

Mail Stop 6010

December 22, 2006

Mr. Steve H. Kanzer
Chief Executive Officer
Pipex Pharmaceuticals, Inc.
3985 Research Park Drive
Ann Arbor, MI 48108

**Re: Pipex Pharmaceuticals, Inc.
Registration Statement on Form SB-2
Filed on December 14, 2006
File Number 333-139354**

Dear Mr. Kanzar:

This is to advise you that we have limited our review of the above referenced registration statement to only the issues identified below. We will make no further review of this filing.

1. We note that the securities you are registering on your Form SB-2 are being made on a shelf basis under Rule 415. Given the nature and size of the transaction being registered, please advise the staff of the company's basis for determining that the transaction is appropriately characterized as a transaction that is eligible to be made on a shelf basis under Rule 415(a)(1)(i).

* * *

As appropriate, please amend your registration statement in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. 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 reviewed by the staff to be certain that they have provided all information investors require for an informed 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.

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Notwithstanding our comments, in the event the company requests acceleration of the effective date of the pending registration statement, it should furnish a letter, at the time of such request, acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert this action 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 connection with our review of your filing or in response to our comments on your filing.

We will consider a written request for acceleration of the effective date of the registration statement as a confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

Please contact Sonia Barros at (202) 551-3655 with any questions.

Sincerely,

Jeffrey P. Riedler
Assistant Director

cc: Hank Gracin, Esq.
Lehman & Eilen LLP
Mission Bay Office Plaza
Suite 300
20283 State Road 7
Boca Raton, FL 33498