| CESCA THERAPEUTICS INC. |  |
|-------------------------|--|
| Form 424B3              |  |
| February 16, 2016       |  |
| Table Of Contents       |  |
|                         |  |

Filed Pursuant to Rule 424(b)(3)

Registration No. 333-207115

Prospectus Supplement No. 5

(to Prospectus dated November 24, 2015)

#### **Shares of Common Stock Underlying**

\$5,500,000 Senior Secured Convertible Debentures and Series B Warrants

This prospectus supplement supplements the prospectus dated November 24, 2015 (the "Prospectus"), which relates to the resale of up to 10,222,449 shares of our common stock to be offered by the selling stockholders including 8,088,235 shares of common stock upon the conversion of outstanding senior secured convertible debentures in the amount of \$5,500,000 ("Debentures"), and up to 2,134,214 shares of common stock upon the exercise of Series B Warrants.

This prospectus supplement incorporates into our Prospectus the information contained in our Quarterly Report on Form 10-Q, filed with the Securities and Exchange Commission on February 16, 2016.

This prospectus supplement should be read in conjunction with the Prospectus. This prospectus supplement updates, amends and supplements the information included or incorporated by reference in the Prospectus. If there is any inconsistency between the information in the Prospectus and this prospectus supplement, you should rely on the information in this prospectus supplement.

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 listed on Nasdaq Capital Market under the symbol "KOOL." The warrants will not be listed or quoted on any trading market. On February 12, 2016, the last reported sale price of our common stock on the Nasdaq Capital Market was \$0.20 per share.

Investing in our common stock is highly speculative and involves a high degree of risk. You should carefully

consider the risks and uncertainties in the section entitled "Risk Factors" beginning on page 4 of this prospectus

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus supplement is February 16, 2016

before making a decision to purchase our stock.

#### SECURITIES AND EXCHANGE COMMISSION

Washington D.C. 20549

| TOMM TO-O | FO | RM | 10- | 0 |
|-----------|----|----|-----|---|
|-----------|----|----|-----|---|

| FO            | RM 10-Q   |
|---------------|---|
| <u>X</u><br>- | Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the quarterly period ended December 31, 2015. |
| or            |   |
|               | Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the transition from to                       |
| Coı           | nmission File Number: 000-16375   |
| Ces           | sca Therapeutics Inc.   |
| (Ex           | act name of registrant as specified in its charter)   |
| Del           | aware 94-3018487  |

#### 2711 Citrus Road

#### Rancho Cordova, California 95742

(Address of principal executive offices) (Zip Code)

(State of incorporation) (I.R.S. Employer Identification No.)

#### (916) 858-5100

(Registrant's telephone number, including area code)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

| Yes [X] No [ ]  |
|---|
| Indicate by check mark whether the registrant has submitted electronically and posted on its corporate website, if any every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or such shorter period that the registrant was required to submit and post such files). |
| Yes [X] No [ ]  |
| 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 definition of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.  |
| Large accelerated filer [ ] Accelerated filer [ ] Non-accelerated filer [ ] Smaller reporting company [X]   |
| Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).  |
| Yes [ ] No [X]  |
| Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.   |
| Class Outstanding at February 16, 2016<br>Common stock, \$.001 par value 60,013,350   |
|   |

### Table Of Contents

# **Cesca Therapeutics Inc.**

### **INDEX**

### Page Number

#### **Part I Financial Information**

| Item 1.                                  | Financial Statements  | 3                          |
|--|---|----------------------------|
| Item 2.                                  | Management's Discussion and Analysis of Financial Condition and Results of Operations   | 18                         |
| Item 3.                                  | Quantitative and Qualitative Disclosures about Market Risk  | 25                         |
| Item 4.                                  | Controls and Procedures   | 25                         |
| Part II (                                | Other Information   |                            |
| Item 1A<br>Item 2.<br>Item 3.<br>Item 4. | Legal Proceedings  . Risk Factors  Unregistered Sales of Equity Securities and Use of Proceeds  Defaults upon Senior Securities  Mine Safety Disclosure | 26<br>26<br>29<br>29<br>29 |
|  | Other Information Exhibits  | 29<br>29                   |
| <u>Signatu</u>                           | <u>res</u>  | 30                         |

### **PART I - FINANCIAL INFORMATION**

# **Item 1. Financial Statements**

### **Cesca Therapeutics Inc.**

### **Condensed Consolidated Balance Sheets**

(in thousands, except share and per share amounts)

|   | December 31,        | June 30, |
|---|---------------------|----------|
|   | 2015<br>(Unaudited) | 2015     |
| ASSETS  | ,                   |          |
| Current assets:   |                     |          |
| Cash and cash equivalents   | \$ 2,942            | \$3,357  |
| Accounts receivable, net of allowance for doubtful accounts of \$40 (\$46 at June 30, 2015) | 3,467               | 5,133    |
| Inventories   | 3,986               | 4,598    |
| Prepaid expenses and other current assets   | 336                 | 163      |
| Total current assets  | 10,731              | 13,251   |
| Equipment at cost, less accumulated depreciation of \$5,316 (\$4,935 at June 30, 2015)      | 3,137               | 2,937    |
| Goodwill  | 13,195              | 13,195   |
| Intangible assets, net  | 21,045              | 21,295   |
| Other assets  | 78                  | 79       |
| Total assets  | \$48,186            | \$50,757 |
| LIABILITIES AND STOCKHOLDERS' EQUITY  |                     |          |
| Current liabilities:  |                     |          |
| Accounts payable  | \$4,424             | \$5,079  |
| Accrued payroll and related expenses  | 462                 | 705      |
| Deferred revenue  | 279                 | 635      |
| Other current liabilities   | 2,225               | 1,527    |
| Total current liabilities   | 7,390               | 7,946    |
| Noncurrent deferred tax liability   | 7,641               | 7,641    |
| Derivative obligations  | 643                 |          |
| Convertible debentures, net   | 62                  |          |
| Other noncurrent liabilities  | 259                 | 268      |

| Total liabilities   | 15,995   |   | 15,855    |
|---|----------|---|-----------|
| Commitments and contingencies   |          |   |           |
| Stockholders' equity:   |          |   |           |
| Preferred stock, \$0.001 par value; 2,000,000 shares authorized, none issued and outstanding                                    |          |   |           |
| Common stock, \$0.001 par value; 350,000,000 shares authorized; 42,807,468 issued and outstanding (40,501,730 at June 30, 2015) | 43       |   | 41        |
| Paid in capital in excess of par  | 173,872  |   | 172,540   |
| Accumulated deficit   | (141,695 | ) | (137,674) |
| Accumulated other comprehensive loss  | (29      | ) | (5)       |
| Total stockholders' equity  | 32,191   |   | 34,902    |
| Total liabilities and stockholders' equity  | \$48,186 |   | \$50,757  |

See accompanying notes.

3

**Cesca Therapeutics Inc.** 

### **Condensed Consolidated Statements of Operations and Comprehensive Loss (Unaudited)**

(in thousands, except share and per share amounts)

| Net revenues Cost of revenues Gross profit  | Three Month<br>December 3<br>2015<br>\$3,294<br>2,266<br>1,028 |           | Six Months 1  December 33 2015  \$6,117  4,722  1,395 |   |
|---|--|-----------|---|---|
| Expenses:   |  |           |   |   |
| Sales and marketing   | 527  | 720       | 1,159   | 1,528                                   |
| Research and development  | 646  | 1,542     | 1,743   | 3,019                                   |
| General and administrative  | 1,823  | 3,632     | 4,375   | 5,820                                   |
| Total operating expenses  | 2,996  | 5,894     | 7,277   | 10,367                                  |
| Loss from operations  | (1,968   | ) (4,353  | ) (5,882  | ) (7,640 )                              |
| Fair value change of derivative instruments Registration rights liquidated damages Loss on cashless exercise of warrants Other expense net Net loss | 2,180<br>(220<br>(564<br>(52<br>\$(624                         | , ( -     | 3,606<br>(1,100<br>(564<br>) (81<br>) \$(4,021        | <br>)<br>)<br>) (27 )<br>) \$(7,667 )   |
| COMPREHENSIVE LOSS Net loss Other comprehensive loss: Foreign currency translation adjustments Comprehensive loss                                   | \$(624<br>1<br>\$(623  | (37       | ) (24   | ) \$(7,667 )<br>) (69 )<br>) \$(7,736 ) |
| Per share data:   |  |           |   |   |
| Basic and diluted net loss per common share   | \$(0.02  | ) \$(0.11 | ) \$(0.10   | ) \$(0.19 )                             |

Weighted average common shares outstanding – basic and diluted 41,384,666 40,303,628 40,968,454 40,289,170

See accompanying notes.

4

### **Cesca Therapeutics Inc.**

# **Condensed Consolidated Statements of Cash Flows (Unaudited)**

(in thousands)

|   | Six Months Ended |           |
|---|------------------|-----------|
|   | December 31,     |           |
|   | 2015             | 2014      |
| Cash flows from operating activities:                                       |                  |           |
| Net loss  | \$(4,021)        | \$(7,667) |
| Adjustments to reconcile net loss to net cash used in operating activities: |                  |           |
| Depreciation and amortization   | 659              | 667       |
| Stock based compensation expense  | 304              | 676       |
| Amortization of debt discount and issue costs                               | 62               |           |
| Change in fair value of derivative  | (3,606)          |           |
| Loss on cashless exercise of warrants                                       | 564              |           |
| Net change in operating assets and liabilities:                             |                  |           |
| Accounts receivable   | 1,634            | 114       |
| Inventories   | 568              | 157       |
| Prepaid expenses and other current assets                                   | (299 )           | (83)      |
| Other assets  |                  | 5         |
| Accounts payable  | (626)            | (404)     |
| Accrued payroll and related expenses  | (243)            | 361       |
| Deferred revenue  | (322)            | (181)     |
| Other liabilities   | 832              | 486       |
| Net cash used in operating activities                                       | (4,494)          | (5,869)   |
| Cash flows from investing activities:                                       |                  |           |
| Capital expenditures  | (602)            | (455)     |
| Net cash used in investing activities                                       | (602 )<br>&nbs   | (455 )    |