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January 16, 2007

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Division of Corporate Finance
United States Securities and Exchange Commission
100 F. Street, N.E., Mail Stop 7010
Washington, D.C. 20549

RE: Orthodontix, Inc.
Schedule 14F-1 filed on December 18, 2006
File No. 005-50118

Ladies and Gentlemen:

On behalf of our client, Orthodontix, Inc., a Florida corporation (the "Company"), transmitted herewith are responses to the Staff's comments to the Information Statement filed on Schedule 14F-1 by the Company (the "Schedule 14F-1"), which comments were set forth in the Staff's letter dated January 12, 2007 (the "Comment Letter") to Joshua Goldstein of Morrison & Foerster LLP.

For ease of reference, we have noted the Staff's comments in bold faced type and the responses in regular type. Per our discussions with the Staff, no amendments to the Schedule 14F-1 are being made.

The Merger, Page 2

- 1. We note your response to prior comment 1. Please provide your analysis as to why you believe Orthodontix should not be considered a party to the merger, particularly in light of the fact that Orthodontix is a party to the Merger Agreement and Plan of Reorganization (Exhibit 10.10 to the Form 8-**
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K filed January 8, 2007) and the fact that Orthodontix is also providing the merger consideration in the form of Orthodontix common stock.

The transaction completed pursuant to the Merger Agreement and Plan of Reorganization ("Agreement") made and entered as of August 21, 2006, by and among the Company, Protalix Acquisition Co., Ltd., an Israeli company ("Acquisition Subsidiary"), which was a wholly-owned subsidiary of the Company, and Protalix Ltd., an Israeli company ("Protalix") was completed in the form of a reverse triangular merger. In the reverse triangular merger, Protalix and Acquisition Subsidiary were the parties to the merger itself, not the Company. Protalix merged with and into Acquisition Subsidiary and is the surviving company, and, accordingly, Protalix became a wholly-owned subsidiary of the Company. By completing the transaction in the form of a reverse triangular merger, the Company was not subject to the shareholder consent requirements under the Florida Business Corporation Act, or FBCA, which would have been required if the transaction was effected by way of a direct forward merger. As set forth in our previous letter, Section 607.1101 of the FBCA requires approval only from those shareholders who hold shares in a company that is subject to the merger.

At the time of the merger, Protalix and Acquisition Subsidiary were both Israeli companies and, accordingly, the merger was subject to the Israeli Companies Law. The merger was approved by the shareholders of Protalix and by the sole shareholder of Acquisition Subsidiary, which in this case was the Company. In addition, the merger was approved by the board of directors of each of the Company, Acquisition Subsidiary and Protalix. The merger complied with the Israeli Companies Law.

The fact that the Company was a party to the Agreement does not necessitate that the Company is a party to the merger itself. Rather, the Company was a party to the Agreement to help facilitate the transaction. The Company made the representations, warranties, covenants, and indemnities that are customary in merger agreements and required by the counterparties to the transaction. In addition, the fact that the Company provided the consideration to Protalix's shareholders in connection with the transaction is a feature of a reverse triangular merger and does not make the Company a party to the merger.

Please note that the Company has authorized us to inform you that it acknowledges that the Company is responsible for the adequacy and accuracy of the disclosure in the filing; that 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 that 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.

Please call the undersigned at the telephone number set forth above or Joseph Magnas at (212) 336-4170 with any questions or comments you may have regarding the responses set forth herein. In addition, please send all written correspondence directly to the undersigned and Joseph

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Magnas of Morrison & Foerster LLP, 1290 Avenue of the Americas, New York, New York 10104, telecopy (212) 468-7900, with copies to David Aviezer, Ph.D., the Company's Chief Executive Officer at 2 Snunit Street, Science Park, P.O.B. 455, Carmiel 20100, Israel, telecopy +972-4-988-9489.

Sincerely,

/s/ James R. Tanenbaum

cc: David Aviezer, Ph.D.
Yossi Maimon