## DIVISION OF CORPORATION FINANCE

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

Mail Stop 4546

October 5, 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.

Annual Report on Form 20-F Filed March 7, 2016

File No. 000-30902

Dear Dr. Cohen-Dayag:

We have completed our review of your filing. We remind you that our comments or changes to disclosure in response to our comments do not foreclose the Commission from taking any action with respect to the company or the filing and the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States. 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 Exchange Act of 1934 and all applicable rules require.

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.