| CESCA THERAPEUTICS IN Form POS AM September 19, 2016 As filed with the Securities an Registration File No. 333-207 | d Exchange Commission on S | September 19, 2016 |  |  |
|--|----------------------------|--------------------|--|--|
| UNITED STATES  |                            |                    |  |  |
| SECURITIES AND EXCHANGE COMMISSION   |                            |                    |  |  |
| Washington, D.C. 20549   |                            |                    |  |  |
| POST-EFFECTIVE AMENDMENT NO. 1 TO  |                            |                    |  |  |
| Form S-1   |                            |                    |  |  |
| REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933  |                            |                    |  |  |
| Cesca Therapeutics Inc. (Exact Name of Registrant as Specified in Its Charter)                                     |                            |                    |  |  |
| Delaware   | 3821                       | 94-3018487         |  |  |
| (State or other jurisdiction of (Primary Standard Industrial (I.R.S. Employer                                      |                            |                    |  |  |
| Incorporation or organization) Classification Code Number) Identification Number)                                  |                            |                    |  |  |
| 2711 Citrus Road   |                            |                    |  |  |
| Rancho Cordova, CA 95742   |                            |                    |  |  |
| (916) 858-5100   |                            |                    |  |  |

(Address, including zip code, and telephone number, including Area Code of Registrant's principal executive offices)

| Mr. Robin C. Stracey   |
|--|
| Chief Executive Officer  |
| 2711 Citrus Road   |
| Rancho Cordova, CA 95742   |
| Telephone: (916) 858-5100  |
| (Name, address, including zip code, and telephone number, including area code, of agent for service)   |
|  |
| Copy to:   |
| Evan Y. Ng, Esq.   |
| Jason R. Wisniewski, Esq.  |
| Dorsey & Whitney LLP   |
| 600 Anton Boulevard, Suite 2000  |
| Costa Mesa, CA 92626   |
| Telephone: (714) 800-1400  |
|  |
| <b>Approximate date of commencement of proposed sale to the public:</b> This Post-Effective Amendment is being filed to deregister all of the unsold securities previously registered under the Registration Statement.  |
| 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, 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, 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 post-effective amendment filed pursuant to Rule 462(d) 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.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See the definitions of "large accelerated filer", "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Securities Exchange Act of 1934.

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

#### EXPLANATORY NOTE

Cesca Therapeutics Inc. (the "Registrant") is filing this Post-Effective Amendment No. 1 to Form S-1 (the "Amendment") to withdraw and remove from registration any and all securities originally registered by the Registrant that remain unsold as of the effective date of this Amendment, previously registered pursuant to the registration statement on Form S-1 (File No. 333--207115) filed with the Securities and Exchange Commission (the "SEC") on September 24, 2015, as amended by Form S-1/A filed with the SEC on November 18, 2015, and declared effective by the SEC on November 24, 2015 (the "Registration Statement"), which pertained to the resale of up to an aggregate of 511,123 (post-split) shares of the Registrant's common stock to be offered by the selling stockholders named therein, consisting of 404,412 (post-split) shares of common stock issuable upon the conversion of senior secured convertible debentures and 106,711 (post-split) shares of common stock issuable upon the exercise of Series B Warrants.

Accordingly, pursuant to the undertaking contained in the Registration Statement to remove from registration, by means of a post-effective amendment, any of the securities being registered which remain unsold at the termination of the offering, the Registrant is filing this Amendment to deregister all such securities of the Registrant registered under the Registration Statement that remain unsold as of the effective date of this Amendment.

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#### **SIGNATURES**

Pursuant to the requirements of the Securities Act, the Registrant has duly caused this Post-Effective Amendment No. 1 to the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Rancho Cordova, State of California, on September 19, 2016.

#### CESCA THERAPEUTICS INC.

By: /s/ Robin C. Stracey
Name: Robin C. Stracey

Title: President and Chief Executive

Officer

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

| Signature                                      | Title  | Date               |
|--|--|--------------------|
| /s/ Robin C. Stracey<br>Robin C. Stracey       | Chief Executive Officer<br>and Director (Principal Executive Officer)                        | September 19, 2016 |
| /s/ Michael Bruch<br>Michael Bruch             | Chief Financial Officer<br>(Principal Financial Officer and<br>Principal Accounting Officer) | September 19, 2016 |
| /s/ Mahendra Rao<br>Mahendra Rao               | Director   | September 19, 2016 |
| /s/ Denis Michael Rhein<br>Denis Michael Rhein | Director   | September 19, 2016 |
| /s/ Craig W. Moore<br>Craig W. Moore           | Director   | September 19, 2016 |
| /s/ Mark Bagnall<br>Mark Bagnall               | Director   | September 19, 2016 |
| /s/ Dr. Xiaochun Xu                            | Director   | September 19, 2016 |

Dr. Xiaochun Xu