



DIVISION OF  
CORPORATION FINANCE

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

March 30, 2011

Via Facsimile and U.S. Mail

Mr. Robert P. Jordheim  
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, 2010**  
**Filed February 22, 2011**  
**File No. 000-31271**

Dear Mr. Jordheim:

We have reviewed your filing 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 within ten business days by providing the requested information or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

Form 10-K for the Year Ended December 31, 2010

Index to Consolidated Financial Statements, page 43

Note 2. Summary of Significant Accounting Policies, page 50

-Revenue Recognition, page 51

1. We note your disclosures related to the distributor agreements that you entered into (or amended) with Zimmer Dental Inc. and Davol Inc during fiscal 2010. We further note that you received upfront fees as part of these arrangements and that the Zimmer arrangement is entitled to certain refund rights. Please explain to us in more detail why you are deferring these arrangements and recognizing revenue based upon anticipated purchases or over the term of the arrangement, as applicable. Refer to the guidance in SAB Topic 13A3(f).

-Intangible Assets and Goodwill, page 53

2. We note from page 46 that you have recorded \$15.6 million of intangible assets on your balance sheet as of December 31, 2010. We further note from page 47 that you have reported net operating losses for fiscal 2010 and fiscal 2008. In light of this fact, please explain to us how you determined that your intangible assets were not impaired as of December 31, 2010.

Note 13. Income Taxes, page 63

3. We note that you present a \$25.2 million net deferred income tax asset as of December 31, 2010 that appears to primarily relate to your operations in the United States. We further note your disclosures on page 64 related to why you believe that your deferred tax assets are realizable at December 31, 2010. Giving specific consideration to negative evidence such as cumulative losses in recent years related to your operations in the United States, please explain to us in more detail why you believe that it is more likely than not that all of the deferred tax assets will be realized as of December 31, 2010. Refer to the guidance in paragraphs 740-10-30-5e and 740-10-30-16 through 24 of the FASB Accounting Standards Codification.

Note 19. Legal and Regulatory Actions, page 68

4. We note your disclosures related to the claims filed by you and Medtronic Sofamor Danek USA for events stemming from a recall of allografts of tissue originating from BTS. Please revise your future filings to include all of the disclosures related to this claim required by 450-20 of the Accounting Standards Codification. Specifically, please disclose the amount or range of reasonably possible loss or indicate that amount cannot

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be estimated as outlined in 450-20-50-3 of the Accounting Standards Codification.  
Please provide us a sample of your proposed disclosure.

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 Exchange Act of 1934 and all applicable Exchange 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.

In responding to our comments, please provide a written 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 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.

You may contact Tara Harkins, Staff Accountant, at (202) 551-3639, Lynn Dicker, Reviewing Accountant, at (202) 551-3616, or me at (202) 551-3643 if you have questions regarding these 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