Commencement of Cohort 3 in Phase 1/2 MND Trial

- The dosages used for Cohorts 1 and 2 were well tolerated, five patients have passed the 7-month mark, and no Serious Adverse Events were observed, implying the drug has a good safety profile
- Trial Safety Committee approved Cohort 1 patients to be elevated to Cohort 3 and receive increased dosage
- First two participants (one from each site) received an initial escalated dose of MPL yesterday, with the final patient expected around 21 June 2023
- The analysis evaluating changes in biomarkers and pharmacodynamics is well underway

9 June 2023 – Perth, Australia: PharmAust Limited (ASX: PAA & PAAO), a clinical-stage biotechnology company, is pleased to announce the commencement of Cohort 3 dosing in its current Phase 1/2 trial testing the effects of Monepantel (MPL) in individuals living with motor neurone disease (MND).

As recently announced, the Trial Safety Committee has approved patients in Cohort 1 to be promoted to Cohort 3, where they will receive a larger 6mg/kg dose of MPL. In line with expectations, MPL has displayed an excellent safety profile with no Serious Adverse Events observed and all patients electing to continue with MPL treatment.

Interim pharmacokinetic study results show that the reformulated MPL tablets developed by PharmAust specifically for this trial produce steady-state MPL plasma levels within the predetermined therapeutic range from Day 1. Further, steady-state therapeutic levels of Monepantel Sulphone (MPLS) – the principal metabolite of MPL – are being reached before Day 8.

The detailed understanding being developed about achieving steady-state MPL / MPLS plasma concentrations is central to determining the MPL dose required to achieve therapeutic drug concentrations in a range of human diseases, including cancer.

The decision of all patients from Cohort 1 to move into Cohort 3 is expected to expedite the completion of Cohort 3 dosing. All patients in Cohort 2 have elected to continue with MPL treatment pending their promotion to Cohort 4, subject to Trial Safety Committee approval after Cohort 3.

Biomarker analysis

Biomarkers being assessed through the current trial are helpful diagnostic tools in MND that can also be used to track disease progression and determine the likely course of the disease. Evidence gathered through the current trial demonstrating MPL's ability to affect these biomarkers positively will help to inform the design of subsequent human studies and may support a more rapid approval pathway that includes TGA and FDA orphan drug designations.

As previously announced, interim analysis of biomarkers and pharmacodynamics through the current Phase 1/2 study is underway. Three independent Australian institutions are completing these highly specialised assays to explore how MPL acts on the mTOR signalling pathway in MND patients to slow disease progression. Biomarker analysis is expected to confirm MPL's ability to cross the blood-brain barrier and to aid in clearing protein aggregation, which is the hallmark of neurodegenerative diseases through the induction of autophagy in nerve cells.

It is anticipated that biomarker assays being run at each institution will be completed over the coming weeks. PharmAust will report the combined analysis of these assays once this information is to hand.

Dr Roger Aston, Executive Chairman of PharmAust, said:

"The analyses of biomarkers, in conjunction with the recently reported pharmacokinetic study results, are expected to be significant drivers of shareholder value. With good results in the clinic, the company intends to pursue the fastest possible route to approval for the benefit of MND patients and their families."

"We are delighted with trial progress to date and look forward to confirming MPL's clinical benefits to MND patients soon."

The Board authorises this announcement.

Enquiries:

Anusha Aubert
Investor Relations
investorenquiries@pharmaust.com

P +61 (8) 9202 6814
F +61 (8) 9467 6111
W www.pharmaust.com

About PharmAust Limited:

PharmAust Limited is listed on the Australian Securities Exchange (code: PAA) and the Frankfurt Stock Exchange (code: ECQ). PAA is a clinical-stage company developing therapeutics for both humans and animals. The company specialises in repurposing marketed drugs lowering the risks and costs of development. These efforts are supported by PAA's subsidiary, Epichem, a highly successful contract medicinal chemistry company which generated $3.4 million in sales of goods & services in FY 2022.

PAA's lead drug candidate is monepantel (MPL), a novel, potent and safe inhibitor of the mTOR pathway – a pathway having key influences in cancer growth and neurodegenerative diseases. MPL has been evaluated in Phase 1 clinical trials in humans and Phase 2 clinical trials in dogs. MPL treatment was well-tolerated in humans, demonstrating preliminary evidence of anticancer activity. MPL demonstrated objective anticancer activity in dogs. PAA is uniquely positioned to commercialise MPL for treatment of human and veterinary cancers as well as neurodegenerative disease as it advances a reformulated version of this drug through Phase 1 and 2 clinical trials.