Via Facsimile and U.S. Mail
Mail Stop 4720

December 15, 2009

Rik J. Deitsch
Chief Executive Officer and
Chief Financial Officer
Nutra Pharma Corp.
1537 NW 65th Avenue
Plantation, FL 33313

Re: Nutra Pharma Corp.
Form 10-K for Fiscal Year Ended December 31, 2008
Filed April 15, 2009
Form 10-Q for the quarterly period ended September 30, 2009
Filed November 18, 2009
File No. 000-32141

Dear Mr. Deitsch:

We have reviewed your filings and have the following comments. We think you should revise your documents in response to these comments. If you disagree, we will consider your explanation as to why our comments are inapplicable or a revision is unnecessary.

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 filings. 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 10-K For The Fiscal Year Ended December 31, 2008

Cover Page

1. Please revise your cover page to include the required indications that you are not a well-known seasoned issuer and that your current reporting status is that of a smaller reporting company. Please refer to Form 10-K for additional information.

Item 1. Business

General

2. In this item, please include a discussion of the Settlement Agreement between yourself and Bio Therapeutics, Inc. as well as the related License Agreement and Amendment to the License Agreement you have with Bio Therapeutics. Also, please file these agreements as exhibits, pursuant to Item 601(b)(10) of Regulation S-K. If you believe that these agreements should not be exhibited to your annual report, please provide the basis for this belief.

Sources and Availability of Raw Materials, page 11

3. We note your disclosure indicating that your main product component, cobra venom, is widely available. Please specify in your disclosure whether or not you have a principal supplier or suppliers of this substance. If you do, please identify it or them and state whether or not you have entered into a supply agreement with it or them. If such agreement or agreements exist, you should file them as exhibits to your annual report, pursuant to Item 601(b)(10) of Regulation S-K.

Patents, Trademarks, Licenses and Intellectual Property, page 11

4. Please disclose for each active patent you hold the jurisdiction that issued the patent, its duration, and the product, platform or technology to which each of your patents relate.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

Results of Operations

5. Please add a section to include your analysis of the Results of Operations for each period presented.

Plan of Operations, page 21

6. You indicate elsewhere in your annual report, including Item 1 and your income statement, that you had no research and development expenses in fiscal years 2007 and 2008. Your plan of operations, however, details the completion of Phase IIb/IIIa clinical trials of RPI-78M during this period. Please advise and, if necessary, revise your annual report to reconcile these apparent inconsistencies.

Item 10. Directors and Executive Officers of the Registrant

Section 16(a) Compliance Officers and Directors, page 31

7. We note your statement that your officers and directors have failed to file certain reports required under Section 16 of the Exchange Act. Please advise us as to what reports were due at the time you filed your annual report, what reports were subsequently filed and what reports are currently still delinquent.

Item 15. Exhibits and Financial Statement Schedules, page 35

8. Please file as an exhibit the Acquisition Agreement between yourself and ReceptoPharm, Inc., pursuant to Item 601(b)(2) of Regulation S-K. If you believe that this agreement should not be exhibited to your annual report, please provide the basis for this belief.

Signatures, page 37

9. Please amend your signature page to include the signature of your principal accounting officer or controller, which is required under General Instruction D of Form 10-K. If one of your signatories also acts in that capacity, please indicate all capacities in which that person has signed the report. Please advise or revise as may be applicable

Item 8. Financial Statements and Supplementary Data

Financial Statements

Report Of Independent Registered Public Accounting Firm, page F-1

10. Stark Winter Schenkein & Co., LLP has relied on other auditors as it relates to the period from inception (February 1, 2000) through December 31, 2003. Please obtain a signed report of the other auditors' covering this period and include it in the filing as required by rule 2-05 of Regulation S-X. The report should reference the standards of the Public Company Accounting Oversight Board (United States). Refer to paragraph 3 of PCAOB Auditing Standard 1.

Notes To Consolidated Financial Statements

2. Acquisition of Receptopharm, Inc., page F-10

11. We have the following comments about your "deconsolidation" of this company:

a) You state that "Net losses included in the consolidated financial statements" amounted to $4,056,095 yet total R&D Expenses shown on your Consolidated Statements of Operations since inception amount to only $1,740,237. Please tell us why these amounts differ.
b) Provide us your journal entries to record the gain of $1,081,095 and explain why you believe your calculation of the gain is appropriate.
c) Tell us how this transaction conforms to GAAP citing specific authoritative literature. Specifically tell us why it was appropriate to reverse the net losses of Receptopharm as if the entity had been accounted for under the equity method.
d) You state that "Effective in April 2007 the Company ceased advancing funds to Receptopharm and had no further commitment to fund them." Explain why then did you loan them $300,000 during FY2008.

12. We have the following comments regarding the accounting for the remaining 62% ownership in Receptopharma on April 10, 2008:

a) Receptopharma appears to not have any approved products and is a development stage company. Please explain, citing authoritative literature, how your recording of $2.469 million of Goodwill is in accordance with GAAP. Refer to paragraph 6 of EITF 98-3 which states that if a transferred set is in the development stage and has not commenced planned principal operations, the set is presumed not to be a business. Paragraph B36 of FAS 142 states that goodwill arises only in business combinations.
b) Revise to disclose why the total goodwill amount was fully impaired at December 31, 2008 when your disclosures on pages 21 and 26 indicate that Receptopharma is to play an integral role in Nutra Pharma's future operations.

13. As of December 31, 2008, you had issued 24.7 million of your common shares to the shareholders of Receptopharma with another 5.3 million to be issued during FY2009. Tell us how many shareholders there were in Receptopharma and why none of them are reported in Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

<u>Item 9A. Controls and Procedures</u>

<u>Section 2.</u>

<u>Management's Annual Report on Internal Control over Financial Reporting, page 28</u>

14. In Section 1. you state that management concluded that your disclosure controls and procedures were ineffective as of December 31, 2008 and you provided reasons for such conclusions. Given the existence of these material weaknesses, please explain how management assessed the effectiveness of its internal control

over financial reporting as of December 31, 2008 and concluded that it was effective.

Forms 10-Q For The Quarterly Periods Ended March 31, 2009, June 30, 2009 and September 30, 2009

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

Research and Development Costs

15. We believe that your disclosures about historical research and development expenses and estimated future expenses related to your major research and development projects could be enhanced for investors. Please refer to the Division of Corporation Finance "Current Issues and Rulemaking Projects Quarterly Update" under section VIII – Industry Specific Issues – Accounting and Disclosure by Companies Engaged in Research and Development Activities. You can find it at the following website address: http://www.sec.gov/divisions/corpfin/cfcrq032001.htm.
Please expand your MD&A to disclose the following information for each of your major research and development projects.

    a. The current status of the project;
    b. The costs incurred during each period presented and to date on each project;
    c. The nature, timing and estimated costs of the efforts necessary to complete each project;
    d. The anticipated completion dates of each project;
    e. The risks and uncertainties associated with completing development on schedule, and the consequences to operations, financial position and liquidity if each project is not completed timely; and finally
    f. The period in which material net cash inflows from significant projects are expected to commence for each project.

    Regarding b., if you do not maintain any research and development costs by project, disclose that fact and explain why management does not maintain and evaluate research and development costs by project. Provide other quantitative or qualitative disclosure that indicates the amount of the company's resources being used on the project.

    Regarding c. and d., disclose the amount or range of estimated costs and timing to complete the phase in process and each future phase. To the extent that information is not estimable, disclose those facts and circumstances

indicating the uncertainties that preclude you from making a reasonable estimate.

16. Please tell us why you incurred no research and development expenses in 2008 when your business description seems to indicate you are developing new drugs.

Item 4T. Controls and Procedures, page 16

17. Please expand your disclosure to describe what remedies you made for the period ending September 30, 2009 to allow you to conclude that your disclosure controls and procedures were effective at September 30, 2009, but were ineffective at December 31, 2008.

Exhibit 31.1

18. Please revise the language in the certification to conform to the language in Item 601(b)(31) of Regulation S-K.

* * *

As appropriate, please amend your Form 10-K for the fiscal year ended December 31, 2008 and subsequent Forms 10-Q 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 amendments that keys your responses to our comments. Detailed letters greatly facilitate our review. Please furnish the cover letter to us via EDGAR under the form type label CORRESP. 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 to be certain that the filings include 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 filings;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filings; 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 filings or in response to our comments on your filings.

Please contact James Peklenk, Staff Accountant, at (202) 551-3661 or Mary Mast, Senior Accountant, at (202) 551-3613 if you have any questions regarding the processing of your response as well as any questions regarding comments on the financial statements and related matters. You may contact Scot Foley, Staff Attorney, at (202) 551-3383 or Jeff Riedler, Assistant Director, at (202) 551-3715 with questions on any of the other comments. In this regard, do not hesitate to contact me, at (202) 551-3679.

Sincerely,

Jim B. Rosenberg
Senior Assistant Chief
Accountant