



DIVISION OF  
CORPORATION FINANCE

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

November 9, 2011

Via E-mail

Dennis McGrath  
Chief Executive Officer and President  
PhotoMedex, Inc.  
147 Keystone Drive  
Montgomeryville, PA 18936

**Re: PhotoMedex, Inc.  
Registration Statement on Form S-4  
Amended November 2, 2011  
File No. 333-176295**

**Form 10-K for the Fiscal Year ended December 31, 2010  
Filed March 31, 2011  
File No. 000-11635**

Dear Mr. McGrath:

We have reviewed your filings and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your filings and providing the requested information. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filings and the information you provide in response to these comments, we may have additional comments.

Prospectus Cover

1. Please revise the first paragraph to also disclose the 80/20 split that is described on page 11.

Interests of Radiancy Directors....., page 12

2. Please revise to include or summarize the table located on page 84 and also describe the annual compensation and bonus payments owed to Dr. Rafaeli pursuant to his employment agreement. Please also revise the next section to include or summarize the table on page 88.

Perseus Repurchase Transaction, page 18

3. We note your disclosure on page 232 indicating that Perseus beneficially owns 1,664,952 common shares. Please revise to disclose the consideration necessary to repurchase the rights from Perseus on a per share basis for each of the aggregate amounts listed.

Background of the Merger, page 59

4. We reissue prior comment 7 because you have not revised your disclosure on page 62 to explain which payments were excluded and which ones were not.

Events Following Execution of the Original Merger Agreement, page 65

5. Please revise your disclosure at the top of page 66 to disclose what, if any, indemnity terms are contained in the amended merger agreement. Please also revise the first full paragraph on page 66 to explain in greater detail the “more efficient tax structure” that you reference.

Summary, page 79

6. Please revise to disclose here and on page 11 that the fairness opinion speaks to the terms of the July 4, 2011 merger agreement but does not cover the October 31, 2011 amendment. Please also revise your disclosure on page 67-68 to explain why PhotoMedex’s board recommends approval of the merger in light of the fact that the fairness opinion does not address the terms of the amended agreement.

Golden Parachute Compensation, page 88

7. We note your revised disclosure in response to prior comment 10. Please revise the table on page 88 to disclose the value of the restricted shares, options, and warrants that you reference on page 89, or advise. In light of your disclosure on page 55 concerning the concurrency of Radiancy’s approval of the merger agreement and its awards to Mr. Rafaeli, please also revise the table on page 84 to include the value of the share award and tax gross-up, or advise. Please also revise the “Background of the Merger” section to disclose the reasons for this compensation and discuss, as applicable, any negotiations between the parties on this matter.

Security Ownership..., page 231

8. We refer to prior comment 38 from our September 8, 2011 comment letter. Please revise to disclose the information required by Regulation S-K, Item 403 with respect to Radiancy. Also, please tell us why Shlomo Ben-Haim, Eastnet Investment Limited and Antinori, Ltd. are not identified on page 232 as 5% holders of the post-merger company given the holdings referenced in response to prior comment 1.

Consolidated Statements of Cash Flows, page F-34

9. We note from your response to prior comment 22 that the costs of constructing the laser units is accumulated through your inventory tracking system and that the unit cost is reflected as property and equipment when the unit is completed and deployed into service. We also note that you reflect the completed unit cost as a use of cash in investing activities for lasers placed in service. Since any transfers between inventory and property and equipment would appear to be non-cash transfers that should be disclosed but not reflected as uses of cash within your statements of cash flows, please explain why you believe your current presentation is appropriate. Refer to ASC 230-10-50-3.
10. Further, please revise to present your investing cash flows on a gross basis, consistent with ASC 230-10-45-7, or tell us why the net presentation is appropriate (see ASC 230-10-45-8).
11. Further, please tell us why you continue to reflect lasers that are removed from service to be refurbished and sold as property and equipment. Discuss whether you continue to depreciate this equipment after it is removed from service. Explain why these units are not re-classified into inventory. Discuss how you account for the refurbishment costs. Explain further why cash flows relating to the sale of these units to customer [are](#) properly reflected as cash flows from investing activities since it appears that the transactions are reflected as revenues and costs of revenues within your statements of operations. Refer to ASC 230-10-45-22.

Note 11. Convertible Debt, page F-52

12. Further to your response to prior comment 25 with respect to your analysis of whether the stock is readily convertible into cash, please tell us whether the note may be converted in increments. If it can, then please tell us your analysis of whether those increments are considered readily convertible to cash. Refer to ASC 815-10-55-99 through 55-110.

Radiancy, Inc. Consolidated Financial Statements

Note 9. Stockholders' Equity

Convertible Preferred Stock, page F-94

13. Further to your response to prior comment 10, please explain in more detail why the company determined that they are in control of the deemed liquidation events. Discuss your consideration of the laws of the state in which you are incorporated and the extent to which they impact your conclusion. Without limitation, please tell us whether a

liquidation, dissolution or winding up in the context of an involuntary bankruptcy proceeding would constitute a “deemed liquidation event.”

Note 12. Restatements, page F-105

14. Further to your response to comment 32, please provide further details as to how it was determined the uncertain tax liability was not properly calculated at the time the financial statements were prepared. As part of your response, tell us how the uncertain tax liability arose from intercompany transactions, given your reported retained deficiency as of December 31, 2008.

Exhibit 8.2

15. Please tell us the meaning of the terms “controlled and managed” that are referenced in the second paragraph of the opinion.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Act of 1933 and all applicable Securities Act rules require. Since the company and its management are in possession of all facts relating to a company’s disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. Please allow

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adequate time for us to review any amendment prior to the requested effective date of the registration statement.

You may contact Gary Newberry at (202) 551-3761 or Kaitlin Tillan, Assistant Chief Accountant, at (202) 551-3604 if you have questions regarding comments on the financial statements and related matters. Please contact Joseph McCann at (202) 551-6262 or me at (202) 551-3528 with any other questions.

Sincerely,

/s/ Russell Mancuso for

Amanda Ravitz  
Assistant Director

cc (via e-mail): Stephen C. Koval, Esq. - Kaye Scholer LLP