

**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 December 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 December 23, 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: December 23, 2009



## **Compugen Announces “Discovery on Demand” Therapeutic Peptide Collaboration with Pfizer**

Tel Aviv, Israel, December 23, 2009 --- Compugen Ltd. (NASDAQ: CGEN) announced today that it has signed a collaboration agreement with Pfizer for the predictive discovery by Compugen of therapeutic peptide product candidates for three drug targets of interest to Pfizer. The discovery process, which will be based on various Compugen discovery platforms and funded by Pfizer, is expected to take a few months, following which the predicted molecules will be synthesized and delivered to Pfizer. Following an evaluation period, Pfizer will have the right to exercise options for worldwide exclusive milestone and royalty bearing licenses to develop and commercialize the selected product candidates or further optimize them to obtain final potent, selective product candidates with favorable pharmacokinetic properties.

“Although use of our various discovery platforms is now providing us with a growing inventory of novel drug and target candidates for further development and licensing, the most unique aspect of our capabilities is the ability to systematically and within a short timeframe provide, what we call, *discovery on demand* product candidates for selected areas of interest to our partners,” Dr. Anat Cohen-Dayag, president and co-CEO of Compugen said. “We are extremely pleased to be entering into this multi-target collaboration with Pfizer, and we look forward to entering into similar agreements with additional pharmaceutical and biopharmaceutical companies.”

### **About Compugen’s Discovery Platforms**

During the past few years, Compugen has designed, developed, validated and disclosed ten product candidate discovery platforms directed at various important areas of drug and diagnostic discovery. The development of this diverse range of discovery platforms in such a short period of time was possible only due to Compugen’s commitment since 1997 to understand deeply the science underlying various important biological phenomena. Utilizing this continuously growing base of scientific understanding, Compugen has created, and continues to create, predictive models, algorithms and other computational biology methodologies that provide a unique and rich infrastructure for the design of systematic platforms for the predictive discovery of novel drug, target and biomarker candidates.

Most of Compugen’s ten discovery platforms developed to date are based on a process of *in silico* prediction and selection, followed by synthesis and experimental validation. The initial *in silico* predictions usually involve a large number – often in the thousands or more - of possible candidates, with the selection step resulting in a very small subset – usually dozens of molecules or less - which are predicted to have the highest probability of success. These molecules are then prioritized, synthesized, and experimentally validated. Among the Compugen platforms developed to date based on this

prediction-selection-validation process are platforms designed for the discovery of therapeutic proteins and peptides, targets for monoclonal antibodies, and both molecular and genetic biomarkers.

One of the key Compugen platforms to be utilized in the Pfizer collaboration announced today was recently developed, and has not yet been publicly disclosed. This undisclosed platform is based on a process which is different from the prediction-selection-validation process underlying most of Compugen's previously announced discovery platforms as described above. In this second process, Compugen's multidisciplinary scientific team uses its understandings of certain basic biological phenomena and advanced computational biology capabilities to "design", *in silico*, molecules that should meet the specific requirements needed for them to become optimal therapeutic candidates for the relevant target. As with all of our *in silico* platforms, these predicted molecular sequences are then synthesized and experimentally validated. This prediction-design-validation approach is also the process utilized by Compugen's previously disclosed Disease Associated Conformations ("DAC") Blockers Platform, but in this case employing different discovery principles and models.

### **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 to date include Bayer Schering Pharma, Biosite, Medarex, Inc., Merck & Co., Inc., Merck Serono, Ortho-Clinical Diagnostics (a Johnson & Johnson company), Pfizer, Roche, Siemens Healthcare Diagnostics, Inc., and Teva Pharmaceutical Industries. In 2002, Compugen established an affiliate, Evogene Ltd. [www.evogene.com](http://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 website at [www.cgen.com](http://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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