ASX & Media Release

Patrys Licences Deoxymab 3E10 - nanoparticle IP from Yale University

- Complementary intellectual property pertaining to the use of 3E10 to deliver nanoparticles and various therapeutic payloads into cells
- Ability to leverage existing Deoxymab 3E10 technology and know how controlled by Patrys
- Potential application for 3E10 beyond cancer therapeutics

Melbourne, **Australia**; June 13, 2017: Patrys Limited (**ASX: PAB**), a therapeutic antibody development company, is pleased to announce that it has licensed from Yale University the worldwide rights to develop and commercialise technology pertaining to the linking of the novel anti-DNA antibody 3E10 to nanoparticles. The nanoparticles can be loaded with standard chemotherapeutic (or other) drugs and have been demonstrated to significantly increase the efficacy of the drug therapy in pre clinical models.

The new technology builds on one of the central attributes of 3E10, the fact that it is attracted to the extracellular DNA (exDNA) that is associated with dying cancer cells. Using this targeting mechanism, the 3E10-nanoparticle conjugate is preferentially attracted to tumor tissues, and delivers its payload (the chemotherapy) to where it is most needed. This drives a virtuous cycle as increased cancer cell death attracts even more of the conjugated 3E10-nanpoparticle to the tumor, and significantly enhances treatment efficacy in animal models[1].

The 3E10-nanoparticle conjugation intellectual property is the subject of a patent application filed by Yale University, and patent protection if granted will extend to 2036.

"The licensing of this new and exciting technology is a logical progression for Patrys, building on the significant progress we have made with Deoxymab 3E10 over the past year" said Dr James Campbell, Chief Executive Officer and Managing Director of Patrys. "There are substantial synergies to be gained by leveraging the advances we have made into this conjugation technology, which will ensure a very cost effective development path for this new asset. The Patrys Board and management are attracted to the potential of the 3E10-nanoparticle conjugates to drive our core mission of developing enhanced cancer therapeutics, and see broader partnership potential in a range of other indications."

[1] Chen, Z. *et al.* (2016) A lupus anti-DNA autoantibody mediates autocatalytic, targeted delivery of nanoparticles to tumors. *Oncotarget*, Vol. 7, No. 37, pp 59965-75.

"This new license consolidates the strong position that Patrys has built over the past year, having created novel IP around humanised forms of Deoxymab 3E10, screened and selected a lead candidate, PAT-DX1, and commenced pre-clinical trials with the lead candidate with data expected in Q3 2017."

Development of the 3E10-nanoparticle conjugates will be incorporated into the existing research and development agreement between Patrys and Yale University, and Patrys' collaborators at Yale will immediately begin efforts to conjugate PAT-DX1 to nanoparticles to determine the effectiveness of this system.

Co-inventor of the Deoxymab-nanoparticle technology and Yale radiation oncologist, Dr. James Hansen, added: "The Patrys team has experience in product development, and has rapidly progressed the Deoxymab 3E10 technology over the past year. I am excited to expand the relationship between my lab at Yale University and Patrys, and am hopeful of even more significant developments over the coming year."

About Deoxymab 3E10 and PAT-DX1

Patrys has a worldwide license to develop and commercialise as anti-cancer agents a portfolio of pre-clinical novel anti-DNA antibodies and antibody fragments/variants and antibody-nanoparticle conjugates discovered at Yale University.

Deoxymab 3E10 is an autoantibody originally identified in models of lupus. Unlike normal antibodies that bind to foreign cells (eg pathogens) or aberrant cells (eg cancer cells) and trigger an immune response, autoantibodies bind to normal cells. Of particular interest with Deoxymab 3E10 is that whilst most antibodies bind to markers on the surface of cells, Deoxymab 3E10 penetrates cells' nuclei and binds directly to DNA. Having bound to the DNA, Deoxymab 3E10 inhibits DNA repair and damages DNA. Normal cells repair DNA damage utilising intact DNA repair processes, however Deoxymab 3E10 can kill cells that have mutations or deficiencies in DNA repair mechanisms as found in various cancer cells. As well as showing single agent therapeutic potential Deoxymab 3E10 has been shown to significantly enhance the efficacy of both chemo- and radiotherapies.

Patrys has selected a high-performing variant of Deoxymab 3E10, PAT-DX1 as the lead candidate from the program and is progressing PAT-DX1 into pre-clinical cancer models. Patrys believes that PAT-DX1 may have application across a wide range of malignancies such as gliomas, melanomas, prostate, breast, pancreatic and ovarian cancers.

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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.