



FOR IMMEDIATE RELEASE

Compugen Presents New Preclinical Data Demonstrating the Distinctive Features of the PVRIG Pathway in Immuno-Oncology and the Potential of COM701 for Treating Multiple Solid Tumors

Data Further Strengthens Compugen's Rationale for Clinical Development Plan and Biomarker Strategy for COM701

COM701 Shown to be Safe at High Doses in GLP Toxicity Study

HOLON, ISRAEL – January 18, 2018 – [Compugen Ltd.](#) (NASDAQ: [CGEN](#)), a leader in predictive discovery and development of first-in-class therapeutics for cancer immunotherapy, today announced new preclinical data demonstrating distinctive features of the PVRIG pathway and the potential of COM701, a first-in-class therapeutic antibody candidate targeting PVRIG, for treating multiple solid tumors. The data, presented at the [Keystone Symposia Conference, A3: T Cell Dysfunction, Cancer and Infection](#), being held January 16-20, 2018, at the Beaver Run Resort, Breckenridge, CO, provide indication for a dominant role of the PVRIG/TIGIT axis in cancer evasion of immune response in multiple cancers. The data also support the Company's biomarker strategy and clinical development program for COM701, as a monotherapy and in combination treatment with COM902, Compugen's therapeutic antibody candidate targeting TIGIT, and with PD-1 blockers.

The poster titled "PVRIG Expression is Associated with T Cell Exhaustion and Synergizes with TIGIT to Inhibit Anti-Tumor Responses" (Poster no. 2028) includes data showing higher expression of PVRL2, the ligand for PVRIG, compared to expression of PVR, the ligand for TIGIT, in tumor types that include breast, endometrial, and ovarian cancers. These results suggest that PVRIG may be the dominant checkpoint in diverse patient populations with tumors that express elevated PVRL2, many of which are not responsive to PD-1 inhibitors, and which may have an increased likelihood of responding to COM701 as a monotherapy treatment.

In addition, expression studies show that PVRIG and TIGIT, and their respective ligands, are expressed in a broad variety of tumor types, such as those noted above, as well as lung, kidney, and head & neck cancers. These results indicate that within the same tumor indications there are variations with respect to the dominance of the two pathways, and that in patient populations where the two pathways are operative, the blockade of both TIGIT and PVRIG may be required to sufficiently stimulate an anti-tumor immune response. The data also indicate that exhausted

tumor-infiltrating lymphocytes found in multiple tumor types largely co-express three checkpoints, PVRIG, TIGIT and PD-1, suggesting these tumor types may require a triple combination treatment of COM701 with PD-1 and TIGIT blockers.

“We are very pleased to report further validation of the potential dominance of the PVRIG pathway in many cancers, and the progress being made with our COM701 program towards IND filing later this quarter. We are also encouraged by results received from the GLP toxicity study for COM701 showing it to be safe at high doses. The preclinical studies conducted by the Company, together with the expression profiles, underscore the biological rationale for our clinical trial, which is expected to begin later this year, testing COM701 as a monotherapy and in combination with other checkpoint inhibitors,” stated Anat Cohen-Dayag, PhD, President and CEO of Compugen. “Our Phase 1b trial protocol includes an all-comers trial design, but with an attempt to enrich for patients most likely to respond to COM701. We will also employ a biomarker strategy driven by the expression profiles we have elucidated.”

Dr. Cohen-Dayag added, “Our data suggest that the PVRIG pathway and COM701 may hold significant clinical value as the basis of new cancer immunotherapies to meet the needs of patient populations non-responsive or refractory to current immune checkpoint inhibitor therapy.”

The poster is available on Compugen's website at www.cgen.com.

About COM701 and COM902

COM701 is a humanized hybridoma antibody that binds with high affinity to PVRIG, a novel B7/CD28-like immune checkpoint target candidate discovered by Compugen, blocking its interaction with PVRL2. Blockade of PVRIG by COM701 has 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. In addition, COM701 combined with antagonist anti-PD-1 antibodies has demonstrated synergistic effects on human T cell stimulation, indicating the potential of these combinations to further enhance immune response against tumors.

COM902, Compugen’s antibody targeting TIGIT, was developed for combination use with COM701. Preclinical data strongly support the dual blockade of the two negative costimulatory arms of the axis – TIGIT and PVRIG – that results in a more robust T cell response to antigen stimulation, and therefore may result in an enhanced anti-tumor immune response.

About Compugen

Compugen is a therapeutic discovery and development company utilizing its broadly applicable predictive discovery infrastructure to identify novel drug targets and develop first-in-class therapeutics in the field of cancer immunotherapy. The Company’s therapeutic pipeline consists of immuno-oncology programs against novel drug targets it has discovered, including T cell immune checkpoints and myeloid target programs. Compugen’s business model is to selectively enter into collaborations for its novel targets and related drug product candidates at various stages of research and development. The Company is headquartered in Israel, with R&D

facilities in both Israel and South San Francisco, CA. Compugen's shares are listed on NASDAQ and the Tel Aviv Stock Exchange under the ticker symbol CGEN. 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," "potential," "plan," "goal," "estimate," "likely," "should," "confident," and "intends," and describe opinions about possible 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 Compugen may not be successful in generating adequate revenues or commercializing aspects of its business model. Moreover, 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, including the ability to finance the Company, 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 (SEC) as well as other documents that may be subsequently filed by Compugen from time to time with the SEC. 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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