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 April 2006

<u>Compugen Ltd.</u> (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 <u>X</u> Form 40-F ____

On April 27, 2006 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: <u>/s/ Nurit Benjamini</u> Title: Chief Financial Officer

Date: April 27, 2006



Compugen Reports First Quarter 2006 Financial Results

TEL AVIV, ISRAEL, April 27, 2006 - Compugen Ltd. (NASDAQ: CGEN) today reported financial results for the first quarter ended March 31, 2006.

Alex Kotzer, President and CEO, stated, "During the past quarter we concluded our initial biological assessment for more than seventy potential therapeutic proteins and peptides. Twelve of these Compugen discovered candidates with demonstrated functional biological activities have now been selected and prioritized for further assessment. The selected candidates, all from different gene families, are mainly related to the oncology and immunology therapeutic areas. In addition, as of the end of the quarter, our partners for immunoassay diagnostics had selected as product development candidates more than ten Compugen discovered cancer and cardiovascular disease related biomarkers. These accomplishments, along with some exciting progress in our research and discovery unit, were the highlights of a very successful first quarter."

In line with Compugen's evolution to utilizing its scientific know-how and computational biology capabilities for the discovery of potential therapeutic and diagnostic products, revenues from sales of previously developed life science tools and services decreased to \$200,000 for the most recent quarter, compared to \$481,000 for the first quarter of 2005. The net loss for the quarter was \$3.1 million (including non-cash expense of \$547,000 related to stock based compensation), or \$0.11 per share, compared with a net loss of \$3.7 million (including non-cash income of \$10,000 related to stock based compensation), or \$0.13 per share, for the corresponding quarter of 2005.

Research and development expense of \$2.7 million for the most recent quarter compared to \$3.5 million for the first quarter of 2005, remains the Company's largest expense. These amounts are before the deduction of governmental and other grants, which totaled \$417,000 for the first quarter ended March 31, 2006, compared with \$384,000 for the corresponding quarter in 2005.

Update on Financial Status

As of March 31, 2006, Compugen had \$33.8 million in cash, cash equivalents, and marketable securities, (including approximately \$0.7 million that was received on behalf of, and will be transferred to, research consortium partners), a decrease of \$3.0 million from December 31, 2005. The company has projected that net cash usage for the remainder of calendar 2006 will be approximately \$9 million, which would result in an estimated \$25 million in cash, cash equivalents, and marketable securities as of the beginning of 2007.

The Company has previously stated that its anticipated primary sources of future revenues are milestone and revenue sharing payments from licensing and other arrangements covering the development and marketing of diagnostic and therapeutic products based on the Company's discoveries. Compugen anticipates that it will begin to receive such payments from its existing arrangements by the end of this year or early next year, and these revenues are anticipated to

increase substantially in the following years as products based on Compugen discovered molecules progress towards commercialization.

Update on Operations

- Diagnostic Biomarkers During the past quarter, Compugen continued to advance its collaborations with three leading diagnostic companies which have to date chosen more than ten biomarker candidates for development of potential immunoassay diagnostic products. These molecules had been first predicted through the use of Compugen immunoassay biomarker discovery engines. Recently the Company developed modified versions of these engines for utilization in the field of nucleic acid diagnostics and has now begun to discuss with potential licensees its initial nucleic acid biomarker discoveries. During the remainder of 2006, the Company will continue its immunoassay and nucleic acid discovery efforts for both current and new medical indications, with the expectation of additional candidates being selected by Compugen's current partners and new development and commercialization agreements being signed.
- Therapeutics During the past quarter, the Company completed initial biological studies for more than seventy novel potential therapeutic proteins and peptides. Following this assessment stage, which included the production of the molecules and studies of binding, specificity and functional biological activities, twelve potential therapeutic molecules mainly for various forms of cancer and autoimmune diseases have been selected and prioritized for further biological assessment. The Company expects that by year end 2006, it will have generated additional supporting data including disease-related assessments based on in-vivo animal models for a number of these molecules and will have initiated discussions with potential licensees and development partners.
- Research and Discovery Compugen's research and discovery efforts are targeted at using its unique predictive biology capabilities for the creation of diagnostic and therapeutic product discovery engines based on proprietary biological knowledge. Whereas most of the Company's current therapeutic and diagnostic candidates are being derived from Compugen's leadership in the deeper understanding of alternative splicing and related phenomena, the Company is now building on this base to develop discovery engines incorporating other powerful and broadly applicable biological phenomena. A major focus during the past quarter was the phenomena of large scale genetic variation, and these efforts are now generating novel discoveries. Other current projects involve protein intra-molecular interactions, integrated analysis of biological and medical data, and peptide functional characteristics prediction. The Company intends to continue its efforts towards the development of discovery engines and future product candidates based on these new scientific understandings both in certain areas on its own and via collaborations in other areas.

Conference Call and Web Cast Information

Compugen will hold a conference call to discuss its first quarter results on April 27, 2006 at 10:00 am EST. To access the conference call, please dial 1-866-860-9642 from the US or +972 3-918-0610 internationally. A replay of the conference call will also be available approximately two hours after the completion of the live conference call. To access the replay, please dial 1-866-276-1485 from the US or +972 3-925-5901. The replay will be available until 12 noon EST on April 29, 2006.

The call will also be available via live Web cast through Compugen's Website, located at www.cgen.com.

About Compugen

Compugen is a biotechnology discovery company focused on therapeutic and diagnostic products. The Company's powerful predictive models and discovery engines enable the discovery of numerous potential therapeutics and diagnostic biomarkers. This capability results from the Company's pioneering and on-going incorporation of ideas and methods from mathematics, computer science and physics into biology, chemistry and medicine. To date, Compugen's discovery efforts have focused mainly on cancer, cardiovascular and immune-related diseases. Product development is pursued both in-house and through collaborative arrangements. The Company's primary business goal is to out-license therapeutic and diagnostic product candidates for commercialization by leading companies under milestone and revenue sharing agreements. Compugen has established an agricultural biotechnology affiliate – Evogene, and a small-molecule drug discovery affiliate – Keddem Bioscience. For additional information, please visit Compugen's corporate Website at www.cgen.com.

This press release contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. These statements include words like "may," "expects," "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; the ability to implement technological improvements; the ability of Compugen to obtain and retain customers. 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 March 31, 2006 2005

	Unaudited	Unaudited
Revenues	200	481
Cost and Expenses		
Cost of revenues	6	19
Research and development expenses	2,732	3,483
Less: governmental and other grants	(417)	(384)
Research and development expenses, net	2,315	3,099
Sales and marketing expenses	417	459
General and administrative expenses	656	703
Total operating expenses *	3,394	4,280
Operating loss	(3,194)	(3,799)
Financing income, net	106	(5)
Other income	-	66
Net loss	(3,088)	(3,738)
Basic and diluted net loss per ordinary share	(0.11)	(0.13)
Weighted average number of ordinary shares outstanding	27,902,030	27,758,583

^{*} Includes stock based compensation

COMPUGEN LTD. CONDENSED CONSOLIDATED BALANCE SHEETS DATA

(U.S. dollars, in thousands)

	March 31,	December 31,
	<u>2006</u>	<u>2005</u>
	Unaudited	Audited
ASSETS		
Current assets		
Cash, cash equivalents, and marketable securities	28,155	30,987
Cash held in favor of other consortium partners	739	834
Receivables and prepaid expenses	681	676
Total current assets	29,575	32,497
Long-term investments		
Marketable securities	4,876	4,983
Investment in Evogene	812	-
Other assets	1,405	1,606
Property and equipment, net	2,736	3,020
Total assets	39,404	42,106
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities		
Accounts payable and accrued expenses	2,731	3,473
Deferred revenues	-	200
Total current liabilities	2,731	3,673
Long-term liabilities		
Accrued severance pay	1,452	1,659
Other long-term liabilities	60	60
Excess of losses over investment in Evogene	-	466
Total long-term liabilities	1,512	2,185
Total shareholders' equity	35,161	36,248
Total liabilities and shareholders' equity	39,404	42,106