



Cytokinetics Announces Results From REDWOOD-HCM and GALACTIC-HF Presented in Late Breaking Clinical Trial Session at the HFSA Annual Scientific Meeting

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Full Results from REDWOOD-HCM Demonstrate Improvements in Biomarkers and Heart Failure Symptoms in Patients with Obstructive Hypertrophic Cardiomyopathy Treated with Aficamten Supporting Progression to Phase 3 Clinical Trial

Additional Results from GALACTIC-HF Show Effect of Treatment with Omecamtiv Mecarbil in Black Patients Consistent with Overall Population and White Patients

Cytokinetics to Host Investor/Media Event and Webcast on September 13, 2021 at 8:30 AM Eastern Time

SOUTH SAN FRANCISCO, Calif., Sept. 12, 2021 (GLOBE NEWSWIRE) -- Cytokinetics, Incorporated (Nasdaq: CYTK) today announced that the full results from REDWOOD-HCM (Randomized Evaluation of Dosing With CK-274 in Obstructive Outflow Disease in HCM), the Phase 2 clinical trial of *aficamten* in patients with hypertrophic cardiomyopathy (HCM), and additional results from GALACTIC-HF (Global Approach to Lowering Adverse Cardiac Outcomes Through Improving Contractility in Heart Failure) assessing the effect of *omecamtiv mecarbil* in Black patients with heart failure (HF) with reduced ejection fraction (HFrEF), were presented in a Late Breaking Clinical Trials session at the Heart Failure Society of America (HFSA) Annual Scientific Meeting in Denver, CO, and virtually online.

REDWOOD-HCM: Full Results Demonstrate Improvements in LVOT-G, NT-proBNP and NYHA Class in Patients Treated with *Aficamten* with Reversibility After Discontinuation

Marty Maron, M.D., Director, Hypertrophic Cardiomyopathy Center; Tufts University School of Medicine, and Principal Investigator of REDWOOD-HCM presented the primary results of REDWOOD-HCM. The baseline characteristics of patients in REDWOOD-HCM were consistent with a symptomatic patient population with high resting and Valsalva gradients reflective of substantial burden of disease. Treatment with *aficamten* for 10 weeks resulted in statistically significant reductions from baseline compared to placebo in the average resting left ventricular (LV) outflow tract pressure gradient (LVOT-G) ($p=0.0003$, $p=0.0004$, Cohort 1 and Cohort 2, respectively) and the average post-Valsalva LVOT-G ($p=0.001$, $p<0.0001$, Cohort 1 and Cohort 2, respectively). The majority of patients treated with *aficamten* (78.6% in Cohort 1 and 92.9% in Cohort 2) achieved the target goal of treatment, defined as resting gradient <30 mmHg and post-Valsalva gradient <50 mmHg at Week 10 compared to placebo (7.7%).

Reductions in LVOT-G occurred within two weeks of initiating treatment with *aficamten*, were maximized within two to six weeks of the start of dose titration and were sustained until the end of treatment at 10 weeks. Reversibility of the pharmacodynamic effect of *aficamten* was seen after a two-week washout, with resting LVOT-G, post-Valsalva LVOT-G, NT-proBNP and LVEF returning to baseline values. The observed reductions in LVOT-G were dose dependent, with patients achieving greater reductions of LVOT-G with increasing doses of *aficamten*. Over the 10-week study period, patients treated with *aficamten* in both Cohort 1 and Cohort 2 also experienced statistically significant reductions in NT-proBNP ($p=0.003$) (Figure 1). Treatment with *aficamten* was also associated with an improvement in heart failure functional class as measured by New York Heart Association (NYHA) class. Improvement by at least one class was achieved by 31% in the placebo group, 43% of patients in Cohort 1 ($p>0.1$) and 64% of patients in Cohort 2 ($p=0.08$) (Figure 1).

Figure 1. Change from Baseline in NT-proBNP and NYHA Class is available at <https://www.globenewswire.com/NewsRoom/AttachmentNg/04143a1d-b002-4ac6-b3b7-70ccb60c25a>

Treatment with *aficamten* in REDWOOD-HCM was generally well tolerated. Overall, the incidence of adverse events was similar between treatment arms, there were no treatment emergent adverse events that resulted in treatment interruption or discontinuation, and no serious adverse events ascribed to *aficamten* by investigators. All patients completed treatment per protocol.

"Results from REDWOOD-HCM underscore the potential clinical utility of *aficamten* based on the elimination of resting LV outflow tract gradients in nearly all patients, substantial improvement in heart failure symptoms, rapid onset and reversibility of effect, and the ability to use precise echo-guided titration without treatment interruptions," said Marty Maron, M.D., Director, Hypertrophic Cardiomyopathy Center; Tufts University School of Medicine, and Principal Investigator of REDWOOD-HCM. "We look forward to investigating *aficamten* further in a large Phase 3 clinical trial that we expect to start by year end."

GALACTIC-HF: Outcomes in Black Patients Treated with *Omecamtiv Mecarbil* Similar to Overall Population and to White Patients

David E. Lanfear, M.D., FACC, Section Head, Advanced Heart Failure and Transplant Cardiology; Co-Director, Center for Individualized and Genomic Medicine Research, Henry Ford Hospital, presented additional analyses of the effects of *omecamtiv mecarbil* in Black patients enrolled in GALACTIC-HF. Of 8,256 patients enrolled in the trial, 562 were Black (6.8%) and 285 were randomized to receive treatment with *omecamtiv mecarbil*. Among Black patients, treatment with *omecamtiv mecarbil* resulted in a trend towards reduction in the primary endpoint by 18% (HR=0.82, 95% CI 0.64-1.04), corresponding to a reduction in the primary event rate of 7.7/100 patient-years with a number-needed-to-treat of 13 patients. This result, like the overall study results, was driven primarily by a reduction in HF hospitalizations (HR=0.80) and HF events (HR=0.82), with no effect on cardiovascular mortality (HR=1.03) (Figure 2). There were no significant differences in adverse events in Black patients between the groups treated with *omecamtiv mecarbil* and placebo.

Figure 2. Primary Outcome in Black Patients Enrolled in GALACTIC-HF is available at <https://www.globenewswire.com/NewsRoom/AttachmentNg/e62cddd3-b548-422a-8207-a0b2a52d133e>

A great majority of Black patients in GALACTIC-HF ($n=535$, 95%) were enrolled in the United States ($n=357$), South Africa ($n=78$) and Brazil ($n=100$). Black patients enrolled in these countries were younger, more often female, had lower ejection fraction (EF), more often had hypertension and diabetes, and were less likely to have atrial arrhythmias or ischemic etiology compared to white patients (each $p<0.001$). An analysis of Black patients enrolled only in these three countries showed that, compared to white patients from the same countries, they had a statistically similar overall benefit from treatment with *omecamtiv mecarbil* (HR=0.83 vs. HR=0.88), with a numerically greater risk reduction in hospitalization (HR=0.81 vs. HR=0.90).

"These analyses are particularly important because compared to other racial or ethnic groups Black patients have higher risk of heart failure, worse outcomes, and have historically been underrepresented in clinical research," said David E. Lanfear, M.D., FACC, Section Head, Advanced Heart

Failure and Transplant Cardiology; Co-Director, Center for Individualized and Genomic Medicine Research, Henry Ford Hospital. "GALACTIC-HF enrolled the most Black patients among recent heart failure trials, accounting for 29% of enrollment in the United States, and this robust enrollment has allowed us to be more confident about the favorable effect of *omecamtiv mecarbil* in Black patients with heart failure."

Conference Call and Webcast Information

Members of Cytokinetics' senior management team will host a conference call and webcast tomorrow, September 13, at 8:30 AM Eastern Time. The webcast can be accessed through the Investors & Media section of the Cytokinetics website at www.cytokinetics.com. The live audio of the conference call can also be accessed by telephone by dialing either (866) 999-CYTK (2985) (United States and Canada) or (706) 679-3078 (international) and typing in the passcode 2994714.

An archived replay of the webcast will be available via Cytokinetics' website until September 27, 2021. The replay will also be available via telephone by dialing (855) 859-2056 (United States and Canada) or (404) 537-3406 (international) and typing in the passcode 2994714 from September 13, 2021 at 11:30 AM Eastern Time until September 27, 2021.

About *Aficamten*

Aficamten is an investigational selective, small molecule cardiac myosin inhibitor discovered following an extensive chemical optimization program that was conducted with careful attention to therapeutic index and pharmacokinetic properties that may translate into next-in-class potential in clinical development. *Aficamten* was designed to reduce the number of active actin-myosin cross bridges during each cardiac cycle and consequently suppress myocardial hypercontractility that is associated with hypertrophic cardiomyopathy (HCM). In preclinical models, *aficamten* reduced myocardial contractility by binding directly to cardiac myosin at a distinct and selective allosteric binding site, thereby preventing myosin from entering a force producing state.

The development program for *aficamten* is assessing its potential for the treatment of HCM and to improve exercise capacity and relieve symptoms in patients with hyperdynamic ventricular contraction and includes REDWOOD-HCM, a Phase 2 clinical trial designed to evaluate the effect of treatment with *aficamten* compared to placebo on measures of safety, tolerability as well as pharmacodynamics and biomarkers.

About Hypertrophic Cardiomyopathy

Hypertrophic cardiomyopathy (HCM) is a disease in which the heart muscle (myocardium) becomes abnormally thick (hypertrophied). The thickening of cardiac muscle leads to the inside of the left ventricle becoming smaller and stiffer, and thus the ventricle becomes less able to relax and fill with blood. This ultimately limits the heart's pumping function, resulting in symptoms including chest pain, dizziness, shortness of breath, or fainting during physical activity. A subset of patients with HCM are at high risk of progressive disease which can lead to atrial fibrillation, stroke and death due to arrhythmias. There are no FDA approved medical treatments that directly address the hypercontractility that underlies HCM.

About *Omecamtiv Mecarbil*

Omecamtiv mecarbil is an investigational, selective, small molecule cardiac myosin activator, the first of a novel class of myotropes¹ designed to directly target the contractile mechanisms of the heart, binding to and recruiting more cardiac myosin heads to interact with actin during systole. *Omecamtiv mecarbil* was designed to increase the number of active actin-myosin cross bridges during each cardiac cycle and consequently augment the impaired contractility that is associated with heart failure with reduced ejection fraction (HFrEF). Preclinical research has shown that *omecamtiv mecarbil* increases cardiac contractility without increasing intracellular myocyte calcium concentrations or myocardial oxygen consumption.²⁻⁴

The development program for *omecamtiv mecarbil* is assessing its potential for the treatment of HFrEF and includes GALACTIC-HF and METEORIC-HF, a Phase 3 clinical trial designed to evaluate the effect of treatment with *omecamtiv mecarbil* compared to placebo on exercise capacity.

About Heart Failure

Heart failure is a grievous condition that affects more than 64 million people worldwide⁵ about half of whom have reduced left ventricular function.^{6,7} It is the leading cause of hospitalization and readmission in people age 65 and older.^{8,9} Despite broad use of standard treatments and advances in care, the prognosis for patients with heart failure is poor.¹⁰ An estimated one in five people over the age of 40 are at risk of developing heart failure, and approximately 50 percent of people diagnosed with heart failure will die within five years of initial hospitalization.^{11,12} More than 2 million people in the U.S. are estimated to have an ejection fraction <30%, indicating they may have severe heart failure.¹³

About Cytokinetics

Cytokinetics is a late-stage biopharmaceutical company focused on discovering, developing and commercializing first-in-class muscle activators and next-in-class muscle inhibitors as potential treatments for debilitating diseases in which muscle performance is compromised. As a leader in muscle biology and the mechanics of muscle performance, the company is developing small molecule drug candidates specifically engineered to impact muscle function and contractility. Cytokinetics is preparing a U.S. NDA submission of *omecamtiv mecarbil*, its novel cardiac muscle activator, following positive results from GALACTIC-HF, a large, international Phase 3 clinical trial in patients with heart failure. Cytokinetics is conducting METEORIC-HF, a second Phase 3 clinical trial of *omecamtiv mecarbil*. Cytokinetics is also developing *aficamten*, a next-generation cardiac myosin inhibitor, for the potential treatment of hypertrophic cardiomyopathies (HCM). The company has announced positive results from Cohorts 1 and 2 in REDWOOD-HCM, a Phase 2 clinical trial of *aficamten* in patients with obstructive HCM. Cytokinetics expects to start a Phase 3 clinical trial of *aficamten* in patients with obstructive HCM in Q4 2021. Cytokinetics is also developing *reldesemtiv*, a fast skeletal muscle troponin activator, currently the subject of COURAGE-ALS, a Phase 3 clinical trial in patients with ALS. Cytokinetics continues its over 20-year history of pioneering innovation in muscle biology and related pharmacology focused to diseases of muscle dysfunction and conditions of muscle weakness.

For additional information about Cytokinetics, visit www.cytokinetics.com and follow us on [Twitter](#), [LinkedIn](#), [Facebook](#) and [YouTube](#).

Forward-Looking Statements

This press release contains forward-looking statements for purposes of the Private Securities Litigation Reform Act of 1995 (the "Act"). Cytokinetics disclaims any intent or obligation to update these forward-looking statements and claims the protection of the Act's Safe Harbor for forward-looking statements. Examples of such statements include, but are not limited to, statements relating to the GALACTIC-HF or REDWOOD-HCM clinical trials, statements relating to the potential benefits of *omecamtiv mecarbil* or *aficamten*, and statements relating to the potential submission of an NDA for *omecamtiv mecarbil*. Cytokinetics' research and development activities; the design, timing, results, significance and utility of preclinical and clinical results; and the properties and potential benefits of Cytokinetics' other drug candidates. Such statements are based on management's current expectations, but actual results may differ materially due to various risks and uncertainties, including, but not limited to, potential difficulties or delays in

the development, testing, regulatory approvals for trial commencement, progression or product sale or manufacturing, or production of Cytokinetics' drug candidates that could slow or prevent clinical development or product approval; Cytokinetics' drug candidates may have adverse side effects or inadequate therapeutic efficacy; the FDA or foreign regulatory agencies may delay or limit Cytokinetics' ability to conduct clinical trials; Cytokinetics may be unable to obtain or maintain patent or trade secret protection for its intellectual property; standards of care may change, rendering Cytokinetics' drug candidates obsolete; and competitive products or alternative therapies may be developed by others for the treatment of indications Cytokinetics' drug candidates and potential drug candidates may target. For further information regarding these and other risks related to Cytokinetics' business, investors should consult Cytokinetics' filings with the Securities and Exchange Commission.

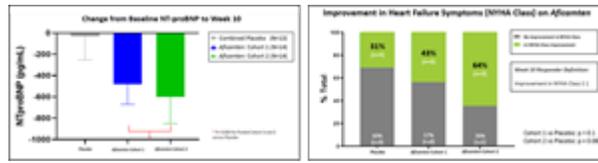
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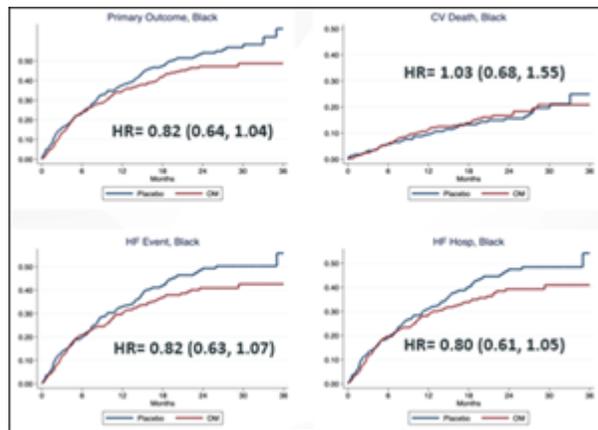
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Figure 1



Change from Baseline in NT-proBNP and NYHA Class

Figure 2



Primary Outcome in Black Patients Enrolled in GALACTIC-HF