

Mail Stop 3561

September 5, 2006

Mr. Alan Auerbach
Chief Executive Officer
Cougar Biotechnology, Inc.
10990 Wilshire Boulevard, Suite 1200
Los Angeles, CA 90024

**Re: Cougar Biotechnology, Inc.
Form SB-2
File No. 333-133779
Filed May 3, 2006
Form 10-KSB
Filed March 6, 2006**

Dear Mr. Auerbach:

We have reviewed your filing and have the following comments. 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. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with supplemental information so we may better understand your disclosure. After reviewing this information, we may or may not raise additional comments.

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.

General

1. We note your response to our prior comments 1-3 from our letter of June 9, 2006. However, after listening to the web-cast, we believe that we heard a reference to "investment highlights" within the first minute of your CEO's speech, and note that the web-cast was not limited to a discussion of your products. We further note that Rodman & Renshaw engages in investment banking services and that

your presentation was partially directed at institutional biotechnology investors. Finally, we note that this presentation took place on May 16, 2006 following your initial SB-2 filing on May 3, 2006. Please file a transcript of this presentation on Form 8-K and reconcile any disclosures made therein to your Form SB-2 disclosures.

2. We note your response to our prior comment 2 from our letter of June 9, 2006 and believe further discussion is warranted. Firstly, please provide a thorough analysis of Rule 168(c) and (d) in light of the following: (1) the company only appears to have attended this conference twice – one of which was prior to its reporting obligations; and, (2) Rodman & Renshaw engages in investment banking services and its most current registration forms indicates that, “[i]n preparing [their] presentation, [presenters should] please keep in mind that [they] are presenting to investors with a familiarity of biotechnology and life sciences investing. [You should] [f]ocus on the points that make your company an attractive investment opportunity.” (emphasis added). Please analyze the foregoing, as well as any other facts considered relevant, with respect to Rule 168(c)’s exclusion that “[a] communication containing information ... disseminated as part of the offering activities in the registered offering is excluded from the exemption of this section. In addition, please explain how these presentations are part of your ordinary course of business. We may have further comment.
3. We note that Rodman & Renshaw’s website indicates that the company will participate in the November 6-8, 2006 Healthcare Conference. Please advise us of the nature of the presentation to be made at this conference. We may have further comment.
4. We note that the Rodman & Renshaw conference format appears to provide for a one on one meeting with the participating companies. Please advise us whether Alan Auerbach held any ‘one on one’ meetings with investors, or others, in the last conference held in May 2006. Advise us of the nature of any meetings. We may have further comment.
5. We note your response to comment 4. We specifically note that Horizon BioMedical Ventures, LLC, with Dr. Rosenwald as the managing member, currently holds 3,186,903 shares of Cougar’s common stock with 22.6% of the voting securities. We also note your disclosure that “this significant holding by Horizon BioMedical Ventures and Dr. Rosenwald’s position on the board, enables Horizon ... to exert considerable influence over our management and direction and affairs through the election and removal of our board of directors and all matters requiring stockholder approval” It appears that Lindsay Rosenwald, through Horizon BioMedical Ventures, LLC, possesses the ability to direct or cause the direction of management and the policies of the company. Please revise your document as appropriate.

6. Your disclosure indicates that Paramount BioCapital, Inc. received warrants associated with your financing transactions and that Horizon BioMedical Ventures, LLC is affiliated with BioCapital, Inc. Please revise your discussion to our prior comment 4 to address the foregoing with respect to Dr. Rosenwald's potential to "control" you. In addition, please advise how the company has presented these warrants for purposes of its tabular presentation of Security Ownership of Beneficial Owners and Management. We may have further comment.
7. We note the registration statement covers the resale of approximately 77% of the common stock outstanding assuming conversion of preferred stock and warrants. Your offering appears to be an "at the market offering of equity securities by or on behalf of the registrant" under Rule 415(a)(4) of Regulation C. Because Cougar Biotechnology, Inc. does not qualify to conduct an offering "at the market," please revise the terms of your offering to provide that all offers and sales will be made at a disclosed fixed price for the duration of the offering, as would be required in a direct primary offering by Cougar Biotechnology.
8. In your response to our prior comment 73 from our letter of June 9, 2006, you indicate that Paramount BioCapital, Inc. has distributed its shares to its designees. Please explain the meaning of this statement in further detail, including, but not limited to: (1) the amount of shares distributed; (2) how these shares originally were issued to Paramount BioCapital, Inc., including the securities law exemption relied on for the issuance; (3) whether these were restricted shares; (4) who Paramount BioCapital, Inc.'s designees were, including whether they are selling shareholders; and (5) the exemption BioCapital, Inc. relied on to distribute its shares. We may have further comment.

Private Placement Offering, page 8

9. Please revise to indicate when the company converted the series of 5% convertible notes, when the company issued the 133,217 units and when the company converted the \$950,000 of notes.

Selected Financial Data, page 7

10. We note you included data for the period from May 14, 2003 (inception) to December 31, 2003 and stated that this information was derived from your audit financial statements included elsewhere in your filing. Since the audited financial statements included in your registration statement do not include separate statements for the period from May 14, 2003 (inception) to December 31, 2003, please revise to remove this column from your table.

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11. Please revise your table to ensure all data reconciles to the financial statements included in the registration statement (e.g. December 31, 2005 total current assets, cumulative net loss).

Risk Factors, page 8

There are certain interlocking relationships among us and certain affiliates of Paramount, which may present potential conflicts of interest, page 15

12. Please revise to indicate the amount of beneficial ownership by Lindsay Rosenwald assuming the conversion of preferred stock beneficially owned by Dr. Rosenwald.

We are contractually obligated to two of our directors to pay bonuses ..., page 15

13. Please indicate who determines the cash bonus to Alan Auerbach or Dr. Beldegrun.

Risks Relating to our Securities, page 16

14. Please revise your disclosure, here and elsewhere, to clarify that the "Pink Sheets" are neither an exchange or market under the federal securities laws.

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 18

15. In your response to our prior comment 36 from our letter dated June 9, 2006, you indicate that you have reclassified certain 2004 license fees to conform to your 2005 presentation. Please clarify whether this reclassification has been reflected in a revision to your financial statements. If not, please justify.
16. Please incorporate more of the text of your response to our prior comment 41 from our letter of June 9, 2006 into your disclosure. In this regard, a discussion of the types of bonuses, and when they might be payable in the future, may be warranted.

Three Months Ended March 31, 2006 Compared to Three Months Ended March 31, 2005, page 20

17. Please revise your discussion under this section to more fully discuss the changes in your results of operations. Your discussion should not merely reflect changes in

expense items, but should discuss what the expenses were related to, how those expenses support your business plans and objectives.

Plan of Operation, page 22

18. We note your disclosure on page 22 that you anticipate spending \$240,000 on recruiting and relocation expenses associated with your hiring of new employees. Please disclose a range of estimated expenses associated with the payment of salary and benefits to these new employees. In addition, confirm whether these expenses are already included in management's projected 2006 expenses as disclosed elsewhere in your Form SB-2.
19. We note that the company has added disclosure here and under "Our Strategy" in response to our comments, including comment 50 from our June 9, 2006 letter. Please expand to further discuss this process, particularly as it relates to negotiating the acquisition agreements, further developing the products and how the company will commercialize these products, i.e., will you sub-license solutions to manufacturers, manufacture the solution in-house etc.

Business, page 28

20. We note that the company has provided copies of two studies in response to our prior comment 62 from our letter of June 9, 2006. Please revise your Form SB-2 to include references to these reports in the comparative statements that generated the initial staff comment.

CB3304 (Noscapine and Related Analogs), page 31

21. Please revise to address in an appropriate section the rights of the U.S. Federal Government under the Bayh-Dole Act. Also address the effect of those rights on your license from Emory University.

Clinical Testing of our Products in Development, page 34

22. We note that the company has added disclosure in response to our prior comment 30 from our letter dated June 9, 2006. The company's overall response contains a greater level of detail than the text added to your Form SB-2 and we believe that the information in the comment letter response is valuable to investors. Accordingly, please add the information contained in your response to comment 30 here.

Legal Proceedings, page 41

23. We note your response to our prior comment 68 and believe further clarification is necessary. Please revise to also indicate whether you are involved in any pending legal proceedings that are not routine litigation incidental to your business. (emphasis added).

Security Ownership of Certain Beneficial Owners and Management, page 47

24. We note that the beneficial ownership interest for Lindsay Rosenwald does not include 133,217 shares of common stock beneficially owned by The Lindsay A. Rosenwald 2000 Family Trust. It appears that these shares should be included in beneficial ownership table for Lindsay Rosenwald. Revise to include the noted shares in the table or advise us of the legal and factual basis for not reflecting these shares in the beneficial ownership table.

Certain Relationships and Related Transactions, page 50

25. Please revise to clarify the amount of non-voting securities held by Horizon Biomedical Ventures, LLC in addition to its voting securities.

Quotation of our Common Stock on the OTCBB, page 51

26. We have reviewed your response to our prior comment 26 for our letter dated June 9, 2006 but believe that more detailed disclosure is necessary. In particular, please provide more information about the listing requirements, how the company purports to meet these requirements and the costs that the company will incur in maintaining a listing.

Cougar Biotechnology Financial Statements for the years ended December 31, 2005 and 2004

Notes to Financial Statements

General

27. We reviewed your response to our prior comments 96 through 99 related to disclosure of the material terms of each warrant issuance. Your response did not address our comments in their entirety, thus a portion of the comments will be

reissued. Please revise your disclosure of each warrant issuance (e.g. Notes 6 through 8) to disclose whether the warrants may be exercised or settled in registered or unregistered shares.

Note 16 – Subsequent Events

Stockholders Equity, F-21

28. We note you issued seven-year warrants in connection with your April 3, 2006 private placement. Tell us why you used a five-year term (versus seven-year) to determine the fair value of these warrants or revise your disclosure here and throughout the registration statement accordingly.

Other Regulatory

29. Please note the updating requirements for the financial statements as set forth in Item 310(g) of Regulation S-B and provide a current dated consent of the independent accountants in any amendments.

Part II

Item 26. Recent Sales of Unregistered Securities

30. Your disclosure indicates that SRKP 4, Inc. issued 2.7 million shares of common stock on May 26, 2005 but you only provide information with respect to approximately 1.3 million shares. Please provide the required disclosures with respect to these other purchases. In this regard your attention is directed to our prior comment 18 from our letter of June 9, 2006.
31. In your response to our prior comment 106 from our letter of June 9, 2006, you indicate that you issued options to a director in August 2004 which were below fair market value at the time of the grant. Please revise your Form SB-2 to discuss the material terms of this grant, as well as any others, which were below fair market value and also disclose the fair market value of the stock at that time. Also, please disclose who, on behalf of the company, approved these grants. Finally, please provide the staff with a discussion of the company's potential legal exposure from these grants.

Exhibits

Exhibit 5.1

32. Please note that your opinion, as filed, currently refers to "reputed" judicial

decisions instead of “reported” decisions. Please advise or revise as appropriate.

Form 8-K, filed April 6, 2006

33. We have reviewed your response to our prior comment 114 from our letter of June 9, 2006 and have additional comments. Firstly, we were unable to locate any amendments to your Form 8-K relating to our comment – please advise. Secondly, we believe that this disclosure is equally appropriate for your Form SB-2. Accordingly, please revise your disclosures to respond to our comment or advise why no such revision is necessary. For ease of reference, we reproduce our comment here: In reviewing your Certificate of Designation of Series A Convertible Preferred Stock the staff noted that the "Stated Value" of the preferred shares was \$4.50 per share and that this value is used to determine items such as interest payments, etc. However, in your private placement you sold 22,919,075 Units for gross proceeds of only \$39,650,000 or approximately \$1.73/unit. As an initial matter, please revise your disclosure to include the per unit sale price associated with the sale of the units and ascribe value to both the preferred shares and common stock based on the weighting of the respective units. Further, please clarify to your potential investors that your private placement was not actually conducted at \$4.50 per share even though the applicable redemption provision would pay this amount to the preferred shareholders. In addition, please provide the staff with an analysis discussing why the \$4.50 resale price is appropriate under these circumstances.

Closing Comments

As appropriate, please amend your registration statement in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested supplemental information. Detailed cover letters greatly facilitate our review. 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 filings reviewed by the staff to be certain that they have provided all information investors require for an informed 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.

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Any questions regarding the accounting comments may be directed to Brian Bhandari at (202) 551-3390. Questions on other disclosure issues may be directed to Jay Williamson at (202) 551-3393.

Sincerely,

John Reynolds
Assistant Director

cc: Christopher Melsha
Fax: (612) 642-8343