

PROSPECTUS SUPPLEMENT NO. 3
(To Prospectus Dated June 23, 2017)



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

This prospectus supplement no. 3 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 August 8, 2017.

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.

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 August 8, 2017.

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): August 8, 2017

Aerpio Pharmaceuticals, Inc.

(Exact Name of Company as Specified in Charter)

Delaware
(State or Other Jurisdiction
of Incorporation)

000-53057
(Commission
File Number)

61-1547850
(IRS Employer
Identification No.)

9987 Carver Road
Cincinnati, OH 45242
(Address of Principal Executive Offices) (Zip Code)

Company'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 (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))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

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 August 8, 2017, Aerpio Pharmaceuticals, Inc. (the “**Company**”) announced that its common stock has been cleared for trading on the OTC Market Group’s OTCQB® Market quotation system under the ticker symbol “ARPO,” and the trading of the Company’s common stock will commence effective at the market open on August 8, 2017.

The Company’s press release is attached as Exhibit 99.1 to this Current Report on Form 8-K and is incorporated by reference herein.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

<u>Exhibit No.</u>	<u>Description</u>
99.1	Press Release of Aerpio Pharmaceuticals, Inc., dated August 8, 2017

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: August 8, 2017

By: /s/ Joseph H. Gardner

Joseph H. Gardner

Chief Executive Officer



Aerpio Pharmaceuticals Commences Trading on the OTCQB® Market

The Company will trade under the symbol ARPO

CINCINNATI—(BUSINESS WIRE) — Aerpio Pharmaceuticals, Inc. (OTCQB: ARPO), a biopharmaceutical company focused on advancing first-in-class treatments for ocular diseases, announced today that shares of the Company’s common stock have been cleared for trading on the OTC Market Group’s OTCQB® Market (“OTCQB”) in the United States. Shares of Aerpio’s common stock will trade under the ticker symbol “ARPO”, effective at the market open on August 8, 2017.

In March 2017, Aerpio raised approximately \$40 million in gross proceeds through a private placement of the Company’s common stock to further clinical development activities, including advancement of Aerpio’s lead program, AKB-9778, for the treatment of diabetic retinopathy (DR).

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 the treatment of non-proliferative diabetic retinopathy. For more information please visit www.aerpio.com.

About AKB-9778

AKB-9778 is being developed as a subcutaneous injection for the treatment of non-proliferative diabetic retinopathy. AKB-9778 binds to and inhibits the intracellular domain of VE-PTP, the most critical negative regulator of Tie2. AKB-9778 has demonstrated the ability to activate the Tie2 receptor irrespective of extracellular levels of its binding ligands, angiopoietin-1 (agonist) or angiopoietin-2 (antagonist) and may be the most efficient pharmacologic approach to activating Tie2.

About Diabetic Retinopathy

DR is a complication of diabetes caused by damage to blood vessels in the retina. Severity of DR ranges from mild non-proliferative diabetic retinopathy (nPDR) to more advanced proliferative diabetic retinopathy (PDR), the hallmark of which is the development of new abnormal blood vessels.

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 development of the Company's product candidates, including AKB-9778 for non-proliferative diabetic retinopathy or otherwise, the therapeutic potential of the Company's product candidates, including AKB-9778, the timing of trading of the Company's common stock on the OTCQB and the Company's use of proceeds from its private placement. 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-9778 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.

Investor & Media Contacts:

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