

Via Facsimile and U.S. Mail
Mail Stop 4720

March 31, 2010

David G.P. Allan
Chairman and Chief Executive Officer
YM Biosciences Inc.
5045 Orbitor Drive, Building 11, Suite 400
Mississauga, Ontario, L4W 4Y4
Canada

Re: YM Biosciences Inc.
Form 20-F Filed September 25, 2007
Form 6-K Filed October 7, 2009
File No. 001-32186

Dear Mr. Allan:

We have reviewed your amended Form 20-F and response letter each filed March 4, 2010 and have the following comments. In our comments, we ask you to provide us with information to better understand your disclosure. Where it requests you to revise disclosure, the information you provide should show us what the revised disclosure will look like and identify the annual or quarterly filing, as applicable, in which you intend to first include it. If you do not believe that revised disclosure is necessary, explain the reason in your response. After reviewing the information provided, we may raise additional comments and/or request that you amend your filing.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 20-F Filed September 25, 2007

Item 4. Information on Company

1. Please provide us with draft disclosure for your Form 20-F for the fiscal year ending June 30, 2010 that discloses the potential aggregate amount of milestone payments for each of the following agreements:

- Amended and Restated Development and License Agreement between CIMYM, Inc., CIMAB S.A. and Kuhnle Pharmaceuticals Co., Ltd. dated as of August 30, 2005;
- Development and License Agreement Relating to Nimotuzumab between CIMYM, Inc., CIMAB S.A., Innogene Kalbiotech Private Limited and P.T. Kalbe Farma Tbk dated as of October 31, 2005; and
- License Agreement relating to Nimotuzumab (TheraCIM h-R3) among CIMYM BioSciences Inc., CIMAB S.A. and Daiichi Pharmaceutical Co. Ltd., dated July 25, 2006.

Form 6-K Filed on October 7, 2009

2. We have reviewed your response to prior comment 5. Please provide us with an analysis that supports your conclusion that the transaction complied with the exemption from the registration requirements of the Securities Act of 1933 provided by Section 3(a)(10) thereof. See Staff Legal Bulletin 3A available at: <http://www.sec.gov/interp/leg/cfs1b3a.htm>.

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Please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a cover letter that keys your responses to our comments and provide any requested information. Detailed letters greatly facilitate our review. Please file your letter on EDGAR under the form type label CORRESP.

Please contact Jennifer Riegel, Staff Attorney at (202) 551-3575 or me at (202) 551-3715 with question on any of the comments.

Sincerely,

Jeff Riedler
Assistant Director

cc: Daniel M. Miller
Dorsey & Whitney LLP
777 Dunsmuir Street, Suite 1605
P.O. Box 10444, Pacific Centre
Vancouver BC V7Y 1K4
Canada