



DIVISION OF
CORPORATION FINANCE

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

October 8, 2010

Robert B. Stockman
Chief Executive Officer
REVA Medical, Inc.
5751 Copley Drive, Suite B
San Diego, CA 92111

**Re: REVA Medical, Inc.
Registration Statement on Form S-1
Amended September 21, 2010
File No. 333-168852**

Dear Mr. Stockman:

We have reviewed your 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 amending your registration statement and providing the requested information. 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 any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

Prospectus Cover Page

1. With respect to your responses to prior comments 4 and 34, as well as the revised disclosure here and on pages 5 and 109 that the offering will terminate on “the earlier of (i) a date mutually acceptable to [you] and [y]our placement agent after which the minimum offering is sold or (ii) two months from the date of lodging a prospectus with the Australian Securities and Investments Commission,” please:
 - tell us how the determination of the expiration date of the offering and the return of funds to investors “as soon as reasonably practicable” in the event quotation of your CHES depositary interests is not granted within two months following lodging of a prospectus with the Australian Securities and Investments Commission are consistent with Rule 10b-9 of the Exchange Act of 1934;
 - tell us, with a view toward disclosure, when you expect to lodge a prospectus with the Australian Securities and Investments Commission; and

- file any agreement related to the trust account in which you will hold funds received from purchasers through the expiration of the offering as an exhibit to the registration statement.

Our Solution, page 2

2. We note your response to prior comment 7 and revised disclosure on pages 3 and 55 indicating that your statements regarding the safety of your product are based on “development work and human clinical trial data” with “an earlier version” of your stent design and polymer. With a view toward clarified disclosure, please tell us if the earlier version of the polymer is the same polymer used in your human clinical trials discussed on pages 15 and 56, where you indicate that a primary underlying cause of the higher than anticipated number of patients requiring retreatment with another stent was the nature of the polymer used. If so, also tell us why you continue to believe that presenting your product as designed to be safe is appropriate, given the lack of long-term data regarding the safety as mentioned on page 16.

Boston Scientific Agreements, page 62

3. We will continue to evaluate your response to prior comment 22 in connection with your request for confidential treatment as noted in your response.

CHESS Depositary Interests or CDIs, page 100

4. We note your response to prior comment 31 and the references to web site addresses on pages 100 and 102. Please refer to footnote 41 and the related text in Release 33-7856 (April 28, 2000) regarding your obligations, including filing requirements, when you use web site addresses in your document. Also tell us how you intend to comply with the filing requirement of Item 601(b)(4) of Regulation S-K.

Financial Statements, page F-1

5. Please update the financial statements when required by Rule 3-12 of Regulation S-X.

Exhibits

6. Please include an updated accountant’s consent with any amendment to the filing

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 Act of 1933 and all applicable Securities 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.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company 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.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as 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. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

You may contact Praveen Kartholy at (202) 551- 3778 or Gary Todd, Accounting Reviewer, at (202) 551-3605 if you have questions regarding comments on the financial statements and related matters. Please contact Allicia Lam at (202) 551- 3316 or Mary Beth Breslin, Senior Attorney, at (202) 551-3625 with any other questions.

Sincerely,

Martin James
Acting Assistant Director

cc (by facsimile): Jeffrey C. Thacker, Esq. – DLA Piper LLP