

---

---

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

---

**POST-EFFECTIVE AMENDMENT NO. 1  
TO  
FORM S-3  
REGISTRATION STATEMENT  
UNDER  
THE SECURITIES ACT OF 1933**

---

**MELA SCIENCES, INC.**  
(Exact name of registrant as specified in its charter)

**Delaware**  
(State or other jurisdiction of  
incorporation or organization)

**13-3986004**  
(I.R.S. Employer  
Identification No.)

**50 S. Buckhout Street, Suite 1  
Irvington, New York 10533  
(914) 591-3783**  
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

---

**Rose Crane  
President and Chief Executive Officer  
MELA Sciences, Inc.  
50 S. Buckhout Street, Suite 1  
Irvington, New York 10533  
(914) 591-3783**  
(Name, address, including zip code, and telephone number, including area code, of agent for service)

---

**Copy to:  
Megan N. Gates, Esq.  
Mintz, Levin, Cohn, Ferris, Glovsky and Popeo PC  
One Financial Center  
Boston, Massachusetts 02111  
(617) 542-6000**

---

**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, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer

Accelerated filer

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

Smaller reporting company

---

---

---

## DEREGISTRATION OF UNSOLD SECURITIES

The Registrant hereby amends its Registration Statement on Form S-3 (No. 333-194649), originally filed with the Securities and Exchange Commission (the "Commission") on March 18, 2014 and declared effective by the Commission on April 3, 2014 (the "Registration Statement"), by deregistering 1,464,286 shares (the "Shares") of the Registrant's common stock, par value \$0.001 per share (the "Common Stock"). The Registration Statement registered an aggregate of 2,863,336 shares of Common Stock, and accordingly, following the filing of this Post-Effective Amendment No. 1, an aggregate of 1,399,050 shares of Common Stock will remain registered on the Registration Statement. On July 9, 2014, the Registrant effected a previously authorized 1-for-10 reverse stock split of its Common Stock and all amounts included herein reflect this reverse stock split.

The Registrant initially filed the Form S-3 on behalf of the purchasers (the "Selling Stockholders") of 12,300 shares of Series A Convertible Preferred Stock, par value \$0.10 per share (the "Series A Preferred Stock") and certain warrants to purchase Common Stock, of the Registrant pursuant to the terms of a Registration Rights Agreement, dated January 31, 2014, by and between the Registrant and the Selling Stockholders. Pursuant to an agreement with the Selling Stockholders, the Registrant registered the Shares for resale by the Selling Stockholders when and if they chose to convert the Series A Preferred Stock into shares of Common Stock.

On July 21, 2014, the Registrant repurchased all 12,300 shares of the Series A Preferred Stock. Accordingly, because the Shares are no longer issuable upon conversion of the repurchased Series A Preferred Stock and the Registrant is no longer obligated to keep the Registration Statement effective with respect to such Shares, the Registrant desires to deregister the Shares.

Pursuant to the undertaking in Item 17 of the Registration Statement required by Item 512(a)(3) of Regulation S-K, the Registrant is filing this Post-Effective Amendment No. 1 to the Registration Statement to remove from registration the Shares.

## SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant 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 this Post-Effective No. 1 to this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Irvington, New York, on September 22, 2014.

### MELA SCIENCES, INC.

By /s/ Rose Crane  
Rose Crane  
President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this Post-Effective Amendment No. 1 to this registration statement has been signed by the following persons in the capacities and on the date indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Rose Crane</u> Rose Crane	Director, President and Chief Executive Officer (Principal Executive Officer)	September 22, 2014
<u>/s/ Robert Cook</u> Robert Cook	Chief Financial Officer (Principal Financial and Accounting Officer)	September 22, 2014
<u>*</u> Robert Coradini	Director	September 22, 2014
<u>*</u> Tony Dimun	Director	September 22, 2014
<u>*</u> Jeffrey O'Donnell	Director	September 22, 2014
<u>*</u> Samuel Navarro	Director	September 22, 2014
<u>*</u> Michael Stewart	Director	
<u>*</u> David Stone	Director	September 22, 2014
<u>*</u> Kathryn Swintek	Director	September 22, 2014
<u>*</u> LuAnn Via	Director	September 22, 2014
<u>*/s/ Rose Crane</u> Rose Crane Attorney-in-Fact		