

Via Facsimile and U.S. Mail
Mail Stop 6010

March 24, 2009

Mr. Jeffery Edwards
Chief Financial Officer
Molecular Pharmacology (USA) Limited
Drug Discovery Centre
284 Oxford Street
Leederville 6007 Perth
Western Australia

Re: Molecular Pharmacology (USA) Limited
Form 10-K for the Fiscal Year Ended June 30, 2008
Filed October 2, 2008
File Number: 000-50156

Dear Mr. Edwards:

We have reviewed your filing and have the following comments. We have limited our review of your filing to your financial statements and related disclosures and do not intend to expand our review to other portions of your document. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. In some of our comments, we ask you to provide us with information to better understand your disclosure.

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.

Financial Statements

1. We note that the transition period ended June 30, 2007 covers a period of eight months. Rule 310 of Regulation S-B requires audited statements of income, cash flows and changes in stockholders' equity for each of the two fiscal years preceding the date of the most recent audited balance sheet. Rule 3-06 of Regulation S-X states that when a registrant has changed its fiscal year, the filing of financial statements covering a period of nine to twelve months satisfies a

requirement for filing financial statements for a period of one year. It appears that the eight month transition period included in your financial statements does not satisfy the requirements. Please amend your filing to comply with Rule 310 of Regulation S-B.

Report of Independent Registered Public Accounting Firm, page 15

2. Please ask your auditors to revise their opinion to include the period from inception to date as required under SFAS 7. To the extent that a prior auditor was relied upon, please include the report of the prior auditor which makes reference to the standards of the Public Company Oversight Board of the United States as the basis for the audits performed as the reports will have been reissued subsequent to the issuance of PCAOB Auditing Standard No. 1.
3. We note that your auditors, James Stafford Chartered Accountants are located in Vancouver, Canada. It appears that a majority of your assets, liabilities, revenues and expenses relate to operations located in Australia, and that no operations are located in the Canada. Furthermore, it appears that your principal corporate offices are located in Australia. The staff interprets Article 2 of Regulation S-X to require the report on the financial statements of a registrant that is not a foreign private issuer to be rendered ordinarily by an auditor licensed in the United States. This interpretation relates to both U.S. incorporated registrants and foreign-incorporated registrants that do not meet the foreign private issuer definition. However, in certain cases the staff will not object to the use of a foreign audit firm in cases where there is a logical relationship between the location of the auditor and the location of the registrant's corporate offices or place where the registrant conducts its principal operations. As a result, please tell us why you engaged a Canadian auditor, as opposed to a U.S. public accounting firm or accounting firm located in Australia where the majority of your operations are conducted. Additionally, please tell us how you auditor conducted the audit of your operations, including discussing whether another firm was involved in the audit. We may have further comment. Refer to http://www.sec.gov/divisions/corpfin/internatl/cfirdissues1104.htm#P442_69217.

Item 8A. Controls and Procedures, page 35

(b) Internal control over financial reporting, page 35

Management's annual report on internal control over financial reporting, page 35

4. While it appears that you have conducted an evaluation of internal control over financial reporting, it does not appear that you have disclosed your conclusion as required by Item 308T(a)(3) of Regulation S-B. Please provide management's conclusion as to the effectiveness of your internal control over financial reporting.

The current disclosure provides a conclusion of disclosure controls and procedures.

* * * *

As appropriate, please file an amendment to your Form 10-K for the year ended June 30, 2008 and respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a cover letter with your amendment that keys your responses to our comments. Detailed cover letters greatly facilitate our review. You should file the letter on EDGAR under the form type label CORRESP. 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 filing to be certain that the filing includes all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment 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.

In connection with responding to our comments, please provide, in your letter, a 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.

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 our review of your filing or in response to our comments on your filing.

Mr. Jeffrey Edwards
Molecular Pharmacology (USA) Ltd.
March 24, 2009
Page 4

You may contact Tabatha Akins, Staff Accountant, at (202) 551-3658, or Mary Mast, Senior Staff Accountant, at (202) 551-3613, if you have questions regarding the comments. In this regard, do not hesitate to contact me, at (202) 551-3679.

Sincerely,

Jim B. Rosenberg
Senior Assistant Chief
Accountant