

Mail Stop 6010

January 24, 2007

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:

We have received your response letter dated January 5, 2007 and have the following additional comment.

1. Please provide us your analysis as to whether you consider Ridgeback Capital Investment Ltd. to be an "affiliate" of the Company. We may have further comments after receiving your response.

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Please furnish a letter on EDGAR under the form type label CORRESP in response to our comment. Detailed letters greatly facilitate our review. 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