Pardes Biosciences Announces Top-line Results from Phase 2 Trial Evaluating Pomotrelvir for the Treatment of COVID-19

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Otherwise healthy, vaccinated adults without risk factors for progression to severe disease experienced rapid clearance of SARS-CoV-2 virus and evidence of rapid alleviation of targeted and key COVID-19 symptoms independent of treatment arm

Based on these results, Pardes to suspend further clinical development of pomotrelvir and explore a range of strategic alternatives

CARLSBAD, Calif., April 03, 2023 (GLOBE NEWSWIRE) -- Pardes Biosciences, Inc. (NASDAQ: PRDS), a clinical-stage biopharmaceutical company developing a novel oral antiviral drug candidate for the treatment of COVID-19, today reported topline results from its Phase 2 clinical trial evaluating pomotrelvir for the treatment of mild-to-moderate COVID-19 in test-positive, symptomatic, otherwise healthy, vaccinated adults without risk factors for developing severe disease. Pomotrelvir did not meet the primary endpoint measured by the proportion of participants below the limit of detection for infectious SARS-CoV-2 on day 3 of treatment with pomotrelvir versus placebo. Otherwise healthy, vaccinated adults without risk factors for progression to severe disease experienced rapid clearance of SARS-CoV-2 virus and evidence of rapid alleviation of targeted and key COVID-19 symptoms independent of treatment arm. As a result of these data, the Company has decided to suspend further development of pomotrelvir and explore a range of strategic alternatives.

“We continue to believe in the need for new oral antivirals for COVID-19, and the importance of continued investment in next generation therapeutics that will be needed to help prevent the next pandemic. However, these unexpected results have forced us to make the difficult decision to suspend further development of pomotrelvir and pursue alternative strategic opportunities for the company,” said Thomas G. Wiggans, Chief Executive Officer and Chair of Pardes Biosciences. “We are proud of the work done here at Pardes Biosciences in pursuit of our mission and the breadth of research assets and intellectual property we’ve generated along the way. The team worked tirelessly, in the midst of an unprecedented pandemic, to advance the science and accomplished remarkable things in a short amount of time. Lastly, and most importantly, I want to sincerely thank all of the participants and investigators involved in the development of pomotrelvir for their support.”

Topline Phase 2 Results

Pomotrelvir did not achieve the primary endpoint as measured by proportion of participants below the limit of detection for infectious SARS-CoV-2 on day 3 by infectious virus assay (IVA) with 70% reaching undetectable levels in the pomotrelvir treated group versus 63% in the placebo group (p=0.57). Pomotrelvir did not demonstrate meaningful improvement over placebo in reduction from baseline of SARS-CoV-2 infectious virus titer by IVA or in the reduction from baseline or proportion achieving undetectable viral load (RNA) by quantitative reverse transcriptase polymerase chain reaction (qRT-PCR) measured from mid-turbinate swabs.

Table 1. SARS-CoV-2 Infectious Virus Titer and Viral Load by Study Treatment and Visit through Day 5

		Infectious Virus Titer (by IVA) [log_{10} $TCID_{50}$/mL]		Viral Load (RNA by qRT-PCR) [log_{10} copies/mL]	
		Pomotrelvir	Placebo	Pomotrelvir	Placebo
	N†	53	32	153	77
Baseline		2.0	2.1	5.3	5.1
Day 2	Mean change	-1.0	-0.7	-0.7	-0.6
	p-value	0.11		0.47	
	Proportion negative	45%	31%	17%	21%
	p-value	0.17		0.43	
Day 3	Mean change	-1.4	-1.3	-1.5	-1.0
	p-value	0.40		0.05	
	Proportion negative	70%	63%	27%	26%
	p-value	0.57		0.81	
Day 5	Mean change	-1.6	-1.8	-2.6	-2.6
	p-value	0.78		0.79	
	Proportion negative	96%	97%	46%	59%
	p-value	NE		0.07	

†N: Infectious virus titer assessments were conducted on the modified intent-to-treat virology (mITTV) analysis set, which is a subset of the modified intention to treat (mITT) analysis set that includes participants who had detectable infectious SARS-CoV-2 at Baseline/Day 1. Viral load assessments were conducted on the mITT analysis set, which includes all randomized participants with ≥ 2 symptoms consistent with COVID-19 ≤ 5 days prior to randomization and a positive SARS-CoV-2 test (qRT-PCR or RAT) ≤ 24 hours prior to randomization who received ≥ 1 dose of study drug.
Mean change from Baseline: p-value = difference between treatment groups by van Elteran test
Proportion negative: For IVA = below limit of detection (LOD, 0.375 log_{10} $TCID_{50}$/mL); For viral load = undetectable RNA (1.24 log_{10} copies/mL); p-values = standardized risk difference between treatment groups by Mantel-Haenszel method (with adjustment for the following stratification factors: SARS-CoV-2 positive direct test diagnosis <= 3 days versus > 3 to 5 days from first onset of COVID-19 symptom(s))
NE = not evaluable

There were no deaths and no participants experienced progression to severe COVID-19. There were no drug-related adverse events, serious adverse events, or adverse events leading to discontinuation in either treatment arm. Pomotrelvir was well tolerated, with treatment-emergent, drug-related nausea occurring in 3.1% of participants, which represented the only adverse event occurring in greater than 2% of pomotrelvir-treated participants.

The median time to alleviation of the 14 U.S. Food and Drug Administration guidance-defined and 12 (excluding loss of taste and smell) targeted COVID-19 symptoms were 8 and 7 days, respectively, in both pomotrelvir and placebo treated participants. Five predefined key COVID-19 symptoms of cough, stuffy or runny nose, low energy or tiredness, sore throat, and feeling hot or feverish were reported within a range of prevalence of 89% to 60% of participants at baseline. The median time to alleviation of all of these 5 key COVID-19 symptoms was 6 days in both pomotrelvir and placebo treated participants; median times to resolution of each individual key symptom ranged between 2 and 5 days, and were similar for both pomotrelvir and placebo treated participants.

Overall, baseline levels of SARS-CoV-2 infectious virus and viral load were lower, clearance of infectious virus was more rapid, and the speed of COVID-19 symptom improvement was faster than anticipated when the study was designed. These are important considerations when exploring the clinical benefit for potential SARS-CoV-2 therapeutics at this stage of the COVID-19 pandemic, with high levels of underlying population immunity due to vaccination plus ongoing community exposure to SARS-CoV-2 variants resulting in the likelihood of more modest viral burden and acute symptoms.

This study was conducted in otherwise healthy, vaccinated adults without risk factors for progression to severe disease with ≥ 2 symptoms consistent with COVID-19 for ≤ 5 days and with a positive SARS-CoV-2 test (qRT-PCR or RAT) within 24 hours of randomization. The majority (83%) of enrolled participants were randomized to treatment within 3 days of COVID-19 symptom onset. Participants received study drug treatment as soon as possible upon randomization and were instructed to take the full 1400 mg total daily dose of study drug on study day 1, followed by 700 mg twice-daily, approximately every 12 hours, administered with food, for a total of 5 days (10 doses).

The Company continues to analyze the results from this study and intends to submit these data to a scientific conference and/or peer-reviewed publication to contribute to the understanding of SARS-CoV-2 and the development of potential COVID-19 therapeutics.

Based on these results, the Company will suspend further clinical development of pomotrelvir and the Company's Board of Directors has initiated a review of a range of strategic alternatives that may include, but are not limited to, an acquisition, merger, business combination, or other transaction. There can be no assurance that this review process will result in the Company pursuing a transaction or that any transaction, if pursued, will be completed on attractive terms or at all. The Company does not intend to comment further unless or until the Board of Directors has approved a definitive course of action, the review process is concluded, or it is determined that other disclosure is appropriate. As of March 31, 2023, the Company's preliminary cash, cash equivalents and short-term investments totaled approximately $172.4 million.

The Company's unaudited financial statements for the three months ended March 31, 2023 are not yet available. Accordingly, the information presented reflects the Company's preliminary financial data subject to the completion of the Company's financial closing procedures and any adjustments that may result from the completion of the quarterly review of the Company's financial statements. Actual financial results that will be reflected in the Company's Quarterly Report on Form 10-Q for the three months ended March 31, 2023 when they are completed and publicly disclosed may differ from the preliminary results presented here.

About Study PBI-0451-0002 (NCT 05543707)
The Phase 2 double-blind, randomized study enrolled 242 participants at 63 sites within the United States and evaluated the antiviral activity, safety, and clinical efficacy of pomotrelvir compared with placebo in non-hospitalized, symptomatic, otherwise healthy adults from 18 to 65 years of age with mild-to-moderate COVID-19 and a confirmed positive SARS-CoV-2 test. Participants were previously vaccinated against SARS-CoV-2 and did not have medical conditions associated with risk factors for severe illness. Due to the lack of drug-drug interactions, the use of concomitant medications for underlying health conditions was not restricted in this study. Participants were randomized 2:1 to pomotrelvir or matching placebo dosed orally twice-daily at 700 mg (2 x 350 mg tablets) with food for five days.

This Phase 2 clinical trial was powered to assess the primary endpoint of the proportion of participants below the limit of detection for infectious SARS-CoV-2 on Day 3 of treatment as measured by infectious virus assay from nasal swab samples. Secondary objectives assessed included the dynamics and time to negativity in SARS-CoV-2 viral load by both qRT-PCR and rapid antigen testing, safety and tolerability, and clinical efficacy through assessment of COVID-19 symptoms, hospitalizations and deaths through Day 28.

About Pardes Biosciences, Inc.
Pardes Biosciences, Inc. is a clinical-stage biopharmaceutical company focused on developing an oral antiviral treatment for COVID-19. Following the suspension of its clinical development activities, the Company is exploring a range of strategic alternatives. For more information, please visit www.pardesbio.com.

Availability of Other Information about Pardes Biosciences
The Company intends to use the Investors page of its website (https://ir.pardesbio.com) as a means of disclosing material non-public information and for complying with its disclosure obligations under Regulation FD. Accordingly, investors should monitor the Company's Investors website, in addition to following the Company's press releases, U.S. Securities and Exchange Commission (SEC) filings, public conference calls, presentations and webcasts.

Forward Looking Statements
This press release contains statements that relate to future events and expectations and, as such, constitute forward-looking statements within the

meaning of the Private Securities Litigation Reform Act of 1995. When or if used in this press release, the words “believe,” “intend,” “may,” “plan,” “possible,” “predict,” “should,” “will,” and similar expressions and their variants, as they relate to the Company, may identify forward-looking statements. All statements that reflect the Company’s expectations, assumptions or projections about the future, other than statements of historical fact, are forward-looking statements, including, without limitation, statements regarding the Company's preliminary cash, cash equivalents and short-term investments as of March 31, 2023, the Company’s intent to review strategic alternatives and its submission of clinical data to a scientific conference and/or peer reviewed publication. Any forward-looking statements in this press release are based on management’s current expectations and beliefs and are subject to a number of risks, uncertainties and important factors that may cause actual events or results to differ materially from those expressed or implied by any forward-looking statements contained in this press release, including, without limitation, risks associated with: the completion of the quarterly review of the Company’s financial statements for the quarter ended March 31, 2023; volatility and uncertainty in the capital markets for biopharmaceutical companies; the Company’s ability to execute its planned exploration and evaluation of strategic alternatives; availability of suitable third parties with which to conduct contemplated strategic transactions; whether the Company will be able to pursue a strategic transaction, or whether any transaction, if pursued, will be completed on attractive terms; whether the Company’s plans will provide the intended benefits and cost savings; and other risks and uncertainties described under the heading “Risk Factors” in the Company’s Annual Report on Form 10-K for the year ended December 31, 2022 and other filings subsequently filed with the SEC. The statements in this press release speak only as of the date of this press release, even if subsequently made available by the Company on its website or otherwise. The Company disclaims any intention or obligation to update publicly any forward-looking statements, whether in response to new information, future events, or otherwise, except as required by applicable law.

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