Atea Pharmaceuticals Presents Positive Initial Phase 2 Data for Bemnifosbuvir and Ruzasvir Combination for Treatment of Hepatitis C Virus at EASL Congress 2024

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97% SVR12 Rate Observed with 8 Weeks of Treatment in Lead-In Cohort of HCV-Infected Patients in Ongoing Phase 2 Clinical Study

EASL Presentations Continue to Support Best-in-Class Potential with High Antiviral Potency, Short Treatment Duration, Low Risk of Drug Interaction and High Barrier to Resistance

BOSTON, June 05, 2024 (GLOBE NEWSWIRE) -- Atea Pharmaceuticals, Inc. (Nasdaq: AVIR) ("Atea"), a clinical-stage biopharmaceutical company engaged in the discovery and development of oral antiviral therapeutics for serious viral diseases, today announced new data from the lead-in cohort (n=60) of the Company's ongoing Phase 2 combination study of bemnifosbuvir, an oral nucleotide NS5B polymerase inhibitor, and ruzasvir, an oral NS5A inhibitor, for the treatment of hepatitis C virus (HCV). With an 8-week treatment duration, the Phase 2 data from the lead-in cohort of non-cirrhotic patients showed a 97% sustained virologic response rate at 12 weeks post-treatment (SVR12), which is the primary efficacy endpoint of the study.

The Company will also present preclinical data further demonstrating a high barrier to resistance and pharmacokinetics for bemnifosbuvir and a low risk of drug-drug interactions for ruzasvir. These data are being presented at the European Association for the Study of the Liver (EASL) Congress taking place June 5-8, 2024, in Milan, Italy.

"Today, new challenges are hindering progress towards our goal of HCV elimination in the U.S. and globally. Patient demographics have changed, and the pace of new HCV infections is quickly outpacing the rate of those being treated. It is apparent that further innovations are required to address the needs of today's HCV-infected patients," said Jean-Pierre Sommadossi, PhD, Chief Executive Officer and Founder of Atea Pharmaceuticals. "The data being presented at EASL demonstrate a potential best-in-class profile that combines the most compelling attributes of current HCV drug treatments through the innovative combination of bemnifosbuvir and ruzasvir. We look forward to reporting the full results from our ongoing Phase 2 study during the second half of this year."

Results from the lead-in cohort of the Phase 2 study also showed a 100% SVR12 rate in participants infected with genotype 3 (n=13), a historically difficult-to-treat genotype of HCV. The combination regimen was well tolerated, with no drug-related severe adverse events (SAEs) or treatment discontinuations. Based on these positive data from the lead-in cohort, the Phase 2 study continues, with the aim of enrolling up to an additional 220 subjects, including those with compensated cirrhosis.

"Today, many of my HCV patients present with other conditions requiring multiple concurrent therapies and complicated lives," said Eric Lawitz, MD, The Texas Liver Institute, Clinical Professor of Medicine, University of Texas Health San Antonio. "I am excited about the initial bemnifosbuvir and ruzasvir combination data. The combination of a short 8-week treatment duration, a low risk of drug-drug interactions, and robust antiviral efficacy across all genotypes makes this an attractive regimen."

More than 2 million people in the U.S. are living with chronic HCV, and approximately 100,000 new chronic cases are diagnosed each year. HCV diagnoses continually outpace annual treatment rates, as less than a third of those diagnosed with HCV receive timely treatment.

Data Presented at EASL Include:

Poster Title: Lead-in Cohort Results From a Phase 2 Study of a Novel 8-Week Combination Regimen of Bemnifosbuvir and Ruzasvir in Patients with Chronic Hepatitis C Virus Infection (THU-382)
Conclusion: Data from the lead-in cohort of 60 patients in the Phase 2 clinical trial of bemnifosbuvir and ruzasvir in HCV-infected subjects showed a high SVR12 rate of 97% in the lead-in cohort with a short 8-week duration of treatment. The primary endpoints of the study are safety and SVR12. Viral kinetics were similar in genotype 1 and genotype 3 infected subjects, including a 100% SVR12 rate in historically difficult-to-treat genotype 3 infected subjects. The combination was generally safe and well tolerated. There were no drug-related serious adverse events or treatment discontinuations, and adverse events were mostly mild.

Poster Title: Bemnifosbuvir is a Potent HCV NS5B Inhibitor with a Favorable Antiviral Profile and High Resistance Barrier (SAT-402)
Conclusion: Viral resistance is an important consideration for direct-acting antiviral (DAA) use as it may impact the efficacy of treatments for HCV infection. Results demonstrated that bemnifosbuvir is at least ten-fold more potent than sofosbuvir, a medication to treat HCV infections, across all genotypes tested and is not resistant to resistance-associated substitutions (RASs) that have been found to alter the activity of sofosbuvir. While the C223H mutation was found to be the primary bemnifosbuvir RAS in genotype 1b, multiple additional substitutions at other NS5B regions were required to confer meaningful resistance, suggesting that bemnifosbuvir provides a high barrier to resistance. Based upon the data demonstrated to date, it is expected that the bemnifosbuvir and ruzasvir combination should have a more compelling antiviral profile against major HCV NS5A RAVs than the current standard of care.

Poster Title: Absorption, Distribution, Metabolism, and Excretion of [14C]-Bemnifosbuvir in Rats (SAT-411)
Conclusion: This preclinical study in rats was conducted to better understand the tissue distribution, metabolites, and excretion routes following bemnifosbuvir treatment. Following a single oral dose in rats, bemnifosbuvir has favorable overall absorption, distribution, metabolism, and excretion (ADME) properties, including good bioavailability (>60%) and wide distribution to tissues with low penetration into the brain. Bemnifosbuvir was highly and rapidly metabolized to the metabolite AT-273, consistent with the proposed metabolic and activation pathway.

Poster Title: Low Risk of Drug-Drug Interactions for Ruzasvir Based Upon *In Vitro* Metabolism and Transporter Interaction Studies (SAT-412)
Conclusion: Many patients infected with HCV are also taking multiple co-medications, which may impact treatment decisions. This preclinical study aimed to further understand the risk of drug-drug interactions (DDIs) for ruzasvir by analyzing its metabolism in human liver microsomes and cells. Based on these *in vitro* data and static DDI risk assessment models, ruzasvir has a low potential to be a perpetrator of DDIs via inhibition or induction of CYP450. Similarly, it has a low potential to inhibit OATP1B1 and OATP1B3 transporters. The relevance of bile salt export pump (BSEP) inhibition to DDIs is limited.

About Hepatitis C Virus

Hepatitis C virus (HCV) is a blood-borne, positive-sense, single-stranded (ss)RNA virus that primarily infects liver cells. HCV is a leading cause of chronic liver disease and liver transplants, spreading via blood transfusion, hemodialysis, and needle sticks. An estimated 50 million people globally live with chronic HCV infection, with approximately 1 million new infections and 242,000 deaths occurring each year. Most HCV-related deaths are due to liver scarring (cirrhosis) and liver cancer (hepatocellular carcinoma). Injection drug use accounts for around 30% of new HCV cases globally and approximately 60% in the U.S. Annually, HCV diagnoses in the U.S. outpace treatment rates, as less than a third of those diagnosed with HCV receive timely treatment.

About Bemnifosbuvir and Ruzasvir for Hepatitis C Virus (HCV)

Bemnifosbuvir is an oral, purine nucleotide prodrug designed to inhibit viral replication by impairing viral RNA polymerase, a key component in the replication machinery of enveloped positive single-stranded RNA viruses, such as human coronaviruses and HCV. Atea is developing bemnifosbuvir in combination with ruzasvir, an oral NS5A inhibitor for the treatment of HCV. As single agents, both bemnifosbuvir and ruzasvir have demonstrated potent pan-genotypic antiviral activity against HCV. The combination of bemnifosbuvir and ruzasvir has exhibited synergistic *in vitro* activity against HCV with no pharmacokinetic (PK) drug-drug interactions in healthy volunteers.

In vitro studies have shown bemnifosbuvir to be approximately 10-fold more active than sofosbuvir (SOF) against a panel of laboratory strains and clinical isolates of HCV GT 1–5. *In vitro* studies have also demonstrated that bemnifosbuvir remained fully active against SOF resistance-associated strains (S282T), with up to 58-fold more potency than SOF. The PK profile of bemnifosbuvir supports once-daily dosing for the treatment of HCV. Across both HCV and COVID-19 programs, bemnifosbuvir has been administered to over 2,100 subjects and has been well-tolerated at doses up to 550 mg for durations up 12 weeks in healthy subjects and patients.

Ruzasvir has demonstrated highly potent and pan-genotypic antiviral activity in preclinical (picomolar range) and clinical studies. Ruzasvir has been administered to over 1,200 HCV-infected patients at daily doses of up to 180 mg for 12 weeks and has demonstrated a favorable safety profile. Ruzasvir's PK profile supports once-daily dosing.

About the Phase 2 Study

Atea is currently conducting a global Phase 2 clinical trial in treatment-naïve, chronic HCV-infected patients either without cirrhosis or with compensated cirrhosis. This study is designed to evaluate the safety and efficacy of eight weeks of treatment with the combination consisting of once-daily bemnifosbuvir 550 mg and ruzasvir 180 mg. Up to approximately 280 treatment-naïve patients across all HCV genotypes, including the lead-in cohort of 60 patients without cirrhosis, are expected to be enrolled in this Phase 2 clinical trial.

The primary endpoints of the study are safety and sustained virologic response (SVR) at 12 weeks post-treatment (SVR12). Other virologic endpoints include virologic failure, SVR at 24 weeks post-treatment (SVR24) and resistance. Topline results from all patients enrolled in the Phase 2 study are anticipated in the second half of 2024.

About Atea Pharmaceuticals

Atea is a clinical-stage biopharmaceutical company focused on discovering, developing and commercializing oral antiviral therapies to address the unmet medical needs of patients with serious viral infections. Leveraging the Company's deep understanding of antiviral drug development, nucleos(t)ide chemistry, biology, biochemistry and virology, Atea has built a proprietary nucleos(t)ide prodrug platform to develop novel product candidates to treat single stranded ribonucleic acid, or ssRNA, viruses, which are a prevalent cause of serious viral diseases. Atea plans to continue to build its pipeline of antiviral product candidates by augmenting its nucleos(t)ide platform with other classes of antivirals that may be used in combination with its nucleos(t)ide product candidates. Currently, Atea is focused on the development of orally-available antiviral agents for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the virus that causes COVID-19, and hepatitis C virus (HCV). For more information, please visit www.ateapharma.com.

Forward-Looking Statements

This press release includes "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements in this press release include but are not limited to the Company's plans relating to the date and time of the presentations at the conference, the time of anticipated release of additional clinical data and the potential of bemnifosbuvir in combination with ruzasvir to treat HCV. When used herein, words including "expects," "may," "will," "anticipates," "plans," and similar expressions are intended to identify forward-looking statements. In addition, any statements or information that refer to expectations, beliefs, plans, projections, objectives, performance or other characterizations of future events or circumstances, including any underlying assumptions, are forward-looking. All forward-looking statements are based upon the Company's current expectations and various assumptions. The Company believes there is a reasonable basis for its expectations and beliefs, but they are inherently uncertain. The Company may not realize its expectations, and its beliefs may not prove correct. Actual results could differ materially from those described or implied by such forward-looking statements as a result of various important factors, including, without limitation, the important factors discussed and updated from time to time under the caption "Risk Factors" in the reports the Company files with the SEC, including annual reports on Form10-K, quarterly reports on Form10-Q, current reports on Form 8-K and other filings each of which are accessible on the SEC's website at www.sec.gov. These and other important factors could cause actual results to differ materially from those indicated by the forward-looking statements made in this press release. Any such forward-looking statements represent management's estimates as of the date of this press release. While the Company may elect to update such forward-looking statements at some point in the future, except as required by law, it disclaims any obligation to do so, even if subsequent events cause our views to change. These forward-looking statements should not be relied upon as representing the Company's views as of any date subsequent to the date of this press release.

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