Compugen Presents New Research Data Further Supporting PVRIG as a Potentially Promising Target for Cancer Immunotherapy

Expression data suggest potential of PVRIG inhibition to enhance T cell priming and infiltration into both inflamed and less inflamed tumors

Data further support combination with TIGIT and PD-1 inhibitors to potentially address patient populations for which current checkpoint blockers have not proven successful

Findings presented at the 2020 TIGIT Therapies Digital Summit

HOLON, ISRAEL – October 27, 2020 – Compugen Ltd. (Nasdaq: CGEN), a clinical-stage cancer immunotherapy company and a leader in predictive target discovery, today announced the presentation of new research data further supporting PVRIG as a potentially promising target for cancer immunotherapy. These data suggest that PVRIG inhibition may enhance T cell priming and infiltration into tumors and provide further evidence supporting the potential advantages of targeting PVRIG alone and in combination with TIGIT and PD-1 inhibitors, in tumors for which current checkpoint blockers have not proven successful. The new findings are delivered in a presentation at the 2020 TIGIT Therapies Digital Summit today, October 27, 2020, at 11:00 AM EDT.

“There is a growing appreciation for the potential role of stem-like memory T cells, known as T_{SCM}, in cancer biology, as these cells can self-renew and differentiate into effector cells that mediate direct anti-tumor effects. While recent evidence suggests that T_{SCM} cells express TIGIT and PD-1, our work now shows that they also express PVRIG. Furthermore, our data show that PVRIG’s ligand, PVRL2, is expressed in both dendritic cells and tertiary lymphoid structures, as well as in PD-L1_{low} less inflamed tumors,” said Eran Ophir, Ph.D., Vice President of Research and Drug Discovery at Compugen. “These
new data suggest that PVRIG may be involved in the inhibition of T cell proliferation, activation and infiltration into tumors and that its blockade by COM701, our first-in-class PVRIG inhibitor, may enhance T cell proliferation and infiltration into tumors through the modulation of these important cell populations, even in tumors in which current checkpoint blockers have not proven successful.”

Anat Cohen-Dayag, Ph.D., President and CEO of Compugen, added, “We are excited to share this new data showing that PVRIG and PVRL2 are expressed in three cell types, T_{SCM} cells, dendritic cells and tertiary lymphoid structures, all of which have been shown to be important in clinical response to checkpoint inhibitors. These data reinforce our view that PVRIG plays a significant 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. Additionally, the co-expression of PVRIG, TIGIT and PD-1 on T_{SCM} cells and their ligands on activated dendritic cells further substantiates our hypothesis that the simultaneous triple blockade of these pathways has the potential to expand the reach of cancer immunotherapies to new patient populations and cancer indications currently unresponsive or refractory to existing treatments.”

Key new findings presented by Dr. Ophir in the presentation titled, “Rationalizing Combination Strategies to Maximize Clinical Response as Novel ICI Therapies Emerge,” include:

- PVRIG is expressed on stem-like memory T cells (T_{SCM}), the cells that give rise to differentiated cytotoxic effector T cells, mediating direct anti-tumor effects in the tumor microenvironment.
- PVRL2 and PVR, the ligands for PVRIG and TIGIT, respectively, are expressed in both PD-L1^{low} and PD-L1^{high} tumor types.
- PVRL2 has abundant expression across various dendritic cell (DC) types; PVRL2, PVR and PD-L1 are expressed by activated DCs which are associated with efficient T cell activation.
- PVRL2 is expressed in tertiary lymphoid structures, structures in the tumor bed where local T cell priming occurs and which have been shown to be linked to positive response to immunotherapy.

Cumulatively, the data presented suggest that COM701 blockade could potentially mediate an interaction between DCs & T_{SCM} cells in the tumor bed and lymphoid organs. This potential mechanism could lead to increase T cell priming and infiltration into less inflamed tumors.
The presentation will be made available on Compugen’s website at www.cgen.com following the conclusion of the presentation.

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 data that suggest that PVRIG inhibition may enhance T cell priming and infiltration into tumors and provide further evidence supporting the potential advantages of targeting PVRIG alone and in combination with TIGIT and PD-1 inhibitors, in tumors where current checkpoint blockade has not proven successful and that 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 and that the data presented suggest that COM701 blockade could potentially mediate an interaction between DCs & TSCM cells in the tumor bed and lymphoid organs and this potential mechanism could lead to increase T cell priming and infiltration into 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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