

EPIX Pharmaceuticals, Inc.

Form 424B3

March 28, 2008

**Filed Pursuant to Rule 424(b)(3)
Registration No. 333-147800**

**PROSPECTUS SUPPLEMENT NO. 2 DATED MARCH 28, 2008
(TO PROSPECTUS DATED MARCH 17, 2008)**

EPIX PHARMACEUTICALS, INC.

This Prospectus Supplement No. 2 supplements and amends the prospectus dated March 17, 2008, or the Original Prospectus, and Prospectus Supplement No. 1 dated March 20, 2008, which we refer to collectively as the Prospectus, relating to the sale from time to time of up to 5,245,468 shares of common stock of EPIX Pharmaceuticals, Inc. by certain selling stockholders. We will not receive any of the proceeds from the sale of shares by the selling stockholders.

On March 28, 2008, we filed with the Securities and Exchange Commission a Current Report on Form 8-K relating to the resignation of Patrick J. Fortune, Ph.D. from our Board of Directors. This information supplements and amends the information contained in the Prospectus.

This Prospectus Supplement No. 2 should be read in conjunction with, and delivered with, the Prospectus and is qualified by reference to the Prospectus except to the extent that the information in this Prospectus Supplement No. 2 supersedes the information contained in the Prospectus.

Our common stock is listed on the NASDAQ Global Market under the symbol EPIX. On March 27, 2008, the last reported sale price of our common stock on the NASDAQ Global Market was \$1.68 per share.

Investing in our common stock involves a high degree of risk. Before buying any shares, you should carefully read the discussion of material risks of investing in our common stock in Risk Factors beginning on page 3 of the Original Prospectus.

Neither the Securities and Exchange Commission, any state securities commission nor any other regulatory authority, has approved or disapproved these securities nor have any of the foregoing authorities passed upon or endorsed the merits of this offering or the accuracy or adequacy of this Prospectus Supplement No. 2 or the Prospectus or the documents incorporated by reference therein. Any representation to the contrary is a criminal offense.

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): March 25, 2008

EPIX Pharmaceuticals, Inc.

(Exact Name of Registrant as Specified in its Charter)

Delaware

(State or Other Jurisdiction of Incorporation)

000-21863

(Commission File Number)

04-3030815

(IRS Employer Identification No.)

4 Maguire Road, Lexington, Massachusetts

(Address of Principal Executive Offices)

02421

(Zip Code)

Registrant's telephone number, including area code: **(781) 761-7600**

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (*see* General Instruction A.2. below):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
 - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
 - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
 - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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Item 5.02 Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.

(b) On March 25, 2008, Patrick J. Fortune, Ph.D. tendered his resignation from the Board of Directors of EPIX Pharmaceuticals, Inc. (the Company). Dr. Fortune's resignation did not result from any disagreement with the Company on any matter relating to the Company's operations, policies or practices.

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.

EPIX PHARMACEUTICALS, INC.

March 28, 2008

By: /s/ Kim Cobleigh Drapkin
Kim Cobleigh Drapkin
Chief Financial Officer