Alterity Therapeutics Announces New Publication Describing Novel Mechanism of Action for ATH434

– Peer-Reviewed Publication Describes How ATH434 Uniquely Targets Excess Iron –

MELBOURNE, AUSTRALIA AND SAN FRANCISCO, USA – 6 November 2024: 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 the peer-reviewed journal, *Metallomics* has published data on the importance of iron and iron-targeting agents like ATH434 to treat neurodegenerative diseases. *Metallomics* publishes cutting-edge investigations that elucidate the dynamics, role, and impact of metals in biological systems.

David Stamler, M.D., Chief Executive Officer of Alterity, commented, "Iron has long been implicated in neurodegeneration, but having the appropriate iron-targeting agent is critical to having a positive impact on treating disease. This ground-breaking publication demonstrates the novel way in which ATH434 targets the labile, or reactive, form of iron which can be so damaging to cells when in excess. ATH434 acts as an iron chaperone to redistribute this excess reactive iron, thereby reducing protein aggregation and oxidative stress in the brain and rescuing neuronal function."

The publication, entitled, "ATH434, a promising iron-targeting compound for treating iron regulation disorders" was led by author Ashley Pall, Department of Pharmaceutical Sciences at Wayne State University. The novel iron binding properties of ATH434 presented in the publication support the characterization of ATH434 as an iron chaperone. The publication describes how ATH434 targets the toxic form of iron that drives the pathology of a rare neurodegenerative disease known as Friedreich's Ataxia. This toxic form of iron is also involved in the pathogenesis of Parkinson's disease and multiple system atrophy (MSA), which is the company's lead indication.

The study also evaluated iron chelators that are designed to irreversibly bind the stored form of iron and remove it from the body. Specifically, the study investigated how strongly ATH434 or iron chelators bind the two forms of cellular iron: ferric iron, the stored form, or ferrous iron, the active form required for vital cellular functions such as energy production but which is associated with toxicity when in excess. The new data confirmed that ATH434 has a dramatically lower affinity for ferric iron than iron chelators which are approved for treating systemic iron overload. ATH434's binding is reversible and will not remove iron from the body. The study also confirmed

an undesirable property of iron chelators: They promote conversion of ferrous to ferric iron, generating damaging free radicals in the process. In comparison, ATH434 was significantly less likely to drive this reaction. Together, these properties suggest that ATH434 has the capacity to selectively target the pathogenic form of iron without impairing normal cellular iron trafficking or functions.

Access to the abstract and full publication are available 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 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.