Company means Nanogen, Inc., a Delaware corporation.

(e) Compensation means the total compensation paid in cash to a Participant by a Participating Company, including salaries, wages, overtime pay and commissions, but excluding bonuses, incentive compensation, moving or relocation allowances, car allowances, imputed income attributable to cars or life insurance, taxable fringe benefits and similar items, all as determined by the Committee.

(f) Eligible Employee means any employee of a Participating Company:

(i) Whose customary employment is for more than five (5) months per calendar year and for more than twenty (20) hours per week; and

(ii) Who has been an employee of a Participating Company for not less than one (1) month.

(g) Fair Market Value shall mean the market price of Stock, determined by the Committee as follows:

(i) If Stock was 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 Stock is quoted or, if the Stock is not quoted on any such system, by the Pink Sheets published by the National Quotation Bureau, Inc.;

(ii) If Stock was traded over-the-counter on the date in question and was 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;

(iii) If the Stock was 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

(iv) 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 or as reported directly to the Company by Nasdaq or a comparable exchange. Such determination shall be conclusive and binding on all persons.

(h) Offering Period means a twenty-four (24) month period with respect to which the right to purchase Stock may be granted under the Plan, as determined pursuant to Section 3(a).

(i) Participant means an Eligible Employee who elects to participate in the Plan, as provided in Section 3(c).

(j) Participating Company means the Company and each present or future Subsidiary, except Subsidiaries excluded by the Committee.

(k) Plan means this Nanogen, Inc. Employee Stock Purchase Plan, as amended from time to time.

(l) Plan Account means the account established for each Participant pursuant to Section 6(a).

(m) Purchase Price means the price at which Participants may purchase Stock under the Plan, as determined pursuant to Section 7(b).

(n) Stock means the Common Stock of the Company.

(o) Subsidiary means a corporation, fifty percent (50%) or more of the total combined voting power of all classes of stock of which is owned by the Company or by another Subsidiary.

SECTION 14. EXECUTION.

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

NANOGEN, INC.

By: /s/ WILLIAM L. RESPESS, ESQ.
Its Senior Vice President,

General Counsel and Secretary

APPENDIX C

AMENDMENT AND EXCHANGE AGREEMENT

AMENDMENT AND EXCHANGE AGREEMENT (the **Agreement**), dated as of March 13, 2008, by and among Nanogen Inc., a Delaware corporation, with headquarters located at 10398 Pacific Center Court, San Diego, California 92121 (the **Company**), and_____ (the **Investor**).

WHEREAS:

A. The Company, the Investor and certain other investors (the **Other Investors** , and collectively with the Investor, the **Investors**) are parties to that certain Securities Purchase Agreement, dated as of August 26, 2007 (the **Existing Securities Purchase Agreement**), pursuant to which, among other things, the Investors purchased from the Company (i) 6.25% senior convertible notes due 2010 (the **Existing Notes**), which are convertible into shares (the **Existing Conversion Shares**) of the Company s common stock, par value $0.001 per share (the **Common Stock**), pursuant to that certain first supplemental indenture, dated August 27, 2007 (the **First Supplemental Indenture**), which supplements the Indenture dated August 27, 2007, by and between the Company and Bank of New York Trust Company, N.A., as trustee (the **Trustee**) (such indenture, as modified by any supplement and amendment thereto as of the date hereof, the **Indenture**) and (ii) three series of warrants, which are exercisable into shares of Common Stock.

B. The Company and the Investor desire to enter into this Agreement, pursuant to which, among other things, on the Closing Date (as defined below), the Company and the Investor shall exchange a portion of such Investor s Existing Notes for the Company s 9.75% Senior Secured Convertible Notes in an aggregate principal amount as is set forth opposite such Investor s name in column (3) of the Schedule of Investors attached hereto and in the form attached hereto as Exhibit A (the **Exchanged Notes**), which shall be convertible into shares of Common Stock (the **Exchanged Conversion Shares**).

C. The exchange of the Existing Notes of the Investor for the Exchanged Notes is being made in reliance upon the exemption from registration provided by Section 3(a)(9) of the 1933 Act.

D. As additional consideration for the transactions contemplated hereby, any Exchanged Notes issued hereunder will be secured by a first priority, perfected security interest in certain of the assets of the Company and the stock and assets of each of the Company s subsidiaries, as evidenced by the security agreement attached hereto as Exhibit B (the **Security Agreement** , and together with any ancillary documents related thereto, collectively the **Security Documents**).

E. The accrued and unpaid interests under the Existing Notes prior to the issuance of the Exchanged Notes will be included as additional interest obligations under the Exchange Notes, and the Company will pay such additional interest on the first interest payment date pursuant to the terms of the Exchanged Notes.

F. Concurrently herewith each of the Other Investors is also entering into agreements identical to this Agreement (the **Other Agreements**) (other than proportional changes (the **Proportionate Changes**) in the numbers reflecting the different principal amount of such Investor s Existing Notes) with the Company and surrendering its Existing Notes for Exchanged Notes and identical to Exchanged Notes of the Investor hereunder (other than the Proportionate Changes).

G. In connection with the transactions contemplated hereby, the Investor is also entering into that certain Consent and Agreement with the Company, pursuant to which the Investor provides the Company with a consent under the Indenture to complete certain royalty assignment transaction.

H. Capitalized terms used herein and not otherwise defined herein shall have the respective meanings ascribed to them in the Existing Securities Purchase Agreement as amended hereby.

NOW, THEREFORE, in consideration of the foregoing recitals and the mutual promises hereinafter set forth, the Company and the Investor hereby agree as follows:

1. EXCHANGE OF EXISTING NOTE AND ISSUANCE OF EXCHANGED NOTES.

(a) Exchange. Subject to satisfaction (or waiver) of the conditions set forth in Sections 5 and 6 below, at the Closing, (x) the Investor shall surrender to the Company its Existing Note (or such other documentation reasonably satisfactory to the Company that the Investor held such Existing Note as a Physical Security and that the Investor s Existing Note has been lost or destroyed) in an aggregate principal amount as set forth opposite such Investor s name in column (4) on the Schedule of Investors attached hereto and the Company shall issue and deliver to the Investor an Exchanged Note with that aggregate principal amount set forth opposite the Investor s name in column (3) of the Schedule of Investors attached hereto, and (y) immediately following the Closing Date (as defined below), in accordance with Section 3.07 of the First Supplemental Indenture, the Existing Note of the Investor shall be reduced to the aggregate principal amount as is set forth opposite such Investor s name in column (5) of the Schedule of Investors attached hereto. The Investor acknowledges that the Exchanged Note shall include all Interest, Late Charges, fees and other amounts payable in respect of the portion of the Existing Note cancelled upon issuance of the Exchanged Note (the Exchanged Interest) and that notwithstanding anything to the contrary in the Indenture no such Exchanged Interest shall be payable in respect of the Existing Notes (as reduced pursuant to the foregoing exchange) or the Indenture but shall be payable solely upon the terms of the Exchanged Note.

(b) Closing Date. The date and time of the Closing (the **Closing Date**) shall be 10:00 a.m., New York Time, on March 20, 2008, subject to notification of satisfaction (or waiver) of the conditions to the Closing set forth in Sections 5 and 6 below (or such earlier or later date as is mutually agreed to by the Company and the Investor). The Closing shall occur on the Closing Date at the offices of Schulte Roth & Zabel LLP, 919 Third Avenue, New York, New York 10022.

(c) Waiver of Right of First Refusal. Solely with respect to the issuance by the Company of the Exchanged Notes contemplated hereunder, the Investor hereby waives its rights pursuant to Section 4(m) of the Existing Securities Purchase Agreement, and the Company shall not be obligated to make any offer to the Investor pursuant to Section 4(m) thereof.

2. AMENDMENTS TO TRANSACTION DOCUMENTS.

(a) Amendment to Existing Securities Purchase Agreement. Subject to the modifications set forth in Schedules 2(a) and 3(b) hereof, and except for Section 1, 6 and 7 of the Existing Securities Purchase Agreement, the Existing Securities Purchase Agreement is hereby amended as follows:

(i) All references to Notes shall include the Exchanged Notes (as defined in those certain Amendment and Exchange Agreements, each by any between the Company and a Buyer, dated as of March 13, 2008 (the **Amendment Agreements**) ;

(ii) All references to Conversion Shares shall include the Exchanged Conversion Shares (as defined in the Amendment Agreements) ;

(iii) The defined term Transaction Documents is hereby amended to include the Amendment Agreements and the Security Documents;

(iv) All references to Securities Purchase Agreement shall mean, and are hereby replaced by Securities Purchase Agreement, as amended by the Amendment Agreements ;

(v) On the Closing Date, Section 4 of the Existing Securities Purchase Agreement is hereby amended by adding the following:

(p) Collateral Agent. Each Buyer hereby (a) appoints Portside Growth & Opportunity Fund, as the collateral agent hereunder, under the Exchanged Notes and under the other Security Documents (in such

capacity, the **Collateral Agent**), and (b) authorizes the Collateral Agent (and its officers, directors, employees and agents) to take such action on such Buyer s behalf in accordance with the terms hereof and thereof. The Collateral Agent shall not have, by reason hereof or any of the other Transaction Documents, a fiduciary relationship in respect of any Buyer. Neither the Collateral Agent nor any of its officers, directors, employees and agents shall have any liability to any Buyer for any action taken or omitted to be taken in connection hereof or any other Transaction Document except to the extent caused by its own gross negligence or willful misconduct, and each Buyer agrees to defend, protect, indemnify and hold harmless the Collateral Agent and all of its officers, directors, employees and agents (collectively, the **Indemnitees**) from and against any losses, damages, liabilities, obligations, penalties, actions, judgments, suits, fees, costs and expenses (including, without limitation, reasonable attorneys fees, costs and expenses) incurred by such Indemnitee, whether direct, indirect or consequential, arising from or in connection with the performance by such Indemnitee of the duties and obligations of Collateral Agent pursuant hereto or any of the Transaction Documents. The Collateral Agent shall not be required to exercise any discretion or take any action, but shall be required to act or to refrain from acting (and shall be fully protected in so acting or refraining from acting) upon the instructions of the holders of a majority in principal amount of the Exchanged Notes then outstanding, and such instructions shall be binding upon all holders of Exchanged Notes; provided, however, that the Collateral Agent shall not be required to take any action which, in the reasonable opinion of the Agent, exposes the Agent to liability or which is contrary to this Agreement or any other Transaction Document or applicable law. The Collateral Agent shall be entitled to rely upon any written notices, statements, certificates, orders or other documents or any telephone message believed by it in good faith to be genuine and correct and to have been signed, sent or made by the proper Person, and with respect to all matters pertaining to this Agreement or any of the other Transaction Documents and its duties hereunder or thereunder, upon advice of counsel selected by it.

(q) Successor Collateral Agent.

(i) The Collateral Agent may resign from the performance of all its functions and duties hereunder and under the other Transaction Documents at any time by giving at least thirty (30) Business Days prior written notice to the Company and each holder of Exchanged Notes. Such resignation shall take effect upon the acceptance by a successor Collateral Agent of appointment pursuant to clauses (ii) and (iii) below or as otherwise provided below.

(ii) Upon any such notice of resignation, the holders of a majority in principal amount of the Exchanged Notes then outstanding shall appoint a successor collateral agent. Upon the acceptance of any appointment as collateral agent hereunder by a successor agent, such successor collateral agent shall thereupon succeed to and become vested with all the rights, powers, privileges and duties of the collateral agent, and the Collateral Agent shall be discharged from its duties and obligations under this Agreement and the other Transaction Documents. After the Collateral Agent s resignation hereunder as the collateral agent, the provisions of this Section 4(q) shall inure to its benefit as to any actions taken or omitted to be taken by it while it was the Collateral Agent under this Agreement and the other Transaction Documents.

(iii) If a successor collateral agent shall not have been so appointed within said thirty (30) Business Day period, the Collateral Agent shall then appoint a successor collateral agent who shall serve as the collateral agent until such time, if any, as the holders of a majority in principal amount of the Exchanged Notes then outstanding appoint a successor collateral agent as provided above.

(b) Ratifications. Except as otherwise expressly provided herein, (i) the Securities Purchase Agreement and each other Transaction Document is, and shall continue to be, in full force and effect and is hereby ratified and confirmed in all respects, except that on and after the Closing Date (A) all references in the Existing Securities Purchase Agreement to the Securities Purchase Agreement , hereto , hereof , this Agreement , hereunder or words of like import referring to the Securities Purchase Agreement shall mean the Existing Securities Purchase Agreement as amended by this Agreement and the Other Agreements, and (B) all references in the other Transaction Documents to the Securities Purchase Agreement , thereto ,

thereof , thereunder or words of like import referring to the Securities Purchase Agreement shall mean the Existing Securities Purchase Agreement as amended by this Agreement and the Other Agreements, and (ii) the execution, delivery and effectiveness of this Agreement shall not operate as an amendment of any right, power or remedy of the Investor under any Transaction Document, nor constitute an amendment of any provision of any Transaction Document.

3. REPRESENTATIONS AND WARRANTIES

(a) Investor Representations. The Investor hereby represents and warrants to the Company as to the Exchanged Notes and the Exchanged Conversion Shares as set forth in Section 2 of the Securities Purchase Agreement as if such representations and warranties were made as of the date hereof (except for representations and warranties that speak as of a specific date, which shall remain true and correct as of such specific date) and set forth in their entirety in this Agreement.

(b) Company Representations.

(i) The Company represents and warrants to the Investor as set forth in Section 3 of the Securities Purchase Agreement as if such representations and warranties were made as of the date hereof (except for representations and warranties that speak as of a specific date, which shall remain true and correct as of such specific date, and except as set forth in a Disclosure Schedule attached hereto) and set forth in their entirety in this Agreement. Such representations and warranties to the transactions thereunder and the securities issued thereby are hereby deemed for purposes of this Agreement to be references to the transactions hereunder and the issuance of the securities hereby, references therein to Closing Date being deemed references to the Closing Date as defined in Section 1(b) above, and references to the date hereof being deemed references to the date of this Agreement.

(ii) The Company further represents and warrants to the Investor as of the date hereof as follows:

(1) Neither the Company nor any Subsidiary is or, after giving effect to the issuance of the Exchanged Notes and the offer and sale of the Exchanged Conversion Shares contemplated hereunder and the application of the net proceeds from such sale, will be an investment company within the meaning of such term under the 1940 Act, and the rules and regulations of the SEC thereunder.

(2) Other than the sale and issuance of the Securities (as defined in the Existing Securities Purchase Agreement), the Company has not sold or issued any securities that would be integrated with the issuance and offering of the Securities (as defined in the Securities Purchase Agreement) contemplated by this Agreement pursuant to the 1933 Act, the Rules and Regulations or the interpretations thereof by the SEC. None of the Company, its Subsidiaries, any of their affiliates, and any Person acting on their behalf has, directly or indirectly, made any offers or sales of any security or solicited any offers to buy any security, under circumstances that would cause this issuance and offering of the Securities (as defined in the Securities Purchase Agreement) to require approval of stockholders of the Company for purposes of any applicable stockholder approval provisions, including, without limitation, under the rules and regulations of any exchange or automated quotation system on which any of the securities of the Company are listed or designated. Other than the sale and issuance of the Securities (as defined in the Existing Securities Purchase Agreement), none of the Company, its Subsidiaries, their affiliates and any Person acting on their behalf will take any action or steps referred to in the preceding sentence that would cause the issuance and offering of the Securities (as defined in the Securities Purchase Agreement) to be integrated with other offerings for purposes of any such applicable stockholder approval provisions.

(3) The aggregate Indebtedness owed by all Subsidiaries to the Company as of the date hereof is approximately $155,016,000.

(4) The aggregate Indebtedness owed by all Subsidiaries to the Company as of the Closing Date shall not exceed $ 175,016,000.

(c) No Event of Default. The Company represents and warrants to the Investor that after giving effect to the terms of this Agreement and the Other Agreements, no Default or Event of Default (as defined in the Indenture) shall have occurred and be continuing as of the date hereof.

(d) Public Information. At any time during the period commencing on the Closing Date and ending at such time that all of the Securities can be sold without the requirement to be in compliance with Rule 144(c)(1) and otherwise without restriction or limitation pursuant to Rule 144, if a registration statement is not available for the resale of all of the Securities and the Company shall fail for any reason to satisfy the current public information requirement under Rule 144(c)(1) (a **Public Information Failure**) then, as partial relief for the damages to any holder of Securities by reason of any such delay in or reduction of its ability to sell the Securities (which remedy shall not be exclusive of any other remedies available at law or in equity), the Company shall pay to each such holder an amount in cash equal to two percent (2.0%) of the aggregate Purchase Price of such holder s Securities on the day of a Public Information Failure and on every thirtieth day (pro rated for periods totaling less than thirty days) thereafter until the earlier of (i) the date such Public Information Failure is cured and (ii) such time that such public information is no longer required pursuant to Rule 144. The payments to which a holder shall be entitled pursuant to this Section 3(d) are referred to herein as Public Information Failure Payments. Public Information Failure Payments shall be paid on the earlier of (I) the last day of the calendar month during which such Public Information Failure Payments are incurred and (II) the third Business Day after the event or failure giving rise to the Public Information Failure Payments is cured. In the event the Company fails to make Public Information Failure Payments in a timely manner, such Public Information Failure Payments shall bear interest at the rate of 1.5% per month (prorated for partial months) until paid in full.

(e) Holding Period. For the purposes of Rule 144(d), the Company acknowledges that the holding period of the Existing Notes (including the corresponding Existing Conversion Shares) may be tacked onto the holding period of the Exchanged Notes (including the corresponding Exchanged Conversion Shares). The Company agrees not to take a position contrary to this Section 3(e). The Company agrees to take all actions, including, without limitation, the issuance by its legal counsel of any necessary legal opinions, necessary to issue to the Exchanged Conversion Shares that are freely tradable on an Eligible Market without restriction and not containing any restrictive legend without the need for any action by the Investor

4. FEES AND EXPENSES

[PORTSIDE ONLY][At the Closing, the Company shall reimburse the Investor for its legal and due diligence fees and expenses in connection with the preparation and negotiation of this Agreement and the related documents by paying such amount to Schulte Roth & Zabel LLP (the **Investor Counsel Expense**).]

On the First Monthly Installment Date (as defined in the Notes), the Company shall reimburse the Investor for

(a) its legal and due diligence fees and expenses in connection with the preparation and negotiation of this Agreement in an amount up to $10,000 subject to the provision documents and other evidence reasonably satisfactory to Company of the fees and expenses so incurred. Except as otherwise set forth in this Agreement, each party shall pay the fees and expenses of its advisers, counsel, accountants and other experts, if any, and all other expenses incurred by such party incident to the negotiation, preparation, execution, delivery and performance of this Agreement.

(b) United States taxes payable by the Investor or any of its affiliates, shareholders or members as a consequence of the exchange of the Existing Notes for the Exchanged Notes (but not including any taxes payable as a consequence of payments under the Exchanged Notes), subject to certification by the Investor of the amount of taxable gains or income subject to taxation, the rate of taxation, relative proportion of domestic and foreign tax payers, and the amount of taxes so payable; provided, further that the maximum amount of taxes reimbursable pursuant to this paragraph (b) shall not exceed an amount, in the aggregate, equal to 0.5% of the principal amount of the Exchanged Notes and Existing Notes held by such Investor immediately following the Closing, which aggregate amount is set forth opposite such Investor s name in

column (7) of the Schedule of Investors attached hereto. The Company shall pay all stamp and other non-income taxes and duties levied in connection with the issuance of the Exchanged Notes.

5. CONDITIONS TO COMPANY S OBLIGATIONS HEREUNDER.

The obligations of the Company to the Investor hereunder are subject to the satisfaction of each of the following conditions, provided that these conditions are for the Company s sole benefit and may be waived by the Company at any time in its sole discretion by providing the Investor with prior written notice thereof:

(a) The Investor shall have executed this Agreement and delivered the same to the Company.

(b) The Investor shall have delivered to the Company, pursuant to the Indenture and this Agreement, such principal amount of its Existing Note being exchanged at the Closing or such other documentation reasonably satisfactory to the Company that the Investor held such Existing Note as a Physical Security and that the Investor s Existing Note has been lost or destroyed.

(c) The representations and warranties of the Investor in Section 3(a) hereof shall be true and correct as of the date when made and as of the Closing Date as though made at that time (except for representations and warranties that speak as of a specific date).

6. CONDITIONS TO THE INVESTOR S OBLIGATIONS HEREUNDER.

The obligations of the Investor hereunder are subject to the satisfaction of each of the following conditions, provided that these conditions are for the Investor s sole benefit and may be waived by the Investor at any time in its sole discretion by providing the Company with prior written notice thereof:

(a) The Company shall have duly executed and delivered to the Investor (i) this Agreement and the Other Agreements, (ii) each of the Security Documents, and (iii) the Exchanged Notes (allocated in such principal amounts as the Investor shall request) being issued to the Investor at the Closing pursuant to this Agreement.

(b) Each of the Other Investors shall have (i) executed the Other Agreements, (ii) satisfied or waived all conditions to the closings contemplated by such agreements and (iii) surrendered such principal amount of their Existing Notes being exchanged at the Closing or such other documentation reasonably satisfactory to the Company that such Other Investor held such Existing Note as a Physical Security (as defined in the First Supplemental Indenture) and that such Other Investor s Existing Note has been lost or destroyed.

(c) The Investor shall have received the opinion of Morgan, Lewis & Bockius LLP, the Company s counsel, dated as of the Closing Date, in substantially the form of Exhibit C attached hereto.

(d) The Company shall have delivered to the Holder Part A of Schedule I to the Security Agreement.

(e) The Company shall have delivered to the Investor a copy of the Irrevocable Transfer Agent Instructions, in the form of Exhibit D attached hereto, which instructions shall have been delivered to and acknowledged in writing by the Company s transfer agent.

(f) The Company shall have delivered to the Investor a certificate (or a fax or pdf copy of such certificate) evidencing the formation and good standing of the Company and each of its Subsidiaries in such entity s jurisdiction of formation issued by the Secretary of State (or comparable office) of such jurisdiction, as of a date within ten (10) days of the Closing Date.

(g) The Company shall have delivered to the Investor a certificate (or a fax or pdf copy of such certificate) evidencing the Company s qualification as a foreign corporation and good standing issued by the Secretary of State of California, which is the only jurisdiction in which the Company conducts business and is required to so qualify, as of a date within ten (10) days of the Closing Date.

(h) The Company shall have delivered to the Investor a certified copy of the Certificate of Incorporation as certified by the Secretary of State of the State of Delaware (or a fax or pdf copy of such certificate) within ten (10) days of the Closing Date.

(i) The Company shall have delivered to the Investor a certificate, executed by the Secretary of the Company and dated as of the Closing Date, as to (i) the resolutions consistent with Section 3(b) as adopted by the Company s Board of Directors in a form reasonably acceptable to the Investor, (ii) the Certificate of Incorporation and (iii) the Bylaws, each as in effect at the Closing, in the form attached hereto as Exhibit E.

(j) The representations and warranties of the Company in Section 3(b) shall be true and correct in all material respects (except for those representations and warranties that are qualified by materiality or Material Adverse Effect, which shall be true and correct in all respects) as of the date when made and as of the Closing Date as though made at that time (except for representations and warranties that speak as of a specific date, which shall be true and correct as of such specified date) and the Company shall have performed, satisfied and complied in all material respects with the covenants, agreements and conditions required by the Transaction Documents to be performed, satisfied or complied with by the Company at or prior to the Closing Date. The Investor shall have received a certificate, executed by the Chief Executive Officer or Chief Financial Officer of the Company, dated as of the Closing Date, to the foregoing effect in the form attached hereto as Exhibit F.

(k) The Company shall have delivered to the Investor a letter from the Company s transfer agent certifying the number of shares of Common Stock outstanding as of a date within five days of the Closing Date.

(l) The Common Stock (I) shall be designated for quotation or listed on the Principal Market and (II) shall not have been suspended, as of the Closing Date, by the SEC or the Principal Market from trading on the Principal Market nor, except as set forth in the Company s filings with the SEC, shall suspension by the SEC or the Principal Market have been threatened, as of the Closing Date, either (A) in writing by the SEC or the Principal Market or (B) by falling below the minimum listing maintenance requirements of the Principal Market.

(m) In accordance with the terms of the Security Documents, the Company shall have delivered to the Collateral Agent (i) certificates representing the Company s U.S. Subsidiaries shares of capital stock to the extent such subsidiary is a corporation or otherwise has certificated capital stock, along with duly executed blank stock powers and (ii) appropriate financing statements on Form UCC-I to be duly filed in such office or offices as may be necessary or, in the opinion of the Collateral Agent, desirable to perfect the security interests purported to be created by each Security Document.

(n) Within two (2) Business Days prior to the Closing, the Company shall have delivered or caused to be delivered to the Investor (i) true copies of UCC search results, listing all effective financing statements which name as debtor the Company or any of its Subsidiaries filed in the prior five years to perfect an interest in any assets thereof, together with copies of such financing statements, none of which, except as otherwise agreed in writing by the Investor, shall cover any of the Collateral (as defined in the Security Documents) and the results of searches for any tax lien and judgment lien filed against such Person or its property, which results, except as otherwise agreed to in writing by the Investors and except with respect to any Permitted Liens (as defined in the Exchanged Notes) shall not show any such Liens (as defined in the Security Documents);

(o) [PORTSIDE ONLY][The Company shall have delivered or caused to be delivered to Schulte Roth & Zabel LLP an amount in United States dollars and in immediately available funds, by one or more wire transfers to an account designated in writing by the Schulte Roth & Zabel LLP for such purpose, equal to the Investor Counsel Expense.]

(p) The Company shall have delivered to such Buyer such other documents relating to the transactions contemplated by this Agreement as such Buyer or its counsel may reasonably request.

7. MISCELLANEOUS.

(a) Disclosure of Transactions and Other Material Information. On or before 8:30 a.m., New York City time, on the first Business Day following the date of this Agreement (the **8-K Filing Time**), the Company shall issue a press release and file a Current Report on Form 8-K describing the terms of the transactions

contemplated hereby in the form required by the 1934 Act and attaching the material Transaction Documents that have not previously been filed with the SEC by the Company (including, without limitation, this Agreement, the Other Agreements, the Security Documents and the form of the Exchanged Notes) as exhibits to such filing (including all attachments, the **8-K Filing**). Also included in the 8-K Filing, (x) the Company shall announce that it has engaged an investment banker to explore strategic alternatives, including, without limitation, the sale of the Company and (y) the Company shall set forth the book value of the Company as of December 31, 2007. As of immediately following the filing of the 8-K Filing with the SEC, the Investor shall not be in possession of any material, nonpublic information received from the Company, any of its Subsidiaries or any of their respective officers, directors, employees or agents, that is not disclosed in the 8-K Filing or in prior filings with the SEC. For so long as the Exchanged Notes and the Warrants (as defined in the Securities Purchase Agreement) are outstanding, other than notices required to be delivered pursuant to Section 4(m) of the Securities Purchase Agreement, the Company shall not, and shall cause each of its Subsidiaries and its and each of their respective officers, directors, employees and agents, not to, provide the Investor with any material, nonpublic information regarding the Company or any of its Subsidiaries from and after the filing of the 8-K Filing with the SEC without the express written consent of the Investor. For so long as the Exchanged Notes and the Warrants are outstanding, if the Investor has, or believes it has, received any such material, nonpublic information regarding the Company or any of its Subsidiaries provided in breach of the preceding sentence, it shall provide the Company with written notice thereof in which case the Company shall, within five (5) Trading Days (as defined in the Exchanged Notes) of receipt of such notice, make public disclosure of any such material, nonpublic information provided in breach of the preceding sentence. In the event of a breach of the foregoing covenant by the Company, any of its Subsidiaries, or any of its or their respective officers, directors, employees and agents, in addition to any other remedy provided herein or in the Transaction Documents, the Investor shall have the right to make a public disclosure, in the form of a press release, public advertisement or otherwise, of such material, nonpublic information without the prior approval by the Company, its Subsidiaries, or any of its or their respective officers, directors, employees or agents. The Investor shall not have any liability to the Company, its Subsidiaries, or any of its or their respective officers, directors, employees, stockholders or agents for any such disclosure. Subject to the foregoing, neither the Company, its Subsidiaries nor the Investor shall issue any press releases or any other public statements with respect to the transactions contemplated hereby; provided, however, that the Company shall be entitled, without the prior approval of the Investor, to make any press release or other public disclosure with respect to such transactions (i) in substantial conformity with the 8-K Filing and contemporaneously therewith and (ii) as is required by applicable law, regulation or any Eligible Market on which the Company s securities are then listed or quoted (provided that in the case of clause (i) the Investor shall be consulted by the Company in connection with any such press release or other public disclosure prior to its release). Without the prior written consent of the Investor, neither the Company nor any of its Subsidiaries or affiliates shall disclose the name of the Investor in any filing, announcement, release or otherwise other than in connection with the Registration Statement unless such disclosure is required by law, regulation or any Eligible Market on which the Company s securities are then listed or quoted.

(b) Blue Sky. If required, the Company, on or before the Closing Date, shall take such action as the Company shall reasonably determine is necessary in order to obtain an exemption for or to qualify the Securities for sale to the Investor at the Closing pursuant to this Agreement under applicable securities or Blue Sky laws of the states of the United States (or to obtain an exemption from such qualification), and shall provide evidence of any such action so taken to the Investor on or prior to the Closing Date. The Company shall make all filings and reports relating to the offer and sale of the Securities required under applicable securities or Blue Sky laws of the states of the United States following the Closing Date.

(c) Stockholder Approval. The Company shall provide each stockholder entitled to vote at the next annual meeting of stockholders of the Company (the **Stockholder Meeting**), which shall be promptly called and held not later than June 30, 2008 (the **Stockholder Meeting Deadline**), a proxy statement, substantially in the form which has been previously reviewed by the Buyers and Schulte Roth & Zabel LLP, at the expense of the Company, not to exceed $10,000, soliciting each such stockholder s affirmative vote at

the Stockholder Meeting for approval of resolutions (the **Stockholder Resolutions**) providing for the Company s issuance of all of the Securities as described in the Transaction Documents in accordance with applicable law and the rules and regulations of the Principal Market (such affirmative approval being referred to herein as the **Stockholder Approval**), and the Company shall use its best efforts to solicit its stockholders approval of such resolutions and to cause the Board of Directors of the Company to recommend to the stockholders that they approve such resolutions. The Company shall be obligated to seek to obtain the Stockholder Approval by the Stockholder Meeting Deadline.

(d) Dilutive Issuances. For so long as any Exchanged Notes remain outstanding, unless or until the Stockholder Approval has been obtained, the Company shall not, in any manner, enter into or affect any Dilutive Issuances (as defined in the Exchanged Notes).

(e) Mandatory Redemption. Pursuant to Section 8(a) of the Exchanged Notes, on the date that is the later of (i) the Closing Date and (ii) one Business Day following the closing of the DRT Transaction (as defined in the Exchanged Notes), the Company shall pay to the Investor its share of the Monthly Installment Amount (as defined in the Exchanged Notes), which is equal to the amount set forth opposite the Investor s name in column (6) of the Schedule of Investors attached hereto, in United States dollars and in immediately available funds by wire transfer to an account designated in writing by the Investor for such purpose**.**

(f) Post-Closing Security Documents. On or prior to thirty (30) calendar days after the Closing Date, the Company shall have delivered to the Investor the schedules to the Security Agreement in a form reasonably satisfactory to the Required Holders. On or prior to fourteen (14) calendar days after the Closing Date, the Company shall have delivered to the Collateral Agent certificates representing the Company s non-U.S. Subsidiaries shares of capital stock to the extent such subsidiary is a corporation or otherwise has certificated capital stock, along with duly executed blank stock powers.

(g) Governing Law; Jurisdiction; Jury Trial. All questions concerning the construction, validity, enforcement and interpretation of this Agreement shall be governed by the internal laws of the State of New York, without giving effect to any choice of law or conflict of law provision or rule (whether of the State of New York or any other jurisdictions) that would cause the application of the laws of any jurisdictions other than the State of New York. Each party hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in The City of New York, Borough of Manhattan, for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is brought in an inconvenient forum or that the venue of such suit, action or proceeding is improper. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof to such party at the address for such notices to it under this Agreement and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any manner permitted by law. **EACH PARTY HEREBY IRREVOCABLY WAIVES ANY RIGHT IT MAY HAVE, AND AGREES NOT TO REQUEST, A JURY TRIAL FOR THE ADJUDICATION OF ANY DISPUTE HEREUNDER OR IN CONNECTION WITH OR ARISING OUT OF THIS AGREEMENT OR ANY TRANSACTION CONTEMPLATED HEREBY.**

(h) Counterparts. This Agreement may be executed in two or more identical counterparts, all of which shall be considered one and the same agreement and shall become effective when counterparts have been signed by each party and delivered to the other party; provided that a facsimile signature shall be considered due execution and shall be binding upon the signatory thereto with the same force and effect as if the signature were an original, not a facsimile signature.

(i) Headings. The headings of this Agreement are for convenience of reference and shall not form part of, or affect the interpretation of, this Agreement.

(j) Severability. If any provision of this Agreement is prohibited by law or otherwise determined to be invalid or unenforceable by a court of competent jurisdiction, the provision that would otherwise be

prohibited, invalid or unenforceable shall be deemed amended to apply to the broadest extent that it would be valid and enforceable, and the invalidity or unenforceability of such provision shall not affect the validity of the remaining provisions of this Agreement so long as this Agreement as so modified continues to express, without material change, the original intentions of the parties as to the subject matter hereof and the prohibited nature, invalidity or unenforceability of the provision(s) in question does not substantially impair the respective expectations or reciprocal obligations of the parties or the practical realization of the benefits that would otherwise be conferred upon the parties. The parties will endeavor in good faith negotiations to replace the prohibited, invalid or unenforceable provision(s) with a valid provision(s), the effect of which comes as close as possible to that of the prohibited, invalid or unenforceable provision(s).

(k) No Third Party Beneficiaries. This Agreement is intended for the benefit of the parties hereto and their respective permitted successors and assigns, and is not for the benefit of, nor may any provision hereof be enforced by, any other Person.

(l) Further Assurances. Each party shall do and perform, or cause to be done and performed, all such further acts and things, and shall execute and deliver all such other agreements, certificates, instruments and documents, as the other party may reasonably request in order to carry out the intent and accomplish the purposes of this Agreement and the consummation of the transactions contemplated hereby.

(m) No Strict Construction. The language used in this Agreement will be deemed to be the language chosen by the parties to express their mutual intent, and no rules of strict construction will be applied against any party.

(n) Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of the parties and their respective successors and assigns in accordance with the terms of the Existing Securities Purchase Agreement.

(o) Notices. Any notices, consents, waivers or other communications required or permitted to be given under the terms of this Agreement must be in writing and will be deemed to have been delivered: (i) upon receipt, when delivered personally; (ii) upon receipt, when sent by facsimile (provided confirmation of transmission is mechanically or electronically generated and kept on file by the sending party); or (iii) one Business Day after deposit with an overnight courier service, in each case properly addressed to the party to receive the same. The addresses and facsimile numbers for such communications shall be:

If to the Company:

Nanogen Inc.
10398 Pacific Center Court
San Diego, California 92121
Telephone: (858) 410-4600
Facsimile: (858) 410-4949
Attention: David Ludvigson

with a copy (for informational purposes only) to:

Morgan, Lewis & Bockius LLP

One Market, Spear Street Tower
San Francisco, CA 94605
Telephone: (415) 442-1091
Facsimile: (415) 442-1001
Attention: Scott D. Karchmer, Esq.

If to the Transfer Agent:

Computershare Investor Services
250 Royall Street

Canton, MA 02021
Telephone: (877) 282-1168
Facsimile: (781) 575-3606
Attention: Jeff Seiders

If to the Investor, to its address and facsimile number set forth on the Schedule of Investors, with copies to such Investor s representatives as set forth on the Schedule of Investors

with a copy (for informational purposes only) to:

Schulte Roth & Zabel LLP

919 Third Avenue
New York, New York 10022
Telephone: (212) 756-2000
Facsimile: (212) 593-5955
Attention: Eleazer N. Klein, Esq.

or to such other address and/or facsimile number and/or to the attention of such other Person as the recipient party has specified by written notice given to each other party five (5) days prior to the effectiveness of such change. Written confirmation of receipt (A) given by the recipient of such notice, consent, waiver or other communication, (B) mechanically or electronically generated by the sender s facsimile machine containing the time, date, recipient facsimile number and an image of the first page of such transmission or (C) provided by an overnight courier service shall be rebuttable evidence of personal service, receipt by facsimile or receipt from an overnight courier service in accordance with clause (i), (ii) or (iii) above, respectively.

(p) Remedies. The Investor and each holder of the Securities shall have all rights and remedies set forth in the Transaction Documents and all rights and remedies which such holders have been granted at any time under any other agreement or contract and all of the rights which such holders have under any law. Any Person having any rights under any provision of this Agreement shall be entitled to enforce such rights specifically (without posting a bond or other security), to recover damages by reason of any breach of any provision of this Agreement and to exercise all other rights granted by law. Furthermore, the Company recognizes that in the event that it fails to perform, observe, or discharge any or all of its obligations under this Agreement, any remedy at law may prove to be inadequate relief to the Investor. The Company therefore agrees that the Investor shall be entitled to seek temporary and permanent injunctive relief in any such case without the necessity of proving actual damages and without posting a bond or other security.

(q) Independent Nature of Investor s Obligations and Rights. The obligations of the Investor under this Agreement or any other Transaction Document are several and not joint with the obligations of any other Investor, and the Investor shall not be responsible in any way for the performance of the obligations of any other Investor under any Transaction Document. Nothing contained herein or in this Agreement or any other Transaction Document, and no action taken by the Investor pursuant hereto, shall be deemed to constitute such Investor and other Investors as a partnership, an association, a joint venture or any other kind of entity, or create a presumption that such Investor and the other Investors are in any way acting in concert or as a group with respect to such obligations or the transactions contemplated by this Agreement or any other Transaction Document and the Company acknowledges that the Investors are not acting in concert or as a group with respect to such obligations or the transactions contemplated by Agreement and any other Transaction Document. The Company and the Investor confirms that the Investor has independently participated in the negotiation of the transactions contemplated hereby with the advice of its own counsel and advisors. The Investor shall be entitled to independently protect and enforce its rights, including, without limitation, the rights arising out of this Agreement or out of any other Transaction Document, and it shall not be necessary for any other Investor to be joined as an additional party in any proceeding for such purpose.

(r) Most Favored Nation. The Company hereby represents and warrants as of the date hereof and covenants and agrees from and after the date hereof that none of the terms offered to any Person with respect to any amendment, settlement or waiver (each a **Settlement Document**) relating to the terms, conditions and transactions contemplated hereby, is or will be more favorable to such Person than those of the Investor and this Agreement shall be, without any further action by the Investor or the Company, deemed amended and modified in an economically and legally equivalent manner such that the Investor

shall receive the benefit of the more favorable terms contained in such Settlement Document. Notwithstanding the foregoing, the Company agrees, at its expense, to take such other actions (such as entering into amendments to the Transaction Documents) as the Investor may reasonably request to further effectuate the foregoing.

[Signature Page Follows]

IN WITNESS WHEREOF, the Investor and the Company have caused their respective signature page to this Amendment and Exchange Agreement to be duly executed as of the date first written above.

COMPANY:

NANOGEN, INC.

By:
Name:
Title:

[Signature Page to Amendment and Exchange Agreement]

IN WITNESS WHEREOF, the Investor and the Company have caused their respective signature page to this Amendment and Exchange Agreement to be duly executed as of the date first written above.

INVESTOR:

By:

By:
Name:
Title:

[Signature Page to Amendment and Exchange Agreement]

Schedule 2(a) and 3(b)

Modification to the Company s Covenants in Section 4 of Securities Purchase Agreement.

The term Notes in Section 4(b) shall mean the Existing Notes.

The term Securities in Section 4(c) shall have the meaning as set forth in the Existing Securities Purchase Agreement.

The term Securities in Section 4(d) shall have the meaning as set forth in the Existing Securities Purchase Agreement.

Modification to Company Representations in Section 3 of Securities Purchase Agreement

Insert the phrase except as set forth in the Disclosure Schedule attached to the Amendment and Exchange Agreement dated March 13, 2008 between the Company and the Buyers immediately after the sentence The Company represents and warrants to each of the Buyers that, as of the date hereof and as of the Closing Date in Section 3.

The term Securities in Section 3(a) shall have the meaning as set forth in the Existing Securities Purchase Agreement.

The term Securities in Section 3(b)(ii) shall have the meaning as set forth in the Existing Securities Purchase Agreement.

The term Irrevocable Transfer Agent Instruction in Section 3(d) shall refer to the Irrevocable Transfer Agent Instruction attached as Exhibit [ ] in this Agreement.

The first sentence of Section 3(f) shall read as follows:
As of the date hereof and as of the Closing Date, the Company has or will have, as the case may be, an authorized, issued and outstanding capitalization as is set forth in Schedule 3(f) to the Amendment Agreement (subject to the issuance of shares of Common Stock upon exercise of stock options and warrants disclosed as outstanding in the Registration Statement and the Prospectus and the grant or issuance of options or shares under existing equity compensation plans or stock purchase plans described in the Registration Statement or the Prospectus), and such authorized capital stock conforms to the description thereof set forth in the Registration Statement and the Prospectus.

The term Securities in Section 3(g)(i) shall have the meaning as set forth in the Existing Securities Purchase Agreement. .

The term Securities in Section 3(g)(ii) shall have the meaning as set forth in the Existing Securities Purchase Agreement.

The term Securities in Section 3(h) shall have the meaning as set forth in the Existing Securities Purchase Agreement.

The term Securities in Section 3(x) shall have the meaning as set forth in the Existing Securities Purchase Agreement.

The term Securities in Section 3(hh) shall have the meaning as set forth in the Existing Securities Purchase Agreement.

Schedule of Exceptions to the Securities Purchase Agreement as Referenced in the

Amendment and Exchange Agreement

Schedule 3(g)(i): Disclosure

As of the date hereof, the Company believes it will file a Form 12b-25 on or about March 18, 2008 to report its inability to file its Annual Report on Form 10-K by the initial filing deadline of March 17, 2008. This is due to the fact that the Company s registered independent public accountants have not yet completed the review of the Company s consolidated financial statements for the fiscal year ended December 31, 2007. The delay is primarily due to the additional time required to analyze certain accounting treatment relating to the Company s investments in Jurilab Ltd. in 2005 and 2006 (see below). The Company s auditors are finalizing the audited financial statements and it is anticipated that the Form 10-K, along with the audited financial statements, will be filed on or prior to the 15th calendar day following the prescribed due date of the Company s 2007 Form 10-K.

Schedule 3(j): Financial Statement

In December 2007, the Company received a comment letter from the SEC resulting from the SEC s review of the Company s Form 10-K for fiscal year end December 31, 2006 and Form 10-Q for fiscal quarter ended September 30, 2007 public filings. The SEC comment letter contained nine questions, eight of which have been resolved. The currently unresolved SEC comment relates to accounting for the Company s investment in Jurilab. In a series of investments in 2005 and 2006, the Company invested approximately $3 million in equity in exchange for approximately 29% of the outstanding stock of Jurilab. Under FIN46 Variable Interest Entity rules, the Company consolidated Jurilab s results until Q3-07, at which point Jurilab received a significant investment from a separate third party. From the initial investment and continuing through the deconsolidation, the Company recorded 100% of their losses. Upon deconsolidation, the Company recognized a non-cash gain of $5.8 million, which represented losses incurred by Jurilab during this time which were in excess of the investment. The methodology used to consolidate and deconsolidate Jurilab are being reviewed. It is possible this may result in a restatement of financial statement of prior periods. Although the net impact of the entries are not expected to result in a cumulative change in the income statement, there could be a material shifting of which period during which gains and losses were recorded on the financial statement.

The Company expects that the audit report of its registered independent public accountants for the Company s consolidated financial statements for the fiscal year ended December 31, 2007 will contain a going concern note.

Schedule 3(l): Weaknesses or Changes in Internal Accounting Controls

Our auditors are currently testing our internal controls as of December 31, 2007. Although they have not yet completed the audit, we expect that auditors will include a material weakness qualification to their opinion. The qualification is due to two primary factors: the accounting for Jurilab accounting (as discussed above), and inventory valuation policies and procedures.

Although we believe the auditors will be able to conclude that the inventory balances are reasonably stated in accordance with GAAP, the auditors are expect to recommend improvement in the policies and procedures used to perform internal valuation testing and the documentation for the review and approval of such processes.

Schedule 3(m): Sarbanes-Oxley

Refer to item (l) above.

Schedule 3(s): Contracts

The Company and its subsidiary, Epoch Biosciences, Inc., have not paid rent due in February and March 2008 under real property leases for their facilities in San Diego, California and Bothell, Washington. On March 10,

2008, the Company received a notice of default from the landlord of its San Diego premise. The monthly rent for Nanogen is approximately $114,000 per month, and for Epoch is approximately $73,000 per month.

Schedule 3(y): Internal Accounting Controls

See responses to (l) and (m) above.

Schedule 3(ff): Listing

On November 27, 2007, Nanogen, Inc. (the Company) received a letter from the NASDAQ Stock Market advising that for the previous 30 consecutive business days, the bid price of the Company s common stock (the Common Stock) had closed below the minimum $1.00 per share requirement for continued inclusion on the NASDAQ Global Market pursuant to NASDAQ Marketplace Rule 4450(a)(5). This notification has no effect on the listing of the Common Stock at this time. The content of the letter, which sets forth the process by which the Company may regain compliance, are described in detail in the Company s Current Report on Form 8-K filed on November 30, 2007.

APPENDIX D

NANOGEN, INC.

Senior Secured Convertible Note

Issuance Date: March 27, 2008 Original Principal Amount: U.S. $[_____]

FOR VALUE RECEIVED, Nanogen, Inc., a Delaware corporation (the **Company**), hereby promises to pay to [PORTSIDE GROWTH AND OPPORTUNITY FUND] [CAPITAL VENTURES INTERNATIONAL] [ENABLE OPPORTUNITY PARTNERS LP] [PIERCE DIVERSIFIED STRATEGY MASTER FUND LLC, ENA] [ENABLE GROWTH PARTNERS LP] [FORT MASON MASTER, LP] [FORT MASON PARTNERS, LP] [HIGHBRIDGE INTERNATIONAL LLC] [CASTLERIGG MASTER INVESTMENTS LTD.] or registered assigns (**Holder**) the amount set out above as the Original Principal Amount as reduced pursuant to the terms hereof pursuant to redemption, conversion or otherwise, the **Principal**) when due, whether upon the Maturity Date (as defined below), on any Company Redemption Date with respect to the Company Redemption Amount due on such Company Redemption Date (each, as defined herein), acceleration, redemption or otherwise (in each case in accordance with the terms hereof) and to pay interest (**Interest**), on any outstanding Principal at the applicable Interest Rate from the date set out above as the Issuance Date (the **Issuance Date**) until the same becomes due and payable, whether upon an Interest Date (as defined below), any Company Redemption Date or the Maturity Date, acceleration, conversion, redemption, amortization or otherwise (in each case in accordance with the terms hereof). This Senior Secured Convertible Note (including all Senior Secured Convertible Notes issued in exchange, transfer or replacement hereof, this **Note**) completely supersedes and replaces a certain portion of the 6.25% Senior Convertible Notes due 2010, with an original issuance date August 27, 2007 issued by the Company to the Holder pursuant to the Indenture (as defined below) (such replaced portion, the **Replaced Notes**). This Note is one of a series of senior secured convertible notes issued pursuant to Section 1(a) of the Amendment and Exchange Agreement (collectively, the **Notes** and such Notes, other than this Note, the **Other Notes** ; provided, for the avoidance of doubt that the Notes do not include the Indenture Notes). Certain capitalized terms used herein are defined in Section 29.

(1) PAYMENTS OF PRINCIPAL. On the Maturity Date, the Company shall pay to the Holder an amount in cash representing all outstanding Principal, accrued and unpaid Interest and accrued and unpaid Late Charges, if any, on such Principal and Interest (the **Maturity Date Payment**). The **Maturity Date** shall be August 27, 2010, as may be extended at the option of the Holder (i) in the event that, and for so long as, an Event of Default (as defined in Section 4(a)) shall have occurred and be continuing on the Maturity Date (as may be extended pursuant to this Section 1) or any event that shall have occurred and be continuing that with the passage of time and the failure to cure would result in an Event of Default and (ii) through the date that is ten (10) Business Days after the consummation of a Change of Control in the event that a Change of Control is publicly announced or a Change of Control Notice (as defined in Section 5(b)) is delivered prior to the Maturity Date, but subject to the rights of the Company in Section 5(c). On each Company Redemption Date, the Company shall pay to the Holder an amount equal to the Company Redemption Price due on such Company Redemption Date in accordance with Section 8. Other than as specifically permitted by this Note, the Company may not prepay any portion of the outstanding Principal, accrued and unpaid Interest or accrued and unpaid Late Charges, if any, on Principal and Interest.

(2) INTEREST; INTEREST RATE.

(a) Interest on the outstanding Principal amount of this Note shall commence accruing on the Issuance Date and shall be computed on the basis of a 360-day year comprised of twelve 30-day months and shall be payable in arrears on the last day of each calendar quarter during the period beginning on the Issuance Date and ending on, and including, the Maturity Date (each, an **Interest Date**) with the first Interest Date being March 31, 2008. Interest shall be payable on each Interest Date, to the record holder of this Note on the Record Date immediately preceding applicable Interest Date, in shares of Common Stock (**Interest Shares**), so long as (i) there has been no Equity Conditions Failure (unless the Holder has waived such

Equity Conditions Failure) and (ii) unless or until the Required Stockholder Approval (as defined below) has been obtained, the calculation of the applicable Interest Conversion Price does not result in a price that is less than the amount resulting from the Conversion Floor Price (as defined below); provided, however, that the Company may, at its option as indicated on the Interest Election Notice (as defined below), pay Interest on any Interest Date in cash (**Cash Interest**) or in a combination of Cash Interest and Interest Shares. The Company shall deliver a written notice (each, an **Interest Election Notice**) to each holder of the Notes on or prior to the tenth (10th) Trading Day prior to the Interest Date (the date such notice is delivered to all of the holders, the **Interest Notice Date**) which notice (i) either (A) confirms that Interest to be paid on such Interest Date shall be paid entirely in Interest Shares or (B) elects to pay Interest as Cash Interest or a combination of Cash Interest and Interest Shares and specifies the amount of Interest that shall be paid as Cash Interest and the amount of Interest, if any, that shall be paid in Interest Shares and (ii) in the case of payment in Interest Shares certifies that there has been no Equity Conditions Failure. If any portion of Interest for a particular Interest Date shall be paid in Interest Shares, then (1) contemporaneously with the delivery of the Interest Election Notice on the applicable Interest Notice Date, the Company shall pay to the Holder, in accordance with Section 2(b), a number of shares of Common Stock equal to (x) the amount of Interest payable on the applicable Interest Date in Interest Shares divided by (y) the applicable Initial Interest Conversion Price (the **Pre-Interest Shares**) and (2) on the applicable Interest Date, the Company shall deliver to the Holder, in accordance with Section 2(b), any Interest Balance Shares. Interest to be paid on an Interest Notice Date or on an Interest Date in Interest Shares shall be paid in a number of fully paid and nonassessable shares of Common Stock (rounded to the nearest whole share). If the Equity Conditions are not satisfied as of the Interest Notice Date, then unless the Company has elected to pay such Interest in cash, the Interest Notice shall indicate that unless the Holder waives the Equity Conditions, the Interest shall be paid in cash. If the Equity Conditions were satisfied as of the Interest Notice Date but the Equity Conditions are no longer satisfied at any time prior to the Interest Date, the Company shall provide the Holder a subsequent notice to that effect indicating that unless the Holder waives the Equity Conditions, the Interest shall be paid in cash.

(b) When any Interest Shares are to be issued on an Interest Notice Date or an Interest Date, as applicable, then the Company shall (i) (X) provided that the Transfer Agent is participating in the Fast Automated Securities Transfer Program of the Depository Trust Company (**DTC**) and such action is not prohibited by applicable law or regulation or any applicable policy of DTC, credit such aggregate number of Interest Shares to which the Holder shall be entitled to the Holder s or its designee s balance account with DTC through its Deposit Withdrawal Agent Commission system, or (Y) if the foregoing shall not apply, issue and deliver on the applicable Interest Date to the address set forth in the register maintained by the Company for such purpose pursuant to the Securities Purchase Agreement or to such address as specified by the Holder in writing to the Company at least two (2) Business Days prior to the applicable Interest Date, an unlegended certificate, registered in the name of the Holder or its designee, for the number of Interest Shares to which the Holder shall be entitled and (ii) with respect to each Interest Date, pay to the Holder, in cash by wire transfer of immediately available funds, the amount of any Cash Interest. Notwithstanding the foregoing, the Company shall not be entitled to pay Interest in Interest Shares and shall be required to pay all such Interest in cash as Cash Interest if, unless consented to in writing by the Holder, there has been an Equity Conditions Failure. If an Event of Default or Equity Conditions Failure occurs during the Interest Measuring Period, then on the Interest Date, at the Holder s option, either (A) the Holder may require the Company to pay the Interest due on the applicable Interest Date as Cash Interest (including any Interest represented by Pre-Interest Shares) and, in conjunction with receipt of such cash payment, shall return the applicable number of Pre-Interest Shares or (B) the Company shall pay an additional amount to the Holder as Cash Interest equal to the Interest Balance Amount.

(c) Prior to the payment of Interest on an Interest Date, Interest on this Note shall accrue at the Interest Rate and be payable by way of inclusion of the Interest in the Conversion Amount in accordance with Section 3(b)(i). From and after the occurrence and during the continuance of an Event of Default, the Interest Rate shall be increased to twelve percent (12.0%). In the event that such Event of Default is subsequently cured, the adjustment referred to in the preceding sentence shall cease to be effective as of the

date of such cure; provided that the Interest as calculated at such increased rate during the continuance of such Event of Default shall continue to apply to the extent relating to the days after the occurrence of such Event of Default through and including the date of cure of such Event of Default.

(d) Notwithstanding anything to the contrary in this Note, in addition to Interest to be paid on the first Interest Date, on the first Interest Date, the Company shall pay in cash all accrued interest and other amounts due and owning under the Replaced Notes up to the Issuance Date to the Holder which amount is equal to $0.6803.

(3) CONVERSION OF NOTES. This Note shall be convertible into shares of the Company s common stock, par value $0.001 per share (the **Common Stock**), on the terms and conditions set forth in this Section 3.

(a) Conversion Right. Subject to the provisions of Section 3(d), at any time or times on or after the Issuance Date, the Holder shall be entitled to convert any portion of the outstanding and unpaid Conversion Amount (as defined below) into fully paid and nonassessable shares of Common Stock in accordance with Section 3(c), at the Conversion Rate (as defined below). The Company shall not issue any fraction of a share of Common Stock upon any conversion. If the issuance would result in the issuance of a fraction of a share of Common Stock, the Company shall round such fraction of a share of Common Stock up to the nearest whole share. The Company shall pay any and all transfer taxes and similar taxes that may be payable with respect to the issuance and delivery of Common Stock upon conversion of any Conversion Amount; provided that the Company shall not be required to pay any tax that may be payable in respect of any issuance of Common Stock to any Person other than the converting Holder or with respect to any income or similar tax due by the Holder with respect to the Note or such Common Stock.

(b) Conversion Rate. The number of shares of Common Stock issuable upon conversion of any Conversion Amount pursuant to Section 3(a) shall be determined by dividing (x) such Conversion Amount by (y) the Conversion Price (the **Conversion Rate**).

(i) **Conversion Amount** means the sum of (A) the portion of the Principal to be converted, redeemed or otherwise with respect to which this determination is being made, (B) accrued and unpaid Interest with respect to such Principal and (C) accrued and unpaid Late Charges with respect to such Principal and Interest and (D) the applicable Present Value of Interest, in connection with (I) the Holder s exercise of its optional conversion right pursuant to Section 3(c), (II) a Holder Change of Control Redemption pursuant to Section 5(b), or (III) a Company Change of Control Redemption pursuant to Section 5(c), as applicable.

(ii) **Conversion Price** means, as of any Conversion Date (as defined below) or other date of determination, $0.6803, subject to adjustment as provided herein.

(c) Mechanics of Conversion.

(i) Optional Conversion. To convert any Conversion Amount into shares of Common Stock on any date (a **Conversion Date**), the Holder shall (A) transmit by facsimile (or otherwise deliver), for receipt on or prior to 5:00 p.m., New York City time, on such date, a copy of an executed notice of conversion in the form attached hereto as Exhibit I (the **Conversion Notice**) to the Company and (B) if required by Section 3(c)(iii), surrender this Note to the Company as soon as practicable on or following such date (or an indemnification undertaking with respect to this Note in the case of its loss, theft or destruction). On or before the first (1st) Trading Day following the date of receipt of a Conversion Notice, the Company shall transmit by facsimile a confirmation of receipt of such Conversion Notice to the Holder and the Company s transfer agent (the **Transfer Agent**). On or before the second (2nd) Trading Day following the date of receipt of a Conversion Notice (the **Share Delivery Date**), the Company shall (X) provided that the Transfer Agent is participating in the Depository Trust Company (**DTC**) Fast Automated Securities Transfer Program, credit such aggregate number of shares of Common Stock to which the Holder shall be entitled to the Holder s or

its designee s balance account with DTC through its Deposit Withdrawal Agent Commission system or (Y) if the Transfer Agent is not participating in the DTC Fast Automated Securities Transfer Program, issue and deliver to the address as specified in the Conversion Notice, a certificate, registered in the name of the Holder or its designee, for the number of shares of Common Stock to which the Holder shall be entitled. If this Note is physically surrendered for conversion as required by Section 3(c)(iii) and the outstanding Principal of this Note is greater than the Principal portion of the Conversion Amount being converted, then the Company shall as soon as practicable and in no event later than three (3) Business Days after receipt of this Note and at its own expense, issue and deliver to the holder a new Note (in accordance with Section 18(d)) representing the outstanding Principal not converted. The Person or Persons entitled to receive the shares of Common Stock issuable upon a conversion of this Note shall be treated for all purposes as the record holder or holders of such shares of Common Stock on the Conversion Date. In the event of a partial conversion of this Note pursuant hereto, the principal amount converted at the Holder s option shall be deducted from any of the Company Redemption Amounts relating to the Company Redemption Dates or from the Maturity Date Payment or from any other amount owing from the Company pursuant hereto as set forth by the Holder in the Conversion Notice.

(ii) Company s Failure to Timely Convert. If within three (3) Trading Days after the Company s receipt of the facsimile copy of a Conversion Notice the Company shall fail to issue and deliver a certificate to the Holder or credit the Holder s balance account with DTC for the number of shares of Common Stock to which the Holder is entitled upon such holder s conversion of any Conversion Amount (a **Conversion Failure**), and if on or after such Trading Day the Holder purchases (in an open market transaction or otherwise) Common Stock to deliver in satisfaction of a sale by the Holder of Common Stock issuable upon such conversion that the Holder anticipated receiving from the Company (a **Buy-In**), then the Company shall, within three (3) Business Days after the Holder s request and in the Holder s discretion, either (i) pay cash to the Holder in an amount equal to the Holder s total purchase price (including brokerage commissions and other out-of-pocket expenses, if any) for the shares of Common Stock so purchased (the **Buy-In Price**), at which point the Company s obligation to deliver issue and deliver such certificate or to credit the Holder s balance account with DTC for the number of Common Stock to which the Holder is entitled upon such Holder s conversion of any Conversion Amount shall terminate, or (ii) promptly honor its obligation to deliver to the Holder a certificate or certificates representing such Common Stock and pay cash to the Holder in an amount equal to the excess (if any) of the Buy-In Price over the product of (A) such number of shares of Common Stock, times (B) the Closing Bid Price on the Conversion Date.

(iii) Registration; Book-Entry. The Company shall maintain a register (the **Register**) for the recordation of the names and addresses of the holders of each Note and the principal amount of the Notes held by such holders (the **Registered Notes**). The entries in the Register shall be conclusive and binding for all purposes absent manifest error. The Company and the holders of the Notes shall treat each Person whose name is recorded in the Register as the owner of a Note for all purposes, including, without limitation, the right to receive payments of principal and interest hereunder, notwithstanding notice to the contrary. A Registered Note may be assigned or sold in whole or in part only by registration of such assignment or sale on the Register. Upon its receipt of a request to assign or sell all or part of any Registered Note by a Holder, the Company shall record the information contained therein in the Register and issue one or more new Registered Notes in the same aggregate principal amount as the principal amount of the surrendered Registered Note to the designated assignee or transferee pursuant to Section 18. Notwithstanding anything to the contrary set forth herein, upon conversion of any portion of this Note in accordance with the terms hereof, the Holder shall not be required to physically surrender this Note to the Company unless (A) the full Conversion Amount represented by this Note is being converted or (B) the Holder has provided the Company with prior written notice (which notice may be included in a Conversion Notice) requesting reissuance of this Note upon physical surrender of this Note. The Holder and the Company shall maintain records showing the Principal, Interest and Late Charges, if any, converted and the dates of such conversions or

shall use such other method, reasonably satisfactory to the Holder and the Company, so as not to require physical surrender of this Note upon conversion.

(iv) Pro Rata Conversion; Disputes. In the event that the Company receives a Conversion Notice from more than one holder of Notes for the same Conversion Date and the Company can convert some, but not all, of such portions of the Notes submitted for conversion, the Company, subject to Section 3(d), shall convert from each holder of Notes electing to have Notes converted on such date a pro rata amount of such holder s portion of its Notes submitted for conversion based on the principal amount of Notes submitted for conversion on such date by such holder relative to the aggregate principal amount of all Notes submitted for conversion on such date. In the event of a dispute as to the number of shares of Common Stock issuable to the Holder in connection with a conversion of this Note, the Company shall issue to the Holder the number of shares of Common Stock not in dispute and resolve such dispute in accordance with Section 23.

(d) Limitations on Conversions.

(i) Beneficial Ownership. The Company shall not effect any conversion of this Note, and the Holder of this Note shall not have the right to convert any portion of this Note pursuant to Section 3(a), to the extent that after giving effect to such conversion, the Holder (together with the Holder s affiliates) would beneficially own in excess of 4.99% (the **Maximum Percentage**) of the number of shares of Common Stock outstanding immediately after giving effect to such conversion. For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its affiliates shall include the number of shares of Common Stock issuable upon conversion of this Note with respect to which the determination of such sentence is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (A) conversion of the remaining, nonconverted portion of this Note beneficially owned by the Holder or any of its affiliates and (B) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any Other Notes, Indenture Notes or Warrants) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its affiliates. Except as set forth in the preceding sentence, for purposes of this Section 3(d)(i), beneficial ownership shall be calculated in accordance with Section 13(d) of the Securities Exchange Act of 1934, as amended (the **Exchange Act**). For purposes of this Section 3(d)(i), in determining the number of outstanding shares of Common Stock, the Holder may rely on the number of outstanding shares of Common Stock as reflected in (x) the Company s most recent Form 10-K, Form 10-Q or Form 8-K, as the case may be, (y) a more recent public announcement by the Company or (z) any other notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. For any reason at any time, upon the written request of the Holder, the Company shall within two (2) Business Days confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Note, by the Holder or its affiliates since the date as of which such number of outstanding shares of Common Stock was reported. By written notice to the Company, the Holder may increase or decrease the Maximum Percentage to any other percentage not in excess of 9.99% specified in such notice; provided that (i) any such increase will not be effective until the sixty-first (61st) day after such notice is delivered to the Company, and (ii) any such increase or decrease will apply only to the Holder and not to any other holder of Notes.

(ii) Principal Market Regulation. The Company shall not be obligated to issue any shares of Common Stock upon conversion of this Note, and the Holder of this Note shall not have the right to receive upon conversion of this Note any shares of Common Stock, if the issuance of such shares of Common Stock would exceed the aggregate number of shares of Common Stock which the Company may issue upon conversion of the Notes without breaching the Company s obligations under the rules or regulations of the Principal Market (the **Exchange Cap**), except that such limitation shall not apply in the event that the Company (A) obtains the approval of its stockholders as required by the

applicable rules of the Principal Market for issuances of Common Stock in excess of such amount or (B) obtains a written opinion from outside counsel to the Company that such approval is not required, which opinion shall be reasonably satisfactory to the Required Holders. Until such approval or written opinion is obtained, no purchaser of the Notes pursuant to the Amendment and Exchange Agreement (the **Purchasers**) shall be issued in the aggregate, upon conversion of the Notes, shares of Common Stock in an amount greater than the product of the Exchange Cap multiplied by a fraction, the numerator of which is the principal amount of the Notes issued to such Purchaser pursuant to the Amendment and Exchange Agreement on the Closing Date (as defined in the Amendment and Exchange Agreement) and the denominator of which is the aggregate principal amount of all Notes issued to the Purchasers pursuant to the Amendment and Exchange Agreement on the Closing Date (with respect to each Purchaser, the **Exchange Cap Allocation**). In the event that any Purchaser shall sell or otherwise transfer any of such Purchaser s Notes, the transferee shall be allocated a pro rata portion of such Purchaser s Exchange Cap Allocation, and the restrictions of the prior sentence shall apply to such transferee with respect to the portion of the Exchange Cap Allocation allocated to such transferee. In the event that any holder of Notes shall convert all of such holder s Notes into a number of shares of Common Stock which, in the aggregate, is less than such holder s Exchange Cap Allocation, then the difference between such holder s Exchange Cap Allocation and the number of shares of Common Stock actually issued to such holder shall be allocated to the respective Exchange Cap Allocations of the remaining holders of Notes on a pro rata basis in proportion to the aggregate principal amount of the Notes then held by each such holder.

(4) RIGHTS UPON EVENT OF DEFAULT.

(a) Event of Default. Each of the following events shall constitute an **Event of Default** :

(i) the suspension from trading (other than closing of the Principal Market generally) or failure of the Common Stock to be listed on an Eligible Market for a period of ten (10) consecutive Trading Days or for more than an aggregate of twenty (20) Trading Days in any 365-day period;

(ii) the Company s (A) failure to cure a Conversion Failure by delivery of the required number of shares of Common Stock within ten (10) Business Days after the applicable Conversion Date or (B) notice, written or oral, to any holder of the Notes, including by way of public announcement or through any of its agents, at any time, of its intention not to comply with a request for conversion of any Notes into shares of Common Stock that is tendered in accordance with the provisions of the Notes;

(iii) at any time following the tenth (10th) consecutive Business Day that the Holder s Authorized Share Allocation is less than the number of shares of Common Stock that the Holder would be entitled to receive upon a conversion of the full Conversion Amount of this Note (without regard to any limitations on conversion set forth in Section 3(d) or otherwise);

(iv) the Company s failure to pay to the Holder any cash amount of Principal (including, without limitation, any redemption payments), Interest due in cash, Late Charges or any other amounts due in cash when and as due under this Note or any other Transaction Document (as defined in the Securities Purchase Agreement), except, in the case of a failure to pay Interest and Late Charges when and as due, in which case only if such failure continues for a period of five (5) Business Days after notice of such failure;

(v) the Company shall either (i) fail to pay, when due, or within any applicable grace period, any payment in respect of any Indebtedness in excess of $250,000, individually or in the aggregate, due to any third party, other than, with respect to unsecured Indebtedness only, payments contested by the Company in good faith by proper proceedings and with respect to which adequate reserves have been set aside for the payment thereof in accordance with GAAP, or otherwise be in breach or violation of any agreement for monies owed or owing in respect of any Indebtedness in an amount in excess of $250,000, individually or in the aggregate, which breach or violation permits the other party thereto to

declare a default or otherwise accelerate amounts due thereunder, or (ii) suffer to exist any other circumstance or event that would, with or without the passage of time or the giving of notice, result in a default or event of default under any agreement binding the Company, which default or event of default would or is likely to have a material adverse effect on the business, operations, properties, prospects of financial condition of the Company or any of its Subsidiaries, individually or in the aggregate;

(vi) the Company or any of its Subsidiaries, pursuant to or within the meaning of Title 11, U.S. Code, or any similar Federal, foreign or state law for the relief of debtors generally (collectively, **Bankruptcy Law**), (A) commences a voluntary case, (B) consents to the entry of an order for relief against it in an involuntary case, (C) consents to the appointment of a receiver, trustee, assignee, liquidator or similar official for substantially all of its assets (a **Custodian**), (D) makes a general assignment for the benefit of its creditors or (E) admits in writing that it is generally unable to pay its debts as they become due;

(vii) a court of competent jurisdiction enters an order or decree under any Bankruptcy Law that (A) is for relief against the Company or any of its Subsidiaries in an involuntary case, (B) appoints a Custodian of the Company or any of its Subsidiaries for substantially all of its assets, or (C) orders the liquidation of the Company or any of its Subsidiaries;

(viii) a final judgment or judgments for the payment of money aggregating in excess of $500,000 are rendered against the Company or any of its Subsidiaries and which judgments are not, within sixty (60) days after the entry thereof, bonded, discharged or stayed pending appeal, or are not discharged within sixty (60) days after the expiration of such stay; provided, however, that any judgment which is covered by insurance or an indemnity from a credit worthy party shall not be included in calculating the $500,000 amount set forth above;

(ix) the Company breaches any covenant or other term or condition or any material representation or warranty of any Transaction Document, except, in the case of a breach of a covenant or other term or condition which is curable, and provided that the Company delivers prompt notice of such breach to the Holder, only if such breach continues for a period of at least ten (10) consecutive Business Days;

(x) any breach or failure in any respect to comply with Section 8 or Section 14 (other than Sections 14(g) and 14(j)) of this Note; or

(xi) any Event of Default (as defined in the Other Notes) occurs with respect to any Indenture Notes or any Other Notes.

(b) Redemption Right. Upon the occurrence of an Event of Default with respect to this Note or any Other Note, the Company shall within one (1) Business Day deliver written notice thereof via facsimile or e-mail and overnight courier (an **Event of Default Notice**) to the Holder. At any time after the earlier of the Holder s receipt of an Event of Default Notice and the Holder becoming aware of an Event of Default, the Holder may require, if such Event of Default is continuing, the Company to redeem all or any portion of this Note by delivering written notice thereof (the **Event of Default Redemption Notice**) to the Company, which Event of Default Redemption Notice shall indicate the portion of this Note the Holder is electing to redeem. Each portion of this Note subject to redemption by the Company pursuant to this Section 4(b) shall be redeemed by the Company at a price equal to the greater of (i) the product of (x) the Conversion Amount to be redeemed and (y) the Redemption Premium and (ii) the product of (A) the Conversion Rate with respect to such Conversion Amount in effect at such time as the Holder delivers an Event of Default Redemption Notice and (B) the greater of (1) the Closing Sale Price of the Common Stock on the date immediately preceding such Event of Default, (2) the Closing Sale Price of the Common Stock on the date immediately after such Event of Default and (3) the Closing Sale Price of the Common Stock on the date the Holder delivers the Event of Default Redemption Notice (the **Event of Default Redemption Price**). Redemptions required by this Section 4(b) shall be made in accordance with the provisions of Section 12. To the extent redemptions required by this Section 4(b) are deemed or determined by a court of competent jurisdiction to be prepayments of the Note by the Company, such redemptions shall be deemed to

be voluntary prepayments. In the event of a partial redemption of this Note pursuant hereto, at the Holder s option, the principal amount being redeemed shall be deducted from any of the Company Redemption Amounts relating to the applicable Company Redemption Dates or from the Maturity Date Payment or from any other amount owing from the Company pursuant hereto as set forth by the Holder in the Event of Default Redemption Notice. The parties hereto agree that in the event of the Company s redemption of any portion of the Note under this Section 4(b), the Holder s damages would be uncertain and difficult to estimate because of the parties inability to predict future interest rates and the uncertainty of the availability of a suitable substitute investment opportunity for the Holder. Accordingly, any Redemption Premium due under this Section 4(b) is intended by the parties to be, and shall be deemed, a reasonable estimate of the Holder s actual loss of its investment opportunity and not as a penalty.

(5) RIGHTS UPON FUNDAMENTAL TRANSACTION AND CHANGE OF CONTROL.

(a) Reaffirmation. If the Company enters into or is a party to a Fundamental Transaction the surviving entity of such Fundamental Transaction (the **Successor Entity**), shall deliver to each of the holders of the Notes, (i) an affirmation that this Note shall be a continuing obligation of the Successor Entity, and a reaffirmation of the Successor Entity s obligations under the Transaction Documents following such Fundamental Transaction and (ii) a confirmation that there shall be issuable upon conversion of the Notes at any time after the consummation of the Fundamental Transaction, (A) Common Stock or such other shares of publicly traded common stock (or their equivalent) of the Successor Entity or (B) if the Successor Entity is not a publicly traded entity following such Fundamental Transaction, in lieu of the shares of the Company s Common Stock (or other securities, cash, assets or other property) issuable upon the conversion of the Notes prior to such Fundamental Transaction, such shares of stock, securities, cash, assets or any other property whatsoever (including warrants or other purchase or subscription rights) which the Holder would have been entitled to receive upon the happening of such Fundamental Transaction had the Notes been converted immediately prior to such Fundamental Transaction, in each case as adjusted in accordance with the provisions of this Note. Upon the occurrence of any Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of this Note referring to the Company shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Note with the same effect as if such Successor Entity had been named as the Company herein. The provisions of this Section 5 shall apply similarly and equally to successive Fundamental Transactions and shall be applied without regard to any limitations on the conversion or redemption of the Notes.

(b) Holder Redemption Right. No sooner than fifteen (15) days nor later than ten (10) days prior to the consummation of a Change of Control, but not prior to the public announcement of such Change of Control, the Company shall deliver written notice thereof via facsimile (with confirmation of transmission) and overnight courier to the Holder (a **Change of Control Notice**) which Change of Control Notice shall state whether the Company is exercising its redemption right pursuant to Section 5(c) below and if so, the additional information required pursuant such Section. At any time during the period beginning on the date of the Holder s receipt of a Change of Control Notice and ending twenty (20) Trading Days after the consummation of such Change of Control, the Holder may require the Company to redeem (a **Holder Change of Control Redemption**) all or any portion of this Note at the Change of Control Redemption Price by delivering written notice thereof (**Holder Change of Control Redemption Notice**) to the Company, which Holder Change of Control Redemption Notice shall indicate the Conversion Amount the Holder is electing to redeem.

(c) Company Redemption Right. Notwithstanding Section 5(a) hereof, in the event of a Change of Control, the Company shall have the right to redeem all of the Notes (a **Company Change of Control Redemption**), in whole and not in part, at a price equal to the Change of Control Redemption Price. The Company shall exercise its right pursuant to this Section 5(c) by delivery of the Change of Control Notice (the **Company Change of Control Redemption Notice**) in writing to each of the holders of the Notes, which notice shall additionally state (i) that, following the consummation of the Change of Control, the

Company shall redeem all of the outstanding Notes on the Company Change of Control Redemption Date (as defined below), (ii) that the Company shall consummate the Company Change of Control Redemption on the twentieth (20th) day following the consummation of such Change of Control (the **Company Change of Control Redemption Date**), (iii) the aggregate outstanding Conversion Amount of the Notes subject to redemption from all the holders of the Notes pursuant to this Section 5(c), and (iv) the Change of Control Redemption Price that is to be paid to each holder of the Notes on the Company Change of Control Redemption Date. The Company Change of Control Redemption Notice shall be irrevocable.

(d) Redemptions Under This Section 5. The portion of this Note subject to redemption pursuant to this Section 5 shall be redeemed by the Company in cash at the Change of Control Redemption Price. Redemptions required by this Section 5 shall be made in accordance with the provisions of Section 12 and shall have priority to payments to stockholders in connection with a Change of Control. To the extent redemptions required by this Section 5 are deemed or determined by a court of competent jurisdiction to be prepayments of the Note by the Company, such redemptions shall be deemed to be voluntary prepayments. Notwithstanding anything to the contrary in this Section 5, but subject to Section 3(d), until the Change of Control Redemption Price is paid in full, the Conversion Amount submitted for redemption under this Section 5 may be converted, in whole or in part, by the Holder into Common Stock pursuant to Section 3. In the event of a partial redemption of this Note pursuant hereto, at the Holder s option, the principal amount redeemed shall be deducted from any of the Company Redemption Amounts relating to the applicable Company Redemption Dates or from the Maturity Date Payment or from any other amount owing from the Company pursuant hereto as set forth by the Holder in the Change of Control Redemption Notice. The parties hereto agree that in the event of the Company s redemption of any portion of the Note under this Section 5, the Holder s damages would be uncertain and difficult to estimate because of the parties inability to predict future interest rates and the uncertainty of the availability of a suitable substitute investment opportunity for the Holder. Accordingly, any redemption premium due under this Section 5 is intended by the parties to be, and shall be deemed, a reasonable estimate of the Holder s actual loss of its investment opportunity and not as a penalty.

(6) RIGHTS UPON ISSUANCE OF PURCHASE RIGHTS AND OTHER CORPORATE EVENTS.

(a) Purchase Rights. If at any time the Company grants, issues or sells any Options, Convertible Securities or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of Common Stock (the **Purchase Rights**), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete conversion of this Note (without taking into account any limitations or restrictions on the convertibility of this Note) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights.

(b) Other Corporate Events. Without duplication of any other rights or adjustments hereunder, prior to the consummation of any Fundamental Transaction pursuant to which holders of shares of Common Stock are entitled to receive securities or other assets with respect to or in exchange for shares of Common Stock (a **Corporate Event**), the Company shall make appropriate provision to insure that the Holder will thereafter have the right to receive upon a conversion of this Note, at the Holder s option, in lieu of the shares of Common Stock otherwise receivable upon such conversion, such securities or other assets received by the holders of shares of Common Stock in connection with the consummation of such Corporate Event had the Securities been converted immediately prior to such Corporate Event (without taking into account any restrictions or limitations on the convertibility of the Securities). Provision made pursuant to the preceding sentence shall be in a form and substance satisfactory to the Required Holders. The provisions of this Section shall apply similarly and equally to successive Corporate Events and shall be applied without regard to any limitations on the conversion or redemption of this Note.

(7) RIGHTS UPON ISSUANCE OF OTHER SECURITIES.

(a) Adjustment of Conversion Price upon Issuance of Common Stock. If and whenever on or after the Issuance Date through the eighteen (18) month anniversary of the Issuance Date, the Company issues or sells, or in accordance with this Section 7(a) is deemed to have issued or sold, any shares of Common Stock (including the issuance or sale of shares of Common Stock owned or held by or for the account of the Company, but excluding shares of Common Stock deemed to have been issued or sold by the Company in connection with any Excluded Security) for a consideration per share (the **New Issuance Price**) less than a price (the **Applicable Price**) equal to the Conversion Price in effect immediately prior to such issue or sale (the foregoing a **Dilutive Issuance**), then immediately after such Dilutive Issuance, the Conversion Price then in effect shall be reduced to an amount equal to the New Issuance Price. If and whenever after the eighteen (18) month anniversary of the Issuance Date, the Company issues or sells, or in accordance with this Section 7(a) is deemed to have issued or sold, any shares of Common Stock (including the issuance or sale of shares of Common Stock owned or held by or for the account of the Company, but excluding shares of Common Stock deemed to have been issued or sold by the Company in connection with any Excluded Security) in a Dilutive Issuance, then immediately after such Dilutive Issuance, the Conversion Price then in effect shall be reduced to an amount equal the product of (A) the Conversion Price in effect immediately prior to such Dilutive Issuance and (B) the quotient determined by dividing (1) the sum of (I) the product derived by multiplying the Conversion Price in effect immediately prior to such Dilutive Issuance and the number of shares of Common Stock Deemed Outstanding immediately prior to such Dilutive Issuance plus (II) the consideration, if any, received by the Company upon such Dilutive Issuance, by (2) the product derived by multiplying (I) the Conversion Price in effect immediately prior to such Dilutive Issuance by (II) the number of shares of Common Stock Deemed Outstanding immediately after such Dilutive Issuance. For purposes of determining the adjusted Conversion Price under this Section 7(a), the following shall be applicable:

(i) Issuance of Options. If the Company in any manner grants or sells any Options and the lowest price per share for which one share of Common Stock is issuable upon the exercise of any such Option or upon conversion or exchange or exercise of any Convertible Securities issuable upon exercise of such Option is less than the Applicable Price, then such share of Common Stock underlying such Option shall be deemed to be outstanding and to have been issued and sold by the Company at the time of the granting or sale of such Option for such price per share. For purposes of this Section 7(a)(i), the lowest price per share for which one share of Common Stock is issuable upon the exercise of any such Option or upon conversion or exchange or exercise of any Convertible Securities issuable upon exercise of such Option shall be equal to the sum of the lowest amounts of consideration (if any) received or receivable by the Company with respect to any one share of Common Stock upon granting or sale of the Option, upon exercise of the Option and upon conversion or exchange or exercise of any Convertible Security issuable upon exercise of such Option. No further adjustment of the Conversion Price shall be made upon the actual issuance of such share of Common Stock or of such Convertible Securities upon the exercise of such Options or upon the actual issuance of such Common Stock upon conversion or exchange or exercise of such Convertible Securities.

(ii) Issuance of Convertible Securities. If the Company in any manner issues or sells any Convertible Securities and the lowest price per share for which one share of Common Stock is issuable upon such conversion or exchange or exercise thereof is less than the Applicable Price, then such share of Common Stock underlying such Convertible Securities shall be deemed to be outstanding and to have been issued and sold by the Company at the time of the issuance or sale of such Convertible Securities for such price per share. For the purposes of this Section 7(a)(ii), the lowest price per share for which one share of Common Stock is issuable upon such conversion or exchange or exercise shall be equal to the sum of the lowest amounts of consideration (if any) received or receivable by the Company with respect to any one share of Common Stock upon the issuance or sale of the Convertible Security and upon the conversion or exchange or exercise of such Convertible Security. No further adjustment of the Conversion Price shall be made upon the actual issuance of such share of Common

Stock upon conversion or exchange or exercise of such Convertible Securities, and if any such issue or sale of such Convertible Securities is made upon exercise of any Options for which adjustment of the Conversion Price had been or are to be made pursuant to other provisions of this Section 7(a), no further adjustment of the Conversion Price shall be made by reason of such issue or sale.

(iii) Change in Option Price or Rate of Conversion. If the purchase price provided for in any Options, the additional consideration, if any, payable upon the issue, conversion, exchange or exercise of any Convertible Securities, or the rate at which any Convertible Securities are convertible into or exchangeable or exercisable for Common Stock changes at any time, the Conversion Price in effect at the time of such change shall be adjusted to the Conversion Price which would have been in effect at such time had such Options or Convertible Securities provided for such changed purchase price, additional consideration or changed conversion rate, as the case may be, at the time initially granted, issued or sold. For purposes of this Section 7(a)(iii), if the terms of any Option or Convertible Security that was outstanding as of the Subscription Date are changed in the manner described in the immediately preceding sentence, then such Option or Convertible Security and the Common Stock deemed issuable upon exercise, conversion or exchange thereof shall be deemed to have been issued as of the date of such change. No adjustment shall be made if such adjustment would result in an increase of the Conversion Price then in effect.

(iv) Calculation of Consideration Received. In case any Option is issued in connection with the issue or sale of other securities of the Company, together comprising one integrated transaction, (x) the Options will be deemed to have been issued for the Black Scholes Value of such Options and (y) the other securities issued or sold in such integrated transaction shall be deemed to have been issued for the difference of (I) the aggregate consideration received by the Company, less (II) the Black Scholes Value of such Options. If any Common Stock, Options or Convertible Securities are issued or sold or deemed to have been issued or sold for cash, the consideration received therefor will be deemed to be the net amount received by the Company therefor. If any Common Stock, Options or Convertible Securities are issued or sold for a consideration other than cash, the amount of the consideration other than cash received by the Company will be the fair value of such consideration, except where such consideration consists of securities, in which case the amount of consideration received by the Company will be the Closing Sale Price of such securities on the date of receipt. If any Common Stock, Options or Convertible Securities are issued to the stockholders of the non-surviving entity in connection with any merger in which the Company is the surviving entity, the amount of consideration therefor will be deemed to be the fair value of such portion of the net assets and business of the non-surviving entity as is attributable to such Common Stock, Options or Convertible Securities, as the case may be. The fair value of any consideration other than cash or securities will be determined jointly by the Company and the Required Holders. If such parties are unable to reach agreement within ten (10) days after the occurrence of an event requiring valuation (the **Valuation Event**), the fair value of such consideration will be determined, at the Company s expense, within five (5) Business Days after the tenth (10th) day following the Valuation Event by an independent, reputable appraiser jointly selected by the Company and the Required Holders. The determination of such appraiser shall be deemed binding upon all parties absent manifest error.

(v) Record Date. If the Company takes a record of the holders of Common Stock for the purpose of entitling them (A) to receive a dividend or other distribution payable in Common Stock, Options or in Convertible Securities or (B) to subscribe for or purchase Common Stock, Options or Convertible Securities, then such record date will be deemed to be the date of the issue or sale of the Common Stock deemed to have been issued or sold upon the declaration of such dividend or the making of such other distribution or the date of the granting of such right of subscription or purchase, as the case may be.

(vi) Conversion Floor Price. Until such time as the Company obtains the approval of its stockholders as required under the rules and regulations of the Principal Market in order to allow the Conversion Price to be less than the Conversion Floor Price (as defined below), including, without

limitation, under the rules and regulations of any exchange or automated quotation system on which any of the securities of the Company are listed or designated (the **Required Stockholder Approval**), no adjustment pursuant to Sections 7(a), 7(d), 8(d) or 12(a) shall cause the Conversion Price to be less than $0.6803, as adjusted for any stock dividend, stock split, stock combination, reclassification or similar transaction (the **Conversion Floor Price**).

(b) Adjustment of Conversion Price upon Subdivision or Combination of Common Stock. If the Company at any time on or after the Subscription Date subdivides (by any stock split, stock dividend, recapitalization or otherwise) one or more classes of its outstanding shares of Common Stock into a greater number of shares, the Conversion Price in effect immediately prior to such subdivision will be proportionately reduced. If the Company at any time on or after the Subscription Date combines (by combination, reverse stock split or otherwise) one or more classes of its outstanding shares of Common Stock into a smaller number of shares, the Conversion Price in effect immediately prior to such combination will be proportionately increased.

(c) Other Events. If any event occurs of the type contemplated by the provisions of this Section 7 but not expressly provided for by such provisions (including, without limitation, the granting of stock appreciation rights, phantom stock rights or other rights with equity features), then the Company s Board of Directors will make an appropriate adjustment in the Conversion Price so as to protect the rights of the Holder under this Note; provided that no such adjustment will increase the Conversion Price as otherwise determined pursuant to this Section 7.

(d) Voluntary Decrease By Company. The Company from time to time may decrease the Conversion Price by any amount for any period of time if the period is at least 20 days and if the decrease is irrevocable during the period if the Board of Directors determines that such decrease would be in the best interest of the Company or the Board of Directors deems it advisable to avoid or diminish income tax to holders of shares of Common Stock in connection with any stock or rights dividend or distribution or similar event, and the Company provides 15 days prior notice of any increase in the Conversion Price. In addition, the Company may at any time during the term of this Note reduce the then current Conversion Price to any amount and for any period of time deemed appropriate by the Board of Directors.

(e) De Minimis Adjustments. No adjustment in the Conversion Price shall be required unless such adjustment would require an increase or decrease of at least $0.01 in such price; provided, however, that any adjustment which by reason of this Section 7(e) is not required to be made shall be carried forward and taken into account in any subsequent adjustments under this Section 7. All calculations under this Section 7 shall be made by the Company in good faith and shall be made to the nearest cent or to the nearest one hundredth of a share, as applicable. No adjustment need be made for a change in the par value or no par value of the Company s Common Stock.

(8) MANDATORY COMPANY REDEMPTIONS.

(a) Monthly and Quarterly Redemptions.

(i) On each Monthly Installment Date, the Company shall redeem a Principal amount of this Note equal to the Monthly Installment Amount at a price equal to the Company Redemption Price to be paid in cash on such Monthly Redemption Date, subject to the provisions of this Section 8.

(ii) On each Quarterly Installment Date, the Company shall redeem a Principal amount of this Note equal to the applicable Catch-up Amount at the Company Redemption Price to be paid in cash on the Quarterly Redemption Date, subject to the provisions of this Section 8.

(b) Asset Disposition Redemptions. At any time and from time to time, the Company shall have the right to effect an Asset Disposition that is not a Permitted Asset Disposition pursuant to the further requirements of this Section 8(b). If the Company intends to effect an Asset Disposition that is not a Permitted Asset Disposition, the Company shall first provide each holder of the Notes with written notice thereof (which shall be subject to Section 31 hereof) by confirmed facsimile and overnight courier to all, but

not less than all, of the holders of the Notes (the **Asset Disposition Notice** and the date the notice is delivered to all the holders is referred to as the **Asset Disposition Notice Date**) by the later of ten (10) Business Days prior to the consummation thereof or the public announcement thereof which shall state (A) the amount of the anticipated aggregate net cash proceeds to be received by the Company from the Asset Disposition, (B) the anticipated date on which the Asset Disposition shall occur and (C) confirm that the Company shall use fifty percent of the net cash proceeds received by the Company from such Asset Disposition (the **Asset Proceeds**) to redeem the Notes. No later than one (1) Business Day following the day on which the Company has received any of the Asset Proceeds (such following Business Day, the **Asset Disposition Redemption Date**), the Company shall redeem a Principal amount of this Note equal to the resulting product of the Holder Pro Rata Amount and fifty percent (50%) of such Asset Proceeds (the **Asset Disposition Redemption Amount**) at a price equal to the Company Redemption Price to be paid in cash by wire transfer initiated on the Asset Disposition Redemption Date, subject to the provisions of this Section 8. Upon the reasonable request of the Collateral Agent (as defined in the Amendment Agreement), the Company shall provide such documentation relating to the Asset Disposition hereunder, subject to applicable confidentiality restrictions.

(c) Subsequent Placement Redemptions. At any time and from time to time, the Company shall have the right to effect a Subsequent Placement pursuant to the further requirements of this Section 8(c). If the Company intends to effect a Subsequent Placement, the Company shall first provide each holder of the Notes with written notice thereof by confirmed facsimile and overnight courier to all, but not less than all, of the holders of the Notes (the **Subsequent Placement Notice** and the date the notice is delivered to all the holders is referred to as the **Subsequent Placement Notice Date**) at least ten (10) Business Days but not more than thirty (30) days prior to the date on which the Subsequent Placement shall occur (the **Subsequent Placement Redemption Date**) which shall state (A) the amount of the anticipated aggregate gross proceeds (the **Subsequent Placement Proceeds**) to be received by the Company from the Subsequent Placement, (B) the anticipated Subsequent Placement Redemption Date, and (C) confirm that the Company shall use twenty percent (20%) of the Subsequent Placement Proceeds (the **Excess Proceeds**), to redeem the Notes. On the Business Day following the receipt of Subsequent Placement Proceeds (a **Subsequent Placement Redemption Date**), the Company shall redeem a Principal amount of this Note equal to the resulting product of the Holder Pro Rata Amount and the Excess Proceeds so received (the **Subsequent Placement Redemption Amount**) at a price equal to the Company Redemption Price to be paid in cash by wire transfer initiated on the Subsequent Placement Redemption Date, subject to the provisions of this Section 8. Notwithstanding anything to the contrary in this Section and unless otherwise agreed to by the Holder, the Company shall either confirm in writing to the Holder that the transaction with respect to the Subsequent Placement has been abandoned or is not material or shall publicly disclose its intention to effect the Subsequent Placement, in either case in such a manner such that the Holder will not be in possession of material non-public information, by the tenth (10th) Business Day following delivery of the Offer Notice. If by the tenth (10th) Business Day following delivery of the Subsequent Placement Notice no public disclosure regarding a transaction with respect to the Subsequent Placement has been made, and no notice regarding the abandonment of such transaction has been received by the Holder, such transaction shall be deemed to have been abandoned and the Holder shall not be deemed to be in possession of any material, non-public information with respect to the Company.

(d) Mechanics of Company Redemption. If the Company is required to make any redemption in accordance with this Section 8, unless otherwise directed by the Holder pursuant to Section 8(e) hereof, the applicable Company Redemption Amount shall be redeemed by the Company and the Company shall pay to the Holder on the applicable Company Redemption Date, by wire transfer of immediately available funds, an amount in cash (the **Company Installment Redemption Price**) equal to 100% of the Company Redemption Amount. If the Company fails to redeem the Company Redemption Amount on the applicable Company Redemption Date by payment of the Company Installment Redemption Price on such date, then at the option of the Holder designated in writing to the Company (any such designation, a **Conversion Notice** for purposes of this Note), the Holder may require the Company to convert all or any part of the Company Redemption Amount at a price equal to 75% of the Company Conversion Price. Conversions

required by this Section 8(d) shall be made in accordance with the provisions of Section 3(c). Notwithstanding anything to the contrary in this Section 8(d), but subject to Section 3(d), until the Company Installment Redemption Price (together with any interest thereon) is paid in full, the Company Redemption Amount (together with any interest thereon) may be converted, in whole or in part, by the Holder into Common Stock pursuant to Section 3. In the event the Holder elects to convert all or any portion of the Company Redemption Amount prior to the applicable Company Redemption Date as set forth in the immediately preceding sentence, the Company Redemption Amount so converted shall be deducted from the Company Redemption Amounts relating to the applicable Company Redemption Dates as set forth in the applicable Conversion Notice.

(e) Deferred Company Redemption Amount. Notwithstanding any provision of this Section 8 to the contrary, the Holder may, at its option and in its sole discretion, deliver a notice to the Company at least two (2) days prior to any anticipated Company Redemption Date electing to have the payment of all or any portion of an Company Redemption Amount payable on the next Company Redemption Date deferred to the Maturity Date. Payment of any amount deferred to the Maturity Date pursuant to this Section 8(e) shall be paid on such date in cash.

(f) Pro Rata Redemption Requirement. If the Company shall make a redemption pursuant to this Section 8 (or similar provisions under the Other Notes) (a **Company Redemption**), then it must simultaneously take the same action with respect to the Other Notes in which a Company Redemption is required and the Company shall require redemption of a Principal amount from the Holder equal to the resulting product of the Holder s Pro Rata Amount and the aggregate amount of the applicable redemption (unless deferred by a holder pursuant to Section 8(e) above or converted pursuant to Section 8(d) above or similar provisions under the Other Notes or otherwise waived by a holder of any Note).

(g) Redemptions Generally. Any redemption made pursuant to this Section 8 shall be made in accordance with Section 12. No later than one (1) Trading Day following a Company Redemption, the Company shall file a Current Report on Form 8-K describing the terms of such Company Redemption, as applicable, unless the Company determines that such Company Redemption is not material non public information. To the extent redemptions required by this Section 8 are deemed or determined by a court of competent jurisdiction to be prepayments of the Note by the Company, such redemptions shall be deemed to be voluntary prepayments. The parties hereto agree that in the event of the Company s redemption of any portion of the Note under this Section 8, the Holder s damages would be uncertain and difficult to estimate because of the parties inability to predict future interest rates and the uncertainty of the availability of a suitable substitute investment opportunity for the Holder. Accordingly, any redemption premium due under this Section 8 is intended by the parties to be, and shall be deemed, a reasonable estimate of the Holder s actual loss of its investment opportunity and not as a penalty.

(9) NONCIRCUMVENTION. The Company hereby covenants and agrees that the Company will not, by amendment of its Certificate of Incorporation, Bylaws or through any reorganization, transfer of assets, consolidation, merger, scheme of arrangement, dissolution, issue or sale of securities, or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Note, and will at all times in good faith carry out all of the provisions of this Note and take all action as may be required to protect the rights of the Holder of this Note.

(10) RESERVATION OF AUTHORIZED SHARES.

(a) Reservation. The Company shall initially reserve out of its authorized and unissued Common Stock a number of shares of Common Stock for each of the Notes equal to 120% of the Conversion Rate with respect to the Conversion Amount of each such Note as of the Issuance Date. So long as any of the Notes are outstanding, the Company shall take all action necessary to reserve and keep available out of its authorized and unissued Common Stock, solely for the purpose of effecting the conversion of the Notes, 120% of the number of shares of Common Stock as shall from time to time be necessary to effect the conversion of all of the Notes then outstanding (without regard to any limitations on conversions) (the

Required Reserve Amount). The initial number of shares of Common Stock reserved for conversions of the Notes and each increase in the number of shares so reserved shall be allocated pro rata among the holders of the Notes based on the principal amount of the Notes held by each holder on the Issuance Date or increase in the number of reserved shares, as the case may be (the **Authorized Share Allocation**). In the event that a holder shall sell or otherwise transfer any of such holder s Notes, each transferee shall be allocated a pro rata portion of such holder s Authorized Share Allocation. Any shares of Common Stock reserved and allocated to any Person which ceases to hold any Notes shall, except as transferred to a transferee, be allocated to the remaining holders of Notes, pro rata based on the principal amount of the Notes then held by such holders.

(b) Insufficient Authorized Shares. If at any time while any of the Notes remain outstanding the Company does not have a sufficient number of authorized and unreserved shares of Common Stock to satisfy its obligation to reserve for issuance upon conversion of the Notes at least a number of shares of Common Stock equal to the Required Reserve Amount (an **Authorized Share Failure**), then the Company shall immediately take all action necessary to increase the Company s authorized shares of Common Stock to an amount sufficient to allow the Company to reserve the Required Reserve Amount for the Notes then outstanding. Without limiting the generality of the foregoing sentence, as soon as practicable after the date of the occurrence of an Authorized Share Failure, but in no event later than sixty (60) days after the occurrence of such Authorized Share Failure, the Company shall call a meeting of its stockholders for the approval of an increase in the number of authorized shares of Common Stock. In connection with such meeting, the Company shall provide each stockholder with a proxy statement and shall use its reasonable best efforts to solicit its stockholders approval of such increase in authorized shares of Common Stock and to cause its Board of Directors to recommend to the stockholders that they approve such proposal.

(11) [INTENTIONALLY OMITTED]

(12) REDEMPTIONS.

(a) Mechanics. The Company shall deliver the applicable Event of Default Redemption Price to the Holder within five (5) Business Days after the Company s receipt of the Holder s Event of Default Redemption Notice. If the Holder has submitted a Holder Change of Control Redemption Notice in accordance with Section 5(b), the Company shall deliver the applicable Change of Control Redemption Price to the Holder concurrently with the consummation of such Change of Control if such notice is received prior to the consummation of such Change of Control and within five (5) Business Days after the Company s receipt of such notice otherwise. With respect to any Company Change of Control Redemption, the Company shall deliver the applicable Change of Control Redemption Price to the Holder on the Company Change of Control Redemption Date. The Company shall deliver the applicable Company Redemption Price to the Holder on the applicable Company Redemption Date. In the event of a redemption of less than all of the Conversion Amount of this Note, the Company shall promptly cause to be issued and delivered to the Holder a new Note (in accordance with Section 18(d)) representing the outstanding Principal which has not been redeemed. In the event that the Company does not pay the applicable Redemption Price to the Holder within the time period required, at any time thereafter and until the Company pays such unpaid Redemption Price in full, the Holder shall have the option, in lieu of redemption, to require the Company to promptly return to the Holder all or any portion of this Note representing the Conversion Amount that was submitted for redemption and for which the applicable Redemption Price (together with any Late Charges thereon) has not been paid. Upon the Company s receipt of such notice, (x) the Redemption Notice shall be null and void with respect to such Conversion Amount, (y) the Company shall immediately return this Note, or issue a new Note (in accordance with Section 18(d)) to the Holder representing such Conversion Amount and (z) the Conversion Price of this Note or such new Notes shall be adjusted to the lesser of (A) the Conversion Price as in effect on the date on which the Redemption Notice is voided and (B) the lowest Closing Bid Price of the Common Stock during the period beginning on and including the date on which the Redemption Notice is delivered to the Company and ending on and including the date on which the Redemption Notice is voided. The Holder s delivery of a

notice voiding a Redemption Notice and exercise of its rights following such notice shall not affect the Company s obligations to make any payments of Late Charges which have accrued prior to the date of such notice with respect to the Conversion Amount subject to such notice.

(b) Redemption by Other Holders. Upon the Company s receipt of notice from any of the holders of the Other Notes for redemption or repayment as a result of an event or occurrence substantially similar to the events or occurrences described in Section 4(b) or Section 5(b) (each, an **Other Redemption Notice**), the Company shall promptly, but no later than two (2) Business Days of its receipt thereof, forward to the Holder by facsimile a copy of such notice. If the Company receives a Redemption Notice and one or more Other Redemption Notices, during the seven (7) Business Day period beginning on and including the date which is three (3) Business Days prior to the Company s receipt of the Holder s Redemption Notice and ending on and including the date which is three (3) Business Days after the Company s receipt of the Holder s Redemption Notice and the Company is unable to redeem all principal, interest and other amounts designated in such Redemption Notice and such Other Redemption Notices received during such seven (7) Business Day period, then the Company shall redeem a pro rata amount from each holder of the Notes (including the Holder) based on the principal amount of the Notes submitted for redemption pursuant to such Redemption Notice and such Other Redemption Notices received by the Company during such seven Business Day period.

(13) VOTING RIGHTS. The Holder shall have no voting rights as the holder of this Note, except as required by law, including, but not limited to, the General Corporation Law of the State of Delaware and as expressly provided in this Note.

(14) COVENANTS.

(a) Ranking & Security. All obligations evidenced by this Note shall constitute senior obligations of the Company and shall (i) rank *pari passu* with the obligations evidenced by all Other Notes and the Indenture Notes and (ii) be senior in right of payment to all subordinated obligations of the Company. Additionally, all obligations evidenced by this Note shall pursuant to the terms of the Security Agreement be secured by a perfected lien on and security interest in the properties and assets of the Company.

(b) Incurrence of Indebtedness. So long as this Note is outstanding, the Company shall not, and the Company shall not permit any of its Subsidiaries to, directly or indirectly, incur or guarantee, assume or suffer to exist any Indebtedness other than (i) the Indebtedness evidenced by this Note and the Other Notes, and (ii) Permitted Indebtedness.

(c) Existence of Liens. So long as this Note is outstanding, the Company shall not, and the Company shall not permit any of its Subsidiaries to, directly or indirectly, allow or suffer to exist any mortgage, lien, pledge, charge, security interest or other encumbrance upon or in any property or assets (including accounts, intellectual property and contract rights) owned by the Company or any of its Subsidiaries (collectively, **Liens**) other than Permitted Liens.

(d) Intellectual Property. The Company shall not, and the Company shall not permit any of its Subsidiaries, directly or indirectly, to encumber or allow any Liens on, any of its copyright rights, copyright applications, copyright registrations and like protections in each work of authorship and derivative work, whether published or unpublished, any patents, patent applications and like protections, including improvements, divisions, continuations, renewals, reissues, extensions, and continuations-in-part of the same, trademarks, service marks and, to the extent permitted under applicable law, any applications therefor, whether registered or not, and the goodwill of the business of the Company and its Subsidiaries connected with and symbolized thereby, know-how, operating manuals, trade secret rights, rights to unpatented inventions, and any claims for damage by way of any past, present, or future infringement of any of the foregoing, other than Permitted Liens.

(e) Restricted Payments. The Company shall not, and the Company shall not permit any of its Subsidiaries to, directly or indirectly, redeem, defease, repurchase, repay or make any payments in respect

of, by the payment of cash or cash equivalents (in whole or in part, whether by way of open market purchases, tender offers, private transactions or otherwise), all or any portion of any Indebtedness (other than this Note, the Indenture Notes and the Other Notes), whether by way of payment in respect of principal of (or premium, if any) or interest on such Indebtedness, if at the time such payment is due or is otherwise made or, after giving effect to such payment, an event constituting, or that with the passage of time and without being cured would constitute, an Event of Default has occurred and is continuing; provided that notwithstanding the foregoing, no principal (or any portion thereof) of any Subordinated Indebtedness may be paid (whether upon maturity, redemption, acceleration or otherwise) so long as this Note is outstanding.

(f) Restriction on Redemption and Dividends. So long as any Note is outstanding, the Company shall not, directly or indirectly, redeem, repurchase or declare or pay any cash or non-cash dividend or distribution on its capital stock without the prior express written consent of the Required Holders, except for repurchases of capital stock pursuant to arrangements entered into in connection with grants of equity compensation under any Approved Stock Plan.

(g) Transactions with Affiliates. The Company shall not, nor shall it permit any of its Subsidiaries to, enter into, renew, extend or be a party to, any transaction or series of related transactions (including, without limitation, the purchase, sale, lease, transfer or exchange of property or assets of any kind or the rendering of services of any kind) with any Affiliate, except in the ordinary course of business and either consistent with past practice or for fair consideration and on terms no less favorable to it or its Subsidiaries than would be obtainable in a comparable arm s length transaction with a Person that is not an Affiliate thereof.

(h) Change in Nature of Business. The Company shall not make, or permit any of its Subsidiaries to make, any change in the nature of its business as described in the Company s most recent annual report filed on Form 10-K with the SEC.

(i) Preservation of Existence, Etc. The Company shall maintain and preserve, and cause each of its Subsidiaries to maintain and preserve, its legal existence and become or remain, and cause each of its Subsidiaries to become or remain, duly qualified and in good standing in each jurisdiction in which the character of the properties owned or leased by it or in which the transaction of its business makes such qualification necessary, except where the failure to be so qualified would not have a material adverse effect on the business of the Company and its Subsidiaries taken as a whole.

(j) Maintenance of Insurance. The Company shall maintain, and cause each of its Subsidiaries to maintain, insurance with responsible and reputable insurance companies or associations (including, without limitation, comprehensive general liability, property, hazard, rent and business interruption insurance) with respect to its properties (including all real properties leased or owned by it) and business, in such amounts and covering such risks as is required by any governmental authority having jurisdiction with respect thereto or as is carried generally in accordance with sound business practice by companies in similar businesses similarly situated. Each such policy for liability insurance shall provide for additional insured endorsements in favor of the Collateral Agent (without any representation or warranty by or obligation upon the Collateral Agent) as its interest may appear, and each policy for property damage insurance shall provide for loss payable endorsements in favor of Collateral Agent as its interest may appear. Each such policy shall (A) contain an agreement by the insurer that any loss thereunder shall be payable to the Collateral Agent on its own account notwithstanding any action, inaction or breach of representation or warranty by the Company or Subsidiary, (B) provide that there shall be no recourse against the Collateral Agent for payment of premiums or other amounts with respect thereto, and (C) provide that at least 30 days prior written notice of cancellation shall be given to the Collateral Agent by the insurer. The Company and any Subsidiary will, if so requested by the Collateral Agent, deliver to the Collateral Agent original or duplicate policies of such insurance and, as often as the Collateral Agent may reasonably request, a report of a reputable insurance broker with respect to such insurance. The Company and any Subsidiary will also, at the request of the Collateral Agent, execute and deliver instruments of assignment of such insurance policies and cause the respective insurers to acknowledge notice of such assignment. Reimbursement under any liability insurance maintained by the Company and any Subsidiary may be paid directly to the person who

shall have incurred liability covered by such insurance. During the continuance of an Event of Default, any proceeds of insurance maintained by the Company or any Subsidiary pursuant to this Section 14(j) shall be paid to the Collateral Agent, and, at the option of the Collateral Agent, applied to make or cause to be made the necessary repairs to or replacements of affected Collateral or applied to the Notes.

(k) Asset Dispositions. So long as any Note is outstanding, the Company shall not, directly or indirectly, convey, sell, lease or sublease, transfer or otherwise dispose of, whether in one transaction or a series of related transactions, all or any part of its business, property or assets, whether now owned or hereafter acquired (or agree to do any of the foregoing), or permit any of its Subsidiaries to do any of the foregoing (all such actions, an **Asset Disposition**) other than Permitted Asset Dispositions; provided, however, that the Company shall be permitted to effect an Asset Disposition that is not a Permitted Asset Disposition if the Company complies with the requirements set forth in Section 8(b) hereof.

(l) Subsequent Placements. So long as any Note is outstanding, the Company shall not, directly or indirectly, effect any Subsequent Placement that would result in a Dilutive Issuance, (i) other than as permitted under Section 8(c) hereof, (ii) unless the Required Stockholder Approval has been obtained or (iii) unless the Company has received the prior written consent of the Holder to such Subsequent Placement.

(m) Intercompany Advances. Except as otherwise expressly permitted under this Note, the Company shall not make any advance, loan, advance guarantee of obligations, other extension of credit or capital contribution to, or purchase any stock, bonds, notes, debentures or other securities of or any assets constituting a business unit of, or make any other investment in, (i) any foreign Subsidiary other than in the ordinary course of business consistent with past practice and in no event to exceed $90 million in the aggregate outstanding at any time and (ii) any domestic Subsidiary other than in the ordinary course of business consistent with past practice and in no event to exceed $80 million in the aggregate outstanding at any time.

(n) Operating Results Announcement. The Company shall announce (such date, the **Announcement Date**) its operating results (the **Operating Results**) from which compliance with Section 8(a)(ii) can be determined for each Fiscal Quarter no later than the forty-fifth (45th) day after the end of each Fiscal Quarter or, with respect to the last Fiscal Quarter, the ninetieth (90th) day after such quarter (the **Announcement Date Deadline**) and, the aggregate amounts due under this Note and the Other Notes for redemptions required under Section 8(a)(ii); provided, however, that in the event the Company is delayed in announcing its Operating Results for any Fiscal Quarter, by the applicable Announcement Date Deadline the Company shall, in lieu of the foregoing, (A) make a statement to the effect that it has complied with all of its covenants under the Notes, including, the redemption required under Section 8(a)(ii) and (B) provide to the holders of the Notes a certification, in accordance with terms of the next sentence, certifying the same. On the Announcement Date, the Company shall also provide to the holders of the Notes a certification, executed on behalf of the Company by the Chief Financial Officer of the Company, certifying that the Company has satisfied Section 8(a)(ii).

(15) PARTICIPATION. The Holder, as the holder of this Note, shall be entitled to receive such dividends paid and distributions made to the holders of Common Stock (including, without limitation, any distribution of shares of Capital Stock of the Company, evidences of indebtedness or other non assets or securities of any Person other than the Company) to the same extent as if the Holder had converted this Note into Common Stock (without regard to any limitations on conversion herein or elsewhere) and had held such shares of Common Stock on the record date for such dividends and distributions. Payments under the preceding sentence shall be made concurrently with the dividend or distribution to the holders of Common Stock.

(16) VOTE TO ISSUE, OR CHANGE THE TERMS OF, NOTES. The affirmative vote at a meeting duly called for such purpose or the written consent without a meeting of the Required Holders shall be required for any change or amendment to this Note or the Other Notes. No consideration shall be offered or paid to any holder of Notes to amend or consent to a waiver or modification of the Notes unless the same consideration also is offered to all of the holders of Notes.

(17) TRANSFER. This Note may be offered, sold, assigned or transferred by the Holder without the consent of the Company, but subject to Section 18.

(18) REISSUANCE OF THIS NOTE.

(a) Transfer. If this Note is to be transferred, the Holder shall surrender this Note to the Company, whereupon the Company will forthwith issue and deliver upon the order of the Holder a new Note (in accordance with Section 18(d)), registered as the Holder may request, representing the outstanding Principal being transferred by the Holder and, if less then the entire outstanding Principal is being transferred, a new Note (in accordance with Section 18(d)) to the Holder representing the outstanding Principal not being transferred. The Holder and any assignee, by acceptance of this Note, acknowledge and agree that, by reason of the provisions of Section 3(c)(iii) following conversion or redemption of any portion of this Note, the outstanding Principal represented by this Note may be less than the Principal stated on the face of this Note.

(b) Lost, Stolen or Mutilated Note. Upon receipt by the Company of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Note, and, in the case of loss, theft or destruction, of any indemnification undertaking by the Holder to the Company in customary form and, in the case of mutilation, upon surrender and cancellation of this Note, the Company shall execute and deliver to the Holder a new Note (in accordance with Section 18(d)) representing the outstanding Principal.

(c) Note Exchangeable for Different Denominations. This Note is exchangeable, upon the surrender hereof by the Holder at the principal office of the Company, for a new Note or Notes (in accordance with Section 18(d) and in principal amounts of at least $100,000) representing in the aggregate the outstanding Principal of this Note, and each such new Note will represent such portion of such outstanding Principal as is designated by the Holder at the time of such surrender.

(d) Issuance of New Notes. Whenever the Company is required to issue a new Note pursuant to the terms of this Note, such new Note (i) shall be of like tenor with this Note, (ii) shall represent, as indicated on the face of such new Note, the Principal remaining outstanding (or in the case of a new Note being issued pursuant to Section 18(a) or Section 18(c), the Principal designated by the Holder which, when added to the principal represented by the other new Notes issued in connection with such issuance, does not exceed the Principal remaining outstanding under this Note immediately prior to such issuance of new Notes), (iii) shall have an issuance date, as indicated on the face of such new Note, which is the same as the Issuance Date of this Note, (iv) shall have the same rights and conditions as this Note, including with respect to such Note s applicable share of accrued and unpaid Interest and Late Charges on the Principal and Interest of this Note, if any, from the Issuance Date.

(19) REMEDIES, CHARACTERIZATIONS, OTHER OBLIGATIONS, BREACHES AND INJUNCTIVE RELIEF. The remedies provided in this Note shall be cumulative and in addition to all other remedies available under this Note and any of the other Transaction Documents at law or in equity (including a decree of specific performance and/or other injunctive relief), and nothing herein shall limit the Holder s right to pursue actual and consequential damages for any failure by the Company to comply with the terms of this Note. Amounts set forth or provided for herein with respect to payments, conversion and the like (and the computation thereof) shall be the amounts to be received by the Holder and shall not, except as expressly provided herein, be subject to any other obligation of the Company (or the performance thereof). The Company acknowledges that a breach by it of its obligations hereunder will cause irreparable harm to the Holder and that the remedy at law for any such breach may be inadequate. The Company therefore agrees that, in the event of any such breach or threatened breach, the Holder shall be entitled, in addition to all other available remedies, to an injunction restraining any breach, without the necessity of showing economic loss and without any bond or other security being required.

(20) PAYMENT OF COLLECTION, ENFORCEMENT AND OTHER COSTS. If (a) this Note is placed in the hands of an attorney for collection or enforcement or is collected or enforced through any legal proceeding or the Holder otherwise takes action to collect amounts due under this Note or to enforce the provisions of this Note

or (b) there occurs any bankruptcy, reorganization, receivership of the Company or other proceedings affecting Company creditors rights and involving a claim under this Note, then the Company shall pay the actual costs incurred by the Holder for such collection, enforcement or action or in connection with such bankruptcy, reorganization, receivership or other proceeding, including, but not limited to, financial advisory fees and reasonable attorneys fees and disbursements.

(21) CONSTRUCTION; HEADINGS. This Note shall be deemed to be jointly drafted by the Company and all the Purchasers and shall not be construed against any person as the drafter hereof. The headings of this Note are for convenience of reference and shall not form part of, or affect the interpretation of, this Note.

(22) FAILURE OR INDULGENCE NOT WAIVER. No failure or delay on the part of the Holder in the exercise of any power, right or privilege hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any such power, right or privilege preclude other or further exercise thereof or of any other right, power or privilege.

(23) DISPUTE RESOLUTION. In the case of a dispute as to the determination of the Closing Bid Price, the Closing Sale Price or the Weighted Average Price or the arithmetic calculation of the Conversion Rate or any Redemption Price, the Company shall submit the disputed determinations or arithmetic calculations via facsimile within two (2) Business Days of receipt, or deemed receipt, of the Conversion Notice or Redemption Notice or other event giving rise to such dispute, as the case may be, to the Holder. If the Holder and the Company are unable to agree upon such determination or calculation within two (2) Business Days of such disputed determination or arithmetic calculation being submitted to the Holder, then the Company shall, within one Business Day submit via facsimile (a) the disputed determination of the Closing Bid Price, the Closing Sale Price or the Weighted Average Price to an independent, reputable investment bank selected by the Company and approved by the Required Holders or (b) the disputed arithmetic calculation of the Conversion Rate or any Redemption Price to the Company s independent, outside accountant. The Company, at the Company s expense, shall cause the investment bank or the accountant, as the case may be, to perform the determinations or calculations and notify the Company and the Holder of the results no later than five (5) Business Days from the time it receives the disputed determinations or calculations. Such investment bank s or accountant s determination or calculation, as the case may be, shall be binding upon all parties absent demonstrable error.

(24) NOTICES; PAYMENTS.

(a) Notices. Whenever notice is required to be given under this Note, unless otherwise provided herein, such notice shall be given in accordance with Section 9(f) of the Securities Purchase Agreement. The Company shall provide the Holder with prompt written notice of all actions taken pursuant to this Note, including in reasonable detail a description of such action and the reason therefore. Without limiting the generality of the foregoing, the Company will give written notice to the Holder (i) promptly upon any adjustment of the Conversion Price, setting forth in reasonable detail, and certifying, the calculation of such adjustment and (ii) at least twenty (20) days prior to the date on which the Company closes its books or takes a record (A) with respect to any dividend or distribution upon the Common Stock, (B) with respect to any pro rata subscription offer to holders of Common Stock or (C) for determining rights to vote with respect to any Fundamental Transaction, dissolution or liquidation, provided in each case that such information shall be made known to the public prior to or in conjunction with such notice being provided to the Holder.

(b) Payments. Whenever any payment of cash is to be made by the Company to any Person pursuant to this Note, such payment shall be made in lawful money of the United States of America by a check drawn on the account of the Company and sent via overnight courier service to such Person at such address as previously provided to the Company in writing (which address, in the case of each of the Purchasers, shall initially be as set forth on the Schedule of Buyers attached to the Securities Purchase Agreement); provided that the Holder may elect to receive a payment of cash via wire transfer of immediately available funds by providing the Company with prior written notice setting out such request and the Holder s wire transfer

instructions. Whenever any amount expressed to be due by the terms of this Note is due on any day which is not a Business Day, the same shall instead be due on the next succeeding day which is a Business Day and, in the case of any Interest Date which is not the date on which this Note is paid in full, the extension of the due date thereof shall not be taken into account for purposes of determining the amount of Interest due on such date. Any amount of Principal or other amounts due in cash under the Transaction Documents which is not paid when due shall result in a late charge being incurred and payable by the Company in an amount equal to interest on such amount at the rate of fifteen percent (15%) per annum from the date such amount was due until the same is paid in full (**Late Charge**).

(25) CANCELLATION. After all Principal, accrued Interest and other amounts at any time owed on this Note have been paid in full, including pursuant to a redemption or a conversion of this Note, this Note shall automatically be deemed canceled, shall be surrendered to the Company for cancellation and shall not be reissued.

(26) WAIVER OF NOTICE. To the extent permitted by law, the Company hereby waives demand, notice, protest and all other demands and notices in connection with the delivery, acceptance, performance, default or enforcement of this Note and the Securities Purchase Agreement.

(27) GOVERNING LAW; JURISDICTION; JURY TRIAL. This Note shall be construed and enforced in accordance with, and all questions concerning the construction, validity, interpretation and performance of this Note shall be governed by, the internal laws of the State of New York, without giving effect to any choice of law or conflict of law provision or rule (whether of the State of New York or any other jurisdictions) that would cause the application of the laws of any jurisdictions other than the State of New York. The Company and Holder hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in The City of New York, Borough of Manhattan, for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is brought in an inconvenient forum or that the venue of such suit, action or proceeding is improper. The Company and Holder hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof to such party at the address it set forth on the signature page hereto and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any manner permitted by law. Nothing contained herein shall be deemed or operate to preclude the Holder from bringing suit or taking other legal action against the Company in any other jurisdiction in order to realize on any collateral or any other security for such obligations, or to enforce a judgment or other court ruling in favor of the Holder with respect to such collateral or other security. **THE COMPANY AND HOLDER EACH HEREBY IRREVOCABLY WAIVES ANY RIGHT IT MAY HAVE, AND AGREES NOT TO REQUEST, A JURY TRIAL FOR THE ADJUDICATION OF ANY DISPUTE HEREUNDER OR IN CONNECTION WITH OR ARISING OUT OF THIS NOTE OR ANY TRANSACTION CONTEMPLATED HEREBY.**

(28) SEVERABILITY. If any provision of this Note is prohibited by law or otherwise determined to be invalid or unenforceable by a court of competent jurisdiction, the provision that would otherwise be prohibited, invalid or unenforceable shall be deemed amended to apply to the broadest extent that it would be valid and enforceable, and the invalidity or unenforceability of such provision shall not affect the validity of the remaining provisions of this Note so long as this Note as so modified continues to express, without material change, the original intentions of the parties as to the subject matter hereof and the prohibited nature, invalidity or unenforceability of the provision(s) in question does not substantially impair the respective expectations or reciprocal obligations of the parties or the practical realization of the benefits that would otherwise be conferred upon the parties. The parties will endeavor in good faith negotiations to replace the prohibited, invalid or unenforceable provision(s) with a valid provision(s), the effect of which comes as close as possible to that of the prohibited, invalid or unenforceable provision(s).

(29) CERTAIN DEFINITIONS. For purposes of this Note, the following terms shall have the following meanings:

(a) **Amendment and Exchange Agreement** means the amendment and exchange agreements dated as of March 13, 2008 by and among the Company and each of the holders of the Notes pursuant to which the Company issued the Notes.

(b) **Approved Stock Plan** means any employee benefit plan which has been is approved by the Board of Directors of the Company, pursuant to which the Company s securities may be issued to any employee, consultant, officer or director for services provided to the Company.

(c) **Bloomberg** means Bloomberg Financial Markets, or any successor thereto.

(d) **Business Day** means any day other than a Saturday, a Sunday or a day on which banking institutions in The City of New York are authorized or obligated by law, or executive order or governmental decree to be closed.

(e) **Capital Stock** means any and all shares, interests, participations, rights or other equivalents (however designated) of corporate stock, including, without limitation, in respect of partnerships, partnership interests (whether general or limited) and any other interest or participation that confers on a Person the right to receive a share of the profits and losses of, or distributions of assets of, such partnership.

(f) **Catch-up Amount** means, for each Quarterly Installment Date immediately following the end of a Fiscal Quarter for which this determination is being made, an amount equal to the product of the Holder Pro Rata Amount multiplied by the greater of (i) (A) for each Fiscal Quarter prior to January 1, 2009, ten thousand dollars ($10,000) and (B) for each Fiscal Quarter on or after January 1, 2009, twenty thousand dollars ($20,000) or (ii) (A) the product of the Catch-up Percentage multiplied by the Company s Consolidated Product Revenues for such prior Fiscal Quarter *minus* (B) the aggregate Monthly Installment Amounts paid in such prior Fiscal Quarter; provided, that for the first Quarterly Installment Date hereunder, the Catch-up Amount shall be determined by multiplying the Holder Pro Rata Amount by the greater of (i) $3,333 or (ii) the five percent (5%) of one-third (1/3rd) the Company s Consolidated Product Revenues for the first Fiscal Quarter *less* the aggregate Monthly Installment Amounts paid in the first Fiscal Quarter.

(g) **Catch-up Percentage** means, for (i) each Fiscal Quarter prior to January 1, 2009, five percent (5%) and (ii) each Fiscal Quarter on or after January 1, 2009, ten percent (10%).

(h) **Change of Control** means any Fundamental Transaction other than (A) a Fundamental Transaction in which holders of the Company s voting power immediately prior to the Fundamental Transaction continue after the Fundamental Transaction to hold publicly traded securities and, directly or indirectly, the voting power of the surviving entity or entities necessary to elect a majority of the members of the board of directors (or their equivalent if other than a corporation) of such entity or entities, or (B) pursuant to a migratory merger effected solely for the purpose of changing the jurisdiction of incorporation of the Company.

(i) **Change of Control Redemption** means a Holder Change of Control Redemption or Company Change of Control Redemption, as applicable.

(j) **Change of Control Redemption Date** means a Holder Change of Control Redemption Date or Company Change of Control Redemption Date, as applicable.

(k) **Change of Control Redemption Notice** means a Holder Change of Control Redemption Notice or Company Change of Control Redemption Notice, as applicable.

(l) **Change of Control Redemption Period** means, the period beginning upon receipt of the Change of Control Notice and ending on the consummation of such Change of Control or, in the event a Change of Control Notice is not delivered at least 10 days prior to a Change of Control, at any time, on or after the date which is 10 days prior to a Change of Control and ending 10 days after the consummation of such Change of Control.

(m) **Change of Control Redemption Price** means the price equal to the sum of (i) accrued and unpaid Late Charges, (ii) accrued and unpaid Interest and (iii) the greater of (a) the product of (x) the Conversion Amount (which solely for purposes of this definition does not include accrued and unpaid Interest or Late Charges) being redeemed, and (y) the quotient determined by dividing (1) the greater of the Closing Sale Price of the Common Stock immediately prior to the consummation of the Change of Control, the Closing Sale Price immediately following the public announcement of such proposed Change of Control and the Closing Sale Price of the Common Stock immediately prior to the public announcement of such proposed Change of Control by (2) the Conversion Price, and (b)(x) 100% of the Conversion Amount (which solely for purposes of this definition does not include accrued and unpaid Interest or Late Charges) being redeemed or (y) 120% of the Conversion Amount (which solely for purposes of this definition does not include accrued and unpaid Interest or Late Charges) being redeemed in the case of a Company Change of Control Redemption with respect to a Public Acquirer Change of Control. The Change of Control Redemption Price shall be determined by the Company, provided, that such determination shall be subject to dispute as provided in Section 23 hereof.

(n) **Closing Bid Price** and **Closing Sale Price** means, for any security as of any date, the last closing bid price and last closing trade price, respectively, for such security on the Principal Market, as reported by Bloomberg, or, if the Principal Market begins to operate on an extended hours basis and does not designate the closing bid price or the closing trade price, as the case may be, then the last bid price or last trade price, respectively, of such security prior to 4:00:00 p.m., New York Time, as reported by Bloomberg, or, if the Principal Market is not the principal securities exchange or trading market for such security, the last closing bid price or last trade price, respectively, of such security on the principal securities exchange or trading market where such security is listed or traded as reported by Bloomberg, or if the foregoing do not apply, the last closing bid price or last trade price, respectively, of such security in the over-the-counter market on the electronic bulletin board for such security as reported by Bloomberg, or, if no closing bid price or last trade price, respectively, is reported for such security by Bloomberg, the average of the bid prices, or the ask prices, respectively, of any market makers for such security as reported in the pink sheets by Pink Sheets LLC (formerly the National Quotation Bureau, Inc.). If the Closing Bid Price or the Closing Sale Price cannot be calculated for a security on a particular date on any of the foregoing bases, the Closing Bid Price or the Closing Sale Price, as the case may be, of such security on such date shall be the fair market value as mutually determined by the Company and the Required Holders.

(o) **Closing Date** shall have the meaning set forth in the Amendment and Exchange Agreement, which date is the date the Company initially issued the Notes pursuant to the terms of the Amendment and Exchange Agreement.

(p) **Common Stock Deemed Outstanding** means, at any given time, the number of shares of Common Stock outstanding at such time, plus the number of shares of Common Stock deemed to be outstanding pursuant to Sections 7(a)(i) and 7(a)(ii) hereof regardless of whether the Options or Convertible Securities are actually exercisable at such time, but excluding any Common Stock owned or held by or for the account of the Company or issuable upon conversion or exercise, as applicable, of the Notes and the Warrants.

(q) **Company Conversion Price** means, as of any date of determination, the price which shall be the lower of (i) the applicable Conversion Price and (ii) that price computed as 90% of the arithmetic average of the Weighted Average Price of the Common Stock on each of the ten (10) consecutive Trading Days ending on the Trading Day immediately preceding the applicable Company Redemption Date (each a **Company Conversion Measuring Period**). All such determinations to be appropriately adjusted for any stock split, stock dividend, stock combination or other similar transaction that proportionately decreases or increases the Common Stock during such Company Conversion Measuring Period.

(r) **Company Redemption Amount** means, each of the Monthly Installment Amount, the Quarterly Installment Amount, the Asset Disposition Redemption Amount, and the Subsequent Placement Redemption Amount.

(s) **Company Redemption Date** means each Monthly Installment Date, Quarterly Installment Date, Asset Disposition Redemption Date and Subsequent Payment Redemption Date.

(t) **Company Redemption Price** means, as of any date of determination, the price equal to the sum of the Principal amount being redeemed in such Company Redemption plus all accrued and unpaid Interest and Late Charges and any other amounts due in respect of the Principal amount being redeemed in such Company Redemption.

(u) **Consolidated Product Revenues** means, for any period, total consolidated product revenues of the Company and its Subsidiaries for such period, determined in accordance with GAAP.

(v) **Contingent Obligation** means, as to any Person, any direct or indirect liability, contingent or otherwise, of that Person with respect to any indebtedness, lease, dividend or other obligation of another Person if the primary purpose or intent of the Person incurring such liability, or the primary effect thereof, is to provide assurance to the obligee of such liability that such liability will be paid or discharged, or that any agreements relating thereto will be complied with, or that the holders of such liability will be protected (in whole or in part) against loss with respect thereto.

(w) **Conversion Shares** means the shares of Common Stock into which this Note is convertible.

(x) **Convertible Securities** means any stock or securities (other than Options) directly or indirectly convertible into or exercisable or exchangeable for Common Stock.

(y) **Eligible Market** means the Principal Market, The New York Stock Exchange, Inc., the American Stock Exchange, The Nasdaq Global Select Market or The Nasdaq Capital Market.

(z) **Epoch Biosciences** means Epoch Biosciences, Inc., a Delaware corporation and a Subsidiary of the Company.

(aa) **Equity Conditions** means each of the following conditions: (i) on each day during the period beginning sixty (60) days prior to the applicable date of determination and ending on and including the applicable date of determination (the **Equity Conditions Measuring Period**), all shares of Common Stock issuable upon conversion of the Notes and exercise of the Warrants and as Interest Shares shall be eligible for sale without restriction and without the need for registration under any applicable federal or state securities laws, other than any restrictions on sale imposed on the Holder by virtue of the Holder being an affiliate of the Company; (ii) during the Equity Conditions Measuring Period, the Common Stock is designated for quotation on the Principal Market or any other Eligible Market and shall not have been suspended from trading on such exchange or market (other than suspensions of not more than two (2) days and occurring prior to the applicable date of determination due to business announcements by the Company) nor shall delisting or suspension by such exchange or market been threatened or pending either (A) in writing by such exchange or market or (B) by falling below the then effective minimum listing maintenance requirements of such exchange or market; (iii) during the Equity Conditions Measuring Period, the Company shall have delivered Conversion Shares upon conversion of the Notes and Warrant Shares upon exercise of the Warrants to the holders on a timely basis as set forth in Section 2(c)(ii) hereof (and analogous provisions under the Other Notes) and Sections 2(a) of the Warrants; (iv) any applicable shares of Common Stock to be issued in connection with the event requiring determination may be issued in full without violating Section 3(d) hereof and the rules or regulations of the Principal Market or any other applicable Eligible Market; provided, however, that in the event that such shares of Common Stock cannot be issued in full, the Company shall be permitted to issue to the Holder the maximum amount of shares of Common Stock without causing any such violation; (v) during the six (6) month period ending on and including the date immediately preceding the applicable date of determination, the Company shall not have failed to timely make any payments within five (5) Business Days of when such payment is due pursuant to any Transaction Document; (vi) during the Equity Conditions Measuring Period, there shall not have occurred either (A) the public announcement of a pending, proposed or intended Fundamental Transaction which has not been abandoned, terminated or consummated, or (B) an Event of Default or (C) an event that with the passage of time or giving of notice would constitute an Event of Default; (vii) the Company shall

have no knowledge of any fact that would cause any shares of Common Stock issuable upon conversion of the Notes or as Interest Shares and shares of Common Stock issuable upon exercise of the Warrants not to be eligible for sale without restriction without the need for registration under any applicable federal or state securities laws, other than any restrictions on sale imposed on the Holder by virtue of the Holder being an affiliate of the Company; and (viii) the Company otherwise shall have been in material compliance with and shall not have materially breached any provision, covenant, representation or warranty of any Transaction Document.

(bb) **Equity Conditions Failure** means that on any day during the period commencing ten (10) Trading Days prior to the applicable Interest Notice Date through the applicable Interest Date, the Equity Conditions have not been satisfied (or waived in writing by the Holder).

(cc) **Excluded Securities** means any Capital Stock issued or issuable: (i) (x) in connection with any Approved Stock Plan to the extent such Capital Stock would not result in a Dilutive Issuance or (y) in connection with any Approved Stock Plan, which Capital Stock would result in a Dilutive Issuance, provided, that such Capital Stock does not exceed 3% of the shares of Common Stock in the aggregate outstanding; (ii) upon conversion of the Notes or the exercise of the Warrants; (iii) pursuant to a bona fide firm commitment underwritten public offering with a nationally recognized underwriter which generates gross proceeds to the Company in excess of $25,000,000 (other than an at-the-market offering as defined in Rule 415(a)(4) under the 1933 Act and equity lines); (iv) upon conversion of any Options or Convertible Securities which are outstanding on the day immediately preceding the Subscription Date, provided that the terms of such Options or Convertible Securities are not amended, modified or changed on or after the Subscription Date to increase the shares issuable thereunder or reduce the price per share payable thereunder; and (v) in connection with mergers, acquisitions, strategic business partnerships or joint ventures, in each case with non-affiliated third parties and otherwise on an arm s-length basis, the primary purpose of which, in the reasonable judgment of the Board of Directors, is not to raise additional capital.

(dd) **Existing Indebtedness** means the Indebtedness of the Company and its Subsidiaries (i) pursuant to that certain General Conditions for Future Factoring Operations, dated December 12, 2006, executed by Nanogen Advanced in favor of GE Capital Finance S.p.A, not to exceed Four Million Euros (4,000,000) at any one time outstanding; (ii) pursuant to that certain Royalty Interest Assignment Agreement dated September 29, 2006 between the Company, Epoch Biosciences, Inc. (Epoch) and Drug Royalty Trust 9, that certain Supplemental Royalty Interest Assignment Agreement entered into between the Company, Epoch and Drug Royalty LP1 in the form provided to the Collateral Agent (the **Supplement**) and that certain Royalty Interest Assignment Agreement between Epoch, as assignor, and Drug Royalty LP2, as assignee, in the form provided to the Collateral Agent (the **LP2 Transaction** and together with the Supplement, the **DRT Transaction**), pursuant to which Epoch sold certain of its rights to receive royalty payments and related reports under the Second Amended and Restated Collaboration, License and Supply Agreement, dated as of August 17, 2000, as amended by the First Side Agreement dated October 31, 2001, the Amendment No. 1 to the Second Amended and Restated Collaboration, License and Supply Agreement dated July 26, 2002 and Amendment No. 2 to the Second Amended and Restated Collaboration, License and Supply Agreement dated as of December 31, 2005, with Applera Corporation, for an aggregate principal amount of all such Indebtedness incurred under this clause (ii) not to exceed thirty million dollars ($30,000,000) at any one time outstanding; (iii) Indebtedness pursuant to those certain non recourse sales of receivables by Nanogen Advanced sponsored by regional governments in Italy in an aggregate principal amount not to exceed One Million Euros (1,000,000) at any one time outstanding, and (iv) the Indenture Notes.

(ee) **First Monthly Installment Date** means the earlier of (i) the later of (A) the Issuance Date and (B) the Business Day immediately following the closing of the DRT Transaction and (ii) March 31, 2008.

(ff) **Fiscal Quarter** means each of the fiscal quarters adopted by the Company for financial reporting purposes that correspond to the Company s fiscal year that ends on December 31, or such other fiscal quarter adopted by the Company for financial reporting purposes in accordance with GAAP.

(gg) **Fixed Amount** means for each Monthly Installment Date that (i) is prior to January 1, 2009, an amount equal to eighty thousand dollars ($80,000) and (ii) on or after January 1, 2009, an amount equal to one hundred sixty thousand dollars ($160,000).

(hh) **Fundamental Transaction** means that the Company shall, directly or indirectly, in one or more related transactions, (i) consolidate or merge with or into (whether or not the Company is the surviving corporation) another Person or Persons, if the holders of the Voting Stock (not including any shares of Voting Stock held by the Person or Persons making or party to, or associated or affiliated with the Persons making or party to, such consolidation or merger) immediately prior to such consolidation or merger shall hold or have the right to direct the voting of less than 50% of the Voting Stock or such voting securities of such other surviving Person immediately following such transaction, or (ii) sell, assign, transfer, convey or otherwise dispose of all or substantially all of the properties or assets of the Company to another Person, or (iii) allow another Person to make a purchase, tender or exchange offer that is accepted by the holders of more than the 50% of the outstanding shares of Voting Stock (not including any shares of Voting Stock held by the Person or Persons making or party to, or associated or affiliated with the Persons making or party to, such purchase, tender or exchange offer), or (iv) consummate a stock purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person whereby such other Person acquires more than the 50% of the outstanding shares of Voting Stock (not including any shares of Voting Stock held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock purchase agreement or other business combination), (v) reorganize, recapitalize or reclassify its Common Stock or (vi) any person or group is or shall become the beneficial owner , directly or indirectly, of 50% of the aggregate ordinary voting power represented by issued and outstanding Common Stock. For purposes of the definition of Fundamental Transaction: (i) **person** or **group** have the meanings given to them for purposes of Sections 13(d) and 14(d) of the Exchange Act or any successor provisions, and the term group includes any group acting for the purpose of acquiring, holding or disposing of securities within the meaning of Rule 13d-5(b)(1) under the Exchange Act (or any successor provision); (ii) a **beneficial owner** will be determined in accordance with Rule 13d-3 under the Exchange Act, as in effect on the date of this Note; and (iii) **beneficially owned** and **beneficially own** have meanings correlative to that of beneficial owner.

(ii) **GAAP** means United States generally accepted accounting principles, consistently applied.

(jj) **Holder Pro Rata Amount** means a fraction (i) the numerator of which is the Principal amount of this Note on the Issuance Date and (ii) the denominator of which is the aggregate principal amount of all Notes issued to the purchasers pursuant to the Amendment and Exchange Agreement on the Issuance Date, provided that in the event that the initial holder of any Notes has sold or otherwise transferred any of such holder s Notes, the transferee shall be allocated a pro rata portion of such holder s Holder Pro Rata Amount.

(kk) **Indebtedness** of any Person means, without duplication (i) all indebtedness for borrowed money, (ii) all obligations issued, undertaken or assumed as the deferred purchase price of property or services, including (without limitation) capital leases in accordance with generally accepted accounting principles (other than trade payables, expense accruals and deferred compensation arrangements entered into in the ordinary course of business), (iii) all reimbursement or payment obligations with respect to letters of credit, surety bonds and other similar instruments, (iv) all obligations evidenced by notes, bonds, debentures or similar instruments, including obligations so evidenced incurred in connection with the acquisition of property, assets or businesses, (v) all indebtedness created or arising under any conditional sale or other title retention agreement, or incurred as financing, in either case with respect to any property or assets acquired with the proceeds of such indebtedness provided that, any obligations for which recourse is limited to an identified asset or assets of such Person shall be equal to the lesser of (x) the amount of such Indebtedness or (y) the fair market value of such asset or assets, (vi) all monetary obligations under any leasing or similar arrangement which, in connection with GAAP, consistently applied for the periods covered thereby, is classified as a capital lease, (vii) all indebtedness referred to in clauses (i) through (vi) above to the extent secured by (or to the extent that the holder of such Indebtedness has an existing right, contingent or otherwise, to be secured by) any mortgage, lien, pledge, charge, security interest or other

encumbrance upon or in any property or assets (including accounts and contract rights) owned by any Person, even though the Person which owns such assets or property has not assumed or become liable for the payment of such indebtedness, and (viii) all Contingent Obligations in respect of indebtedness or obligations of others of the kinds referred to in clauses (i) through (vii) above.

(ll) **Indenture** means that certain Indenture dated August 27, 2007, by and between the Company and Bank of New York Trust Company, N.A., as trustee, as supplemented by that certain First Supplemental Indenture dated August 27, 2007 and Second Supplemental Indenture dated as of March 27, 2008 (as further amended, supplemented, restated or otherwise modified from time to time).

(mm) **Indenture Notes** means those certain 6.25% Senior Convertible Notes due 2010 issued by the Company pursuant to the Indenture in an aggregate principal amount not to exceed seven million dollars ($7,000,000) at any one time outstanding plus accrued and unpaid interest in an amount not to exceed the rate set forth in the Indenture as of March 27, 2008.

(nn) **Initial Interest Conversion Price** means, with respect to any Interest Notice Date, that price which shall be the lower of (i) the applicable Conversion Price and (ii) the price computed as ninety percent (90%) of the arithmetic average of the Weighted Average Price for the Common Stock during the five (5) consecutive Trading Day period ending on the Trading Day immediately preceding the applicable Interest Notice Date. All such determinations to be appropriately adjusted for any stock split, stock dividend, stock combination or other similar transaction during such period.

(oo) **Interest Balance Shares** means, for any Interest Date, a number of shares of Common Stock equal to (i) the Post-Interest Shares for such date *minus* (ii) the amount of any Pre-Interest Shares delivered in respect of the Interest Date; provided that in the event that the amount of Pre-Interest Shares exceeds the Post-Interest Shares for such date (such excess, the **Interest Shares Excess**), the Interest Balance Shares shall equal zero (0) for such date and the Interest Shares Excess shall reduce the number of Pre-Interest Shares payable on the next Interest Notice Date, if any.

(pp) **Interest Conversion Price** means, with respect to any Interest Date, that price which shall be the lower of (i) the applicable Conversion Price and (ii) the price computed as ninety percent (90%) of the arithmetic average of the Weighted Average Price for the Common Stock for the Interest Measuring Period. All such determinations to be appropriately adjusted for any stock split, stock dividend, stock combination or other similar transaction that proportionately decreases or increases the Common Stock during the applicable Interest Measuring Period.

(qq) **Interest Measuring Period** means the five (5) Trading Days ending on the Trading Day immediately preceding the Interest Date.

(rr) **Interest Rate** means a rate per annum equal to nine and three-quarter percent (9.75%), subject to adjustment as provided in Section 2(c).

(ss) **Maturity**, when used in respect of this Note, means the date on which the Principal Amount, the Event of Default Redemption Price or the Change of Control Redemption Price of such Security becomes due and payable as therein or herein provided, whether at the Stated Maturity, on an Event of Default Redemption Date or a Change of Control Redemption Date, as applicable, or by declaration of acceleration or otherwise.

(tt) **Monthly Installment Date** means each of (i) the First Monthly Installment Date, and (ii) the first day of each month following the Issuance Date.

(uu) **Monthly Installment Amount** means an amount equal to the product of the Holder Pro Rata Amount multiplied by sum of the Fixed Amount. In the event the Holder shall sell or otherwise transfer any portion of this Note, the transferee shall be allocated a pro rata portion of each unpaid Monthly Installment Amount hereunder.

(vv) **Nanogen Advanced** means Nanogen Advanced Diagnostics, S.r.L., a company organized under the laws of Italy and a Subsidiary of the Company.

(ww) **Options** means any rights, warrants or options to subscribe for or purchase shares of Common Stock or Convertible Securities.

(xx) **Permitted Asset Disposition** means (i) any transfer or disposition of assets by any Subsidiary to the Company or between or among Subsidiaries; (ii) any transfer or disposition of assets by the Company to any Subsidiaries in an aggregate amount to all Subsidiaries not to exceed $100,000 in any fiscal year; (iii) the sale, lease or other disposition of inventory or obsolete, worn out, negligible, surplus or outdated equipment in the ordinary course of business which in the case of obsolete, worn out, negligible, surplus or outdated equipment shall not exceed one hundred thousand dollars ($100,000) in any fiscal year; (iv) an issuance or sale of capital stock by a Subsidiary to the Company only if required to comply with applicable law, including thin capitalization rules or to another Subsidiary, (iv) sales or other dispositions of assets or property in connection with a Capital Lease Product Indebtedness; (v) the sale or maturity or other disposition of and investment and reinvestment of Cash and Cash Equivalents in the ordinary course of the Company s business and for transactions not otherwise prohibited under the Transaction Documents, provided, that it is expressly understood that no disposition of cash or cash equivalents will be made by the Company or a Subsidiary Guarantor to a Subsidiary that is not a Subsidiary Guarantor; (vi) the surrender or waiver of contract rights or the settlement, release, or surrender of contract, tort or other claims, in the ordinary course of business and which shall not exceed fifty thousand dollars ($50,000) in net proceeds for such action; (vii) non-exclusive licenses and similar arrangements for the use of the property of the Company or its Subsidiaries in the ordinary course of business, provided, that in no event shall this include the disposition of any income or the sale of the rights under the agreement from the Company or a Subsidiary to any third party; (viii) the issuance or grant of securities pursuant to an Approved Stock Plan, (ix) disposition of assets described under clause (i), (ii), (v), (vi) and (ix) of the definition of Permitted Indebtedness, (x) Permitted Liens and (xi) any transaction that involves assets or capital stock having aggregate net cash proceeds that shall not exceed three million dollars ($3,000,000) in the aggregate for all such transactions.

(yy) **Permitted Indebtedness** means (i) Existing Indebtedness; (ii) other Indebtedness approved in writing by the Required Holders; (iii) Permitted Subordinated Indebtedness; (iv) this Note and the Other Notes; (v) Indebtedness to finance the purchase price of personal property (**Capital Lease Product Indebtedness**), provided that such Indebtedness does not exceed the lesser of the cost or fair market value of such property financed with such Indebtedness and does not exceed $1,250,000 in the aggregate outstanding at any time; (vi) (w) Indebtedness incurred by any Subsidiary which is owed to any other Subsidiary, (x) Indebtedness permitted under Section 14(m) hereof, or (y) Indebtedness incurred by the Company which is owed to any Subsidiary not to exceed $100,000 in the aggregate outstanding at any time of Indebtedness unless such Indebtedness shall be unsecured and expressly subordinated in right of payment to the Notes; (vii) Indebtedness in respect of taxes and other governmental charges incurred in the ordinary course of business and which are not due or are being contested in good faith by appropriate proceedings and for which adequate reserves have been provided for in accordance with GAAP; (viii) Indebtedness resulting from the endorsement of negotiable instruments in the ordinary course of business; (ix) Indebtedness in respect of hedging arrangements entered in the ordinary course of business designed to manage interest rates or interest rate risk or to protect against fluctuations in currency exchange rates, and not for purposes of speculations; (x) the Letters of Credit and other letters of credit, and reimbursement obligations in respect thereof, in support of trade debt or statutory obligations and lease or similar obligations incurred in the ordinary course of business; (xi) Indebtedness incurred in the ordinary course of business of the Company and its Subsidiaries, in respect of performance bonds, bid bonds, appeal bonds, completion bonds, surety bonds, completion guarantees, security deposits and similar obligations; (xii) Indebtedness in respect of tenant improvements, tenant inducements or other payments by landlords in respect of improvements or alterations to property leased by the Company or its Subsidiaries outstanding as of March 13, 2008; (xiii) Indebtedness of a Person that becomes a Subsidiary, which Indebtedness existed at

the time such Person became a Subsidiary and was not incurred in contemplation of such Person becoming a Subsidiary; and (xiv) extensions, refinancing and renewals of Indebtedness described in clause (i), (iii) and (iv) of the definition of Existing Indebtedness, provided that (A) any such refinancing is in an aggregate principal amount not greater than the aggregate principal amount of the Existing Indebtedness being renewed or refinanced, *plus* the amount of any premiums required to be paid thereon and reasonable fees and expenses associated therewith, (B) such refinancing has a later or equal final maturity and longer or equal weighted average life than the Existing Indebtedness being renewed or refinanced, and (C) the covenants, events of default, subordination and other provisions thereof (including any guarantees thereof) shall be, in the aggregate, no less favorable to the Holders than those contained in the Existing Indebtedness being renewed or refinanced.

(zz) **Permitted Liens** means (i) any Lien for taxes not yet due or delinquent or being contested in good faith by appropriate proceedings for which adequate reserves have been established in accordance with GAAP, (ii) any statutory Lien arising in the ordinary course of business by operation of law with respect to a liability that is not yet due or delinquent, (iii) any Lien created by operation of law, such as materialmen s liens, mechanics liens and other similar liens, arising in the ordinary course of business with respect to a liability that is not yet due or delinquent or that are being contested in good faith by appropriate proceedings, (iv) Liens in respect of security deposits provided in the ordinary course of business and consistent with past practices; (v) Liens (A) upon or in any equipment acquired or held by the Company or any of its Subsidiaries to secure the purchase price of such equipment or indebtedness incurred solely for the purpose of financing the acquisition or lease of such equipment, or (B) existing on such equipment at the time of its acquisition, provided that the Lien is confined solely to the property so acquired and improvements thereon, and the proceeds of such equipment, (vi) Liens incurred in connection with the extension, renewal or refinancing of the indebtedness secured by Liens of the type described in clauses (i) and (v) above, provided that any extension, renewal or replacement Lien shall be limited to the property encumbered by the existing Lien and the principal amount of the Indebtedness being extended, renewed or refinanced does not increase, (vii) leases or subleases and licenses and sublicenses granted to others in the ordinary course of the Company s business, not interfering in any material respect with the business of the Company and its Subsidiaries taken as a whole, (viii) Liens in favor of customs and revenue authorities arising as a matter of law to secure payments of custom duties in connection with the importation of goods, (ix) Liens arising from judgments, decrees or attachments in circumstances not constituting an Event of Default under Section 4(a)(vii), (x) Liens securing Existing Indebtedness and reimbursement obligations in respect of Permitted Indebtedness described in subparagraphs (x) and (xi) of the Permitted Indebtedness definition, (xi) those certain Liens in debts, accounts, moneys and choses in action owing to or owned by Company or its Subsidiaries in respect of Products and Licensed Products , where Products and Licensed Products refer to are any diagnostic kits and components and materials therefore defined by one of more claims of the Patents or derived from Inventions and Technology referred to in that certain Memorandum of an Agreement made as of January 18, 1991 between Dr George Jackowski and Spectral Diagnostic Inc. pursuant to which Dr Jackowski assigned his right title and interest in the Patents, Inventions and Technology to Spectral Diagnostics Inc. in return for, among other things, a royalty payment and which Memorandum of Agreement was assigned by Spectral Diagnostics Inc. to the Company; and (xii) any Liens granted in favor of or held for the benefit of the Company.

(aaa) **Permitted Subordinated Indebtedness** means unsecured Indebtedness incurred by the Company or any of its Subsidiaries which unsecured Indebtedness does not provide at any time for (i) the payment, prepayment, repayment, repurchase or defeasance, directly or indirectly, of any principal or premium, if any, thereon until ninety-one (91) days after the Stated Maturity or later and (ii) total interest and fees at a rate in excess of the interest rate hereunder.

(bbb) **Person** means an individual, a limited liability company, a partnership, a joint venture, a corporation, a trust, an unincorporated organization, any other entity and a government or any department or agency thereof.

(ccc) **Post-Interest Shares** means, for any Interest Date, that number of shares of Common Stock equal to the applicable amount of Interest to be paid in Interest Shares on such Interest Date *divided by* the Interest Conversion Price (without taking into account the delivery of any Pre-Interest Shares), rounded up to the nearest whole Common Share.

(ddd) **Present Value of Interest** means the amount of any interest that, but for (i) the Holder s exercise of its conversion right pursuant to Section 3(a), (ii) a Holder Change of Control Redemption pursuant to Section 5(a), or (iii) a Company Change of Control Redemption pursuant to Section 5(b), as applicable, would have accrued under the Note at the Interest Rate for the period from the applicable Conversion Date or Redemption Date, as the case may be, through the Maturity Date discounted to the present value of such interest using a discount rate equal to 6.25%.

(eee) **Principal Market** means The Nasdaq Global Market.

(fff) **Public Acquirer Change of Control** means a Change of Control in which the acquirer or the parent of such acquirer (the **Public Acquirer**) has a class of common stock traded on an Eligible Market which will be so traded when issued or exchanged in connection with such Change of Control.

(ggg) **Quarterly Installment Date** means, with respect to any Fiscal Quarter, the earlier of the second (2nd) Business Day following (i) the Announcement Date relating to such Fiscal Quarter and (ii) the Announcement Date Deadline relating to such Fiscal Quarter.

(hhh) **Record Date** for the interest payable on any Interest Date means a date no more than fifteen (15) Trading Days prior to such Interest Date.

(iii) **Redemption Date** means any Event of Default Redemption Date, Change of Control Redemption Date, or Company Redemption Date.

(jjj) **Redemption Notice** means any the Event of Default Redemption Notice, Change of Control Redemption Notice, Asset Disposition Redemption Notice or Subsequent Placement Redemption Notice.

(kkk) **Redemption Premium** means (i) in the case of the Events of Default described in Section 4(a)(i) - (v) and (viii) - (x) or, in the case of (xi), if such Event of Default is an Event of Default described in Section 4(a)(i) - (v) and (viii) - (x) of such Other Note), 120% or (ii) in the case of the Events of Default described in Section 4(a)(vi) - (vii) or, in the case of (ix), if such Event of Default is an Event of Default described in Section (a)(vi) - (vii) of such Other Note), 100%.

(lll) **Redemption Prices** means, collectively, the Event of Default Redemption Price, the Change of Control Redemption Price, and the Company Redemption Price and each of the foregoing, individually, a Redemption Price .

(mmm) **Required Holders** means the holders of Notes representing at least a majority of the aggregate principal amount of the Notes then outstanding.

(nnn) **Rule 144** means Rule 144 under the Securities Act (including any successor rule thereto), as the same may be amended from time to time.

(ooo) **Rule 144A** means Rule 144A under the Securities Act (including any successor rule thereto), as the same may be amended from time to time.

(ppp) **SEC** means the United States Securities and Exchange Commission.

(qqq) **Securities Purchase Agreement** means that certain securities purchase agreement dated as of the Subscription Date by and among the Company and the initial purchasers set forth on the signature pages thereto, as amended by the Amendment and Exchange Agreement.

(rrr) **Subscription Date** means August 26, 2007.

(sss) **Subsequent Placement** means the offer, sale, grant of any option to purchase, or other disposition of (or the announcement any offer, sale, grant or any option to purchase or other disposition of)

any of the debt, equity or equity equivalent securities, including without limitation any debt, preferred stock or other instrument or security that is, at any time during its life and under any circumstances, convertible into or exchangeable or exercisable for shares of Common Stock or Common Stock Equivalents, but excluding the issuance or grant of equity or equity equivalent securities pursuant to an Approved Stock Plan and the issuance of debt instruments or securities (other than equity or equity equivalent securities) qualifying as Permitted Indebtedness.

(ttt) **Subsequent Placement Proceeds** means with respect to any Subsequent Placement, the aggregate net cash proceeds received by the Company from the sale of securities in such Subsequent Placement, provided that the Subsequent Placement Proceeds shall not include the first ten million dollars ($10,000,000) of the aggregate of all such proceeds received in the aggregate in Subsequent Placements.

(uuu) **Subsidiary** means any entity in which the Company, directly or indirectly, owns any of the capital stock or holds an equity or similar interest.

(vvv) **Subsidiary Guarantor** means any Subsidiary that has executed a Guarantee (as defined in the Amendment and Exchange Agreement).

(www) **Successor Entity** means the Person, which may be the Company, formed by, resulting from or surviving any Fundamental Transaction.

(xxx) **Trading Day** means (i) if the applicable security is listed or admitted for trading on an Eligible Market, a day on such Eligible Market is open for business or (ii) if the applicable security is not so listed, admitted for trading or quoted, any Business Day.

(yyy) **Transaction Documents** means the Securities Purchase Agreement, the Amendment and Exchange Agreement, the Notes, the Warrants, the Letter of Credit, the Warrant Agreement, if any, the Irrevocable Transfer Agent Instructions, the Security Documents (as defined in the Amendment and Exchange Agreement) and any other certificate, instrument or document executed and delivered pursuant hereby or thereby.

(zzz) **United States** means the United States of America (including the States and the District of Columbia), its territories, its possessions and other areas subject to its jurisdiction (its possessions including Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, Wake Island and the Northern Mariana Islands).

(aaaa) **Voting Stock** of a Person means Capital Stock of such Person of the class or classes pursuant to which the holders thereof have the general voting power to elect, or the general power to appoint, at least a majority of the board of directors, managers or trustees of such Person (irrespective of whether or not at the time capital stock of any other class or classes shall have or might have voting power by reason of the happening of any contingency).

(bbbb) **Warrants** has the meaning ascribed to such term in the Securities Purchase Agreement, and shall include all warrants issued in exchange therefore or replacement thereof.

(cccc) **Weighted Average Price** means, for any security as of any date, the dollar volume-weighted average price for such security on the principal market or exchange on which such security is traded during the period beginning at 9:30:01 a.m., New York City time (or such other time as such principal market or exchange publicly announces is the official open of trading), and ending at 4:00:00 p.m., New York City time (or such other time as such principal market or exchange publicly announces is the official close of trading) as reported by Bloomberg through its Volume at Price functions, or, if the foregoing does not apply, the dollar volume-weighted average price of such security in the over-the-counter market on the electronic bulletin board for such security during the period beginning at 9:30:01 a.m., New York City time (or such other time as such market publicly announces is the official open of trading), and ending at 4:00:00 p.m., New York City time (or such other time as such market publicly announces is the official close of trading) as reported by Bloomberg, or, if no dollar volume-weighted average price is reported for such security by Bloomberg for such hours, the average of the highest closing bid price and the lowest closing

ask price of any of the market makers for such security as reported in the pink sheets by Pink Sheets LLC (formerly the National Quotation Bureau, Inc.). If the Weighted Average Price cannot be calculated for a security on a particular date on any of the foregoing bases, the Weighted Average Price of such security on such date shall be the fair market value as mutually determined by the Company and the Required Holders. All such determinations are to be appropriately adjusted for any stock dividend, stock split, stock combination or other similar transaction during the applicable calculation period. For the avoidance of doubt in no event shall the Trustee or Conversion Agent have any responsibility to either obtain or monitor such prices.

(30) SECURITY. This Note and the Other Notes are secured to the extent and in the manner set forth in the Security Documents (as defined in the Amendment and Exchange Agreement).

(31) DISCLOSURE. Upon receipt or delivery by the Company of any notice in accordance with the terms of this Note, unless the Company has in good faith determined that the matters relating to such notice do not constitute material, nonpublic information relating to the Company or its Subsidiaries, the Company shall within one (1) Business Day after any such receipt or delivery publicly disclose such material, nonpublic information on a Current Report on Form 8-K or otherwise. In the event that the Company believes that a notice contains material, nonpublic information, relating to the Company or its Subsidiaries, the Company shall indicate to the Holder contemporaneously with delivery of such notice, and in the absence of any such indication, the Holder shall be allowed to presume that all matters relating to such notice do not constitute material, nonpublic information relating to the Company or its Subsidiaries.

[Signature Page Follows]

IN WITNESS WHEREOF, the Company has caused this Note to be duly executed as of the Issuance Date set out above.

NANOGEN, INC.

By:
Nicholas Venuto
Chief Financial Officer

[Signature Page to Senior Secured Convertible Note]

EXHIBIT I

NANOGEN, INC.

CONVERSION NOTICE

Reference is made to the Senior Secured Convertible Note (the **Note**) issued to the undersigned by Nanogen, Inc. (the **Company**). In accordance with and pursuant to the Note, the undersigned hereby elects to convert the Conversion Amount (as defined in the Note) of the Note indicated below into shares of Common Stock par value $0.001 per share (the **Common Stock**) of the Company, as of the date specified below.

Date of Conversion: _____

Aggregate Conversion Amount to be converted: _____

Company Redemption Amount and related Company Redemption Date, Maturity Date Payment, or any other amounts owing from the Company to be reduced at Holder s option: _____

Please confirm the following information:

Conversion Price: _____

Number of shares of Common Stock to be issued: _____

Please issue the Common Stock into which the Note is being converted in the following name and to the following address:

Issue to: _____

_____

_____

Facsimile Number: _____

Authorization: _____

By: _____

Title: _____

Dated:

Account Number: _____
(if electronic book entry transfer)

Transaction Code Number: _____
(if electronic book entry transfer)

ACKNOWLEDGMENT

The Company hereby acknowledges this Conversion Notice and hereby directs Computershare Investor Services to issue the above indicated number of shares of Common Stock in accordance with the Transfer Agent Instructions dated March 27, 2008 from the Company and acknowledged and agreed to by Computershare Investor Services.

NANOGEN, INC.

By:
Name:
Title:

APPENDIX E

SECURITY AGREEMENT

SECURITY AGREEMENT, dated as of March __, 2008 (this Agreement), made by each of the parties set forth on the signature pages hereto (each a Grantor and collectively and together with the Company, the Grantors), in favor of PORTSIDE GROWTH & OPPORTUNITY FUND, a company organized under the laws of the Cayman Islands, in its capacity as collateral agent (in such capacity, the Collateral Agent) to the Secured Parties referred to below.

W I T N E S S E T H:

WHEREAS, Nanogen Inc., a Delaware corporation (the **Company**), and certain investors (the **Investors**) are parties to that certain Securities Purchase Agreement, dated as of August 26, 2007 (the **Existing Securities Purchase Agreement** and as amended by the Exchange Agreements defined below, the **Securities Purchase Agreement**), pursuant to which, among other things, the Investors purchased from the Company certain Convertible Notes (the **Existing Notes**).

The Company and each of the Investors are entering into Amendment and Exchange Agreements dated the date hereof (collectively, the **Exchange Agreements**), pursuant to which, among other things, the Company and each Investor shall exchange a portion of its Existing Notes for the Exchanged Notes (as defined in the Exchange Agreement) (as such Notes may be amended, restated, replaced or otherwise modified from time to time in accordance with the terms thereof, collectively, the **Notes**).

WHEREAS, it is a condition precedent to each of the Investors exchanging the Existing Notes for the Exchanged Notes pursuant to the Exchange Agreement that the Grantors execute and deliver to this Agreement providing for the grant of a first priority perfected security interest all of the property and assets of each Grantor to secure all of the Company s obligations under the Securities Purchase Agreement, the Notes, and the other Transaction Documents and the Guarantors obligations under the Guaranty;

NOW, THEREFORE, in consideration of the premises and the agreements herein and in order to induce each of the Secured Parties to enter into the transactions under the Securities Purchase Agreement, each Grantor agrees as follows:

SECTION 1. Definitions.

(a) Reference is hereby made to the Securities Purchase Agreement and the Notes for a statement of the terms thereof. All capitalized terms used in this Agreement and the recitals hereto which are defined in the Securities Purchase Agreement, the Notes or in Articles 8 or 9 of the Uniform Commercial Code as in effect from time to time in the State of New York (the Code), and which are not otherwise defined herein shall have the same meanings herein as set forth therein; provided that terms used herein which are defined in the Code as in effect in the State of New York on the date hereof shall continue to have the same meaning notwithstanding any replacement or amendment of such statute except as the Collateral Agent may otherwise determine.

(b) The following terms shall have the respective meanings provided for in the Code: Accounts , Cash Proceeds , Chattel Paper , Commercial Tort Claim , Commodity Account , Commodity Contracts , Deposit Account , Documents , Equipment , Fixtures , General Intangibles , Good Instruments , Inventory , Investment Property , Letter-of-Credit Rights , Noncash Proceeds , Payment Intangibles , Proceeds , Promissory Security , Record , Security Account , Software , and Supporting Obligations .

(c) As used in this Agreement, the following terms shall have the respective meanings indicated below, such meanings to be applicable equally to both the singular and plural forms of such terms:

Copyright Licenses means all licenses, contracts or other agreements, whether written or oral, naming any Grantor as licensee or licensor and providing for the grant of any right to use or sell any works covered by any copyright (including, without limitation, all Copyright Licenses set forth in Part F of Schedule I hereto).

Copyrights means all domestic and foreign copyrights, whether registered or not, including, without limitation, all copyright rights throughout the universe (whether now or hereafter arising) in any and all media (whether now or hereafter developed), in and to all original works of authorship fixed in any tangible medium of expression, acquired or used by any Grantor (including, without limitation, all copyrights described in Part F of Schedule I hereto), all applications, registrations and recordings thereof (including, without limitation, applications, registrations and recordings in the United States Copyright Office or in any similar office or agency of the United States or any other country or any political subdivision thereof), and all reissues, divisions, continuations, continuations in part and extensions or renewals thereof.

Event of Default shall have the meaning set forth in the Notes.

Governmental Authority means any nation or government, any Federal, state, city, town, municipality, county, local or other political subdivision thereof or thereto and any department, commission, board, bureau, instrumentality, agency or other entity exercising executive, legislative, judicial, taxing, regulatory or administrative powers or functions of or pertaining to government.

Insolvency Proceeding means any proceeding commenced by or against any Person under any provision of the Bankruptcy Code (Chapter 11 of Title 11 of the United States Code) or under any other bankruptcy or insolvency law, assignments for the benefit of creditors, formal or informal moratoria, compositions, or extensions generally with creditors, or proceedings seeking reorganization, arrangement, or other similar relief from creditors.

Intellectual Property means the Copyrights, Trademarks and Patents.

Intellectual Property Offices means, (i) with respect to United States Copyrights or related Licenses, the United States Copyright Office, (ii) with respect to United States Trademarks and United States Patents or related Licenses, the United States Patent and Trademark Office and (iii) with respect to respect to foreign Intellectual Property and related Licenses, for the applicable offices located in the jurisdictions outside of the United States and covering rights in such jurisdictions relating to such foreign Intellectual Property and Licenses.

Licenses means the Copyright Licenses, the Trademark Licenses and the Patent Licenses.

Lien shall have the meaning set forth in the Notes.

Noteholders means the Buyers and the holders of the Notes.

Patent Licenses means all licenses, contracts or other agreements, whether written or oral, naming any Grantor as licensee or licensor and providing for the grant of any right to manufacture, use or sell any invention covered by any Patent (including, without limitation, all Patent Licenses set forth in Part F of Schedule I hereto).

Patents means all domestic and foreign letters patent, design patents, utility patents, industrial designs, inventions, trade secrets, ideas, concepts, methods, techniques, processes, proprietary information, technology, know-how, formulae, rights of publicity and other general intangibles of like nature, now existing or hereafter acquired (including, without limitation, all domestic and foreign letters patent, design patents, utility patents, industrial designs, inventions, trade secrets, ideas, concepts, methods, techniques, processes, proprietary information, technology, know-how and formulae described in Part F of Schedule I hereto), all applications, registrations and recordings thereof (including, without limitation, applications, registrations and recordings in the United States Patent and Trademark Office, or in any similar office or agency of the United States or any

other country or any political subdivision thereof), and all reissues, divisions, continuations, continuations in part and extensions or renewals thereof.

Person means an individual, corporation, limited liability company, partnership, association, joint-stock company, trust, unincorporated organization, joint venture or other enterprise or entity or Governmental Authority.

Secured Parties means each of the Collateral Agent and the Buyers and all other Noteholders.

Trademark Licenses means all licenses, contracts or other agreements, whether written or oral, naming any Grantor as licensor or licensee and providing for the grant of any right concerning any Trademark, together with any goodwill connected with and symbolized by any such trademark licenses, contracts or agreements now or hereafter owned by any Grantor and now or hereafter covered by such licenses (including, without limitation, all Trademark Licenses described in Part F of Schedule I hereto).

Trademarks means all domestic and foreign trademarks, service marks, collective marks, certification marks, trade names, business names, d/b/a s, Internet domain names, trade styles, designs, logos and other source or business identifiers and all general intangibles of like nature, now or hereafter owned, adopted, acquired or used by any Grantor (including, without limitation, all domestic and foreign trademarks, service marks, collective marks, certification marks, trade names, business names, d/b/a s, Internet domain names, trade styles, designs, logos and other source or business identifiers described in Part F of Schedule I hereto), all applications, registrations and recordings thereof (including, without limitation, applications, registrations and recordings in the United States Patent and Trademark Office or in any similar office or agency of the United States, any state thereof or any other country or any political subdivision thereof), and all reissues, extensions or renewals thereof, together with all goodwill of the business symbolized by such marks and all customer lists, formulae and other Records of any Grantor relating to the distribution of products and services in connection with which any of such marks are used.

Transaction Documents means the Securities Purchase Agreement, the Notes, this Agreement and the other Transaction Documents referred to in the Securities Purchase Agreement.

SECTION 2. Grant of Security Interest. As collateral security for all of the Obligations referred to below, each Grantor hereby pledges and collaterally assigns to the Collateral Agent for the benefit of the Secured Parties, and grants to the Collateral Agent for the benefit of the Secured Parties a continuing security interest in, all of the Grantor s right, title and interest in all personal property of such Grantor, wherever located and whether now or hereafter existing and whether now owned or hereafter acquired, of every kind and description, tangible or intangible (collectively, the Collateral), including, without limitation, the following:

(a) all Accounts; (b) all Chattel Paper (whether tangible or electronic); (c) the Commercial Tort Claims specified on Part D of Schedule I hereto; (d) all Deposit Accounts, all cash and other property from time to time deposited therein and the monies and property in the possession or under the control of the Secured Parties or any affiliate, representative, agent or correspondent of any Secured Party; (e) all Documents; (f) all Equipment; (g) all Fixtures; (h) all General Intangibles (including, without limitation, all Payment Intangibles); (i) all Goods; (j) all Instruments (including, without limitation, Promissory Notes and each certificated Security); (k) all Inventory; (l) all Investment Property; (m) all Copyrights, Patents and Trademarks, and all Licenses; (n) all Letter-of-Credit Rights; (o) all Supporting Obligations; (p) all other tangible and intangible personal property of each Grantor (whether or not subject to the Code), including, without limitation, all bank and other accounts and all cash and all investments therein, all proceeds, products, offspring, accessions, rents, profits, income, benefits, substitutions and replacements of and to any of the property of any Grantor described in the preceding clauses of this Section 2 (including, without limitation, any proceeds of insurance thereon and all causes of action, claims and warranties now or hereafter held by each Grantor in respect of any of the items listed above), and all books, correspondence,

files and other Records, including, without limitation, all tapes, desks, cards, Software, data and computer programs in the possession or under the control of any Grantor or any other Person from time to time acting for any Grantor, in each case, to the extent of such Grantors rights therein, that at any time evidence or contain information relating to any of the property described in the preceding clauses of this Section 2 or are otherwise necessary or helpful in the collection or realization thereof; and (q) all Proceeds, including all Cash Proceeds and Noncash Proceeds, and products of any and all of the foregoing Collateral; in each case howsoever any Grantor s interest therein may arise or appear (whether by ownership, security interest, claim or otherwise).

Notwithstanding anything herein to the contrary, the term Collateral shall not include (collectively **Excluded Collateral**) (i) in the case of a Subsidiary of such Grantor organized under the laws of a jurisdiction other than the United States, any of the states thereof or the District of Columbia (a Foreign Subsidiary), Capital Stock of a Foreign Subsidiary of such Grantor, in excess of 65% (or such greater percentage that, due to a change in applicable law after the date hereof, (A) would not cause the undistributed earnings of such Foreign Subsidiary as determined for United States federal income tax purposes to be treated as a deemed dividend to such Foreign Subsidiary s United States parent and (B) would not cause any material adverse tax consequences) of the issued and outstanding shares of Capital Stock entitled to vote (within the meaning of Treas. Reg. Section 1.956-2(c)(2)) (it being understood and agreed that the Collateral shall include 100% of the issued and outstanding shares of Capital Stock not entitled to vote (within the meaning of Treas. Reg. Section 1.956-2(c)(2)) of such Foreign Subsidiary); and (ii) receivables or property pledged or sold pursuant to that certain General Conditions for Future Factoring Operations, dated December 12, 2006, in favor of GE Capital Finance S.p.A and (iii) any Collateral as defined in that certain Security Agreement dated as of 29 September 2006 between Drug Royalty Trust 9 and Epoch Bioscience Inc. and Security Agreement dated as of February __, 2008 between Drug Royalty LP2 and Epoch Bioscience Inc; (iv) collateral securing the Letters of Credit; (v) such Grantor s real property interests; (v) any General Intangibles or other rights arising under any contracts, instruments, licenses or other documents as to which the grant of a security interest would (A) constitute a violation of a valid and enforceable restriction in favor of a third party on such grant, unless and until any required consents shall have been obtained, or (B) give any other party to such contract, instrument, license or other document an enforceable right to terminate its obligations thereunder; (vi) any asset, the granting of a security interest in which would be void or illegal under any applicable governmental law, rule or regulation, or pursuant thereto would result in, or permit the termination of, such asset; or (vii) any asset subject to a Permitted Lien (other than Liens in favor of the Secured Parties) to the extent that the grant of other Liens on such asset (A) would result in an enforceable breach or violation of, or constitute a default under, the agreement or instrument governing such Permitted Lien, (B) would result in the loss of use of such asset or (C) would permit the holder of such Permitted Lien to terminate the Grantor s use of such asset.

Collateral Agent agrees that its security interest in Intellectual Property of any Grantor is subject to the terms of any licenses or leases of the Intellectual Property granted by such Grantor in accordance with customary terms or practices within the industry in which the Grantor operates and further agrees that any sale or other disposition of any Intellectual Property upon the enforcement of remedies hereunder shall be expressly subject to such licenses or leases.

SECTION 3. Security for Obligations. The security interest created hereby in the Collateral constitutes continuing collateral security for all of the following obligations, whether now existing or hereafter incurred (collectively, the Obligations):

(a) the payment by the Company, as and when due and payable (by scheduled maturity, required prepayment, acceleration, demand or otherwise), of all amounts from time to time owing by it in respect of the Securities Purchase Agreement, the Notes and the other Transaction Documents, including, without limitation, (A) all principal of and interest on the Notes (including, without limitation, all interest that accrues after the commencement of any Insolvency Proceeding of any Grantor, whether or not the payment of such interest is unenforceable or is not allowable due to the existence of such Insolvency Proceeding),

and (B) all fees, commissions, expense reimbursements, indemnifications and all other amounts due or to become due under any of the Transaction Documents; and

(b) the due performance and observance by each Grantor of all of its other obligations from time to time existing in respect of any of the Transaction Documents, including without limitation, with respect to any conversion or redemption rights of the Noteholders.

Any portion of a Note converted into Capital Stock of the Company shall be treated as having been paid and no longer an outstanding Obligation.

SECTION 4. Representations and Warranties. Each Grantor represents and warrants as of the date of this Agreement as follows:

(a) Part A of Schedule I hereto sets forth (i) the exact legal name of each Grantor, and (ii) the state of incorporation, organization or formation and the organizational identification number of each Grantor in such state.

(b) There is no pending or, to its knowledge, written notice threatening any action, suit or proceeding affecting any Grantor before any Governmental Authority or any arbitrator, or any order, judgment or award issued by any Governmental Authority or arbitrator, in each case, that may adversely affect the grant by any Grantor, or the perfection, of the security interest purported to be created hereby in the Collateral, or the exercise by the Collateral Agent of any of its rights or remedies hereunder.

(c) All Federal, state and local tax returns and other reports required by applicable law to be filed by any Grantor have been filed, or extensions have been obtained, and all taxes, assessments and other governmental charges imposed upon any Grantor or any property of any Grantor (including, without limitation, all federal income and social security taxes on employees wages) and which have become due and payable on or prior to the date hereof have been paid, except to the extent contested in good faith by proper proceedings which stay the imposition of any penalty, fine or Lien resulting from the non-payment thereof and with respect to which adequate reserves have been set aside for the payment thereof in accordance with generally accepted accounting principles consistently applied (GAAP).

(d) All Equipment, Fixtures, Goods and Inventory (other than Equipment, Fixtures, Goods and Inventory in transit or on loan or lease to customers) of each Grantor now existing are, and all Equipment, Fixtures, Goods and Inventory of each Grantor hereafter existing will be, located and/or based at one of the addresses specified therefor in Part B of Schedule I hereto (or a new Part B of Schedule I delivered by the Grantors to the Collateral Agent from time to time), except that each Grantor will give the Collateral Agent written notice of any transfer to any additional locations of any such Collateral within 20 days of such change. Each Grantor s chief place of business and chief executive office, the place where each Grantor keeps its Records concerning Accounts and all originals of all Chattel Paper are located at the addresses specified therefor in Part B of Schedule I hereto. None of the Accounts is evidenced by Promissory Notes or other Instruments. Set forth in Part E of Schedule I hereto is a complete and accurate list, as of the date of this Agreement, of (i) each material Promissory Note, Security and other Instrument owned by each Grantor and (ii) each Deposit Account, Securities Account and Commodities Account of each Grantor, together with the name and address of each institution at which each such account is maintained, the account number for each such account and a description of the purpose of each such account. Set forth in Part G of Schedule I hereto is a complete and correct list of each material trade name used by each Grantor.

(e) Part F of Schedule I hereto sets forth a true and complete list of all material Licenses existing on the date of this Agreement. Upon request by Collateral Agent, each Grantor will deliver to the Collateral Agent complete and correct copies of any material License listed in Part F of Schedule I hereto. Each such License sets forth the entire agreement and understanding of the parties thereto relating to the subject matter thereof, and there are no other agreements, arrangements or understandings, written or oral, relating to the matters covered thereby or the rights of such Grantor or any of its affiliates in respect thereof. Each material License

now existing is, and any material License entered into in the future will be, the legal, valid and binding obligation of the parties thereto, enforceable against such parties in accordance with its terms, except as such enforceability may be limited by general principles of equity or applicable bankruptcy, insolvency, reorganization, moratorium, liquidation, conservatorship, receivership or similar laws relating to, or affecting generally, the enforcement of applicable creditors rights and remedies. No default under any material License by any such party has occurred, nor to the knowledge of Grantor does any defense, offset, deduction or counterclaim exist thereunder in favor of any such party.

(f) Part F of Schedule I hereto sets forth a true and complete list of all registered copyrights, issued Patents and registered Trademarks owned by each Grantor as of the date hereof (other than Excluded Collateral).

(g) The Collateral is free and clear of any Liens, except for Permitted Liens. No effective financing statement or other instrument similar in effect covering all or any part of the Collateral is on file in any recording or filing office, except such as may have been filed in favor of the Secured Parties relating to this Agreement or the other Security Documents and except as to Permitted Liens.

(h) The exercise by the Collateral Agent of any of its rights and remedies hereunder will not contravene any law or any contractual restriction binding on or otherwise affecting each Grantor or any of its properties and will not result in or require the creation of any Lien, upon or with respect to any of its properties.

(i) No authorization or approval or other action by, and no notice to or filing with, any US Governmental Authority or other US regulatory body, is required for (i) the grant by each Grantor, or the perfection, of the security interest purported to be created hereby in the Collateral, or (ii) the exercise by the Collateral Agent of any of its rights and remedies hereunder, except (except (A) for the filing under the Uniform Commercial Code as in effect in the applicable jurisdiction of the financing statements described in Part C of Schedule I hereto (or a new Part C of Schedule I delivered by the Grantors to the Collateral Agent from time to time), all of which financing statements have been duly filed and are in full force and effect or will be duly filed and in full force and effect, (B) with respect to Deposit Accounts, and all cash and other property from time to time deposited therein, or Commodity Contracts for the execution of a control agreement with the depository institution or commodity intermediary with which such account is maintained, each as provided in Section 5(i), (C) with respect to the perfection of the security interest created hereby in the Intellectual Property and Licenses, for the recording of the appropriate Grant of Security Interest, substantially in the form of Exhibit A hereto in the applicable Intellectual Property Office, (D) with respect to the perfection of the security interest created hereby in Titled Collateral, for the submission of an appropriate application requesting that the Lien of the Collateral Agent be noted on the Certificate of Title or certificate of ownership, completed and authenticated by the applicable Grantor, together with the Certificate of Title or certificate of ownership, with respect to such Titled Collateral, to the appropriate Governmental Authority, (E) with respect to the perfection of the security interest created hereby in any Letter-of-Credit Rights, for the consent of the issuer of the applicable letter of credit to the assignment of proceeds as provided in the Uniform Commercial Code as in effect in the applicable jurisdiction, (F) with respect to any action that may be necessary to obtain control of Collateral constituting Deposit Accounts, Commodity Contracts, Electronic Chattel Paper, Investment Property or Letter-of-Credit Rights, the taking of such actions, and (G) the Collateral Agent having possession of all Documents, Chattel Paper, Instruments and cash constituting Collateral (subclauses (A), (B), (C), (D), (E), (F) and (G), each a Perfection Requirement and collectively, the Perfection Requirements).

(j) This Agreement creates in favor of the Collateral Agent a legal, valid and enforceable security interest in the Collateral, as security for the Obligations. The Perfection Requirements result in the perfection of such security interests in the United States. Such security interests are, or in the case of Collateral in which each Grantor obtains rights after the date hereof, will be, perfected, first priority security interests in the United States, subject only to Permitted Liens and the Perfection Requirements. Such recordings and filings and all other action necessary to perfect and protect such security interest in the United States have been duly taken or will be taken pursuant to Section 5(a), except for the Collateral

Agent s having possession of all Documents, Chattel Paper, Instruments and cash constituting Collateral after the date hereof and the other actions, filings and recordations described above, including the Perfection Requirements.

(k) As of the date hereof, no Grantor has commenced proceeding on any Commercial Tort Claims or has knowledge of any pending Commercial Tort Claims, except for such Commercial Tort Claims described in Part D of Schedule I hereto.

SECTION 5. Covenants as to the Collateral. So long as any of the Obligations (other than inchoate indemnity Obligations) shall remain outstanding, unless the Collateral Agent shall otherwise consent in writing:

(a) Further Assurances. Each Grantor will at its expense, at any time and from time to time, promptly execute and deliver all further instruments and documents and take all further action that the Collateral Agent may reasonably request in order to: (i) perfect or protect the security interest purported to be created hereby; (ii) enable the Collateral Agent to exercise and enforce its rights and remedies hereunder in respect of the Collateral; or (iii) otherwise effect the purposes of this Agreement, including, without limitation: (A) marking conspicuously all Chattel Paper and, at the request of the Collateral Agent, each of its Records pertaining to the Collateral with a legend, in form and substance reasonably satisfactory to the Collateral Agent, indicating that such Chattel Paper, or Collateral is subject to the security interest created hereby, (B) delivering and pledging to the Collateral Agent pursuant to each Promissory Note, Security, Chattel Paper or other Instrument included in the Collateral, duly endorsed and accompanied by executed instruments of transfer or assignment, all in form and substance satisfactory to the Collateral Agent, (C) executing and filing (to the extent, if any, that any Grantor s signature is required thereon) or authenticating the filing of, such financing or continuation statements, or amendments thereto, as may be necessary or that the Collateral Agent may reasonably request in order to perfect and preserve the security interest purported to be created hereby, (D) furnishing to the Collateral Agent from time to time statements and schedules further identifying and describing the Collateral and such other reports in connection with the Collateral in each case as the Collateral Agent may reasonably request, all in reasonable detail, (E) if any Collateral shall be in the possession of a third party, notifying such Person of the Collateral Agent s security interest created hereby and obtaining a written acknowledgment from such Person that such Person holds possession of the Collateral for the benefit of the Collateral Agent, which such written acknowledgement shall be in form and substance reasonably satisfactory to the Collateral Agent, (F) if at any time after the date hereof, any Grantor determines to commence proceedings with respect to any Commercial Tort Claim, promptly notifying the Collateral Agent in a writing signed by such Grantor setting forth a brief description of such Commercial Tort Claim and granting to the Collateral Agent a security interest therein and in the proceeds thereof, which writing shall incorporate the provisions hereof and shall be in form and substance satisfactory to the Collateral Agent, (G) upon the acquisition after the date hereof by any Grantor of any motor vehicle or other Equipment subject to a certificate of title or ownership (other than a Motor Vehicle or Equipment that is subject to a purchase money security interest), causing the Collateral Agent to be listed as the lienholder on such certificate of title or ownership and delivering evidence of the same to the Collateral Agent in accordance with Section 5(j) hereof. Notwithstanding the foregoing or anything else in this Agreement, in no event shall any Grantor be required to undertake steps to perfect the security interests granted hereunder under the laws of any foreign jurisdiction.

(b) Location of Equipment and Inventory. Each Grantor will keep the Equipment and Inventory (other than Equipment and Inventory in transit, or on loan or lease to customers) (i) at a location specified on Schedule III hereto, or (ii) at such other locations as Grantor shall notify Collateral Agent within 20 days following the relocation of Equipment or Inventory to such other location and Grantor shall deliver to the Collateral Agent a new Schedule III indicating such new locations.

(c) Condition of Equipment. Each Grantor will maintain or cause the Equipment (necessary to its business) to be maintained and preserved in good condition, repair and working order, ordinary wear and tear excepted, and will promptly, or in the case of any loss or damage to any Equipment of any Grantor within a commercially reasonable time after the occurrence thereof, make or cause to be made all repairs,

replacements and other improvements in connection therewith which are necessary, consistent with past practice. Any Grantor will promptly furnish to the Collateral Agent a statement describing in reasonable detail any such loss or damage in excess of $250,000 per occurrence to any Equipment.

(d) Taxes, Etc. Each Grantor agrees to pay promptly when due all property and other taxes, assessments and governmental charges or levies imposed upon the Equipment and Inventory, except to the extent the validity thereof is being contested in good faith by proper proceedings which stay the imposition of any penalty, fine or Lien resulting from the non-payment thereof and with respect to which adequate reserves in accordance with GAAP have been set aside for the payment thereof.

(e) Intentionally Omitted.

(f) Provisions Concerning the Accounts and the Licenses.

(i) Each Grantor will (A) give the Collateral Agent at least 30 days prior written notice of any change in such Grantor s name, identity or corporate organizational form, (B) maintain its jurisdiction of incorporation, organization or formation as set forth in Part A of Schedule I hereto, (C) immediately notify the Collateral Agent upon obtaining an organizational identification number, if on the date hereof such Grantor did not have such identification number, and (D) keep adequate records concerning the Accounts, in accordance with Section [4(i)] of the Securities Purchase Agreement and Chattel Paper.

(ii) Each Grantor will, except as otherwise provided in this subsection (f), continue to collect, at its own expense, all amounts due or to become due under the Accounts. In connection with such collections, any Grantor may (and, at the Collateral Agent s direction, will) take such action as any Grantor or the Collateral Agent may deem reasonably necessary to enforce collection or performance of the Accounts; provided, however, that the Collateral Agent shall have the right at any time, upon the occurrence and during the continuance of an Event of Default, to notify the account debtors or obligors under any Accounts of the assignment of such Accounts to the Collateral Agent and to direct such account debtors or obligors to make payment of all amounts due or to become due to any Grantor thereunder directly to the Collateral Agent or its designated agent and, upon such notification and at the expense of any Grantor and to the extent permitted by law, to enforce collection of any such Accounts and to adjust, settle or compromise the amount or payment thereof, in the same manner and to the same extent as any Grantor might have done. After receipt by any Grantor of a notice from the Collateral Agent that the Collateral Agent has notified, intends to notify, or has enforced or intends to enforce any Grantor s rights against the account debtors or obligors under any Accounts as referred to in the proviso to the immediately preceding sentence, (A) all amounts and proceeds (including Instruments) received by any Grantor in respect of the Accounts shall be received in trust for the benefit of the Collateral Agent hereunder, shall be segregated from other funds of any Grantor and shall be forthwith paid over to the Collateral Agent in the same form as so received (with any necessary endorsement) to be applied as specified in Section 7(b) hereof, and (B) no Grantor will adjust, settle or compromise the amount or payment of any Account or release wholly or partly any account debtor or obligor thereof or allow any credit or discount thereon. In addition, upon the occurrence and during the continuance of an Event of Default arising from (i) a payment default under the Notes or any other Transaction Document or (ii) any other default following acceleration of the Note, the Collateral Agent may (in its sole and absolute discretion) direct any or all of the banks and financial institutions with which any Grantor either maintains a Deposit Account or a lockbox or deposits the proceeds of any Accounts to send immediately to the Collateral Agent by wire transfer (to such account as the Collateral Agent shall specify, or in such other manner as the Collateral Agent shall direct) all or a portion of such securities, cash, investments and other items held by such institution. Any such securities, cash, investments and other items so received by the Collateral Agent shall be applied as specified in accordance with Section 7(b) hereof.

(iii) Upon the occurrence and during the continuance of any material breach or default under of any material License referred to in Part F of Schedule I hereto by any party thereto other than any

Grantor, each Grantor party thereto will, promptly after obtaining knowledge thereof, give the Collateral Agent written notice of the nature and duration thereof, specifying what action, if any, it has taken and proposes to take with respect thereto and thereafter will take commercially reasonable steps as determined by Company in the exercise of its commercial judgment appropriate to protect and preserve its rights and remedies in respect of such breach or default, or will obtain or acquire an appropriate substitute License.

(iv) Each Grantor will, at its expense, promptly deliver to the Collateral Agent a copy of each material notice or other communication received by it by which any other party to any material License referred to in Part F of Schedule I hereto alleges a material breach by Grantor thereto.

(v) Each Grantor will use commercially reasonable efforts to exercise promptly and diligently all material right which it may have under each material License (other than any right of termination) and will duly perform and observe in all respects all of its obligations under each material License and will take all action reasonably necessary to maintain such Licenses in full force and effect. To the extent reasonably likely to cause a material adverse effect on the Noteholder s rights or remedies hereunder, no Grantor will, without the prior written consent of the Collateral Agent, cancel, terminate or amend, waive or modify any provision of, any material License referred to in Part F of Schedule I hereto.

(g) Transfers and Other Liens.

(i) Other than as expressly permitted in the Notes, no Grantor will sell, assign (by operation of law or otherwise), lease, license, exchange or otherwise transfer or dispose of any of the Collateral.

(ii) No Grantor will create, suffer to exist or grant any Lien upon or with respect to any Collateral other than a Permitted Lien.

(h) Intellectual Property.

(i) If applicable, any Grantor shall, upon the Collateral Agent s written request, duly execute and deliver the applicable Grant of Security Interest in the form attached hereto as Exhibit A. Each Grantor will use commercially reasonably efforts consistent with past practices to maintain the validity and enforceability of its Intellectual Property; provided, however, that no Grantor shall have an obligation to use or to maintain any Intellectual Property (A) that relates solely to any product or work, that has been, or is in the process of being, discontinued, abandoned or terminated, (B) that is being replaced with Intellectual Property substantially similar to the Intellectual Property that may be abandoned or otherwise become invalid, so long as the failure to use or maintain such Intellectual Property does not materially adversely affect the validity of such replacement Intellectual Property and so long as such replacement Intellectual Property is subject to the Lien created by this Agreement or (C) that is substantially the same as another Intellectual Property that is in full force, so long the failure to use or maintain such Intellectual Property does not materially adversely affect the validity of such replacement Intellectual Property and so long as such other Intellectual Property is subject to the Lien and security interest created by this Agreement. Each Grantor will, consistent with past practices, use commercially reasonable efforts to cause to be taken all necessary steps in any proceeding before applicable Intellectual Property Office to maintain each registration of any material Intellectual Property (other than the Intellectual Property described in the proviso to the immediately preceding sentence), including, without limitation, filing of renewals, affidavits of use, affidavits of incontestability and opposition, interference and cancellation proceedings and payment of maintenance fees, filing fees, taxes or other governmental fees. If any material Intellectual Property (other than Intellectual Property described in the proviso to the first sentence of subsection (i) of this clause (h)) is infringed, misappropriated, diluted or otherwise violated in any material respect by a third party, each Grantor shall (x) upon learning of such infringement, misappropriation, dilution or other violation, promptly notify the Collateral Agent and (y) to the extent any Grantor shall deem appropriate under the circumstances, promptly sue for infringement, misappropriation, dilution or other violation, seek injunctive relief where appropriate and recover any and all damages for such infringement,

misappropriation, dilution or other violation, or take such other actions as such Grantor shall deem appropriate under the circumstances to protect such Intellectual Property. Each Grantor shall furnish to the Collateral Agent from time to time upon its request statements and schedules further identifying and describing the Intellectual Property and Licenses and such other reports in connection with the Intellectual Property and Licenses as the Collateral Agent may reasonably request, all in reasonable detail and promptly upon request of the Collateral Agent, following receipt by the Collateral Agent of any such statements, schedules or reports, each Grantor shall modify this Agreement by amending Part F of Schedule I hereto, as the case may be, to include any Intellectual Property and License, as the case may be, which becomes part of the Collateral under this Agreement and shall execute and authenticate such documents and do such acts as shall be necessary or, in the reasonable judgment of the Collateral Agent, desirable to subject such Intellectual Property and Licenses to the Lien and security interest created by this Agreement. Notwithstanding anything herein to the contrary, upon the occurrence and during the continuance of an Event of Default, no Grantor may abandon or otherwise permit any Intellectual Property to become invalid without the prior written consent of the Collateral Agent.

(ii) In no event shall any Grantor, either itself or through any agent, employee, licensee or designee, file an application for the registration of Copyright with the US Copyright Office unless it gives the Collateral Agent prior written notice thereof. Grantor will promptly notify the Collateral Agent of the filing of any Trademark or issuance of any Patent. Upon request of the Collateral Agent, any Grantor shall execute, authenticate and deliver any and all assignments, agreements, instruments, documents and papers as the Collateral Agent may reasonably request to perfect or provide notice of the Collateral Agent s security interest hereunder in such Intellectual Property and the General Intangibles of any Grantor relating thereto or represented thereby, and each Grantor hereby appoints the Collateral Agent its attorney-in-fact to execute and/or authenticate and file all such writings for the foregoing purposes, all acts of such attorney being hereby ratified and confirmed, and such power (being coupled with an interest) shall be irrevocable until the indefeasible payment in full in cash of all of the Obligations in full.

(i) Deposit, Commodities and Securities Accounts. Upon the Collateral Agent s written request, each Grantor shall cause each bank and other financial institution with an account referred to in Part E of Schedule I hereto to execute and deliver to the Collateral Agent a control agreement, in form and substance reasonably satisfactory to the Collateral Agent, duly executed by each Grantor and such bank or financial institution, or enter into other arrangements in form and substance satisfactory to the Collateral Agent, pursuant to which such institution shall irrevocably agree, inter alia, that (i) it will comply at any time with the instructions originated by the Collateral Agent to such bank or financial institution directing the disposition of cash, Commodity Contracts, securities, Investment Property and other items from time to time credited to such account, without further consent of each Grantor, which instructions the Collateral Agent will not give to such bank or other financial institution in the absence of (i) a continuing Event of Default arising from a payment default under the Notes or other Transaction Documents or (ii) any other continuing Event of Default following acceleration of the Notes, (iii) all Commodity Contracts, securities, Investment Property and other items of each Grantor deposited with such institution shall be subject to a perfected, first priority security interest in favor of the Collateral Agent, (iv) any right of set off (other than recoupment of standard fees), banker s Lien or other similar Lien, security interest or encumbrance shall be fully waived as against the Collateral Agent, and (v) upon receipt of written notice from the Collateral Agent during the continuance of an Event of Default, such bank or financial institution shall immediately send to the Collateral Agent by wire transfer (to such account as the Collateral Agent shall specify, or in such other manner as the Collateral Agent shall direct) all such cash, the value of any Commodity Contracts, securities, Investment Property and other items held by it. Without the prior written consent of the Collateral Agent, each Grantor shall not make or maintain any Deposit Account, Commodity Account or Securities Account except for the accounts set forth in Part E of Schedule I hereto. The provisions of this paragraph 5(i) shall not apply to (i) Deposit Accounts for which the Collateral Agent is the depositary and (ii) Deposit Accounts specially and exclusively used for payroll, payroll taxes and other employee wage and benefit payments to or for the benefit of each Grantor s salaried or hourly employees.

(j) Motor Vehicles.

(i) Upon the Collateral Agent s written request, each Grantor shall deliver to the Collateral Agent originals of the certificates of title or ownership for all motor vehicles owned by it with the Collateral Agent listed as lienholder, for the benefit of the Secured Parties.

(ii) Each Grantor hereby appoints the Collateral Agent as its attorney-in-fact, effective the date hereof and terminating upon the termination of this Agreement, for the purpose of (A) executing on behalf of such Grantor title or ownership applications for filing with appropriate state agencies to enable motor vehicles now owned or hereafter acquired by such Grantor to be retitled and the Collateral Agent listed as lienholder thereof, (B) filing such applications with such state agencies, and (C) executing such other documents and instruments on behalf of, and taking such other action in the name of, such Grantor as the Collateral Agent may deem necessary or advisable to accomplish the purposes of this 5(j) (including, without limitation, for the purpose of creating in favor of the Collateral Agent a perfected Lien on the motor vehicles and exercising the rights and remedies of the Collateral Agent hereunder). This appointment as attorney-in-fact is coupled with an interest and is irrevocable until all of the Obligations (other than inchoate indemnity Obligations) are indefeasibly paid in full in cash.

(iii) Any certificates of title or ownership delivered pursuant to the terms hereof shall be accompanied by odometer statements for each motor vehicle covered thereby.

(iv) So long as no Event of Default shall have occurred and be continuing, upon the request of any Grantor, the Collateral Agent shall execute and deliver to any Grantor such instruments as any Grantor shall reasonably request to remove the notation of the Collateral Agent as lienholder on any certificate of title for any motor vehicle; provided, however, that any such instruments shall be delivered, and the release effective, only upon receipt by the Collateral Agent of a certificate from any Grantor stating that such motor vehicle is to be sold or has suffered a casualty loss (with title thereto in such case passing to the casualty insurance company therefor in settlement of the claim for such loss) and the amount that any Grantor will receive as sale proceeds or insurance proceeds.

(k) Control. Each Grantor hereby agrees to take any or all action that may be necessary or that the Collateral Agent may reasonably request in order for the Collateral Agent to obtain control in accordance with Sections 9-105, 9-106 and 9-107 of the Code with respect to the following Collateral: (i) Electronic Chattel Paper, (ii) Investment Property, and (iii) Letter-of-Credit Rights.

(l) Inspection and Reporting. Each Grantor shall permit the Collateral Agent, or any agent or representatives thereof or such professionals or other Persons as the Collateral Agent may designate, during normal business hours, after reasonable prior notice, in the absence of an Event of Default and not more than once a year in the absence of an Event of Default, (i) to examine and make copies of and abstracts from any Grantor s records and books of account, (ii) to visit and inspect its properties, (iii) to verify materials, leases, Instruments, Accounts, Inventory and other assets of any Grantor from time to time, (iii) to conduct audits, physical counts, appraisals and/or valuations, examinations at the locations of any Grantor. Each Grantor shall also permit the Collateral Agent, or any agent or representatives thereof or such professionals or other Persons as the Collateral Agent may designate to discuss such Grantor s affairs, finances and accounts with any of its directors, officers, managerial employees, independent accountants or any of its other representatives.

(m) Notwithstanding the foregoing or anything else in this Agreement, the Grantors shall be entitled to withhold any material non public information unless the Secured Parties shall have waived the application of Section 4(h) of the Securities Purchase Agreement and Section 7(e) of the Exchange Agreements with respect to such information.

SECTION 6. Additional Provisions Concerning the Collateral.

(a) To the maximum extent permitted by applicable law, and for the purpose of taking any action that the Collateral Agent may reasonably deem necessary or advisable for the perfection of the security interests hereunder or for the exercise of its rights and remedies hereunder, each Grantor hereby (i) authorizes the Collateral Agent to execute any such agreements, instruments or other documents in such Grantor s name and to file such agreements, instruments or other documents in such Grantor s name and in any appropriate filing office, (ii) authorizes the Collateral Agent at any time and from time to time to file, one or more financing or continuation statements, and amendments thereto, relating to the Collateral (including, without limitation, any such financing statements that (A) describe the Collateral as all assets or all personal property (or words of similar effect) or that describe or identify the Collateral by type or in any other manner as the Collateral Agent may determine regardless of whether any particular asset of such Grantor falls within the scope of Article 9 of the Uniform Commercial Code or whether any particular asset of such Grantor constitutes part of the Collateral, and (B) contain any other information required by Part 5 of Article 9 of the Code for the sufficiency or filing office acceptance of any financing statement, continuation statement or amendment, including, without limitation, whether such Grantor is an organization, the type of organization and any organizational identification number issued to such Grantor) and (iii) ratifies such authorization to the extent that the Collateral Agent has filed any such financing or continuation statements, or amendments thereto, prior to the date hereof. A photocopy or other reproduction of this Agreement or any financing statement covering the Collateral or any part thereof shall be sufficient as a financing statement where permitted by law.

(b) Each Grantor hereby irrevocably appoints the Collateral Agent as its attorney-in-fact and proxy, with full authority in the place and stead of such Grantor and in the name of such Grantor or otherwise, from time to time in the Collateral Agent s discretion, so long as an Event of Default shall have occurred and is continuing, to take any action and to execute any instrument which the Collateral Agent may reasonably deem necessary or advisable to accomplish the purposes of this Agreement or for the purpose of exercising its remedies pursuant hereto (subject to the rights of each Grantor under Section 5 hereof), including, without limitation, (i) to obtain and adjust insurance required to be paid to the Collateral Agent pursuant to Section 5(e) hereof, (ii) to ask, demand, collect, sue for, recover, compound, receive and give acquittance and receipts for moneys due and to become due under or in respect of any Collateral, (iii) to receive, endorse, and collect any drafts or other instruments, documents and chattel paper in connection with clause (i) or (ii) above, (iv) to file any claims or take any action or institute any proceedings which the Collateral Agent may deem necessary or desirable for the collection of any Collateral or otherwise to enforce the rights of the Secured Parties with respect to any Collateral, and (v) to execute assignments, licenses and other documents to enforce the rights of the Secured Parties with respect to any Collateral. This power is coupled with an interest and is irrevocable until all of the Obligations (other than inchoate indemnity Obligations) are indefeasibly paid in full in cash.

(c) For the purpose of enabling the Collateral Agent to exercise rights and remedies hereunder, at such time as Event of Default shall have occurred and is continuing and maturity of the debt evidence by the Notes shall have been accelerated, and for no other purpose, each Grantor hereby grants to the Collateral Agent, to the extent assignable, an irrevocable, non-exclusive license (exercisable without payment of royalty or other compensation to any Grantor) to use, assign, license or sublicense any Intellectual Property now owned or hereafter acquired by such Grantor, wherever the same may be located, including in such license reasonable access to all media in which any of the licensed items may be recorded or stored and to all computer programs used for the compilation or printout thereof. Further, upon the indefeasible payment in full in cash of all of the Obligations (other than inchoate indemnity Obligations), the Collateral Agent (subject to Section 10(e) hereof) shall release and reassign to any Grantor all of the Collateral Agent s right, title and interest in and to the Intellectual Property, and the Licenses, all without recourse, representation or warranty whatsoever. The exercise of rights and remedies hereunder by the Collateral Agent shall not terminate the rights of the holders of any licenses or sublicenses theretofore granted by each Grantor. Each Grantor hereby releases the Collateral Agent from any claims, causes of action and demands at any time

arising out of or with respect to any actions taken or omitted to be taken by the Collateral Agent under the powers of attorney granted herein other than actions taken or omitted to be taken through the Collateral Agent s gross negligence or willful misconduct, as determined by a final determination of a court of competent jurisdiction.

(d) If any Grantor fails to perform any agreement or obligation contained herein, the Collateral Agent may itself perform, or cause performance of, such agreement or obligation, in the name of such Grantor or the Collateral Agent, and the expenses of the Collateral Agent incurred in connection therewith shall be payable by such Grantor pursuant to Section 8 hereof and shall be secured by the Collateral.

(e) The powers conferred on the Collateral Agent hereunder are solely to protect its interest in the Collateral and shall not impose any duty upon it to exercise any such powers. Except for the safe custody of any Collateral in its possession and the accounting for moneys actually received by it hereunder, the Collateral Agent shall have no duty as to any Collateral or as to the taking of any necessary steps to preserve rights against prior parties or any other rights pertaining to any Collateral.

(f) Anything herein to the contrary notwithstanding (i) each Grantor shall remain liable under the Licenses and otherwise with respect to any of the Collateral to the extent set forth therein to perform all of its obligations thereunder to the same extent as if this Agreement had not been executed, (ii) the exercise by the Collateral Agent of any of its rights hereunder shall not release any Grantor from any of its obligations under the Licenses or otherwise in respect of the Collateral, and (iii) the Collateral Agent shall not have any obligation or liability by reason of this Agreement under the Licenses or with respect to any of the other Collateral, nor shall the Collateral Agent be obligated to perform any of the obligations or duties of any Grantor thereunder or to take any action to collect or enforce any claim for payment assigned hereunder.

SECTION 7. Remedies Upon Event of Default. If any Event of Default shall have occurred and be continuing:

(a) The Collateral Agent may exercise in respect of the Collateral, in addition to any other rights and remedies provided for herein or otherwise available to it, all of the rights and remedies of a secured party upon default under the Code (whether or not the Code applies to the affected Collateral), and also may (i) take absolute control of the Collateral, including, without limitation, transfer into the Collateral Agent s name or into the name of its nominee or nominees (to the extent the Collateral Agent has not theretofore done so) and thereafter receive, for the benefit of the Collateral Agent, all payments made thereon, give all consents, waivers and ratifications in respect thereof and otherwise act with respect thereto as though it were the outright owner thereof, (ii) require each Grantor to, and each Grantor hereby agrees that it will at its expense and upon request of the Collateral Agent forthwith, assemble all or part of its respective Collateral as directed by the Collateral Agent and make it available to the Collateral Agent at a place or places to be designated by the Collateral Agent that is reasonably convenient to both parties, and the Collateral Agent may enter into and occupy any premises owned or leased by any Grantor where the Collateral or any part thereof is located or assembled for a reasonable period in order to effectuate the Collateral Agent s rights and remedies hereunder or under law, without obligation to any Grantor in respect of such occupation, and (iii) without notice except as specified below and without any obligation to prepare or process the Collateral for sale, (A) sell the Collateral or any part thereof in one or more parcels at public or private sale, at any of the Collateral Agent s offices or elsewhere, for cash, on credit or for future delivery, and at such price or prices and upon such other terms as the Collateral Agent may deem commercially reasonable and/or (B) lease, license or dispose of the Collateral or any part thereof upon such terms as the Collateral Agent may deem commercially reasonable. Each Grantor agrees that, to the extent notice of sale or any other disposition of its respective Collateral shall be required by law, at least ten (10) days notice to any Grantor of the time and place of any public sale or the time after which any private sale or other disposition of its respective Collateral is to be made shall constitute reasonable notification. The Collateral Agent shall not be obligated to make any sale or other disposition of any Collateral regardless of notice of sale having been given. The Collateral Agent may adjourn any public or private sale from time to time by announcement at the time and place fixed therefor, and such sale may, without further notice, be made at the time and place to

which it was so adjourned. Each Grantor hereby waives any claims against the Secured Parties arising by reason of the fact that the price at which its respective Collateral may have been sold at a private sale was less than the price which might have been obtained at a public sale or was less than the aggregate amount of the Obligations, even if the Collateral Agent accepts the first offer received and does not offer such Collateral to more than one offeree, and waives all rights that any Grantor may have to require that all or any part of such Collateral be marshaled upon any sale (public or private) thereof. Each Grantor hereby acknowledges that (i) any such sale of its respective Collateral by the Collateral Agent shall be made without warranty, (ii) the Collateral Agent may specifically disclaim any warranties of title, possession, quiet enjoyment or the like, and (iii) such actions set forth in clauses (i) and (ii) above shall not adversely affect the commercial reasonableness of any such sale of Collateral. In addition to the foregoing, (1) upon written notice to any Grantor from the Collateral Agent after and during the continuance of an Event of Default and following acceleration of the Notes, such Grantor shall cease any use of the Intellectual Property or any trademark, patent or copyright similar thereto for any purpose described in such notice; (2) the Collateral Agent may, at any time and from time to time after and during the continuance of an Event of Default and following acceleration of the Notes, upon 10 days prior notice to such Grantor, license, whether general, special or otherwise, and whether on an exclusive or non-exclusive basis, any of the Intellectual Property, throughout the universe for such term or terms, on such conditions, and in such manner, as the Collateral Agent shall in its sole discretion determine; and (3) the Collateral Agent may, at any time, pursuant to the authority granted in Section 6 hereof (such authority being effective upon the occurrence and during the continuance of an Event of Default and following acceleration of the Notes), execute and deliver on behalf of such Grantor, one or more instruments of assignment of the Intellectual Property (or any application or registration thereof), in form suitable for filing, recording or registration in any country.

(b) Any cash held by the Collateral Agent as Collateral and all Cash Proceeds received by the Collateral Agent in respect of any sale of or collection from, or other realization upon, all or any part of the Collateral shall be applied (after payment of any amounts payable to the Collateral Agent pursuant to Section 8 hereof) by the Collateral Agent against, all or any part of the Obligations in such order as the Collateral Agent shall elect, consistent with the provisions of the Securities Purchase Agreement and other Transaction Documents. Any surplus of such cash or Cash Proceeds held by the Collateral Agent and remaining after the indefeasible payment in full in cash of all of the Obligations shall be paid over to whomsoever shall be lawfully entitled to receive the same or as a court of competent jurisdiction shall direct.

(c) In the event that the proceeds of any such sale, collection or realization are insufficient to pay all amounts to which the Secured Parties are legally entitled, each Grantor shall be liable for the deficiency, together with interest thereon at the highest rate specified in the Notes for interest on overdue principal thereof or such other rate as shall be fixed by applicable law, together with the costs of collection and the reasonable fees, costs, expenses and other client charges of any attorneys employed by the Collateral Agent to collect such deficiency.

(d) Each Grantor hereby acknowledges that if the Collateral Agent complies with any applicable state, provincial, or federal law requirements in connection with a disposition of the Collateral, such compliance will not adversely affect the commercial reasonableness of any sale or other disposition of the Collateral.

(e) The Collateral Agent shall not be required to marshal any present or future collateral security (including, but not limited to, this Agreement and the Collateral) for, or other assurances of payment of, the Obligations or any of them or to resort to such collateral security or other assurances of payment in any particular order, and all of the Collateral Agent s rights hereunder and in respect of such collateral security and other assurances of payment shall be cumulative and in addition to all other rights, however existing or arising. To the extent that any Grantor lawfully may, each Grantor hereby agrees that it will not invoke any law relating to the marshaling of collateral which might cause delay in or impede the enforcement of the Collateral Agent s rights under this Agreement or under any other instrument creating or evidencing any of the Obligations or under which any of the Obligations is outstanding or by which any of the Obligations is

secured or payment thereof is otherwise assured, and, to the extent that it lawfully may, each Grantor hereby irrevocably waives the benefits of all such laws.

SECTION 8. Indemnity and Expenses.

(a) Each Grantor agrees, jointly and severally, to defend, protect, indemnify and hold the Secured Parties harmless from and against any and all claims, damages, losses, liabilities, obligations, penalties, fees, costs and expenses (including, without limitation, reasonable legal fees, costs, expenses, and disbursements of such Person s counsel) to the extent that they arise out of or otherwise result from this Agreement (including, without limitation, enforcement of this Agreement), except to the extent resulting from such Person s gross negligence or willful misconduct, as determined by a final judgment of a court of competent jurisdiction.

(b) Each Grantor agrees, jointly and severally, to pay to the Collateral Agent upon demand the amount of any and all costs and expenses, including the reasonable fees, costs, expenses and disbursements of counsel for the Collateral Agent and of any experts and agents (including, without limitation, any collateral trustee which may act as agent of the Collateral Agent), which the Collateral Agent may incur in connection with (i) the preparation, negotiation, execution, delivery, recordation, administration, amendment, waiver or other modification or termination of this Agreement, (ii) the custody, preservation, use or operation of, or the sale of, collection from, or other realization upon, any Collateral, (iii) the exercise or enforcement of any of the rights of the Collateral Agent hereunder, or (iv) the failure by any Grantor to perform or observe any of the provisions hereof.

SECTION 9. Notices, Etc. All notices and other communications provided for hereunder shall be in writing and shall be mailed (by certified mail, postage prepaid and return receipt requested), telecopied, e-mailed or delivered, at its address set forth on the signature pages below, and if to the Collateral Agent to it, at its address specified on the signature pages below; or as to any such Person, at such other address as shall be designated by such Person in a written notice to all other parties hereto complying as to delivery with the terms of this Section 9. All such notices and other communications shall be effective (a) if sent by certified mail, return receipt requested, when received or three days after deposited in the mails, whichever occurs first, (b) if telecopied or e-mailed, when transmitted (during normal business hours) and confirmation is received, and otherwise, the day after the notice or communication was transmitted and confirmation is received, or (c) if delivered in person, upon delivery.

SECTION 10. Miscellaneous.

(a) No amendment of any provision of this Agreement shall be effective unless it is in writing and signed by each Grantor and the Collateral Agent, and no waiver of any provision of this Agreement, and no consent to any departure by each Grantor therefrom, shall be effective unless it is in writing and signed by each Grantor and the Collateral Agent, and then such waiver or consent shall be effective only in the specific instance and for the specific purpose for which given.

(b) No failure on the part of the Collateral Agent to exercise, and no delay in exercising, any right hereunder or under any of the other Transaction Documents shall operate as a waiver thereof; nor shall any single or partial exercise of any such right preclude any other or further exercise thereof or the exercise of any other right. The rights and remedies of the Secured Parties provided herein and in the other Transaction Documents are cumulative and are in addition to, and not exclusive of, any rights or remedies provided by law. The rights of the Secured Parties under any of the other Transaction Documents against any party thereto are not conditional or contingent on any attempt by such Person to exercise any of its rights under any of the other Transaction Documents against such party or against any other Person, including but not limited to, any Grantor.

(c) Any provision of this Agreement that is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the

remaining portions hereof or thereof or affecting the validity or enforceability of such provision in any other jurisdiction.

(d) This Agreement shall create a continuing security interest in the Collateral and shall (i) remain in full force and effect until the indefeasible payment in full in cash of the Obligations (other than inchoate indemnity Obligations), and (ii) be binding on each Grantor and all other Persons who become bound as debtor to this Agreement in accordance with Section 9-203(d) of the Code and shall inure, together with all rights and remedies of the Secured Parties hereunder, to the benefit of the Secured Parties and their respective permitted successors, transferees and assigns. Without limiting the generality of clause (ii) of the immediately preceding sentence, without notice to any Grantor, the Secured Parties may, subject to the terms of any Transaction Documents, assign or otherwise transfer their rights and obligations under this Agreement and any of the other Transaction Documents in accordance with the respective Transaction Documents, to any other Person and such other Person shall thereupon become vested with all of the benefits in respect thereof granted to the Secured Parties herein or otherwise. Upon any such assignment or transfer, all references in this Agreement to the Secured Parties shall mean the assignee of the Secured Parties. None of the rights or obligations of any Grantor hereunder may be assigned or otherwise transferred without the prior written consent of the Collateral Agent, and any such assignment or transfer without the consent of the Collateral Agent shall be null and void.

(e) Upon the indefeasible payment in full in cash of the Obligations (other than inchoate indemnity Obligations), (i) this Agreement and the security interests created hereby shall terminate and all rights to the Collateral shall revert to the respective Grantor that granted such security interests hereunder, and (ii) the Collateral Agent will, upon any Grantor s request and at such Grantor s expense, (A) return to such Grantor such of the Collateral as shall not have been sold or otherwise disposed of or applied pursuant to the terms hereof, and (B) execute and deliver to such Grantor such documents as such Grantor shall reasonably request to evidence such termination, all without any representation, warranty or recourse whatsoever.

(f) THIS AGREEMENT SHALL BE GOVERNED BY, CONSTRUED AND INTERPRETED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK, EXCEPT AS REQUIRED BY MANDATORY PROVISIONS OF LAW AND EXCEPT TO THE EXTENT THAT THE VALIDITY AND PERFECTION OR THE PERFECTION AND THE EFFECT OF PERFECTION OR NON-PERFECTION OF THE SECURITY INTEREST CREATED HEREBY, OR REMEDIES HEREUNDER, IN RESPECT OF ANY PARTICULAR COLLATERAL ARE GOVERNED BY THE LAW OF A JURISDICTION OTHER THAN THE STATE OF NEW YORK.

(g) ANY LEGAL ACTION, SUIT OR PROCEEDING WITH RESPECT TO THIS AGREEMENT OR ANY DOCUMENT RELATED HERETO MAY BE BROUGHT IN THE COURTS OF THE STATE OF NEW YORK IN THE COUNTY OF NEW YORK OR THE UNITED STATES OF AMERICA FOR THE SOUTHERN DISTRICT OF NEW YORK, AND APPELLATE COURTS THEREOF, AND, BY EXECUTION AND DELIVERY OF THIS AGREEMENT, EACH GRANTOR HEREBY ACCEPTS FOR ITSELF AND IN RESPECT OF ITS PROPERTY, GENERALLY AND UNCONDITIONALLY, THE JURISDICTION OF THE AFORESAID COURTS. EACH GRANTOR HEREBY EXPRESSLY AND IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY LAW, ANY OBJECTION, INCLUDING, WITHOUT LIMITATION, ANY OBJECTION TO THE LAYING OF VENUE OR BASED ON THE GROUNDS OF FORUM NON CONVENIENS, WHICH IT MAY NOW OR HEREAFTER HAVE TO THE BRINGING OF ANY SUCH ACTION, SUIT OR PROCEEDING IN SUCH RESPECTIVE JURISDICTIONS AND CONSENTS TO THE GRANTING OF SUCH LEGAL OR EQUITABLE RELIEF AS IS DEEMED APPROPRIATE BY THE COURT.

(h) EACH GRANTOR AND (BY ITS ACCEPTANCE OF THE BENEFITS OF THIS AGREEMENT) THE COLLATERAL AGENT WAIVES ANY RIGHT IT MAY HAVE TO TRIAL BY JURY IN RESPECT OF ANY LITIGATION BASED ON, ARISING OUT OF, UNDER OR IN CONNECTION WITH THIS AGREEMENT OR ANY OF THE OTHER TRANSACTION DOCUMENTS, OR ANY COURSE OF CONDUCT, COURSE OF DEALING, ORAL OR WRITTEN STATEMENT OR OTHER ACTION OF THE PARTIES HERETO.

(i) Each Grantor irrevocably consents to the service of process of any of the aforesaid courts in any such action, suit or proceeding by the mailing of copies thereof by registered or certified mail (or any substantially similar form of mail), postage prepaid, to any Grantor at its address provided herein, such service to become effective 10 days after such mailing.

(j) Nothing contained herein shall affect the right of the Collateral Agent to serve process in any other manner permitted by law or commence legal proceedings or otherwise proceed against any Grantor or any property of any Grantor in any other jurisdiction.

(k) Each Grantor irrevocably and unconditionally waives any right it may have to claim or recover in any legal action, suit or proceeding referred to in this Section any special, exemplary, punitive or consequential damages.

(l) Section headings herein are included for convenience of reference only and shall not constitute a part of this Agreement for any other purpose.

(m) This Agreement may be executed in any number of counterparts and by different parties hereto in separate counterparts, each of which shall be deemed to be an original, but all of which taken together constitute one in the same Agreement.

[REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, each Grantor has caused this Agreement to be executed and delivered by its officer thereunto duly authorized, as of the date first above written.

NANOGEN INC.

By:
Name:
Title:

ACCEPTED BY:

PORTSIDE GROWTH & OPPORTUNITY FUND

By:
Name:
Title:

SCHEDULE I

PART A: Legal Names; Organizational Identification Numbers; State or Jurisdiction of Organizations

Grantor's Name	State of Organization	Employer I.D.	Organizational I.D.

PART B: Locations

Grantor's Name	Chief Executive Office	Chief Place of Business	Books and Records	Inventory, Equipment, Etc.

PART C: Financing Statements

Grantor	Jurisdictions For Filing Financing Statements

PART D: Commercial Tort Claims
[Describe Commercial Tort Claim]

PART E: Promissory Notes, Securities, Instruments and Deposit, Securities and Commodities Accounts
Securities

Grantor	Name of Issuer	Number of Shares	Class	Certificate No.(s)

Promissory Notes and other Instruments

Grantor	Name of Issuer	Principal Amount	Maturity Date

Deposit, Securities or Commodities Accounts

Grantor	Name and Address of	Account No.	Type of Account

Institution	Purpose of the Account

PART F: Intellectual Property

Trademarks

Grantor	Country	Trademark	Application/ Registration No.	Filing Date	Registration Date	Assignees

Patents

Copyrights

Licenses

PART G: Tradenames

Schedule I, Page 1

EXHIBIT A

GRANT OF SECURITY INTEREST [TRADEMARKS] [PATENTS] [COPYRIGHTS]

WHEREAS, _____ (the "Assignor") [has adopted, used and is using, and holds all right, title and interest in and to, the trademarks and service marks listed on Annex A, which trademarks and service marks are registered or applied for in the United States Patent and Trademark Office (the "Trademarks")] [holds all right, title and interest in the letter patents, design patents and utility patents listed on Annex A, which patents are issued or applied for in the United States Patent and Trademark Office (the "Patents")] [holds all right, title and interest in the copyrights listed on Annex A, which copyrights are registered in the United States Copyright Office (the "Copyrights")];

WHEREAS, the Assignor has entered into a Security Agreement, dated as of February __, 2008 (as amended, restated, replaced, supplemented, modified or as otherwise changed from time to time, the "Security Agreement"), in favor of Portside Growth & Opportunity Fund, as collateral agent for certain purchasers (the "Assignee");

WHEREAS, pursuant to the Security Agreement, the Assignor has granted to the Assignee for the benefit of the Buyers (as defined in the Security Agreement) a continuing security interest in all right, title and interest of the Assignor in, to and under the [Trademarks, together with, among other things, the good-will of the business symbolized by the Trademarks] [Patents] [Copyrights] and the applications and registrations thereof, and all proceeds thereof, including, without limitation, any and all causes of action which may exist by reason of infringement thereof and any and all damages arising from past, present and future violations thereof (the "Collateral"), to secure the payment, performance and observance of the "Obligations" (as defined in the Security Agreement);

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Assignor does hereby grant to the Assignee for the benefit of the Secured Parties a continuing security interest in the Collateral to secure the prompt payment, performance and observance of the Obligations.

The Assignor does hereby further acknowledge and affirm that the rights and remedies of the Assignee with respect to the Collateral are more fully set forth in the Security Agreement, the terms and provisions of which are hereby incorporated herein by reference as if fully set forth herein.

IN WITNESS WHEREOF, the Assignor has caused this Grant of Security Interest to be duly executed by its officer thereunto duly authorized as of _____, 20__

[GRANTORS]

By:
Name:
Title:

ANNEX A TO ASSIGNMENT FOR SECURITY

[Trademarks and Trademark Applications]

[Patent and Patent Applications]

[Copyright and Copyright Applications]

Owned by _____

NANOGEN, INC.

PROXY SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS

FOR ANNUAL MEETING ON JUNE 25, 2008

P

R

O

X

Y

William L. Respess and Nicholas J. Venuto, or each of them, each with the power of substitution, are hereby authorized to represent as proxies and vote all shares of stock of Nanogen, Inc. (the Company) that the undersigned is entitled to vote at the Annual Meeting of Stockholders of the Company to be held at the Company s principal executive offices located at 10398 Pacific Center Court, San Diego, California 92121 on June 25, 2008 at 10:00 a.m., Pacific Time, or at any postponement or adjournment thereof.

Shares represented by this proxy will be voted as directed by the stockholder. **If no such directions are indicated, the proxies will have authority to vote FOR the election of the director nominees listed in Item 1, and FOR Items 2, 3, 4 and 5.**

(CONTINUED AND TO BE SIGNED ON REVERSE SIDE)

SEE REVERSE SIDE **SEE REVERSE SIDE**

X **Please mark votes as in this example.**

THE BOARD OF DIRECTORS RECOMMENDS A VOTE FOR THE ELECTION OF THE DIRECTOR NOMINEES LISTED IN ITEM 1, AND FOR ITEMS 2, 3, 4, AND 5.

1. To elect Howard C. Birndorf to Class I of the Company s Board of Directors.

FOR THE NOMINEE ¨ ¨ WITHHELD FROM THE NOMINEE

¨ (FOR THE NOMINEE EXCEPT AS NOTED ABOVE.)

To elect Robert E. Whalen to Class I of the Company s Board of Directors.

FOR THE NOMINEE ¨ ¨ WITHHELD FROM THE NOMINEE

¨ (FOR THE NOMINEE EXCEPT AS NOTED ABOVE.)

	FOR	AGAINST	ABSTAIN
2. To approve an amendment of the 1997 Stock Incentive Plan to increase the number of shares authorized for issuance thereunder by 4,000,000 shares.	¨	¨	¨
3. To approve an amendment of the Employee Stock Purchase Plan to increase the number of shares authorized for issuance thereunder by 500,000 shares.	¨	¨	¨
4. To approve and ratify the debt restructuring transaction completed in March 2008 in which the company exchanged an aggregate of $12,917,000 in principal amount of its 6.25% Senior Convertible Notes with the Company s 9.75% Senior Secured Convertible Notes with an aggregate principal amount of $15,500,400 and issuance of securities of the Company pursuant to the terms of the debt restructuring.	FOR	AGAINST	ABSTAIN

	FOR	AGAINST	ABSTAIN
5. To ratify the appointment of Ernst & Young LLP as the Company s independent registered public accounting firm.	..	..	..

MARK HERE FOR ADDRESS CHANGE AND NOTE AT LEFT ..

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

Signature

Date: , 2008

Signature

Date: , 2008

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