



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 3030

September 1, 2009

Via U.S. Mail and Facsimile to (425) 402-1433

Michael Rice
Chief Executive Officer
BioLife Solutions, Inc.
3303 Monte Villa Parkway, Suite 310
Bothell, WA 98021

Re: BioLife Solutions, Inc.
Form 10-K for the Fiscal-Year ended December 31, 2008
Filed March 31, 2009
Form 10-Q for the Fiscal-Quarter ended June 30, 2009
File No. 000-18170

Dear Mr. Rice:

We have reviewed your response dated July 24, 2009 and additional filings, and have the following comment. In our comment, we ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may 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 any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Michael Rice
BioLife Solutions, Inc.
September 1, 2009
Page 2

Form 10-Q for the Quarterly Period Ended June 30, 2009

Financial Statements, page 1

Balance Sheets, page 1 and Note 2. Financial Condition, page 4

1. We note that as of June 30, 2009 you have promissory notes payable to related parties that are contingently convertible at a variable exercise price. Please tell us about your evaluation of the conversion feature of the notes under SFAS 133 and EITF 07-5.

As appropriate, please respond to this comment within 10 business days or tell us when you will provide us with a response. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your response to our comment.

You may contact Kevin Kuhar, Staff Accountant, at (202) 551-3662 or me at (202) 551-3604, if you have questions regarding these comments on the financial statements and related matters. In this regard, do not hesitate to contact Jeffrey Jaramillo, Accounting Branch Chief, at (202) 551-3212.

Sincerely,

Kate Tillan
Assistant Chief Accountant