
**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**

**April 10, 2012
Date of Report (Date of earliest event reported)**

INVIVO THERAPEUTICS HOLDINGS CORP.

(Exact Name of Registrant as Specified in Charter)

NEVADA
**(State or Other Jurisdiction
of Incorporation)**

000-52089
**(Commission
File Number)**

36-4528166
**(IRS Employer
Identification No.)**

**One Broadway, 14th Floor
Cambridge, Massachusetts 02142**
(Address of Principal Executive Offices) (Zip Code)

(617) 475-1520
(Registrant's telephone number, including area code)

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 8.01 Other Events.

On April 10, 2012, Frank M. Reynolds, the Chief Executive Officer of InVivo Therapeutics Holdings Corp. (the “Company”), entered into a pre-arranged trading plan in accordance with Rule 10b5-1 of the Securities Exchange Act of 1934, as amended (the “Rule 10b5-1 Plan”).

The Rule 10b5-1 Plan was adopted in order to allow Mr. Reynolds to sell a portion of his Company common stock over time as part of his long-term strategy for individual asset diversification and liquidity. Using the plan, he can gradually diversify his investment portfolio and can spread stock trades over an extended period of time to reduce market impact. Because the plan was established in advance of a trade, it can also help avoid concerns about transactions occurring at a time when he might possess material non-public information.

Mr. Reynolds currently beneficially owns 14,391,263 shares of Company common stock. During the term of the Rule 10b5-1 Plan, Mr. Reynolds may sell up to 4,000,000 shares of common stock. Sales of stock under the Rule 10b5-1 Plan may commence on May 10, 2012 and may continue until the Rule 10b5-1 Plan expires on the earlier to occur of (i) April 10, 2014 and (ii) the date on which 4,000,000 shares of common stock are sold under the plan.

The Rule 10b5-1 Plan is intended to comply with Rule 10b5-1 of the Securities and Exchange Act of 1934, as amended. Under Rule 10b5-1, officers and directors of public companies may adopt written plans to sell specified amounts of their company’s stock at future dates, regardless of any material non-public information they may receive after adopting the plan. Such plans establish pre-determined trading parameters for transactions to automatically take place without the exercise of any subsequent influence by the person adopting the plan. Plans permitted under the rule allow the officer or director to minimize the market effect of sales by spreading them over an extended period, and also help prevent them from being prohibited from selling any shares for long periods of time due to nonpublic information they may possess.

The stock transactions under the Rule 10b5-1 Plan will be disclosed publicly through Form 4 and Form 144 filings with the Securities and Exchange Commission.

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.

INVIVO THERAPEUTICS HOLDINGS CORP.

Date: April 11, 2012

By: /s/ Frank M. Reynolds

Frank M. Reynolds

Chief Executive Officer