SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM 8-K/A (Amendment No. 2)

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): July 9, 2009

ADEONA PHARMACEUTICALS INC.

(Exact name of registrant as specified in its charter)

Nevada (State or other jurisdiction of incorporation) 1-12584 (Commission File No.) 13-3808303 (IRS Employer Identification No.)

3930 Varsity Drive, Ann Arbor, Michigan 48106 (Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: (734) 332-7800 (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))

Item 1.01. Entry into a Material Definitive Agreement

On July 16, 2009, Adeona Pharmaceuticals, Inc. (the "Registrant" or "Adeona") filed a Current Report on Form 8-K (the "Original Current Report") reporting that the Registrant had completed the acquisition of all of the outstanding membership interests in Hart Lab, LLC, an Illinois limited liability company and CLIA-certified clinical laboratory, pursuant to a limited liability company purchase agreement dated May 30, 2009, as amended.

The second and third paragraphs of the disclosure under Item 1.01 of the Original Current Report are amended and restated in their entirety to read as follows:

"By an Amendment dated as of June 30, 2009, Adeona and Narayan Torke agreed to extend the closing date of the transaction from June 30, 2009 to July 10, 2009 (the "Amendment"). A copy of the Amendment is attached hereto [to the Original Current Report] as Exhibit 10.2.

On July 9, 2009, Adeona and Narayan Torke entered into a second amendment to limited liability purchase agreement (the "Second Amendment"). A copy of the Second Amendment is attached hereto [to the Original Current Report] as Exhibit 10.3. The acquisition was consummated on July 10, 2009 as contemplated by Section 3 of the Second Amendment and the Purchase Agreement as amended."

Subject to the amended disclosures set forth above, and as amended by the disclosures set forth above, the disclosures in Item 1.01 of the Original Current Report are incorporated herein by this reference.

Item 2.01. Completion of Acquisition or Disposition of Assets

The disclosures set forth in Item 1.01 of the Original Current Report, as amended by the disclosures in Item 1.01 of this Current Report on Form 8-K/A (amendment no. 2), are incorporated herein by reference.

The financial statements and pro forma financial information required pursuant to Item 9.01(a) and (b) of Form 8-K were provided in amendment no. 1 to the Original Current Report, which amendment no. 1 was filed on September 24, 2009. Such financial statements and pro forma financial information were filed by amendment because they were not available at the time the Original Current Report was filed.

Item 3.02 Unregistered Sale of Equity Securities

The disclosures set forth in Item 1.01 of the Original Current Report, as amended by the disclosures in Item 1.01 of this Current Report on Form 8-K/A (amendment no. 2), are incorporated herein by reference.

Item 9.01. Financial Statements and Exhibits

(a) Financial Statements of Businesses Acquired

- (i) The audited combined balance sheet of Hart Lab, LLC as of December 31, 2008 and the combined statement of operations, combined statement of cash flows and combined statement of changes in equity of Hart Lab, LLC for the year ended December 31, 2008, and the notes related thereto, including the Report of Independent Registered Public Accounting Firm, issued by Berman & Company, P.A., dated September 21, 2009, were attached as Exhibit 99.3 to the Current Report on Form 8-K/A (amendment no. 1) and are incorporated herein by reference.
- (ii) The unaudited combined balance sheet of Hart Lab, LLC as of June 30, 2009 and the combined statement of operations, combined statement of cash flows and combined statement of changes in equity of Hart Lab, LLC for the six months ended June 30, 2009, and the notes related thereto, of Hart Lab, LLC were attached as Exhibit 99.4 to the Current Report on Form 8-K/A (amendment no. 1) and are incorporated herein by reference.
- (iii) The unaudited combined statement of operations and combined statement of cash flows of Hart Lab, LLC for the six months ended June 30, 2008, and the notes related thereto were attached as Exhibit 99.5 to the Current Report on Form 8-K/A (amendment no. 1) and are incorporated herein by reference.

(b) Pro Forma Financial Information

The unaudited pro forma condensed combined balance sheet of the Registrant and Hart Lab, LLC as of June 30, 2009 and the related unaudited pro forma condensed combined statements of income for the six months ended June 30, 2009 and for the year ended December 31, 2008 that give effect to the Registrant's acquisition of Hart Lab, LLC were attached as Exhibit 99.6 to the Current Report on Form 8-K/A (amendment no. 1) and are incorporated herein by reference.

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.

ADEONA PHARMACEUTICALS INC.

Date: October 19, 2009 By: <u>/s/ Max Lyon</u>

Name:Max Lyon

Its: Chief Executive Officer