ASX & Media Release

Positive preclinical data for deoxymabs in vasculitis

Melbourne, Australia; 9 April 2024: Patrys Limited (ASX: PAB, "Patrys" or the "Company"), a therapeutic antibody development company, is delighted to announce that new data from preclinical studies using PAT-DX1 and PAT-DX3 in animal models of the autoimmune disease anti-neutrophil cytoplasmic antibody (ANCA) vasculitis were presented by Dr Kim O'Sullivan from Monash University during the plenary session at the **21st International Vasculitis Workshop** in Barcelona overnight.

Previously Patrys has reported results from a range of non-clinical studies which showed that its deoxymabs suppress the formation of neutrophil extracellular traps (NETs). NETs are structures comprised of DNA strands and certain proteins produced by neutrophils (see press release entitled "*New mechanism by which PAT-DX1 may reduce cancer metastasis*", 14 June 2022). Recent studies have indicated that NETs may play an important role in the establishment and maintenance of cancer cells, the spreading of cancer (metastasis) and in regulating inflammation.

As the formation of NETs is one of the underlying processes in the development of the autoimmune disease ANCA vasculitis, Dr O'Sullivan extended these findings by examining the impact of Patrys' deoxymabs in an animal model of the disease. The key results from these studies include:

- PAT-DX1 and PAT-DX3 are both able to inhibit the formation of NETs in an animal model of ANCA vasculitis;
- Both deoxymabs reduced the level of inflammation and kidney injury in the animal model of ANCA vasculitis;
- However, neither PAT-DX1 nor PAT-DX3 had any detrimental effect on neutrophils indicating that their administration did not result in any suppression of the immune system.

"We are pleased to present these important discoveries at the leading global meeting on vasculitis" said Dr O'Sullivan. "We are particularly excited by the discovery that both PAT-DX1 and PAT-DX3 are able to reduce symptoms of inflammation without negatively impacting the immune system as this is one of the major side-effects of existing therapies for vasculitis."

Patrys Chief Executive Officer and Managing Director, Dr. James Campbell, said: "We are very excited by the results from Dr O'Sullivan's studies which suggest that there may be opportunities to develop deoxymabs as a therapeutic for ANCA vasculitis, and potentially for other related autoimmune diseases. ANCA vasculitis is a challenging condition and, while current treatments have transformed it into a relapsing/remitting disease, they are associated with increased drug-related toxicities and organ damage. In view of this, we believe a therapeutic that is able to reduce the inflammation associated with this disease without suppressing the immune system could provide a very attractive therapeutic option for patients. It is particularly exciting to see the potential opportunities to develop or partner our deoxymab technology expand while our GMP manufacturing of PAT-DX1 is underway and nearing completion."

-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

Media enquiries:
Haley Chartres
H^CK
P: +61 423 139 163
haley@hck.digital

Registered Office Address
Level 4, 100 Albert Road
South Melbourne VIC 3205

About ANCA vasculitis

ANCA vasculitis is an autoimmune disease characterised by the pathological accumulation of activated neutrophils and neutrophil extracellular traps (NETs) within small blood vessels. In particular the kidney is affected, which, if untreated can lead to renal failure and death. Current therapies include high doses of toxic immunotherapy agents such as cyclophosphamide and corticosteroids; therapeutic antibodies which target B cells; or adjunct therapy (C5aR inhibition, TAVENOS®) which renders patients at high risk of serious infections. There is an unmet need for therapies without serious side effects.

AAV is a disease of unknown etiology, with an incidence of 1.2-3.3 cases per 100,000 individuals and a prevalence of 4.6-42.1 per 100,000 individuals. AAV patients if left untreated have >80% mortality[1][2].

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

[1] Kitching, A. R. *et al.* ANCA-associated vasculitis. *Nat Rev Dis Primers* **6**, 71 (2020). https://doi.org:10.1038/s41572-020-0204-y

[2] Falk, R. J. & Jennette, J. C. Anti-neutrophil cytoplasmic autoantibodies with specificity for myeloperoxidase in patients with systemic vasculitis and idiopathic necrotizing and crescentic glomerulonephritis. *N Engl J Med* **318**, 1651-1657 (1988). https://doi.org:10.1056/NEJM198806233182504

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. 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 five patents covering nanoparticle conjugation has been granted (Australia, Canada, China, India and the USA).