DIVISION OF CORPORATION FINANCE

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

Mail Stop 4720

January 13, 2011

Mr. Dikla Czaczkes Axselbrad Chief Financial Officer Compugen Ltd. 72 Pinchas Rosen Street Tel Aviv, 69512 Israel

Re: Compugen Ltd.

Registration Statement on Form F-3

Filed January 11, 2011 File No. 333-171655

Dear Mr. Axselbrad:

We have limited our review of your filing to the issue we have addressed in the following comment.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form F-3

Where You Can Find More Information and Incorporation of Certain Information By Reference, page 14

1. We note that you are incorporating by reference a Form 6-K filed on September 22, 2010, however there does not appear to be a Form 6-K filed on September 22, 2010. Please advise or revise.

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 all information required under the Securities Act of 1933 and that they have provided all information investors require for an informed investment decision. 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.

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Notwithstanding our comments, in the event the company requests acceleration of the effective date of the pending registration statement, it should furnish a letter, at the time of such request, 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.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in connection with our review of your filing or in response to our comments on your filing.

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. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

We direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

If you have any questions, please call John L. Krug, Senior Counsel, at (202) 551-3862, or me at (202) 551-3715.

Sincerely,

Jeffrey Riedler Assistant Director

cc: Richard H. Gilden, Esq.