ASX & Media Release

New research grants fund PAT-DX1 and PAT-DX1-NP targeting brain tumors

Melbourne, Australia; 18 May 2020: Patrys Limited (ASX: PAB, "Patrys'" or the Company), a therapeutic antibody development company, is delighted to announce that the inventor of the Deoxymab technology platform, Dr James Hansen of the Yale School of Medicine, has been awarded a prestigious US$1.83m (A$2.85m) R01 research grant from the US National Institutes of Health (NIH).

The research grant, **"**Targeting Glioblastoma with a Nuclear-Penetrating Anti-DNA Autoantibody" was awarded by the NIH's National Institute of Neurological Disorders and Stroke. The grant will support Dr. Hansen's work on the use of PAT-DX1 and its nanoparticle conjugated form, PAT-DX1-NP, against glioblastoma multiforme (GBM), the most common form of malignant brain cancer.

This new research grant from the NIH follows the recent awarding of a US$50,000 (A$78,000) pilot grant from the Lion Heart Fund for Cancer Research and a US$1.25m (A$1.95m) research grant from the US Department of Defence (DoD) that fund Dr. Hansen's ongoing work to develop PAT-DX1 and PAT-DX1-NP for use against breast cancer brain metastases.

Patrys Chief Executive Officer and Managing Director, Dr. James Campbell said: *"We congratulate Dr. James Hansen and the team at the Yale School of Medicine in receiving these significant grants to fund further pre-clinical development of PAT-DX1 and PAT-DX1-NP, and are delighted that the Deoxymab platform technology, invented by Dr. Hansen at Yale and licensed to Patrys, has been recognised for its potential to improve outcomes for patients with brain cancers and brain metastases – which are often highly aggressive and life threatening. This new grant from the NIH brings the total of new funding from US agencies for Dr. Hansen's ongoing work with the Deoxymab platform to US$3.13m (A$4.87m) over the coming five years, and we look forward to working with Dr Hansen and the Yale School of Medicine to build on the strong foundations being laid in the field of DDR therapeutics."*

In the past quarter (Q1 CY2020), Patrys has announced new pre-clinical data for PAT-DX1 and its nanoparticle conjugated form, PAT-DX1-NP, showing that these agents can cross the blood-brain barrier (BBB). It is estimated that approximately 98% of current therapeutics are unable to cross the BBB to enter the brain to treat primary cancers and metastases, making this a differentiating attribute for Patrys' PAT-DX1 asset that will support Patrys' planned Investigational New Drug (IND) filing in 2021.

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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 3E10 platform – lead candidates 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, xenograft and orthotopic models. Treatment with PAT-DX1 has been shown to significantly improve survival in orthotopic models of both triple negative breast cancer brain metastases and glioblastoma. PAT-DX1 has also been shown to enhance the therapeutic effect of low dose radiation. 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 Glioblastoma (GBM)
Glioblastoma is a particularly aggressive, highly malignant form of brain cancer characterised 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[1]. The current standard of care for glioblastoma is surgical resection followed by radiation and chemotherapy (temozolomide, trade name TEMODAR®), with a median survival period of 15 months[2], depending on disease severity.

[1] American Association of Neurological Surgeons (AANS), Glioblastoma Multiforme

[2] Davis ME. Glioblastoma: Overview of Disease and Treatment. Clin J Oncol Nurs. 2016;20(5 Suppl):S2–S8. doi:10.1188/16.CJON.S1.2-8