



ASX & Media Release

Patrys CEO to present at Bioshares Biotech Summit

Melbourne, Australia; 11 May 2022: Patrys Limited (ASX: PAB, "Patrys" or the "Company"), a therapeutic antibody development company, is pleased to advise that CEO and Managing Director, Dr James Campbell, will be presenting at the 16th Bioshares Biotech Summit in Albury, NSW on 12 May 2022.

Dr Campbell's presentation will address the strategic planning and decision making processes that have seen Patrys expand over the past two years from a single asset company to a validated platform company with multiple assets on the path to the clinic.

Dr Campbell's presentation will include several slides from the Company's updated corporate overview presentation, a copy of which is attached.

-Ends-

This announcement is authorised for release by the CEO and Managing Director 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. Overall, eight patents in the portfolio have been granted with 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 one patent covering nanoparticle conjugation (Australia).



INVESTOR PRESENTATION

May 2022

Safe harbour statement

The following material is for general information purposes only and is not to be relied upon for the making of an investment decision. Any investment in Patrys Limited ACN 123 055 363 (Patrys) is subject to investment risk including the possibility of loss of capital invested and no return of income or payment of dividends. Neither Patrys nor any other entity or person in or associated with the Patrys group of companies guarantees any return (whether capital or income) or generally the performance of Patrys or the price at which its securities may trade.

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Where this presentation does contain any forward looking statements, those statements are only made as the date of the presentation and are to be considered “at-risk statements” not to be relied upon as they are subject to further research and to known and unknown risks, uncertainties and other factors that may lead to actual results differing from any forward looking statement. This is particularly the case with companies such as Patrys which operate in the field of researching, discovering, developing, and commercialising potential drugs intended for safe and effective for human treatments or therapies.

Investment summary

Unique antibody platform

- Cancer targeting
- Cross blood brain barrier
- Block DNA repair

Attractive markets

- PARP inhibitors US\$2.3B
- DNA repair deals
- ADC deals

Intellectual property

- Global rights
- All cancer indications
- Humanised antibodies

Multiple applications

- Single agent
- Combination agent
- Targeting agent

Utility for brain cancers

- Primary brain cancer
- Secondary brain cancer

Strong balance sheet

- A\$12.1M cash and term deposits (31 March)
- Both DX1 and DX3 funded to the clinic

Company snapshot

Shares 2.056B

Market cap A\$49M

Cash ¹ A\$12.1M

Head Office Melbourne

Board
 John Read (Chair)
 James Campbell (CEO & MD)
 Pamela Klein (NED)
 Suzy Jones (NED)
 Michael Stork (NED)

Substantial Dr Dax Marcus Calder – 11.2%
 Mason Stevens – 6.3%

¹ As at 31 March 2022 (includes \$2M term deposit)

² As at close of trading, 5 May 2022



Price² \$0.024

12mth high - low \$0.063 - \$0.020

Av. daily volume 4,968,322

Board of Directors



John Read Chairman

- Experienced Chairman and Director in public, private and government organisations
- Extensive career in venture capital, private equity and commercialisation
- Chairman of CVC Limited (ASX: CVC), previously Eildon Capital Limited (ASX:EDC)



Dr James Campbell

- >20 years of international biotechnology research, management and leadership
- Previously the CFO and COO of ChemGenex Pharmaceuticals Limited (ASX:CXS) and of Evolve Biosystems Inc.
- Board member, Ausbiotech
- Board member, Prescient Therapeutics (ASX: PTX)



Dr Pamela M. Klein

- Former VP, Development at Genentech, led development of a large portfolio of drugs
- Former Chief Medical Officer of Intellikine (acquired by Millennium/Takeda)
- Board member at Argenx (Euronext & Nasdaq: ARGX)
- Chief Medical Officer of Olema Oncology (Nasdaq: OLMA)



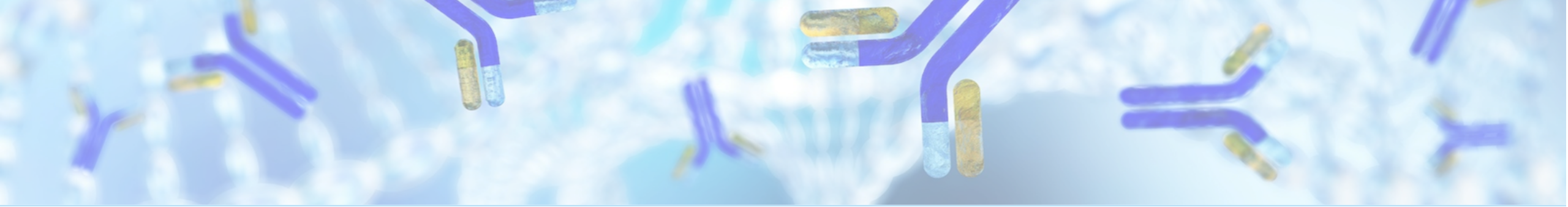
Suzy Jones

- Founder and Managing Partner of DNA Ink, a life sciences advisory firm in San Francisco
- 20 years at Genentech in BD, product development and immunology research
- Board member at Calithera (Nasdaq: CALA)

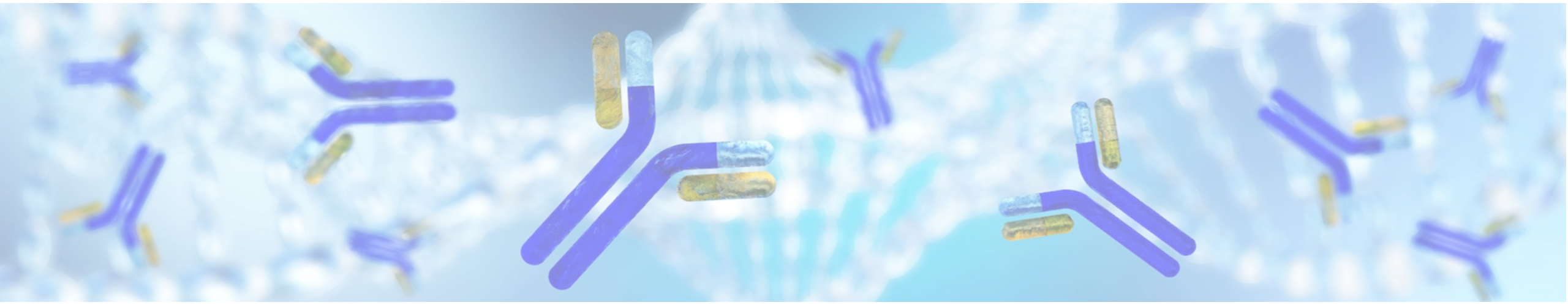


Mike Stork

- Managing Director of Stork Holdings Ltd, active in Canadian technology start-up sector
- Director of multiple leading Canadian technology start-up companies

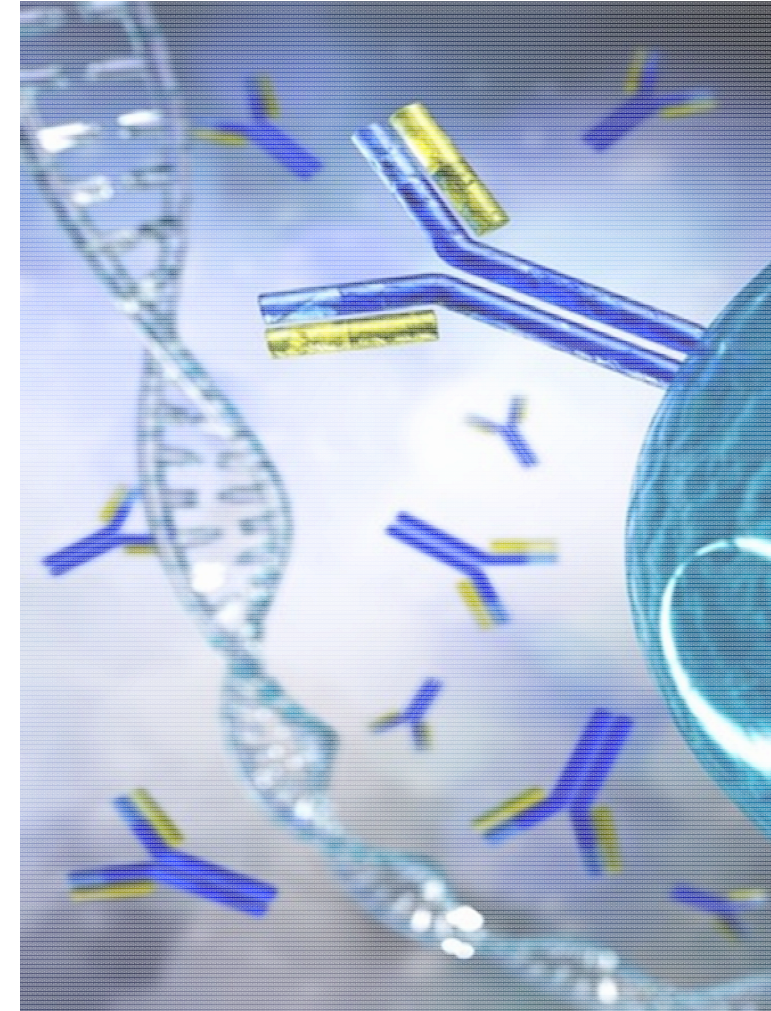


Technology Overview



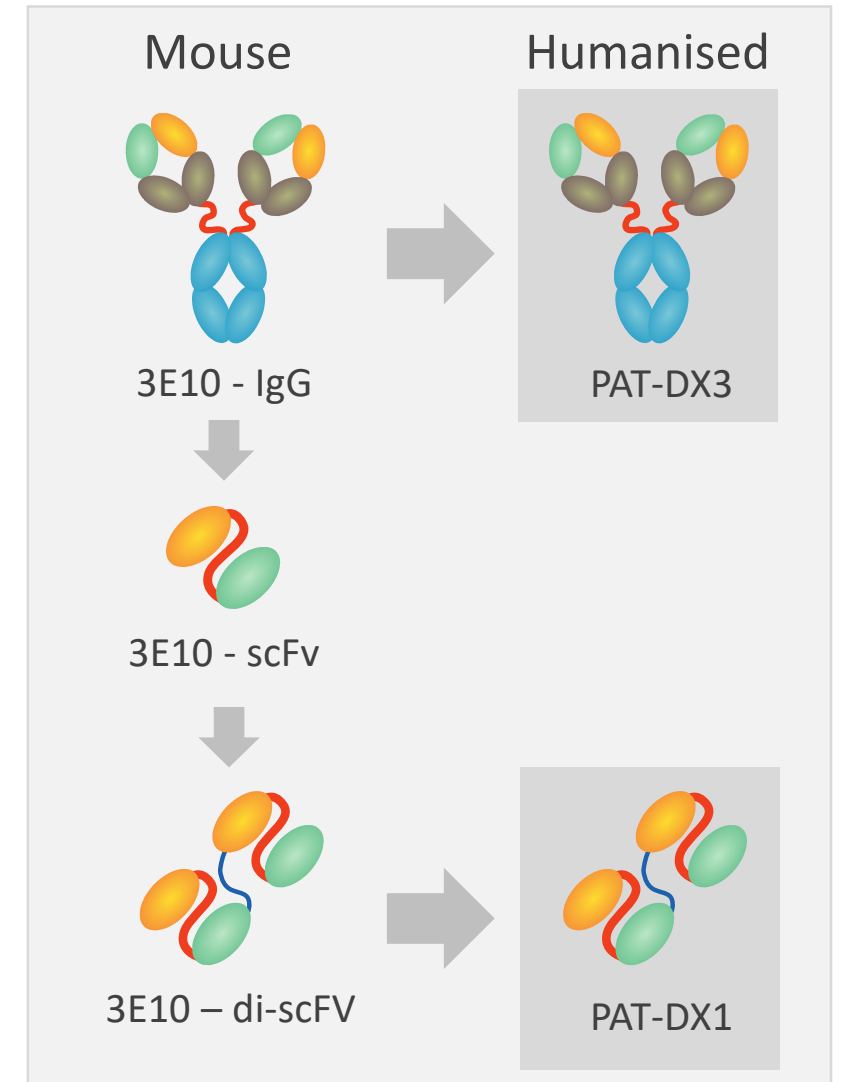
First anticancer antibody therapeutic targeting DDR

- Deoxymabs are derived from an antibody, 3E10, which was isolated from a mouse model of the autoimmune disease lupus (SLE)
- Deoxymabs bind to DNA and have a unique combination of properties:
 - **Cancer seeking:** tumors release DNA which attracts deoxymabs
 - **Cell penetrating:** able to get into cells and the cell nucleus
 - **Block DNA damage repair (DDR):** killing dividing cancer cells
 - **Cross the blood-brain barrier (BBB):** to treat cancers in the brain
- Preclinical studies: deoxymabs safe with very little effect on normal, healthy cells
- Previous phase 1 clinical trial of 3E10 in 9 SLE patients showed no safety issues¹



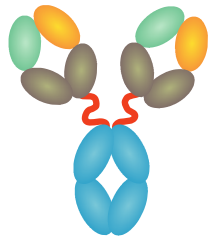
Patrys' deoxymab platform

- Patrys' deoxymab platform is based on humanised versions of the mouse 3E10 antibodies
- Global rights to 3E10 antibodies for the treatment of cancer were acquired from Yale University in 2016
- Patrys has created humanised versions of the 3E10 antibodies for therapeutic development:
 - **PAT-DX1**: two copies of a humanised binding domain of 3E10
 - **PAT-DX3**: a humanised version of the full IgG 3E10 mouse antibody
- PAT-DX1 and PAT-DX3 have different pharmaceutical properties, enabling their use for a wide range of healthcare applications
- Manufacturing and formulation program is underway for both assets



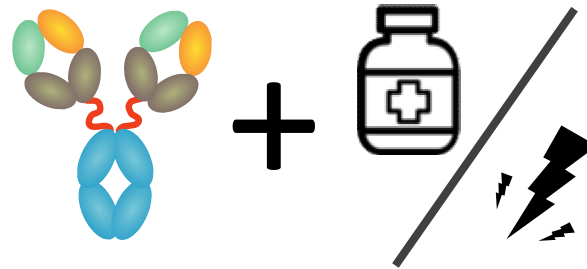
Deoxymab platform offers multiple therapeutic approaches

Single Agent



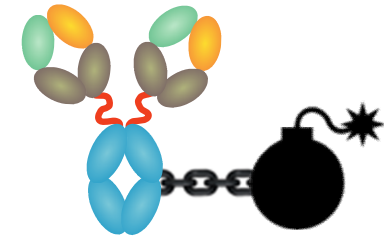
- Many cancers have pre-existing defects in their DNA damage repair (DDR) systems
- Additional blocking of DDR by deoxymabs can increase the amount of DNA damage to a level where it is lethal
- Consistently demonstrated ~50% increase in median survival in TNBC; pancreatic; brain cancers

Combination Therapies



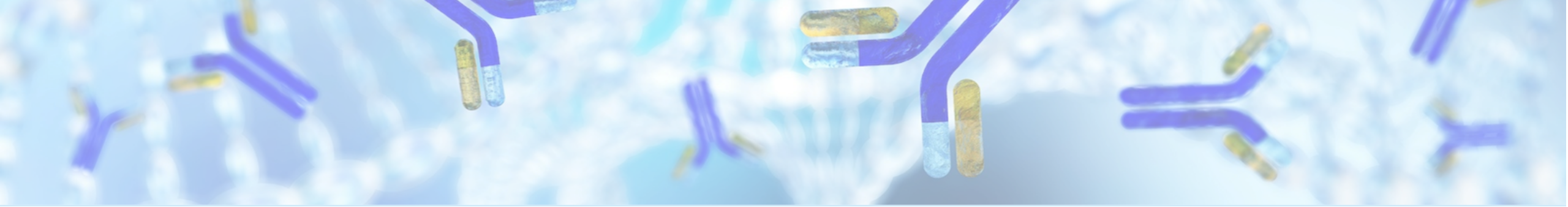
- Radiation therapy and many chemo drugs work by causing damage to DNA
- Deoxymabs can slow the repair of the damage caused by these agents by blocking the DDR systems
- Combination with radiation demonstrated 3-fold better survival than radiation alone

Targeted Therapies

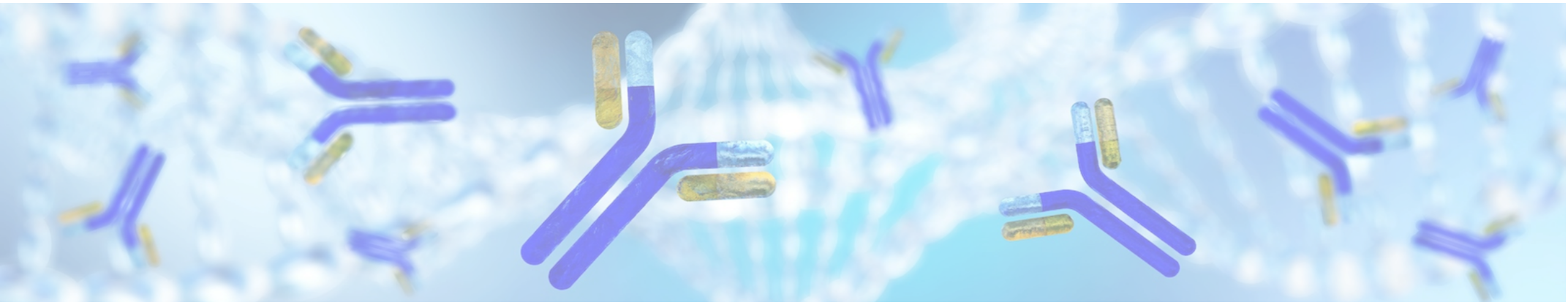


- Deoxymabs can direct delivery of payloads to cancer cells and the cell nucleus
- ADC opportunity (99.7% tumour growth inhibition)
- Imaging opportunity (collaboration with Imagion; ASX:IBX)
- Intracellular payload delivery

All of these approaches for using deoxymabs have been successfully demonstrated in preclinical studies



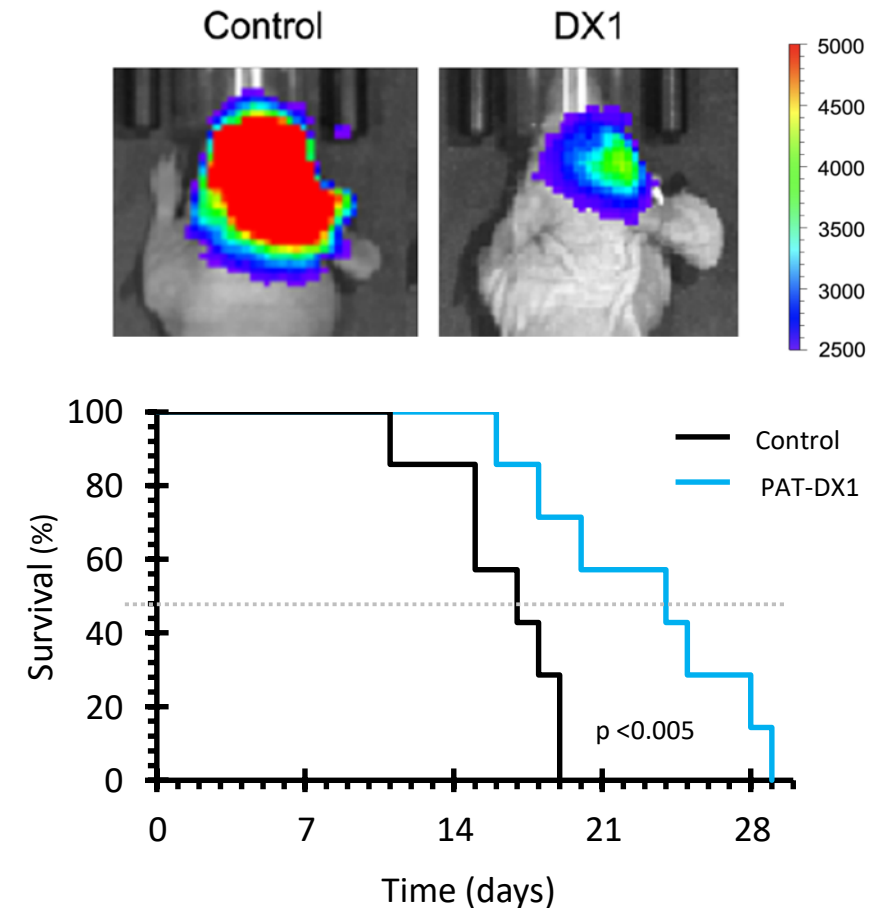
Deoxymab results



PAT-DX1 improves survival in glioblastoma

- Glioblastoma (GBM) is the most common form of primary brain cancer, with approximately 23,000 new cases diagnosed in the US each year
- GBM is highly aggressive with few effective treatment options (5-year survival rate = 5.6%)
- First line therapy for GBM is surgical removal of the tumour followed by radiation. Temozolomide (Temodar®) improves survival by 2 months
- ~ 40% of GBM tumors have a mutation in a protein call PTEN which is involved in the repair of DNA damage
- In GBM cells, single agent PAT-DX1:
 - has no impact on survival in cells with an intact PTEN protein
 - significantly decreases survival in cells with a PTEN mutation (DDR deficiency)
- In an animal model using human GBM explants, PAT-DX1 on its own was able to improve median survival by 47%

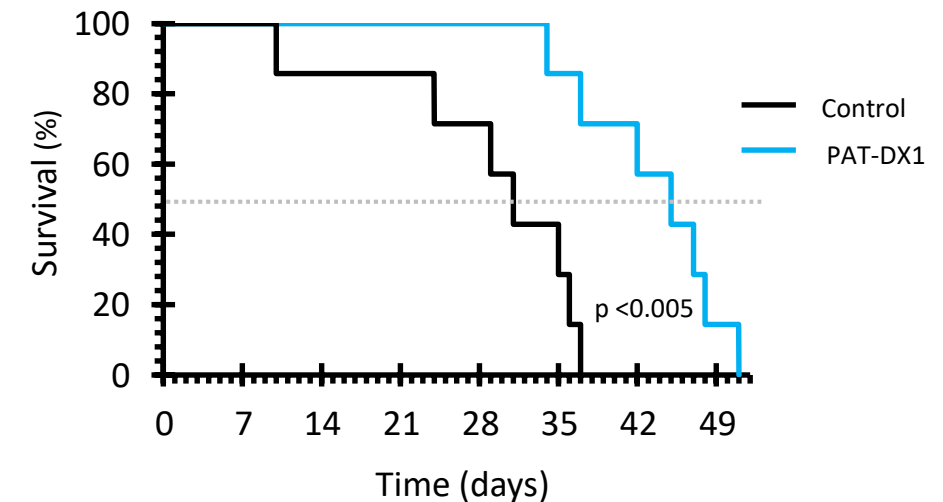
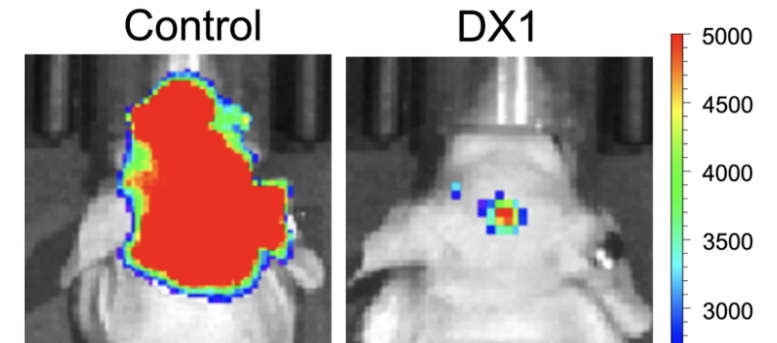
Mice with human GBM



PAT-DX1 improves survival with breast cancer metastases

- Approximately 230,000 women are diagnosed with breast cancer in the US each year
- 10%-15% have Triple Negative Breast Cancer (TNBC), an aggressive form with deficiencies in the BRCA1 gene (DNA damage repair)
- ~50% of TNBC patients develop brain metastases
- Like glioblastoma, TNBC brain metastases are very difficult to treat and patients usually have poor outcomes
- Mice with TNBC metastases treated with PAT-DX1 as a single agent (4 cycles), had 93% less brain metastases than control animals after 28 days
- This resulted in a 45% increase in median survival

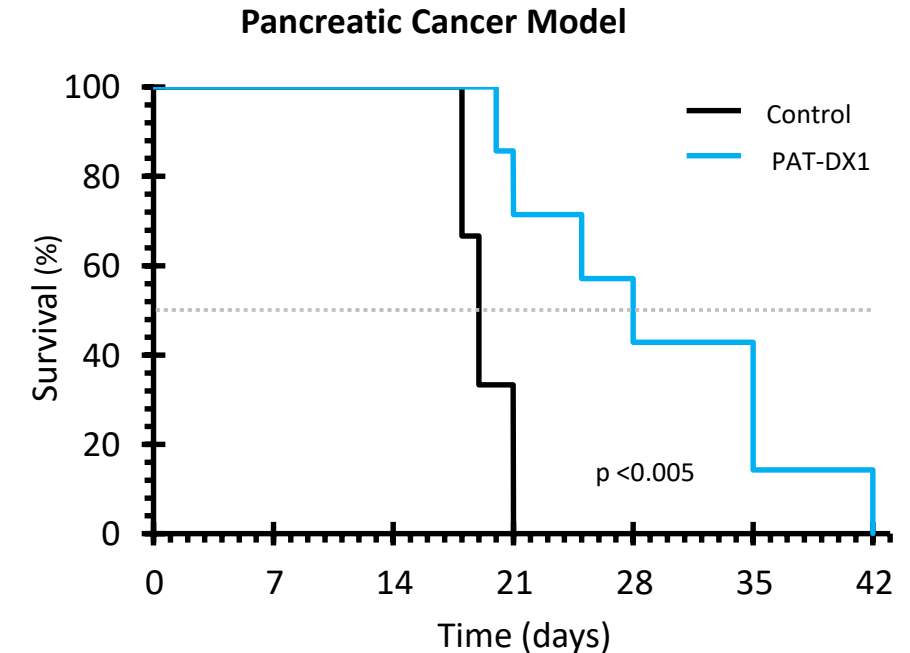
TNBC¹ Brain Metastases Model



¹ TNBC = triple negative breast cancer which has DDR deficiency

PAT-DX1 improves survival in pancreatic cancer

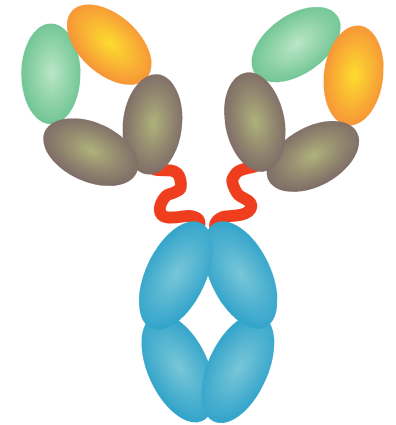
- Pancreatic ductal adenocarcinoma (PDAC) is one of the most common and aggressive cancer types, with a 5-year survival rate of 2–9%¹
- Globally, 460k new cases and 432k deaths in 2018
- Limited treatment options
- Projected to become the second leading cause of cancer death in the Western world by 2030
- First line therapy is surgical removal of the tumour followed by chemotherapy and radiation
- In an animal model of pancreatic cancer, single agent PAT-DX1 improved median survival by 47%



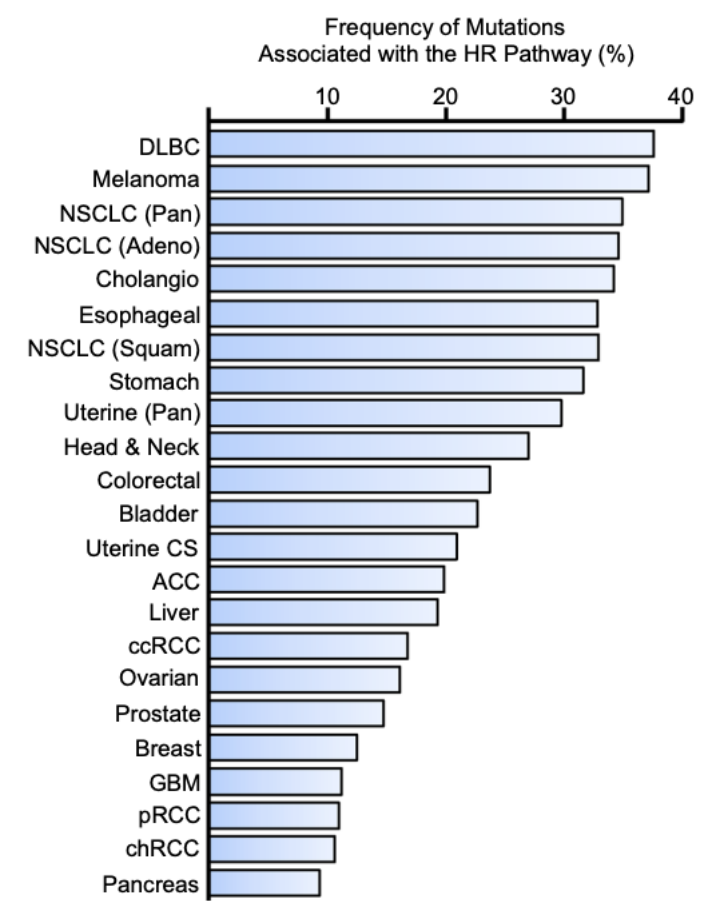
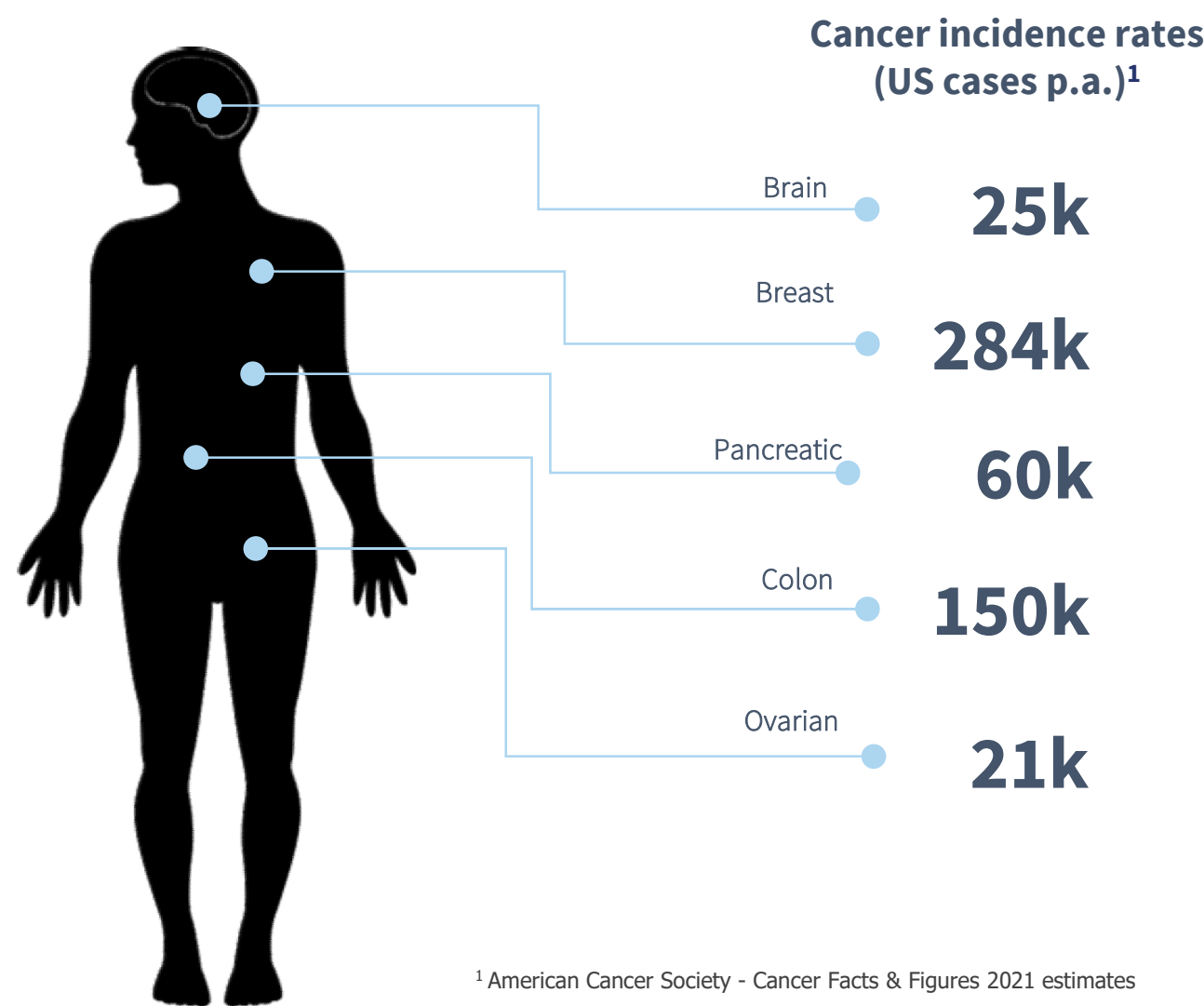
1. Arias-Pinilla & Modjtahedi. Therapeutic Application of Monoclonal Antibodies in Pancreatic Cancer: Advances, Challenges and Future Opportunities. *Cancers*. 2021

PAT-DX3 development path initiated H2, 2021

- Full sized, IgG deoxymab antibody, PAT-DX3, produced in September 2020
- PAT-DX3 shares biological activity with PAT-DX1, but is differentiated and complementary
 - Different pharmacokinetic profile
 - Can cross the blood brain barrier in animal models of brain cancer
 - Potential for use as a tumour targeting agent for antibody drug conjugates (more conjugation sites than PAT-DX1)
- Patrys has initiated a formal development program for PAT-DX3
- Stable cell line selected in Feb 2022, advancing to MCB
- Manufacturing process optimization underway
- Responding to significant investment and deal activity in ADC technology, Patrys will conduct a range of ADC studies to explore the broad utility of DX3 in cancer and enhance potential partnering opportunities



Many solid tumors have DDR mutations



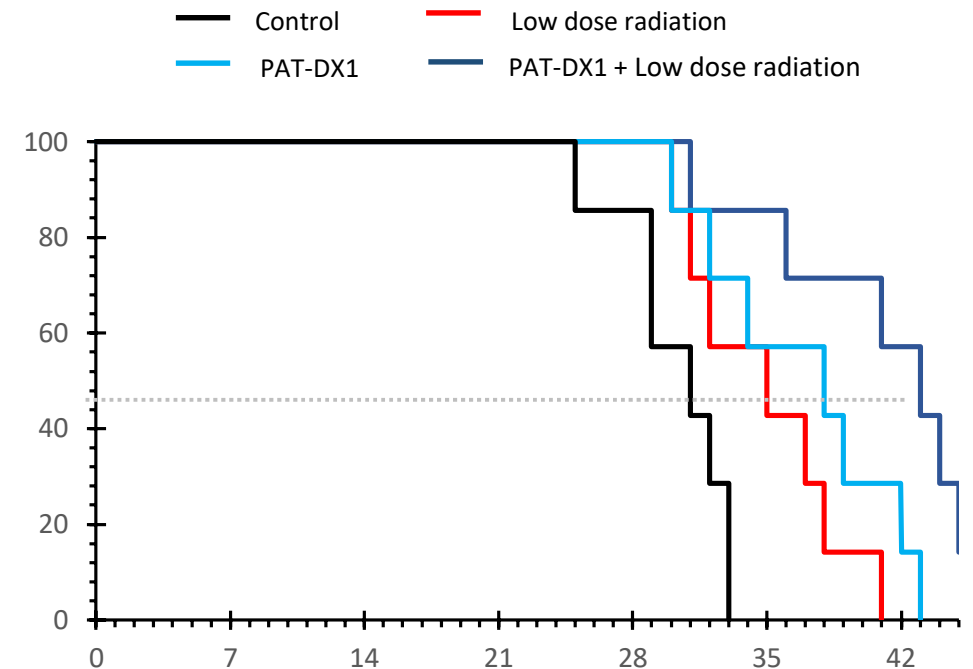
¹ American Cancer Society - Cancer Facts & Figures 2021 estimates

Principe et al 2020. Frequency and prognostic value of mutations associated with the homologous recombination DNA repair pathway in a large pan cancer cohort, *Scientific Reports* volume 10, Article number: 20223 (2020)

Combination therapies – improving glioblastoma treatments

- Radiation is a mainstay treatment for glioblastoma (GBM) patients and is used:
 - as a monotherapy (less frequently)
 - post-surgical removal of tumour tissue
 - in combination with the drug temozolomide (Temodar®)
- The efficacy of radiation therapy is dose-dependent, which is limited by potential side-effects:
 - risk of damage to adjacent healthy brain tissue
 - tiredness, weakness, loss of hair, nausea
 - worsening of brain cancer symptoms
- PAT-DX1 improved the efficacy of low-dose radiation in a preclinical model of aggressive GBM (39% increase in median survival, cf 26% increase due to PAT-DX1 alone)

Radiation + PAT-DX1 improves survival

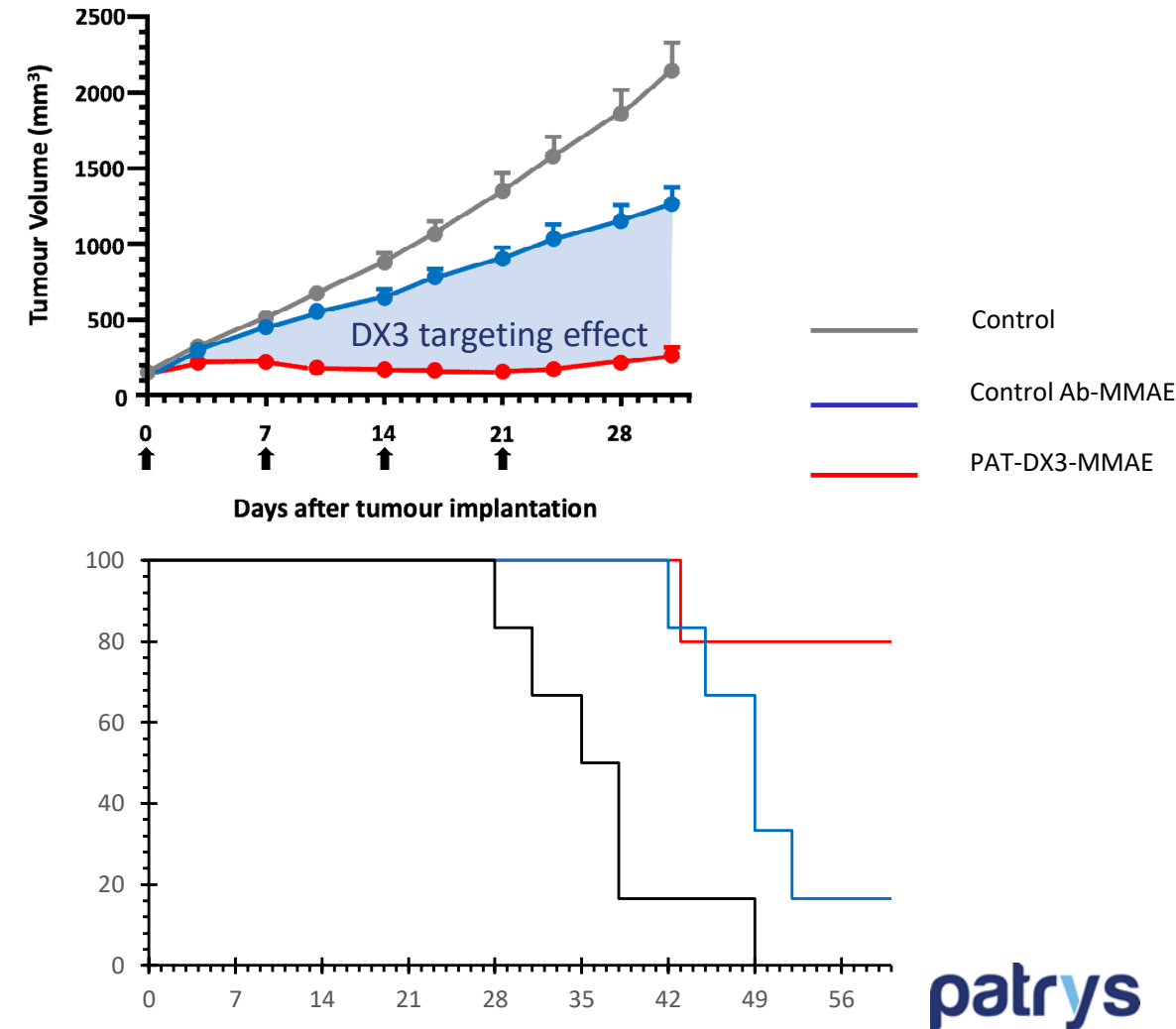


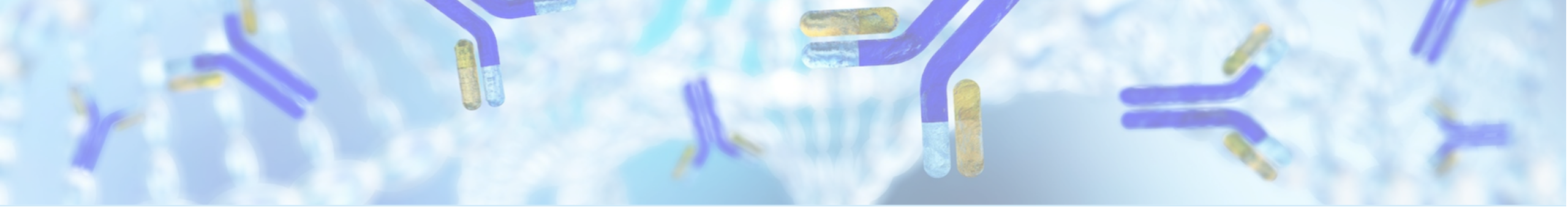
Human glioblastoma cells implanted in mice. Seven mice were in each of four groups: 1. control, 2. radiation alone, 3. PAT-DX1 alone, 4. radiation + PAT-DX1.

PAT-DX3 ADC proof of principle

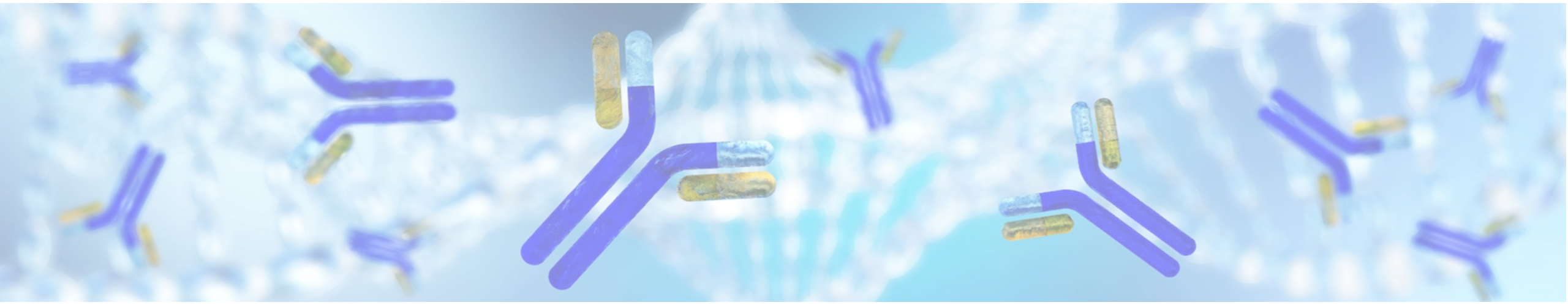
- Antibody drug conjugates are a fast-growing technology
- Use antibody to target delivery of toxic payload to cancer cells. Often superior benefits to antibodies alone
- Proof of principle study with PAT-DX3 conjugated to MMAE (payload used in approved ADCs)
- Clear tumour targeting effect when compared to control antibody
- 99.7% tumour growth inhibition after 3 weeks
- PAT-DX3-MMAE significantly increased survival compared to the control group of animals ($p < 0.005$)

MCF7 Breast Cancer Model

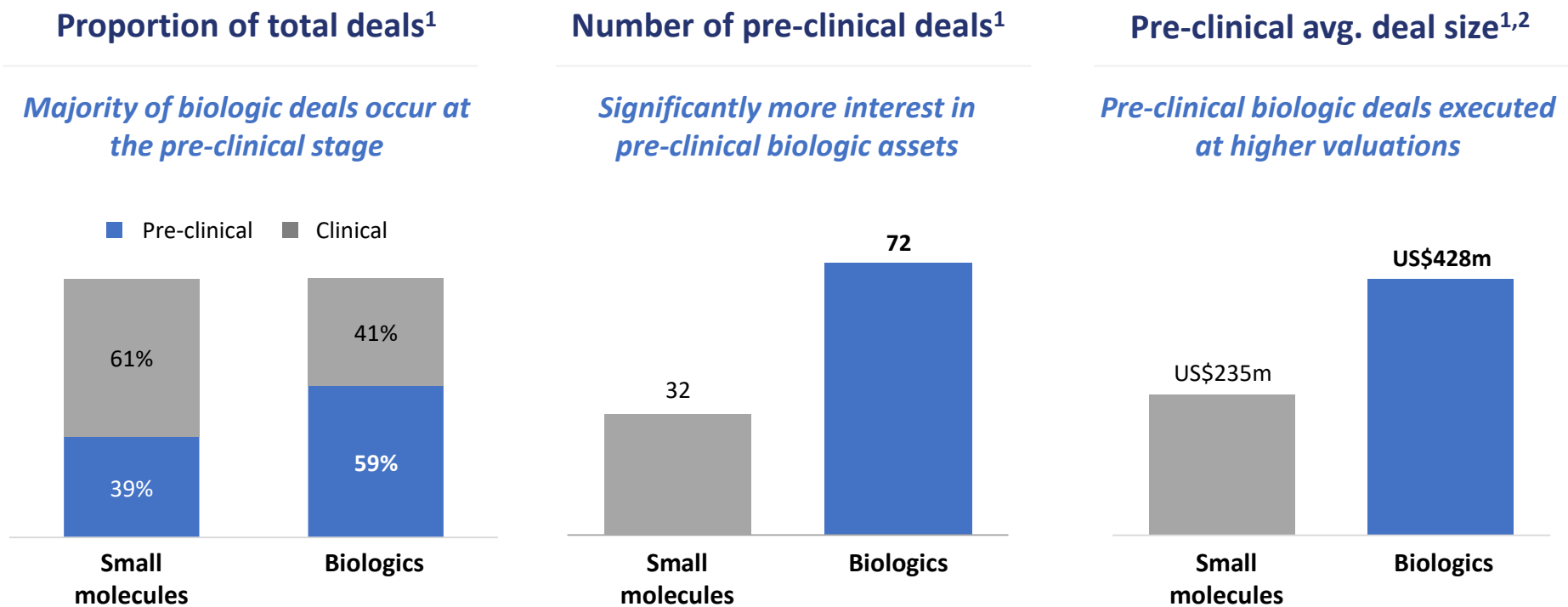




Commercial landscape



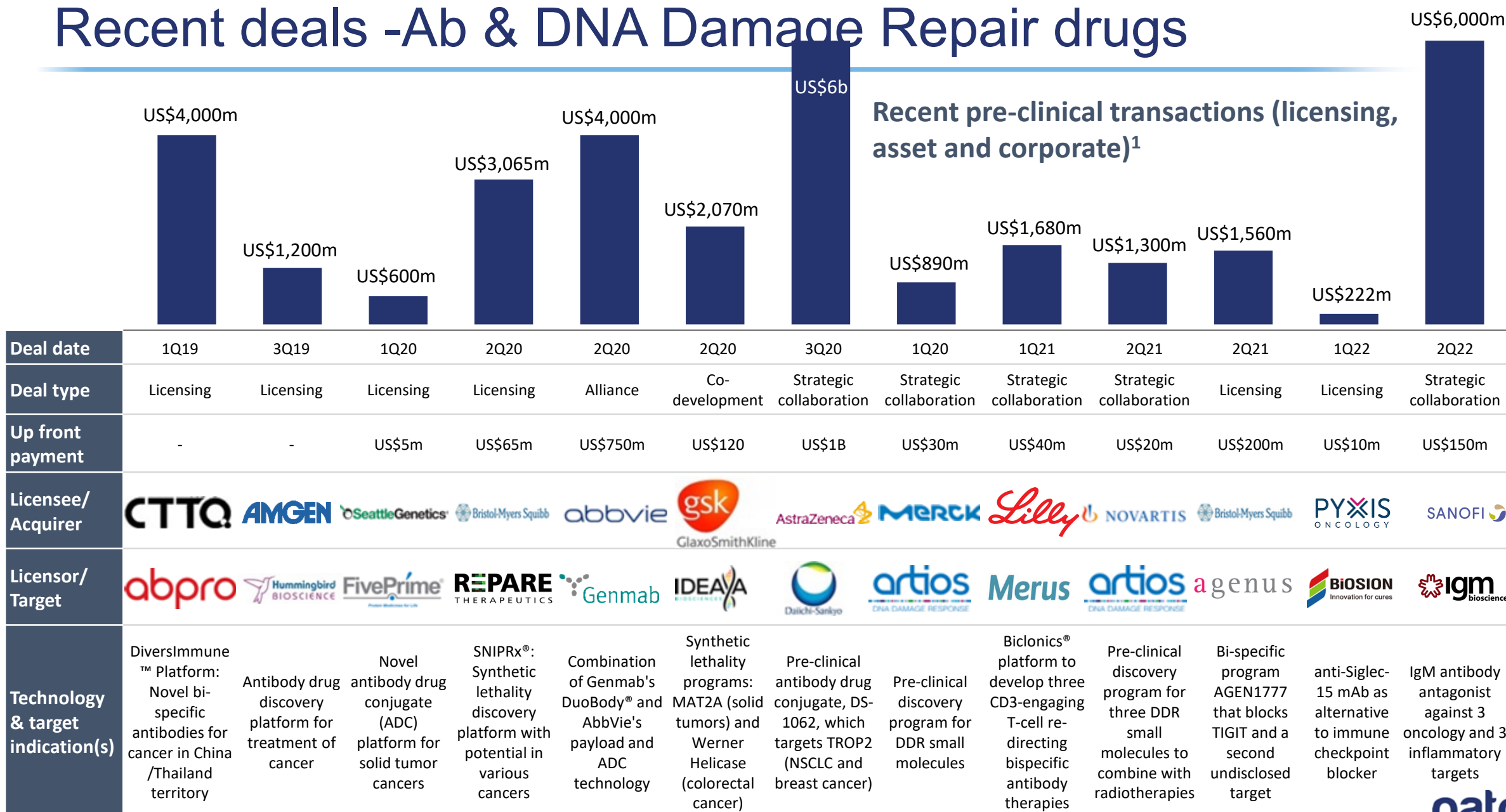
Biologics typically transact earlier and at higher valuations than small molecules



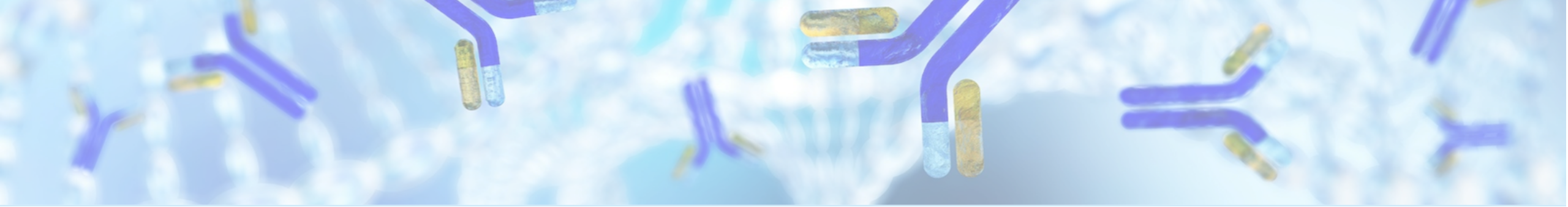
The value of Patrys' novel therapy is underpinned by potential for multiple applications to achieve better patient outcomes

Source: GlobalData
1. Small molecules and biologics transactions between 2017 and 2019
2. Deal size includes upfront and potential milestone payments

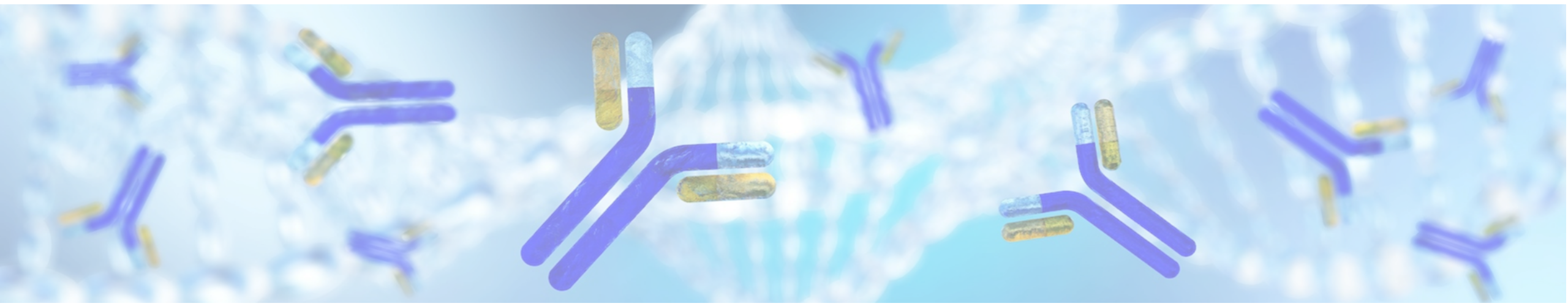
Recent deals -Ab & DNA Damage Repair drugs



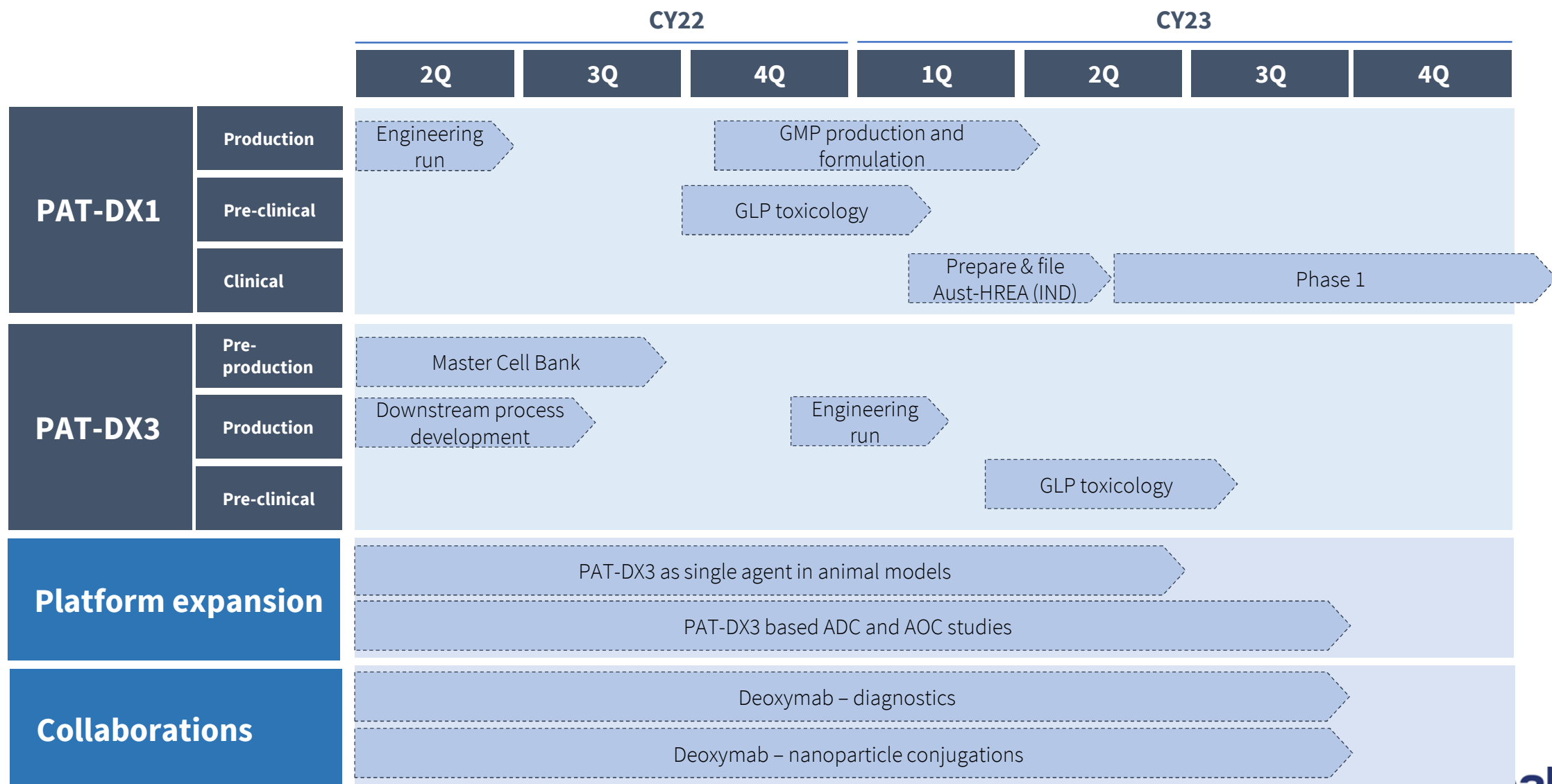
Source: Company information - all deal values exclude potential royalty payments



Looking ahead



Timeline



Best estimate at current time.

Anticipated newsflow / Milestones to end of 2022

PAT-DX1 engineering production run completed	Q2 2022	
PAT-DX3 stable cell line selected	Q2 2022	✓
PAT-DX3 upstream process development completed	Q2 2022	
PAT-DX3 downstream process development completed	Q3 2022	
PAT-DX3 master cell bank completed	Q3 2022	
PAT-DX1 GLP toxicology studies initiated	Q4 2022	
PAT-DX3 engineering production run initiated	Late 22/early 23	
PAT-DX1 GMP production and formulation program initiated	Q2 2023	
PAT-DX1 IND (as Australian Human Research Ethics Application) submitted	Q2 2023	
PAT-DX3 GLP toxicology studies initiated	Q2 2023	
PAT-DX1 Phase 1 clinical study initiated	Q3 2023	
Expansion of deoxymab platform (ADCs, bispecific antibodies, nanoparticles, imaging)	Ongoing	
Scientific publications	Ongoing	
New IP filings and patent grants	Ongoing	
Alliances, collaborations and grants	Ongoing	



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Patrys Limited (ASX:PAB)

