



**ASX announcement**

## **PAT-DX1 Clinical Target Indications Confirmed**

- Selects target indications for clinical development
- Selects experienced stable cell line developer

**Melbourne, Australia; 4 October, 2018:** Patrys Limited (**ASX: PAB**), a clinical stage biotechnology company, is pleased to announce that it has selected the target indications for its PAT-DX1 clinical development program. This decision paves the way for Patrys to seek to progress PAT-DX1 to the clinic as a novel asset for the treatment of various cancers.

Patrys has previously described the scope for PAT-DX1 to potentially be used for the treatment of a broad range of cancers with impaired DNA damage repair (DDR) status. Following a review of clinical needs and market opportunities around a number of potential therapeutic applications for PAT-DX1, and based on data to date, Patrys now confirms its plans to prioritize its efforts on two indications as being the most attractive targets; triple negative breast cancer (TNBC) and glioblastoma.

“We have seen supportive data from pre-clinical models for both TNBC and glioblastoma, and whilst nomination of these two target indications will not change the steps we pursue through development and toxicology studies, it will focus our efforts towards building a network of expert collaborators and inform our shareholders as the Company moves towards a new stage”, said Dr James Campbell, Chief Executive Officer and Managing Director of Patrys.

In initiating its development plan the Company has selected an experienced service provider for cell line development for PAT-DX1. A stable cell line is an essential component of the development pathway for antibody therapeutics as it is the foundation upon which future studies and regulatory processes will be built. Patrys has reviewed a number of different service providers, and has identified one with direct experience of working with cell-penetrating antibodies such as PAT-DX1. Details of the cell line development program are currently being finalized, and the program will be initiated in coming weeks.

Patrys will continue to support pre-clinical studies in other tumor models through academic alliances to enhance its broader understanding of the potential of PAT-DX1 and PAT-DX1-NP. The Company has been successful in attracting grant support from multiple sources to this end and will continue efforts to broaden the scope of application for the PAT-DX1 technology using non-dilutive sources of capital.



### About Deoxymab 3E10, PAT-DX1 and PAT-DX1-NP

Deoxymab 3E10 is a DNA damage-repair (DDR) antibody that was first identified in lupus as an autoantibody that bound to normal cells. Of particular interest is that whilst 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 and kills cells that have mutations or deficiencies in DNA repair mechanisms as found in various cancer cells. Deoxymab 3E10 has single agent therapeutic potential and 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 tumors.

Patrys has developed a humanized form of Deoxymab 3E10, PAT-DX1 with improved activity over the original version of 3E10, and is progressing this, and a nanoparticle-conjugated form (PAT-DX1-NP) towards the clinic. In a range of pre-clinical cancer models PAT-DX1 has shown significant ability to kill cancer cells in cell models, human tumor explants and xenograft models. PAT-DX1 has also been shown to increase survival in mouse models of both triple negative breast cancer and glioblastoma. Patrys believes that PAT-DX1 may have application across a wide range of malignancies such as gliomas, melanomas, prostate, breast, pancreatic and ovarian cancers.

Patrys' rights to Deoxymab 3E10 are part of a worldwide license to develop and commercialize as anti-cancer and diagnostic agents a portfolio of novel anti-DNA antibodies and antibody fragments, variants and conjugates discovered at Yale University.

### About Triple Negative Breast Cancer

Breast cancer is a leading cause of cancer death in women, and approximately 1.67 million<sup>1</sup> new cases are diagnosed worldwide each year. Subtypes of breast cancer are stratified in accordance with their expression of estrogen, progesterone, and HER2 receptors. Tumors that lack all three receptors are referred to as "triple negative breast cancer (TNBC)", and this subtype makes up 15-20% of all breast cancer cases and is the most aggressive and difficult to treat. TNBC is associated with BRCA mutations or a "BRCAness" phenotype of impaired homologous recombination that makes these cancer cells vulnerable to inhibition of DNA damage repair such as that mediated by PAT-DX1.

### About Glioblastoma

Glioblastoma is a particularly aggressive, highly malignant form of brain cancer characterized by very fast cellular reproduction. Glioblastomas constitute approximately 17% of all primary brain cancers, with almost 12,000 new cases diagnosed in the U.S. each year<sup>2</sup>. The current standard of care for glioblastoma is surgical resection followed by radiation and chemotherapy (temozolomide, trade name TEMODAR<sup>®3</sup>), with a median survival period of 15 months, depending on disease severity. One

---

<sup>1</sup> <https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/global-cancer-facts-and-figures/global-cancer-facts-and-figures-3rd-edition.pdf>

<sup>2</sup> <http://www.aans.org/Patients/Neurosurgical-Conditions-and-Treatments/Glioblastoma-Multiforme>.

<sup>3</sup> TEMODAR is a registered trademark of Merck Sharpe & Dohme Corp.



of the key prognostic markers in glioblastoma is the methylation status of the promoter for DNA repair gene MGMT. Methylated MGMT is predictive of better response to temozolomide and improved survival, while MGMT-unmethylated glioblastoma has a worse prognosis and is more difficult to treat.

**-Ends-**

**For further information, please contact:**

*Patrys Limited:*

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

*Patrys IR:*

Ben Walsh  
WE Buchan  
P: +61 2 9237 2801  
[bwalsh@buchanwe.com.au](mailto:bwalsh@buchanwe.com.au)

**About Patrys Limited:**

Based in Melbourne, Australia, Patrys (ASX: PAB) is focused on the development of antibodies as therapies for a range of different cancers. Patrys has a pipeline of anti-cancer antibodies for both internal development and as partnering opportunities. More information can be found at [www.patrys.com](http://www.patrys.com).