



DIVISION OF  
CORPORATION FINANCE

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

April 5, 2011

Andrew L. Pearlman  
President and Chief Executive Officer  
Medgenics, Inc.  
8000 Towers Crescent Drive, Suite 1300  
Vienna, VA 22182

**Re: Medgenics, Inc.  
Amendments No. 10 to Registration Statement on Form S-1  
Filed April 5, 2011  
File No. 333-170425**

Dear Dr. Pearlman:

We have reviewed your amended registration statement filed April 5, 2011, respectively, and have the following comment.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe our comment applies 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.

Summary Financial Data, page 10

1. You disclose in the Summary Financial Data section, as well as elsewhere in the filing, that the allocation of the assumed aggregate offering price to the share of common stock and corresponding liability was based on an independent valuation of fair value. While you are not required to make reference to the valuation specialist, when you do you must disclose the name of the independent external valuation specialist. In addition, a consent from the valuation specialist must be provided in the registration statement.

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.

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

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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 Vanessa Robertson at (202) 551-3649 or Mark Brunhofer at (202) 551-3638 if you have questions regarding comments on the financial statements and related matters. Please contact Karen Ubell at (202) 551-3873, Dan Greenspan at (202) 551-3623 or me at (202) 551-3715 with any other questions.

Sincerely,

Jeffrey Riedler  
Assistant Director

cc: Gretchen Anne Trofa, Esq.  
Barack Ferrazzano Kirschbaum & Nagelberg LLP  
200 West Madison Street  
Suite 3900  
Chicago, IL 60606