Athira Pharma Announces Publication of Preclinical Data Highlighting Fosgonimeton Treatment in Models of Alzheimer's Disease

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Fosgonimeton counteracts mechanisms of amyloid-beta (Aβ)-driven toxicity and demonstrates neuroprotection in preclinical models of Alzheimer's disease

BOTHELL, Wash., April 11, 2024 (GLOBE NEWSWIRE) -- Athira Pharma, Inc. (NASDAQ: ATHA), a late clinical-stage biopharmaceutical company focused on developing small molecules to restore neuronal health and slow neurodegeneration, today announced the publication of preclinical data supporting the therapeutic potential of fosgonimeton in Alzheimer's disease. The original research article, " Fosgonimeton Attenuates Amyloid-Beta Toxicity in Preclinical Models of Alzheimer's Disease ," authored by Reda, S., et al., was published in the peer-reviewed journal, *Neurotherapeutics*. Fosgonimeton is a potentially first-in-class, once daily, subcutaneously administered small molecule drug candidate designed to enhance the neurotrophic hepatocyte growth factor (HGF) system, and is in development for neurodegenerative disorders, including Alzheimer's disease.

"These data continue to highlight the potential of fosgonimeton as a novel therapeutic approach for Alzheimer's disease targeting multiple facets of its complex pathophysiology," said Kevin Church, Ph.D., Chief Scientific Officer of Athira. "By positively modulating the HGF signaling system, fosgonimeton demonstrated neuroprotective and neurotrophic effects, countering mechanisms of amyloid-beta (Aβ)-induced toxicity both in vitro and in vivo. Our preclinical findings describe several mechanisms by which fosgonimeton may disrupt the neurodegenerative cascade of Alzheimer's disease downstream of Aβ toxicity, including reduction of mitochondrial oxidative stress and excitotoxicity, improvement of autophagic pathway function, and attenuation of tau hyperphosphorylation."

Key findings reported in the study publication regarding fosgonimeton in preclinical models of Alzheimer's disease include:

- In primary rat cortical neurons challenged with Aβ, fosgonimeton treatment improved neuronal survival, protected neurite networks, and reduced tau hyperphosphorylation following Aβ injury.
- Fosgonimeton attenuated Aβ-induced mitochondrial stress and apoptotic signaling.
- Fosgonimeton enhanced activation of pro-survival effectors extracellular signal-regulated kinase (ERK) and protein kinase B (AKT). It also reduced activity of glycogen synthase kinase 3 beta (GSK3β), one of the main kinases involved in tau hyperphosphorylation.
- Fosgonimeton mitigated Aβ-induced deficits in Unc-like kinase 1 (ULK1) and Beclin-1 expression, suggesting a potential effect on autophagy.
- Fosgonimeton improved cognitive performance in an Aβ rat model of Alzheimer's disease.

"There is an urgent need for new treatments that tackle the multifactorial pathologies of Alzheimer's disease (AD), especially for people with mild-to-moderate AD, an advanced stage of the disease," said Mark Litton, Ph.D., President and Chief Executive Officer of Athira. "These preclinical data published in a peer-reviewed journal suggest that fosgonimeton counteracts aspects of AD pathology that lead to neurodegeneration. These findings bolster our confidence in the Phase 2/3 LIFT-AD trial evaluating fosgonimeton in mild-to-moderate AD, with data anticipated in the second half of 2024."

The article is available on the *Neurotherapeutics* website and from the Scientific Publications & Presentations page of the company's website at www.athira.com.

About Fosgonimeton
Fosgonimeton is a potentially first-in-class, once daily, subcutaneously administered small molecule drug candidate. Targeting the protection and repair of neuronal networks, fosgonimeton has disease-modifying potential to address a broad range of neurodegenerative diseases, including Alzheimer's disease, Parkinson's disease, and dementia with Lewy bodies.

About Athira Pharma, Inc.
Athira Pharma, Inc., headquartered in the Seattle, Washington area, is a late clinical-stage biopharmaceutical company focused on developing small molecules to restore neuronal health and slow neurodegeneration. Athira aims to alter the course of neurological diseases by advancing its pipeline of therapeutic candidates that modulate the neurotrophic HGF system, including fosgonimeton, which is being evaluated for the potential treatment of mild-to-moderate Alzheimer's disease in the Phase 2/3 LIFT-AD trial that is expected to report topline data in the second half of 2024. For more information, visit www.athira.com. You can also follow Athira on Facebook, LinkedIn, X (formerly known as Twitter) and Instagram.

Forward-Looking Statements
This communication contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, Section 21E of the Securities Exchange Act of 1934 and the Private Securities Litigation Reform Act of 1995. These forward-looking statements are not based on

historical fact and include statements regarding: product candidates as a potential treatment for Alzheimer's disease, Parkinson's disease, dementia with Lewy bodies, and other neurodegenerative diseases; future development plans; the anticipated reporting of data; expectations regarding the potential efficacy and commercial potential of Athira's product candidates; and Athira's ability to advance its product candidates into later stages of development. Forward-looking statements generally include statements that are predictive in nature and depend upon or refer to future events or conditions, and include words such as "may," "will," "should," "on track," "would," "expect," "plan," "believe," "intend," "pursue," "continue," "suggest," "potential," and similar expressions. Any forward-looking statements are based on management's current expectations of future events and are subject to a number of risks and uncertainties that could cause actual results to differ materially and adversely from those set forth in or implied by such forward-looking statements. These risks and uncertainties include, but are not limited to, the data from preclinical and clinical trials may not support the safety, efficacy and tolerability of Athira's product candidates; development of product candidates may cease or be delayed; regulatory authorities could object to protocols, amendments and other submissions; future potential regulatory milestones for product candidates, including those related to current and planned clinical studies, may be insufficient to support regulatory submissions or approval; Athira may not be able to recruit sufficient patients for its clinical trials; the outcome of legal proceedings that have been or may in the future be instituted against Athira, its directors and officers; possible negative interactions of Athira's product candidates with other treatments; Athira's assumptions regarding its financial condition and the sufficiency of its cash, cash equivalents and investments to fund its planned operations may be incorrect; adverse conditions in the general domestic and global economic markets; the impact of competition; regulatory agencies may be delayed in reviewing, commenting on or approving any of Athira's clinical development plans as a result of pandemics or health epidemics, which could further delay development timelines; the impact of expanded product development and clinical activities on operating expenses; the impact of new or changing laws and regulations; as well as the other risks detailed in Athira's filings with the Securities and Exchange Commission from time to time. These forward-looking statements speak only as of the date hereof and Athira undertakes no obligation to update forward-looking statements. Athira may not actually achieve the plans, intentions, or expectations disclosed in its forward-looking statements, and you should not place undue reliance on the forward-looking statements.

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