



ASX & Media Release

Patrys and Walter and Eliza Hall Institute of Medical Research Collaboration

Melbourne, Australia; 16 November, 2017: Patrys Limited (**ASX: PAB**), a clinical stage biotechnology company and the Walter and Eliza Hall Institute of Medical Research (WEHI) have formalized a collaboration combining Patrys' PAT-DX1 program and proprietary intellectual property of the WEHI. WEHI is one of Australian's leading biomedical research institutes.

The research will be led by Dr Ruth Kluck, laboratory head in the Molecular Genetics of Cancer Division. Since 2002, Dr Kluck has investigated cancer cell death pathways, and how cell-killing proteins such as Bax and Bak are regulated and implicated in cell death.

The collaboration will be used to couple Patrys' PAT-DX1 with a proprietary antibody from the WEHI (7D10) to generate a bi-specific antibody with the potential to kill cancer cells via a novel pathway. Previous studies have shown that once inside cells 7D10 interacts with the Bak protein to cause cell death, however a technology to reliably deliver 7D10 into cells has not previously been identified. Patrys and its collaborators and Yale University have shown that PAT-DX1 is targeted to tumors and can enter and kill cancer cells. Combining the two complementary technologies by the generation of a bi-specific 7D10-PAT-DX1 antibody will result in a novel antibody that should be able to enter a cell, bind to its target and act to help circumvent survival pathways typically employed by cancer.

"Patrys is delighted to establish this collaboration with Dr Kluck and her team, and looks forward to exploring the potential for development of a first-in-class bi-specific cancer antibody with the Institute. The collaboration should provide data regarding the potential effectiveness of 7D10-PAT-DX1 against breast cancer cells and as a possible treatment for a range of other cancers," said Dr James Campbell, Chief Executive Officer and Managing Director of Patrys.

Dr Ruth Kluck said, "We are excited to work with Patrys to investigate the utility of the 7D10-PAT-DX1 bi-specific antibody in breast cancer. This collaboration is supporting an exciting and novel therapeutic approach to treat solid tumors with the potential for improving patient outcomes."

Patrys will make a statement on the research findings upon completion of the study.

About Deoxymab 3E10 and PAT-DX1

Patrys has a worldwide license to develop and commercialize 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 utilizing 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. Further, 3E10 can be conjugated to nanoparticles to target delivery of chemotherapeutics to tumors.

Patrys has developed a humanized form of Deoxymab 3E10, PAT-DX1 which is significantly more effective than the original version of 3E10, and is progressing this, and a nanoparticle-conjugated form of 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. Patrys believes that PAT-DX1 may have application across a wide range of malignancies such as gliomas, melanomas, prostate, breast, pancreatic and ovarian cancers.

About the Walter and Eliza Hall Institute

The Walter and Eliza Hall Institute is Australia's oldest medical research institute, with more than 850 researchers working to understand, prevent and treat diseases including blood, breast and bowel cancers, diabetes, arthritis, coeliac disease, multiple sclerosis and malaria.

The Institute's international reputation has been built upon major contributions to immunology, haematology, cancer, malaria and autoimmune diseases. Over many decades, advances and discoveries in these areas have led to significant benefits for patients throughout the world and more than 100 national and international clinical trials are currently underway that originate from Institute research.

The Institute is at the frontline of the biotechnology revolution, using advances in genetics, bioinformatics and structural biology to help develop individualised therapies and more effective drugs. Further information can be found at www.wehi.edu.au.

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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.