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 2015

Commission File Number 000-30902

COMPUGEN LTD.

(Translation of registrant's name into English)

72 Pinchas Rosen Street Tel-Aviv 6951294, Israel (Address of Principal Executive Offices)

Indicate by check mark whether the registrant files or will file annual reports under cover of 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): \Box	
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): \Box	

Compugen Ltd.

On June 8, 2015, Compugen Ltd. ("Compugen" or the "Company") issued a press release a copy of which is filed as Exhibit 99.1 to this Form 6-K and incorporated by reference herein.

The information contained in this Report is hereby incorporated by reference into the Company's Registration Statements on Form F-3, File Nos. 333-185910 and 333-198368.

Exhibits

Exhibit

Number 99.1 <u>Description of Exhibit</u> Press release dated June 8, 2015.

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 8, 2015 By: /s/ Donr

By: /s/ Donna Gershowitz Donna Gershowitz General Counsel



FOR IMMEDIATE RELEASE

Compugen to Disclose Novel Cancer Immunotherapy Target Candidate and Comprehensive Target Characterization Infrastructure at Today's Analyst and Investor Day

CGEN-15029 target candidate is one of Compugen's five highest priority cancer immunotherapy target programs

LINKS is a computational infrastructure for the comprehensive assessment, characterization and differentiation of target candidates

Tel Aviv, ISRAEL, June 8, 2015 — Compugen Ltd. (NASDAQ: <u>CGEN</u>), a leading predictive drug discovery company, will disclose an additional novel immune checkpoint target candidate, CGEN-15029, and initial experimental validation data for this candidate at its Analyst and Investor Day in New York City today. In addition, the Company will disclose a new computational infrastructure, LINKS, which is designed for the comprehensive and comparative assessment of drug targets. Initial usage of this new infrastructure resulted in the selection of five target candidates, including CGEN-15029, as the highest priority immune checkpoint target programs to be advanced by the Company.

A live webcast of the Analyst and Investor Day event will be available on the investor section of <u>Compugen's website</u> beginning at 9:00 a.m. ET today. An archived replay of the webcast will be available on the website for 30 days after the event.

Dr. Cohen-Dayag, Ph.D., President and Chief Executive Officer of Compugen, stated, "We are very excited to disclose the initial validation of this additional novel immune checkpoint candidate, along with identification of its binding partner. These initial biological studies provide a better understanding of the mechanism of action of this candidate and should support a clear path to therapeutic antibody discovery and development."

Dr. Cohen-Dayag continued, "In addition, the recent development and application of our LINKS infrastructure provided new insights into the therapeutic potential of our novel target candidates and further enhanced our capabilities. Establishing our unique target discovery capabilities required many years of pioneering multi-disciplinary research, however, once established, the *in silico* discovery of multiple B7/CD28-like immune checkpoint candidates took only several months. We believe that further validation and clinical advancement of the multiple target candidates resulting from the initial usage of our discovery infrastructure will continue to demonstrate a level of predictive accuracy that is unprecedented in pharmaceutical research in terms of the quality and quantity of the candidates."

CGEN-15029 is one of eleven novel B7/CD28-like immune checkpoint candidates discovered by Compugen. Initial validation studies show that expression of CGEN-15029 in T-cells inhibits their activation by melanoma cells, consistent with an immune suppressive role of the target in the tumor microenvironment. The target possesses signature immune-checkpoint receptor characteristics, including expression in relevant subsets of T- and NK-cells, with particularly high expression in lymphocytes that populate the tumor microenvironment (known as tumor infiltrating lymphocytes or TILs). A binding partner for CGEN-15029 has also been identified, which enables a clear path towards selection of inhibitory antibodies and their therapeutic development.

The LINKS infrastructure is a novel, proprietary, in silico platform designed to allow comprehensive characterization and differentiation of drug target candidates. LINKS was designed to integrate and analyze extremely large amounts of patients' disease and clinical data to associate novel drug targets with specific disease conditions, clinical attributes and disease-associated mechanisms of action. During the past several months, this new infrastructure was applied to analyze Compugen's pipeline of immune checkpoint target candidates and to compare them to one another as well as to differentiate them from known immune checkpoints. This analysis included immune subpopulations, regulatory mechanisms and cancer-specific immune signatures, and enabled Compugen to compare and differentiate its large portfolio of novel immune checkpoint programs, other than the two that are subject to a collaboration agreement with a pharma partner. Based on this assessment, as well as experimental data for the target candidates, Compugen selected five target programs as highest priority, including CGEN-15029, representing various aspects of cellular immune biology and therefore potentially addressing multiple therapeutic applications and indications.

About Immune Checkpoints

Immune checkpoints are inhibitory receptors and their ligands, which are crucial for the maintenance of self-tolerance (that is, the prevention of autoimmunity) and for the protection of tissues from damage when the immune system is responding to pathogenic infection or other injuries. These immune checkpoints, which are "hijacked" by tumors to block the ability of the immune system to destroy the tumor (immune resistance), have emerged as promising targets for cancer immunotherapy, and have shifted the treatment paradigms for several major cancer types. Therapeutic blockade of immune checkpoints boost anti-tumor immunity, enabling the patient's immune system to recognize and attack the tumor cells, and mount durable anti-tumor responses and tumor destruction. Although to date the blockade of immune checkpoints has proven effective for only a minority of patients in a limited, but growing number of cancer types, it has provided impressive clinical benefits, enabling long-term survival, even for end-stage patients, and is transforming cancer therapeutics.

About Compugen

Compugen is a leading predictive drug discovery company focused on monoclonal antibodies and therapeutic proteins to address important unmet needs in the fields of oncology and immunology. The Company utilizes a broad and continuously growing integrated infrastructure of proprietary scientific understandings and predictive platforms, algorithms, machine learning systems and other computational biology capabilities for the *in silico* (by computer) prediction and selection of novel drug target candidates, which are then advanced in its Pipeline Program. The discovery and development of monoclonal antibody therapeutic candidates against selected Compugen-discovered novel target candidates is performed by Compugen's wholly-owned US subsidiary located in South San Francisco. The Company's business model includes collaborations covering the further development and commercialization of product candidates at various stages from its Pipeline Program and various forms of research and discovery agreements, in both cases providing Compugen with potential milestone payments and royalties on product sales or other forms of revenue sharing. For additional information, please visit Compugen's corporate website at 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. Some of these risks include: that Compugen's business model is substantially dependent on entering into collaboration agreements with third parties and may not be successful in generating revenues and that the development and commercialization of therapeutic products includes many inherent risks, including 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 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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