

Mail Stop 6010

May 4, 2007

Corporation Service Company  
As Agent for TopSpin Medical, Inc.  
2711 Centerville Road, Suite 400  
Wilmington, DE 19808

**Re: TopSpin Medical, Inc.  
Registration Statement on Form SB-2  
Filed April 20, 2007  
File No. 333-142242**

Dear Sir/Madam:

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 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 on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Prospectus

1. Please provide the disclosure required by Item 506 of Regulation S-B.

Fee Table

2. Please provide us your analysis of why you believe the units need not be included in the fee table as a separate security that you are offering as part of this transaction. Cite all authority on which you rely.

Prospectus Cover Page

3. When referring to the title of the warrants, please include the exercise price and expiration date.
4. Because Rule 415(a)(4) does not permit you to conduct an offering at variable prices, please disclose the fixed price at which you will offer and sell the securities. Also, in an appropriate section of your prospectus, please provide the disclosure required by Regulation S-B Item 505.

This Offering, page 3

5. Given your disclosure on the prospectus cover that there is no present or intended United States market for these securities, please disclose why you have filed this registration statement.

Risk Factors, page 6

6. If provisions in your charter documents invoking laws in Israel mean that shareholder rights differ materially from those of Delaware corporations without those provisions, please add risk factor disclosure. If there is doubt regarding whether those charter provisions are enforceable, please add a separate risk factor to explain the implications of the uncertainty.
7. With a view toward disclosure, please tell us which jurisdiction's laws govern the warrants you are offering.

The renegotiation of the terms of certain of our outstanding securities may affect the market price of our common stock, page 11

8. We may have comment regarding the transaction that was the subject of your withdrawn registration statement after you complete your negotiations and address our outstanding comments regarding that transaction.
9. Please disclose the specific date on which you must redeem the securities as mentioned in the last sentence, and quantify the cost of the redemption and any related expenses, penalties and damages.

Use of Proceeds, page 18

10. Please expand the reference to "interested parties" to clarify the relationship between you and the Pitango Group, the Giza Group and Israel Seed IV, LP.
11. Please provide the disclosure required by Instruction 1 of Item 504 of Regulation S-B.

12. We note the last sentence of this section; however, Regulation S-B Item 504 requires that you disclose the amount to be used for each purpose and the priority if all of the securities are not sold. Please provide all required disclosure.

Summary Compensation Table, page 38

13. Please expand footnote 2 to disclose the amount of the loans that became grants. Also, please expand page 60 to discuss the loan that became a grant in 2005.

Series 3 Warrants, page 66

14. Please describe the effect of sections 12.1 and 12.2 of the warrant certificate. Also disclose the voting procedures.
15. Please describe and add appropriate risk factors related to the provisions of the warrant, including section 5.4 and 9.2, that indicate that notice need not be provided in the United States. Also clarify whether the notices must be in English.

Taxation, page 71

16. With a view toward disclosure, please tell us whether there any Israel tax consequences to United States holders resulting from transactions in the securities you are offering.
17. If you are not able to provide an unequivocal statement of the tax consequences, please state the reason for the uncertainty and the possible outcomes. Also, provide appropriate risk factors. We note your current equivocal disclosure represented by words such as “should,” “may” and “not entirely clear.” Counsel’s opinion should make clear why in cannot provide an unequivocal opinion and describe the degree of the uncertainty.

Rate of Taxation Applicable to Income from Dividends, page 80

18. It is inappropriate to disclaim responsibility for your disclosure. Please revise the first sentence of the last paragraph on page 80.

Plan of Distribution, page 81

19. Please provide us your analysis that demonstrates that each participant in the offering qualifies for the exemption under Rule 3a4-1 that you cite.

20. If the last paragraph of this section means that United States purchasers may not be able to resell the securities, please say so clearly and highlight this issue prominently in the prospectus summary and risk factors.

Consolidated Financial Statements, beginning on page F-1

21. Please update the financial statements when required by Item 310(g) of Regulation S-B.

Exhibits

22. Please file as an exhibit an opinion regarding tax matters.

Exhibit 5.1

23. Please file an opinion that covers all securities in the fee table.

Exhibit 23.1

24. Please include a currently dated and signed consent from your independent auditors prior to requesting effectiveness.

As appropriate, please amend your registration statement in response to these comments. You may wish to provide us with marked copies of any 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.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes all information required under the Securities Act of 1933 and that they have provided all information investors require for an informed investment 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.

Notwithstanding our comments, in the event the company requests acceleration of the effective date of the pending registration statement, it should furnish a letter, at the time of such request, acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;

- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in connection with our review of your filing or in response to our comments on your filing.

We will consider a written request for acceleration of the effective date of the registration statement as a confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

We direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

You may contact Kristin Lochhead, Staff Accountant, at (202) 551-3664 or Gary Todd, Reviewing Accountant, at (202) 551-3605 if you have questions regarding comments on the financial statements and related matters. Please contact Tom Jones at (202) 551-3602 or me at (202) 551-3617 with any other questions.

Sincerely,

Russell Mancuso  
Branch Chief

cc (via fax): Robert B. Murphy, Esq.