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 February 2010

> 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 February 9, 2010, 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: February 9, 2010



Compugen Ltd. Reports Fourth Quarter and Calendar 2009 Financial Results

TEL AVIV, ISRAEL – February 9, 2010 – Compugen Ltd. (NASDAQ: CGEN) today reported financial results for the fourth quarter and year ending December 31, 2009.

Dr. Anat Cohen-Dayag, president and co-CEO, stated, "During 2009 we saw major accomplishments in each of the areas key to our long-term success. Most important was the *in vivo* validation of various Compugen *in silico* predicted product candidates by independent leading experts in major therapeutic areas. These included novel therapeutic molecules or drug targets for epithelial tumors, inhibition of angiogenesis, inflammatory bowel disease, cardiovascular disease and pulmonary fibrosis, as well as biomarkers for preeclampsia, type 2 diabetes, ovarian cancer, and pre-clinical kidney toxicity. In addition we continued strengthening and broadening our underlying capabilities and entered into additional collaborations with leading companies, including the yearend signing with Pfizer of an agreement based on our unique "discovery on demand" capabilities. Also at yearend, we successfully obtained - without excessive dilution - the capital that we believe will be sufficient to fully implement our business model."

Dr. Cohen-Dayag continued, "With the growing recognition by both potential corporate partners and the investment community of our extensive predictive discovery capabilities, all of us at Compugen enthusiastically look forward to 2010 and the next few years as we continue to demonstrate the power, continuous improvement, and almost unlimited applicability of these capabilities in the pharmaceutical and diagnostic industries."

As previously projected, current revenues continue to be insignificant. The net loss for the most recent quarter was \$2.0 million (including a non-cash expense of \$440,000 related to stock based compensation), or \$0.07 per share, compared with a net loss of \$3.8 million (including a non-cash expense of \$477,000 related to stock based compensation), or \$0.13 per share, for the corresponding quarter of 2008. The net loss for calendar 2009 was \$3.8 million (including a non-cash expense of \$1.5 million related to stock based compensation), or \$0.13 per share, compared with a net loss of \$12.5 million (including a non-cash expense of \$1.7 million related to stock based compensation), or \$0.44 per share, for 2008.

The significant reduction in net loss for calendar year 2009 reflects the sale by Compugen during the second quarter of 2009 of a portion of its holdings of Evogene Ltd. shares resulting in a gain of \$3.7 million, which is included in Other Income. At December 31, 2009, the market value of Compugen's remaining 1.15 million Evogene shares was \$3.9 million, compared with a market value of \$3.9 million for the 2.15 million Evogene shares owned as of December 31, 2008 prior to the sale.

Research and development expenses for the fourth quarter of 2009 were \$1.6 million, compared with \$2.5 million for the fourth quarter of 2008 and remained the Company's largest expense. Research and development expenses for calendar 2009 were \$6.0 million compared with \$9.3 million for 2008. These amounts are before the deduction of governmental and other grants, which totaled for the fourth quarter of 2009, \$247,000, compared with \$51,000 for the corresponding quarter in 2008, and \$944,000 for calendar 2009, compared with \$544,000 for 2008.

As of December 31, 2009, with the inclusion of the remaining receivables from the equity offering completed in late December 2009, cash and cash related accounts totaled \$23.4 million, compared with \$7.2 million at December 31, 2008. These amounts do not include the market value of

Compugen's holdings of Evogene shares at each such yearend as discussed above. The Company anticipates maximum gross cash usage of \$8.5 million for 2010, which would be reduced by any revenues or other cash sources, in calculating 2010 net cash usage. As previously stated, a short-term financial target for Compugen is to achieve cash flow breakeven by yearend 2011, based largely on research revenues under milestone and revenue sharing collaboration agreements. Achieving this target is of course subject to success in entering into additional collaborations during the next two years.

Conference Call and Webcast Information

Compugen will hold a conference call to discuss its fourth quarter and year-end results on Tuesday, February 9 at 10:00 a.m. EST. To access the conference call, please dial 1-888-407-2553 from the US or 972-3-918-0610 internationally. The call will also be available via live webcast through Compugen's website, located at the following link.

A replay of the conference call will be available approximately two hours after the completion of the live conference call. To access the replay, please dial 1-888-782-4291 from the US or 972-3-925-5901 internationally. The replay will be available until 12 noon EST on February 12, 2010.

(Tables to follow)

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. Compugen's growing number of collaborations with major pharmaceutical and diagnostic companies cover both (i) the licensing of product candidates discovered by Compugen during the validation of its discovery platforms and in its internal research, and (ii) "discovery on demand" agreements where existing or new Compugen discovery platforms are utilized to predict and select product candidates as required by a partner. In 2002, Compugen established an affiliate, Evogene Ltd. (www.evogene.com) (TASE: EVGN), to utilize certain of the Company's *in silico* predictive discovery capabilities in agricultural biotechnology. For additional information, please visit Compugen's corporate website at www.eyen.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.

Company contact:

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COMPUGEN LTD. CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

(U.S. dollars in thousands, except for share and per-share amounts)

	Three Months Ended <u>Dec 31,</u>		Year Ended Dec 31,	
	<u>2009</u>	<u>2008</u>	<u>2009</u>	<u>2008</u>
Revenues	25	11	250	338
Cost of revenues	-	-	-	7
Research and development expenses	1,625	2,462	5,995	9,289
Less: governmental and other grants	(247)	(51)	(944)	(544)
Research and development expenses, net	1,378	2,411	5,051	8,745
Marketing and business development expenses	21	226	681	996
General and administrative expenses	577	1,073	2,147	3,502
Total operating expenses *	1,976	3,710	7,879	13,243
Operating loss	(1,951)	(3,699)	(7,629)	(12,912)
Financing income (loss), net	(152)	(90)	65	348
Other income	64	14	3,721	53
Net loss from continuing operations	(2,039)	(3,775)	(3,843)	(12,511)
Gain (loss) from discontinued operations	(2)	(2)	12	(16)
Net loss	(2,041)	(3,777)	(3,831)	(12,527)
Basic and diluted loss per ordinary share from continuing operations	(0.07)	(0.13)	(0.13)	(0.44)
Basic and diluted loss per ordinary share from discontinued operations	-	-	-	-
Basic and diluted net loss per ordinary share	(0.07)	(0.13)	(0.13)	(0.44)
Weighted average number of ordinary shares outstanding	28,852,335	28,510,157	28,608,317	28,434,946

* Includes stock based compensation

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COMPUGEN LTD. CONDENSED CONSOLIDATED BALANCE SHEETS DATA

(U.S. dollars, in thousands)

	Dec 31, 2009	December 31, <u>2008</u>
ASSETS		
Current assets		
Cash, cash equivalents, short term deposits and marketable securities	15,639	7,248
Restricted cash	161	233
Investment in Evogene	-	3,858
Receivables and prepaid expenses	720	768
Receivables on account of shares	7,790	-
Total current assets	24,310	12,107
Long-term investments		
Investment in Evogene	3,898	-
Other assets	18	41
Severance pay fund	1,224	1,038
Total long-term investments	5,140	1,079
Property and equipment, net	735	1,058
Total assets	30,185	14,244
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities		
Accounts payable and accrued expenses	1,357	2,881
Deferred revenues	113	100
Liabilities related to discontinued operations	-	12
Total current liabilities	1,470	2,993
Long-term liabilities		
Accrued severance pay	1,317	1,248
Total long-term liabilities	1,317	1,248
Total shareholders' equity	27,398	10,003
Total liabilities and shareholders' equity	30,185	14,244