



FOR IMMEDIATE RELEASE

Compugen Announces FDA Clearance of IND Application for COM902

*Phase 1 clinical study in patients with advanced malignancies
expected to begin in early 2020*

*Clinical development of COM902 will enable testing the combination treatment
with COM701, Compugen's anti-PVRIG inhibitor*

HOLON, ISRAEL – November 4, 2019 – Compugen Ltd. (Nasdaq: CGEN), a clinical-stage cancer immunotherapy company and a leader in predictive target discovery, today announced that the U.S. Food and Drug Administration has cleared its investigational new drug (IND) application for COM902, its immuno-oncology therapeutic antibody targeting TIGIT in patients with advanced malignancies.

Under this IND, the Company intends to initiate a Phase 1 clinical trial in patients with advanced malignancies for whom standard of care therapies are currently ineffective. Expected to begin in early 2020, the clinical trial is designed to evaluate the safety, tolerability, pharmacokinetics, pharmacodynamics, and preliminary anti-tumor activity of COM902. The study is planned to be conducted at multiple centers in the United States and site selection activities are currently underway.

“IND clearance for COM902 is an important milestone that marks the third program based on new drug targets we discovered to be evaluated in the clinic,” said Anat Cohen-Dayag, Ph.D., President and CEO of Compugen. “We believe that TIGIT inhibitors may have an important role in the immunotherapy landscape and that our biology driven approach of combining anti-TIGIT and anti-PVRIG inhibitors, with or without PD-1 blockers, has the potential to improve clinical responses in patients who are unresponsive and refractory to currently approved immunotherapies. As the only company with clinical

candidates targeting both PVRIG and TIGIT, we hold a differentiated position in the crowded immuno-oncology space.”

Dr. Cohen-Dayag continued, “We are proud of our tremendous progress in recent years, transforming into a clinical-stage company with three anticipated Phase 1 programs in the clinic expected in 2020, two of which we are being developed internally. Importantly, these three programs address targets which originated from our unique computational discovery platform, highlighting the power and value of our computational capabilities to discover new, potentially significant biological pathways and targets for innovative therapeutics.”

About COM902

COM902, a high affinity, fully human antibody targeting TIGIT, was developed for combination treatment with COM701. Preclinical data demonstrate that TIGIT inhibition, either alone or in combination with other checkpoint inhibitors, can enhance T cell activation and increase anti-tumor immune responses. Parallel inhibition of TIGIT and PVRIG, the two coinhibitory arms of the DNAM-1 axis, results in synergistic effects on effector T cell function and tumor growth inhibition in various model systems that can be further increased with the addition of PD-1 blockade. Based on preclinical data these combinations may be clinically important for enhancing anti-tumor immune response and expanding the patient population responsive to checkpoint inhibition.

Compugen discovered TIGIT in 2009 leveraging its immune checkpoint computational discovery platform through which PVRIG was also discovered. The TIGIT discovery was published by Compugen in October 2009 in the Proceedings of the National Academy of Sciences (PNAS).

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 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 computationally, including T cell immune checkpoints and additional early-stage immuno-oncology programs focused largely on myeloid targets. 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 facilities 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 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 advance through clinical development or 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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