



ASX & Media Release

Patrys Completes Pharmacokinetic Studies for PAT-DX1 and PAT-DX3

Melbourne, Australia; 22 April 2021: Patrys Limited (ASX: PAB, “Patrys” or the **Company**), a therapeutic antibody development company, is pleased to announce it has completed animal pharmacokinetic (PK) studies for both its development-stage deoxymabs; its lead asset PAT-DX1, and the full sized IgG antibody, PAT-DX3, which was added to the portfolio in September 2020.

Both antibodies have shown favorable PK profiles with anticipated differences (due to their different sizes) potentially opening up different clinical applications for the two assets.

Pharmacokinetic profiling follows a drug on its path through the body, from its absorption into the bloodstream, its distribution to the tissues, and finally its elimination via either metabolism or excretion (ADME). An understanding of the pharmacokinetics of investigational drugs is essential for establishing appropriate dosing regimens, and is one element of the data package required to initiate the clinical development of PAT-DX1 in H1 2022.

Patrys has completed several studies in animal models of cancer which indicate that PAT-DX1 is rapidly removed from the blood due to its rapid accumulation in tumours. These more recent pharmacokinetic studies of PAT-DX1 and PAT-DX3 were conducted in healthy animals. PAT-DX1, because it is an antibody fragment, was rapidly cleared from circulation. As expected, PAT-DX3, because is a full-sized IgG antibody, resided in circulation for a significantly longer period of time.

This is consistent with the unique mechanism of action of the PAT-DX1 and PAT-DX3 antibodies and will further inform the dosing regimen both as single agent therapeutics as well as broader applications (diagnostic or combination therapy). These differences in pharmacokinetic profiles may make PAT-DX1 and PAT-DX3 better suited for different clinical applications.

These studies also provided encouraging data on the potential safety profiles of PAT-DX1 and PAT-DX3 as they were well-tolerated, with no body weight loss or visible clinical side effects observed.

Patrys Chief Executive Officer and Managing Director, Dr. James Campbell said: “We are very pleased to have successfully completed another important step towards getting PAT-DX1 into clinical development. The different PK profiles of PAT-DX1 and PAT-DX3 have opened up a greater range of partnering and development opportunities for Patrys. Our Company remains on track to commence first clinical trials of PAT-DX1 in H1 2022. In parallel, Patrys will keep building its preclinical dossier for PAT-DX3 and leverage additional opportunities for its deoxymab platform through collaborations and commercial partnerships.”

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This announcement is authorised for release by the Board of Directors of Patrys Limited.



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About Patrys Limited

Based in Melbourne, Australia, Patrys (ASX:PAB) is focused on the development of its deoxymab platform of cell-penetrating antibodies as therapies for a range of different cancers. More information can be found at www.patrys.com.

About Patrys' deoxymab platform:

Patrys' deoxymab platform is based on the deoxymab antibody that was first identified as an autoantibody in a mouse model of the human disease systemic lupus erythematosus (SLE). While most antibodies bind to cell surface markers, deoxymab penetrates into the cell nuclei and binds directly to DNA where it inhibits DNA repair processes. Cancer cells often have high levels of mutations and underlying deficiencies in the DNA repair mechanisms. For these reasons, the additional inhibition of the DNA repair processes by deoxymab can kill cancer cells, but appears to have little impact on normal cells. As a single agent, deoxymab has been shown to significantly enhance the efficacy of both chemo- and radiotherapies. Further, deoxymabs can be conjugated to nanoparticles to target delivery of chemotherapeutics and imaging agents to tumours.

Patrys has developed two humanised forms of deoxymab, both of which have improved activity over the original deoxymab antibody. PAT-DX1 is a dimer (two joined subunits) of the short chain from the binding domain of deoxymab, while PAT-DX3 is a full-sized IgG antibody. In a range of pre-clinical studies, PAT-DX1 has shown significant ability to kill cancer cells in cell models, human tumour explants, xenograft and orthotopic models. PAT-DX1 has been shown to cross the blood brain barrier, reduce tumour size, and increase survival in multiple animal models of brain cancer, other cancers, and cancer metastases. PAT-DX1 is tumour-agnostic, meaning that it can target many different tumour types in the body, regardless of specific tumour antigens. Patrys believes that PAT-DX1 may have application across a wide range of cancers including gliomas, melanomas, prostate, breast, pancreatic and ovarian cancers.

Deoxymabs, such as PAT-DX1 and PAT-DX3, can be used to target nanoparticles carrying a payload of anti-cancer drugs specifically to tumours. This allows specific delivery of cancer drugs to multiple types of cancer while having minimal impact on normal healthy cells.



Patrys' rights to deoxymab are part of a worldwide license to develop and commercialise a portfolio of novel anti-DNA antibodies and antibody fragments, variants and conjugates discovered at Yale University as anti-cancer and diagnostic agents. Five patents covering the unconjugated form of deoxymab (and derivatives thereof) have already been granted (Europe, Japan, China, and 2 in the USA), and one patent covering nanoparticle conjugation has been granted (Australia).