Athira Pharma Presents Preclinical Data of Fosgonimeton (ATH-1017) and ATH-1020 at the American Society for Experimental Neurotherapeutics (ASENT) Annual Meeting

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Active metabolite of fosgonimeton (ATH-1017) enhances the HGF/MET system, resulting in neurotrophic and procognitive effects

In two unique disease models, ATH-1020 reduces depression-like behaviors, and normalizes sensory processing deficits in schizophrenia

BOTHELL, Wash., March 02, 2022 (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 preclinical data for the active metabolite of fosgonimeton, a novel small molecule candidate for Alzheimer's, Parkinson's disease dementia and Dementia with Lewy bodies, and ATH-1020, an orally available, brain-penetrant small molecule candidate for neuropsychiatric conditions. The findings were highlighted in oral presentations at the American Society for Experimental Neurotherapeutics (ASENT) Annual Meeting.

"These *in vitro* findings with the active metabolite of fosgonimeton demonstrate the mechanism of action is through positive modulation of HGF/MET. This was observed through increased MET phosphorylation, which promotes downstream neurotrophic effects including synaptogenesis and neurite outgrowth. Additionally, reversal of learning and memory deficits were observed in a rodent model of scopolamine-induced amnesia. These data support the therapeutic potential of fosgonimeton for the treatment of neurodegenerative disorders," said Kevin Church, Ph.D., Executive Vice President, Research at Athira.

Mark Litton, Ph.D., President and Chief Executive Officer of Athira, added, "This independent peer review from ASENT affirms our confidence in the mechanism of action of fosgonimeton for the treatment of Alzheimer's disease. Given these compelling preclinical findings, we look forward to the results of our ongoing clinical trials."

Dr. Church continued, "Data presented for ATH-1020, Athira's first oral candidate, demonstrate *in vitro* and *in vivo* efficacy, including its ability to augment MET activation, promote activation of downstream signaling pathways and, in two distinct animal models, mitigate depression-like behaviors and normalize an EEG hallmark of schizophrenia. These findings support the potential of ATH-1020 as an oral treatment for neuropsychiatric conditions and its advancement into clinical development."

The presentation titled "Positive modulation of hepatocyte growth factor/MET by a novel small molecule induces neurotrophic and procognitive effects" included key findings regarding the active metabolite of fosgonimeton (fosgo-AM), such as:

- HGF/MET signaling was positively modulated by fosgo-AM *in vitro*, which led to significant enhancement of MET phosphorylation and activation of downstream signaling pathways.
- Demonstration of neurotrophic effects, including increased synaptogenesis, synaptic strength, and neurite outgrowth in cultured hippocampal neurons.
- Reversal of scopolamine-induced amnesia and restored measures of learning persistence, demonstrating pro-cognitive activity in animal studies.

Athira is currently evaluating fosgonimeton in multiple clinical trials: ACT-AD, a Phase 2 Study in mild-to-moderate Alzheimer's disease (NCT04491006); LIFT-AD, a Phase 3 Study in mild-to-moderate Alzheimer's disease (NCT04488419); an Open Label Extension trial in mild-to-moderate Alzheimer's disease (NCT04886063); and SHAPE, a Phase 2 clinical trial in participants with Parkinson's disease dementia or Dementia with Lewy bodies (NCT04831281).

Key findings from the presentation titled "Oral small molecule hepatocyte growth factor/MET positive modulator ATH-1020 reduces depression-like behaviors and normalizes pathological EEG mismatch negativity in preclinical models" included:

- Activation of downstream signaling pathways via positive modulation of the HGF/MET pathway was demonstrated *in vitro*.
- Treatment with ATH-1020 demonstrated neuroprotective effects in primary rat cortical neurons, leading to increased neuron viability in response to various neurotoxic insults.
- Treatment with ATH-1020 mitigated depression-related behaviors in an animal model of depression.
- In the MK-801 rodent model of schizophrenia, ATH-1020 rescued mismatch negativity response, a translatable electroencephalogram (EEG) measure that shows consistent and robust deficits in both rodent models and schizophrenia

patients.

Athira is conducting a Phase 1 trial of ATH-1020 in healthy volunteers (NCT05169671) to evaluate safety, tolerability, and pharmacokinetics. The company expects to dose the first volunteer in the study in the first quarter of 2022.

A recording of the presentation and accompanying slides can be found on the Events and Presentations page of the Investors section of Athira's website at www.athira.com.

Athira's ACT-AD trial is supported by a grant from the National Institute on Aging of the National Institutes of Health under Award Number R01AG06268. The information presented in this press release is solely the responsibility of Athira and does not necessarily represent the official views of the National Institutes of Health.

About Athira Pharma, Inc.
Athira Pharma Inc., headquartered in the Seattle area, is a late clinical-stage biopharmaceutical company focused on developing small molecules to restore neuronal health and slow neurodegeneration. Athira aims to provide rapid cognitive improvement and alter the course of neurological diseases with its novel mechanism of action. Athira is currently advancing its lead therapeutic candidate, fosgonimeton, a novel small molecule for Alzheimer's and Parkinson's disease dementia and Dementia with Lewy bodies. For more information, visit www.athira.com. You can also follow Athira on Facebook, LinkedIn and @athirapharma on Twitter and Instagram.

Forward-Looking Statements
This release 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 fosgonimeton as a potential treatment for Alzheimer's disease, Parkinson's disease dementia and Dementia with Lewy bodies, and other dementias; the potential of ATH-1020 as an oral treatment for neuropsychiatric conditions and its advancement into clinical development; Athira's platform technology and potential therapies; future development plans; clinical and regulatory objectives and the timing thereof; expectations regarding the potential efficacy and commercial potential of Athira's product candidates; the anticipated reporting of data; 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," "would," "expect," "plan," "believe," "intend," "pursue," "continue," and other similar expressions, among others. 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 preliminary data for Athira's fosgonimeton product candidate from the Phase 1a/b trials will not continue or persist in current or planned clinical trials; cessation or delay of any of the ongoing clinical trials and/or Athira's development of fosgonimeton and other product candidates may occur; the impact of the COVID-19 pandemic on Athira's business, research and clinical development plans and timelines, and the regulatory process for Athira product candidates; the outcome of legal proceedings which have been or may in the future be instituted against us and certain of our directors and officers; clinical trials may not demonstrate safety and efficacy of any of Athira's product candidates; Athira's assumptions regarding the sufficiency of its cash, cash equivalents and investments to fund its planned operations may be incorrect; while P300 latency is a functional measure that is highly correlated with cognition, Athira may not successfully establish a connection between these P300 latency results and improved cognition; as well as the other risks detailed in Athira's filings with the Securities and Exchange Commission. 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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