FOR IMMEDIATE RELEASE

Compugen Reports First Quarter 2020 Results

Encouraging signals of durable disease control, including confirmed partial responses in ongoing COM701 Phase 1 dose escalation study

Initiated COM902 Phase 1 dose escalation study which would enable the Company to clinically evaluate dual blockade of PVRIG and TIGIT inhibitory pathways in the DNAM axis

HOLON, ISRAEL, May 6, 2020 — Compugen Ltd. (Nasdaq: CGEN), a clinical-stage cancer immunotherapy company and a leader in predictive target discovery, today reported financial results for the first quarter ended March 31, 2020.

"We have entered 2020 well positioned and with significant momentum to advance our clinical programs that address novel, internally-discovered, drug targets for cancer immunotherapy," said Anat Cohen-Dayag, Ph.D., President and CEO of Compugen. "On the clinical front, we recently presented at AACR updated data from our ongoing Phase 1 dose escalation study of COM701 as a monotherapy and in combination with Opdivo®. These encouraging data, which include signals of durable disease control and confirmed partial responses both in the monotherapy and combination arms, further confirm our hypothesis that by blocking PVRIG, an important new checkpoint, COM701 has the potential to broaden the patient population that can benefit from cancer immunotherapy. We also dosed the first patient in the Phase 1 study for COM902, our anti-TIGIT therapeutic antibody, which would enable us to clinically evaluate the dual blockade of PVRIG and TIGIT inhibitory pathways in the DNAM axis."

Dr. Cohen-Dayag added, "Our continued progress and execution enabled us to successfully raise approximately $79 million through an underwritten public offering, which we believe is testament to the growing recognition of our science-driven approach backed by our computational discovery capabilities. With our strengthened balance sheet, we are well positioned to continue our strategic clinical development plans which will be expanded to also include a third clinical trial, a Phase 1/2 triple combination study testing COM701 with Bristol-

Myers Squibb's Opdivo® and their investigational TIGIT inhibitor in the second half of this year, as well as advance our early-stage programs to propel our future therapeutic pipeline. We are fortunate that, to date, the COVID-19 pandemic has not significantly impacted our operations, including our clinical development timelines. For now, we are not changing the anticipated data readouts and milestones timelines we previously provided. We are grateful to our employees and clinical investigators for their continued hard work and dedication. In these unique circumstances we remain focused on advancing our clinical and early-stage programs to maintain positive momentum to achieve our goals."

First Quarter 2020 and Recent Highlights

- Presented updated data from the dose escalation arms of the Phase 1 trial of COM701 in patients with advanced solid tumors at The 2020 American Association for Cancer Research (AACR) Virtual Annual Meeting I
    - COM701 was well-tolerated through 20 mg/kg IV Q4 weeks as a monotherapy and 10 mg/kg IV Q4 weeks in combination with Opdivo® (480 mg IV Q4 weeks) with no dose-limiting toxicities reported.
        - No increased toxicity was observed in the combination arm.
        - No patients discontinued treatment due to toxicity of any study drug.
    - Preliminary COM701 pharmacokinetic data supports IV Q4 weeks dosing, allowing dosing schedule aligned with Opdivo®.
    - Encouraging disease control rates of 69% (11/16) for monotherapy and 75% (9/12) for the combination arm.
        - 50% of patients (6/12) in the combination arm remain on study, some with continued responses observed beyond 200 days of treatment.
    - Durable responses of stable disease for over six months in six of 28 patients (21%) across treatment arms.
    - The two patients previously reported with confirmed partial responses, one from the monotherapy arm (microsatellite stable primary peritoneal cancer) and one from the combination arm (microsatellite stable colorectal cancer), remain on treatment.
    - Enrollment in the COM701 monotherapy dose escalation arm is completed and enrollment in the combination dose escalation arm at 20 mg/kg IV Q4 weeks is ongoing. Enrollment in the monotherapy expansion cohorts is expected to begin in Q2 2020.
- Dosed the first patient in a Phase 1 dose escalation clinical trial of COM902, an immuno-oncology therapeutic antibody targeting TIGIT, in patients with advanced malignancies.
- Announced plans to expand the Bristol-Myers Squibb collaboration with a Phase 1/2 triple combination study to evaluate COM701 in combination with Opdivo® and BMS-986207, Bristol-Myers Squibb's investigational TIGIT inhibitor. This study is expected to begin in 2H 2020.

- Strengthened intellectual property portfolio
    - Granted EPO Patent No. 3295951, covering the composition of matter for COM701 and backup antibodies including any anti-PVRIG antibody having the binding fragments of COM701 or backup antibodies for the treatment of cancer.
    - Granted U.S. Patent No. 10,550,173, covering methods of screening for anti-PVRIG antibodies that inhibit the binding of PVRIG with PVRL2.
    - Granted EPO Patent No. 3258951, covering the use of any anti-PVRIG antibody that activates T cells and/or NK cells, in the treatment of cancer.
- Published a peer-reviewed paper in *Cancer Immunology Research* in collaboration with Bayer demonstrating *in vitro* T cell activation and *in vivo* anti-tumor activity of BAY 1905254, a first-in-class immuno-oncology antibody targeting ILDR2. ILDR2 is a novel immune checkpoint discovered computationally by Compugen which is currently being evaluated by Bayer in a Phase 1 study as monotherapy and in combination with Keytruda®.
- Completed an underwritten public offering of 8,816,339 ordinary shares (including the shares issued in Q2 upon exercise of the underwriters' option) at $9.00 per share. The net proceeds from the offering were approximately $74 million, after deducting underwriting discounts and commissions and other offering expenses that were paid by the Company.

Financial Results

Research and development expenses for the first quarter ended March 31, 2020 were $4.7 million, compared with $6.3 million in the comparable quarter in 2019. The decrease is attributed mostly to the restructuring process announced at the end of the first quarter of 2019 offset by an increase in expenses associated with clinical-related activities.

Net loss for the first quarter of 2020 was $7.1 million, or $0.10 per basic and diluted share, compared with a net loss of $8.4 million, or $0.14 per basic and diluted share, in the comparable quarter of 2019.

As of March 31, 2020, cash, cash related accounts and short-term and long-term bank deposits totaled approximately $121.2 million, compared with approximately $43.9 million as of December 31, 2019. The increase in cash balances during the first quarter is attributed to approximately $70 million of net proceeds from the underwritten public offering (excluding the shares issued upon exercise of the underwriters' option in the second quarter), $5.2 million from the exercise of warrants and $7.2 million from the exercise of employee options, offset by operating expenses and working capital. The Company has no debt.

Conference Call and Webcast Information

The Company will hold a conference call today, May 6, 2020, at 8:30 AM ET to review its first quarter 2020 results. To access the conference call by telephone, please dial 1-888-407-2553 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'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 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 our hypothesis that by blocking PVRIG, an important new checkpoint, COM701 has the potential to broaden the patient population that can benefit from immunotherapy, our plans to begin the Phase 1/2 triple combination study testing COM701 with Bristol-Myers Squibb's Opdivo® and their investigational TIGIT inhibitor in the second half of this year, as well as advance our early-stage programs to propel our future pipeline, our anticipation to meet our anticipated data

readouts and milestones timelines that we previously provided and the fact that enrollment in the expansion cohorts is expected to begin in the Q2 2020. 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 Coronavirus), Compugen may experience significant delays in the conduct of its clinical trials; Compugen's ability to present data derived from collaborations with its partners is dependent in some cases on the agreement of its partners to present such data, and in any event is dependent on our acceptance to present data in relevant conferences; 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 described in the "Risk Factors" section of Compugen's most recent Annual Report on Form 20-F 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 March 31,	
	2020	**2019**
	Unaudited	**Unaudited**
Revenues	-	-
Cost of revenues	-	-
Gross profit	-	-
Operating expenses		
Research and development expenses	4,712	6,335
Marketing and business development expenses	210	213
General and administrative expenses	2,476	1,966
Total operating expenses	7,398	8,514
Operating loss	**(7,398)**	**(8,514)**
Financial and other income, net	270	106
Loss before taxes on income	**(7,128)**	**(8,408)**
Taxes on income	-	-
Net loss	**(7,128)**	**(8,408)**
Basic and diluted net loss per ordinary share	(0.10)	(0.14)
Weighted average number of ordinary shares used in computing basic and diluted net loss per share	70,276,521	60,016,734

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

	March 31, 2020 Unaudited	December 31, 2019
ASSETS		
Current assets		
Cash, cash equivalents, short-term bank deposits and restricted cash	121,192	43,879
Other accounts receivable and prepaid expenses	1,093	1,121
Total current assets	122,285	45,000
Non-current assets		
Long-term prepaid expenses	1,165	693
Severance pay fund	2,426	2,485
Operating lease right to use asset	3,088	3,247
Property and equipment, net	2,182	2,338
Total non-current assets	8,861	8,763
Total assets	**131,146**	**53,763**
LIABILITIES AND SHAREHOLDERS EQUITY		
Current liabilities		
Other accounts payable, accrued expenses and trade payables	7,376	5,445
Current maturity of operating lease liability	489	600
Short-term deferred participation in R&D expenses	842	774
Total current liabilities	8,707	6,819
Non-current liabilities		
Long-term deferred participation in R&D expenses	2,454	2,691
Long-term operating lease liability	2,816	2,978
Accrued severance pay	3,055	2,954
Total non-current liabilities	8,325	8,623
Total shareholders' equity	114,114	38,321
Total liabilities and shareholders' equity	**131,146**	**53,763**