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): January 17, 2012

> ARQULE, INC. (Exact Name of Issuer as Specified in Charter)

Delaware (State or other jurisdiction of incorporation)

000-21429 (Commission File Number) 04-3221586 (I.R.S. Employer Identification No.)

19 Presidential Way Woburn, MA (Address of principal executive offices)

01801

(Zip code)

(781) 994-0300

(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):

- o Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- o 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))

Section 8 — Other Events

Item 8.01 Other Events.

On January 17, 2012, ArQule, Inc. (the "Registrant") announced results of its Phase 2 clinical trial of the Registrant's c-Met inhibitor, tivantinib, in patients with hepatocellular cancer.

The Registrant's press release dated January 17, 2012, a copy of which is attached hereto as Exhibit 99.1, is incorporated herein by reference.

Section 9 — Financial Statements and Exhibits

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits.

Exhibit No. 99.1 Text of press release announcing clinical trial results dated January 17, 2012.

2

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.

ARQULE, INC. (Registrant)

/s/ Peter S. Lawrence Peter S. Lawrence President and Chief Operating Officer

January 17, 2012

3