FOR IMMEDIATE RELEASE

Compugen Reports Third Quarter 2020 Results

Initiated Phase 1/2 triple combination study to accelerate the direct evaluation of the DNAM axis hypothesis

Enrollment in COM701 Phase 1 monotherapy expansion cohort and Phase 1 COM902 dose escalation studies on track

HOLON, ISRAEL – November 5, 2020 — Compugen Ltd. (Nasdaq: CGEN), a clinical-stage cancer immunotherapy company and a leader in predictive target discovery, today reported financial results for the third quarter ended September 30, 2020.

"We have reached an exciting milestone this quarter, initiating our biomarker-driven, Phase 1/2 triple combination study of our first-in-class anti-PVRIG antibody, COM701, with Bristol Myers Squibb's Opdivo® and their investigational TIGIT antibody, marking the evaluation of our DNAM hypothesis in a clinical setting," said Anat Cohen-Dayag, Ph.D., President and CEO of Compugen. "While combinations of TIGIT and PD-1 inhibitors are being evaluated by others, we believe that PVRIG inhibition is a key component in the DNAM axis and that the simultaneous blockade of PVRIG, TIGIT and PD-1 may be necessary to address the non-responsive patient populations in cancers where the three pathways are dominant. Importantly, as Compugen is the only company with a clinical asset targeting PVRIG and as the leader in the PVRIG space, we are well positioned to address this question."

Dr. Cohen-Dayag added, "We have also continued with steady execution across our other ongoing clinical studies, continuing patient enrollment in the COM701 monotherapy expansion cohort and collecting data from patients on study treatment in the dual combination dose escalation study of COM701 with Opdivo®. We expect to report data from both these studies in the first half of 2021. In addition, we continue our clinical progress in the TIGIT space with our TIGIT inhibitor, COM902, with patient enrollment in our dose escalation study remaining on track and data expected in 2021. In parallel, we have continued to foster our research to deepen our understanding of the unique biology of the DNAM axis to support the strong scientific foundation that has been integral to our success. We look forward to our planned data readouts

next year which are expected to provide additional insights into the role of PVRIG within the DNAM axis pathway."

Third Quarter 2020 and Recent Highlights

- Announced first patient dosed in the Phase 1/2 triple combination study of COM701 with Bristol Myers Squibb's Opdivo® (nivolumab) and anti-TIGIT antibody, designed to evaluate the simultaneous blockade of three immune checkpoint pathways, PVRIG, TIGIT and PD-1.
- Presented new research data at the 2020 TIGIT Therapies Digital Summit which demonstrate that PVRIG is also expressed on stem-like memory T cells (T_{SCM}), together with PD-1 and TIGIT, and that its ligand, PVRL2, is expressed on activated dendritic cells and tertiary lymphoid structures. Together, these results suggest that PVRIG inhibition in these cell populations may enhance T cell priming and infiltration into less inflamed tumors, potentially rendering these tumors more prone to checkpoint blockades. These results also support the distinct biological function of PVRIG.
- Announced addition of immuno-oncology pioneer and former Bristol Myers Squibb senior executive, Dr. Nils Lonberg, to Scientific Advisory Board.
- Bayer updated its clinical plan for BAY 1905254, a first-in-class immuno-oncology therapeutic antibody targeting ILDR2, a novel immune checkpoint discovered computationally by Compugen. Bayer will fully focus on treating IO naïve, first line head and neck squamous cell carcinoma patients with a combination of BAY 1905254 and Keytruda® in the expansion of its Phase 1 study.
- Granted U.S. Patent No. 10,751,415 and China Patent No. CN 110088132 B, each covering the composition of matter of COM902, alone or in combination with a second antibody targeting an immune checkpoint, including PD-1 and PVRIG (specifically COM701).

Financial Results

Research and development (R&D) expenses for the third quarter ended September 30, 2020 were $5.5 million, compared with $4.3 million in the comparable quarter in 2019. The increase in R&D expenses was due primarily to an increase in expenses associated with our various ongoing Phase 1 clinical studies as well as an increase in preclinical expenses, offset by the cost reduction measures announced by the Company in the first quarter of 2019.

Net loss for the third quarter ended September 30, 2020 was $7.8 million, or $0.09 per basic and diluted share, compared with $6.5 million, or $0.10 per basic and diluted share, in the comparable quarter in 2019.

As of September 30, 2020, cash, cash related accounts and short-term and long-term bank deposits totaled approximately $133 million, compared with approximately $44 million as of December 31, 2019.

Conference Call and Webcast Information

The Company will hold a conference call today, November 5, 2020, at 8:30 AM ET to review its results for the third quarter ended September 30, 2020 and provide a corporate update. To access the conference call by telephone, please dial 1-866-744-5399 from the United States, or +972-3-918-0610 internationally. The call will also be available via live webcast through Compugen's website, located at the following link. Following the live audio webcast, a replay will be available on the Company's website.

(Tables to follow)

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. Compugen is headquartered in Israel, with offices in South San Francisco, CA. The Company'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 our belief that PVRIG inhibition is a key component in the DNAM axis and that the simultaneous blockade of PVRIG, TIGIT and PD-1 may be necessary to address the non-responsive patient populations in

cancers where the three pathways are dominant, regarding the expected timeline to provide data from our different clinical trials and regarding our planned data readouts next year which we expect will provide additional insights into the role of PVRIG within the DNAM axis pathway. 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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COMPUGEN LTD.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(U.S. dollars in thousands, except for share and per share amounts)

	Three Months Ended September 30,		Nine Months Ended, September 30,	
	2020	**2019**	**2020**	**2019**
	Unaudited	**Unaudited**	**Unaudited**	**Unaudited**
Operating expenses				
Research and development expenses	5,502	4,297	14,661	15,502
Marketing and business development expenses	219	104	633	492
General and administrative expenses	2,504	2,264	7,111	6,192
Total operating expenses	**8,225**	**6,665**	**22,405**	**22,186**
Financial and other income, net	464	174	1,270	588
Loss before taxes on income	**(7,761)**	**(6,491)**	**(21,135)**	**(21,598)**
Taxes on income	-	-	-	722
Net loss	**(7,761)**	**(6,491)**	**(21,135)**	**(20,876)**
Basic and diluted net loss per ordinary share	(0.09)	(0.10)	(0.27)	(0.34)
Weighted average number of ordinary shares used in computing basic and diluted net loss per share	83,169,989	65,405,851	78,239,917	62,300,582

COMPUGEN LTD.
CONDENSED CONSOLIDATED BALANCE SHEETS DATA
(U.S. dollars, in thousands)

	September 30, 2020 Unaudited	December 31, 2019
ASSETS		
Current assets		
Cash, cash equivalents, short-term bank deposits and restricted cash	132,887	43,879
Other accounts receivable and prepaid expenses	1,254	1,121
Total current assets	134,141	45,000
Non-current assets		
Long-term prepaid expenses	1,868	693
Severance pay fund	2,605	2,485
Operating lease right to use asset	2,869	3,247
Property and equipment, net	1,876	2,338
Total non-current assets	9,218	8,763
Total assets	**143,359**	**53,763**
LIABILITIES AND SHAREHOLDERS EQUITY		
Current liabilities		
Other accounts payable, accrued expenses and trade payables	6,827	5,445
Current maturity of operating lease liability	523	600
Short-term deferred participation in R&D expenses	572	774
Total current liabilities	7,922	6,819
Non-current liabilities		
Long-term deferred participation in R&D expenses	2,309	2,691
Long-term operating lease liability	2,647	2,978
Accrued severance pay	3,245	2,954
Total non-current liabilities	8,201	8,623
Total shareholders' equity	127,236	38,321
Total liabilities and shareholders' equity	**143,359**	**53,763**