

Mail Stop 6010
Via Facsimile and U.S. Mail

December 13, 2006

Mr. James Hayward
Chief Executive Officer
Applied DNA Sciences, Inc.
25 Health Sciences Drive, Suite 113
Stony Brook, NY 10532

**Re: Amendment No. 8 to Registration Statement on Form SB-2
Filed November 13, 2006
File No. 333-122848**

Dear Mr. Hayward:

We have reviewed your filings and have the following comments. Where indicated, we think you should revise your documents 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.

Amendment No. 8 to Registration Statement on Form SB-2

General

1. Prior to requesting acceleration for effectiveness, please refer to Item 310(g) of Regulation S-B and amend your registration statement on Form SB-2 to provide updated financial statements.

Condensed Consolidated Financial Statements

Statements of Stockholders' Deficit, page F-4

2. Please revise your interim and annual statements of stockholders' deficit to retroactively change the par value of your common stock to the beginning of the period presented as a result of the change in par value from \$0.50 to \$.001 in March 2005.

Notes to Condensed Consolidated Financial Information

Note A- Summary of Significant Accounting Policies, page F-20

Stock-Based Compensation, page F-23

3. Please tell us why you have not yet adopted SFAS No. 123(R), for which the effective date is as of the beginning of the first interim or annual reporting period that begins after December 15, 2005. Alternatively, please revise your financial statements and related disclosures to reflect your adoption of SFAS No. 123(R).

Note I – Restatement of Quarterly Financial Statements, page F-45

4. In general, please revise this note substantially to explain why you made each correction of an error. The examples in the ensuing comment are not all inclusive of the revisions that we believe you should make; additionally, please ensure that your revised narrative discussion not only discloses the amount of each change and the affected financial statement line item, but why each change occurred.
5. Please revise your note disclosure regarding the errors and related financial statement adjustments for the three and nine months ended June 30, 2006. For example, please clarify items that follow.
 - Explain what you mean by "...reclass fair value of previously issued warrants from interest expense to additional paid-in capital." Per your June 30, 2006 statement of shareholders' deficit on page F-17, it appears that you actually reclassified the \$1,584,614 from additional paid-in capital to liabilities, which is not consistent with your note disclosure.
 - Explain what you mean by "...adjust for fair value of warrants issued to additional paid-in capital."
 - Explain what you mean by "...adjust for effect of warrant valuation change of \$4,355,942."
 - Explain why you reclassified the "fair value of warrants" from interest expense to additional paid-in capital.

- Explain the nature of the error adjustment to selling and administrative expenses.
 - Explain why your statement of cash flows for the nine months ended June 30, 2006 reflects the adjustment of \$1,584,614. It appears this cash flow statement adjustment somehow relates to the amount that you reclassified from additional paid-in capital to liabilities and not to your net loss.
6. Please separately detail the amounts included within the line item “other operating activities-see cash flow statement for full details” and, in so doing, ensure that the effect of each error on your statement of cash flows is readily determinable. Additionally, please provide an accompanying narrative discussion regarding your cash flow statement adjustments. Finally, revise your statement of cash flows for the nine months ended June 30, 2005 and Note M for the year ended September 30, 2005 as applicable.
7. Please clarify the nature of the errors/adjustments recorded to your financial statements for the three and nine months ended June 30, 2005, ensuring that your narrative discussion of those errors agrees with the amounts reflected in the accompanying table. For example, please clarify the items that follow.
- The increase in your selling, general, and administrative expense line item of \$54,951 does not agree with the increase shown in the table for either the three or nine months ended June 30, 2005. In addition, the net income amount of \$2,851,151 does not agree with the table.
 - Tell us and disclose why your interest expense line item increased by approximately \$23.1 million.
 - Clarify why the table reflects a \$16.5 million change to “fair value of warrants” when your narrative discussion reflects a \$6.6 million change.
 - Tell us how you derived the \$12,086,901 warrant valuation adjustment reflected on your statement of cash flows, as it does not appear to correlate to your related narrative discussion.
 - Tell us and disclose why you appear to have adjusted subscriptions receivable, common stock and additional paid-in capital. If these adjustments relate to a change in how you recorded the amount of the common stock that you issued in exchange for debt, clarify that fact and detail the adjustment amounts that resulted from recording the common stock issued at fair value.
 - Please clarify the nature of the \$749,640 change in “cash flows from financing activities,” as the adjustment disclosed does not correspond to the change in the accompanying table.

8. Please clarify to us and in the filing why you believe that you appropriately classified certain error corrections within interest income (expense) for all periods presented in Note I of your interim financial statements and Note M of your annual financial statements.

Notes to (Audited) Consolidated Financial Statements (Restated)

Note D- Private Placement of Convertible Notes, page F-78

9. We acknowledge your response to comment 8 of our letter dated May 1, 2006. We are aware that the EITF has not reached a consensus on the registration rights/liquidating damages issue contemplated under EITF No. 05-4. Please revise the disclosure in your Form SB-2 to indicate how you account for your various registration rights agreements pursuant to the views presented in Issue Summary No. 1 to EITF No. 05-4.

Note M – Restatement of Financial Statements, page F-91

10. Please revise your disclosure to detail the nature of each restatement line item; in so doing, ensure that the changes in the various financial statement line items correlate to your the narrative discussion. For example, clarify why selling, general, and administrative expense and interest income (expense) changed significantly. Additionally, please address our above comments with respect to your interim financial statements as necessary.

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As appropriate, please amend your filings in response to these comments. You may wish to provide us with marked copies of the amendments to expedite our review. Please furnish a cover letter with your amendments 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 amendments and responses to our comments.

You may contact Amy Bruckner, Staff Accountant, at (202) 551-3657 or Mary Mast, Senior Accountant, at (202) 551-3613 if you have questions regarding comments on the financial statements and related matters. Please contact John Krug, Senior Staff Attorney, at (202) 551-3682 with any other questions.

Sincerely,

Jeffrey P. Riedler
Assistant Director

cc: Joe Daniels, Esq.
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