

FORM 6-K
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 October 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 ____

On October 26, 2009 Compugen Ltd. (the "Registrant") issued a Press Release, filed as
Exhibit 1 to this Report on Form 6-K, which is hereby incorporated by reference herein.

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: Ms. Dikla Czaczkes Axselbrad
Title: Chief Financial Officer
Date: October 26, 2009



Compugen Presents DAC Blockers Platform and Initial Product Candidates at Fifth Peptide Engineering Meeting in Barcelona, Spain

Peptides targeting Heat Shock Proteins disclosed as key platform focus

Platform published in Proceedings of the National Academy of Sciences

Tel Aviv, Israel and Barcelona, Spain, October 26, 2009 --- Speaking today in Barcelona at the Fifth Peptide Engineering Meeting, Compugen Ltd. (NASDAQ: CGEN) project manager Dr. Yossef Kliger provided an overview of Compugen's DAC Blockers Platform and reviewed disease model data for selected product candidates. Among the product candidates reviewed were targets belonging to the Heat Shock Protein family, currently a key area of focus for Compugen with respect to this platform. A paper describing the DAC Blockers Platform for the *in silico* design of peptides predicted to block target proteins from attaining disease associated conformations was published in the Proceedings of the National Academy of Sciences USA. 2009 Aug 18; 106(33):13797-801.

Dr. Kliger stated, "Our goal was to design peptides that have the capability to block conformational changes within a target protein, thereby modulating its activity. Towards this goal, Compugen developed a sequence-based computational method for the prediction of intra-molecular interacting alpha helices. We hypothesized that adding peptides corresponding to one of the interacting helices would interfere with the formation of the helix-helix interaction, thereby capturing the target protein in its 'open' conformation. To test this hypothesis, Compugen's scientists synthesized the peptides that were derived from the predicted interacting helices of selected target proteins. The biological function of these peptides was then tested both *in vitro* and *in vivo*."

In his presentation, Dr. Kliger also summarized the results from Compugen's validation of two of the predicted peptides, each of which was derived from a different stress-induced protein. These two peptides, whose discovery was previously disclosed by Compugen, include: a peptide derived from gp96, a member of the HSP90 family, which was shown to possess anti-inflammatory activities in various animal models; and a peptide derived from clusterin, a versatile chaperone molecule which contains characteristics of small Heat Shock Proteins, which demonstrated positive effects in an animal cancer model.

Dr. Kliger explained, "Heat Shock Proteins are an area of intense interest in the pharmaceutical industry, and the conformational changes that occur concomitant to HSP activation make them optimal targets for the DAC Blockers Platform. Therefore this is an important area of focus for our efforts with this unique platform. Earlier this year, a proteome-wide run of the DAC Blockers Platform resulted in the *in silico* discovery of a few dozen novel peptides targeting various Heat Shock Proteins in addition to the two previously disclosed product candidates. Several of these peptides are currently undergoing experimental validation. Moreover, in addition to our activities with respect to Heat Shock Proteins, we are also continuing to validate DAC Blocker peptides in other target families of clinical relevance."

About Heat Shock Proteins (HSPs)

Heat Shock Proteins are a class of functionally related proteins whose expression is markedly increased upon exposure to various stress stimuli, including environmental, pathological and/or physiological. All members of the HSP family play an important role in cell survival under stress conditions, due to their function in chaperoning cellular proteins during folding and assembly. While originally known as intracellular molecular chaperones, it is now well recognized that HSPs are also released from cells, and these extracellular forms play a critical role in various pathological conditions, including cancer and inflammation.

About Compugen

Compugen is a leading drug and diagnostic product candidate discovery company. Unlike traditional high throughput trial and error experimental based discovery, Compugen's discovery efforts are based on *in-silico* (by computer) prediction and selection utilizing a growing number of field focused proprietary discovery platforms accurately modeling biological processes at the molecular level. The resulting product candidates are then validated through *in vitro* and *in vivo* experimental studies and out-licensed for further development and commercialization under various forms of revenue sharing agreements. Compugen's collaborations include Bayer Schering Pharma, Biosite, Medarex, Inc., Merck & Co., Inc., Merck Serono, Ortho-Clinical Diagnostics (a Johnson & Johnson company), Roche, Siemens Healthcare Diagnostics, Inc., and Teva Pharmaceutical Industries. In 2002, Compugen established an affiliate, Evogene Ltd. www.evogene.com (TASE: EVGN.TA), to utilize certain of the Company's *in-silico* predictive discovery capabilities in agricultural biotechnology. For additional information, please visit Compugen's corporate Web site at www.cgen.com.

This press release may contain "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. These statements include words such as "may", "expects", "anticipates", "believes", and "intends", and describe opinions about future events. These forward-looking statements involve known and unknown risks and uncertainties that may cause the actual results, performance or achievements of Compugen to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Some of these risks are: changes in relationships with collaborators; the impact of competitive products and technological changes; risks relating to the development of new products; and the ability to implement technological improvements. These and other factors are identified and more fully explained under the heading "Risk Factors" in Compugen's annual reports filed with the Securities and Exchange Commission.

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