



Cytokinetics Announces Presentation of Additional Analyses From FORTITUDE-ALS at the 18th Annual NEALS Meeting

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Faster Progressing Patients Who Received Reldesemtiv in the Trial Demonstrated Statistically Significant Differences in the Decline in ALSFRS-R Total Score

SOUTH SAN FRANCISCO, Calif., Oct. 04, 2019 (GLOBE NEWSWIRE) -- Cytokinetics, Incorporated (Nasdaq: CYTK) today announced additional analyses of FORTITUDE-ALS (Functional Outcomes in a Randomized Trial of Investigational Treatment with CK-2127107 to Understand Decline in Endpoints – in ALS), the Phase 2 clinical trial of *rel-desemtiv* in patients with amyotrophic lateral sclerosis (ALS). Post-hoc analyses relating to the effect of *rel-desemtiv* on the change in ALS Functional Rating Scale – Revised (ALSFRS-R) total score observed during the trial were presented by Jeremy M. Shefner, M.D., Ph.D., Lead Investigator of FORTITUDE-ALS, Professor and Chair of Neurology at Barrow Neurological Institute, and Professor and Executive Chair of Neurology at the University of Arizona, Phoenix, at the 2019 Northeast Amyotrophic Lateral Sclerosis (NEALS) Meeting in Clearwater Beach, FL.

The post-hoc analyses evaluated change in ALSFRS-R from baseline based on patients' estimated rate of pre-trial disease progression. Patients were divided into faster, middle, and slower progression tertiles, based on their onset date of ALS symptoms and their ALSFRS-R total score at baseline. Results of these analyses showed that, in the combined middle and faster progressing tertiles, the decline in ALSFRS-R total score from baseline to week 12 was smaller in patients who received any dose of *rel-desemtiv* versus placebo (LS mean treatment difference 1.15, $p = 0.011$), while no significant difference was observed in slower progressing patients who received *rel-desemtiv* versus placebo. Additionally, use of durable medical equipment (DME, including manual wheelchair, power wheelchair, non-invasive ventilator, feeding tube, and speech generating device) was numerically reduced in all dosing groups treated with *rel-desemtiv* compared to placebo. Combining all doses of *rel-desemtiv*, the hazard ratio compared to placebo was 0.62 (CI 0.40, 0.954, $p = 0.027$). These analyses showed statistically significant differences in the decline in ALSFRS-R in the combined group of middle and faster progressing tertiles of patients who received any dose of *rel-desemtiv*, and that the timing and use of DME may have been affected by treatment with *rel-desemtiv*, which suggests a potential clinical benefit for patients.

"It's encouraging to see that faster and middle progressing tertiles of patients treated with *rel-desemtiv* experienced a significant slowing of disease progression," said Fady I. Malik, MD, PhD, Cytokinetics' Executive Vice President, Research and Development. "These data indicate that, although FORTITUDE-ALS did not achieve statistical significance in the primary analysis of change from baseline in slow vital capacity (SVC) or a similar analysis for ALSFRS-R, favorable outcomes of treatment with *rel-desemtiv* appear evident in more rapidly progressing patients, which supports continued evaluation of *rel-desemtiv* as a treatment for patients with ALS."

About FORTITUDE-ALS

FORTITUDE-ALS was a Phase 2, double-blind, randomized, dose-ranging, placebo-controlled, parallel group study of *rel-desemtiv* in patients with ALS. 458 eligible ALS patients from centers in the U.S., Canada, Europe and Australia were randomized (1:1:1:1) to receive either 150 mg, 300 mg or 450 mg of *rel-desemtiv* or placebo dosed orally twice daily for 12 weeks. The primary efficacy endpoint was the change from baseline in the percent predicted SVC, a measure of respiratory function, at 12 weeks. Secondary endpoints included change from baseline in the ALSFRS-R total score and the slope of the change from baseline in the mega-score of muscle strength measured by hand held dynamometry and handgrip dynamometry in patients on *rel-desemtiv*; incidence and severity of treatment-emergent adverse events (TEAEs); and plasma concentrations of *rel-desemtiv* at the sampled time points during the clinical trial. Data from FORTITUDE-ALS were presented at the American Academy of Neurology Annual Meeting in Philadelphia in May 2019 and showed that the trial did not achieve statistical significance for a pre-specified dose-response relationship in the primary endpoint ($p=0.11$). Similar analyses of the ALSFRS-R total score and the slope of the Muscle Strength Mega-Score yielded p -values of 0.09 and 0.31, respectively. However, patients on all dose groups of *rel-desemtiv* declined numerically less than patients on placebo for SVC and ALSFRS-R, with larger and clinically meaningful differences emerging over time.

About ALS

Amyotrophic lateral sclerosis (ALS) is a progressive neurodegenerative disease that afflicts approximately 20,000 people in the United States and a comparable number of patients in Europe. Approximately 5,000 new cases of ALS are diagnosed each year in the United States. The average life expectancy of an ALS patient is approximately three to five years after diagnosis and only approximately 10 percent of patients survive for more than 10 years. Death is usually due to respiratory failure because of diminished strength in the skeletal muscles responsible for breathing. Few treatment options exist for these patients, resulting in a high unmet need for new therapies to address functional deficits and disease progression.

About Cytokinetics

Cytokinetics is a late-stage biopharmaceutical company focused on discovering, developing and commercializing first-in-class muscle activators and best-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. *Omeclamtiv 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 *omeclamtiv mecarbil* with a sublicense held by Servier for commercialization in Europe and certain other countries. Cytokinetics is collaborating with Astellas Pharma Inc. (Astellas) to develop *rel-desemtiv*, a fast skeletal muscle troponin activator (FSTA) for diseases of neuromuscular dysfunction, including SMA and ALS. Astellas holds an exclusive worldwide license to develop and commercialize *rel-desemtiv*. 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. 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 potential benefits of *reldesemtiv*; Cytokinetics' continued evaluation of *reldesemtiv* as a treatment for patients with ALS; 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; Astellas' decisions with respect to the design, initiation, conduct, timing and continuation of development activities for *reldesemtiv*; Cytokinetics may incur unanticipated research and development and other costs or be unable to obtain additional financing necessary to conduct development of its products; 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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