



DIVISION OF
CORPORATION FINANCE

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

September 29, 2011

Mr. Uri Ben-Or, Chief Financial Officer
Topspin Medical, Inc.
25 Lechi
Bnei-Brak, ISRAEL

Re: Topspin Medical, Inc
Form 10-K for the Fiscal Year Ended December 31, 2010
Filed April 14, 2011
Form 10-Q for the Fiscal Quarter Ended June 30, 2011
Filed August 22, 2011
File No. 333-144472

Dear Mr. Uri Ben-Or:

We have reviewed your filing and have the following comments. We have limited our review to only your financial statements and related disclosures and do not intend to expand our review to other portions of your documents. 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 within ten business days by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

Form 10-K for the Year Ended December 31, 2010

Item 9A. Controls and Procedures, page 43

– Internal Control over Financial Reporting, page 43

1. We note that you conduct a significant portion of your operations outside of the United States. In order to enhance our understanding of how you prepare your financial statements and assess your internal control over financial reporting, we ask that you provide us with information that will help us answer the following questions.

How do you evaluate and assess internal control over financial reporting?

- Please describe the process you used to determine whether internal control over financial reporting effectively considered controls to address financial reporting risks that are relevant to all locations where you have operations.
- If you have an internal audit function, please describe it and explain how, if at all, that function impacted your evaluation of your internal control over financial reporting.

How do you maintain your books and records and prepare your financial statements?

- If you maintain your books and records in accordance with U.S. GAAP, describe the controls you maintain to ensure that the activities you conduct and the transactions you consummate are recorded in accordance with U.S. GAAP.
- If you do not maintain your books and records in accordance with U.S. GAAP, tell us what basis of accounting you use and describe the process you go through to convert your books and records to U.S. GAAP for SEC reporting. Describe the controls you maintain to ensure that you have made all necessary and appropriate adjustments in your conversions and disclosures.

Who is involved in your financial reporting?

We would like to understand more about the background of the people who are primarily responsible for preparing and supervising the preparation of your financial statements and evaluating the effectiveness of your internal control over financial reporting and their knowledge of U.S. GAAP and SEC rules and regulations. Without identifying people by name, for each person, please tell us:

- what role he or she takes in preparing your financial statements and evaluating the effectiveness of your internal control;
- what relevant education and ongoing training he or she has had relating to U.S. GAAP;
- the nature of his or her contractual or other relationship to you;
- whether he or she holds and maintains any professional designations such as Certified Public Accountant (U.S.) or Certified Management Accountant; and
- about his or her professional experience, including experience in preparing and/or auditing financial statements prepared in accordance with U.S. GAAP and evaluating effectiveness of internal control over financial reporting.

If you retain an accounting firm or other similar organization to prepare your financial statements or evaluate your internal control over financial reporting, please tell us:

- the name and address of the accounting firm or organization;
- the qualifications of their employees who perform the services for your company;
- how and why they are qualified to prepare your financial statements or evaluate your internal control over financial reporting;
- how many hours they spent last year performing these services for you; and
- the total amount of fees you paid to each accounting firm or organization in connection with the preparation of your financial statements and in connection with the evaluation of internal control over financial reporting for the most recent fiscal year end.

If you retain individuals who are not your employees and are not employed by an accounting firm or other similar organization to prepare your financial statements or evaluate your internal control over financial reporting, do not provide us with their names, but please tell us:

- why you believe they are qualified to prepare your financial statements or evaluate your internal control over financial reporting;
- how many hours they spent last year performing these services for you; and
- the total amount of fees you paid to each individual in connection with the preparation of your financial statements and in connection with the evaluation of internal control over financial reporting for the most recent fiscal year end.

Do you have an audit committee financial expert?

We note that you have identified Mr. Ran Ben-Or as your audit committee financial expert in your filing. Please describe his qualifications, including the extent of his knowledge of US GAAP and internal control over financial reporting.

Form 10-Q for the Fiscal Quarter Ended June 30, 2011

Note 1 – General, page 6

2. We note your disclosure in part (d) that you effected the Chapter 11 settlement on February 13, 2011. Please explain to us how you have considered the guidance in FASB ASC 852-10.

Note 4 – Significant Events During the Reporting Period, page 7

3. We note your disclosures here regarding your acquisition of an interest in Metamorphix Ltd. With a view toward enhanced disclosure in future filings, please tell us more about

the underlying reasons for this transaction. Explain how the acquisition of the 20% interest in Metamorfix benefits you going forward.

4. We note that the only compensation received by Israel Healthcare Ventures 2 LP Incorporated was a 10% interest in your common stock. Giving consideration to the minimal assets and operations reflected in your financial statements, explain the underlying reasons why Israel Healthcare Ventures 2 LP Incorporated was willing to transfer a 20% interest in Metamorfix for this consideration.
5. Further to the above, please explain to us in greater detail how you determined the fair value of the investment. Provide us with sufficient details to understand the assets that support the fair value of NIS 9,538 thousand. Include a description of the methodologies used and a detailed discussion of the business of Metamorfix as part of your response.
6. We note your reference to the fair value of the investment being evaluated by an external appraiser. Please tell us and revise future filings to explain to in greater detail the extent of your reliance on third parties in determining the value to record in your financial statements. Please note that if you relied on the third party expert for the valuation of these assets, you may be required to name the expert and include the consent of the independent valuation firm as an exhibit to any future registration statements, in compliance with Securities Act Rule 436. Refer to Question 141.02 of the Compliance and Disclosure Interpretations on Securities Act Sections, which can be found at <http://www.sec.gov/divisions/corpfin/guidance/sasinterp.htm>.
7. Please tell us and revise future filings to explain how you are accounting for your investment in Metamorfix.

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 the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. 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.

In responding to our comments, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Mr. Uri Ben-Or
Topspin Medical, Inc.
September 29, 2011
Page 5

You may contact Gary Newberry at (202) 551-3761 or me at (202) 551-3643 if you have questions regarding comments on the financial statements and related matters. In this regard, do not hesitate to contact Martin James, Senior Assistant Chief Accountant at (202) 551-3671.

Sincerely,

/s/ Kevin L. Vaughn

Kevin L. Vaughn
Accounting Branch Chief