



For Immediate Release

Compugen Presents New Results Supporting CGEN-15049 as Potential Cancer Immunotherapy Target

Data presented at the Keystone Symposia on Tumor Immunology

Tel Aviv, Israel, February 9, 2015 --- Speaking today at the [Keystone Symposia on Tumor Immunology](#) in Banff, Canada, Arthur Machlenkin, PhD, Head of Immunology Group at Compugen Ltd. ([NASDAQ: CGEN](#)), presented new experimental results for CGEN-15049, a novel immune checkpoint protein discovered by the Company as a target for cancer immunotherapy. The new data presented for CGEN-15049 demonstrate expression of this protein on tumors isolated from ovarian cancer patients, both on the cancer cells and on immune cells within the tumor. Additional new data also demonstrate expression of CGEN-15049 on a similar population of tumor infiltrating immune cells in tumor-bearing mice. The collective data generated to date by Compugen support the ability of CGEN-15049 to affect key components of the immune system known to be involved in anti-tumor immune responses, supporting its potential as a promising target for immuno-oncology antibody therapy. Dr. Machlenkin's presentation at the Keystone Symposia also included experimental data for CGEN-15027, a different novel immune checkpoint candidate discovered by the Company.

The CGEN-15049 studies presented at the conference examined expression of this protein on cells isolated from primary tumors of ovarian cancer patients. Expression of CGEN-15049 was observed both on cancer cells and on tumor infiltrating myeloid cells, which have been associated with immune suppression. Additional data demonstrate consistent expression of CGEN-15049 on myeloid immune cells within the tumor microenvironment in mouse cancer models.

Dr. Anat Cohen-Dayag, Compugen's President and CEO, stated, "We are extremely pleased by the continuing flow of new data, such as the data being reported at this symposium, supporting expression of CGEN-15049 on cancer cells and immune myeloid cells from ovarian cancer patients. The data clearly demonstrate the potential for our novel checkpoint targets to serve as very attractive targets for immunotherapy of various cancers of high unmet need."

About CGEN-15049

CGEN-15049 is one of eleven novel B7/CD28-like immune checkpoints predicted *in silico* by Compugen. It was previously disclosed that this target candidate has an effect on a variety of immune cells, supporting its role as a modulator of the immune system. More specifically, CGEN-15049 has been shown to affect immune cells such as Natural Killer (NK) cells, which are important for innate anti-tumor immune responses, and various T cell types that constitute a crucial component of the adaptive

immune response. The adaptive immune response includes inhibition of cytotoxic T lymphocytes, which are responsible for killing tumor cells, and promotion of inducible regulatory T cells, which play a critical role in the immunosuppressive tumor microenvironment. In addition, CGEN-15049 was shown to be expressed on a wide variety of cancers with high clinical unmet need, such as lung, ovarian, breast, colorectal, gastric, prostate and liver cancers. These data support CGEN-15049's potential as a promising target for immuno-oncology antibody therapy.

About Immune Checkpoints

Immune checkpoints are inhibitory receptors and their ligands, which are crucial for the maintenance of self-tolerance (that is, the prevention of autoimmunity) and for the protection of tissues from damage when the immune system is responding to pathogenic infection or other injuries. These immune checkpoints, which are "hijacked" by tumors to block the ability of the immune system to destroy the tumor (immune resistance), have lately emerged as "game changers" and promising targets for cancer immunotherapy. Therapeutic blockade of immune checkpoints can boost anti-tumor immunity, enabling the patient's immune system to recognize and attack the tumor cells, and mount durable anti-tumor responses and tumor destruction. The blockade of immune checkpoints unleashes the potential of the anti-tumor immune response in a fashion that is transforming cancer therapeutics. Checkpoint-blocking antibodies have lately demonstrated impressive clinical benefits and long-term survival, even for end-stage patients, raising hopes that this novel approach will lead to effective therapeutic strategies and valuable additions in the fight against cancer.

About Compugen

Compugen is a leading drug discovery company focused on monoclonal antibodies and therapeutic proteins to address important unmet needs in the fields of oncology and immunology. The Company utilizes a broad and continuously growing integrated infrastructure of proprietary scientific understandings and predictive platforms, algorithms, machine learning systems and other computational biology capabilities for the *in silico* (by computer) prediction and selection of novel drug target candidates, which are then advanced in its Pipeline Program. The discovery and development of monoclonal antibody therapeutic candidates against selected Compugen-discovered novel target candidates is performed by Compugen's wholly-owned U.S. subsidiary located in South San Francisco. The Company's business model includes collaborations covering the further development and commercialization of product candidates at various stages from its Pipeline Program and various forms of research and discovery agreements, in both cases providing Compugen with potential milestone payments and royalties on product sales or other forms of revenue sharing. 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, including statements relating to CGEN-15049's potential to suppress anti-tumor immune responses, and to its potential and that of other novel Compugen checkpoint targets to serve as promising and attractive targets for immuno-oncology antibody therapy. Forward-looking

statements can be identified by the use of terminology such as “will,” “may,” “expects,” “anticipates,” “believes,” and “intends,” and describe opinions about 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. Some of these and other factors are 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 as well as other documents that may be subsequently filed by Compugen from time to time with the Securities and Exchange Commission. 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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