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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 14C filed on December 15, 2006
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 December 28, 2006 (the "Comment Letter") to Glenn Halpryn, the former Chief Executive Officer of the Company. In addition, through telephonic discussions with Elaine Wolfe of the Division of Corporate Finance and other counsel to the Company, we understand the Staff has similar comments to the Information Statement filed on Schedule 14C by the Company (the "Schedule 14C" and, together with the Schedule 14F-1, the "Information Statements").

For ease of reference, we have noted the Staff's comments in bold faced type and the responses in regular type. We have also attached to this Letter as Exhibit A, the statement that the Commission has requested from the Company. Per our discussions with the Staff, no amendments to the Schedule 14F-1 are being made.

The Company supplementally advises the Staff that, given the timing of when the Schedule 14C will be mailed as compared to the closing of the merger of Protalix Acquisition Co. Ltd., the Company's wholly-owned subsidiary, with Protalix Ltd, some of the disclosures in the Schedule 14C will be revised to reflect that the merger has already occurred.

The Merger, Page 2

1. **Please amend your disclosure to describe the corporate action taken to approve the Merger, reverse stock split and related transactions. For example, was a vote taken or were written consents or authorizations collected if no meeting was held? Please provide us with your analysis of your corporate action taken and the relevant Florida state law and proxy rules of the Securities Exchange Act of 1934. Please see Section 14(a) of the Securities Exchange Act of 1934 and Rules 14a-3 and Rule 14c-2 of Regulation 14A. In this regard, tell us why a Schedule 14C was not filed in connection with the Merger?**

The Company supplementally advises the Staff that the only corporate action taken by the Company with respect to (i) the merger of Protalix Acquisition Co. Ltd., a wholly-owned Israeli subsidiary of the Company, with and into Protalix Ltd., an Israeli company and (ii) a 1-for-10 reverse stock split of the Company's common stock, par value \$.0001, was unanimous approval by the Company's Board of Directors. As discussed below, applicable Florida law does not require further corporate action be taken.

In the case of the reverse stock split, Section 607.10025 of the Florida Business Corporation Act, or FBCA, provides that "unless the articles of incorporation provide otherwise, a division or combination may be effected solely by the action of the board of directors." Subsection (2) of this provision goes further to allow a board to amend the articles of incorporation to effect this combination without shareholder approval as well. The FBCA clarifies that a "combination" is intended to refer to a reverse stock split by defining the term as "combining shares of any issued and outstanding class or series into a lesser number of shares of the same class or series".

With respect to the merger, Section 607.1101 of the FBCA requires approval only from those shareholders who hold shares in a company that is subject to the merger. Because the parties to the merger were Protalix Ltd. and Protalix Acquisition Co. Ltd., the Company's wholly-owned Israeli subsidiary, shareholder approval by the Company's shareholders was not required. Although the Company was not a party to the merger and, accordingly, was not required to obtain approval from its shareholders, it provided the consideration paid to the Protalix Ltd. shareholders - namely, shares of the Company's common stock. Sections 607.1101 and 607.1106 of the FBCA permit this. Section 607.1101 provides that the applicable plan of merger shall set forth the manner and basis of converting the shares of each corporation [subject to the merger] into shares, obligations, or other securities of the surviving corporation **or any other**

corporation” (emphasis added), and Section 607.1106 provides that “when a merger becomes effective...the shares (and the rights to acquire shares, obligations, or other securities) of each corporation party to the merger that are to be converted into shares, rights, obligations or other securities of the surviving **or any other corporation** ... are converted.” (emphasis added) The words “or any other corporation” allows the Company to issue shares of its common stock in the merger to the Protalix Ltd. shareholders even though the Company, itself, was not subject to the merger.

Furthermore, because the Company is not listed on any stock exchange, the typical exchange rules requiring shareholder approval for the issuance of shares in excess of a number equal to 20% of an issuer’s outstanding shares did not apply.

Rules 14a-2 and 14a-3 under the Securities Exchange Act of 1934, as amended, require the mailing of a proxy statement or information statement when proxies for shareholder votes are solicited or action has already been taken by shareholders. As explained above, no such shareholder action was required or solicited in connection with the aforementioned transactions and, accordingly, without any such shareholder action these rules are not implicated and no mailing is required.

To the extent a transaction required shareholder approval or a mailing of an information statement to the Company’s shareholders, the Company believes it has complied with all such requirements. Accordingly, the Company filed the Schedule 14C to disclose it had obtained shareholder approval with respect to the Company’s adoption of its new 2006 Stock Incentive Plan and with respect to its proposed name change to “Protalix BioTherapeutics, Inc.”. Furthermore, the Company filed the Schedule 14F-1 because the merger resulted in a change in a majority of the directors of the Company.

In accordance with Staff’s request, the Company will amend its disclosure in the Schedule 14C to describe the corporate action taken to approve the Merger, reverse stock split, and related transactions. Specifically, the Company has included the below disclosure:

Our Board of Directors unanimously approved the reverse stock split and the merger. We did not obtain, and we are not soliciting shareholder approval of these transactions. Florida law allowed us to effect these transactions without obtaining or soliciting this approval. Florida law does, however, require us to obtain approval from our shareholders to amend our Articles of Incorporation to change our name to “Protalix BioTherapeutics, Inc.” In addition, applicable tax law and SEC rules require us to obtain shareholder approval of our new 2006 Stock Incentive Plan. Accordingly, we obtained the

written consent of at least a majority of our shareholders approving these actions and are mailing this information statement disclosing that we obtained this consent to our remaining shareholders. In addition, the merger resulted in a change of a majority of our directors and, accordingly, we are also mailing an information statement disclosing this change to our shareholders.

Corporate Governance and Independent Directors, page 17

2. **We note that you have no standing audit, nominating or compensation committees of the Board of Directors or committees performing similar functions. Please identify each director who participates in the consideration of director nominees. See Item 7(d)(2)(i) of Schedule 14A.**

As discussed with the Staff telephonically, information regarding the Company's director nomination process has been provided in the Company's Current Report on Form 8-K that was filed with the SEC on January 8, 2007.

3. **Please provide the information regarding the registrant's director nomination process required by Item 7(d)(2)(ii). Please note that the information regarding the registrant's director nomination process required by Item 7(d)(2)(ii), is required not only for nominating committees and committees performing similar functions, but also for groups of directors fulfilling the role of a nominating committee, including the entire board of directors. See Instruction to paragraph (d)(2)(ii) of Item 7 of Schedule 14A.**

As discussed with the Staff telephonically, information regarding the Company's director nomination process has been provided in the Company's Current Report on Form 8-K that was filed with the SEC on January 8, 2007.

In addition, 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