FORM 6-K/A

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Report of Foreign Private Issuer

Pursuant to rule 13a-16 or 15d-16 of the Securities Exchange Act of 1934 for the month of September 2009

Compugen Ltd.

(Translation of registrant s name in English)

72 Pinchas Rosen Street, Tel-Aviv 69512, Israel (Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or Form 40-F.

Form 20-F x Form 40-F o

On September 23, 2009, Compugen Ltd. (the Registrant), filed a 6K announcing its financial results for the second quarter ended June 30, 2009. A copy of such financial statements is filed as Exhibit 1 hereto and incorporated by reference herein.

This amendment to the form 6-K filed on September 23, 2009 is being filed in order to specifically incorporate by reference such information into the Compugen Ltd. Registration Statement on Form F-3, File No. <u>333-161241</u>.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Compugen Ltd. (Registrant)

By: /s/ Ms. Dikla Czaczkes Axselbrad

Ms. Dikla Czaczkes Axselbrad Title: Chief Financial Officer Date: September 29, 2009