

July 24, 2008

Mail Stop 6010

Registrar & Transfer Co.
As Agent for NovaRay Medical, Inc.
10 Commerce Drive
Cranford, New Jersey 07016

Re: NovaRay Medical, Inc.
Amendment No. 5 to Registration Statement on Form S-1
Filed July 16, 2008
File No. 333-149917

Dear Sir/Madam:

We have limited our review of your filing to those issues we have addressed in our comments. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Consolidated Financial Statements for the Years Ended December 31, 2007 and 2006,
page F-18

Independent Auditor's Report, page F-19

1. Please refer to prior comment 6. We note you have filed and plan to file additional amendments to your 2007 Form 10-KSB and March 31, 2008 Form 10-Q that include restated financial statements. Please tell us whether you plan to file an Item 4.02 Form 8-K as a result of the restatements.

Note 3. Notes payable, page F-28

2. Please refer to prior comment 8. We note your response to the last bullet point of that comment indicates that "appropriate references to authoritative accounting literature have also been added to the prospectus to address the Staff's comment".

We note no such disclosure relating to the recognition of a gain on extinguishment of debt for the \$270,000 which you indicate represents the difference between the \$520,000 net present value of the remaining interest payments of the extinguished notes and the \$240,000 warrant valuation. Accordingly, we reissue that portion of the comment. Please describe for us the accounting basis for this transaction with references to specific applicable paragraphs of authoritative accounting literature. Specifically address the following in your response:

- Tell us why the basis of the notes (for gain or loss calculations) was not their carrying value and why the fair value of preferred shares issued for the notes would not impact the gain or loss calculations.
- Tell us if the assumed notes that were ultimately “converted” were convertible based on their *original* terms or if the preferred shares issuance in exchange for the notes was a separate and distinct transaction.
- Discuss why only the warrant to purchase 400,521 common shares (i.e. – only 25% of the Series A warrants) was included in the calculation.
- Clarify why the additional warrant to purchase 1,248,439 common shares was excluded as discussed on page F-29.

Consider the need to revise your disclosures based on our concerns.

Note 6. Stockholder’s equity (deficit), page F-30

3. Please refer to prior comment 7. We note your response to our comment and revised disclosure. We see that you have valued the warrant issued to Triple Ring at approximately \$2 million based on an expected exercise price of \$1.33. Please tell us how you have determined the measurement date for the warrant issuance, as defined in Issue 1 of EITF 96-18. Furthermore, it appears the issuance is contingent upon the counterparty performance criteria of acceptance of the deliverables. Please also specifically tell us how your valuations for the warrant comply with Issue 4 of EITF 96-18.

As appropriate, please amend your registration statement in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

We direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

Registrar & Transfer Co.
NovaRay Medical, Inc.
July 24, 2008
Page 3

You may contact Kevin Kuhar at (202) 551-3662 or Angela Crane at (202) 551-3554 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) 551-3444 with any other questions.

Sincerely,

Perry J. Hindin
Special Counsel

cc (via fax): Michael C. Phillips, Esq.