



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

Mail Stop 3030

November 30, 2009

Via Facsimile and U.S. Mail

Mr. Thomas F. Rose
Chief Financial Officer
RTI Biologics, Inc.
11621 Research Circle
Alachua, Florida 32615

Re: RTI Biologics, Inc.
Form 10-K for the Year Ended December 31, 2008
Filed March 16, 2009
File No. 000-31271

Dear Mr. Rose:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your documents in future filings in response to these comments. If you disagree, we will consider your explanation as to why our comments are 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.

Form 10-K for the Year Ended December 31, 2008

Cover Page

1. Given the disclosure that your securities are listed on Nasdaq, the cover page of your annual report should reflect that your securities are registered pursuant to Section 12(b) of the Exchange Act. Please revise your applicable future filings accordingly.

Item 1A. Risk Factors, page 14

2. We note your disclosure on page 29 regarding the merger with Tutogen Medical, Inc. It appears from a Form 8-A registration statement filed by TMI on July 17, 2002 that it registered preferred stock purchase rights pursuant to Section 12(b) of the Exchange Act. We also note that the Form 15 and Form 25 filed on February 27 and 28, 2008 relate only to the deregistration of TMI's common stock. Please file the appropriate forms to deregister the preferred stock purchase rights. It also appears that you should deregister the shares under any outstanding registration statement of Tutogen.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, page 29

Critical Accounting Policies, page 30

– Intangible Assets and Goodwill, page 31

3. We note your disclosures here and in Note 8 to the financial statements regarding your goodwill impairment evaluation. With a view toward providing greater insight into the risk of future goodwill impairment charges, please revise the discussion here in future filings to address the following:
 - Describe the methods and key assumptions used in your goodwill impairment evaluation and how the key assumptions were determined.
 - Discuss how you weight each of your fair value methodologies and your basis for the weighting.
 - Discuss the degree of uncertainty associated with the key assumptions. In this regard, describe potential events and/or changes in circumstances that could reasonably be expected to negatively affect the key assumptions.
 - To the extent the valuation assumptions and methodologies used in your goodwill impairment evaluations in future periods differ from those used in prior periods, disclose the reasons for the changes and the impact of the changes.

Item 10. Directors, Executive Officers and Corporate Governance, page 43

4. The disclosure in your proxy statement indicates that Mr. Mayer was a member of your board of directors at the time you filed the proxy statement. That disclosure also indicates that Mr. Mayer was not to be re-elected at your annual meeting. Please tell us whether Mr. Mayer decided not to stand for re-election to your board and, if so, why you did not report that information under the appropriate item to Form 8-K.

Item 11. Executive Compensation, page 43

5. We note your disclosure on page 14 of your definitive proxy statement regarding the “assistance” provided by management to your Compensation Committee in selecting the compensation peer group. Please tell us, and revise applicable future filings to disclose, the nature of the assistance your management provided. For example, did management assemble and recommend a list of companies to your Compensation Committee? Were those recommendations approved without change?
6. Please ensure it is clear from your disclosure in applicable future filings how you arrived at the amounts you paid your executives pursuant to the annual bonus plan described on pages 17 and 18 of your definitive proxy statement. For example, you mention that the financial targets, as adjusted, were achieved during 2008. However, given the bonus target percentages in the table on page 18 and base salaries paid to your executives, it is unclear how you arrived at the payout amounts you disclose. Rather, if the financial targets were achieved, it appears from your disclosure that Mr. Hutchison was entitled to receive 62% of his base salary. Please also tell us where in the summary compensation table the discretionary bonuses were included.
7. As a related matter, it appears that the bonuses you paid that were tied to the financial metrics cited were made pursuant to the annual bonus plan. Therefore, please revise applicable future filings to disclose amounts awarded pursuant to that plan in the column required by Item 402(c)(2)(vii) of Regulation S-K.
8. Please tell us, and revise future filings to clarify, the basis for the long-term incentive awards mentioned on pages 18 and 19 of your definitive proxy statement. For example, you refer to the awards being based on “survey data,” but it is unclear from your disclosure how that data impacted the amount of long-term incentive compensation awarded to your executives. For example, did you target the median of the survey data? proxy statement that you have incorporated by reference into your Form 10-K. In addition, we note minimal, if any, discussion and analysis as to how the stock option grants and restricted stock awards were determined. In your future filings, as applicable, please include substantive analysis and insight into how your Compensation Committee made its stock option grant and restricted stock award determinations with respect to each named executive officer. Refer to subparagraphs (b)(1)(iii) and (v) of Item 402 of Regulation S-K. For example, please discuss and analyze how the Compensation

Committee determined the actual number of shares underlying the stock options that were awarded to your named executive officers and how and why those awards varied among the named executive officers. Provide similar disclosure for the restricted stock awards.

Item 13. Certain Relationships and Related Transactions . . . , page 43

9. In your applicable future filings, please disclose the information required by Item 404(b) of Regulation S-K regardless of whether you have any related-party transactions to disclose.

Notes to Consolidated Financial Statements, page 53

10. We note from page 33 that during 2008 you initiated two separate voluntary recalls of certain products. Please revise your future filings to explain how you account for recalls and the impact of these recalls upon your financial statements.

Note 3. Merger with Tutogen Medical, Inc., page 59

11. We note that in connection with your acquisition of Tutogen Medical, Inc. in February 2008, you recorded a significant amount of goodwill. Separately, we note that you allocated only \$1.4 million of the total \$271 million purchase price to intangible assets. Please tell us more about your evaluation of potential intangible assets acquired in this transaction. Discuss any items you identified as potential intangible assets but did not recognize, including a discussion of the reasons that you concluded that there was no value relating to the potential intangible assets.
12. You state on pages 7 and 35 that prior to the Tutogen acquisition you did not offer dental or surgical specialty allografts and that Tutogen had distribution agreements relating to its dental and surgical specialty allografts. We further note that these dental and surgical specialty allografts contributed \$27.4 million and \$15.4 million, respectively, to your revenues in 2008. In your press release dated November 13, 2007 announcing the merger with Tutogen, you refer to Tutogen's "extensive distributor network" and you state that "Tutogen has one of the strongest international distribution networks focused on biologics in the world." In the same press release, you state that "the combined company will bring together one of the most extensive U.S. tissue recovery networks with the leading international tissue recovery network." Please address the following:
- Clarify the nature of the "procurement contracts" that you recognized as an intangible asset. Discuss the relationship, if any, between the procurement contracts and the recovery networks.
 - To the extent that the recovery networks are separate from the procurement contracts, discuss the consideration you gave to recording an intangible asset relating to the international recovery networks obtained in the acquisition of Tutogen.

- Explain to us how you determined that \$1.4 million was an appropriate amount to allocate to the “procurement contracts and distributor relationships” arising out of the Tutogen acquisition. Reconcile the value recorded in purchase accounting for procurement contracts and distributor relationships to your disclosures elsewhere that seem to indicate significant value associated with Tutogen’s recovery and distribution networks.

Note 8. Goodwill, page 64

13. We note that you recorded approximately \$103 million of goodwill impairment charges in connection with your annual impairment evaluation in 2008. Separately, we note that your market capitalization at December 31, 2008 was below the net book value of your assets at that date. You state that you estimated the fair value of the company using a combination of techniques including the expected present value of future cash flows and market multiples. Please provide us additional details regarding your goodwill impairment analysis at December 31, 2008. Specifically, please address the following:
- Discuss any other techniques used to determine fair value other than present value of future cash flows and market multiples.
 - Tell us how you have weighted each of the valuation techniques used and the basis for this weighting.
 - Explain the market multiples that you utilized and clarify what you applied the market multiples to in determining fair value. Discuss the comparative transactions considered in determining the market multiples to be used in your fair value estimate.
 - With respect to the present value of future cash flows, discuss how the projections used compare to those used at the date you acquired Tutogen.
 - Further, confirm that the projections of future cash flows used are consistent with those projections used by management in making ongoing operating decisions.
 - Discuss your consideration of the excess of net book value of your assets over your market capitalization as of December 31, 2008.

As appropriate, please also revise your disclosures in MD&A in future filings to provide additional details regarding any impairment charges recorded.

Note 14. Income Taxes, page 68

14. We note that you present a \$29 million net deferred income tax asset as of December 31, 2008 that appears to primarily relate to your operations in the United States. We further

note your disclosures on page 70 related to why you believe that your deferred tax assets are realizable at December 31, 2008. Giving specific consideration to negative evidence such as cumulative losses in recent years related to your operations in the United States, please tell us and revise your future filings to discuss in more detail why you believe that it is more likely than not that all of the deferred tax assets will be realized. Discuss how your Please also provide us with a similar analysis of the deferred tax asset as of September 30, 2009. Refer to the guidance in paragraphs 740-10-30-5e and 740-10-30-16 through 24 of the FASB Accounting Standards Codification.

Note 21. Legal and Regulatory Actions, page 73

15. We note your disclosures here and on page 22 related to your outstanding litigation and that you have existing insurance that covers all litigation expenses and damage awards. Please tell us and revise your future filings to explain in more detail how your accounting for contingencies complies with the guidance in 410-30 and 450-20 of the FASB Accounting Standards Codification. Within your discussion, please explain if you make your assessments on a gross basis, before consideration of any possible insurance claims.

Exhibits

16. Please tell us why the distribution agreement with Zimmer mentioned on page 39 is not included as an exhibit to this filing. In this regard, it appears from your disclosure on pages 2, 14 and 74 that Zimmer, Medtronic and Exactech accounted for a significant percentage of your revenue for the fiscal-year ended December 31, 2008. It also appears that you have filed as exhibits distribution agreements with Medtronic and Exactech.

As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a cover letter that keys your responses to our comment and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your responses to our comments.

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 all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. 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.

In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the

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- Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

You may contact Tara Harkins, Staff Accountant, at (202) 551-3639 or me at (202) 551-3643 if you have questions regarding comments on the financial statements and related matters. Please contact Geoffrey Kruczek, Staff Attorney, at (202) 551-3641, or Tim Buchmiller, Reviewing Attorney, at (202) 551- 3635 if you have questions on any other comments. In this regard, do not hesitate to contact Martin James, Senior Assistant Chief Accountant, at (202) 551-3671.

Sincerely,

Kevin L. Vaughn
Accounting Branch Chief