



Alterity Therapeutics Reports Positive Efficacy Data for ATH434 in a Primate Model of Parkinson's Disease

- ATH434 improved motor performance and general function -

MELBOURNE, AUSTRALIA AND SAN FRANCISCO, USA – 4 December 2023: Alterity Therapeutics (ASX: ATH, NASDAQ: ATHE) ("Alterity" or "the Company"), a biotechnology company dedicated to developing disease modifying treatments for neurodegenerative diseases, today announced that promising new data on the effect of ATH434 in a Parkinson's disease primate model was presented at the Future of Parkinson's Disease Conference 2023 that took place November 30 – December 3, 2023 in Austin, TX, USA.

The poster, entitled, "Effects of ATH434, a Clinical-Phase Small Molecule with Moderate Affinity for Iron, in Hemiparkinsonian Macaques", was presented by Margaret Bradbury, PhD, Vice President of Research and Nonclinical Development at Alterity and collaborators from Vanderbilt University Medical Center and the Florey Institute of Neuroscience in Melbourne. The presentation demonstrated that ATH434 treatment improved motor performance and general function in monkeys with experimentally induced Parkinson's disease. The favorable impact on Parkinson's symptoms was associated with lower iron levels in the area of pathology. In addition, ATH434 treatment increased levels of synaptophysin, a protein marker that reflects functional connections between neurons.

David Stamler, M.D., Chief Executive Officer of Alterity, commented, "These new data are exciting because we have shown for the first time that ATH434 can reduce Parkinson's symptoms in a higher order animal, the monkey. Importantly, the improvements in motor skills and general functioning that parallel human parkinsonism were associated with reductions in iron in affected brain regions, validating the approach we are using in our ongoing clinical trials. The data from this study improve our ability to predict clinical outcomes and increases our confidence level in our ongoing Phase 2 clinical trials in Multiple System Atrophy, a parkinsonian disorder with similar underlying pathology to Parkinson's disease."

The study compared daily oral doses of ATH434 (3 or 10 mg/kg) versus a vehicle (placebo) for 12-14 weeks after parkinsonian symptoms were evident. Monkeys were assessed with the Parkinson Behavior Rating Scale (PBRS) before, during and after dosing. At Week 12, all evaluable ATH434-treated monkeys (n=5) had stable or improving PBRS scores from Baseline to Week 12 whereas two of three vehicle-treated monkeys did not demonstrate improvement or worsened, as expected from the progressive nature of the Parkinson model. The components of the PBRS scale indicate that ATH434 reduced motor impairment and improved general functions such as posture, balance, activity, and gait. Favorable parkinsonian outcomes observed in each of the ATH434-treated monkeys were associated with lower iron in the right substantia nigra. In addition, monkeys with improved scores had higher right dorsal striatal synaptophysin, indicating functional recovery of nerve endings in this critical motor pathway.

The poster presentation can be accessed on the Published Scientific Research section of the Alterity website [here](#).

About ATH434

Alterity's lead candidate, ATH434, is an oral agent designed to inhibit the aggregation of pathological proteins implicated in neurodegeneration. ATH434 has been shown preclinically to reduce α -synuclein pathology and preserve neuronal function by restoring normal iron balance in the brain. As an iron chaperone, it has excellent potential to treat Parkinson's disease as well as various Parkinsonian disorders such as Multiple System Atrophy (MSA). ATH434 successfully completed Phase 1 studies demonstrating the agent is well tolerated and achieved brain levels comparable to efficacious levels in animal models of MSA. ATH434 is currently being studied in two clinical trials: Study ATH434-201 is a randomized, double-blind, placebo-controlled Phase 2 clinical trial in patients with early-stage MSA and Study ATH434-202 is an open-label Phase 2 Biomarker trial in patients with more advanced MSA. ATH434 has been granted Orphan drug designation for the treatment of MSA by the U.S. FDA and the European Commission.

About Parkinson's Disease

Parkinson's disease (PD) is the second most common neurodegenerative disorder and causes unintended or uncontrollable movements of the body along with neuropsychiatric and other nonmotor features. The precise cause of PD is unknown, but some cases are hereditary while others are thought to occur from a combination of genetics and environmental factors that trigger the disease. In PD, brain cells become damaged or die in the substantia nigra, the part of the brain that produces dopamine--a chemical needed to produce smooth, purposeful movement. The cardinal symptoms of PD are tremors, rigidity, slowing of movements, and later in disease, impaired balance. Other symptoms may include difficulty swallowing, chewing, or speaking; emotional changes; urinary problems or constipation; dementia or other cognitive problems; fatigue; and problems sleeping.¹ Nearly one million people in the U.S. and more than 10 million people worldwide are living with PD. Approximately 60,000 Americans are diagnosed with PD each year.²

¹National Institute of Health: Neurological Disorders and Stroke, Parkinson's Disease Information Page;

²Parkinson's Foundation

About Alterity Therapeutics Limited

Alterity Therapeutics is a clinical stage biotechnology company dedicated to creating an alternate future for people living with neurodegenerative diseases. The Company's lead asset, ATH434, has the potential to treat various Parkinsonian disorders and is currently being evaluated in two Phase 2 clinical trials in Multiple System Atrophy. Alterity also has a broad drug discovery platform generating patentable chemical compounds to treat the underlying pathology of neurological diseases. The Company is based in Melbourne, Australia, and San Francisco, California, USA. For further information please visit the Company's web site at www.alteritytherapeutics.com.

Authorisation & Additional information

This announcement was authorized by David Stamler, CEO of Alterity Therapeutics Limited.

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Forward Looking Statements

This press release contains "forward-looking statements" within the meaning of section 27A of the Securities Act of 1933 and section 21E of the Securities Exchange Act of 1934. The Company has tried to identify such forward-looking statements by use of such words as "expects," "intends," "hopes," "anticipates," "believes," "could," "may," "evidences" and "estimates," and other similar expressions, but these words are not the exclusive means of identifying such statements.

Important factors that could cause actual results to differ materially from those indicated by such forward-looking statements are described in the sections titled "Risk Factors" in the Company's filings with the SEC, including its most recent Annual Report on Form 20-F as well as reports on Form 6-K, including, but not limited to the following: statements relating to the Company's drug development program, including, but not limited to the initiation, progress and outcomes of clinical trials of the Company's drug development program, including, but not limited to, ATH434, and any other statements that are not historical facts. Such statements involve risks and uncertainties, including, but not limited to, those risks and uncertainties relating to the difficulties or delays in financing, development, testing, regulatory approval, production and marketing of the Company's drug components, including, but not limited to, ATH434, the ability of the Company to procure additional future sources of financing, unexpected adverse side effects or inadequate therapeutic efficacy of the Company's drug compounds, including, but not limited to, ATH434, that could slow or prevent products coming to market, the uncertainty of obtaining patent protection for the Company's intellectual property or trade secrets, the uncertainty of successfully enforcing the Company's patent rights and the uncertainty of the Company freedom to operate.

Any forward-looking statement made by us in this press release is based only on information currently available to us and speaks only as of the date on which it is made. We undertake no obligation to publicly update any forward-looking statement, whether written or oral, that may be made from time to time, whether as a result of new information, future developments or otherwise.