FOR IMMEDIATE RELEASE

Compugen Expands COM701 Intellectual Property Portfolio with New U.S. Patent Covering Triple Combination Use with anti-PD-1 and anti-TIGIT Antibodies

- Broad method of use patent protection for COM701, a potential first-in-class anti-PVRIG antibody, in triple combination with any anti-PD-1 and any anti-TIGIT antibody for the treatment of cancer
- Further strengthens Compugen's IP portfolio across DNAM axis checkpoint inhibitors

HOLON, ISRAEL, January 18, 2022 — Compugen Ltd. (Nasdaq: CGEN), a clinical-stage cancer immunotherapy company and a leader in predictive target discovery, today announced that the United States Patent and Trademark Office (USPTO) has granted Compugen a new patent covering method of use for COM701, Compugen's potential first-in-class therapeutic antibody targeting PVRIG, or back-up anti-PVRIG antibody, in triple combination with any anti-PD-1 and any anti-TIGIT antibody for the treatment of cancer.

U.S. Patent No. 11,225,523 titled "Triple Combination Antibody Therapies" augments previously issued patents by expanding and protecting the use of COM701 for treating cancer patients, to include the triplet combination of COM701 with any anti-PD-1 antibody and any anti-TIGIT antibody.

"We are focused on maintaining our first mover advantage in the clinic, as the only company with monotherapy, doublet and triplet combination clinical studies evaluating PVRIG, TIGIT, and PD-1. We believe that this patent protection of triple combination regimens further strengthens our leadership position as we continue to execute on our clinical programs based on our DNAM axis hypothesis to treat patients with inflamed and less inflamed tumors who are not responding to current standard of care." said Anat Cohen-Dayag, Ph.D., President and Chief Executive Officer of Compugen.

U.S. Patent No. 11,225,523 is expected to expire no earlier than August 2037 in the United States.

About COM701

COM701 is a humanized antibody that binds with high affinity to PVRIG, a novel immune checkpoint discovered computationally by Compugen, blocking the interaction with its ligand, PVRL2. In pre-clinical studies, 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. Compugen has identified PVRIG and TIGIT as key parallel and complementary inhibitory pathways in the DNAM axis, which also intersect with the well-established PD-1 pathway. Research from Compugen suggests that these three pathways have different dominance in different tumor types and patients, implying that to induce effective antitumor responses, certain patient populations may require the blockade of different combinations of these three pathways. To test this hypothesis, Compugen has established a science-driven, biomarker informed clinical program, which evaluates different combinations of these axis members across tumor types. Compugen is the only company with clinical assets targeting both PVRIG and TIGIT in its portfolio allowing it to explore the potential of blocking these parallel and complementary members of the DNAM axis comprehensively to drive robust immune responses.

About Compugen

Compugen is a clinical-stage 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. Compugen's lead product candidate, COM701, a potential first-in-class anti-PVRIG antibody, for the treatment of solid tumors, is undergoing Phase 1 studies as a single agent and in dual, and triple combinations. COM902, Compugen's second fully owned clinical antibody targeting TIGIT, for the treatment of solid and hematological tumors, is undergoing Phase 1 studies as a single agent and in dual combination. Partnered programs include bapotulimab, a therapeutic antibody in Phase 1 development targeting ILDR2 licensed to Bayer under a research and discovery collaboration and license agreement, and AZD2936, a TIGIT/PD-1 bispecific in Phase 1 development derived from COM902 through a license agreement with AstraZeneca for the development of bispecific and multi-specific antibodies. Compugen's therapeutic pipeline of early-stage immuno-oncology programs includes myeloid targets. Compugen is headquartered in Israel, with offices in 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 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 using

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 expected expiration date of the patent in the United States. 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: the effect of the global COVID-19 pandemic may continue to negatively impact the global economy and may also adversely affect Compugen's business; changes to the patent law in the United States and other jurisdictions could diminish the value of patents in general, thereby impairing our ability to protect our product candidates; Compugen's approach to the discovery of therapeutic products is based on its proprietary computational target discovery infrastructure, which is unproven clinically; and Compugen does not know whether it will be able to discover and develop additional potential product candidates or products of commercial value. 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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