Purple Biotech Presents New Clinical Data from NT219 at the 2021 ASCO Annual Meeting

NT219 was Well-tolerated with Minimal Adverse Events in Initial Clinical Data from Ongoing Phase 1/2 Clinical Trial in Adults with Advanced Solid Tumors

Partial Response Observed in aPatient with Refractory Gastroesophageal Junction Cancer

REHOVOT, Israel, June 04, 2021 -- Purple Biotech Ltd. ("Purple Biotech", or the "Company") (NASDAQ/TASE: PPBT), a clinical-stage company developing first-in-class, effective and durable therapies by overcoming tumor immune evasion and drug resistance, announced today the presentation of new data from the first dose level cohort of its ongoing Phase 1/2 clinical trial of NT219, at the 2021 ASCO Annual Meeting, being held virtually June 4-8, 2021. The Phase 1/2 study is evaluating NT219 as monotherapy for the treatment of solid tumors, in addition to a subsequent dose escalation of NT219 in combination with cetuximab, an epithelial growth factor receptor (EGFR) blocking monoclonal antibody, for the treatment of recurrent and/or metastatic solid tumors and squamous cell carcinoma of the head and neck cancer.

As of the cutoff date (April 25th, 2021), six patients have been enrolled into the study, including three subjects with advanced solid tumors in the first cohort receiving 3 mg/kg of NT219 as a single agent, and three subjects in the second cohort receiving 6mg/kg of NT219 as monotherapy.

Initial results from the first dose level cohort revealed NT219 was well-tolerated with minimal adverse events. In addition, a partial response was observed in a patient with refractory gastroesophageal junction cancer, previously treated with four prior lines of therapies. For this patient, who has been treated for 22 weeks, a complete remission was seen at the largest target lesion and at one non-target lesion, while stable disease was observed at the other non-target lesion.

"We are encouraged by these initial safety and efficacy results from this first-in-human study of NT219," said Alberto Bessudo, M.D., a medical oncologist and hematologist at California Cancer Associates for Research & Excellence, who presented the data at ASCO. "This study is especially compelling because NT219 uniquely targets the IRS protein to degradation by utilizing a covalent, irreversible inhibition strategy. Based on the preclinical results observed to date, by targeting the IRS1/2 and STAT3 pathways NT219 has the potential to significantly shrink tumors, prevent and reverse tumor resistance when administered as a monotherapy, as well as in combination with existing oncology therapies."

"Our innovative approach to overcoming tumor immune evasion and drug resistance is focused on interactions within the microenvironment of the tumor, not just targeting the tumor as an isolated feature," said Bertrand C. Liang, M.D., Ph.D., Chief Medical Officer of Purple Biotech. "It has been demonstrated clinically that IRS and STAT3 proteins are central in defining tumor responsiveness to therapy. Indeed, STAT3 has been seen to play a role in treatment response, and IRS is a novel target with recent promising findings and interest in oncology. While still early in the trial, we are very excited by these initial clinical results and expect to report additional data from higher dose levels of this study in the second half of this year."

NT219 is a dual inhibitor, novel small molecule that simultaneously targets IRS1/2 and STAT3,

known important oncogenic drivers and major drug resistance pathways in hard-to-treat cancers. The primary objectives of the open-label Phase 1/2 trial are to evaluate safety, assess pharmacokinetics, identify the recommended dose to be studied in the Phase 2 portion, and establish preliminary efficacy of NT219. The Phase 1 portion of the study will encompass a dose escalation evaluation of NT219 monotherapy administered weekly in patients with refractory advanced solid tumors. Upon reaching the third dose level of NT219, a second cohort of patients, with recurrent or metastatic squamous cell carcinoma of the head and neck or colorectal adenocarcinoma, will be administered weekly with NT219, and dose escalated, in combination with cetuximab.

About Purple Biotech

Purple Biotech Ltd. is a clinical-stage company developing first-in-class therapies by overcoming tumor immune evasion and drug resistance. The Company's oncology pipeline includes NT219 and CM24. NT219 is a dual inhibitor, novel small molecule that simultaneously targets IRS1/2 and STAT3. The Company is currently advancing NT219 as a monotherapy treatment of solid tumors, followed by a dose escalation of NT219 in combination with cetuximab for the treatment of recurrent and/or metastatic squamous cell carcinoma of the head and neck cancer (SCCHN) or colorectal adenocarcinoma in a phase 1/2 study, and an expansion phase of NT219 at its recommended phase 2 level in combination with cetuximab in patients with recurrent and/or metastatic squamous cell carcinoma of the head and neck. CM24 is a humanized monoclonal antibody that blocks CEACAM1, an immune checkpoint protein that supports tumor immune evasion and survival through multiple pathways. The Company is advancing CM24 as a combination therapy with anti-PD-1 checkpoint inhibitors in selected cancer indications in a phase 1b study followed by a phase 2 for the treatment of non-small cell lung cancer and pancreatic cancer. The Company has entered into a clinical collaboration agreement, as amended, with Bristol Myers Squibb for the planned phase 1/2 clinical trials to evaluate the combination of CM24 with the PD-1 inhibitor nivolumab (Opdivo®) in patients with non-small cell lung cancer and in combination with nivolumab in addition to nab-paclitaxel (ABRAXANE®) in patients with pancreatic cancer. The Company is also the owner of Consensi®, an FDA-approved fixed-dose combination of celecoxib and amlodipine besylate, for the simultaneous treatment of osteoarthritis pain and hypertension that was approved by the FDA for marketing in the U.S. Consensi® is being sold in the U.S. by Burke Therapeutics, the marketing partner of the Company's U.S. distributor, Coeptis Pharmaceuticals. The Company has also partnered to commercialize Consensi in China and South Korea. The Company's corporate headquarters are located in Rehovot, Israel. For more information, please visit https://www.purple-biotech.com.

Forward-Looking Statements and Safe Harbor Statement

Certain statements in this press release that are forward-looking and not statements of historical fact are forward looking statements within the meaning of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Such forward-looking statements include, but are not limited to, statements that are not statements of historical fact, and may be identified by words such as "believe", "expect", "intend", "plan", "may", "should", "could", "might", "seek", "target", "will", "project", "forecast", "continue" or "anticipate" or their negatives or variations of these words or other comparable words or by the fact that these statements do not relate strictly to historical matters. You should not place undue reliance on these forward-looking statements, which are not guarantees of future performance. Forward-looking statements reflect our current views,

expectations, beliefs or intentions with respect to future events, and are subject to a number of assumptions, involve known and unknown risks, many of which are beyond our control, as well as uncertainties and other factors that may cause our actual results, performance or achievements to be significantly different from any future results, performance or achievements expressed or implied by the forward-looking statements. Important factors that could cause or contribute to such differences include, among others, risks relating to: the plans, strategies and objectives of management for future operations; product development for NT219 and CM24; the process by which early stage therapeutic candidates such as NT219 and CM24 could potentially lead to an approved drug product is long and subject to highly significant risks, particularly with respect to a joint development collaboration; the fact that drug development and commercialization involves a lengthy and expensive process with uncertain outcomes; our ability to successfully develop and commercialize our pharmaceutical products; the expense, length, progress and results of any clinical trials; the impact of any changes in regulation and legislation that could affect the pharmaceutical industry; the difficulty in receiving the regulatory approvals necessary in order to commercialize our products; the difficulty of predicting actions of the U.S. Food and Drug Administration or any other applicable regulator of pharmaceutical products; the regulatory environment and changes in the health policies and regimes in the countries in which we operate; the uncertainty surrounding the actual market reception to our pharmaceutical products once cleared for marketing in a particular market; the introduction of competing products; patents obtained by competitors; dependence on the effectiveness of our patents and other protections for innovative products; our ability to obtain, maintain and defend issued patents; the commencement of any patent interference or infringement action against our patents, and our ability to prevail, obtain a favorable decision or recover damages in any such action; and the exposure to litigation, including patent litigation, and/or regulatory actions, and other factors that are discussed in our Annual Report on Form 20-F for the year ended December 31, 2020 and in our other filings with the U.S. Securities and Exchange Commission ("SEC"), including our cautionary discussion of risks and uncertainties under "Risk Factors" in our Registration Statements and Annual Reports. These are factors that we believe could cause our actual results to differ materially from expected results. Other factors besides those we have listed could also adversely affect us. Any forward-looking statement in this press release speaks only as of the date which it is made. We disclaim any intention or obligation to publicly update or revise any forward-looking statement or other information contained herein, whether as a result of new information, future events or otherwise, except as required by applicable law. You are advised, however, to consult any additional disclosures we make in our reports to the SEC, which are available on the SEC's website, https://www.sec.gov.

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