

Via Facsimile and U.S. Mail
Mail Stop 4720

September 8, 2009

Les M. Taeger
Senior Vice President and Chief Financial Officer
OrthoLogic Corp.
1275 West Washington Street, Suite 101
Tempe, AZ 85281

**Re: OrthoLogic Corp.
Form 10-K for Fiscal Year Ended December 31, 2008
Form 10-Q for the Fiscal Quarter Ended June 30, 2009
File Number: 001-33560**

Dear Mr. Taeger:

We have reviewed your filings and have the following comments. We have limited our review to your financial statements and related disclosures and do not intend to expand our review to other portions of your document. We think you should amend your Form 10-K in response to comment one. 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 comment two, we ask you to provide us information and to revise your disclosure beginning with your next Form 10-Q.

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 filings. We look forward to working with you in these respects. We welcome any questions you may have about our comments or on 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 Fiscal Year Ended December 31, 2008

Financial Statements

Report of Independent Registered Public Accounting Firm, page F-1

1. Please amend your filing to include the report of the auditors referred to by Ernst & Young that covers the period from inception through December 31, 2005, which complies with Rule 2-02 of Regulation S-X. Refer to Rule 2-05 of Regulation S-X.

Form 10-Q for the Fiscal Quarter Ended June 30, 2009

Item 4 – Controls and Procedures, page 14

2. Your disclosure includes a partial definition of disclosure controls and procedures rather than the complete definition of disclosure controls and procedures contained in Exchange Act Rule 13a-15(e). Specifically, confirm to us that your officers concluded that your disclosure controls and procedures are also effective to ensure that information required to be disclosed in the reports that you file or submit under the Exchange Act is accumulated and communicated to your management, including your chief executive officer and chief financial officer, to allow timely decisions regarding required disclosure, and that you will include this complete definition in future filings.

* * * *

Please amend your Form 10-K and respond to these comments within 10 business days or tell when you will provide us with a response. Please furnish a cover letter with your amendment that keys your responses to our comments. Detailed cover letters greatly facilitate our review. Please furnish your letter on EDGAR under the form type label CORRESP. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings to be certain that the filings include 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 your letter, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filings;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filings; 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 filings or in response to our comments on your filings.

Les M. Taeger
OrthoLogic Corp.
September 8, 2009
Page 3

Please contact Staci Shannon, Staff Accountant, at (202) 551-3374 or Carlton Tartar, Accounting Branch Chief, at (202) 551-3387 if you have any questions regarding these comments. In this regard, do not hesitate to contact me, at (202) 551-3679.

Sincerely,

Jim B. Rosenberg
Senior Assistant Chief
Accountant