



UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

DIVISION OF  
CORPORATION FINANCE

January 29, 2013

Via E-mail

Elizabeth Williams  
Director of Finance  
Lorus Therapeutics Inc.  
2 Meridian Road  
Toronto, Ontario M9W 4Z7  
Canada

**Re: Lorus Therapeutics Inc.  
Form 20-F  
Filed September 28, 2012  
File No. 001-32001**

Dear Ms. Williams:

We have reviewed your filing and have the following comment.

Please respond to this letter within ten business days by providing the requested information or by advising us when you will provide the requested response. If you do not believe our comment applies to your facts and circumstances, please tell us why in your response.

After reviewing the information you provide in response to our comment, we may have additional comments.

Item 4.B Business Overview, page 18

License Agreements, page 21

1. Please provide proposed draft disclosure for inclusion in future filings that expands your disclosure with respect to your license agreement with Genentech to disclose the amounts paid to date, aggregate potential milestone payments and a percentage point range (not to exceed ten percentage points) within which the applicable royalty rate falls. Please also disclose the term of the agreement and any termination provisions.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. 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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In responding to our comments, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- 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
- 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 contact Karen Ubell, Staff Attorney, at (202) 551-3873, Jennifer Riegel, Special Counsel, at (202) 551-3575 or me at (202) 551-3715 with any questions.

Sincerely,

/s/ Jennifer Riegel for

Jeffrey P. Riedler  
Assistant Director

cc: Via E-mail  
Dan Miller  
Dorsey & Whitney LLP