



Cytokinetics Announces Publication of Manuscript Detailing Baseline Characteristics of GALACTIC-HF in European Journal of Heart Failure

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Heart Failure Patients in Phase 3 Clinical Trial of *Omecamtiv Mecarbil* Are at High Risk of Cardiovascular Events and Symptom Burden

SOUTH SAN FRANCISCO, Calif., Oct. 02, 2020 (GLOBE NEWSWIRE) -- Cytokinetics, Incorporated (Nasdaq: CYTK) today announced that a manuscript detailing the baseline characteristics from GALACTIC-HF (Global Approach to Lowering Adverse Cardiac Outcomes Through Improving Contractility in Heart Failure), the Phase 3 event driven cardiovascular outcomes clinical trial of *omecamtiv mecarbil*, was published in the *European Journal of Heart Failure*.¹ *Omecamtiv mecarbil*, a selective cardiac myosin activator, is being developed for the potential treatment of heart failure with reduced ejection fraction under a collaboration between Amgen and Cytokinetics, with funding and strategic support from Servier.

"GALACTIC-HF enrolled hospitalized and recently discharged heart failure patients with baseline characteristics that correlate with a high risk of cardiovascular events and symptom burden despite receiving standard of care therapies," said Fady I. Malik, M.D., Ph.D., Cytokinetics' Executive Vice President, Research and Development. "We look forward to receiving the results of GALACTIC-HF."

GALACTIC-HF is designed to evaluate whether treatment with *omecamtiv mecarbil*, dosed twice-daily in accordance with a pharmacokinetic-guided dose optimization regimen, when added to standard of care, reduces the risk of heart failure events (heart failure hospitalization or other urgent, unscheduled treatment for heart failure) and cardiovascular (CV) death in patients with chronic heart failure and reduced ejection fraction (HFrEF). Patients enrolled in GALACTIC-HF were required to have a diagnosis of HFrEF with left ventricular ejection fraction (LVEF) $\leq 35\%$ and elevated natriuretic peptides. Patients were either currently hospitalized for heart failure (25% of total enrollment), or had a recent hospitalization, or a visit to an emergency room or urgent care facility for heart failure within the preceding year.

	Overall (8256)	Current HF Hospitalization ("Inpatient") (N=2084)	Recent HF Hospitalization or ED Visit Within One Year ("Outpatient") (N=6172)
Demographics			
Age (years), mean (SD)	64.5 (11.3)	65.0 (11.3)	64.4 (11.4)
Sex, female, n (%)	1756 (21.3)	411 (19.7)	1345 (21.8)
Race, n (%)			
White	6421 (77.8)	1706 (81.9)	4715 (76.4)
Asian	710 (8.6)	184 (8.8)	526 (8.5)
Black or African American	562 (6.8)	105 (5.0)	457 (7.4)
Other*	563 (6.8)	89 (4.3)	474 (7.7)
Ethnicity, Hispanic/Latino n (%)	1771 (21.5)	355 (17.0)	1416 (22.9)
Geographic Region, n (%)			
Eastern Europe/ Russia	2705 (32.8)	915 (43.9)	1790 (29.0)
Western Europe/ South Africa/ Australasia	1921 (23.3)	486 (23.3)	1435 (23.3)
Latin and South America	1574 (19.1)	326 (15.6)	1248 (20.2)
US and Canada	1386 (16.8)	180 (8.6)	1206 (19.5)
Asia	670 (8.1)	177 (8.5)	493 (8.0)
Clinical Characteristics			
Medical Conditions, n (%)			
Coronary artery disease	5144 (62.3)	1317 (63.2)	3827 (62.0)
Peripheral artery disease	847 (10.3)	215 (10.3)	632 (10.2)
Stroke	753 (9.1)	197 (9.5)	556 (9.0)
Atrial fibrillation or flutter history	3472 (42.1)	995 (47.7)	2477 (40.1)
Hypertension	5800 (70.3)	1495 (71.7)	4305 (69.8)
Hypercholesterolemia	4553 (55.1)	1094 (52.5)	3459 (56.0)
Type 2 diabetes mellitus	3313 (40.1)	870 (41.7)	2443 (39.6)
Heart Failure History			
LVEF (%), mean (SD)	26.6 (6.3)	26.5 (6.4)	26.6 (6.2)
MAGGIC Score, mean (SD)	23.3 (6.3)	25.0 (6.3)	22.8 (6.3)

NYHA classification, n (%)			
Class II	4391 (53.2)	767 (36.8)	3624 (58.7)
Class III	3616 (43.8)	1190 (57.1)	2426 (39.3)
Class IV	248 (3.0)	126 (6.0)	122 (2.0)
Ischemic heart failure etiology, n (%)	4458 (54.0)	1148 (55.1)	3310 (53.6)
KCCQ Total Symptom Score, mean (SD)	66.4 (25.1)	52.6 (25.4)	71.0 (23.2)
Vitals and Laboratory Parameters			
NT-proBNP (pg/mL), median (Q1-Q3)	1971 (961-4033)	2457 (1185-5073)	1858 (900-3749)
hsTnI (ng/mL), median (Q3)	0.030 (0.049)	0.036 (0.066)	0.029 (0.044)
eGFR (mL/min/1.73m ²), median (Q1-Q3)	59 (41-74)	54 (41-70)	60 (45-75)
Stage ≤2; >60	3922 (47.7)	838 (40.2)	3084 (50.0)
Stage 3: 30-59	3806 (46.1)	1077 (51.7)	2729 (44.2)
Stage 4: 15-29	523 (6.3)	169 (8.1)	354 (5.7)
Stage 5: <15	5 (<0.1)	0 (0.0)	5 (<0.1)
Medications and Cardiac Devices, n (%)			
ACEi, ARB or ARNi	7161 (86.7)	1729 (83.0)	5432 (88.0)
ARNi	1594 (19.3)	328 (15.7)	1266 (20.5)
BB	7763 (94.0)	1931 (92.7)	5832 (94.5)
MRA	6358 (77.0)	1686 (80.9)	4672 (75.7)
(ACEi, ARB, or ARNi) + MRA + BB	5367 (65.0)	1360 (65.3)	4007 (64.9)
SGLT2 Inhibitors	219 (2.7)	56 (2.7)	163 (2.6)
Ivabradine	533 (6.5)	156 (7.5)	375 (6.1)
Cardiac Resynchronization Therapy	1156 (14.0)	267 (12.8)	889 (14.4)
Implantable Cardioverter Defibrillator	2614 (31.7)	598 (28.7)	2016 (32.7)
*Includes American Indian or Alaska Native, Native Hawaiian or Other Pacific Islander, or Multiple self-identified races			

Data are as published in the manuscript and may change with final review

About Omecamtiv Mecarbil and the Phase 3 Clinical Trials Program

Omecamtiv mecarbil is an investigational selective cardiac myosin activator, the first of a novel class of myotropes², that binds to the catalytic domain of myosin. Preclinical research has shown that cardiac myosin activators increase cardiac contractility without affecting intracellular myocyte calcium concentrations or myocardial oxygen consumption.³⁻⁵ Cardiac myosin is the cytoskeletal motor protein in the cardiac muscle cell that is directly responsible for converting chemical energy into the mechanical force resulting in cardiac contraction.

Omecamtiv mecarbil is being developed for the potential treatment of heart failure with reduced ejection fraction (HFrEF) under a collaboration between Amgen and Cytokinetics, with funding and strategic support from Servier. *Omecamtiv mecarbil* is the subject of a comprehensive Phase 3 clinical trials program composed of GALACTIC-HF (Global Approach to Lowering Adverse Cardiac Outcomes Through Improving Contractility in Heart Failure), a large, Phase 3 global, event-driven, cardiovascular outcomes study, and METEORIC-HF (Multicenter Exercise Tolerance Evaluation of *Omecamtiv Mecarbil* Related to Increased Contractility in Heart Failure), a Phase 3 clinical trial designed to evaluate the effect of treatment with *omecamtiv mecarbil* compared to placebo on exercise capacity.

About Cytokinetics and Amgen Collaboration

In 2006, Cytokinetics and Amgen entered into a strategic alliance to discover, develop and commercialize novel small molecule therapeutics designed to activate the cardiac sarcomere for the potential treatment of heart failure. *Omecamtiv mecarbil* is being developed by Amgen in collaboration with Cytokinetics, with funding and strategic support from Servier. Amgen holds an exclusive, worldwide license to *omecamtiv mecarbil* and related compounds, subject to Cytokinetics' specified development and commercialization rights. Cytokinetics is eligible for pre-commercialization and commercialization milestone payments and royalties that escalate based on increasing levels of annual net sales of products commercialized under the agreement. Cytokinetics has co-invested with Amgen in the Phase 3 development program of *omecamtiv mecarbil* in exchange for increased royalties from Amgen on worldwide sales of *omecamtiv mecarbil* outside Japan and co-promotion rights in institutional care settings in North America. Amgen has also entered an alliance with Servier for exclusive commercialization rights for *omecamtiv mecarbil* in Europe as well as the Commonwealth of Independent States, including Russia.

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 and/or declining. 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 collaborating with Amgen Inc. (Amgen) to develop *omecamtiv mecarbil*, a novel cardiac muscle activator. *Omecamtiv mecarbil* is the subject of an international clinical trials program in patients with heart failure including GALACTIC-HF and METEORIC-HF. Amgen holds an exclusive worldwide license to develop and commercialize *omecamtiv mecarbil* with a sublicense held by Servier for commercialization in Europe and certain other countries. Cytokinetics is developing *reldesemtiv*, a fast skeletal muscle troponin activator (FSTA) for the potential treatment of ALS and other neuromuscular indications following conduct of FORTITUDE-ALS and other

Phase 2 clinical trials. The company is considering potential advancement of *reldesemtiv* to Phase 3. Cytokinetics is collaborating with Astellas Pharma Inc. (Astellas) to research, develop and commercialize other novel mechanism skeletal sarcomere activators (excluding FSTAs). Licenses held by Amgen and Astellas are subject to specified co-development and co-commercialization rights of Cytokinetics. Cytokinetics is also developing CK-274, a novel cardiac myosin inhibitor that company scientists discovered independent of its collaborations, for the potential treatment of hypertrophic cardiomyopathies (HCM). Cytokinetics has granted Ji Xing Pharmaceuticals Limited an exclusive license to develop and commercialize CK-274 in China and Taiwan, in accordance with Cytokinetics' planned global registration programs. Cytokinetics is conducting REDWOOD-HCM, a Phase 2 clinical trial of CK-274 in patients with obstructive HCM. 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 clinical trial, including the expected timing of the availability of top-line results; statements relating to the METEORIC-HF clinical trial; the potential benefits of *omecamtiv mecarbil*, including its ability to represent a novel therapeutic strategy to increase cardiac muscle function and restore cardiac performance; Cytokinetics' and its partners' 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' or its partners' ability to conduct clinical trials; Cytokinetics may be unable to obtain or maintain patent or trade secret protection for its intellectual property; the nature of Amgen's decisions with respect to the design, initiation, conduct, timing and continuation of development activities for *omecamtiv mecarbil*; standards of care may change, rendering Cytokinetics' drug candidates obsolete; competitive products or alternative therapies may be developed by others for the treatment of indications Cytokinetics' drug candidates and potential drug candidates may target; and risks and uncertainties relating to the timing and receipt of payments from its partners, including milestones and royalties on future potential product sales under Cytokinetics' collaboration agreements with such partners. 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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² Psotka MA, Gottlieb SS, Francis GS et al. Cardiac Calcitropes, Myotropes, and Mitotropes. *JACC.* 2019; 73:2345-53.

³ Planelles-Herrero VJ, Hartman JJ, Robert-Paganin J. et al. Mechanistic and structural basis for activation of cardiac myosin force production by *omeamtiv mecarbil*. *Nat Commun.* 2017;8:190.

⁴ Shen YT, Malik FI, Zhao X, et al. Improvement of cardiac function by a cardiac myosin activator in conscious dogs with systolic heart failure. *Circ Heart Fail.* 2010; 3: 522-27.

⁵ Malik FI, Hartman JJ, Elias KA, Morgan BP, Rodriguez H, Brejc K, Anderson RL, Sueoka SH, Lee KH, Finer JT, Sakowicz R. Cardiac myosin activation: a potential therapeutic approach for systolic heart failure. *Science.* 2011 Mar 18;331(6023):1439-43.



Source: Cytokinetics, Incorporated