COMPUGEN LTD
Form 6-K
February 14, 2006

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 2006

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 14, 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: /s/ Nurit Benjamini

Title: Chief Financial Officer

Date: February 14, 2006

Exhibit 1

Compugen Announces *In-Silico* Protein Discovery from "Junk DNA"

Findings Published in Proceedings of the National Academy of Sciences

Methodology has Enabled Discovery of Novel Therapeutic Protein Candidates

Tel Aviv, Israel - February 14, 2006 - Compugen Ltd. (Nasdaq:CGEN) announced today the development of an innovative *in-silico* predictive approach allowing the discovery of novel human transcripts and proteins from portions of so-called "junk DNA". This methodology has already enabled the discovery by Compugen of several previously unknown therapeutic protein candidates and has been published in Proceedings of the National Academy of Sciences (USA) (Shemesh et al. PNAS, January 31 2006).

The DNA sequences utilized by the new methodology are essentially ancient, mutated copies of current genes, termed processed pseudogenes. Utilizing public pseudogene databases, Compugen`s predictive methodology has been shown to both verify the sequences` annotation on the genome and then use the pseudogene sequences as "blue prints" for new gene variants and, therefore, novel transcripts and proteins. The methodology has clearly demonstrated the ability to predict new variants for genes for which little or no evidence is available, as well as detect rare forms of gene products that might not have been otherwise detected.

Processed pseudogenes are naturally occurring genomic sequences that from an evolutionary standpoint were created through reverse transcription of mRNAs and then reinserted at a new genomic location. These new genomic sequences are generally considered "junk DNA". However, through analysis of thousands of such human pseudogenes with its *in-silico* predictive methodology, Compugen`s scientists were able to predict the existence of hundreds of novel transcript variants, a selected subset of which were then experimentally validated in the Company`s laboratories . Several of these novel transcripts and resulting predicted proteins have been selected by Compugen as therapeutic candidates and are now undergoing further evaluation.

"The breakthrough nature of this discovery is that we can actually use these "dead copies of genes" as a genomic embedded cDNA library," stated Ronen Shemesh, Ph. D., Manager, Experimental Research at Compugen and the lead author of the paper. "This new knowledge builds upon previous breakthroughs by Compugen in the understanding of significant biological phenomena such as alternative splicing, naturally occurring antisense and RNA editing, and provides further evidence of the power and potential of Compugen`s predictive research approach," added Yossi Cohen, M.D., Compugen's Vice President Research and Discovery . "In addition to the scientific importance of these

findings, from a practical standpoint, they are providing Compugen with novel putative therapeutic and diagnostic transcripts and proteins that otherwise would be difficult, if not impossible to discover." Dr. Cohen concluded.

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 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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