

PROSPECTUS SUPPLEMENT NO. 12
(To Prospectus Dated June 23, 2017)



Aerpio Pharmaceuticals, Inc.
27,367,117 Shares
Common Stock

This prospectus supplement no. 12 supplements the prospectus dated June 23, 2017, relating to the offering and resale of up to 27,367,117 shares of our common stock, par value \$0.0001 per share, that were privately issued to selling stockholders in connection with a merger transaction and a private placement.

This prospectus supplement incorporates into our prospectus the information contained in our attached current report on Form 8-K, which was filed with the Securities and Exchange Commission on May 29, 2018.

You should read this prospectus supplement in conjunction with the prospectus, including any supplements and amendments thereto. This prospectus supplement is qualified by reference to the prospectus except to the extent that the information in the prospectus supplement supersedes the information contained in the prospectus.

This prospectus supplement is not complete without, and may not be delivered or utilized except in connection with, the prospectus, including any supplements and amendments thereto.

Our common stock is presently quoted for trading on the OTC Markets – OTCQB tier, or OTCQB, under the symbol “ARPO.” On June 11, 2018, the closing price of our common stock, as quoted on the OTCQB, was \$3.80 per share.

You should carefully consider matters discussed under the caption “Risk Factors” beginning on page 9 of the prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or the prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus supplement is June 11, 2018.

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): May 22, 2018

AERPIO PHARMACEUTICALS, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

000-53057
(Commission
File Number)

61-1547850
(I.R.S. Employer
Identification No.)

9987 Carver Road
Cincinnati, OH
(Address of principal executive offices)

45242
(Zip Code)

Registrant's telephone number, including area code (513) 985-1920

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))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 or Rule 12b-2 of the Securities Exchange Act of 1934.

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Item 8.01 Other Events

On May 22, 2018, Aerpio Pharmaceuticals, Inc. issued a press release titled “Aerpio Announces Initiation of Dosing in a Phase 1a, Multiple-Ascending Dose Study of AKB-4924, a Hypoxia-Inducible Factor-1 Alpha Stabilizer in Development for Inflammatory Bowel Disease.” A copy of the press release is attached hereto as Exhibit 99.1 and is incorporated into this Item 8.01 by reference.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

**Exhibit
No.**

Description

99.1 Press release of Aerpio Pharmaceuticals, Inc., dated May 22, 2018

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.

AERPIO PHARMACEUTICALS, INC.

Date: May 29, 2018

By: /s/ Stephen Hoffman
Stephen Hoffman
Chief Executive Officer



**Aerpio Announces Initiation of Dosing in a Phase 1a, Multiple-Ascending Dose
Study of AKB-4924, a Hypoxia-Inducible Factor-1 Alpha Stabilizer in
Development for Inflammatory Bowel Disease**

CINCINNATI — (BUSINESS WIRE) — Aerpio Pharmaceuticals, Inc. (OTCQB:ARPO), today announced the initiation of dosing in a Phase 1a, multiple-ascending dose study of the Company’s hypoxia-inducible factor-1 alpha (HIF-1 alpha) stabilizer, AKB-4924.

AKB-4924 is a once-daily, oral, gut-restricted HIF-1 alpha stabilizer that has been shown to improve disease indices in multiple models of inflammatory bowel disease (IBD). “Unlike other HIF stabilizers that mainly affect HIF-2 and stimulate erythropoiesis, AKB-4924 is unique in that it preferentially stabilizes HIF-1 alpha, which has a profound anti-inflammatory and mucosal healing effect. These properties make it an ideal candidate for the treatment of IBD,” said Kevin Peters, MD, Aerpio’s Chief Scientific Officer.

The aim of the current study is to evaluate the safety and tolerability of multiple daily doses of AKB-4924 in healthy volunteers. The single-center pharmacokinetic and safety study is expected to enroll 24 subjects into 3 dose cohorts, randomized 3:1 to receive either AKB-4924 or placebo orally once daily for 8 days.

About Aerpio Pharmaceuticals

Aerpio Pharmaceuticals, Inc. is a biopharmaceutical company focused on advancing first-in-class treatments for ocular diseases. The Company’s lead compound, AKB-9778, is a small molecule activator of the Tie2 pathway and is in clinical development for diabetic retinopathy. For more information please visit www.aerpio.com.

About AKB-4924

AKB-4924, a selective stabilizer of HIF-1 alpha, is being developed for the treatment of IBD. HIF-1 alpha is involved in mucosal wound healing and the reduction of inflammation in the gastrointestinal tract. We have completed a single ascending dose clinical trial of AKB-4924 in healthy volunteers to date.

Forward Looking Statements

This press release contains forward-looking statements. Statements in this press release that are not purely historical are forward-looking statements. Such forward-looking statements include, among other things, the timeline of, and other developmental plans for, AKB-4924 for inflammatory bowel disease or otherwise, the therapeutic potential of the Company's product candidates, including AKB-4924, and the Company's financial position. Actual results could differ from those projected in any forward-looking statements due to several risk factors. Such factors include, among others, the ability to raise the additional funding needed to continue to develop AKB-4924 or other product development plans, the inherent uncertainties associated with the FDA and drug development process, competition in the industry in which the Company operates and overall market conditions. These forward-looking statements are made as of the date of this press release, and the Company assumes no obligation to update the forward-looking statements, or to update the reasons why actual results could differ from those projected in the forward-looking statements, except as required by law. Investors should consult all the information set forth herein and should also refer to the risk factor disclosure set forth in the reports and other documents the Company files with the SEC available at www.sec.gov.

Contacts

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