



DIVISION OF  
CORPORATION FINANCE

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

May 10, 2011

Via E-mail

Mr. Mike Tarutis, Vice President, Legal Affairs  
ZenVault Medical Corporation  
450 East Happy Canyon Road  
Castle Rock, Colorado 80108

**Re: ZenVault Medical Corporation  
Offering Statement on Form 1-A  
Filed February 17, 2011  
File No. 024-10291**

Dear Mr. Tarutis:

We have reviewed the May 2, 2011 responses to comment one of our letter dated April 22, 2011 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 offering 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 offering statement and the information you provide in response to these comments, we may have additional comments.

General

1. On page three of your letter you indicate that ZenVault is "standing by to refund 100% of the funds should that be the best course of action." Please tell us the basis of such refund by ZenVault, acting unilaterally, without the agreement of each investor who has already received securities for his investment. In this regard, it would appear that an investor would need to agree to such refund and, in considering whether or not to return his securities for a refund, would be making a new investment decision. This new investment decision would appear to constitute the offer and sale of securities under the federal securities law, and would need to be registered absent an available exemption. Please tell us the basis for this offer and sale under federal law, and the facts supporting the availability of any exemption you intend to rely upon.

2. Paragraph 28 of Mr. Tarutis's affidavit requests that ZenVault "be allowed to withdraw its registration statement under Rule 477, and that the Company may proceed with an alternate offering under Rule 155(c)." Rule 155 applies only to registered offerings, not Regulation A offerings. Furthermore, Rule 155(c) applies where no securities were sold in a registered offering. In your case, you appear to have sold securities in your offering and, for this additional reason, Rule 155(c) does not appear available to ZenVault.
3. On page two of your letter you "request the right to convert the ZenVault Reg A Offering into a Reg D Offering." Please tell us the basis for such conversion, including the Regulation D exemption you propose to rely upon and the facts supporting the availability of the exemption. In this regard, please see Rule 502(a) of Regulation D and its note, under which offers and sales made within the six months prior to a Regulation D offering may be integrated with the Regulation D offering under the five factor test.

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 qualification date of the pending offering 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 qualified, 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 qualified, 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 qualification 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 qualification date of the offering 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 offering statement. Please allow adequate time for us to review any amendment prior to the requested qualification date of the offering statement.

Mike Tarutis  
ZenVault Medical Corporation  
May 10, 2011  
Page 3

You may contact Jamie Kessel at (202) 551-3727 or Brian Bhandari at (202) 551-3390 if you have questions regarding comments on the financial statements and related matters. Please contact Erin Wilson at (202) 551-6047 or Pamela Howell at (202) 551-3357 with any other questions.

Sincerely,

/s/ Pamela Howell  
for

John Reynolds  
Assistant Director