

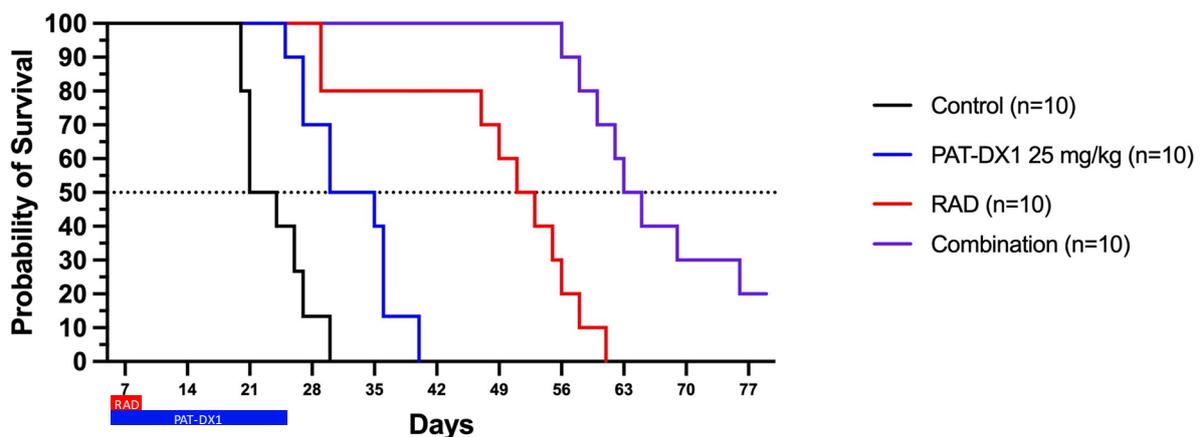
## PAT-DX1 in Combination with Radiation Therapy Significantly Improves Survival in Animal Model of Brain Cancer

### Key highlights

- Telethon Kids Cancer Centre has completed a new animal study in high grade glioma, finding that PAT-DX1 improves the efficacy of radiation therapy
- In combination with a therapeutic dose of radiation, PAT-DX1 resulted in significantly prolonged survival compared to radiation alone, with 2 of 10 mice being long term survivors
- Even below its optimal dose PAT-DX1 as a single agent increased survival in a highly aggressive animal model of brain cancer
- Results of this and further studies will help inform and guide clinical strategy

Melbourne, Australia; 10 August 2022: Patrys Limited (ASX: PAB, “Patrys” or the “Company”), a therapeutic antibody development company, is pleased to announce new pre-clinical data for its lead asset, PAT-DX1. Results from a new study provide strong support for the continued development of PAT-DX1 to improve patient outcomes in high grade glioma (HGG), a fast growing and clinically challenging form of brain cancer.

The study was conducted in the laboratory of Professor Terrence Johns of the Telethon Kids Cancer Centre. The study showed that combining a therapeutic dose of standard radiation therapy (red bar) with 25mg/kg dose of PAT-DX1 (blue bar) increased median survival by 12 days ( $p < 0.0002$ ) compared to radiation treatment alone ( $n=10$  per group). Additionally, even at a lower dose than previously used PAT-DX1 showed significant activity as a single agent, confirming previous studies in a range of brain cancers models.



HGG is the most common and deadly type of brain cancer, affecting both adults and children. Adult patients have a 5-year survival rate of 10% with standard therapy (surgical resection, radiation and chemotherapy). In children HGG is a rapid and universally lethal disease. HGG is called “high-grade”



because the tumors are fast-growing and spread quickly through brain tissue making them very difficult to treat.

**Patrys Chief Executive Officer and Managing Director, Dr. James Campbell said:** “This is a very exciting result, showing a robust benefit from combining PAT-DX1 with standard of care radiation therapy in high grade glioma, one of the most difficult-to-treat cancers. This, and additional studies funded under the auspices of Cure Brain Foundations’ Clinical Accelerator program, of which our collaborator Professor Johns was the inaugural recipient, will guide us towards optimised therapeutic regimes and timing schedules as we progress PAT-DX1 into the clinic. Having successfully completed our engineering run for PAT-DX1 recently we are well positioned to advance towards the clinic, and excited by the potential of this novel and exciting agent.”

Professor Terrance Johns said, “It is exciting for us to see the effects of combining of PAT-DX1 with standard of care radiation therapy in HGG, one of the hardest to treat forms of cancer, and particularly exciting that 2 of the 10 animals treated were long term survivors. These impressive results offer the potential for future clinical strategies that allow the reduction of radiation dose and its associated side effects, particularly in children. We are excited to be working with Patrys as we work to optimize strategies for combining standard of care with PAT-DX1 therapies.”

Professor Johns leads one of Australia’s leading brain cancer laboratories, and he has a strong track record in translational research with extensive national and international networks. Professor Johns is Co-Director of the Australian Brain Cancer Research Alliance (ABCARA), an Australia-wide consortium of researchers and clinicians dedicated to ensuring that promising therapeutics discoveries are translated into the clinic for the treatment of patients with brain cancer.

**-Ends-**

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

**For further information, please contact:**

**General enquiries**

James Campbell  
Chief Executive Officer  
P: +61 3 96703273  
[info@patrys.com](mailto:info@patrys.com)

**Media enquiries:**

Haley Chartres  
H^CK  
P: +61 423 139 163  
[haley@hck.digital](mailto:haley@hck.digital)

**Registered Office Address**

Level 4, 100 Albert Road  
South Melbourne VIC 3205

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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](http://www.patrys.com).

### **About Patrys' deoxymab 3E10 platform:**

Patrys' deoxymab platform is based on the deoxymab 3E10 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 3E10 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 3E10 can kill cancer cells, but appears to have little impact on normal cells. As a single agent, deoxymab 3E10 has been shown to significantly enhance the efficacy of both chemo- and radiotherapies. Further, deoxymab 3E10 can be conjugated to nanoparticles to target delivery of chemotherapeutics and imaging agents to tumours.

Patrys has developed two humanised forms of deoxymab 3E10, both which have improved activity over the original deoxymab 3E10 antibody. PAT-DX1 is a dimer (two joined subunits) of the short chain from the binding domain of deoxymab 3E10, 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 3E10 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. Overall, eight patents in the portfolio have been granted with six patents covering the unconjugated form of deoxymab 3E10 (and derivatives thereof) have already been granted (Europe, Japan, China, and 3 in the USA), and two patents covering nanoparticle conjugation (Australia and India).

### **About Telethon Kids Institute:**

Telethon Kids Institute is one of the largest and most successful medical research institutes in Australia, comprising a dedicated and diverse team of more than 900 staff and students. We've created a bold blueprint that brings together community, researchers, practitioners, policy makers and funders, who share our vision to improve the health and wellbeing of children through excellence

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in research. The Institute is headed by leading paediatrician and infectious diseases expert Professor Jonathan Carapetis, with Founding Director Professor Fiona Stanley now Patron. Telethon Kids is independent and not-for-profit. The majority of funding comes from our success in winning national and international competitive research grants. We also receive significant philanthropic support from corporate Australia and the community.

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