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):

October 16, 2009

ADVENTRX Pharmaceuticals, Inc.

(Exact name of registrant as specified in its charter)

Delaware

001-32157

(Commission

File Number)

(State or other jurisdiction of incorporation)

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

(Address of principal executive offices)

Registrant's telephone number, including area code:

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))

84-1318182

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

92121

(Zip Code)

858-552-0866

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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 October 16, 2009, Alexander J. Denner delivered notice to ADVENTRX Pharmaceuticals, Inc. (the "Company") of his resignation, effective immediately, as a director of the Company and from all committees of the Company and its Board of Directors. Dr. Denner's resignation was not because of a disagreement with the Company known to any of its executive officers 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.

October 19, 2009

ADVENTRX Pharmaceuticals, Inc.

By: /s/ Patrick L. Keran

Name: Patrick L. Keran Title: Vice President, Legal