
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 6-K

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 2011

Compugen Ltd.

(Translation of registrant's name into 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 ☒ Form 40-F ☐

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): _____

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7): _____

EXPLANATORY NOTE

Compugen Ltd. ("Compugen" or the "Registrant") is furnishing on this Form 6-K the following document:

Press Release, dated as of December 20, 2011, attached as Exhibit 1 hereto.

The information set forth above, including the Exhibit attached hereto, shall not be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, except as shall be expressly set forth by specific reference in such filing.

The Registrant is also furnishing on this Form 6-K the following information, which is hereby incorporated by reference into the Registrant's Registration Statement on Form F-3 (Registration No. 333-171655), as may be amended and supplemented from time to time:

On December 20, 2011, the Registrant entered into a funding agreement (the "Agreement") with Baize Investments (Israel) Ltd. ("Baize"), an existing investor, pursuant to which Baize agreed to invest \$8,000,000 (the "Investment Amount") in Compugen in connection with certain research funding in exchange for a financial interest (the "Participation Interest") in certain therapeutic monoclonal antibody ("mAb") product candidates that achieve specific milestones or have been licensed out, during a period of 3 years, as further described below (the "Compugen Goldman Program"). The Investment Amount is to be paid in three installments: \$2,000,000 within 5 business days of the effective date of the Agreement, \$3,000,000 on or before June 30, 2012 and \$3,000,000 on or before September 30, 2012. In the event such payments are not made, pursuant to the Agreement, Compugen has the right to exchange the Participation Interest for Compugen Ordinary Shares equivalent to the amount invested, to such point at the price of \$6 per share and all such future financial interests will be terminated.

As part of the Compugen Goldman Program, the mAb product candidates are to be developed against 12 specified Compugen-discovered targets in the field of oncology.

Baize shall be entitled to receive the Participation Interest if such mAb product candidate either achieves a successful animal disease model during the next three years, and/or is licensed out to third parties for further development and commercialization prior to such time. In each such case, the Participation Interest will consist of the right to receive from Compugen a percentage of certain future payments received by Compugen from third parties from any out-licensing for further development and/or commercialization. The percentage for each such qualifying mAb product candidate will be calculated on the date of out-licensing in accordance with a sliding scale, which takes into account the total Baize research funding spent for the development of therapeutic mAbs against the specified 12 Compugen targets to such date, relative to the total amount spent by both Baize and Compugen on such mAbs, provided that Baize will be entitled to no less than ten percent of such future payments related to any qualifying mAb product candidates. Notwithstanding anything in the Agreement, Baize has the right, during the first quarter of 2014, to waive its rights to the Participation Interest in exchange for 1,455,000 Compugen ordinary shares.

The Agreement will be furnished on a Form 6-K in a future filing with the U.S. Securities and Exchange Commission.

SIGNATURES

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/ Tami Fishman Jutkowitz

Name: Tami Fishman Jutkowitz

Title: General Counsel

Date: December 20, 2011



FOR IMMEDIATE RELEASE

**Compugen to Broaden and Accelerate Monoclonal Antibody
Program for Oncology and Immunology**

**\$8 million towards expanded program will be provided by Baize Investments
via second research funding agreement with Compugen**

Tel Aviv, Israel, December 20, 2011 --- Compugen Ltd. (NASDAQ: CGEN) announced today that it will significantly broaden and accelerate its monoclonal antibody (mAb) activities for oncology and immunology within its ongoing Pipeline Program. The expanded activities will include a significant increase in the number of mAb candidates being developed in parallel against Compugen-discovered targets in the Pipeline Program, and the planned in-house establishment of certain key mAb preclinical development capabilities that were previously intended to be obtained solely from third parties.

The Company also announced that \$8,000,000 towards the expanded program will be provided to the Company under a research funding agreement signed today with Baize Investments (Israel) Ltd. ("Baize"), a private corporation investing in innovative medical technologies. This follows an earlier research funding agreement between the two parties in December 2010, pursuant to which Compugen received \$5,000,000 in support of the initiation of the Pipeline Program.

Under the terms of the new agreement, in exchange for its \$8,000,000 in funding, Baize will receive a financial interest in certain mAb product candidates that achieve a specified development milestone, or have been licensed out, during the next three years. In addition, Baize has the right, during the first quarter of 2014, to waive its rights to all future benefits from this financial interest in exchange for 1,455,000 Compugen ordinary shares.

Dr. Anat Cohen-Dayag, President and CEO of Compugen, stated, "During the last two years we were pleased to disclose successful validation of a number of our Pipeline Program therapeutic proteins, such as CGEN-15001 and CGEN-15091, in animal models of autoimmune diseases. This progress continues as we concurrently discuss potential arrangements for further product development and commercialization under royalty bearing licenses and other forms of collaboration. With respect to antibody therapeutics for oncology and immunology, the other focus area of our Pipeline Program, our competitive advantage rests on our unique predictive capabilities to discover novel molecular targets for the subsequent development of monoclonal antibodies that serve as the actual drug product candidates. This is in contrast to the discovery of therapeutic proteins, where our predictive capabilities lead directly to the proteins that serve as the basis for product development."

Dr. Cohen-Dayag continued, “mAbs are the most rapidly growing drug class, with over 20 mAbs already approved for therapeutic use in the U.S. and in addition have demonstrated a higher success rate in development than other drug classes. However, a key continuing challenge is the identification of novel promising targets. To this end, Compugen harnessed its unique predictive capabilities to develop target discovery platforms and now has a growing inventory of promising potential mAb targets in validation. A number of these targets are now approaching the point where further advancement will require the development of mAbs against them.”

Dr. Cohen-Dayag concluded, “Based on our successful *in silico* prediction and selection of potential mAb target molecules, we are very pleased to be announcing today a significant broadening and acceleration of our mAb therapeutics program, including an increase in the number of targets against which we will concurrently develop mAbs to be advanced to the preclinical stage prior to out-licensing. Furthermore, since our expectation is that we will have an ongoing need to create and develop mAbs as we continue discovering new targets, we believe it is in our best interest to establish an in-house capability for further mAb development activities. This in-house capability would be in addition to reliance on third parties under arrangements that would normally include sharing of future profits from the resulting mAb product candidates.”

Murray Goldman, Baize’s Chairman, stated, “We are pleased with the progress achieved by Compugen with respect to its Pipeline Program in general and the specific product candidates in which we have a financial interest, and we are proud to have been of assistance in the Program’s initiation in late 2010. Therefore, we are now very much looking forward to expanding this relationship by focusing on accelerating the development in parallel within the Pipeline Program of mAbs against a number of promising Compugen discovered targets in oncology. This is anticipated to lead to significant new therapeutic candidates addressing key unmet needs in cancer treatment, which could meaningfully contribute to the well-being of humanity.”

Mr. Martin Gerstel, Chairman of the Board of Compugen, added, “After more than a decade of building the required predictive discovery infrastructure and scientific foundation, during the past few years we have made three critical decisions pertaining to the potential medical and financial opportunities now available to us due to these successful past and ongoing investments. First, we decided to focus our efforts on monoclonal antibodies and therapeutic proteins in the fields of oncology and immunology. Second, our powerful discovery infrastructure enabled us to quickly establish a Pipeline Program of approximately 30 promising early stage candidates. And finally, our continued target discovery success in the mAb arm of our Pipeline Program has now led us to a third decision: to substantially broaden and accelerate this portion of our Pipeline Program to obtain the maximum value from our target discoveries.”

Mr. Gerstel concluded, “A major partner for Compugen in implementing these decisions has been Baize Investments. Our first Research Funding Agreement with Baize, signed in 2010, allowed us to aggressively initiate the Pipeline Program, without exposing our company to increased financial risk in a difficult economic environment, and without significantly diluting the interests of our existing shareholders base that had in large part provided the resources to allow us to create these opportunities. And now, once again, this new agreement with Baize will allow us to significantly broaden and accelerate the advancement of our extremely promising mAb activities within the Pipeline Program, while again protecting the interests of our current shareholders.”

The New Funding Agreement with Baize Investments

In exchange for \$8,000,000 in research funding, Baize will receive a financial interest in therapeutic mAb product candidates to be developed against 12 specified Compugen-discovered targets in the field of oncology, provided that any such mAb product candidates either achieves a successful animal disease model during the next three years, and/or is licensed out to third parties for final development and commercialization during such time period. In each such case, Baize's financial interest in such qualifying mAb product candidate will consist of the right to receive from Compugen a percentage of certain future payments received by Compugen from third parties from any out-licensing for further development and/or commercialization. The percentage for each such qualifying mAb product candidate will be calculated on the date of out-licensing in accordance with a sliding scale, which takes into account the total Baize research funding spent for the development of therapeutic mAbs against the specified 12 Compugen targets to such date, relative to the total amount invested by both Baize and Compugen in such mAbs, provided that Baize will be entitled to no less than ten percent of such future payments related to any qualifying mAb product candidates. In addition, Baize has the right, during the first quarter of 2014, to waive its rights to receive all such future payments in exchange for 1,455,000 Compugen ordinary shares.

About mAb Therapy

Monoclonal antibody (mAb) therapy is a class of biological drugs that bind with high specificity to target cells or proteins. Due to the versatility and specificity of this approach, mAb therapies are being intensively researched and developed as treatments for numerous serious diseases with the expectation of higher efficacy and fewer side effects compared to traditional chemical drugs. For cancer therapy, a mAb may inhibit cellular processes critical for tumor growth, stimulate the patient's immune system to attack the target cancerous cells, or be used for targeted delivery of chemotherapy specifically to the cells identified by the antibodies. DataMonitor estimated the global monoclonal antibodies market to reach \$65 billion by 2016. Moreover, according to an analysis done by Tufts University the rate of success for mAb therapeutics from first use in humans to regulatory approval is more than double that of traditional chemical drugs.

About Compugen's Antibody Targets Discovery Platform

Compugen's Antibody Therapeutic Targets Discovery Platform is used to identify new promising targets for mAb therapy, which are a significant challenge for the industry. The Platform relies heavily on the Company's LEADS and MED capabilities, two computational biology infrastructure platforms that serve as core components for the development of Compugen's discovery platforms. The LEADS platform provides a comprehensive view of the human transcriptome, proteome, and peptidome and serves as a rich infrastructure for the discovery of novel genes, transcripts and proteins. The MED Platform is an integrated database composed of the results from more than 70,000 public microarray experiments, normalized and organized into approximately 1,400 therapeutically relevant conditions (i.e. normal tissues, malignant tissues, tissues from drug treated patients, etc.) and allows the simultaneous examination of the expression of genes and pathways across all 70,000 microarray experiments.

In addition to incorporating MED and LEADS, the mAb Targets Discovery Platform utilizes multiple data sources and algorithms to predict a large number of novel membrane proteins that can serve as targets for antibody therapeutics, such as for various cancer and autoimmune diseases. The selection of appropriate candidates from this large body of predicted membrane proteins is accomplished using sub-modules of algorithms and other computational tools developed specifically for each disease state or protein family.

About Compugen

Compugen is a leading therapeutic product discovery company focused on therapeutic proteins and monoclonal antibodies to address important unmet needs in the fields of immunology and oncology, either for Compugen or its partners. Unlike traditional high throughput trial and error experimental based drug candidate discovery, Compugen's discovery efforts are based on systematic and continuously improving *in silico* (by computer) product candidate prediction and selection followed by experimental validation, with selected product candidates being advanced in its Pipeline Program to the pre-IND stage. Compugen's *in silico* predictive models utilize a broad and continuously growing infrastructure of proprietary scientific understandings and predictive platforms, algorithms, machine learning systems and other computational biology capabilities. The Company's business model primarily involves collaborations covering the further development and commercialization of Compugen-discovered product candidates and various forms of "discovery on demand" arrangements, in both cases providing Compugen with potential milestone payments and royalties on product sales or other forms of revenue sharing. In 2002, Compugen established an affiliate, Evogene Ltd. (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.

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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