Preliminary MPL anti-viral leukaemia preclinical WEHI results

- WEHI shows MPL and MPLS kill HTLV-1 transformed leukaemia cell lines
- WEHI shows MPL and MPLS inhibit HTLV-1 protein production
- Further investigations required to understand mechanism and clinical significance

23 February 2022 – Perth, Australia: PharmAust Limited (ASX:PAA & PAAO), a clinical-stage biotechnology company, provides an update on the Walter and Eliza Hall Institute (WEHI) investigation of the anti-viral effects of monepantel (MPL) upon human T-cell Leukaemia Virus -1 (HTLV-1) *in vitro*.

WEHI demonstrated that MPL and MPLS can kill HTLV-1-transformed leukaemia cell lines and inhibit HTLV-1 protein production, as measured by *in vitro* assays. The ability of MPL to induce cell death of HTLV-1 transformed cells is greater than that in a control non-transformed cell line (Jurkat). These data performed in triplicate indicate that MPL may interfere with the complex HTLV-1 lifecycle. Further investigation using pre-clinical models may be warranted to understand the mechanism of action, and ability of MPL to slow disease progression.

This work supports PharmAust's broader program investigating the anti-viral effect of MPL for other pathogens such as SARS-CoV-2.

PharmAust's Chief Scientific Officer Dr Richard Mollard stated, "These early results provide evidence that MPL and MPLS may inhibit the HTLV-1 virus according to two different mechanisms. Firstly, the anti-cancer effect of MPL and MPLS are potentially evident in killing cells transformed by the HTLV-1 virus. Secondly, an anti-viral effect is potentially evident whereby MPL and MPLS may directly interfere with viral protein production, independent of effects on the survival of transformed cells. PharmAust will follow up on these results to determine precisely how HTLV-1 protein production is inhibited and the clinical relevance of these data."

This announcement is authorised by the Board

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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 that generated $2.2 million in sales of goods & services in FY 2021.

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.

About The Walter and Eliza Hall Institute of Medical Research

The Walter and Eliza Hall Institute is one of Australia's leading biomedical research organisations, with a national and international reputation for performing highly influential basic and translational research. The Institute is addressing some of the major health challenges of our time, with a focus on cancer, immune health and infection, and development and ageing. The Institute is at the forefront of research innovation, with a strong commitment to excellence and investment in research computing, advanced technologies and developing new medicines and diagnostics. For more information visit https://www.wehi.edu.au.