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
UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the month of June 2016

Commission File Number 000-30902

COMPUGEN LTD.

(Translation of registrant's name into English)

26 Harokmim Street
Holon 5885849, Israel
(Address of Principal Executive Offices)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-For 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): ☐

Compugen Ltd.

On June 22, 2016, Compugen Ltd. (“Compugen” or the “Company”) issued a press release. A copy of the press release is filed as Exhibit 99.1 to this Form 6-K and incorporated by reference herein.

The information contained in this Report on Form 6-K, including the exhibit hereto, is hereby incorporated by reference into the Company’s Registration Statement on Form F-3, File No. 333-198368.

Exhibits

Exhibit Number	**Description of Exhibit**
99.1	Press Release dated June 22, 2016.

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.

Date: June 22, 2016

By: /s/ Donna Gershowitz
Donna Gershowitz
General Counsel

Exhibit 99.1

FOR IMMEDIATE RELEASE

Compugen Discloses Lead Therapeutic Candidate for CGEN-15029 Immuno-Oncology Program

IND filing for COM701 anticipated next year

Holon, Israel - June 22, 2016 – Compugen Ltd. (NASDAQ: CGEN), a leading predictive therapeutic discovery company, today disclosed at the JMP Securities Life Science Conference in NY, COM701 as the lead monoclonal antibody therapeutic candidate for the Company's CGEN-15029 target program. This antibody candidate is now undergoing preclinical development activities in preparation for advancement to clinical trials, with an anticipated IND filing next year. CGEN-15029 is one of multiple novel immune checkpoint targets discovered by the Company through the use of its unique *in silico* predictive discovery infrastructure.

COM701 was selected from among multiple candidate antibodies for CGEN-15029, which were generated through various antibody discovery technologies and screened at Compugen USA, Inc., the Company's wholly-owned subsidiary in South San Francisco. This effort resulted in a collection of high affinity antibodies with the ability to block CGEN-15029 from binding to its ligand, and which demonstrated activation of T cells in functional studies. The selected hybridoma lead antibody demonstrated potent, reproducible enhancement of T cell activation, consistent with the desired mechanism of action of activating T cells in the tumor microenvironment to generate anti-tumor immune responses. COM701 was successfully humanized and has advanced into preclinical development. Cell line development has been initiated for this antibody candidate, and the Company has entered into agreements for the manufacturing and respective analytics of the therapeutic antibody.

The CGEN-15029 target was predicted *in silico* and experimentally confirmed to be a receptor-like checkpoint protein expressed on immune cells, with restricted expression on T and NK immune cells, similar to PD-1. Experimental validation systems established over the last two years have enabled Compugen to validate and advance multiple novel immuno-oncology targets, and have allowed Compugen's scientists to show that this target is expressed in tumor-infiltrating T cells (TILs) in various solid and hematologic cancer types. Over expression of CGEN-15029 was shown to decrease T cell activation, whereas inhibition of CGEN-15029 by knocking down its gene resulted in increased T cell activation, indicating that this novel target is indeed an immune checkpoint protein. With its established infrastructure, the Company is pursuing a number of immuno-oncology target programs based on other Compugen-discovered targets in addition to CGEN-15029, and has two additional programs that are the subject of an ongoing pharma collaboration.

Dr. Anat Cohen-Dayag, President and CEO of Compugen, explained, “Selection of COM701 as our lead clinical candidate marks a new phase for Compugen, where we not only discover novel targets for immuno-oncology, but are now positioned to advance our discoveries into preclinical and clinical development on our own. The rapid progress of the CGEN-15029 program, with extremely aggressive timelines from target discovery and validation to therapeutic antibody development, was made possible in large part by the identification of CGEN-15029’s binding partner and the expansion of the Company's immuno-oncology R&D infrastructure. In parallel to the CGEN-15029 program, Compugen is using this infrastructure to pursue additional novel immuno-oncology programs and is now positioned to advance them. In addition to the information disclosed today, the Company intends to share further data with respect to the CGEN-15029 program and the status of its Pipeline Program in the coming months.”

About Compugen

Compugen is a leading therapeutic discovery company utilizing its broadly applicable predictive discovery infrastructure to identify novel drug targets and develop first-in-class biologics. The primary focus of the Company’s current pipeline is on immune checkpoint target candidates discovered by the Company, potentially providing the basis for a next wave of therapeutics for cancer immunotherapy. Compugen’s business model is based on selectively entering into collaborations for its novel target candidates and drug product candidates at various stages of research and development under revenue-sharing agreements. The Company is headquartered in Israel, with R&D facilities in Israel and South San Francisco. At the US facilities, monoclonal antibody therapeutic candidates are discovered and developed against the Company’s novel target candidates. For additional information, please visit Compugen's corporate website at http://www.cgen.com.

Forward-Looking Statement

This press release contains “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements can be identified by the use of terminology such as “will,” “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. Among these risks: Compugen’s business model is substantially dependent on entering into collaboration agreements with third parties and may not be successful in generating adequate revenues or commercializing aspects of our business model, and the development and commercialization of therapeutic candidates involve many inherent risks, including failure to progress to clinical trials or, if they progress to or enter clinical trials, failure to receive regulatory approval. These and other factors are more fully discussed in the "Risk Factors" section of Compugen’s most recent Annual Report on Form 20-F as filed with the Securities and Exchange Commission as well as other documents that may be subsequently filed by Compugen from time to time with the Securities and Exchange Commission. In addition, any forward-looking statements represent Compugen’s views only as of the date of this release and should not be relied upon as representing its views as of any subsequent date. Compugen does not assume any obligation to update any forward-looking statements unless required by law.

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