

---

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): April 30, 2010**

**Electro-Optical Sciences, Inc.**

(Exact name of registrant as specified in its charter)

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

**000-51481**  
(Commission  
File Number)

**13-3986004**  
(IRS Employer  
Identification No.)

**50 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**

(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):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
  - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
  - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
  - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
- 
-

## Item 5.07 — Submission of Matters to a Vote of Security Holders

The 2010 Annual Meeting of Stockholders of the Registrant (the “Annual Meeting”) was held on April 30, 2010.

The stockholders voted on five proposals as follows: to elect directors (Proposal 1); to approve an amendment to the Registrant’s Fourth Amended and Restated Certificate of Incorporation (the “Charter”) increasing the number of authorized shares of common stock to 45 million shares (Proposal 2); to approve an amendment to the Charter changing the Registrant’s name to MELA Sciences, Inc. (Proposal 3); to approve an amendment to the Registrant’s 2005 Stock Incentive Plan (the “Plan”) increasing the aggregate number of shares of common stock available under the Plan to 3,724,028 shares (Proposal 4); and to ratify the selection by the audit committee of the Registrant’s Board of Directors of Eisner LLP as the Registrant’s independent registered public accounting firm for the fiscal year ending December 31, 2010 (Proposal 5).

All nominees for election to the Board as Directors were elected to serve until the 2011 Annual Meeting of Stockholders and until their respective successors are elected and qualified, or until such director’s earlier death, resignation or removal. The stockholders also approved Proposals 2, 3 and 4, and ratified Proposal 5. The number of votes cast for, against or withheld and the number of abstentions with respect to each proposal is set forth below.

<i>Proposal 1</i>	<u>Shares For</u>	<u>Shares Withheld</u>	<u>Broker Non-Votes</u>
Joseph V. Gulfo, MD	8,314,767	970,858	9,254,040
Breaux Castleman	7,633,121	1,658,504	9,248,040
Sidney Braginsky	8,857,535	434,090	9,248,040
Gorge C. Chryssis	8,855,238	436,387	9,248,040
Martin D. Cleary	8,864,159	427,466	9,248,040
Anne Egger	8,019,616	1,272,009	9,248,040
Charles Stiefel	8,856,359	435,266	9,248,040
Gerald Wagner, Ph.D.	8,024,797	1,266,828	9,248,040

	<u>Shares For</u>	<u>Shares Against</u>	<u>Shares Abstaining</u>	<u>Broker Non-Votes</u>
<i>Proposal 2</i>	17,141,611	1,286,668	111,383	3
<i>Proposal 3</i>	18,275,673	207,128	56,863	1
<i>Proposal 4</i>	8,096,432	1,125,181	70,010	9,248,042
<i>Proposal 5</i>	18,355,108	89,960	94,597	0

### 8.01 – Other Events

At the Annual Meeting, the Registrant reported that it submitted a draft response in mid-April 2010 to the action letter it received from the U.S. Food and Drug Administration (“FDA”) in March 2010 regarding the Registrant’s PMA application for MelaFind®. The Registrant has had a series of interactions with FDA reviewers, including an in person meeting with the FDA to review its draft response and to clarify several questions. The final formal response to all questions provided by the FDA will be submitted imminently.

---

The Registrant also reported:

- that the large reader study, which was designed to assess physician sensitivity to early melanoma and was performed on images and patient data derived from the pivotal trial, has been completed and is undergoing formal statistical analysis. Top-line data demonstrate consistency with the results of previously reported reader studies. Results will be made available publicly, and the authors are planning to submit a paper for publication in a peer-review medical journal;
  - that two new patents were issued to the Registrant in 2010 covering certain aspects of the MelaFind® commercial cart; and
  - on its ongoing efforts to obtain a CE Mark in order to allow for commercialization of MelaFind® in Europe and other countries, as well as its commercial planning activities outside the U.S. The Registrant is aiming to obtain approval to commercialize in certain European markets in the first quarter of 2011.
-

**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.

Electro-Optical Sciences, Inc.

Date: April 30, 2010

By: /s/ Richard Steinhart

Name: Richard Steinhart

Title: Chief Financial Officer