SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the

Securities Exchange Act of 1934

Date of report (Date of earliest event reported): February 9, 2004

NANOGEN, INC.

(Exact Name of Registrant as Specified in Charter)

Delaware (State or Other Jurisdiction

of Incorporation)

000-23541 (Commission File Number) 33-0489621 (IRS Employer

Identification No.)

10398 Pacific Center Court, San Diego, California (Address of Principal Executive Offices) 92121 (Zip Code)

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

Item 5. Other Events.

On February 10, 2004, Nanogen, Inc. (the *Registrant*) announced that it has signed a definitive agreement to acquire SynX Pharma, Inc., a company organized and existing under the laws of the Province of Ontario. A copy of the press release issued by the Registrant on February 10, 2004 concerning the foregoing transaction is filed herewith as Exhibit 99.1 and is incorporated herein by reference.

Item 7. Financial Statements, Pro Forma Financial Information and Exhibits.

- (c) Exhibits.
 - 99.1 Press Release of Registrant, dated February 10, 2004, announcing that it has signed a definitive agreement to acquire SynX Pharma, Inc., a company organized and existing under the laws of the Province of Ontario.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

NANOGEN, INC.

Dated: February 10, 2004

By: /s/ David Ludvigson

David Ludvigson, Executive Vice President Chief Financial Officer and Treasurer

EXHIBIT INDEX

Exhibit

Number Description of Document

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