Corporate Overview
November 2017

Introduction

Patrys is an anti-cancer therapeutic antibody company with both IgG and IgM antibodies and antibody fragments under development. With a Board, management and advisors who have progressed multiple antibody and small molecule drugs through development to approval and commercialization Patrys has built a unique position in the global antibody arena.

Patrys' IgG assets were in-licensed from Yale University in the US in 2016, and have given the Company a strong position at the convergence of two proven anti-cancer technologies – antibodies and DNA damage repair (DDR) therapeutics. Patrys' lead agent, Deoxymab 3E10 binds to damaged DNA in cancer cells and blocks the DDR pathway by preventing repair enzymes from binding to, and repairing the damaged DNA.

Therapeutic antibodies

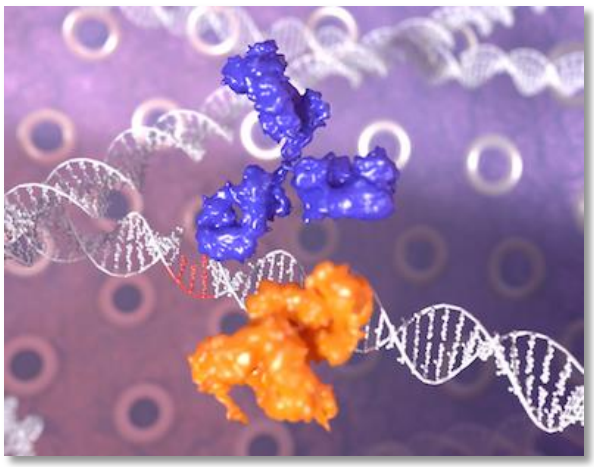
Therapeutic antibodies work by restoring, enhancing or mimicking the immune system's attack on cancer cells, binding to antigens that are more numerous on the surface of cancer cells than healthy cells. Once bound, antibodies cause cancer cell death via a range of mechanisms. Anti-cancer therapeutic antibodies are an established technology, with more than 30 different antibodies approved for use by the US FDA. The global market is estimated at US$33B in 2017.

DNA Damage Repair (DDR) Therapeutics

The DDR pathway is complex and has evolved to help cells identify and repair DNA damage via recruitment and activation of DNA repair enzymes. Several different DNA repair pathways exist – including single stranded, double-stranded and homologous recombination DNA break repair. These corrective mechanisms are tightly regulated, with an orderly progression through alternate DNA repair pathways. In the absence of the preferred repair pathway, incorrect pathways can be deleterious to a cell.

PARP inhibitors were one of the first therapeutics developed targeting the DDR pathway. PARP inhibitors were first approved for patients with recurrent ovarian cancer, and the number of approved indications for the use of these drugs has increased. The therapeutic attraction of PARP inhibitors has increased based on a convenient oral dosing schedule and trials showing efficacy in multiple indications.

There are 3 PARP inhibitors on the market that are approved for the treatment of patients with ovarian cancer: olaparib (Lynparza®), rucaparib (Rubraca®), and niraparib (Zejula®).



Patrys is at the forefront of development of DDR pathway antibody therapeutics with the Deoxymab platform combining the advantages of IgG technologies with the attractive modality of blocking DNA damage repair enzymes.

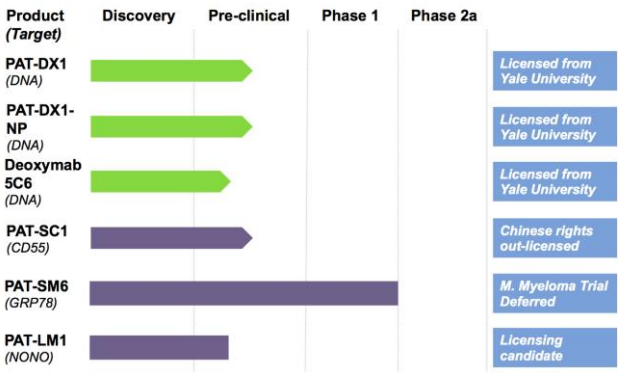
Deoxymab 3E10

Deoxymab 3E10 is an autoantibody that penetrates live cell nuclei by binding to extra-cellular DNA then following it into cell nuclei through a nucleoside transporter. Having bound to nuclear DNA, Deoxymab 3E10 inhibits DNA repair enzymes. Deoxymab 3E10 can kill cells with mutations or deficiencies in DNA repair mechanisms as found in various cancer cells.

Patrys has completed *in silico* biology to optimise Deoxymab 3E10 and has selected a lead candidate PAT-DX1, a di-scFv antibody. This major milestone allowed Patrys to commence studies in pre-clinical animal models – positive data from which were announced in Q3 2017. Additional pre-clinical studies are ongoing.

PAT-DX1 has with strong IP protection, and potential as a therapy for cancers that remain difficult to treat including glioblastoma, endometrial, ovarian, pancreatic, colon and some breast cancers.

In 2017 Patrys acquired technology pertaining to the linking of Deoxymab 3E10 to nanoparticles which can be loaded with chemotherapeutic (or other) drugs. This acquisition expands the Deoxymab platform and enables development cost savings.



Deoxymab 5C6

Like Deoxymab 3E10, Deoxymab 5C6 penetrates into cell nuclei and binds to nuclear DNA. Deoxymab 5C6's mechanism of action involves the catalysis (break down) of DNA raising the potential for therapeutic development in tumors independent of the DDR enzyme status. This pre-clinical asset is being evaluated for progression utilising this different modality.

IgM Assets

IgM's are the body's first line of defence as part of the innate immune system and have shown therapeutic promise. Natural human antibodies can be combined with existing chemotherapeutic treatments potentially without any cumulative toxicology effects. With more than ten years of experience in the field, Patrys is a leader in development of natural human IgM antibodies for treatment of cancers.

Patrys has a large portfolio of patents protecting these assets, and has successfully completed clinical trials and partnering of these exciting technologies. Clinical trials conducted with PAT-SM6 in melanoma and multiple myeloma patients showed signals of efficacy with no adverse safety effects. Patrys is one of the few companies with experience with large scale IgM manufacturing. Patrys is seeking to partner or source non-dilutive funding to progress its IgM assets.

PAT-SC1 is a fully human IgM mAb that targets an isoform of membrane-bound CD55 (DAF-B). This isoform is significantly over-expressed on the membrane of gastric cancer tissues, with no expression in healthy tissues. The Chinese development and commercialization rights for PAT-SC1 were licensed to Hefei Co-source Biomedical Co in 2015.

PAT-SM6 is a fully human IgM mAb that targets a variant of human GRP78 and human apolipoprotein B100. PAT-SM6 has shown signals of clinical efficacy in melanoma and multiple myeloma clinical trials. Clinical trials for this product candidate have been deferred until further non-dilutive funds are available.

PAT-LM1 is a fully human IgM mAb that targets a variant of the human NONO protein - a multi-functional nuclear protein. PAT-LM1 has shown promise in a range of preclinical cancer models.

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