

NANOGEN INC  
Form 10-K/A  
June 27, 2006

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**UNITED STATES**  
**SECURITIES AND EXCHANGE COMMISSION**

WASHINGTON, D.C. 20549

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**FORM 10-K/A**

Amendment No. 2

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**x ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2005

OR

**.. TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to

Commission File Number 000-23541

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**NANOGEN, INC.**

(Exact name of Registrant as specified in its charter)

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Delaware  
(State or other jurisdiction of

incorporation or organization)

10398 Pacific Center Court, San Diego, CA

33-0489621  
(I.R.S. Employer

Identification No.)

92121

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(Address of principal executive offices)

(Zip code)

Registrant's telephone number, including area code: (858) 410-4600

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**Securities registered pursuant to Section 12(b) of the Act:**

NONE

**Securities registered pursuant to Section 12(g) of the Act:**

**Common Stock \$0.001 par value**

**Preferred Stock Purchase Rights**

(Title of Class)

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Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes  No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes  No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES  NO

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of accelerated filer and large accelerated filer in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer  Accelerated filer  Non-accelerated filer

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). YES  NO

The aggregate market value of the voting stock held by non-affiliates of the registrant based upon the closing sale price of the common stock on June 30, 2005 (the last day of the registrant's most recently completed second fiscal quarter), as reported on the Nasdaq National Market was approximately \$176,644,416. For purposes hereof, directors, executive officers and 10% or greater shareholders have been deemed affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

The number of shares outstanding of the registrant's common stock was 61,993,933 as of March 17, 2006.

**DOCUMENTS INCORPORATED BY REFERENCE**

None.

**EXPLANATORY NOTE**

This Amendment No. 2 to the Annual Report on Form 10-K for the fiscal year ended December 31, 2005 (the Annual Report ) of Nanogen, Inc. (the Registrant ) is being filed solely for the purpose of re-filing Exhibit 10.56, which exhibit has been amended pursuant to comments received from the Staff of the Securities and Exchange Commission (the Commission ) with respect to a confidential treatment request filed with the Commission, and amending the Exhibit Index to Part IV, Item 15 to add new certifications as required by Rule 12b-15 of the Securities and Exchange Act of 1934, as amended. No other modifications or changes have been made to Part IV, Item 15 or any other portions of the Registrant s Annual Report, as originally filed and previously amended. This Amendment No. 2 does not reflect events occurring after the filing of our Annual Report or modify or update those disclosures affected by subsequent events.

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**PART IV**
**Item 15. Exhibits and Financial Statement Schedules**

(a)(1) Financial Statements:

Our financial statements are included herein as required under Item 8 of this Annual Report on Form 10-K. See Index on page F-1.

(2) Financial Statement Schedules

**Schedule II Valuation and Qualifying Accounts****For the Years Ended December 31, 2005, 2004 and 2003****(in thousands)**

|   | <b>Balance at</b> |                     | <b>Additions</b>   |                   |                    |
|---|-------------------|---------------------|--------------------|-------------------|--------------------|
|   | <b>Beginning</b>  | <b>Acquired in</b>  | <b>(charges to</b> |                   | <b>Balance at</b>  |
|   | <b>of Period</b>  | <b>acquisitions</b> | <b>expenses)</b>   | <b>Deductions</b> | <b>end of year</b> |
| <b>Allowance for doubtful accounts</b>    |                   |                     |                    |                   |                    |
| Year ended December 31, 2005              | \$ 176            | \$                  | \$                 | \$ (106)          | \$ 70              |
| Year ended December 31, 2004              | \$ 105            | \$ 53               | \$ 239             | \$ (221)          | \$ 176             |
| Year ended December 31, 2003              | \$ 41             | \$                  | \$ 100             | \$ (36)           | \$ 105             |
| <b>Inventory reserve for obsolescence</b> |                   |                     |                    |                   |                    |
| Year ended December 31, 2005              | \$ 5,860          | \$                  | \$                 | \$ (712)          | \$ 5,148           |
| Year ended December 31, 2004              | \$ 2,483          | \$                  | \$ 3,746           | \$ (369)          | \$ 5,860           |
| Year ended December 31, 2003              | \$ 2,258          | \$                  | \$ 908             | \$ (683)          | \$ 2,483           |

(3) Exhibits

**EXHIBIT INDEX**

| <b>Exhibit Number</b> | <b>Description of Document</b>  |
|-----------------------|---|
| 2.1(20)               | Plan of Arrangement between Nanogen, Inc. and SynX Pharma, Inc., dated February 9, 2004.  |
| 2.2(19)               | Agreement and Plan of Merger and Reorganization dated September 7, 2004, by and among Nanogen, Inc., Empire Acquisition Corp. and Epoch Biosciences.  |
| 2.3(29)               | Asset Purchase Agreement among Registrant, SynX Pharma, Inc. and Spectral Diagnostics, Inc., dated December 19, 2005.   |
| 3.1(3)                | Restated Certificate of Incorporation. (3.(i)1)   |
| 3.2(17)               | Certificate of Amendment to Restated Certificate of Incorporation.  |
| 3.3(3)                | Certificate of Designations, as filed with the Delaware Secretary of State on November 23, 1998. (3.(ii)2)  |
| 3.4(11)               | Amended and Restated Bylaws of Registrant. (3.(ii)1).   |
| 4.1(1)                | Form of Common Stock Certificate. (4.1)   |
| 4.2(2)                | Rights Agreement between Registrant and BankBoston, N.A., dated November 17, 1998.  |
| 4.3(8)                | Amendment No. 1 to Rights Agreement between Registrant and FleetBoston, N.A., dated December 11, 2000.  |
| 10.1(21)(A)           | Amended and Restated 1997 Stock Incentive Plan of Nanogen, Inc. (the 1997 Plan ).   |
| 10.2(6)(A)            | Form of Incentive Stock Option Agreement under the 1997 Plan, as amended. (10.2)  |
| 10.3(6)(A)            | Form of Nonqualified Stock Option Agreement under the 1997 Plan, as amended. (10.3)   |
| 10.4(21)(A)           | Amended and Restated Nanogen, Inc. Employee Stock Purchase Plan. (99.2)   |
| 10.5(13)(A)           | Nanogen, Inc. 2002 Stock Bonus Plan.  |
| 10.6(1)(A)            | Form of Indemnification Agreement between Registrant and its directors and executive officers. (10.7)   |
| 10.7(7)               | Warrant to Purchase Common Stock between Registrant, Aventis Research and Technologies Verwaltungs GmbH, dated September 22, 2000. (10.9)   |
| 10.8(12)              | Warrant to Purchase Common Stock between Registrant and Genetic Technologies Limited, dated June 3, 2002. (10.9)  |
| 10.9(16)              | Form of Securities Purchase Agreement between Registrant and investors described therein, dated September 17, 2003.   |
| 10.10(18)             | Warrant to Purchase Common Stock between Registrant and Aventis Pharma Deutschland GmbH, dated June 6, 2003. (10.10)  |
| 10.11(5)(+)           | Reader, Loader and Cassette Low Cost Engineering and Manufacturing Agreement between Registrant and Hitachi, Ltd., dated as of December 15, 1999.   |
| 10.12(7)(+)           | First Amendment to Reader, Loader and Cassette Low Cost Engineering and Manufacturing Agreement between Registrant and Hitachi, Ltd., dated July 26, 2000. (10.7)                             |
| 10.13(7)(+)           | Collaboration Agreement among Registrant and Hitachi, Ltd., Nissei Sangyo Co. Ltd. and Hitachi Instruments Service Co. Ltd. (collectively, the Hitachi Parties ), dated July 26, 2000. (10.6) |
| 10.14(7)              | Common Stock Purchase Agreement between Registrant and the Hitachi Parties, dated July 26, 2000. (10.8)   |
| 10.15(1)              | Amended and Restated Investors Rights Agreement between Registrant and certain security holders set forth therein, dated May 5, 1997, as amended. (10.18)                                     |
| 10.16(1)              | Master Lease Agreement between Registrant and Mellon US Leasing, dated September 11, 1997. (10.19)  |
| 10.17(1)              | Master Lease Agreement between Registrant and LMP Properties Ltd., dated June 29, 1994, as amended on March 14, 2001. (10.20)   |
| 10.18(1)              | Lease Agreement between Registrant and Lease Management Services, Inc., dated April 26, 1994, as amended on December 13, 1994 and June 13, 1996. (10.21)                                      |
| 10.19(1)(A)           | Form of Promissory Note between Registrant and certain of its executive officers, dated August 22, 1996. (10.23)  |

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|              |   |
|--------------|---|
| 10.20(1)(A)  | Form of Promissory Note between Registrant and certain of its executive officers, dated June 30, 1995. (10.24)  |
| 10.21(1)(A)  | Form of Performance Stock Option Agreement. (10.26)   |
| 10.22(11)(A) | Amended and Restated Employment Agreement between Registrant and Howard C. Birndorf, dated June 3, 2001. (10.2)   |
| 10.23(15)(A) | Separation Agreement between Registrant and Kieran T. Gallahue, dated January 2, 2003.  |
| 10.24(15)(A) | Separation Agreement between Registrant and Dr. Vance R. White, dated December 11, 2002.  |
| 10.25(18)(A) | Separation Agreement between Registrant and Ira Marks, dated August 15, 2003. (10.25)   |
| 10.26(15)(A) | Employment Agreement between Registrant and Bruce A. Huebner, dated December 1, 2002.   |
| 10.27(15)(A) | Employment Agreement between Registrant and William Franzblau, dated January 24, 2003.  |
| 10.28(15)(A) | Employment Agreement between Registrant and David Macdonald, dated January 24, 2003.  |
| 10.29(15)(A) | Employment Agreement between Registrant and Graham Lidgard, dated January 24, 2003.   |
| 10.30(18)(A) | Separation Agreement between Registrant and Gerard A. Wills, dated May 21, 2003. (10.30)  |
| 10.31(22)(A) | Employment Agreement between Registrant and David Ludvigson, dated April 30, 2004. (10.1)   |
| 10.32(23)(A) | Employment Agreement between Registrant and Dr. William L. Respass, dated January 28, 2004. (10.42)   |
| 10.33(15)(A) | Indemnification Agreement between Registrant and Bruce A. Huebner, dated effective as of December 1, 2002.  |
| 10.34(15)(A) | Indemnification Agreement between Registrant and Graham Lidgard, dated effective as of January 24, 2003.  |
| 10.35(9)(+)  | Cooperation and Shareholders Agreement among Aventis Research & Technologies GmbH & Co. KG ( Aventis R&T ), Registrant and Nanogen Recognomics GmbH ( Nanogen Recognomics ), dated June 29, 2001. (10.3). |
| 10.36(9)(+)  | Contribution Agreement among Aventis R&T, Registrant and Nanogen Recognomics, dated June 27, 2001. (10.4).  |
| 10.37(11)(+) | Settlement Agreement among Motorola, Inc., Genometrix, Inc., the Massachusetts Institute of Technology and Registrant, dated July 20, 2001. (10.6)  |
| 10.38(14)    | Settlement Agreement among CombiMatrix Corporation, Dr. Donald Montgomery, Acacia Research Corporation and Registrant, dated September 30, 2002.  |
| 10.39(4)     | Master Loan and Security Agreement between Registrant and Transamerica Business Credit Corporation, dated June 14, 1999.  |
| 10.40(22)(+) | Cross License Agreement on NT-pro BNP between SynX Pharma, Inc. and Roche Diagnostics GmbH., dated July 17, 2003. (10.2)  |
| 10.41(24)    | SynX Pharma, Inc. Stock Option Plan. (99.1)   |
| 10.42(24)    | Form of Stock Option Agreement (SynX Pharma, Inc. Stock Option Plan). (99.2)  |
| 10.43(25)    | Epoch Biosciences 2003 Stock Incentive Plan. (99.1)   |
| 10.44(25)    | Epoch Pharmaceuticals, Inc. Incentive Stock Option, Nonqualified Stock Option and Restricted Stock Purchase Plan 1991. (99.2)   |
| 10.45(25)    | Epoch Pharmaceuticals, Inc. Incentive Stock Option, Nonqualified Stock Option and Restricted Stock Purchase Plan 1993. (99.3)   |
| 10.46(26)    | Form of Stock Option Agreement Epoch Biosciences 2003 Stock Incentive Plan. (10.46)   |

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|                  |   |
|------------------|---|
| 10.47(25)        | Form of Stock Option Agreement Epoch Pharmaceuticals, Inc. Incentive Stock Option, Nonqualified Stock Option and Restricted Stock Purchase Plan 1991. (99.5)  |
| 10.48(25)        | Form of Stock Option Agreement Epoch Pharmaceuticals, Inc. Incentive Stock Option, Nonqualified Stock Option and Restricted Stock Purchase Plan 1993. (99.5)  |
| 10.49(26)(+)     | Second Amended and Restated Collaboration, License and Supply Agreement by and between Epoch and Applera Corporation, formerly PE Corporation, through its Applied Biosystems Group, dated August 17, 2000. (10.49)                       |
| 10.50(26)(+)     | First Side Agreement dated October 31, 2001 by and between Epoch and Applera Corporation (formerly PE Corporation). (10.50)   |
| 10.51(26)(+)     | Amendment No. 1 to Second Amended and Restated Collaboration, License and Supply Agreement between Epoch and Applera Corporation, formerly PE Corporation, through its Applied Biosystems Group, dated July 26, 2002. (10.51)             |
| 10.52(27)(A)     | Employment Agreement between Registrant and Robert Saltmarsh, dated December 20, 2004.  |
| 10.53(28)        | Epoch Biosciences, Inc. 2003 Stock Incentive Plan, as amended and restated as of July 29, 2005.   |
| 10.54(30)        | Placement Agency Agreement among Registrant, Seven Hills Partners LLC and Stonegate Securities, Inc., dated September 27, 2005. (10.1)  |
| 10.55(30)        | Form of Warrant. (4.1)  |
| 10.56(++)        | Amendment No. 2 to Second Amended and Restated Collaboration, License and Supply Agreement between Epoch and Applera Corporation, formerly PE Corporation, through its Applied Biosystems Group, dated effective as of December 31, 2005. |
| 10.57(31)(++)    | Development Agreement between Registrant and Princeton BioMeditech Corporation, dated January 13, 2006. (10.57)   |
| 10.58(31)(++)    | Manufacturing and Distribution Agreement between Registrant and Princeton BioMeditech Corporation, dated October 27, 2005. (10.58)  |
| 10.59(31)(++)(A) | Nanogen, Inc. 2006 Executive Officer Incentive Compensation Plan. (10.59)   |
| 14.1(15)         | Nanogen, Inc. Ethics Policy. (99.2)   |
| 21.1(31)         | List of Subsidiaries. (21.1)  |
| 23.1(31)         | Consent of Independent Registered Public Accounting Firm.(23.1)   |
| 31.1(31)         | Certifications of Chief Executive Officer Required by Rule 13a-14(a) of the Securities Exchange Act of 1934, as amended. (31.1)   |
| 31.2(31)         | Certifications of Chief Financial Officer Required by Rule 13a-14(a) of the Securities Exchange Act of 1934, as amended. (31.2)   |
| 31.3(32)         | Certifications of Chief Executive Officer Required by Rule 13a-14(a) of the Securities Exchange Act of 1934, as amended. (31.3)   |
| 31.4(32)         | Certifications of Chief Financial Officer Required by Rule 13a-14(a) of the Securities Exchange Act of 1934, as amended. (31.4)   |
| 31.5             | Certifications of Chief Executive Officer Required by Rule 13a-14(a) of the Securities Exchange Act of 1934, as amended.  |
| 31.6             | Certifications of Chief Financial Officer Required by Rule 13a-14(a) of the Securities Exchange Act of 1934, as amended.  |
| 32.1(31)         | Certifications of Chief Executive Officer Required by Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended. (32.1)   |
| 32.2(31)         | Certifications of Chief Financial Officer Required by Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended. (32.2)   |

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- (1) Incorporated by reference to Registrant's Registration Statement on Form S-1 (File No. 333-42791). Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.



- (2) Incorporated by reference to Exhibit 4.2 to the Registrant's Registration Statement on Form 8-A, filed on November 24, 1998.
- (3) Incorporated by reference to Registrant's Annual Report on Form 10-K for the year ended December 31, 1998. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.
- (4) Incorporated by reference to Exhibit 10.38 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 1999.
- (5) Incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2000.
- (6) Incorporated by reference to the Registrant's Form S-8 filed on June 15, 2000. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.
- (7) Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2000. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.
- (8) Incorporated by reference to Exhibit 10.1 to the Registrant's Form 8-K filed on December 12, 2000.
- (9) Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2001. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.
- (10) Incorporated by reference to Exhibit 10.1 to the Registrant's Form S-8 filed on June 20, 2001. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.
- (11) Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2001. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.
- (12) Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2002. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.
- (13) Incorporated by reference to Exhibit 10.1 to the Registrant's Form S-8 filed on August 16, 2002.
- (14) Incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 31, 2002.
- (15) Incorporated by reference to Registrant's Annual Report on Form 10-K for the year ended December 31, 2002. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.
- (16) Incorporated by reference to Exhibit 10.1 to the Registrant's Form 8-K filed on September 22, 2003.
- (17) Incorporated by reference to Exhibit 3.1 to the Registrant's Form 8-K filed on December 21, 2004.
- (18) Incorporated by reference to the Registrant's Form 10-K for the year ended December 31, 2003. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.
- (19) Incorporated by reference to Exhibit 2.1 of the Registrant's Form 8-K filed on September 8, 2004.
- (20) Incorporated by reference to Exhibit 2.1 of the Registrant's Form 8-K filed on May 6, 2004.
- (21) Incorporated by reference to the Registrant's Form S-8 (File No. 333-116605) filed June 18, 2004. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.
- (22) Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2004. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.
- (23) Incorporated by reference to Exhibit 10.42 of the Registrant's Form S-4 (File No. 333-119558) filed on October 6, 2004.

- (24) Incorporated by reference to the Registrant's Registration Statement on Form S-8 (File No. 333-115629), filed on May 19, 2004. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.
- (25) Incorporated by reference to the Registrant's Registration Statement on Form S-8 (File No. 333-121508) filed on December 21, 2004. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.
- (26) Incorporated by reference to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2004. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.
- (27) Incorporated by reference to Exhibit 10.1 to the Registrant's Form 8-K filed on January 11, 2005.
- (28) Incorporated by reference to Exhibit 99.1 to the Registrant's Form S-8 (File No. 333-127916) filed on August 29, 2005.
- (29) Incorporated by reference to Exhibit 2.1 to the Registrant's Form 8-K filed on December 23, 2005.
- (30) Incorporated by reference to the Registrant's Form 8-K filed on September 28, 2005. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.
- (31) Incorporated by reference to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2005 filed on March 16, 2006. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.
- (32) Incorporated by reference to Amendment No. 1 to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2005 filed on March 24, 2006. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.
- (A) Indicates management compensatory plan or arrangement.
- (+) Confidential treatment has been granted for certain information contained in this document pursuant to an order of the Securities and Exchange Commission. Such information has been omitted and filed separately with the Securities and Exchange Commission.
- (++) Confidential treatment has been requested for certain information contained in this document. Such information has been omitted and filed separately with the Securities and Exchange Commission.

**SIGNATURES**

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

NANOGEN, INC.

Date: June 26, 2006

By:

/s/ HOWARD C. BIRNDORF  
**Howard C. Birndorf**

**Chairman of the Board,  
and Chief Executive Officer**