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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

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**POST-EFFECTIVE AMENDMENT NO. 1 TO FORM S-3  
REGISTRATION STATEMENT NO. 333-172637  
POST-EFFECTIVE AMENDMENT NO. 1 TO FORM S-3  
REGISTRATION STATEMENT NO. 333-175095  
POST-EFFECTIVE AMENDMENT NO. 1 TO FORM S-3  
REGISTRATION STATEMENT NO. 333-179043  
POST-EFFECTIVE AMENDMENT NO. 1 TO FORM S-3  
REGISTRATION STATEMENT NO. 333-187771  
POST-EFFECTIVE AMENDMENT NO. 1 TO FORM S-3  
REGISTRATION STATEMENT NO. 333-187780  
POST-EFFECTIVE AMENDMENT NO. 1 TO FORM S-3  
REGISTRATION STATEMENT NO. 333-210166  
POST-EFFECTIVE AMENDMENT NO. 1 TO FORM S-3  
REGISTRATION STATEMENT NO. 333-221532**

*UNDER  
THE SECURITIES ACT OF 1933*

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**ANTHERA PHARMACEUTICALS, INC.**

(Exact name of registrant as specified in its charter)

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Delaware  
(State or other jurisdiction of  
Incorporation or Organization)

20-1852016  
(I.R.S. Employer  
Identification Number)

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**J. Craig Thompson**  
**Chief Executive Officer**  
**Anthera Pharmaceuticals, Inc.**  
**25801 Industrial Boulevard, Suite B**  
**Hayward, California 94545**  
**(510) 856-5600**

(Name, Address, including Zip Code, and Telephone Number, including Area Code, of Agent for Service)

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**Approximate date of commencement of proposed sale to the public: Not Applicable**

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Accelerated filer

Non-accelerated filer  (Do not check if a smaller reporting company)

Smaller reporting company

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 7(a)(2)(B) of the Securities Act.

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## DEREGISTRATION OF UNSOLD SECURITIES

These Post-Effective Amendments are being filed to deregister unsold securities of Anthera Pharmaceuticals, Inc., a Delaware corporation (“Anthera” or the “Registrant”), that were registered on the following Registration Statements on Form S-3 (each, a “Registration Statement”, and collectively, the “Registration Statements”) filed with the U.S. Securities and Exchange Commission (the “Commission”):

- Registration Statement on Form S-3 (No. 333-172637) filed with the Commission on March 7, 2011, pertaining to the registration of an unspecified number of shares of common stock, par value \$0.001 per share (“Common Stock”), shares of preferred stock, par value \$0.001 per share, (“Preferred Stock”), debt securities (“Debt Securities”), and an unspecified number of warrants for the purchase of Common Stock, Preferred Stock, or Debt Securities, up to a maximum aggregate offering price of \$75,000,000;
- Registration Statement on Form S-3 (No. 333-175095) filed with the Commission on June 23, 2011, pertaining to the registration of an aggregate of 321,429 shares of Common Stock offered by the selling stockholders identified therein.
- Registration Statement on Form S-3 (No. 333-179043) filed with the Commission on January 18, 2012 and Registration Statement on Form S-3MEF (No. 333-187771) filed with the Commission on April 5, 2013, pertaining to the registration of an unspecified number of shares of Common Stock, shares of Preferred Stock, Debt Securities, and an unspecified number of warrants for the purchase of Common Stock, Preferred Stock, or Debt Securities, up to a maximum aggregate offering price of \$3,210,000.
- Registration Statement on Form S-3 (No. 333-187780) filed with the Commission on April 5, 2013, pertaining to the registration of an unspecified number of shares of Common Stock, shares of Preferred Stock, Debt Securities, and an unspecified number of warrants for the purchase of Common Stock, Preferred Stock or Debt Securities, up to a maximum aggregate offering price of \$100,000,000.
- Registration Statement on Form S-3 (No. 333-210166) filed with the Commission on March 14, 2016, pertaining to the registration of an unspecified number of shares of Common Stock, shares of Preferred Stock, Debt Securities, and an unspecified number of warrants for the purchase of Common Stock, Preferred Stock or Debt Securities, up to a maximum aggregate offering price of \$100,000,000.
- Registration Statement on Form S-3 (No. 333-221532) filed with the Commission on November 13, 2017, pertaining to the registration of an aggregate of 28,613,474 shares of Common Stock offered by the selling stockholders identified therein.

The Registrant has delisted its Common Stock from the NASDAQ Stock Market and is deregistering its Common Stock under Section 12(b) of the Securities and Exchange Act of 1934, as amended (the “Exchange Act”), through the filing of a Form 25 and Form 15 with the Commission.

Accordingly, the Registrant hereby terminates the effectiveness of the Registration Statements and, in accordance with undertakings contained in the Registration Statements to remove from registration by means of a post-effective amendment any of the securities that had been registered but remained unsold at the termination of the offering, removes from registration any and all securities of the Registrant registered but unsold under the Registration Statements as of the date hereof.

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**SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, as amended, Anthera Pharmaceuticals, Inc. certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused these Post-Effective Amendments to the Registration Statements described above to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Hayward, State of California, on July 20, 2018.

ANTHERA PHARMACEUTICALS, INC.

By: /s/ May Liu

Name: May Liu

Title: Senior Vice President, Finance and  
Administration

No other person is required to sign this Post-Effective Amendment to the Registration Statements in reliance upon Rule 478 of the Securities Act.