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

FORM 10-Q

☑ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended June 30, 2007

o **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to

Commission file number 000 — 51481

ELECTRO-OPTICAL 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.)*
3 West Main Street, Suite 201 **Irvington, New York** *(Address of Principal Executive offices)*	**10533** *(Zip Code)*

Registrant's Telephone Number, including area code:
(914) 591-3783

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 ☑ No o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer o Accelerated filer o Non-accelerated filer ☑

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes o No ☑

As of August 6, 2007, 15,401,882 shares of the Registrant's common stock were outstanding.

Electro-Optical Sciences, Inc.
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ELECTRO-OPTICAL SCIENCES, INC.
CONDENSED BALANCE SHEETS

	June 30, 2007 (unaudited)	December 31, 2006 *
ASSETS		
Current Assets:		
Cash and cash equivalents (includes $12,000,000 in certificates of deposit as of June 30, 2007 and December 31, 2006)	$ 15,075,764	$ 20,939,527
Receivable from sale and licensing of discontinued operations	500,000	487,680
Prepaid expenses and other current assets	221,568	343,634
Total Current Assets	15,797,332	21,770,841
Property and equipment, net	662,396	564,471
Patents and trademarks, net	128,947	100,630
Other assets	39,758	39,758
Total Assets	$ 16,628,433	$ 22,475,700
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current Liabilities:		
Accounts payable (includes related parties of $53,987 as of December 31, 2006)	$ 408,490	$ 641,036
Accrued expenses (includes related parties of $34,527 as of December 31, 2006)	490,830	504,670
Other current liabilities	11,427	16,077
Total Current Liabilities	910,747	1,161,783
COMMITMENTS AND CONTINGENCIES (Note 7)		
Stockholders' Equity		
Common stock — $.001 par value; authorized 30,000,000 shares; issued and outstanding 13,401,704 shares at June 30, 2007 and 13,296,448 shares at December 31, 2006	13,402	13,296
Additional paid-in capital	53,019,283	52,525,408
Accumulated deficit	(37,314,999)	(31,224,787)
Stockholders' Equity	15,717,686	21,313,917
Total Liabilities and Stockholders' Equity	$ 16,628,433	$ 22,475,700

* Derived from the audited balance sheet as of December 31, 2006

See accompanying notes to the financial statements

ELECTRO-OPTICAL SCIENCES, INC.
CONDENSED STATEMENTS OF OPERATIONS
(unaudited)

	Three months ended June 30,		Six months ended June 30,	
	2007	**2006**	**2007**	**2006**
Operating expenses:				
Research and development	$ 1,885,691	$ 2,020,643	$ 3,839,059	$ 4,005,876
General and administrative	1,439,172	1,080,596	2,750,362	2,164,283
Operating loss	(3,324,863)	(3,101,239)	(6,589,421)	(6,170,159)
Interest income	228,184	173,489	499,209	353,541
Net loss per common share, basic and diluted:	$ (3,096,679)	$ (2,927,750)	$ (6,090,212)	$ (5,816,618)
Basic and diluted net loss per common share	$ (0.23)	$ (0.27)	$ (0.46)	$ (0.54)
Basic and diluted weighted average number of common shares outstanding	13,398,814	10,869,393	13,384,141	10,860,682

See accompanying notes to the financial statements

ELECTRO-OPTICAL SCIENCES, INC.
CONDENSED STATEMENTS OF CASH FLOWS
(unaudited)

	Six Months Ended June 30, 2007	Six Months Ended June 30, 2006
Cash flows from operating activities:		
Net Loss	$ (6,090,212)	$ (5,816,618)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	104,241	48,872
Noncash compensation and amortization of deferred compensation	239,751	573,911
Common stock options issued for consulting fees	139,703	
Amortization of unearned interest income — discontinued operations	(12,320)	
Changes in operating assets and liabilities:		
Decrease in prepaid expenses and other current assets	122,066	1,208
Increase in other assets		(6,146)
(Decrease) increase in accounts payable and accrued expenses	(246,386)	7,527
Decrease in other current liabilities	(4,650)	(5,082)
Net cash used in operating activities	(5,747,807)	(5,196,328)
Cash flows from investing activities:		
Patent costs	(39,321)	(10,377)
Purchases of property and equipment	(191,162)	(315,930)
Purchase of marketable securities		(6,483,335)
Net cash used in investing activities	(230,483)	(6,809,642)
Cash flows from financing activities:		
Proceeds from exercise of stock options	114,527	37,650
Net cash provided by financing activities	114,527	37,650
Net decrease in cash and cash equivalents	(5,863,763)	(11,968,320)
Cash and cash equivalents at beginning of period	20,939,527	18,505,030
Cash and cash equivalents at end of period	$15,075,764	$ 6,536,710

See accompanying notes to the financial statements

ELECTRO-OPTICAL SCIENCES, INC.
NOTES TO CONDENSED FINANCIAL STATEMENTS
(In thousands, except for share and per share data)
(unaudited)

1. ORGANIZATION AND BASIS OF PRESENTATION

Electro-Optical Sciences, Inc., a Delaware corporation (“EOS” or the “Company”), is focused on the design and development of a non-invasive, point-of-care instrument for assisting in the early diagnosis of melanoma. The Company has entered into a Protocol Agreement with the Food and Drug Administration (“FDA”) which is an agreement for the conduct of the pivotal clinical trial and establishment of the safety and effectiveness of the MelaFind® device. On October 12, 2006, the Company announced that the FDA informed the Company that when submitted, the MelaFind® premarket approval, or PMA, application would receive expedited review. Expedited review means that upon filing a PMA with the FDA, it is placed at the beginning of the FDA’s queue and receives additional review resources. While the expedited review could shorten the MelaFind® FDA approval process, there can be no assurance that this will be the case. Upon obtaining premarket approval from the FDA, the Company plans to launch MelaFind® in the United States. The pivotal clinical trial commenced at the end of January 2007. If the pivotal trial and FDA approval process proceeds as anticipated, management believes that PMA approval could come as early as the second half of 2008.

To date the Company has not generated any revenues from MelaFind®. All of the Company’s historical revenues have come from activities and products that have since been discontinued, including our DIFOTI® product, a non-invasive imaging device for the detection of dental cavities. The Company discontinued all operations associated with its DIFOTI® product effective as of April 5, 2005 in order to focus its resources on the development and commercialization of MelaFind®. As more fully described in Note 11, in December 2006, the Company sold and licensed its rights to the DIFOTI® assets and does not expect to have any significant continuing responsibility for the DIFOTI® business or products.

The Company anticipates that it will continue to incur net losses for the foreseeable future in the development and commercialization of the Melafind® device. From inception, the Company has financed operations primarily through the sale of convertible preferred stock and subsequently sold common stock as part of an initial public offering on October 28, 2005 and a private placement that closed in November 2006 (refer to Note 8 for further details). Management believes that the proceeds from these transactions will permit the Company to fund anticipated levels of operations through mid-2008. However, the Company will require additional funds to commercialize MelaFind®. The Company faces certain risks and uncertainties which are present in many emerging medical device companies regarding future profitability, ability to obtain future capital, protection of patents and intellectual property rights, competition, rapid technological change, government regulations, changing health care marketplace, recruiting and retaining key personnel, and reliance on third party manufacturing organizations.

On July 31, 2007, and as more fully described in Note 12, the Company entered into a securities purchase agreement and a registration rights agreement for the private placement of 2,000,178 shares of the Company’s common stock and warrants to purchase up to 500,041 shares of the Company’s common stock. Gross proceeds were approximately $11.5 million, and net proceeds totaled approximately $10.8 million.

The unaudited financial statements included herein have been prepared from the books and records of the Company pursuant to the rules and regulations of the Securities and Exchange Commission (the “SEC”) for reporting on Form 10-Q. The information and note disclosures normally included in complete financial statements prepared in accordance with generally accepted accounting principles in the United States (“GAAP”) have been condensed or omitted pursuant to such rules and regulations. The interim financial statements should be read in conjunction with the audited financial statements and notes thereto included in the Company’s Annual Report on Form 10-K for the year ended December 31, 2006.

The Company's management is responsible for the financial statements included in this document. The Company's interim financial statements are unaudited. Interim results may not be indicative of the results that may be expected for the year. However, the Company believes all adjustments considered necessary for a fair presentation of these interim financial statements have been included and are of a normal and recurring nature.

2. USE OF ESTIMATES

The preparation of financial statements in conformity with GAAP requires the use of estimates and assumptions by management that affect reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. The most significant estimates relate to stock based compensation arrangements and accrued expenses. Actual results could differ from these estimates.

3. RECENTLY ADOPTED ACCOUNTING PRONOUNCEMENTS

In July 2006, the Financial Accounting Standards Board issued Interpretation No. 48, "Accounting for Uncertainty in Income Taxes-an Interpretation of FASB Statement No. 109," ("FIN 48") which clarifies the accounting for uncertainty in tax positions. This Interpretation requires that we recognize, in our condensed financial statements, the impact of a tax position if that position is more likely than not of being sustained on audit, based on the technical merits of the position. The provisions of FIN 48 were effective as of January 1, 2007. We have evaluated our tax positions and determined that the adoption of this pronouncement did not have a material impact on our financial position or results of operations. Our tax return net operating loss carryforwards are significant. The tax years in which losses arose may be subject to audit by the Internal Revenue Service when such carryforwards are utilized to offset taxable income in future periods.

4. RECENT ACCOUNTING DEVELOPMENTS

In February 2007, the Financial Accounting Standards Board ("FASB") issued SFAS No. 159, "The Fair Value Option for Financial Assets and Financial Liabilities, including an amendment to SFAS No. 115" (SFAS No. 159). This statement permits entities to choose to measure many financial instruments and certain other items at fair value. The objective is to improve financial reporting by providing entities with the opportunity to mitigate volatility in reporting earnings caused by measuring related assets and liabilities differently without having to apply complex hedge accounting provisions. This statement is expected to expand the use of fair value measurements, which is consistent with the FASB's long-term measurement objectives for accounting for financial instruments. SFAS No. 159 is effective for fiscal years beginning after November 15, 2007. The Company does not expect that the adoption of SFAS No. 159 will have a material impact on the Company's financial statements.

In September 2006, the FASB issued SFAS No. 157, "Fair Value Measurements" (SFAS 157). This statement defines fair value, establishes a framework for measuring fair value, and expands disclosures about fair value measurements. This statement is effective for financial statements issued for fiscal years beginning after November 15, 2007; however, earlier application is encouraged. The Company does not expect the adoption of SFAS 157 to have a material impact on its financial statements

5. NET LOSS PER COMMON SHARE

Net loss per share is presented in accordance with the provisions of SFAS No. 128, "Earnings Per Share" (EPS). Basic EPS excludes dilution for potentially dilutive securities and is computed by dividing net loss attributable to common stockholders by the weighted average number of common shares outstanding during the period. Diluted EPS gives effect to dilutive options, warrants and other potential common shares outstanding during the period. Diluted net loss per common share is equal to the basic net loss per common share since all potentially dilutive securities are anti-dilutive for each of the periods presented. Potential common stock equivalents excluded consist of stock options and warrants which are summarized as follows:

	June 30,	
	2007	2006
Common stock options	1,674,326	1,651,705
Warrants	626,845	298,280
Total	2,301,171	1,949,985

6. STOCK-BASED COMPENSATION

The Company has one stock-based compensation plan which allows the Board of Directors to grant incentives to employees, consultants directors, officers and collaborating scientists in the form of incentive stock options, nonqualified stock options and restricted stock awards. The Company also has two other stock-based compensation plans pursuant to which stock options are outstanding.

Effective January 1, 2006, the Company began recording compensation expense associated with stock options and other forms of equity compensation in accordance with SFAS No. 123 (revised 2004), "Share-Based Payment" (SFAS 123R), as interpreted by SEC Staff Accounting Bulletin No. 107. Prior to January 1, 2006, the Company accounted for stock options according to the provisions of Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees" (APB 25), and related interpretations, and therefore no related compensation expense was recorded for awards granted with no intrinsic value. The Company has adopted the modified prospective transition method provided for under SFAS 123R. Under this transition method, compensation cost associated with stock options recognized in the three and six month periods ended June 30, 2006 and 2007 includes: (1) amortization related to the remaining unvested portion of all stock option awards granted prior to January 1, 2006 over the requisite service period based on the grant-date fair value estimated in accordance with the original provisions of SFAS 123, "Accounting for Stock-Based Compensation", and (2) amortization related to all stock option awards granted on or subsequent to January 1, 2006, based on the grant-date fair value estimated in accordance with the provisions of SFAS 123R. For performance-based grants, a compensation charge is recorded when it is probable that performance or service conditions will be satisfied. The probability of vesting is updated at each reporting period, and compensation is adjusted via a cumulative catch-up adjustment or prospectively depending upon the nature of the change.

The compensation expense recognized in the Statement of Operations in the second quarters of 2007 and 2006 for stock options and restricted stock awards amounted to $113 and $263, respectively. For the six months ended June 30, 2007 and 2006 compensation expense totaled $379 and $574 respectively. Cash received from options exercised under all share-based payment arrangements for the three months ended June 30, 2007 and 2006 were $29 and $10, respectively. For the corresponding six month periods in 2007 and 2006, cash received from option exercises totaled $115 and $38, respectively.

Details regarding the valuation and accounting for stock options are as follows:

There were 106,316 options granted during the second quarter and no options granted in the first quarter of 2007.

The fair value of each option award granted after the adoption of SFAS 123R is estimated on the date of grant using the Black-Scholes option valuation model and assumptions as noted in the following table:

	For the six Months Ended June 30, 2007	For the six Months Ended June 30, 2006
Expected life	5 years	5 years
Expected volatility	60%	60%
Risk-free interest rate	4.54-5.02%	5.15%
Dividend Yield	0%	0%

The expected life of the options is based on the observed and expected time to post-vesting, forfeiture and exercise. Groups of employees that have similar historical exercise behavior are considered separately for valuation purposes. The expected volatility is based on implied volatility from other publicly-traded options and other factors. The risk-free interest rate is based on the continuous rates provided by the U.S. Treasury with a term equal to the expected life of the option.

Stock awards under the Company's current plans are granted at prices which are no less than the market value of the stock on the date of grant. Options granted under the 2005 Stock Incentive Plan ("2005 Plan") are generally time-based or performance-based options, and vesting varies accordingly. Options under this plan expire five years from the date of grant.

Since the Company has adopted the 2005 Plan, awards are not granted under the Company's previous stock option plans; however, additional shares are reserved for issuance pursuant to the 2003 Stock Incentive Plan ("2003 Plan") in connection with a formula-based option granted to the Company's CEO Dr. Joseph Gulfo.

The status of the Company's stock option plans at June 30, 2007 is summarized in the following tables:

	Number of Shares	Weighted Average Exercise Price per Share	Weighted Average Remaining Contractual Term in Years	Aggregate Intrinsic Value
Outstanding at December 31, 2006	1,689,412	$2.88	4.2	$7,331
Granted	106,316	4.82	4.5	
Exercised	(105,256)	1.09		
Forfeited or expired	(16,146)	6.82		
Outstanding at June 30, 2007	1,674,326	3.08	3.9	$6,262
Vested and exercisable at June 30, 2007	576,901	3.31	3.8	$1,992

	Options Outstanding			Options Exercisable	
Range of Exercise Prices	Number Outstanding	Weighted-Average Remaining Contractual Life	Weighted Average Exercise Price	Number Exercisable	Weighted-Average Exercise Price
$.01-$.46	818,115	2.2 years	$ .46	171,753	$ .46
$.47-$1.00	119,648	4.6 years	$1.00	119,648	$1.00
$1.01-$7.75	736,563	4.1 years	$6.32	285,500	$5.99
$.01-$7.75	1,674,326	3.9 years	$3.08	576,901	$3.31

During the second quarter of 2007 the weighted average fair value of options granted, estimated as of the grant date using the Black-Scholes option valuation model, was $2.86. There were no options granted during the first three months of 2007. The total intrinsic value of options exercised during the three and six month periods ended June 30, 2007 was $117 and $558, respectively. For the three and six months ended June 30, 2006, the total intrinsic value of options exercised was $100, and $228 respectively.

As of June 30, 2007, of the total 1,674,326 options outstanding 1,097,425 have not vested. Of this total unvested amount, 972,025 will vest upon the attainment of certain milestones, and the balance will vest over the requisite service period. Based on 15,702,875 shares outstanding (on a fully-diluted basis) as of June 30, 2007, and assuming such shares remain the total number of shares outstanding on the date we receive PMA approval of MelaFind®, the number of shares subject to Dr. Gulfo's third stock option is 546,362. This third stock option vests 50% at the time of PMA approval of MelaFind®, and the remaining 50% in four equal installments over the one-year period following such PMA approval of MelaFind®. As of June 30, 2007, there was $2,301 of total unrecognized compensation cost related to unvested options.

Although no new options are to be granted under the Company's 2003 Stock Incentive Plan, our shareholders recently approved a 500,000 share increase in the plan in order to satisfy our contractual obligation under Dr. Gulfo's existing employment contract (see Part II Item 4 Submission of Matters to a Vote of Security Holders). Of the 844,559 shares now authorized and available under the 2003 Stock Incentive Plan, 546,362 have been allocated to Dr. Gulfo as of June 30, 2007, in accordance with the provisions of his contract.

As of June 30, 2007 there were a total of 1,278,787 option shares available; 980,590 shares available for future grants under the Company's 2005 Stock Incentive Plan and 298,197 under the 2003 Stock Incentive Plan, which is the balance available for allocation to Dr. Gulfo in accordance with the provisions of his employment contract.

7. COMMITMENTS AND CONTINGENCIES

In connection with the start of clinical trials, the Company has committed to several clinical sites a total amount of approximately $150 in contracts that do not exceed one year. These contracts are cancelable with 30 days' prior notice.

The Company is party to two non-cancelable operating leases for office space expiring June 2009 and November 2010. The leases are subject to escalations for increases in operating expenses. The approximate aggregate minimum future payments under these leases are due as follows:

2007	2008	2009	2010
$125	$253	$188	$105

On March 28, 2007 the Company announced the signing of an agreement with L'Oreal to study and assess the feasibility of using EOS' novel multi-spectral imaging technology for the evaluation and differentiation of pigmented skin lesions of cosmetic importance. EOS has granted L'Oreal an option to take an exclusive license to use EOS technology in the field covered by the research, on terms to be mutually agreed. The option expires on the earlier to occur of six months after the completion of the Feasibility Plan, as defined in the agreement, or August 31, 2008. The laboratory and clinical research will be funded by L'Oreal. Pursuant to the agreement, L'Oreal is responsible for all costs and expenses incurred in connection with the Feasibility Program, and will reimburse EOS for expenses incurred by EOS with respect to the Feasibility Program.

In August of 2006, the Company engaged Carl Zeiss Jena GmbH on usual commercial terms to build the lenses and assemblies, as well as provide certain technical consulting, for the MelaFind® units which will be used in the Company's pivotal clinical trial. We expect this work to take place throughout 2007.

In January 2006, the Company entered into an agreement with ASKION GmbH ("ASKION") to produce and test commercial-grade MelaFind® hand-held imaging device systems. Under the agreement, ASKION is to produce up to forty MelaFind® imaging devices for the Company to be utilized in the Company's pivotal trial which will be conducted under the auspices of the Protocol Agreement reached with FDA. The Company is required to make payments to ASKION upon delivery of the MelaFind® systems. The Company expects to maintain a relationship, which has evolved into a month-to-month agreement, with ASKION and continue with development activities throughout 2007.

The Company has an employment agreement with its President and Chief Executive Officer, Dr. Gulfo, which provides for an annual base salary, stock options and performance bonuses at the discretion of the Board of Directors. The agreement, which provides for automatic one-year renewal terms, currently runs through the end of 2007. Effective May 31, 2006 the Board of Directors decided to increase Dr. Gulfo's annual base salary to $235, and awarded him a bonus in the amount of $50. On May 8, 2007, but effective April 1, 2007, the Board of Directors increased Dr. Gulfo's annual base salary to $260 and awarded him a bonus of $60.

The Company is not currently subject to any material legal proceedings, nor to management's knowledge is any material legal proceeding threatened against the Company.

8. PRIVATE PLACEMENT

On October 31, 2006, the Company entered into securities purchase agreements and a registration rights agreement with certain accredited investors for the private placement of 2,312,384 shares of the Company's common stock and warrants to purchase up to 346,857 shares of the Company's common stock for aggregate gross proceeds of approximately $13.2 million and net proceeds of approximately $12.5 million. Pursuant to the securities purchase agreements, for a purchase price of $5.70 each investor received one share of the Company's common stock and a warrant to purchase 0.15 of a share of the Company's common stock. The warrants are five-year warrants with an exercise price of $6.70 per share. Pursuant to the registration rights agreement, the Company has filed a resale registration statement covering the shares, including the shares issuable upon the exercise of the warrants, with the SEC. In the event that the Company fails to meet certain deadlines, as described in the registration rights agreement, the holders would be entitled to certain monetary damages.

However, in no event is the Company obligated to make payments in excess of 10% of the aggregate purchase price of the common shares. The Company has concluded that it is unlikely that the Company would be required to remit any payments to its investors for failing to maintain its effectiveness. The Company's resale registration statement on Form S-3 was declared effective by the Securities and Exchange Commission (file #333-139056) February 12, 2007.

9. WARRANTS

Warrants outstanding at June 30, 2007 include a five-year warrant to purchase 75,000 shares of the Company's common stock at an exercise price of $7.00 per share issued to one of the Company's consultants in 2004, and seven-year warrants to purchase an aggregate of 54,988 shares the Company's common stock at an exercise price of $4.52 per share issued in connection with the sale of Series C redeemable convertible preferred stock.

In connection with the Company's initial public offering which closed on November 2, 2005, the Company issued 150,000 warrants to the underwriters to purchase shares of the Company's common stock at $6.25 per share which became exercisable commencing October 28, 2006 and have a five-year term.

Additionally, as previously discussed, in connection with the Company's October 31, 2006 financing, warrants to purchase up to 346,857 shares of the Company's common stock were issued. The warrants are five-year warrants with an exercise price of $6.70 per share.

10. RELATED PARTY CONSULTING AGREEMENTS

The Company has in place the following consulting agreements with related parties:

Consulting Agreement with Breaux Castleman

In June 2003, the Company entered into a consulting agreement with Breaux Castleman, the Chairman of the Company's Board of Directors, for consulting services related to the FDA approval of MelaFind®, and the Company's business and financial strategy. Under this agreement, Mr. Castleman receives compensation for each month of services rendered. The Company made payments, pursuant to this consulting agreement, of $6 and $12, respectively, for the three and six month periods ending June 30, 2007, and $8 and $25 for the comparable periods in 2006. This consulting agreement is terminable by either party by providing thirty days' prior written notice.

Consulting Agreement with Marek Elbaum, Ph.D.

Pursuant to a consulting agreement effective as of May 31, 2005, the Company retained Marek Elbaum, Ph.D., the Company's founder and former President and Chief Science and Technology Officer, as the Company's Chief Scientist. In consideration of the services to be provided, the Company agreed to pay Dr. Elbaum a monthly fee of $15. The term of this agreement extended for a period of two years and was automatically renewable for an additional one-year period. In the event of a non-renewal or in the event that Dr. Elbaum's services terminate as a result of his death or disability, the Company agreed to pay Dr. Elbaum a termination fee of $100. In May of 2007 and effective June 1, 2007, Dr. Elbaum and the Company entered into an amended agreement. Under the terms of the amended agreement Dr. Elbaum will be paid a monthly fee of $9 for the next 20 months.

Consulting Agreement with Robert Friedman, M.D.

Effective as of June 1, 2005, the Company retained the services of Robert Friedman, M.D., for an initial term of one year as a consultant, medical advisor to our Board of Directors, and in connection with the clinical testing of MelaFind®. In consideration for these services, Dr. Friedman will be paid at a rate of $5 per day.

This consulting agreement automatically renewed effective June 1, 2006, and again June 1, 2007 for additional one-year terms, and continues to automatically renew for successive one-year terms unless either party terminates the agreement at least 30 days prior to the expiration of the agreement. The Company made payments to Dr. Friedman totaling $12 and $12 for the three-and six month periods ending June 30, 2007, and $10 and $22 respectively for the same periods a year earlier.

Consulting Agreement with Gerald Wagner, Ph.D.

On March 24, 2006, the Company entered into an amended and restated consulting agreement with Gerald Wagner, Ph.D., a member of the Company's Board of Directors and its former Acting Chief Operating Officer. Under this amended consulting agreement, the Company agreed to pay Dr. Wagner the annual amount of $180 payable monthly over the term of the agreement. In addition, in connection with his ongoing engagement as a consultant, Dr. Wagner received a stock option grant of 50,000 shares of the Company's common stock which vested upon commencement of the pivotal trial for Melafind® in January 2007. The Company recorded a $140 charge to operations during the quarter ended March 31, 2007.

In addition, in connection with the start of the Company's pivotal clinical trial at the end of January 2007, Dr. Wagner has transitioned out of his role as our Acting Chief Operating Officer and has entered into an amendment to his amended and restated consulting contract with the Company. Under the terms of the amended contract, commencing February 2007 Dr. Wagner will be paid a monthly retainer of $2.5 and will be paid $2.5 for each additional consulting day. This amended agreement will end at the option of Dr. Wagner or the Company at any time, by providing fifteen days' prior written notice, or immediately upon the mutual agreement of the Company and Dr. Wagner. The Company incurred consulting costs pursuant to this agreement of $7.5 and $12.5 in the three and six month periods ended June 30, 2007

11. SALE AND LICENSING OF DISCONTINUED OPERATIONS

Effective April 5, 2005, the Company decided to discontinue all operations associated with its DIFOTI® product in order to focus its resources and attention on the development and commercialization of MelaFind®. In accordance with the provisions of SFAS No. 144, "Accounting for the Impairment or Disposal of Long-lived Assets," the results of operations of the DIFOTI® business have been excluded from continuing operations and have been reported as discontinued operations. The assets and liabilities of the business have been classified as held for sale. During December 2006, the Company entered into a sale and exclusive licensing agreement with KaVo Dental GmbH ("KaVo"), a leading dental equipment manufacturer, which provides for KaVo to further develop and commercialize DIFOTI®. Upon execution of the agreement, KaVo paid the Company $500. The second $500 payment was received on July 20, 2007. Beginning in 2008 or earlier, KaVo is required to pay to the Company a royalty stream based upon the worldwide aggregate net sales of the licensed product, as defined in the license agreement, or a set minimum. During the year ended December 31, 2006, the Company recorded a gain of $781 on the sale and licensing of its remaining DIFOTI® assets based upon the cash proceeds and the discounted value of the second payment. Royalties will be recorded when earned.

12. SUBSEQUENT EVENT

On July 31, 2007, the Company entered into a securities purchase agreement and a registration rights agreement with certain accredited investors for the private placement of 2,000,178 shares of the Company's common stock and warrants to purchase up to 500,041 shares of the Company's common stock for aggregate gross proceeds of approximately $11.5 million. The private placement closed August 3, 2007. Pursuant to the securities purchase agreement, for a purchase price of $5.75 each investor will receive one share of the Company's common stock and a warrant to purchase 0.25 of a share of common stock. The warrants are five-year warrants with an exercise price of $8.00 per share. The private placement was completed pursuant to an exemption from registration provided by Section 4(2) of the Securities Act of 1933, as amended, and Regulation D promulgated thereunder. Pursuant to the terms of the registration rights agreement, the Company has agreed to cause a resale registration statement covering the shares, including the shares issuable upon exercise of the warrants, to be filed within 30 days after closing.

The approximately $10.8 million in net proceeds from the closing will be used for general corporate purposes.

ITEM 2.

ELECTRO-OPTICAL SCIENCES, INC.
MANAGEMENT'S DISCUSSION AND ANALYSIS
OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

This management's discussion and analysis of financial condition and results of operations is intended to provide information to help you better understand and evaluate our financial condition and results of operations. We recommend that you read this section in conjunction with our Financial Statements and Notes to Financial Statements and with our Annual Report on Form 10-K for the year ended December 31, 2006.

This quarterly report on Form 10-Q, including the following management's discussion and analysis of financial condition and results of operations, contains forward-looking statements that you should read in conjunction with the financial statements and notes to financial statements that we have included elsewhere in this report. These statements are based on our current expectations, assumptions, estimates and projections about our business and our industry, and involve known and unknown risks, uncertainties, and other factors that may cause our or our industry's results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied in, or contemplated by, the forward-looking statements. Words such as "believe", "anticipate," "expect," "intend," "plan," "will," "may," "should," "estimate," "predict," "potential," "continue," or the negative of such terms or other similar expressions, identify forward-looking statements. Our actual results and the timing of events may differ significantly from the results discussed in the forward-looking statements, and you should not place undue reliance on these statements. Factors that might cause such a difference include those discussed below under the heading "Risk Factors," as well as those discussed elsewhere in this quarterly report on Form 10-Q. We disclaim any intent or obligation to update any forward-looking statements as a result of developments occurring after the period covered by this report or otherwise.

Overview

We are a medical device company focused on the design and development of a non-invasive, point-of-care instrument to assist in the early diagnosis of melanoma. Our flagship product, MelaFind®, features a hand-held imaging device that emits multiple wavelengths of light to capture images of suspicious pigmented skin lesions and extract data. We currently do not have any commercialized products or any significant source of revenue; however, the financial results for periods prior to December 2006 discussed below account for the revenues and the related expenses associated with our DIFOTI® product, a non-invasive imaging device for the detection of dental cavities, as a discontinued operation. We decided to discontinue all operations associated with our DIFOTI® product effective as of April 5, 2005 in order to focus our resources and attention on the development and commercialization of MelaFind®. On December 11, 2006 we announced that we had signed a sales and exclusive licensing agreement with KaVo, a leading dental equipment manufacturer, to further develop and commercialize DIFOTI®. In accordance with the terms of the agreement, KaVo paid us an up-front sum and has made a second payment to us on July 20, 2007. KaVo will pay us an annual royalty based on the number of systems sold or a set minimum per calendar year following their commercial re-launch of DIFOTI®. With the completion of this transaction we do not expect to have any significant continuing responsibility for the DIFOTI® business.

Unless otherwise indicated, the following discussion relates to our continuing operations.

Our revenue for the foreseeable future will depend on the commercialization of MelaFind® and may vary substantially from year to year and quarter to quarter. Our operating expenses may also vary substantially from year to year and quarter to quarter based on the timing of the pivotal trial that began at the end of January 2007 and its patient enrollment. We believe that period-to-period comparisons of our results of operations may not be meaningful and should not be relied on as indicative of our future performance.

We commenced operations in December 1989 as a New York corporation and re-incorporated as a Delaware corporation in September 1997. Since our inception, we have generated significant losses. As of June 30, 2007, we had an accumulated deficit of $37.3 million. We expect to continue to spend significant amounts on the development of MelaFind®.

On October 28, 2005, we completed an initial public offering. We issued 4,000,000 shares of common stock on October 28, 2005 and 262,300 shares of common stock on November 15, 2005, both issuances at $5.00 per share. After deducting underwriting discounts and expenses and offering-related expenses, the initial public offering resulted in net proceeds to the Company of approximately $17.7 million.

On October 31, 2006, we entered into securities purchase agreements and a registration rights agreement with certain accredited investors for the private placement of 2,312,384 shares of the Company's common stock and warrants to purchase up to 346,857 shares of the Company's common stock for aggregate gross proceeds of approximately $13.2 million and net proceeds of approximately $12.5 million. The transaction closed November 3, 2006. We believe that the proceeds from these two transactions will be sufficient to fund our anticipated level of operations through mid-2008. We will however need to raise additional funds in order to achieve significant commercialization of MelaFind® and generate significant revenues.

Most of our expenditures to date have been for research and development activities and general and administrative expenses. Research and development expenses represent costs incurred for product development, clinical trials and activities relating to regulatory filings and manufacturing development efforts. We expense all of our research and development costs as they are incurred.

Our research and development expenses incurred for the three and six months ended June 30, 2007 were expenses related primarily to the development of MelaFind®. We expect to incur additional research and development expenses relating to MelaFind® prior to its commercial launch in the US and selected markets outside the US. We also continue to work with ASKION, a company that has become an integral member of our MelaFind® development team. ASKION is currently producing additional MelaFind® systems for our pivotal clinical trial that started at the end of January 2007, as well as for other clinical studies of MelaFind®. Our research and development expenses are subject to the risks and uncertainties associated with clinical trials and the FDA regulatory review and approval process. As a result, our research and development expenses could exceed our estimated amounts, possibly materially.

General and administrative expenses consist primarily of salaries and related expenses, general corporate activities and costs associated with our efforts to obtain PMA approval for MelaFind® and toward development of a commercial infrastructure to market and sell MelaFind®. We anticipate that general and administrative expenses will increase as a result of the expected expansion of our operations, facilities and other activities associated with the planned expansion of our business, together with the additional costs associated with operating as a public company. We expect selling, general and administrative expenses to increase as we develop our sales and marketing capabilities to support placing MelaFind® in selected markets.

Critical Accounting Policies and Significant Judgments and Estimates

Our management's discussion and analysis of our financial condition and results of operations are based on our financial statements, which have been prepared in accordance with GAAP. The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements as well as the reported revenues and expenses during the reporting periods. On an ongoing basis, we evaluate our judgments related to accounting estimates. We base our estimates on historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

We believe that the following accounting policies and significant judgments and estimates relating to revenue recognition, stock-based compensation charges, and accrued expenses are most critical to aid you in fully understanding and evaluating our reported financial results.

Revenue Recognition

We currently do not have any commercialized products or any source of revenue.

Stock-Based Compensation and Deferred Compensation

Effective January 1, 2006, the Company began recording compensation expense associated with stock options and other forms of equity compensation in accordance with Statement of Financial Accounting Standards No. 123 (revised 2004), *Share-Based Payment* (SFAS 123R), as interpreted by SEC Staff Accounting Bulletin No. 107. Prior to January 1, 2006, the Company accounted for stock options according to the provisions of Accounting Principles Board Opinion No. 25, *Accounting for Stock Issued to Employees* (APB 25), and related interpretations, and therefore no related compensation expense was recorded for awards granted with no intrinsic value.

The Company adopted the modified prospective transition method provided for under SFAS 123R. Under this transition method, compensation cost associated with stock options in 2006 and 2007 includes: (1) quarterly amortization related to the remaining unvested portion of all stock option awards granted prior to January 1, 2006, over the requisite service period based on the grant-date fair value estimated in accordance with the original provisions of SFAS 123, *Accounting for Stock-Based Compensation*; and (2) quarterly amortization related to all stock option awards granted on or subsequent to January 1, 2006, based on the grant-date fair value estimated in accordance with the provisions of SFAS 123R.

We have also granted to certain employees stock options that vest with the attainment of development milestones not under the Company's control. Upon the attainment of the relevant development milestones, there could be a significant compensation charge based on the fair value of such options.

Options or warrants issued to non-employees for services are recorded at fair value and accounted for in accordance with Emerging Issues Task Force (EITF) Issue No. 96-18, *Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods or Services.* For equity instruments that are not immediately vested, compensation costs are measured on the date such instruments vest or a performance commitment is reached, as defined in EITF 96-18. The costs are classified in the accompanying Statement of Operations based on the nature of the service performed.

Accrued Expenses

As part of the process of preparing financial statements, we are required to estimate accrued expenses. This process involves identifying services that have been performed on our behalf and estimating the level of service performed and the associated cost incurred for such service where we have not been invoiced or otherwise notified of the actual cost. Examples of estimated accrued expenses include:

- professional service fees;
- contract clinical service fees;
- fees paid to contract manufacturers in conjunction with the production of clinical components or materials; and
- fees paid to third party data collection organizations and investigators in conjunction with the clinical trials.

In connection with such service fees, our estimates are most affected by our projections of the timing of services provided relative to the actual level of services incurred by such service providers. The majority of our service providers invoice us monthly in arrears for services performed. In the event that we do not identify certain costs that have begun to be incurred or we are under or over our estimate of the level of services performed or the costs of such services, our actual expenses could differ from such estimates. The date on which certain services commence, the level of services performed on or before a given date, and the cost of such services are often subjective determinations. We make these judgments based upon the facts and circumstances known to us in accordance with GAAP. This is done as of each balance sheet date in our financial statements.

Results of Operations (in thousands)

As we work on developing MelaFind®, we continue to spend a majority of our time and money in research and development related activities. Our overall spending during the first six months of 2007 has remained relatively consistent with our spending during the first six months of 2006. However, as we increase the activity around the pivotal trial for MelaFind®, prepare for our PMA submission, and begin work towards the commercial launch of MelaFind® our costs will increase.

Three Months Ended June 30, 2007 Compared to Three Months Ended June 30, 2006

Research and Development Expense

Research and Development expense for the three months ended June 30, 2007 was $1,886 as compared to $2,021 for the three months ending June 30, 2006. In general, the second quarter 2007 costs were consistent with second quarter 2006 with costs decreasing slightly by $135. We noted a similar trend in the first three months of 2007 as compared to the first three months of 2006. However, the components of spending within research and development have changed. While production spending decreased by $257 our clinical trial expenses have increased by $145, and the technical support services necessary to support our clinical trials increased by $60. Our software development expenses also increased by $16 mainly in support of our clinical trials. These increases were offset by decreases in our regulatory spending of $22 and share based compensation of $84

General and Administrative Expense

General and Administrative expense for the three months ended June 30, 2007 was $1,439 as compared to $1,081 for the three months ended June 30, 2006. The increase of $358 was the result of the following: increased marketing expenses of $175 as we begin the work towards a commercial launch of Melafind®, increased legal fees primarily related to patent work of $26, travel expense of $51, salaries and bonuses of $128, employee recruiting of $54, and stock maintenance fees of $28. This was offset by a decrease in share-based compensation of $93 and $24 in accounting related expenses.

Six Months Ended June 30, 2007 Compared to Six Months Ended June 30, 2006

Research and Development Expense

Research and Development expense for the six months ended June 30, 2007 was $3,839 as compared to $4,006 for the six months ended June 30, 2006; a decrease of $167. The components of spending are consistent with the trend noted above. Production spending has decreased by $367 for the six months ended June 30, 2007, but this decrease was offset by increased clinical trial expenses of $298 and technical support expenses necessary to support the clinical trial of $101. In addition, our regulatory spending decreased by $76 and our share-based compensation expense decreased by $134.

General and Administrative Expense

General and Administrative expense for the six months ended June 30, 2007 was $2,750 as compared to $2,164 for the six months ended June 30, 2006. The increase of $586 was mainly attributable to higher marketing costs of $231 reflecting an increase in activity leading to commercial launch of Melafind®, legal costs of $117 primarily related to new patent costs, an increase in travel expenses of $111, bonuses and salary increases of $128, and employee recruiting costs of $73. In addition our rent expense increased $19. Partially offsetting these increases was a $56 decrease in accounting expenses and a $60 decrease in share-based compensation expense.

Interest Income/Expense

Interest income for the three months and six months ended June 30, 2007 was $228 and $499, respectively, as compared to $173 and $354, respectively, for the comparable periods a year earlier.

Liquidity and Capital Resources

Prior to our initial public offering, we financed our operations primarily through the use of working capital from private placements of equity securities and by applying for and obtaining a series of National Institute of Health Small Business Innovative Research grants and similar grants. In October and November of 2005 we sold a total of 4,262,300 shares of common stock in an initial public offering that resulted in approximately $17.7 million in net proceeds. In addition, on October 31, 2006 we entered into securities purchase agreements and a registration rights agreement with certain accredited investors for the private placement of 2,312,384 shares of the Company’s common stock and warrants to purchase up to 346,857 shares of the Company’s common stock for aggregate gross proceeds of approximately $13.2 million and net proceeds of approximately $12.5 million. To date, we have not borrowed (other than by issuing convertible notes, all of which have been converted into equity) or financed our operations through equipment leases, financing loans or other debt instruments.

As of June 30, 2007, we had $15.1 million in cash and cash equivalents as compared to $20.9 million at December 31, 2006. The decrease was a result of cash used in operating activities partially offset by interest income produced by our cash and certificates of deposit.

Our cash and cash equivalents at June 30, 2007 are liquid investments in money market funds and certificates of deposit with a commercial bank.

Cash Flows from Operating Activities

Net cash used in operations was $5.7 million for the six months ended June 30, 2007. For the corresponding period in 2006, net cash used in operations was $5.2 million. Cash used in operations was attributable to net losses after an adjustment for non-cash charges related to depreciation and share-based compensation, and other changes in operating assets and liabilities.

Cash Flows from Investing Activities

For the six months ended June 30, 2007, net cash used in our investing activities was $230 and was principally related to the purchase of scientific equipment and leasehold improvements in support of our MelaFind® development. For the corresponding period in 2006, net cash used by our investing activities was $6.8 million and was principally related to the purchase of marketable securities.

Cash Flows from Financing Activities

For the six months ended June 30, 2007 and 2006, net cash provided by financing activities was $115 and $38, respectively, and reflects proceeds from the sale of common stock upon the exercise of options.

Operating Capital and Capital Expenditure Requirements

We face certain risks and uncertainties, which are present in many emerging medical device companies. At June 30, 2007, we had an accumulated deficit of $37.3 million. To date, we have not commercialized our principal product, MelaFind®. We anticipate that we will continue to incur net losses for the foreseeable future as we continue to develop the MelaFind® system, expand our clinical development team and corporate infrastructure, and prepare for the potential commercial launch of MelaFind®. We do not expect to generate significant product revenue until we successfully obtain PMA approval for and begin selling MelaFind®. In order to achieve significant commercialization of MelaFind® we will need to obtain additional funding. We believe that our current cash and cash equivalents and interest we earn on these balances, will be sufficient to meet our anticipated cash needs for working capital and capital expenditures and allow us to continue planned operations through mid-2008.

Existing cash and cash generated from our recently completed October 31, 2006 financing and our 2005 initial public offering may not be sufficient to satisfy the liquidity requirements necessary to commercially launch MelaFind® or to develop additional products. We will seek to sell additional equity or debt securities or obtain a credit facility. If additional funds are raised through the issuance of debt securities, these securities could have rights senior to those associated with our common stock and could contain covenants that would restrict our operations. Any additional financing may not be available in amounts or on terms acceptable to us, or at all. If we are unable to obtain this additional financing, we may be required to reduce the scope of, delay or eliminate some or all of planned product research and development and commercialization activities, which could harm our business.

Because of the numerous risks and uncertainties associated with the development of medical devices such as MelaFind®, we are unable to estimate the exact amounts of capital outlays and operating expenditures associated with our current and anticipated clinical trials. Our future funding requirements will depend on many factors, including, but not limited to:

- The schedule, costs, and results of our clinical trials;
- The success of our research and development efforts;
- The costs and timing of regulatory approval;

- Reimbursement amounts for the use of MelaFind® that we are able to obtain from Medicare and third party payers, or the amount of direct payments we are able to obtain from patients and/or physicians utilizing MelaFind®;
- The cost of commercialization activities, including product marketing and building a domestic direct sales force;
- The emergence of competing or complementary technological developments;
- The costs of filing, prosecuting, defending and enforcing any patent claims and other rights, including litigation costs and the results of such litigation;
- The costs involved in defending any patent infringement actions brought against us by third parties; and
- Our ability to establish and maintain any collaborative, licensing or other arrangements, and the terms and timing of any such arrangements.

Contractual Obligations

The following table summarizes our outstanding contractual obligations as of June 30, 2007 and the effect those obligations are expected to have on our liquidity and cash flows in future periods:

	Total	Less than 1 year	1-3 years	4-5 years	More than 5 years
Operating leases	$724	$271	$405	$48	—

Included in the total operating leases are two non-cancelable operating leases for space expiring June 2009 and November 2010. The lease on 5,000 square feet of office and laboratory space expires in June 2009, and the lease on 2,800 square feet of office space expires November 2010.

In connection with the start of our clinical trials, we have committed to several clinical sites a total of approximately $150 in contracts that do not exceed one year. These contracts are cancelable by us with up to 30 days' prior notice.

Related Party Transactions

On March 24, 2006, the Company entered into an amended and restated consulting agreement with Gerald Wagner, Ph.D. which became effective as of April 1, 2006. In connection with his ongoing engagement as a consultant, Dr. Wagner received a stock option grant of 50,000 shares of the Company's common stock which vested upon commencement of the pivotal trial for MelaFind® at the end of January 2007. As Dr. Wagner is a consultant to the Company we utilize EITF 96-18 to account for this grant. Under this method, we calculate a charge based on the fair market value of the option at the end of each quarter and adjust that charge each subsequent quarter until the option vests. Since the pivotal clinical trial began at the end of January 2007, the Company recognized $140 in compensation expense for this grant.

In addition, on March 24, 2006, Dr. Wagner received another stock option grant of 49,500 shares of the Company's common stock which vested immediately. The Company recorded a $162 compensation charge during the first quarter ended March 31, 2006.

The exercise price for these two stock option grants is the closing price per share of the Company's common stock on the option grant date.

With the start of our pivotal clinical trial, Dr. Wagner has transitioned out of his role as our Acting Chief Operating Officer and has signed an amendment to his amended and restated consulting contract with the Company. Under the terms of the amended contract, Dr. Wagner will be paid a monthly retainer of $2.5 and will be paid $2.5 for each additional consulting day.

This amended agreement will end at the option of Dr. Wagner or the Company at any time, by providing fifteen days' prior written notice, or immediately upon the mutual agreement of the Company and Dr. Wagner.

For a more detailed description of our related party transactions, see our financial statements and the related notes to our financial statements in Note 10.

Off-Balance Sheet Arrangements

We do not currently have, nor have we ever had, any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. In addition, we do not engage in trading activities involving non-exchange traded contracts. As such, we are not materially exposed to any financing, liquidity, market or credit risk that could arise if we had engaged in these relationships.

Recently Adopted Accounting Pronouncements

In July 2006, the Financial Accounting Standards Board issued Interpretation No. 48, "Accounting for Uncertainty in Income Taxes-an Interpretation of FASB Statement No. 109," ("FIN 48") which clarifies the accounting for uncertainty in tax positions. This Interpretation requires that we recognize, in our condensed financial statements, the impact of a tax position if that position is more likely than not of being sustained on audit, based on the technical merits of the position. The provisions of FIN 48 are effective as of January 1, 2007. We have evaluated our tax positions and determined that the adoption of this pronouncement did not have a material impact on our financial position or results of operations. Our tax return net operating loss carryforwards are significant. The tax years in which losses arose may be subject to audit by the Internal Revenue Service when such carryforwards are utilized to offset taxable income in future periods.

Recent Accounting Developments

In February 2007, the FASB issued SFAS No. 159, "The Fair Value Option for Financial Assets and Financial Liabilities, including an amendment to SFAS No. 115." This statement permits entities to choose to measure many financial instruments and certain other items at fair value. The objective is to improve financial reporting by providing entities with the opportunity to mitigate volatility in reporting earnings caused by measuring related assets and liabilities differently without having to apply complex hedge accounting provisions. This statement is expected to expand the use of fair value measurements, which is consistent with the FASB's long-term measurement objectives for accounting for financial instruments. SFAS No. 159 is effective for fiscal years beginning after November 15, 2007. The Company does not expect that the adoption of SFAS No. 159 will have a material impact on the Company's financial statements.

In September 2006, the FASB issued SFAS No. 157, "Fair Value Measurements." This statement defines fair value, establishes a framework for measuring fair value, and expands disclosures about fair value measurements. This statement is effective for financial statements issued for fiscal years beginning after November 15, 2007; however, earlier application is encouraged. The Company does not expect the adoption of SFAS 157 to have a material impact on its financial statements.

Risk Factors

Our business and operations entail a variety of serious risks and uncertainties, including those described in Item 1A of our Form 10-K for the year ended December 31, 2006. In addition, the following risk factors have changed during the six months ended June 30, 2007:

We have incurred losses for a number of years, and anticipate that we will incur continued losses for the foreseeable future.

We began operations in December 1989. At that time we provided research services, mostly to US government agencies, on classified projects. We have financed our operations since 1999 primarily through the sale of our equity securities and have devoted substantially all of our resources to research and development relating to MelaFind®. Our net loss for the six months ended June 30, 2007 was approximately $6.1 million, and as of June 30, 2007, we had an accumulated deficit of approximately $37.3 million. Our research and development expenses may continue to increase in connection with our clinical trials and other development activities related to MelaFind®. If we receive PMA approval for MelaFind® from the FDA, we expect to incur significant sales and marketing expenses, which will require additional funding, and manufacturing expenses. Additionally, our general and administrative expenses have also increased due to the additional operational and regulatory responsibilities applicable to public companies. As a result, we expect to continue to incur significant and increasing operating losses for the foreseeable future. These losses, among other things, have had and will continue to have an adverse effect on our stockholders' equity.

We may be unable to complete the development and commence commercialization of MelaFind® or other products without additional funding, and we will not be able to achieve significant commercialization without additional funding.

As of June 30, 2007 we had $15.1 million in cash and cash equivalents. Our operations have consumed substantial amounts of cash for each of the last seven years. We currently believe that our available cash and cash equivalents, including the proceeds from our November 2006 financing and our 2005 initial public offering, will be sufficient to fund our anticipated levels of operations through mid-2008. However, our business or operations may change in a manner that would consume available resources more rapidly than we anticipate. We expect to continue to spend substantial amounts on research and development, including conducting the pivotal clinical trial for MelaFind®. We will need additional funds to fully commercialize the product, including development of a direct sales force and expansion of manufacturing capacity. We expect that our cash used by operations will increase significantly in each of the next several years, and should we encounter any material delays or impediments, we may need additional funds to complete the development of MelaFind® and commence commercialization of MelaFind®, and we will need additional funds to achieve significant commercialization of MelaFind®. Any additional financing may be dilutive to stockholders, or may require us to grant a lender a security interest in our assets. The amount of funding we will need will depend on many factors, including:

- the schedule, costs, and results of our clinical trials;
- the success of our research and development efforts;
- the costs and timing of regulatory approval;
- reimbursement amounts for the use of MelaFind® that we are able to obtain from Medicare and third-party payers, or the amount of direct payments we are able to obtain from patients and/or physicians utilizing MelaFind®;
- the cost of commercialization activities, including product marketing and building a domestic direct sales force;
- the emergence of competing or complementary technological developments;

- the costs of filing, prosecuting, defending and enforcing any patent claims and other rights, including litigation costs and the results of such litigation;
- the costs involved in defending any patent infringement actions brought against us by third parties; and
- our ability to establish and maintain any collaborative, licensing or other arrangements, and the terms and timing of any such arrangements.

Additional financing may not be available to us when we need it, or it may not be available on favorable terms.

If we are unable to obtain adequate financing on a timely basis, we may be required to significantly curtail or cease one or more of our development and marketing programs. We could be required to seek funds through arrangements with collaborators or others that may require us to relinquish rights to some of our technologies, product candidates or products that we would otherwise pursue on our own. We also may have to reduce marketing, customer support and other resources devoted to our products. If we raise additional funds by issuing equity securities, our then-existing stockholders will experience ownership dilution, could experience declines in our share price and the terms of any new equity securities may have preferences over our common stock.

Our stock price is likely to be volatile, meaning purchasers of our common stock could incur substantial losses.

Our stock price is likely to be volatile. Between October 28, 2005 (the date of our initial public offering) and June 30, 2007, our stock price has ranged from $4.29 to $8.92 per share. The stock market in general and the market for medical technology companies in particular have experienced extreme volatility that has often been unrelated to the operating performance of particular companies. The following factors, in addition to other risk factors described in this section and general market and economic conditions, may have a significant impact on the market price of our common stock:

- results of our research and development efforts and our clinical trials;
- the timing of regulatory approval for our products;
- failure of any of our products, if approved, to achieve commercial success;
- the announcement of new products or product enhancements by us or our competitors;
- regulatory developments in the US and foreign countries;
- ability to manufacture our products to commercial standards;
- developments concerning our clinical collaborators, suppliers or marketing partners;
- changes in financial estimates or recommendations by securities analysts;
- public concern over our products;
- developments or disputes concerning patents or other intellectual property rights;
- product liability claims and litigation against us or our competitors;
- the departure of key personnel;
- the strength of our balance sheet;
- variations in our financial results or those of companies that are perceived to be similar to us;

- changes in the structure of and third-party reimbursement in the US and other countries;
- changes in accounting principles or practices;
- general economic, industry and market conditions; and
- future sales of our common stock.

A decline in the market price of our common stock could cause you to lose some or all of your investment and may adversely impact our ability to attract and retain employees and raise capital. In addition, stockholders may initiate securities class action lawsuits if the market price of our stock drops significantly. Whether or not meritorious, litigation brought against us could result in substantial costs and could divert the time and attention of our management. Our insurance to cover claims of this sort, if brought, may not be adequate.

If our directors, executive officers, and principal stockholders choose to act together, they may have the ability to influence all matters submitted to stockholders for approval.

As of June 30, 2007, our directors, executive officers, holders of more than 10 % of our common stock, and their affiliates in the aggregate, beneficially owned approximately 5.6% of our outstanding common stock. As a result, these stockholders, subject to any fiduciary duties owed to our other stockholders under Delaware law, could be able to exercise a controlling influence over matters requiring stockholder approval, including the election of directors and approval of significant corporate transactions, and will have significant control over our management and policies. Some of these persons or entities may have interests that are different from yours. For example, these stockholders may support proposals and actions with which you may disagree or which are not in your interests. The concentration of ownership could delay or prevent a change in control of our company or otherwise discourage a potential acquirer from attempting to obtain control of our company, which in turn could reduce the price of our common stock. In addition, these stockholders, some of whom have representatives sitting on our Board of Directors, could use their voting influence to maintain our existing management and directors in office, delay or prevent changes of control of our company, or support or reject other management and board proposals that are subject to stockholder approval, such as amendments to our employee stock plans and approvals of significant financing transactions.

If we fail to maintain the adequacy of our internal controls, our ability to provide accurate financial statements could be impaired and any failure to maintain our internal controls and provide accurate financial statements could cause our stock price to decrease substantially.

We face increased legal, accounting, administrative and other costs and expenses as a public company. The Sarbanes-Oxley Act of 2002 (SOX), as well as new rules subsequently implemented by the SEC, the Public Company Accounting Oversight Board and the NASDAQ Capital Market, require changes in the corporate governance practices of public companies. We expect these new rules and regulations to increase our legal and financial compliance costs, to divert management attention from operations and strategic opportunities, and to make legal, accounting and administrative activities more time-consuming and costly. On June 30, 2007 our market capitalization exceeded $75 million. As a result we must have our independent registered public accounting firm attest to our compliance with Section 404 of SOX for the year ending December 31, 2007. In addition we will be an accelerated filer effective December 31, 2007. We have retained a consultant experienced in SOX to assist us and we are in the process of instituting changes to our internal procedures to satisfy the requirements of the SOX. We are evaluating our internal controls systems in order to allow us to report on, and our independent registered public accounting firm to attest to, our internal controls, as required by Section 404 of the SOX. While we believe we have made substantial progress on satisfying the requirements, and anticipate being able to fully implement the requirements relating to internal controls and all other aspects of Section 404 of the SOX in a timely fashion, we cannot be certain as to the timing of completion of our evaluation, testing and remediation actions or the impact of the same on our operations. As a small company with limited capital and human resources, we will need to divert management's time and attention away from our business in order to ensure compliance with these regulatory requirements. Implementing these changes may require new information technologies systems, the auditing of our internal controls, and compliance training for our directors, officers and personnel. Such efforts would require a potentially significant expense. If we fail to maintain the adequacy of our internal controls as such standards are modified, supplemented or amended from time to time, we may not be able to provide accurate financial statements and comply with the SOX. Any failure to maintain the adequacy of our internal controls and provide accurate financial statements could cause the trading price of our common stock to decrease substantially.

ITEM 3.

Quantitative and Qualitative Disclosures about Market Risk

Our exposure to market risk is confined to our cash and cash equivalents. We invest in high-quality financial instruments, primarily money market funds, federal agency notes, and US Treasury obligations, with the effective duration of the portfolio within one year which we believe are subject to limited credit risk. We currently do not hedge interest rate exposure. Due to the short-term nature of our investments, we do not believe that we have any material exposure to interest rate risk arising from our investments.

ITEM 4.

Controls and Procedures

Evaluation of disclosure controls and procedures

Based on their evaluation as of June 30, 2007, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as amended, were sufficiently effective to ensure that the information required to be disclosed by us in this Quarterly Report on Form 10-Q was recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and Form l0-Q.

Change in internal control over financial reporting

There were no changes in our internal control over financial reporting during the quarter ended June 30, 2007 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Limitations on the effectiveness of controls

Our disclosure controls and procedures are designed to provide reasonable, not absolute, assurance that the objectives of our disclosure control system are met. Because of inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues, if any, within a company have been detected.

ITEM 4T. Controls and Procedures

Not applicable.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings.

We are not currently subject to any material legal proceedings, nor, to our knowledge, is any material legal proceeding threatened against us. From time to time, we may be a party to certain legal proceedings, incidental to the normal course of our business.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

Not applicable.

Item 3. Defaults Upon Senior Securities.

Not applicable.

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Item 4. Submission of Matters to a Vote of Security Holders.

The 2007 Annual Meeting of Stockholders of the Company was held on May 21, 2007.

Our stockholders voted on proposals to elect directors, ratify the selection by the audit committee of our Board of Directors of Eisner LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2007, approve an amendment to our 2003 Stock Incentive Plan and to ratify an amendment to our 2005 Stock Incentive Plan

All nominees for election to the Board as Directors were elected to serve until the 2008 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 ratified the selection of the independent registered public accounting firm by the audit committee of our Board of Directors. The number of votes cast for, against or withheld and the number of abstentions with respect to each proposal is set forth below:

Proposal 1	Shares For	Shares Withheld
Election of Directors		
Joseph V. Gulfo, MD	10,596,494	65,175
Breaux Castleman	10,036,919	624,750
Sidney Braginsky	10,614,924	46,745
Gorge C. Chryssis	10,614,784	46,885
Martin D. Cleary	10,614,751	46,918
Dan W. Lufkin	10,614,924	46,745
Gerald Wagner, Ph.D.	10,414,703	246,966

Proposal 2	Shares For	Shares Against	Shares Abstaining
Ratification of Eisner LLP	10,613,642	46,466	1,561

Proposal 3	Shares For	Shares Against	Shares Abstaining
Amend 2003 Stock Incentive Plan	6,947,803	1,236,574	177,976

Proposal 4	Shares For	Shares Against	Shares Abstaining
Amend 2005 Stock Incentive Plan	7,940,799	246,626	174,748

Item 5. Other Information.

(a) Not applicable.

(b) Not applicable.

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Item 6. Exhibits

Exhibit Number	Exhibit Title
3.1	Fourth Amended and Restated Certificate of Incorporation of the Registrant.(1)
3.2	Third Amended and Restated Bylaws of the Registrant.(2)
4.1	Specimen Stock Certificate.(2)
4.2	Second Amended and Restated Investor’s Rights Agreement dated as of October 26, 2004 by and among the Registrant and the parties listed therein.(3)
4.3	Form of Warrant.(7)
4.4	Form of Warrant.(13)
10.1*	Form of Indemnification Agreement for directors and executive officers.(2)
10.2*	1996 Stock Option Plan.(3)
10.3*	2003 Stock Incentive Plan, as amended.(3)
10.4*	2005 Stock Incentive Plan.(2)
10.5*	Employment Agreement dated as of January 5, 2004 between the Registrant and Joseph V. Gulfo.(3)
10.6	Consulting Agreement dated as of May 31, 2005 between the Registrant and Marek Elbaum.(3)
10.7	Lease Agreement dated as of December 16, 1998, by and between the Registrant and Bridge Street Properties LLC, for office space located at One Bridge Street, Irvington, New York.(3)
10.8	First Amendment to the Lease Agreement dated as of May 17, 2001 by and between the Registrant and Bridge Street Properties LLC.(3)
10.9	Second Amendment to the Lease Agreement dated as of June 19, 2003 by and between the Registrant and Bridge Street Properties LLC.(3)
10.10	Lease Agreement dated as of November 23, 2004, by and between the Registrant and Bridge Street Properties LLC, for office space located at 3 West Main Street, Irvington, New York.(3)
10.11*	Consulting Agreement dated as of June 1, 2005 between the Registrant and Gerald Wagner Consulting, LLC.(1)
10.12*	Consulting Agreement dated as of June 20, 2003 between the Registrant and Breaux Castleman, as amended.(1)
10.13	Consulting Agreement dated as of June 1, 2005 between the Registrant and Robert Friedman, M.D.(1)
10.14	Task Order Agreement dated as of July 13, 2005 between the Registrant and Battelle Memorial Institute.(2)

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Exhibit Number	Exhibit Title
10.15	Third Amendment dated as of June 6, 2005, by and between the Registrant and Bridge Street Properties LLC, for office space located at 1 Bridge Street, Irvington, New York.(1)
10.16	Production Agreement between the Registrant and ASKION GmbH dated as of January 25, 2006.(4)
10.17*	Amended and Restated Consulting Agreement effective as of April 1, 2006 between the Registrant and Gerald Wagner Consulting LLC.(11)
10.18*	Resignation Agreement, dated April 24, 2006, between the Registrant and Karen Krumeich.(5)
10.19*	Employment Offer Letter, dated April 24, 2006, between the Registrant and Richard I. Steinhart.(5)
10.20*	Employment Offer Letter, dated May 30, 2006, between the Registrant and Christiano S. Butler.(6)
10.21	Securities Purchase Agreement among the Registrant and the purchasers identified on the signature pages thereto, dated as of October 31, 2006.(8)
10.22	Securities Purchase Agreement among the Registrant and the purchasers identified on the signature pages thereto, dated as of October 31, 2006.(8)
10.23	Registration Rights Agreement among the Registrant and the purchasers identified on the signature pages thereto, dated as of October 31, 2006.(8)
10.24	Placement Agency Agreement by and between the Registrant and Jefferies & Company, Inc., dated as of October 31, 2006.(7)
10.25	Licensing Agreement between the Registrant and KaVo Dental GmbH, dated as of December 5, 2006.(9)
10.26*	Amendment No. 1 to Amended and Restated Consulting Agreement dated as of January 30, 2007 by and among the Registrant, Gerald Wagner and Gerald Wagner Consulting LLC. (10)
10.27	Research and Feasibility Agreement between the Registrant and L'Oreal S.A. dated as of March 26, 2007. (12)
10.28	Securities Purchase Agreement among the Registrant and the purchasers identified on the signature pages thereto, dated as of July 31, 2007. (13)
10.29	Registration Rights Agreement among the Registrant and the purchasers identified on the signature pages thereto, dated as of July 31, 2007. (13)

Exhibit Number	Exhibit Title
31.1#	Certification of Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2#	Certification of Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1#	Certification of Chief Executive Officer and Chief Financial Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

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* Indicates management compensatory plan, contract or arrangement

(1) Incorporated by reference to the Registrant's Registration Statement on Form S-1, as amended (File No. 333-125517), as filed on July 15, 2005.

(2) Incorporated by reference to the Registrant's Registration Statement on Form S-1, as amended (File No. 333-125517), as filed on August 8, 2005.

(3) Incorporated by reference to the Registrant's Registration Statement on Form S-1, as amended (File No. 333-125517), as filed on June 3, 2005.

(4) Incorporated by reference to the Registrant's Current Report on Form 8-K filed on January 31, 2006.

(5) Incorporated by reference to the Registrant's Current Report on Form 8-K filed on April 27, 2006.

(6) Incorporated by reference to the Registrant's Current Report on Form 8-K filed on June 2, 2006.

(7) Incorporated by reference to the Registrant's Current Report on Form 8-K filed on November 1, 2006.

(8) Incorporated by reference to the Registrant's Current Report on Form 8-K filed on November 8, 2006.

(9) Incorporated by reference to the Registrant's Current Report on Form 8-K filed on December 11, 2006.

(10) Incorporated by reference to the Registrant's Current Report on Form 8-K filed on January 31, 2007.

(11) Incorporated by reference to the Registrant's Annual Report on Form 10-K filed on March 29, 2006.

(12) Incorporated by reference to the Registrant's Current Report on Form 8-K filed on March 28, 2007.

(13) Incorporated by reference to the Registrant's Current Report on Form 8-K filed on August 1, 2007.

Filed herewith.

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, thereunto duly authorized.

ELECTRO-OPTICAL SCIENCES, INC.

By: /s/ Richard I. Steinhart
Richard I. Steinhart
Vice President and Chief Financial Officer
(Principal Accounting and Financial Officer)

Date: August 9, 2007

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EXHIBIT INDEX

Exhibit No.	Description
31.1	Certification by the Chief Executive Officer pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934
31.2	Certification by the Chief Financial Officer pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934
32.1	Certification Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

Exhibit 31.1

CERTIFICATION BY THE CHIEF EXECUTIVE OFFICER PURSUANT TO RULE 13A-14(A) UNDER THE SECURITIES EXCHANGE ACT OF 1934

I, Joseph V. Gulfo, certify that:

1. I have reviewed this report on Form 10-Q of Electro-Optical Sciences, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the financial statements for external purposes in accordance with generally accepted accounting principles;

   c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's Board of Directors (or persons performing the equivalent functions):

   a) all significant deficiencies and material weaknesses in the design or operations of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) any fraud whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 9, 2007

/s/ Joseph V. Gulfo, M.D.

Joseph V. Gulfo, M.D.
President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION BY THE CHIEF FINANCIAL OFFICER PURSUANT TO RULE 13A-14(A) UNDER THE SECURITIES EXCHANGE ACT OF 1934

I, Richard I. Steinhart, certify that:

1. I have reviewed this report on Form 10-Q of Electro-Optical Sciences, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the financial statements for external purposes in accordance with generally accepted accounting principles;

   c) evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and

5. The registrant’s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s Board of Directors (or persons performing the equivalent functions):

   a) all significant deficiencies and material weaknesses in the design or operations of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and

   b) any fraud whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

Date: August 9, 2007

/s/ Richard I. Steinhart
Richard I. Steinhart
Vice President and Chief Financial Officer
(Principal Accounting and Financial Officer)

Exhibit 32.1

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350
ELECTRO-OPTICAL SCIENCES, INC.
CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

Each of the undersigned officers of Electro-Optical Sciences, Inc. (the "Company") hereby certifies to his knowledge that the Company's quarterly report on Form 10-Q for the period ended June 30, 2007 (the "Report"), as filed with the Securities and Exchange Commission on the date hereof, fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended, and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Joseph V. Gulfo
Joseph V. Gulfo
President and Chief Executive Officer
(Principal Executive Officer)
August 9, 2007

/s/ Richard I. Steinhart
Richard I. Steinhart
Vice President & Chief Financial Officer
(Principal Accounting and Financial Officer)
August 9, 2007

* A signed original of this written statement required by Section 906 of the Sarbanes-Oxley Act of 2002 has been provided to Electro-Optical Sciences, Inc. and will be retained by Electro-Optical Sciences, Inc. and furnished to the Securities and Exchange Commission or its staff upon request. This written statement accompanies the Form 10-Q to which it relates, is not deemed filed with the Securities and Exchange Commission, and will not be incorporated by reference into any filing of Electro-Optical Sciences, Inc. under the Securities Act of 1933 or the Securities Exchange Act of 1934, irrespective of any general incorporation language contained in such filing.