



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

DIVISION OF  
CORPORATION FINANCE

Mail Stop 4546

August 26, 2016

Via E-mail

Anat Cohen-Dayag, Ph.D.  
President and Chief Executive Officer  
Compugen Ltd.  
26 Harokmim Street  
Holon 5885849, Israel

**Re: Compugen Ltd.  
Registration Statement on Form F-3  
Filed August 9, 2016  
File No. 333-213007**

Dear Dr. Cohen-Dayag:

We have limited our review of your registration statement to the issue addressed in our comment. If you do not believe our comment applies to your facts and circumstances, please tell us why in a response.

After reviewing any amendment to your registration statement or any information you provide in response to this comment, we may have additional comments.

General

1. We are currently conducting a review of the annual report on Form 20-F you filed on March 7, 2016 and we anticipate issuing comments from that review. Please be advised that we will not be in a position to grant effectiveness to the registration statement until such time as those comments have been resolved.

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 comment, 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.

Please contact Scot Foley at (202) 551-3383 or me at (202) 551-3675 with any questions.

Sincerely,

/s/ Suzanne Hayes

Suzanne Hayes  
Assistant Director  
Office of Healthcare and Insurance

cc: Brian P. Keane, Esq.  
Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.