



DIVISION OF  
CORPORATION FINANCE

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

Mail Stop 4631

January 7, 2010

*By U.S. Mail*

Kim Thompson  
Chief Executive Officer  
Kraig Biocraft Laboratories, Inc.  
120 N. Washington Square  
Suite 805  
Lansing, MI 48933

**Re: Kraig Biocraft Laboratories, Inc.**  
**Amendment No. 1 to Registration Statement on Form S-1**  
**Filed December 16, 2009**  
**File No. 333-162316**

**Annual Report on Form 10-K**  
**Filed April 15, 2009**  
**File No. 333-146316**

Dear Mr. Thompson:

We have reviewed your filing and have the following comments.

Amendment No. 1 to Registration Statement on Form S-1

Prospectus Summary, page 2

The Offering, page 3

1. We note your response to comment eight in our letter dated October 29, 2009. On page 3 of the prospectus you state that "the number of shares that we will actually issue pursuant to that put right may be more or less than 63,600,000, depending on the trading price of our Class A common stock." To use our equity line accommodation, the total amount of securities issuable under the equity line agreement may represent no more than one-third of your public float at the time of execution of the equity line agreement. As such, language in the prospectus suggesting that you can issue more than one-third of your public float in the registered transaction (such as the language quoted above) is inappropriate. Please revise the prospectus accordingly.

Description of Securities, page 20

Preferred Stock, page 21

2. We note your response to comment 18 in our letter dated October 29, 2009. Please file your founder's agreement with Mr. Thompson, as amended, as an exhibit to your registration statement. Please refer to Item 601(b)(10) of Regulation S-K. In addition, please add a materially complete description of the agreement to your related party disclosure on page 36. Please refer to Item 404(d) of Regulation S-K.

Financial Statements

(F) Income Taxes, page F-8

3. We note your response to our prior comment 22. However, given your recurring losses, it is unclear to us why you do not have deferred tax assets. Please revise to further disclose and clarify if you have provided a valuation for any deferred tax assets. In addition, please provide the relevant FAS 109 disclosures as previously requested.

Note 6. Subsequent Event, page F-18

4. We note your revisions in response to prior comment 25, however, the common share information (number of issued and outstanding shares and amounts) in the annual and interim balance sheets, statements of stockholders equity (deficit), and related disclosures were not restated to retroactively restate the shares for the subsequent stock dividend. Please amend your financial statements to consistently present all prior periods in accordance with SAB Topic 4:C.

Note 4 Convertible Debt, page F-27

5. We note from your disclosure on page 18 that your debentures and warrants contain anti-dilution provisions. Please revise to disclose how you have considered whether these provisions result in liabilities that need to be fair valued every reporting period. Reference EITF 07-5 and AIC 815.

Note 6. Commitments and Contingencies, page F-32

6. We note your response to our prior comment 23. Please revise to include a more comprehensive discussion regarding how you determined the value of derivative liability associated with your employment agreement with your CEO. In addition, please disclose how and why you concluded that there was no derivative liability during periods prior to June 30, 2009 and why the liability decreased during the three months ended September 30, 2009.

Kim Thompson  
Kraig Biocraft Laboratories, Inc.  
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Page 3

FORM 10-Q/A FOR THE PERIOD ENDED JUNE 30, 2009

7. Please tell us how you determined that disclosure controls and procedures were “effective” as of June 30, 2009 in light of the restatement. Please revise your Item 4 disclosures to address the restatement in your effectiveness conclusion.

\* \* \*

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 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.

You may contact Bret Johnson, Staff Accountant, at (202) 551-3753 or Patricia Armelin, Staff Accountant, at (202) 551-3747 if you have questions regarding comments on the financial statements and related matters. Please contact Dieter King, Staff Attorney, at (202) 551-3338 with any other questions.

Sincerely,

Pamela Long  
Assistant Director

cc: Richard C. Fox, Esq. (Via Facsimile 603-778-9911)  
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