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

DIVISION OF
CORPORATION FINANCE

August 6, 2013

Via E-Mail
Oren Bryan
Chief Financial Officer
Enzymotec Ltd.
Sagi 2000 Industrial Area
P.O. Box 6
Migdal Ha'Emeq 2310001, Israel

Re: Enzymotec Ltd.
Confidential Draft Registration Statement on Form S-1
Submitted July 10, 2013
CIK No. 0001578809

Dear Mr. Bryan:

We have reviewed your draft registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by providing the requested information and either submitting an amended draft registration statement or publicly filing your registration statement on EDGAR. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing the information you provide in response to these comments and your amended draft registration statement or filed registration statement, we may have additional comments.

General

1. Please note that where we provide examples or references to portions of your filing to illustrate what we mean by our comments, they are examples and not exhaustive lists. If our comments are applicable to portions of the filings that we have not cited as examples, please make the appropriate changes elsewhere in the filing in accordance with our comments.

2. Please submit all exhibits as soon as practicable. We may have further comments upon examination of these exhibits.

3. Please note that when you file a pre-effective amendment that includes your price range, it must be bona fide. We interpret this to mean that your range may not exceed $2 if you price below $10 and 20% if you price above $10.

4. Please supplementally provide us with copies of all written communications, as defined in Rule 405 under the Securities Act, that you, or anyone authorized to do so on your behalf, present to potential investors in reliance on Section 5(d) of the Securities Act, whether or not they retain copies of the communications. Similarly, please supplementally provide us with any research reports about you that are published or distributed in reliance upon Section 2(a)(3) of the Securities Act of 1933 added by Section 105(a) of the Jumpstart Our Business Startups Act by any broker or dealer that is participating or will participate in your offering.

5. We note that you submitted a confidential treatment request on July 11, 2013. We will provide any comments in relation to your confidential treatment request and the related disclosure in a separate comment letter.

Cover page

6. We note your statement that you expect your shares will trade on the NASDAQ Global Market. Please revise this statement and similar statements elsewhere in your prospectus to disclose whether you have applied or expect to apply for such listing.

Prospectus Summary
Our Company Nutrition, page 2

7. Please revise your disclosure to provide the full name of "IVC."

Risk Factors
"A high proportion of the sales of our InFat product is sold…" page 14

8. Please expand this risk factor to identify the single company, and if different, the brand name, associated with the high proportion of InFat sales in China, and disclose the percentage of consolidated net revenues represented by these sales.

9. To the extent the recently launched investigation by the Chinese National Development and Reform Commission into pricing of infant formula and potential anti-trust violations by infant formula manufacturers poses risks to your sales or other results of operations, please expand this risk factor or include a standalone risk factor discussing those risks.

"We are generally reliant upon third parties for the distribution…" page 18

10. Please expand this risk factor to explain that Invita Australia accounted for 25% of your consolidated net revenue for 2012.

"We could be subject to product liability lawsuits…" page 20

11. Please expand the discussion to indicate the current amount of insurance coverage.

"We depend on our management team and other skilled personnel…" page 21

12. Please revise this risk factor to identify your key personnel other than your executive officers.

Risks primarily related to our operations in Israel, page 33

13. Add a risk factor that discusses whether your operations could be adversely affected by the obligations of your personnel to perform compulsory military service under Israeli law.

Use of proceeds, page 38

14. Please expand the discussion to provide more specific information concerning the requirements and proceeds necessary to "meet our anticipated increased working capital requirements resulting from the expected growth in our business…," e.g. plant expansion. If you have no specific plans for the proceeds of this offering beyond working capital and other corporate purposes, please revise your disclosure to discuss the principal reasons for the offering pursuant to Part I, Item 3.C.1. of Form 20-F.

Dividend policy, page 39

15. Please revise your disclosure to describe the company's policy with respect to non-cash dividends, if any.

Management's discussion and analysis of financial condition and results of operations
Results of Operations—Operating Expenses, page 56

16. You state on page 84 that research and development is a significant aspect of your business. You disclose that you plan to launch two new products in the next 12 months and have a pipeline of more than 10 additional products in various stages of development. Please provide us with the following information:
    - For your key research and development projects, please tell us the following:
        - The nature, objective, and current status of the project (including the amount relating to the general R&D and specific product lines);
        - The costs incurred during each period presented and to date;
        - The nature of efforts and steps necessary to complete the project;
        - The risks and uncertainties associated with completing development;
        - The extent and nature of additional resources that need to be obtained if current liquidity is not expected to be sufficient to complete the project ; and

  - Whether a future milestone such as completion of a development phase, date of filing an NDA with a regulatory agency, or approval from a regulatory agency can be reliably determined.
- For the remainder of projects not considered individually significant, tell us the composition of the total R&D expense for each period presented. This can take a variety of forms but is mainly driven by how many projects are managed and how they are reported within the organization. We believe disclosure of R&D by your divisional structure would be informative. Also distinguishing between discovery, preclinical and clinical development categories and further by late stage such as phase III development categories along with providing the number of projects in each category helps provide information necessary to understand the pipeline and trends by division. To the extent that management has information available by therapeutic class, we believe that further enhances the understanding of R&D expense and trends.
- If based on a known event, trend, demand, commitment or uncertainty, future R&D expense or the mix of R&D expense is reasonably likely to differ from current trends, please tell us the reasons for and the amount of the expected change.
- For projects that you disclose are in the late stage of development such as phase III, unless management believes that the expected effect on results of operations or financial position from the project when completed will be insignificant, please tell us the following about each project, even if the R&D expenses incurred on the project has not been material, in order to provide insight into expected effects on future operations, financial position or liquidity. Please include:
  - A description of the nature and its indication;
  - The phase the project is in at the end of the reporting period and the month and year it entered that phase;
  - Significant patents associated with the project and their expiration dates as well as other information about the exclusivity period related to the project;
  - Significant developments of the project during the period such as significant milestones, filing for regulatory approval, approval and other responses from regulatory agencies; suspension or termination and their reasons;
  - Future expected milestones such as completion of a development phase, date of filing an NDA with a regulatory agency, or approval from a regulatory agency if it can be reliably determined. If the extent and timing of these future events cannot be reliably determined, please tell us the facts and circumstances that prevent their determination.

Government Grants, page 61

17. Please file copies of any agreements with OCS regarding the terms of your grants as exhibits to your registration statement pursuant to Item 601(b)(10) of Regulation S-K.

Critical Accounting Estimates
Share-Based Payment, page 63

18. Please disclose Management's rationale for switching the valuation method from the OPM to the PWERM for the March 29, 2012 and April 3, 2013 grant dates, respectively.

19. Please provide a discussion of each significant factor contributing to the difference between the fair values of an ordinary share from the March 29, 2012 grant date of $55.98 and the April 3, 2013 grant date of $271.70.

20. We may have additional comments on your accounting for stock compensation and related disclosure once you have disclosed an estimated offering price. Please provide quantitative and qualitative disclosures explaining the difference between the estimated offering price and the fair value of each equity issuance.

21. Confirm that no other stock options have been granted that have not already been disclosed and update that confirmation through the date the filing goes effective.

Business
Our Market Opportunity, page 70

22. You state that the global ADHD therapeutics market was valued at $3.9 billion and is forecast to reach $7.1 billion by 2018. Please revise your disclosure to clarify, if true, that this market includes approved drugs and other products in addition to medical foods. In addition, please expand the discussion to indicate the proportion of the ADHD therapeutics market represented by medical foods.

Our Competitive Strengths, page 70

23. Please revise your disclosure to describe briefly what you mean by "pivotal" clinical trials the first time you use the term**.**

Our products—Clinical Validation, page 76

24. Please revise your discussion of your clinical trials:
    - to specify the number of subjects in each trial or subgroup;
    - to explain what the p-values represent;
    - to disclose the p-values or otherwise describe how you determined from the results of the July 2011 InFat trial that InFat formula was not statistically significantly different from human breast milk;
    - to describe briefly how you measured the effects on cognitive function demonstrated in your krill oil studies; and
    - to describe briefly how you measured the effects on executive function and quality of life measures in your Vayarin trials..

Marketing, sales and distribution, page 80

25. Please expand your discussion to describe the material terms of any agreement you have with Invita Australia, and file a copy as an exhibit to your registration statement pursuant to Item 601(b)(10) of Regulation S-K.

26. Please expand your discussion to describe the material terms of any material exclusive license agreements relating to the sales, marketing and distribution of your VAYA Pharma products, including the parties' rights and obligations, the duration and termination agreements, and any material payments, and file a copy as an exhibit to your registration statement. Alternatively, please provide us with an analysis that supports your conclusion that the agreements are not required to be filed pursuant to Item 601(b)(10) of Regulation S-K.

Our customers and partners, page 80

27. Please expand your discussion in the Business section to describe the material terms of your material strategic agreements and your material collaborative research agreements with your customers, and file a copy of each such agreement as an exhibit to your registration statement. Alternatively, please provide us with an analysis that supports your conclusion that the agreements are not required to be filed pursuant to Item 601(b)(10) of Regulation S-K.

Sourcing, manufacture and production, page 81

28. Please expand your discussion of your MOU with the fishing vessel to describe briefly any termination rights of either party.

Intellectual Property, page 85

29. Please expand your discussion of your patents to describe:
    - the specific products or technologies to which your material patents relate;
    - which patents you own and which you license from third parties;
    - the expiration dates for each material patent or group of patents; and
    - the jurisdictions in which your material patents are issued.

    In addition, to the extent not already provided in response to comments 25 and 26 above, please describe the material terms of any material inbound or outbound license agreements, including the parties' rights and obligations, the duration and termination agreements, and any material payments, and file a copy as an exhibit to your registration statement pursuant to Item 601(b)(10) of Regulation S-K.

Board practices
Board of Directors, page 97

30. Since you intend to meet the NASDAQ corporate governance standard that requires a majority of your directors to be independent, identify those independent directors that comprise a majority of your board.

External directors, page 98

31. Please clarify the distinction between external directors and independent directors. For example, would a person that satisfied the external director requirements under Israeli law also fulfill the independence requirements under NASDAQ rules?

32. Please expand your discussion of controlling shareholders on page 99 and in the context of Israeli law requirement for your compensation committee on page 102 to identify whether you anticipate having a controlling shareholder immediately upon completion of this offering.

Shares eligible for future sale—Lock-up agreements, page 124

33. Please file a copy of the form of lock-up agreement as an exhibit to your registration statement.

U.S. federal income tax consequences, page 135

34. Briefly describe the mark-to-market treatment that, if elected, could mitigate some of the adverse tax consequences for a U.S. holder of your securities should you be classified as a PFIC.

Financial Statements
Note 4 – Segment Information, page F-14

35. You state here that Adjusted EBITDA is also used in the calculation of the financial covenants described in Note 8e. Note 8e refers only to EBITDA. Please clarify when Adjusted EBITDA is used and when EBITDA is used. Please note that Exchange Act Release No. 47226 defines EBITDA as earnings before interest, taxes, depreciation and amortization.

Note 8 – Commitments and Contingencies, page F-20

36. With regard to the Neptune litigation, you state an estimate of loss is currently premature. Please revise your disclosure to disclose an estimate of the possible loss or range of loss or include a statement that such an estimate cannot be made as required by ASC 450-20-50-4.

If you intend to respond to these comments with an amended draft registration statement, please submit it and any associated correspondence in accordance with the guidance we provide in the Division's October 11, 2012 announcement on the SEC website at http://www.sec.gov/divisions/corpfin/cfannouncements/drsfilingprocedures101512.htm.

Please keep in mind that we may publicly post filing review correspondence in accordance with our December 1, 2011 policy (http://www.sec.gov/divisions/corpfin/cfannouncements/edgarcorrespondence.htm). If you intend to use Rule 83 (17 CFR 200.83) to request confidential treatment of information in the correspondence you submit on EDGAR, please properly mark that information in each of your confidential submissions to us so we do not repeat or refer to that information in our comment letters to you.

You may contact Scott Wuenschell at (202) 551-3467 or Lisa Vanjoske at (202) 551-3614 if you have questions regarding comments on the financial statements and related matters. Please contact Amy Reischauer at (202) 551-3793, John Krug at (202) 551-3862, or me at (202) 551-3715 with any other questions.

Sincerely,

/s/ Daniel Greenspan for

Jeffrey P. Riedler
Assistant Director

cc: Via E-Mail
Colin J. Diamond
White & Case LLP
1155 Avenue of the Americas
New York, NY 10036-2787