

FOR IMMEDIATE RELEASE

Compugen Presents Research Supporting PVRIG as a Novel and Differentiated Checkpoint in the DNAM-1 Axis

 Research will be presented at the 2021 SITC's Targets for Cancer Immunotherapy: A Deep Dive Seminar Series

HOLON, ISRAEL – June 29, 2021 – Compugen Ltd. (Nasdaq: CGEN), a clinical-stage cancer immunotherapy company and a leader in predictive target discovery, today announced the presentation of additional research supporting the differentiation of PVRIG from other immune checkpoint inhibitors. The latest findings suggests that PVRIG uniquely clusters with early memory/stem-like T cell gene markers indicating its potential as an important checkpoint involved in T-cell expansion. The totality of the data to date reinforces the hypothesis that PVRIG in combination with TIGIT and PD-1 inhibitors may be required to address tumors not responding to existing immunotherapy. The research will be presented at the Society for Immunotherapy of Cancer (SITC) 2021 Targets for Cancer Immunotherapy: A Deep Dive Seminar Series, as part of a seminar titled "The TIGIT Pathway: A Deep Dive in Cancer Immunotherapy Targets", today, June 29, 2021, at 2:00-4:00 pm EDT.

"There is a growing appreciation for the potential role of stem-like memory T cells, in cancer biology, as these cells can self-renew and differentiate into effector cells that mediate direct anti-tumor effects. Our data suggests that PVRIG is expressed with PD-1 and TIGIT in stem-like memory T cells and exhausted T cells. Our latest findings to be presented today suggest that PVRIG has a distinguished expression on early differentiated (stem—like) memory T cells pointing to the possibility that PVRIG may act differently than PD-1 and TIGIT", said Eran Ophir, Ph.D., Vice President of Research and Drug Discovery at Compugen. "This data along with our previous research which showed that PVRIG's ligand PVRL2 is abundantly expressed across dendritic cells and tertiary lymphoid structures as well as PD-L1_{low} and PD-L1_{high} tumor types suggest that PVRIG could be a dominant checkpoint involved in T cell expansion. Thereby suggesting that PVRIG blockade by COM701, our first-in-class PVRIG inhibitor, may

enhance T cell proliferation and infiltration into tumors through the modulation of these important cells, even in tumors in which current checkpoint blockers have not proven successful."

Anat Cohen-Dayag, Ph.D., President and CEO of Compugen, added, "This research suggests that PVRIG plays a significant and unique immune checkpoint role within the DNAM axis in triggering an immune response in the tumor microenvironment. As such, targeting the PVRIG pathway has the potential to provide new treatment options, as monotherapy or in combination with other immune checkpoints, for both inflamed and less inflamed tumors".

The presentation will be available following the event on Compugen's website at www.cgen.com and is not considered a part of this press release.

About Compugen

Compugen is a clinical-stage therapeutic discovery and development company utilizing its broadly applicable, predictive computational discovery platforms to identify novel drug targets and develop therapeutics in the field of cancer immunotherapy. The Company's lead product candidate, COM701, a first-in-class anti-PVRIG antibody, for the treatment of solid tumors, is undergoing a Phase 1 clinical study. In addition, COM902, Compugen's antibody targeting TIGIT, is in a Phase 1 clinical study. The Company's therapeutic pipeline also includes early-stage immuno-oncology programs focused largely on myeloid targets. The Company is headquartered in Israel, with offices in South San Francisco, CA. Compugen's shares are listed on the Nasdaq and the Tel Aviv Stock Exchange under the ticker symbol CGEN. 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 Securities Act of 1933 and the Securities Exchange Act of 1934, as amended, and the safe-harbor provisions of the Private Securities Litigation Reform Act of 1995. Such forward-looking statements are based on the current beliefs, expectations and assumptions of Compugen. 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 similar expressions that are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Forward-looking statements include, but are not limited to, statements regarding the latest findings that suggest that

PVRIG uniquely clusters with early memory/stem like T cell gene markers, indicating its potential as an important checkpoint for T-cell expansion and that the totality of the data to date reinforces the hypothesis that PVRIG in combination with TIGIT and PD-1 inhibitors may be required to address tumors not responding to existing immunotherapy, statements that our latest findings suggests that PVRIG has a distinguished expression on early differentiated (stem-like) memory T cells pointing to the possibility that PVRIG may act differently than PD-1 and TIGIT", and that this data along with previous research suggest that PVRIG could be a dominant checkpoint involved in T cell expansion. Thereby suggesting and that it may also suggest that PVRIG blockade by COM701, may enhance T cell proliferation and infiltration into tumors through the modulation of these important cells, even in tumors in which current checkpoint blockers have not proven successful and statements that this research suggests that PVRIG plays a significant and unique immune checkpoint role within the DNAM axis in triggering an immune response in the tumor microenvironment and as such, targeting the PVRIG pathway has the potential to provide new treatment options, as monotherapy or in combination with other immune checkpoints, for both inflamed and less inflamed tumors. 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 operations could be affected by the outbreak and spread of COVID-19, clinical development involves a lengthy and expensive process, with an uncertain outcome and Compugen may encounter substantial delays or even an inability to begin clinical trials for any specific product, or may not be able to conduct or complete its trials on the timelines it expects; Compugen relies, and expects to continue to rely, on third parties to conduct its clinical trials and if these third parties do not successfully carry out their contractual duties, comply with regulatory requirements or meet expected deadlines (including as a result of the effect of the COVID-19), Compugen may experience significant delays in the conduct of its clinical trials; Compugen's approach to the discovery of therapeutic products is based on its proprietary computational target discovery infrastructure, which is unproven clinically; Compugen does not know whether it will be able to discover and develop additional potential product candidates or products of commercial value; 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. These risks and other risks 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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