
UNITED STATES
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 2, 2010

ADVENTRX Pharmaceuticals, Inc.

(Exact name of registrant as specified in its charter)

Delaware

001-32157

84-1318182

(State or other jurisdiction
of incorporation)

(Commission
File Number)

(I.R.S. Employer
Identification No.)

6725 Mesa Ridge Road, Suite 100, San Diego,
California

92121

(Address of principal executive offices)

(Zip Code)

Registrant's telephone number, including area code:

858-552-0866

Not Applicable

Former name or former address, if changed since last report

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:

- 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.

On February 2, 2010, the Board of Directors (the "Board") of ADVENTRX Pharmaceuticals, Inc. (the "Company") appointed Odysseas D. Kostas to the Board. Dr. Kostas was also appointed to the Board's Audit Committee. A copy of the press release announcing this appointment is furnished as Exhibit 99.1 hereto.

The Company is a party to a Rights Agreement, effective as of July 27, 2005, as amended (the "Rights Agreement"), with the following purchaser parties: Icahn Partners LP, Icahn Partners Master Fund LP, High River Limited Partnership, Viking Global Equities LP and VGE III Portfolio Ltd. Under the terms of the Rights Agreement, until the earlier of (1) July 27, 2012, (2) the date that the purchaser parties aggregate holdings are less than 50% of the aggregate shares of the Company's common stock purchased by them pursuant to a purchase agreement entered into in connection with the Rights Agreement and (3) a change of control, the Company is required to nominate a Board nominee selected by the purchaser parties holding a majority of the shares of the Company's common stock purchased by the purchaser parties pursuant to the purchase agreement. Dr. Kostas was appointed to the Board in consideration of the foregoing provision.

In connection with Dr. Kostas' appointment to the Board, consistent with the Company's current Director Compensation Policy, on February 2, 2010 (the "Grant Date"), the Board approved the grant to Dr. Kostas of two stock options, one to purchase 100,000 shares of the Company's common stock (the "Appointment Option") and the other to purchase 33,332 shares of the Company's common stock (the "Pro-Rated Annual Option"), both of which were granted under the Company's 2008 Omnibus Incentive Plan (the "Plan"), have an exercise price of \$0.32, which was the closing price of the Company's common stock on the Grant Date and will expire on the tenth anniversary of the Grant Date. The Appointment Option will vest and become exercisable as to 1/36th of the shares subject to the option at the end of each successive month following February 1, 2010, and the Pro-Rated Option will vest and become exercisable as to 1/4th of the shares subject to the option at the end of each successive month following February 1, 2010, in each case provided that Dr. Kostas is then providing services to the Company. Each option will terminate in its entirety, regardless of whether it is vested, three years after the date Dr. Kostas ceases to provide services to the Company for any reason (other than his death or disability). In addition, in the event of a change of control, each option will vest and become exercisable on the day prior to the date of the change in control if Dr. Kostas is then providing services to the Company, and each option will terminate on the date of the change in control to the extent not exercised.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

The list of exhibits called for by this Item is incorporated by reference to the Exhibit Index filed with this report.

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.

ADVENTRX Pharmaceuticals, Inc.

February 3, 2010

By: */s/ Patrick L. Keran*

Name: Patrick L. Keran

Title: President & Chief Operating Officer

Exhibit Index

Exhibit No.	Description
99.1	Press Release, dated February 3, 2010



ADVENTRX APPOINTS ICAHN REPRESENTATIVE TO BOARD OF DIRECTORS

SAN DIEGO (February 3, 2010) – ADVENTRX Pharmaceuticals, Inc. (NYSE Amex: ANX) today announced that Odysseas D. Kostas, M.D. will join its Board of Directors. Dr. Kostas also will serve on the Board’s Audit Committee. Dr. Kostas was appointed as the representative of entities affiliated with Carl C. Icahn.

“We are delighted to welcome Odysseas to our Board of Directors,” said Jack Lief, Chair of the ADVENTRX Board of Directors and the Board’s Audit Committee. “His insights should prove valuable as we advance our product candidates towards commercialization.”

Dr. Kostas, M.D. is an attending physician and one of seven hospitalists at Greenwich Hospital, a member of the Yale New Haven Health System and a subsidiary of Greenwich Health Care Services, Inc. At Greenwich Hospital, Dr. Kostas is a member of various committees that oversee aspects of the hospital’s operational decision-making. Since March 2007, Dr. Kostas has provided advisory services to Boards of Directors of biotechnology companies, primarily in the area of strategic and partnering transactions, including ImClone Systems Incorporated prior to its sale to Eli Lilly and Company. In May 2003, Dr. Kostas founded a private medical practice that he owned and operated, treating over 2,000 patients, until May 2008. Dr. Kostas holds a B.S. in biology from the Massachusetts Institute of Technology and an M.D. from the University of Texas Southwestern Medical School and is board certified in internal medicine.

About ADVENTRX Pharmaceuticals

ADVENTRX Pharmaceuticals is a specialty pharmaceutical company whose product candidates are designed to improve the performance of existing cancer treatments by addressing limitations associated principally with their safety and use. More information can be found on ADVENTRX’s web site at www.adventrx.com.

Forward Looking Statements

ADVENTRX cautions you that statements included in this press release that are not a description of historical facts are forward-looking statements that involve risks and assumptions that, if they materialize or do not prove to be accurate, could cause ADVENTRX’s results to differ materially from historical results or those expressed or implied by such forward-looking statements. These risks and uncertainties include, but are not limited to: successfully educating new directors and integrating new directors with existing directors and management; the risk that directors’ will undertake projects that divert their respective attention from ADVENTRX matters, or that may pose a conflict of interest with ADVENTRX; ADVENTRX’s dependence on the success of ANX-530, and uncertainty as to whether ANX-530 will receive regulatory approval or be commercialized successfully; the potential that FDA may not accept the ANX-530 NDA for review, or that the bioequivalence data and other information included in the ANX-530 NDA may not adequately support bioequivalence with Navelbine, including as a result of performing pharmacokinetic equivalence analyses based on a patient population other than the population on which ADVENTRX based its analysis; the potential that changes made in transferring the manufacturing process for ANX-530 may result in a lack of comparability between the commercial product and the material used in clinical trials, and that FDA may require ADVENTRX to perform additional non-clinical or clinical studies; and other risks and uncertainties more fully described in ADVENTRX’s press releases and periodic filings with the Securities and Exchange Commission. ADVENTRX’s public filings with the Securities and Exchange Commission are available at www.sec.gov.

You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date when made. ADVENTRX does not intend to revise or update any forward-looking statement set forth in this press release to reflect events or circumstances arising after the date on which it was made.

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