



PharmAust & Olivia Newton-John Cancer Research Institute to Continue MPL Preclinical Investigations

- PharmAust and Olivia Newton-John Cancer Research Institute (ONJCRI) agree to continue preclinical work investigating monepantel (MPL) mechanism of action
- Preclinical work focuses on anti-cancer activity
- Preclinical work to focus on MPL target protein signalling pathways
- Preclinical work also anticipated to provide clues to mechanisms of action against COVID-19 and motor neurone disease

5 January 2021 – Perth, Australia: PharmAust (ASX:PAA), a clinical-stage oncology company, is pleased to announce an agreed extension of work being conducted at the Olivia Newton-John Cancer Research Institute (ONJCRI) investigating the mechanism of action of monepantel (MPL) upon cancer cells.

As announced on 29 September 2020, researchers in the Cell Death and Survival Laboratory at the ONJCRI led by Associate Professor Doug Fairlie conducted a comprehensive RNA-Seq (RNA sequencing) screen investigating how the entire genome of cancer cells responds when treated with MPL. A select subset of genes was found to be either switched on or off by MPL in cancer cells, but not in non-cancer cells. The mRNA profiles of non-cancer cells were relatively unaffected by MPL treatment, consistent with the possible low level of toxicology observed for MPL.

Using state-of-the-art techniques, the ONJCRI researchers will now examine these genes in greater detail and match changes in their activity with changes in associated protein signalling pathways. These experiments are aimed at determining what happens within the cancer cell once MPL interacts with its primary molecular targets and then exerts its downstream and definitive anti-cancer activity. Establishing MPL's mechanism of action in this detail will enable differentiation of MPL's effects upon cancer cells as compared to other anti-cancer drugs, thus assisting with regulatory submissions and facilitating licensing and marketing as we move towards Phase III and IV trials.

The work to be conducted by the ONJCRI will be funded by PharmAust.

PharmAust's Chief Scientific Officer Dr Richard Mollard stated "PharmAust is pleased to continue this productive relationship with the ONJCRI. PharmAust is looking forward to seeing at the molecular level how MPL works in cells to combat disease, especially in terms of how MPL's mechanism of action differs to other mTOR inhibitors presently in the clinic."

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About PharmAust (PAA):

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 \$3.5 million in revenue in FY 2020.

About the Olivia Newton-John Cancer Research Institute:

The Olivia Newton-John Cancer Research Institute is an independent medical research institute located in Heidelberg, Australia. ONJCRI's mission is to discover and develop breakthrough therapies for cancers of the breast, bowel, lung, melanoma, prostate, liver, gastrointestinal tract and brain. Researchers and clinicians of the ONJCRI are involved in more than 200 clinical trials, giving patients access to potential new treatments including immunotherapies and personalised medicine.

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