

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

SCHEDULE 14A

PROXY STATEMENT PURSUANT TO SECTION 14(a) OF THE SECURITIES  
EXCHANGE ACT OF 1934

Filed by the Registrant  Filed by a Party other than the Registrant

Check the appropriate box:

- Preliminary Proxy Statement
- Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e) (2))**
- Definitive Proxy Statement
- Definitive Additional Materials
- Soliciting Material Pursuant to § 240.14a-12

**MELA Sciences, Inc.**

(Name of Registrant as Specified In Its Charter)

Payment of Filing Fee (Check the appropriate box)

- No fee required.
  - Fee computed on table below per Exchange Act Rules 14a-6(i) (1) and 0-11.
    - (1) Title of each class of securities to which transaction applies:
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  - Fee paid previously with preliminary materials.
  - Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a) (2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.
    - (1) Amount Previously Paid:
    - (2) Form, Schedule or Registration Statement No.:
    - (3) Filing Party:
    - (4) Date Filed:
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MELA SCIENCES, INC.  
100 Lakeside Drive, Suite 100  
Horsham, Pennsylvania 19044

**SUPPLEMENT TO THE PROXY STATEMENT  
FOR THE 2015 ANNUAL MEETING OF STOCKHOLDERS  
TO BE HELD ON SEPTEMBER 30, 2015**

The following information supplements the proxy statement (the "Proxy Statement") of MELA Sciences, Inc. (the "Company," "we," "us" or "our") furnished to stockholders of the Company in connection with the solicitation of proxies by the Board of Directors of the Company for the 2015 Annual Meeting of Stockholders and for any adjournment or postponement thereof (the "Annual Meeting"). The Annual Meeting is scheduled to be held on Wednesday, September 30, 2015 on the 12<sup>th</sup> Floor of 30 S. 17<sup>th</sup> Street, Philadelphia, Pennsylvania 19103 at 9:00 a.m. local time. This supplement to the Proxy Statement (this "Supplement") is being filed with the Securities and Exchange Commission (the "SEC") on or about September 11, 2015, and the Company intends to mail this Supplement commencing on or about September 11, 2015 to all stockholders of record as of August 17, 2015 entitled to vote at the Annual Meeting. Capitalized terms used in this Supplement and not otherwise defined have the meaning given to such terms in the Proxy Statement.

**THE PROXY STATEMENT CONTAINS IMPORTANT ADDITIONAL INFORMATION AND THIS SUPPLEMENT SHOULD BE READ IN CONJUNCTION WITH THE PROXY STATEMENT.**

Only stockholders of record on the close of business on August 17, 2015 are entitled to receive notice of and to vote at the Annual Meeting.

The purpose of this Supplement is to clarify Proposal No. 4 in the Proxy Statement. As disclosed in the Proxy Statement, we are seeking stockholder approval of the issuance of shares of the Company's common stock upon (i) conversion of the \$32.5 million aggregate principal amount of senior secured convertible debentures issued June 22, 2015 (the "Debentures") at an initial conversion price of \$0.75 per share; (ii) payment of interest on the Debentures and \$10.0 million aggregate principal amount of senior secured notes issued June 22, 2015 (the "Notes"); (iii) exercise of warrants to purchase an aggregate of 3.0 million shares of the Company's common stock issued June 22, 2015 at an initial exercise price of \$0.75 per shares (the "2015 Warrants"); and (iv) exercise of existing warrants, amended as of the effective date of stockholder approval, to purchase up to 11,099,267 shares of the Company's common stock at the initial reset exercise price of \$0.75 per share (the "Reset Warrants," and collectively with the 2015 Warrants, the "Warrants"). We also disclosed under the description of Proposal No. 4 that the Debentures and the Warrants also provide for certain adjustments to the conversion price of the Debentures and the exercise price of the Warrants based on stock dividends, stock splits and certain dilutive issuances.

In the Proxy Statement, we had provided the estimated number of shares that the Company may be obligated to issue pursuant to Proposal No. 4 at the initial conversion price and the initial exercise price of those instruments of approximately 62,837,601 shares of the Company's common stock, and we want to make clear that stockholder approval being sought includes all additional shares that may be issued pursuant to the anti-dilution adjustment provisions of those instruments. We, therefore, clarify Proposal No. 4 to read as follows:

**"APPROVAL, PURSUANT TO NASDAQ MARKETPLACE RULE 5635(D), OF THE ISSUANCE OF SHARES OF COMMON STOCK UPON CONVERSION OF THE DEBENTURES, EXERCISE OF THE WARRANTS AND PAYMENT OF INTEREST ON DEBENTURES AND NOTES, ESTIMATED INITIALLY AT 62,837,601 SHARES OF COMMON STOCK, PLUS ALL ADDITIONAL SHARES THAT MAY BE ISSUED PURSUANT TO THE ANTI-DILUTION ADJUSTMENT PROVISIONS OF THOSE INSTRUMENTS."**

**THE BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" PROPOSAL NO. 4.**

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Except as clarified by the foregoing, the Proxy statement remains unchanged, continues to apply and should be considered (along with this Supplement and the revised proxy card) in casting your vote in connection with the Annual Meeting.

**This Supplement clarifies Proposal No. 4 to be acted upon at the Annual Meeting and does not otherwise change the proposals to be acted upon at the Annual Meeting, which are described in the Proxy Statement.**

#### **Your Vote is Important**

As a stockholder, your vote is very important, and the Board of Directors strongly encourages you to exercise your right to vote whether or not you attend the Annual Meeting.

If you have already submitted your vote, this Supplement does not require that you vote again and a vote "FOR" Proposal 4 on either proxy card will be counted as approving such proposal as clarified by this Supplement.

If you have previously submitted a proxy card or voting instructions and wish to change your vote or revoke your proxy, please re-submit your vote or provide notice of revocation in one of the following ways:

- Via the Internet at [www.proxyvote.com](http://www.proxyvote.com);
- By telephone toll-free at 1-800-690-6903;
- By signing and returning the current proxy card if you have received paper materials; or
- By attending the Annual Meeting and voting in person.

If you have not yet submitted a proxy card or voting instructions, we encourage you to submit your vote online or by telephone. If you have not yet voted, please submit your vote using the current version of the proxy card that we are sending to you. However, votes cast using either version of the proxy card will be counted.

#### **Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting to be held on September 30, 2015:**

This Supplement, the Notice of Annual Meeting and the Proxy Statement and our Annual Report for the year ended December 31, 2014 are available at [www.proxyvote.com](http://www.proxyvote.com).

September 11, 2015

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**MELA SCIENCES, INC.**  
**100 LAKESIDE DRIVE, SUITE 100**  
**HORSHAM, PENNSYLVANIA 19044**



**SCAN TO**  
**VIEW MATERIALS & VOTE**

**VOTE BY INTERNET - [www.proxyvote.com](http://www.proxyvote.com) or scan the QR Barcode above**  
 Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 P.M. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form.

**ELECTRONIC DELIVERY OF FUTURE PROXY MATERIALS**  
 If you would like to reduce the costs incurred by our company in mailing proxy materials, you can consent to receiving all future proxy statements, proxy cards and annual reports electronically via e-mail or the Internet. To sign up for electronic delivery, please follow the instructions above to vote using the Internet and, when prompted, indicate that you agree to receive or access proxy materials electronically in future years.

**VOTE BY PHONE - 1-800-690-6903**  
 Use any touch-tone telephone to transmit your voting instructions up until 11:59 P.M. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you call and then follow the instructions.

**VOTE BY MAIL**  
 Mark, sign and date your proxy card and return it in the postage-paid envelope we have provided or return it to Vote Processing, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717.

TO VOTE, MARK BLOCKS BELOW IN BLUE OR BLACK INK AS FOLLOWS:

M96470-P69307

KEEP THIS PORTION FOR YOUR RECORDS  
 DETACH AND RETURN THIS PORTION ONLY

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

**MELA SCIENCES, INC.**

The Board of Directors recommends a vote FOR all nominees in Proposal 1, and FOR Proposals 2, 3, 4, 5, 6, 7 and 8.

1. Election of Directors

Nominees:	For	Withhold
1a. Jeffrey F. O'Donnell, Sr.	<input type="checkbox"/>	<input type="checkbox"/>
1b. Michael R. Stewart	<input type="checkbox"/>	<input type="checkbox"/>
1c. Samuel Navarro	<input type="checkbox"/>	<input type="checkbox"/>
1d. David K. Stone	<input type="checkbox"/>	<input type="checkbox"/>
1e. Kathryn Swintek	<input type="checkbox"/>	<input type="checkbox"/>
1f. LuAnn Via	<input type="checkbox"/>	<input type="checkbox"/>
1g. R. Rox Anderson	<input type="checkbox"/>	<input type="checkbox"/>

	For	Against	Abstain
2. To approve an amendment to the Company's Fifth Amended and Restated Certificate of Incorporation increasing the number of authorized shares of common stock from 50,000,000 to 150,000,000 subject to the Board of Directors' authority to abandon such amendment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. To approve an amendment to the Company's Fifth Amended and Restated Certificate of Incorporation to effect a reverse stock split of the Company's common stock at a specified ratio within the range from 1-for-2 to 1-for-10 and to grant authorization to the Board of Directors to determine, at its discretion, the timing and specific ratio of the reverse stock split	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. To approve a proposal to authorize the Company to issue shares of the Company's common stock upon (i) conversion of the Debentures; (ii) payment of interest on the Debentures and the Notes; (iii) exercise of the Warrants; and (iv) exercise of the Reset Warrants, estimated initially at 62,837,601 shares, plus all additional shares that may be issued pursuant to the anti-dilution adjustment provisions of those instruments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. To approve the Amended and Restated MELA Sciences, Inc. 2013 Stock Incentive Plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. To approve the payment of special board compensation to two directors of the Company for services performed as members of the Transaction Committee of the Board of Directors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. To ratify the selection of EisnerAmper LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2015	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. To approve the adjournment of the annual meeting to solicit additional proxies to vote in favor of the proposals set forth in Proposal Nos. 2, 3 and 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

For address changes and/or comments, please check this box and write them on the back where indicated.

Please indicate if you plan to attend this meeting.  Yes  No

**NOTE:** Such other business as may properly come before the meeting or any adjournment thereof.

Please sign exactly as your name appears hereon. If the stock is registered in the names of two or more persons, each should sign. Executors, administrators, trustees, guardians and attorneys-in-fact should add their titles. If signer is a corporation, please give full corporate name and have a duly authorized officer sign, stating title. If signer is a partnership, please sign in partnership name by authorized person.

Signature [PLEASE SIGN WITHIN BOX] Date

Signature (Joint Owners) Date

**Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting:**  
The Notice and Proxy Statement and Form 10-K are available at [www.proxyvote.com](http://www.proxyvote.com).

IF YOU HAVE NOT VOTED VIA THE INTERNET OR TELEPHONE, FOLD ALONG THE PERFORATION, DETACH AND RETURN THE BOTTOM PORTION IN THE ENCLOSED ENVELOPE.

M96471-P69307

Proxy — MELA Sciences, Inc.

**PROXY SOLICITED BY THE BOARD OF DIRECTORS  
FOR THE ANNUAL MEETING OF STOCKHOLDERS  
TO BE HELD ON SEPTEMBER 30, 2015**

The undersigned hereby appoints Michael R. Stewart and Robert W. Cook, and each of them (with full power to act alone), as attorneys and proxies of the undersigned, with full power of substitution, to vote all shares of stock of MELA Sciences, Inc. which the undersigned may be entitled to vote at the Annual Meeting of Stockholders of MELA Sciences, Inc. to be held on the 12th Floor of 30 S. 17th Street, Philadelphia, Pennsylvania 19103 on Wednesday, September 30, 2015 at 9:00 a.m., local time, and at any and all postponements, continuations and adjournments thereof, with all powers that the undersigned would possess if personally present, upon and in respect of the following matters and in accordance with the following instructions, with discretionary authority as to any and all other matters that may properly come before the meeting.

**UNLESS A CONTRARY DIRECTION IS INDICATED, THIS PROXY WILL BE VOTED FOR ALL NOMINEES LISTED IN PROPOSAL 1, AND FOR PROPOSALS 2, 3, 4, 5, 6, 7 AND 8, AS MORE SPECIFICALLY DESCRIBED IN THE PROXY STATEMENT. IF SPECIFIC INSTRUCTIONS ARE INDICATED, THIS PROXY WILL BE VOTED IN ACCORDANCE THEREWITH.**

Address Changes/Comments: \_\_\_\_\_

\_\_\_\_\_

(If you noted any Address Changes/Comments above, please mark corresponding box on the reverse side.)

**CONTINUED AND TO BE SIGNED ON REVERSE SIDE**