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

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d) of The Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): May 26, 2010

MELA Sciences, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**000-51481**	**13-3986004**
(State or other jurisdiction of incorporation)	(Commission File Number)	(IRS Employer Identification No.)

50 South Buckhout Street, Suite 1 **Irvington, New York** (Address of principal executive offices)	**10533** (Zip Code)

Registrant's telephone number, including area code **(914) 591-3783**

Electro-Optical Sciences, Inc.
(Former name or former address, if changed since last report.)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instructions A.2. below):

o Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

o Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

o Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

o Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 8.01 — Other Events

On May 26, 2010, MELA Sciences, Inc. issued a press release, a copy of which is attached as Exhibit 99.1 to this report and is incorporated herein by reference.

Item 9.01 — Financial Statements and Exhibits

(d) Exhibits.

EXHIBIT NO.	DESCRIPTION
99.1	MELA Sciences, Inc. Press Release, dated May 26, 2010

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

MELA Sciences, Inc.

Date: May 26, 2010

By: /s/ Richard I. Steinhart
Chief Financial Officer
(Principal Financial Officer)

EXHIBIT INDEX

EXHIBIT NO.	DESCRIPTION
99.1	MELA Sciences, Inc. Press Release, dated May 26, 2010

Exhibit 99.1

MELA Sciences Announces FDA Panel to Review MelaFind® PMA Application on August 26, 2010

-Company also announces topline results of recently-completed US reader study -

-Conference call scheduled for today at 8:30 AM EDT -

IRVINGTON, NY (May 26, 2010) — MELA Sciences, Inc. (Nasdaq: MELA) announced today that the company's pre-market approval (PMA) application for MelaFind® will be reviewed by the General and Plastic Surgery Devices Panel appointed by the U.S. Food and Drug Administration (FDA) on August 26, 2010.

"We are so pleased to see the MelaFind review process move forward," said Joseph V. Gulfo, MD, President & CEO. "We and our advisors look forward to the Panel meeting with great anticipation. We have had positive and constructive interactions with the agency culminating in the submission of our formal response to the FDA's questions regarding the PMA application earlier this month. We are now fully focused on preparing for the August 26th panel meeting and firmly believe that MelaFind will be found to be a valuable tool to help dermatologists detect melanoma at the earliest, most curable stage."

The company also reported the results of its internet-based US reader study performed by 155 physicians, including 110 dermatologists, on images and clinical information derived from 130 lesions (melanomas and non-melanomas) enrolled in the MelaFind pivotal trial. The average sensitivity of dermatologists was 72%. The sensitivity of MelaFind was 96.9%, which was statistically significantly superior to dermatologists at p-value of less than 0.0001. The Company plans to submit the results of the reader study to a peer review journal for publication.

The panel will review the MelaFind PMA application, which the company submitted to the agency in June 2009. It is based on the positive results of the company's landmark pivotal study, which included 1,831 pigmented skin lesions from 1,383 patients, making this the largest prospective study ever conducted in melanoma detection. Prior to the start of the study, the company and the FDA entered into a binding protocol agreement to stipulate the study design, including the sensitivity and specificity endpoints that should be used to determine the safety and effectiveness of MelaFind. The company believes that the results of the pivotal study met and exceeded the pre-defined endpoints.

As previously reported, the company received a letter from the FDA on March 19, 2010 with a series of questions regarding the MelaFind PMA application. The Company was advised that the application was not approvable at that time, and that the review process had been extended by a period of up to 180 days following the submission of the response to the FDA action letter.

A draft response was submitted to the FDA in mid-April. In addition, the Company also had an in-person meeting with the Agency to review its draft response and to clarify several questions. The final formal response to all questions provided by the FDA was submitted to the Agency on May 7, 2010.

Conference Call Information

MELA Sciences will host a conference call today at 8:30 AM EDT. To participate in the conference call, dial 866-543-6405 and use passcode 23013585. International callers may dial 617-213-8897 using the same passcode. In addition, a live audio of the conference call will be available over the Internet. Interested parties can access the event through the investor relations section of www.melasciences.com. For a direct link, click: http://phx.corporate-ir.net/phoenix.zhtml?c=191863&p=irol-irhome.

If you are unable to participate in the live call, a replay will be available at 888-286-8010, with passcode 63228150, from 11:30 AM EDT on May 26, 2010 until June 2, 2010. International callers may access the replay by dialing 617-801-6888, using the same passcode. The webcast will also be available at www.melasciences.com for the same period.

About Melanoma

Melanoma is the deadliest form of skin cancer, responsible for approximately 80% of skin cancer fatalities. The melanoma rate has continued to increase with an estimated 120,000 new cases projected in 2010. A recent National Cancer Institute report published in the July 10, 2008 online edition of the Journal of Investigative Dermatology indicates that annual incidence of melanoma among young adult Caucasian women rose 50% between 1980 and 2004. Melanoma is the most common cancer in women age 25 to 29 and the number one cancer killer of women age 30 to 35. Although no cure is currently available for advanced-stage melanoma, if caught early, melanoma is virtually 100% curable.

About MELA Sciences

MELA Sciences is a medical technology company focused on developing MelaFind®, a non-invasive and objective computer vision system intended to aid in the early detection of melanoma. MELA Sciences designed MelaFind to assist in the evaluation of pigmented skin lesions, including atypical moles, which have one or more clinical or historical characteristics of melanoma, before a final decision to biopsy has been rendered. MelaFind acquires and displays multi-spectral (from blue to near infrared) digital images of pigmented skin lesions and uses automatic image analysis and statistical pattern recognition to help identify lesions to be considered for biopsy to rule out melanoma.

The MelaFind Pre-Market Approval (PMA) application was filed with the U.S. Food and Drug Administration (FDA) in June 2009 and is currently under review at the FDA. MELA Sciences cannot predict either the timing of the FDA's decision on the PMA application or the outcome. FDA approval is required prior to marketing MelaFind in the United States.

For more information on MELA Sciences, visit www.melasciences.com.

Safe Harbor

This press release includes "forward-looking statements" within the meaning of the Securities Litigation Reform Act of 1995. These statements include but are not limited to our plans, objectives, expectations and intentions and other statements that contain words such as "expects," "contemplates," "anticipates," "plans," "intends," "believes" and variations of such words or similar expressions that predict or indicate future events or trends, or that do not relate to historical matters. These statements are based on our current beliefs or expectations and are inherently subject to significant uncertainties and changes in circumstances, many of which are beyond our control. There can be no assurance that our beliefs or expectations will be achieved. Actual results may differ materially from our beliefs or expectations due to economic, business, competitive, market and regulatory factors.

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