ASX & Media Release

Full human antibody added to Patrys' pre-clinical Deoxymab portfolio

- Patrys has successfully completed the initial production and characterisation of PAT-DX3, a full-sized, humanised version of its Deoxymab antibody fragment PAT-DX1
- PAT-DX3 has demonstrated functional equivalence with PAT-DX1 in several important attributes including the ability to penetrate the cell nucleus, and the ability to bind to the DNA that is released from damaged tumour cells
- Differences between the underlying pharmacologies of PAT-DX1 and PAT-DX3 may expand options for developing novel cancer therapies
- PAT-DX3 is protected by existing granted and pending patents in key jurisdictions

Melbourne, Australia; 28 September 2020: Patrys Limited (ASX: PAB, "Patrys" or the "Company"), a therapeutic antibody development company, is pleased to announce it has completed initial production and characterisation of PAT-DX3, a full-sized, humanised antibody version of its dimerised antibody fragment PAT-DX1. This full-sized version is likely to have different pharmaceutical properties (pharmacokinetics, half-life and tissue distribution) to PAT-DX1 that may provide opportunities to use it for additional clinical applications.

Patrys' lead asset, PAT-DX1 is an engineered version of the mouse lupus antibody 3E10, which has been miniaturised to just contain two copies of the binding domain of 3E10, and further modified to improve its binding properties. PAT-DX1 has been shown to cross the blood brain barrier (BBB), 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.

Initial development and characterisation of PAT-DX3 has confirmed that, like PAT-DX1, it penetrates into cancer cell nuclei and binds to the DNA released from solid tumours. Based on these findings, Patrys expects that PAT-DX3 is likely to show similar efficacy benefits in animal models of cancer. The Company intends to undertake testing in these models following pharmacokinetic (PK) studies run in parallel with ongoing PK studies for PAT-DX1. Having both a dimerised antibody fragment (PAT-DX1) and a full-sized, humanised antibody (PAT-DX3) available will provide Patrys with a range of options to exploit the unique characteristics of this antibody for human therapeutic applications.

Patrys Chief Executive Officer and Managing Director, Dr. James Campbell said: "Patrys' primary focus at this time is on the development of PAT-DX1 and getting it into the clinic as quickly as possible. However, as indicated in our recent Rights Issue documentation, the unique characteristics of our Deoxymab platform means it is likely to have much broader clinical utility. PAT-DX3 offers Patrys the scope to fully explore those opportunities as well as provide a more comprehensive offering to potential partners. Patrys believes that the larger size of PAT-DX3 may result in differences in its pharmaceutical properties (pharmacokinetics, half-life, tissue distribution and penetration) that could

open up additional clinical opportunities for its Deoxymab platform. Patrys looks forward to reporting on the further development of PAT-DX3 over the coming months."

Patrys' existing patent grants and applications cover the use PAT-DX3 as well as PAT-DX1, with patents granted in Europe, Japan, China and the USA. Patrys has granted or pending patents in major jurisdictions where future regulatory approvals and product sales are targeted, and currently has more than 19 patent applications pending across 10 different patent families.

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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:

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. Five patents covering the unconjugated form of Deoxymab 3E10 (and derivatives thereof) have already been granted (Europe, Japan, China, and 2 in the USA).