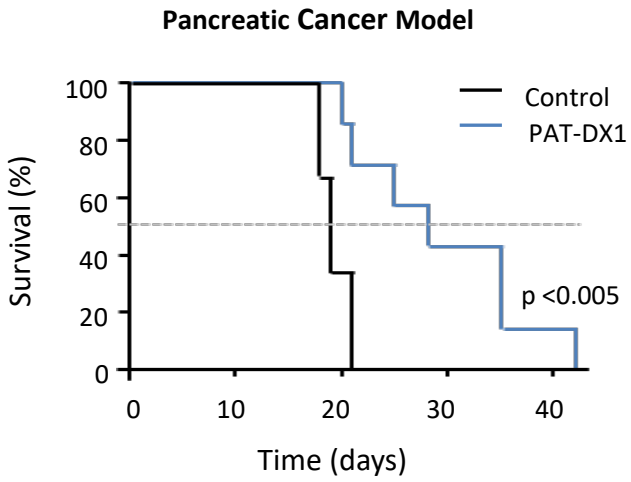
ASX & Media Release

PAT-DX1 Significantly Improves Survival in Animal Model of Pancreatic Cancer

Melbourne, Australia; 26 July 2021: Patrys Limited (ASX: PAB, "Patrys" or the "Company"), a therapeutic antibody development company, is pleased to announce new data from a successful preclinical study that has shown its deoxymab antibody PAT-DX1 is able to slow tumour growth and increase survival in an animal model of pancreatic cancer.

This study was conducted in the laboratory of Associate Professor Marina Pajic of the Garvan Institute of Medical Research (Garvan) and showed that twice weekly treatment with PAT-DX1 for 4 weeks (50 mg/kg weekly dose) reduced the growth of pancreatic tumours by 26% and increased median survival by 47% (19 days v 28 days, $p < 0.005$) (n=6 control, n=7 DX1-treated). PAT-DX1 has now been shown to significantly reduce tumour growth in multiple animal models of difficult-to-treat solid cancers including glioblastoma (brain cancer), triple negative breast cancer (TNBC) and pancreatic cancer.



Despite extensive efforts, pancreatic cancer remains one of the most challenging cancers to treat, with fewer than 25% of patients surviving their first year after diagnosis. Global pancreatic cancer deaths exceed 430,000 per annum, and limited effective therapeutic options mean that it is predicted to become the second leading cause of cancer deaths in the developed world by 2030[1].

Recently, the US Food and Drug Administration (FDA) approved two PARP inhibitors, olaparib and rucaparib, for the treatment of pancreatic cancer patients with mutations in the *BRCA1* or *BRCA2* genes. Like Patrys' deoxymabs, PARP inhibitors block the DNA Damage Repair (DDR) systems in cancer

[1] Arias-Pinilla and Modjtahedi. Therapeutic Application of Monoclonal Antibodies in Pancreatic Cancer: Advances, Challenges and Future Opportunities. *Cancers* 2021, 13, 1781.

cells which are often already compromised by cancer-specific mutations. Patrys' deoxymabs bind to damaged DNA and are attracted to cancer which often releases damaged DNA into the bloodstream.

The tumour heterogeneity of pancreatic cancer makes it difficult to develop traditional antibody-based therapeutics for the disease, and the FDA has yet to approve any antibodies for the treatment of pancreatic cancer. Patrys believes that the high incidence of DDR mutations in pancreatic cancer make it a strong candidate for future development of deoxymab-based therapies.

Patrys Chief Executive Officer and Managing Director, Dr. James Campbell said: "The demonstration that PAT-DX1 is able to inhibit growth and improve survival in an animal model of pancreatic cancer validates the approach we are taking with our deoxymab antibody platform. We recently reported on the ability of PAT-DX1 to cross the blood brain barrier and treat both primary and secondary brain cancers. This new data from Garvan reinforces that Patrys' deoxymabs may also have clinical utility for the treatment of non-brain cancers as well. We believe the combination of natural tumour targeting with blocking DNA Damage Repair that Patrys' deoxymabs offer provides a unique and very powerful approach for tackling difficult-to-treat cancers. On the back of this exciting data, we look forward to continuing our work with Associate Professor Pajic evaluating the potential of both PAT-DX1 and PAT-DX3 as new, potent treatments for pancreatic cancer."

Associate Professor Pajic said, "The initial data that we have seen from testing Patrys' deoxymabs in animal models of pancreatic cancer are very encouraging. We believe that the novel mechanism of action of deoxymabs may make them amenable to a range of possible therapeutic applications and we look forward to exploring these further with the Patrys team".

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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 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. Six patents covering the unconjugated form of deoxymab (and derivatives thereof) have already been granted (Europe, Japan, China, and 3 in the USA), and one patent covering nanoparticle conjugation has been granted (Australia).