

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 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 October 26, 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: October 26, 2010



Compugen Reports Third Quarter 2010 Financial Results

*Company to initiate preclinical development for
selected therapeutic product candidates, including CGEN-15001*

Tel Aviv, Israel, October 26, 2010 --- Compugen Ltd. ([NASDAQ: CGEN](#)) today reported financial results for the third quarter ending September 30, 2010.

Dr. Anat Cohen-Dayag, Compugen's president and CEO stated, "Our business model is to utilize our systematic and broadly applicable predictive discovery capabilities to provide product candidates to the drug and diagnostic industries under licensing and other commercialization arrangements. An extremely important validation of this model, and of our prediction and selection capabilities, has been the high level of interest shown during the past two years by potential partners in collaborations covering Compugen product candidates at a significantly earlier stage of development than such companies typically would require."

Dr. Cohen-Dayag continued, "With this scientific and industry validation in hand, substantial efforts during 2010 have been directed to planning and initiating a program to substantially increase the value of our discoveries by advancing selected molecules beyond the animal disease model proof of concept, something we have not previously done. We are currently selecting the first set of molecules for this new program from those that have already achieved this stage; additional candidates will be selected from our validation pipeline and future discovery runs. Included in the molecules selected to date is CGEN-15001, our recently announced product candidate for autoimmune diseases, which has attracted very significant industry interest and continues to show excellent results in on-going studies."

"It is anticipated that the candidates selected for these preclinical activities will be primarily protein, peptide and monoclonal antibody therapeutics, mainly for use in the fields of oncology and immunology. As part of our preparation during 2010 for this expanded development effort, we selected approximately 20 novel molecules to enter our validation pipeline, in addition to the eight molecules that have already successfully completed animal disease model or similar therapeutic proof of concept validation studies," said Dr. Cohen-Dayag.

"This new program is an important addition as we broaden and accelerate the implementation of our business model. A further component of this effort is our ongoing, but previously undisclosed, collaboration with Flamel Technologies of Lyon, France to develop therapeutic products to the Investigational New Drug (IND) stage. The products to be developed under this agreement will combine selected Compugen discovered molecules with Flamel's delivery technology, and will be jointly owned by the two companies. Also, with respect to other commercialization activities, we are currently in discussions with various companies regarding both licensing of certain product candidates and 'discovery on demand' collaborations," Dr. Cohen-Dayag concluded.

Martin Gerstel, Compugen's chairman, added, "Successfully advancing product candidates 12-18 months past animal proof of concept can increase the value of such molecules by an order of magnitude or more, particularly in our focus areas of oncology and immunology. Therefore, with our proven discovery capabilities and knowledge of industry needs, this is an obvious next step for us to take in order to maximize the value of certain of our current and future product candidate discoveries for both the short-term and long-term financial benefit of our shareholders."

As previously stated, since current revenues result primarily from fees and milestones, our quarterly results are, and will continue to be, subject to substantial fluctuations due to timing. No revenues were recorded for the third quarter of 2010 or the third quarter of 2009, with revenues for the nine months ending September 30, 2010 of \$925,000, compared with \$225,000 for the first nine months of 2009.

The net loss for the most recent quarter was \$1.6 million (including a non-cash expense of \$435,000 related to stock based compensation), or \$0.05 per share, compared with a net loss of \$1.9 million (including a non-cash expense of \$460,000 related to stock based compensation), or \$0.06 per share, for the corresponding quarter of 2009. The net loss for the first nine months of 2010 was \$5.2 million (including a non-cash expense of \$1.8 million related to stock based compensation), or \$0.16 per share, compared with a net loss of \$1.8 million (including a non-cash expense of \$1.1 million related to stock based compensation), or \$0.06 per share, for the same period in 2009.

The increase in net loss for the first nine months of 2010 compared with the same period in 2009 is due to the sale by Compugen during the second quarter of 2009 of a portion of its holdings of Evogene Ltd. shares for approximately \$3.6 million, which is included in “Other income” for the first nine months of 2009.

Research and development expenses for the third quarter of 2010 were \$1.5 million compared with \$1.4 million for the third quarter of 2009 and remained the Company’s largest expense. Research and development expenses for the first nine months of 2010 were \$4.5 million compared with \$4.4 million for the comparable period in 2009. These amounts are before the deduction of governmental and other grants, which totaled for the third quarter ended September 30, 2010, \$281,000, compared with \$180,000 for the corresponding quarter in 2009, and \$805,000 for the first nine months of 2010, compared with \$697,000 for the comparable period in 2009.

As of September 30, 2010, Compugen had \$21.4 million in cash and cash equivalents and short term deposits not including its holding of 1.15 million Evogene Ltd. shares, which currently have a market value of approximately \$6 million. Net cash usage for 2010 is currently projected to be approximately \$5 million, which is substantially less than initially projected.

Conference Call and Webcast Information

Compugen will hold a conference call to discuss its third quarter results today, Tuesday, October 26, 2010, at 10:00 a.m. EDT. To access the conference call, please dial 1-866-860-9642 from the US or +972-3-918-0609 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 EDT on October 29, 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.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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COMPUGEN LTD.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(U.S. dollars in thousands, except for share and per-share amounts)

	Three Months Ended		Nine Months Ended	
	<u>September 30,</u>		<u>September 30,</u>	
	<u>2010</u>	<u>2009</u>	<u>2010</u>	<u>2009</u>
	<u>Unaudited</u>	<u>Unaudited</u>	<u>Unaudited</u>	<u>Unaudited</u>
Revenues	-	-	925	225
Cost of revenues	-	-	198	-
Research and development expenses	1,506	1,447	4,480	4,370
Less: governmental and other grants	(281)	(180)	(805)	(697)
Research and development expenses, net	1,225	1,267	3,675	3,673
Sales and marketing expenses	168	175	535	660
General and administrative expenses	530	582	2,095	1,570
Total operating expenses *	1,923	2,024	6,305	5,903
Operating loss	(1,923)	(2,024)	(5,578)	(5,678)
Financing income, net	312	181	352	217
Other income (loss)	37	(24)	37	3,657
Net loss from continuing operations	(1,574)	(1,867)	(5,189)	(1,804)
Income (loss) from discontinued operations	-	14	-	14
Net loss	(1,574)	(1,853)	(5,189)	(1,790)
Basic and diluted loss per ordinary share from continuing operations	(0.05)	(0.06)	(0.16)	(0.06)
Basic and diluted loss per ordinary share from discontinued operations	-	-	-	-
Basic and diluted net loss per ordinary share	(0.05)	(0.06)	(0.16)	(0.06)
Weighted average number of ordinary shares outstanding	33,310,959	28,552,927	33,199,059	28,526,084

* Includes stock based compensation

COMPUGEN LTD.
CONDENSED CONSOLIDATED BALANCE SHEETS DATA
(U.S. dollars, in thousands)

	September 30, 2010 Unaudited	December 31, 2009 Audited
ASSETS		
Current assets		
Cash, cash equivalents, short term deposits and marketable securities	21,437	15,639
Cash held in favor of other consortium partners	155	161
Receivables and prepaid expenses	690	720
Receivables on account of shares	-	7,790
Total current assets	22,282	24,310
Long-term investments		
Investment in Evogene	5,350	3,898
Long-term lease deposits	16	18
Severance pay fund	1,392	1,224
Total long-term investments	6,758	5,140
Property and equipment, net	626	735
Total assets	29,666	30,185
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities		
Trade payables	247	199
Other accounts payable and accrued expenses	896	1,158
Deferred revenues	69	113
Total current liabilities	1,212	1,470
Accrued severance pay	1,596	1,317
Total shareholders' equity	26,858	27,398
Total liabilities and shareholders' equity	29,666	30,185