

**patrys**

**Investor  
Presentation**

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**September 2022**



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**Patrys' deoxymab technology platform provides new ways for using antibodies to treat cancer:**

- Block repair of damaged DNA
- Cross the blood brain barrier
- Can be used alone or in combination with other therapies



**Deoxymab antibodies can be used as targeting agents for the delivery of drugs, imaging agents and oligos to brain tissue, the cell nucleus and tumours**



**First deoxmab antibody completed commercial scale GMP manufacture:**

- Final pre-clinical toxicology studies to commence by year end
- First-in-human Phase-1 clinical trial commencing in 2H CY2023



**Scale-up GMP manufacture of second deoxymab antibody underway – partnerships for delivery**



**Targeting large unmet medical needs – primary and secondary cancers of the brain, metastatic cancers, pancreatic cancer**

# Company snapshot

Shares	2.1B
Market cap <sup>1</sup>	A\$55M
Cash <sup>2</sup>	A\$9.8M
HQ	Melbourne
Board	<p>Michael Stork (Interim Chair)                  James Campbell (CEO &amp; MD)                  Pamela Klein (NED)                  Suzy Jones (NED)                  Stefan Ross (NED)</p>
Substantial	<p>Dr Dax Marcus Calder – 11.2%                  Mason Stevens – 9.9%</p>



Price <sup>1</sup>	\$0.027
12 mth high - low	\$0.047 - \$0.019
Av. daily volume	2,000,000

<sup>1</sup> As at close of trading, 31 Aug 2022

<sup>2</sup> As at 30 June 2022 (includes \$2M classified as an other financial asset)



## Mike Stork (Interim Chair)

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



## Dr Pamela M. Klein

- Former VP, Development at Genentech
- Board member of Argenx (Euronext & Nasdaq: ARGX)
- Former CMO of Intellikine (acquired by Millennium/Takeda)
- Founding CMO of Olema Oncology (Nasdaq: OLMA)



## Dr James Campbell (CEO and MD)

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



## Suzy Jones

- 20 years at Genentech in Research and Business Development
- Founder and Managing Partner of DNA Ink, a life sciences advisory firm in San Francisco
- Board member of Calithera (Nasdaq: CALA)



## Stefan Ross

- Extensive experience in accounting and secretarial services for ASX Listed companies
- Strengths in compliance, corporate governance control and implementation and statutory financial reporting

# Technology Overview

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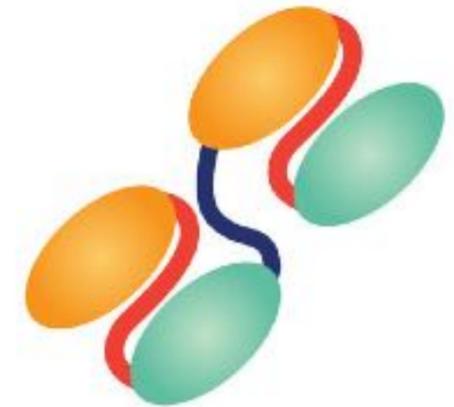


Deoxymabs bind to DNA and have a unique combination of properties:

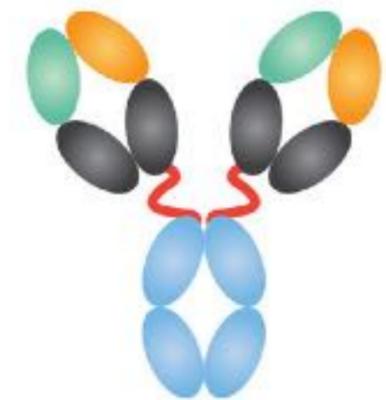
- **Cancer seeking:** tumours release DNA which attracts deoxymabs
- **Cell penetrating:** able to get into cells and the cell nucleus
- **Block DNA damage repair (DDR):** stops cancer cells replicating
- **Cross the blood-brain barrier (BBB):** to treat cancers in the brain
- **Not dependent on cell surface markers:** broad utility across multiple cancers

Preclinical: deoxymabs safe with very little effect on normal, healthy cells

No reported safety issues in previous clinical trials of related antibodies

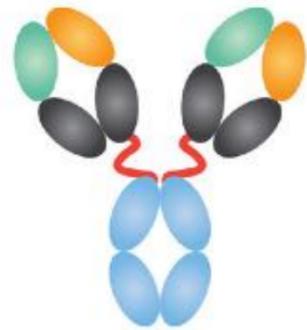


**PAT-DX1**

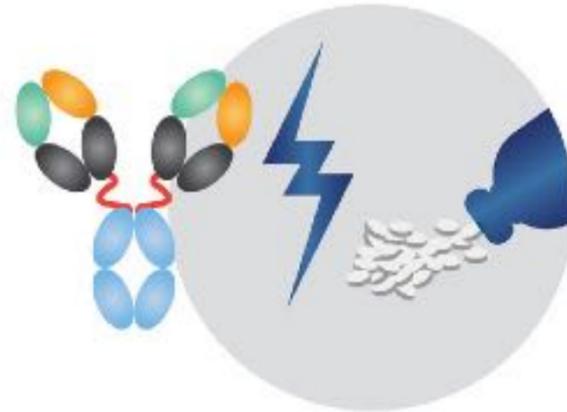


**PAT-DX3**

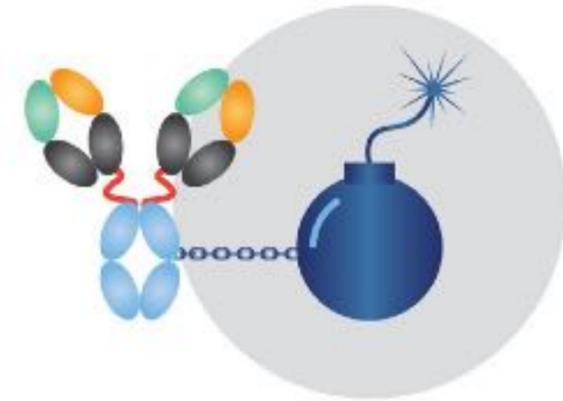
## Single Agent



## Combination Therapies



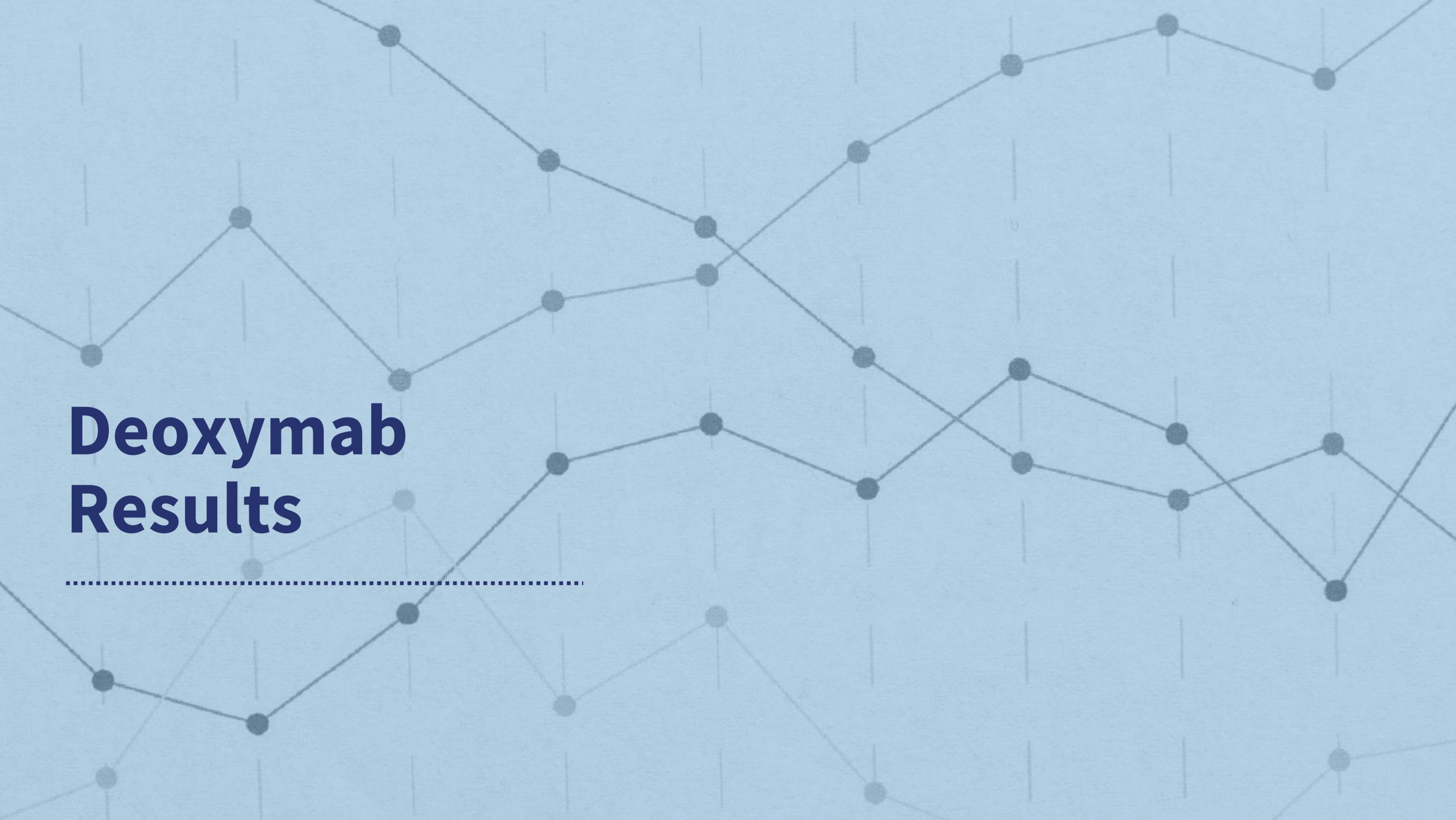
## Targeted Therapies



- Many cancers have pre-existing defects in their DNA damage repair (DDR) systems
- Additional blocking of DDR by deoxymabs can kill cancer cells
- Consistently demonstrated ~50% increase in median survival in breast, pancreatic and brain cancers

- 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 demonstrates significant benefits

- Antibody drug conjugates to target payloads to cancer cells – proof of concept completed
- Significant interest in delivery of gene editing technology
- Imaging opportunity (collaboration with Imagion; ASX:IBX)



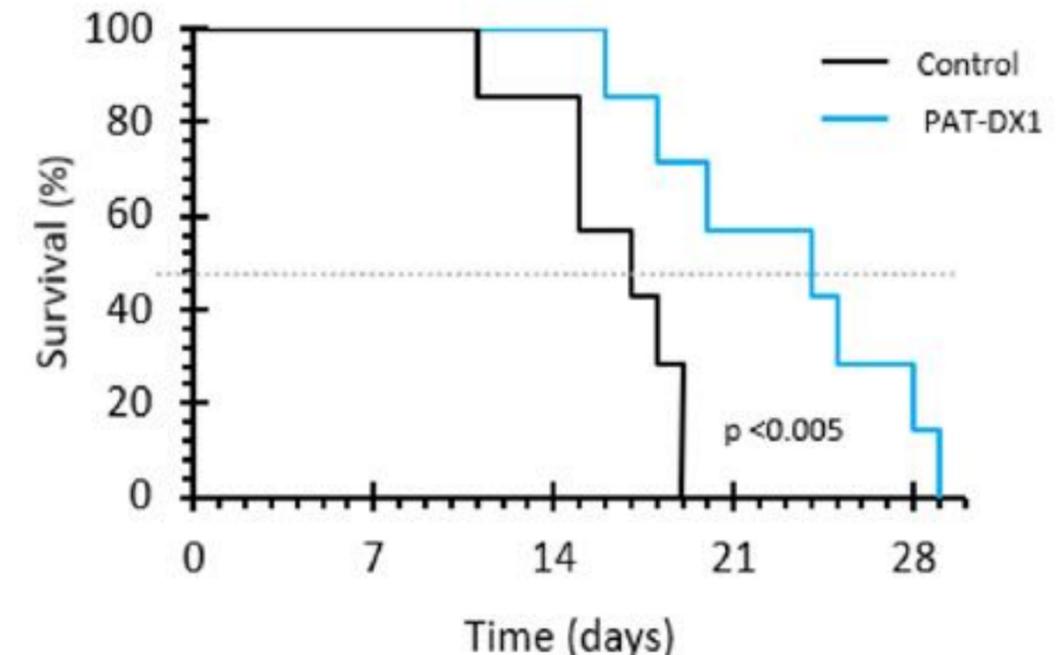
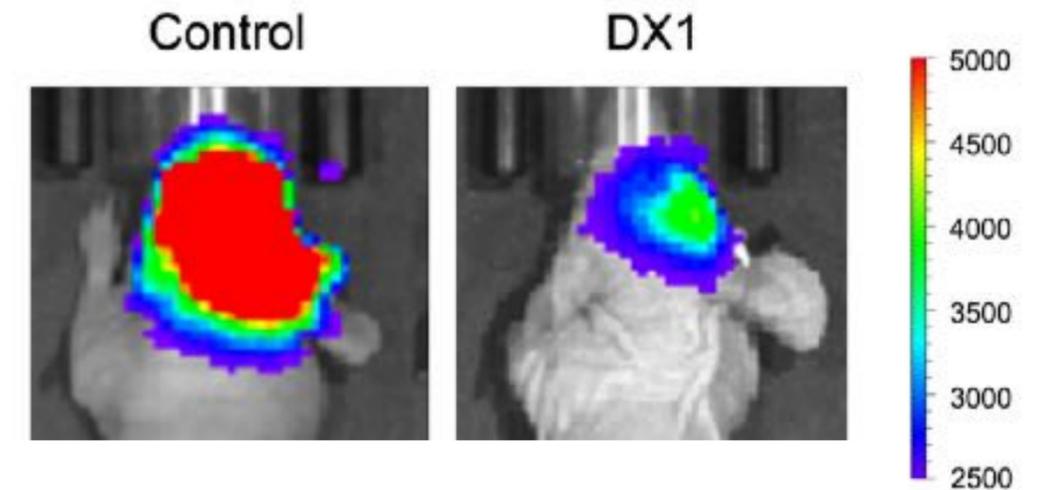
# Deoxymab Results

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# Improves survival in primary brain cancer

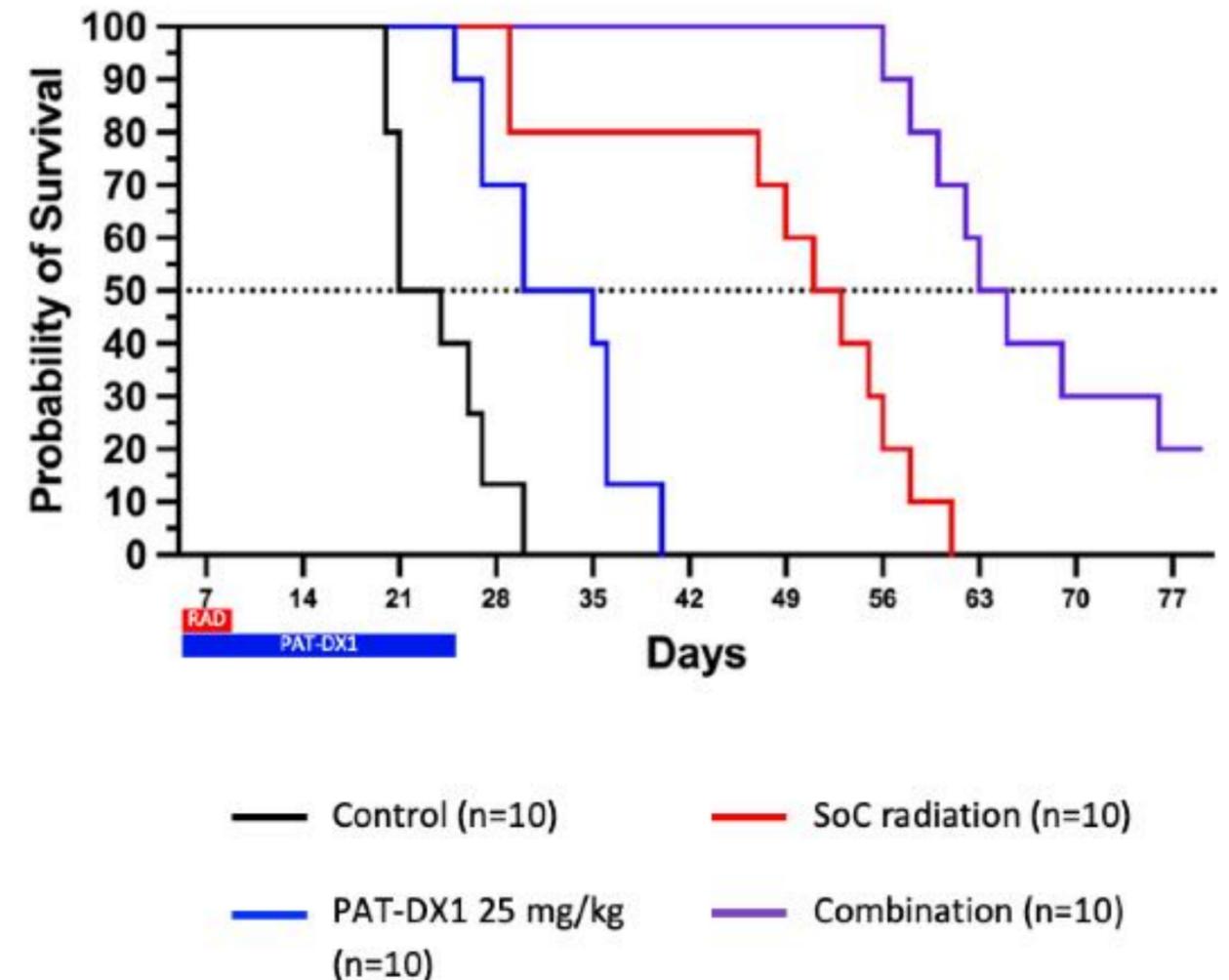
- Glioblastoma (GBM) is the most common primary brain cancer (23,000 new cases in the US pa)
- GBM is highly aggressive with few effective treatment options (5-year survival rate = 5.6%)
- Standard of Care for GBM is surgical removal of the tumour followed by radiation and temozolomide (Temodar®)
- 47% improvement in median survival caused by single agent PAT-DX1 in an animal model of human GBM
- Given the mechanism of action of PAT-DX1, synergy with radiation therapy is expected

## Mice with human GBM



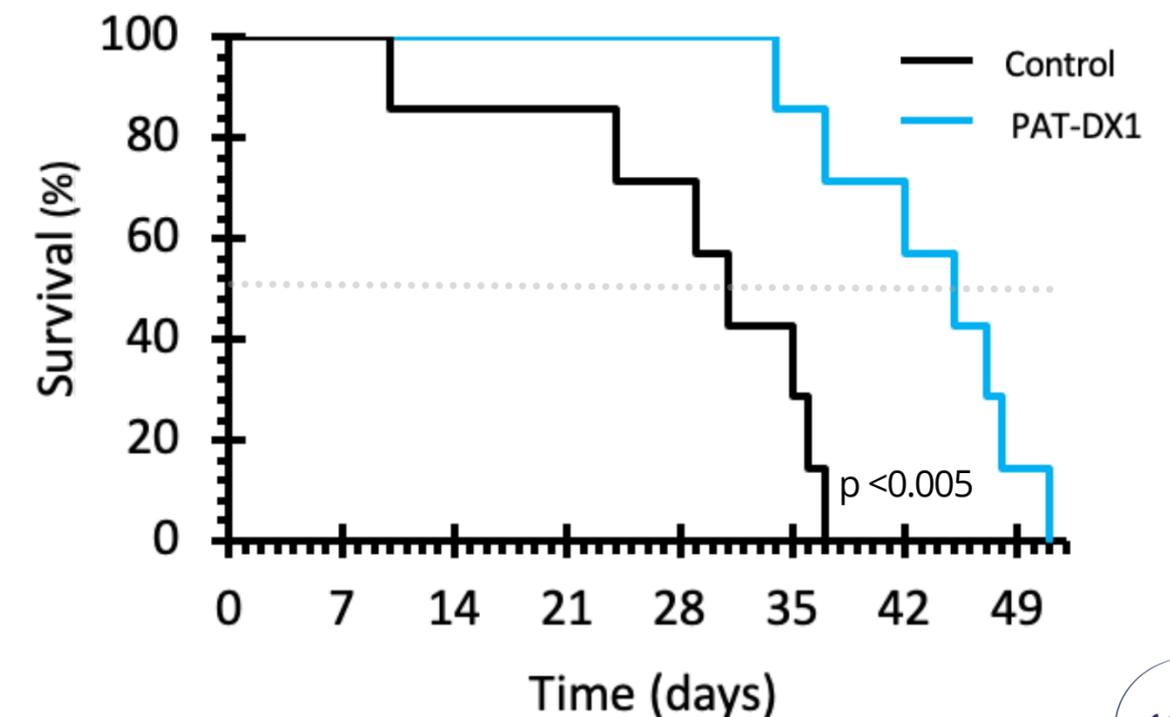
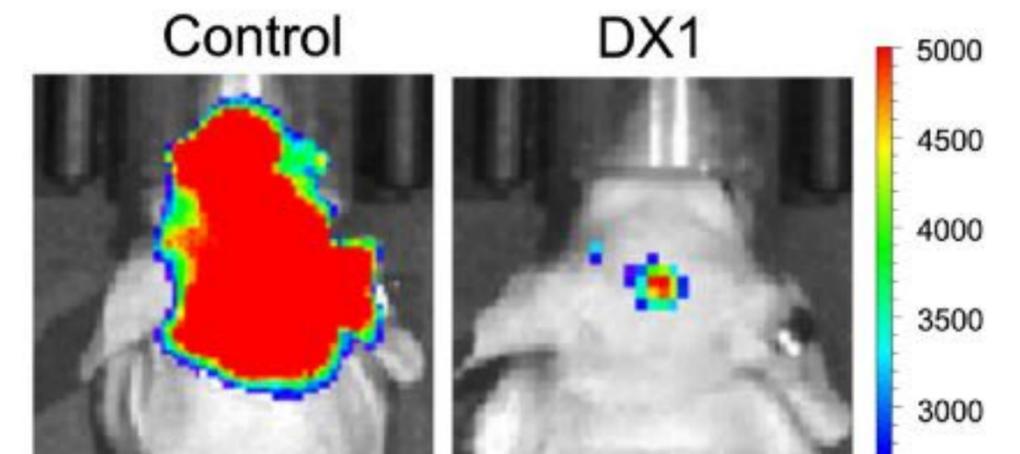
- Radiation is the standard of care for GBM patients
- Dose of radiation is limited by its side-effects
- Combining with PAT-DX1 reduces the ability of cancer cells to repair DNA damage caused by radiation
- ~25% improvement in median survival in two different animal models of primary brain cancer
  - High-grade glioma
  - GBM
- Potential for lower radiation dosing, especially in high-risk patient groups (children and the elderly)

## Mice with high-grade glioma



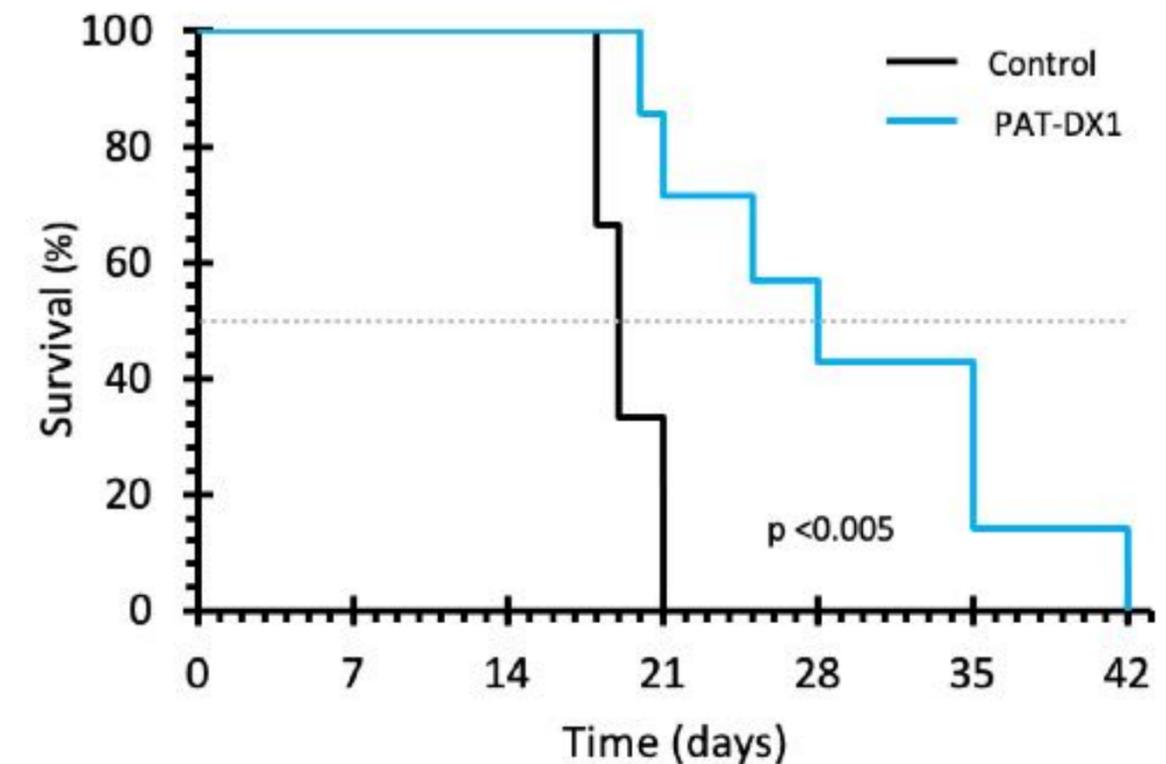
- ~ 200,000 new cases of brain metastases (secondary brain cancer) in the US each year
- The primary cancers that most often spread to the brain are cancers of the lung, breast, skin, colon, kidney and thyroid
- Median survival ranges from 4-16 months
- Mice with breast cancer metastases in the brain treated with PAT-DX1 as a single agent (4 cycles), had:
  - 93% less metastases;
  - 45% increase in median survival

## Breast Cancer Brain Metastases



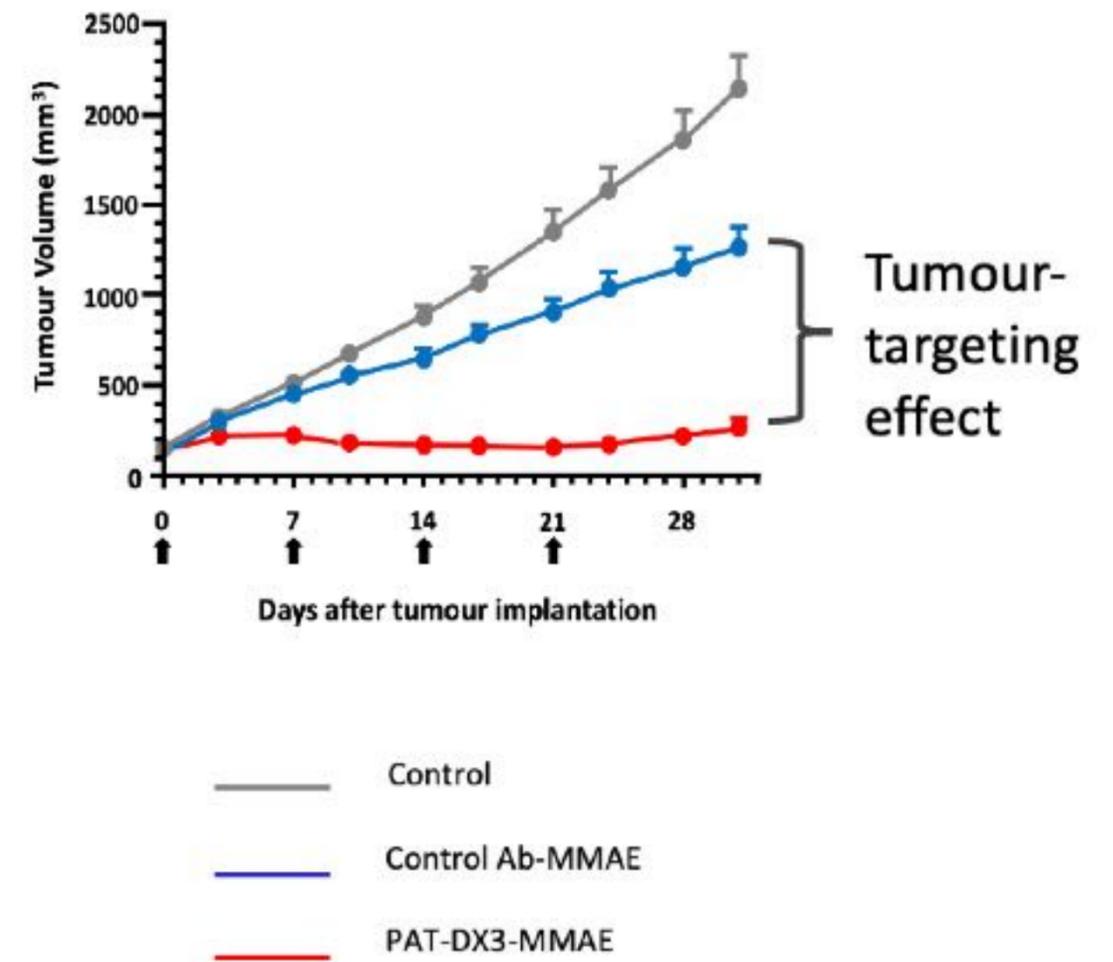
- Pancreatic cancer is one of the most common and aggressive cancer types, with a 5-year survival rate of 2–9%<sup>1</sup>
- Globally, 460,000 new cases and 432,000 deaths in 2018
- Limited treatment options
- Second leading cause of cancer death in the developed world by 2030
- First line therapy is tumour removal (where feasible) followed by chemotherapy and radiation
- 47% improvement in median survival with single agent PAT-DX1

## Pancreatic Cancer Model



- Antibody drug conjugates (ADCs) provide additional clinical benefits to antibodies alone
- Proof of principle study with PAT-DX3 conjugated to MMAE (toxic anti-cancer drug used in approved ADCs)
- Clear tumour-targeting effect when compared to control antibody
- 99.7% tumour growth inhibition after 3 weeks
- Median survival (ie. 50% mice dead):
  - 35 days for untreated mice
  - 49 days for mice treated with control Ab-MMAE
- At day 60 - 80% of mice treated with PAT-DX3-MMAE were still alive

## Breast Cancer Model



# Recent Developments

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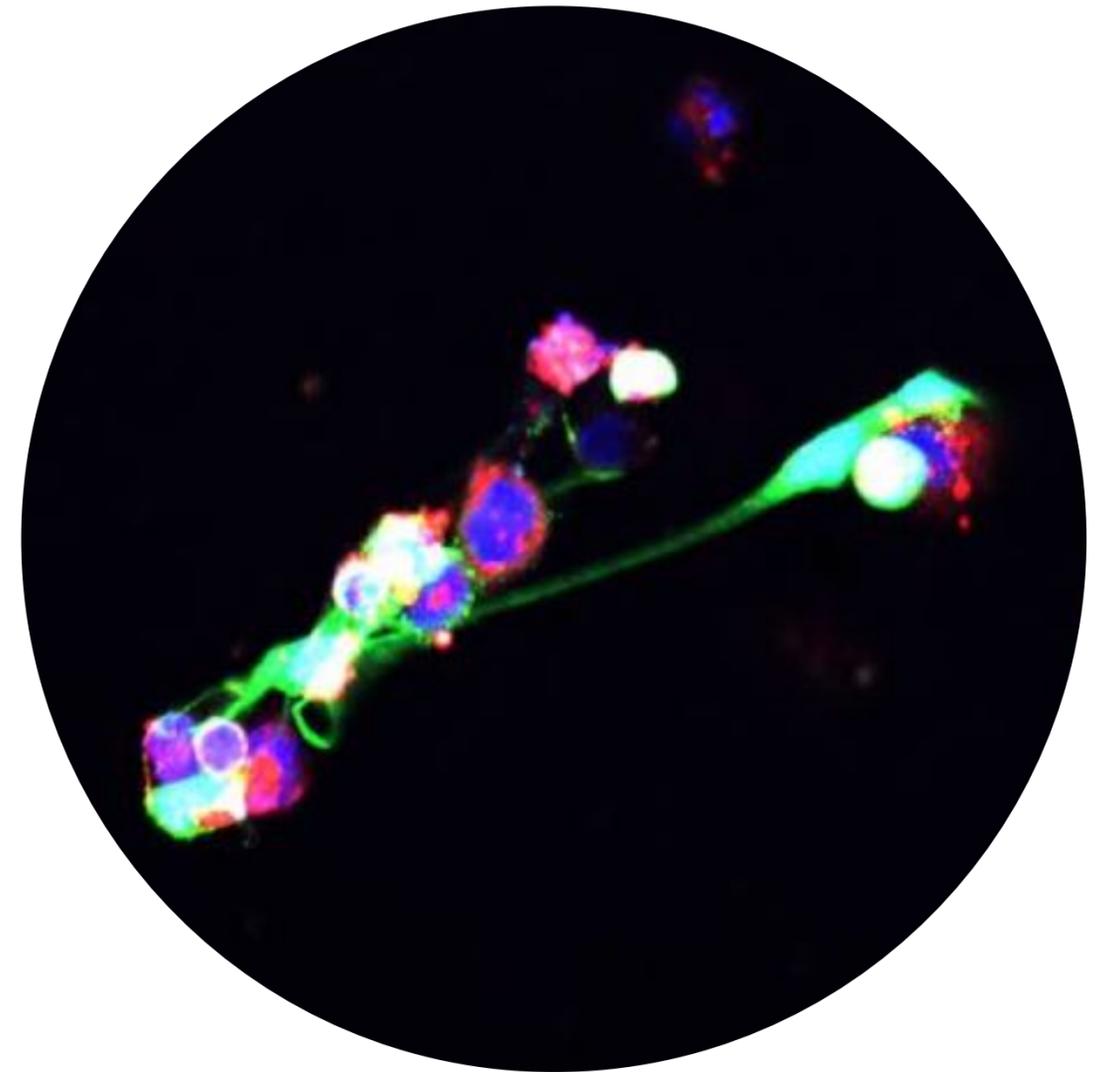
- \$250k in non-dilutive funding from inaugural Clinical Accelerator from Cure Brain Cancer Foundation
- Additional deoxymab preclinical research at The Telethon Kids Institute - led by Professor Terrance Johns
- International panel selected deoxymabs as compelling pre-clinical asset
- Grant supports research into PAT-DX1 and PAT-DX3 deoxymabs
  - in both *in vitro* and *in vivo* models of high-grade glioma
  - combining deoxymabs with standard of care treatments such as radiotherapy and temozolomide



**Cure Brain Cancer  
Foundation**

**TELETHON  
KIDS  
INSTITUTE**

- Peer-reviewed publication reported that PAT-DX1 suppresses the formation of neutrophil extracellular traps (NETs)
- NETs have been implicated in progression and metastasis in some cancers
- Offers mechanistic rationale to the previously-described ability of PAT-DX1 to reduce cancer spread by metastasis



# Looking Ahead

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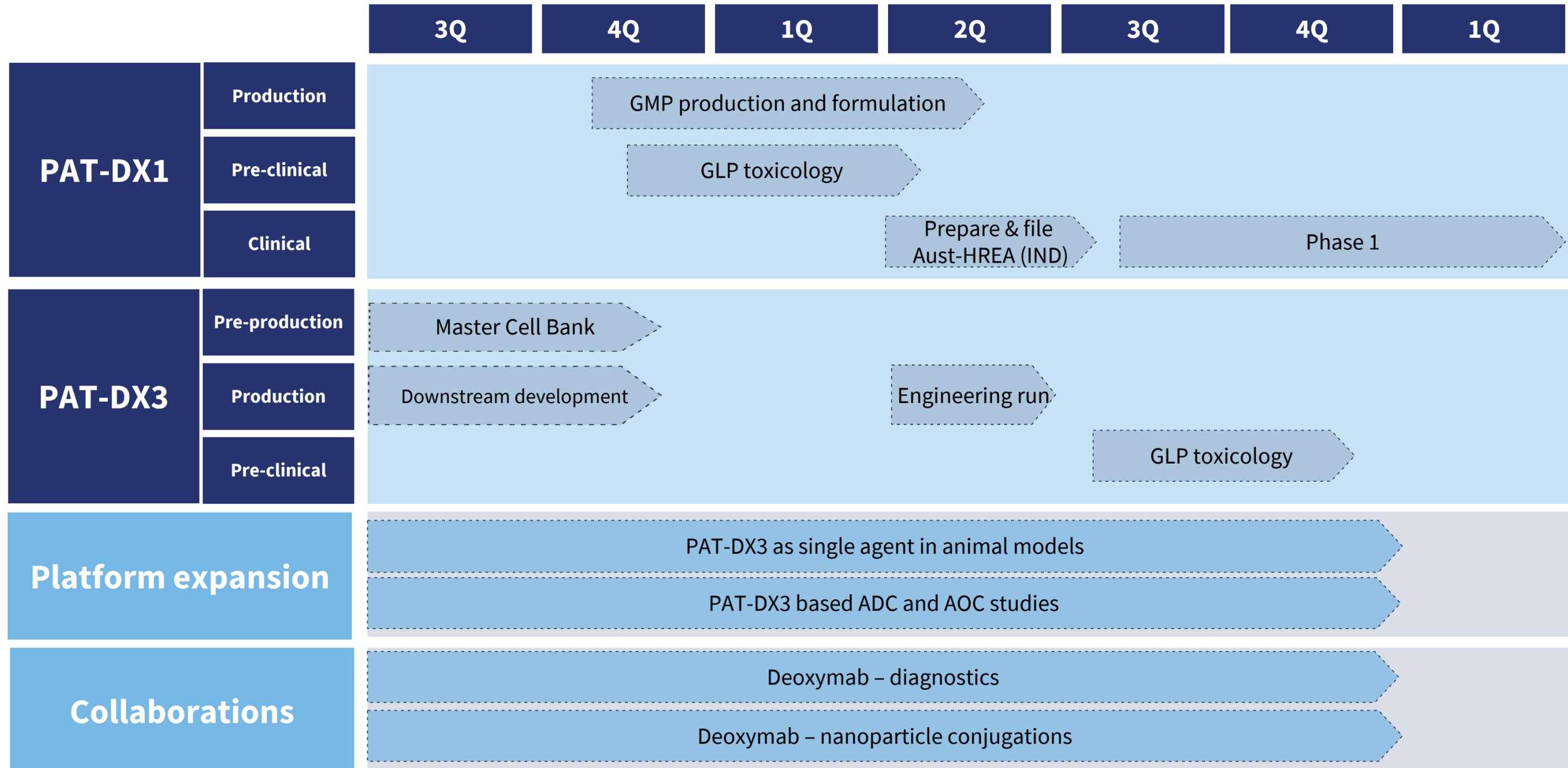
- Cell line selected in 2021
- Engineering run successfully completed in July 2022
- Non-GLP toxicology in rodents and NHPs clear report
- GLP toxicology commencing Q4 CY2022
- Australian phase 1 dose escalation study in solid tumours planned for H2 CY2023
- Significant investigator interest in phase 2 studies, particularly in combination with radiation therapy in primary brain cancers



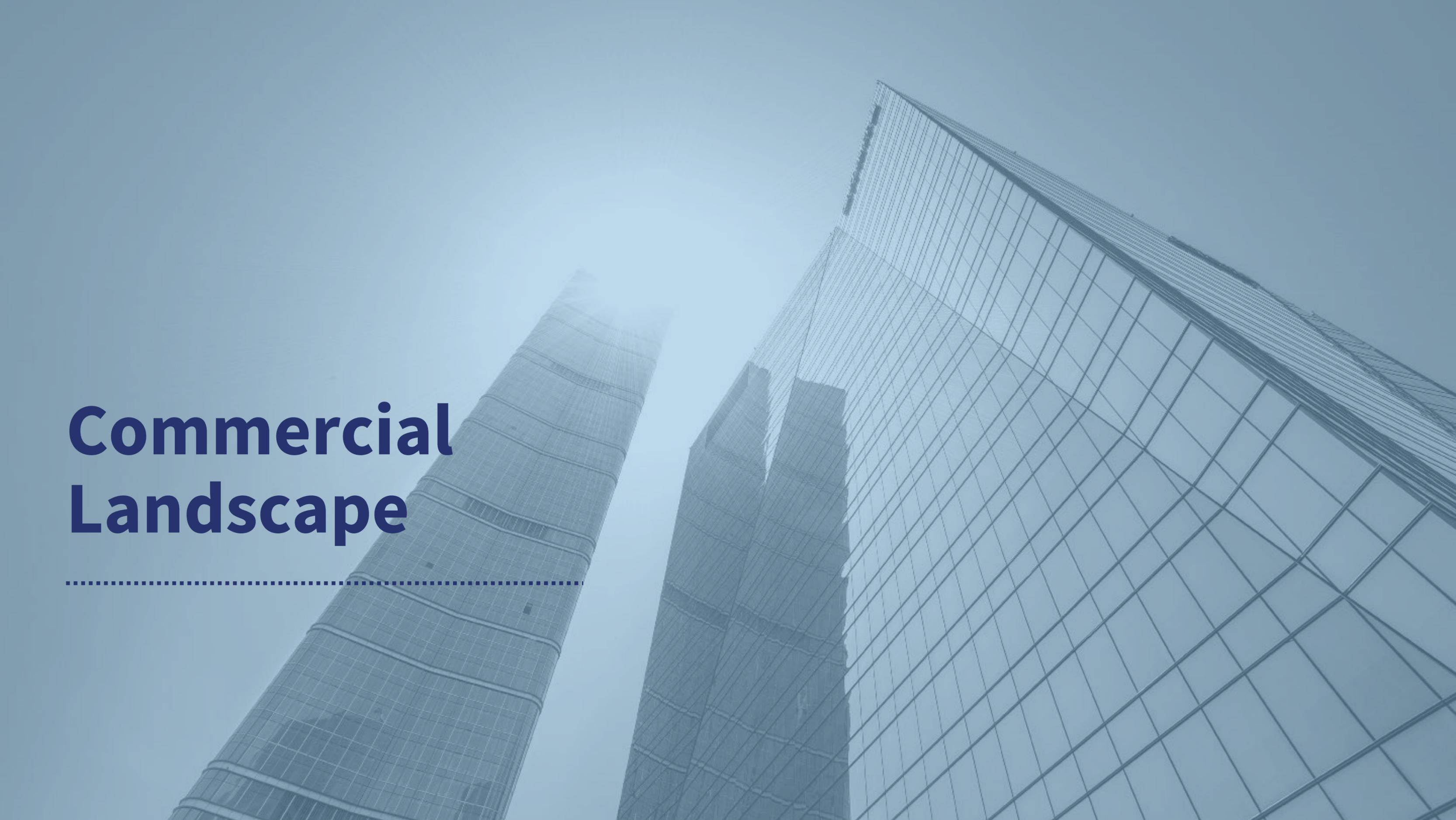
- PAT-DX3 is differentiated from, and complementary to PAT-DX1
  - Different pharmacokinetic profile
  - Crosses the blood brain barrier in animal models of brain cancer
  - Efficacy in animal models
- Potential for use as a tumour targeting agent for ADCs (more conjugation sites than PAT-DX1)
  - Ongoing proof-of-concept studies
- Stable cell line selected in Feb 2022
- Manufacturing process optimisation underway



# Development timeline



Best estimate at the time of publication



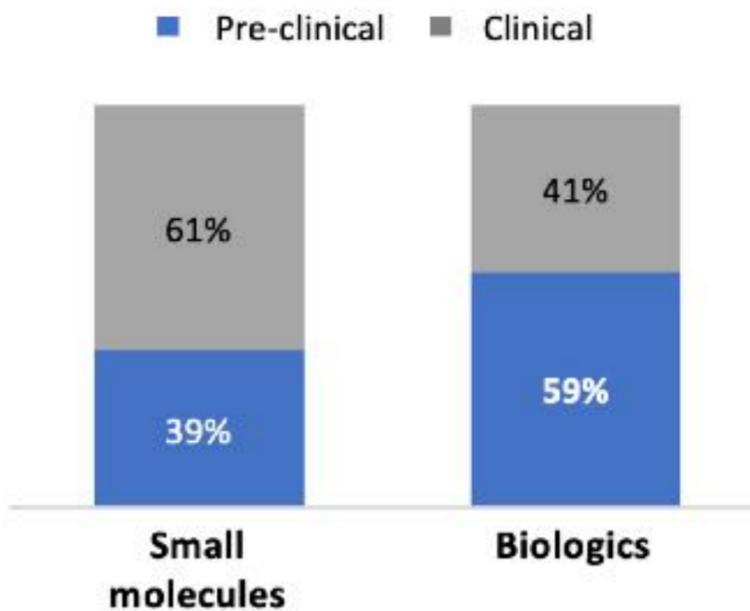
# Commercial Landscape

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# Biologics typically transact earlier and at higher valuations than small molecules

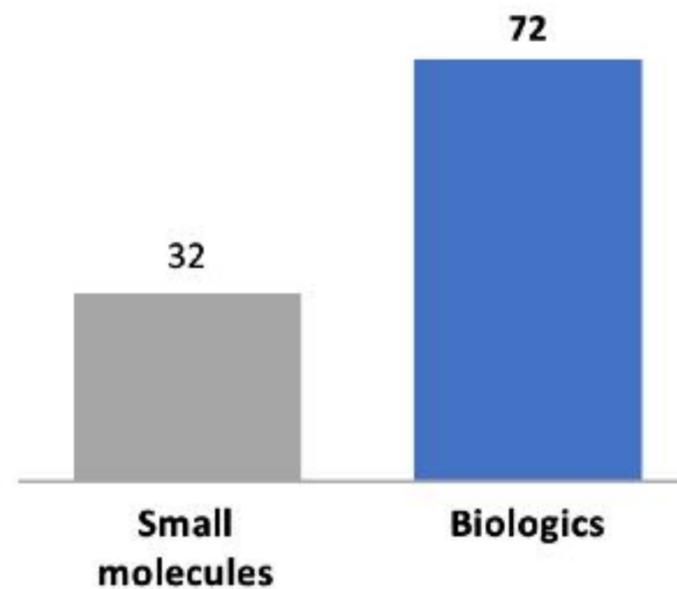
### Proportion of total deals<sup>1</sup>

*Majority of biologic deals occur at the pre-clinical stage*



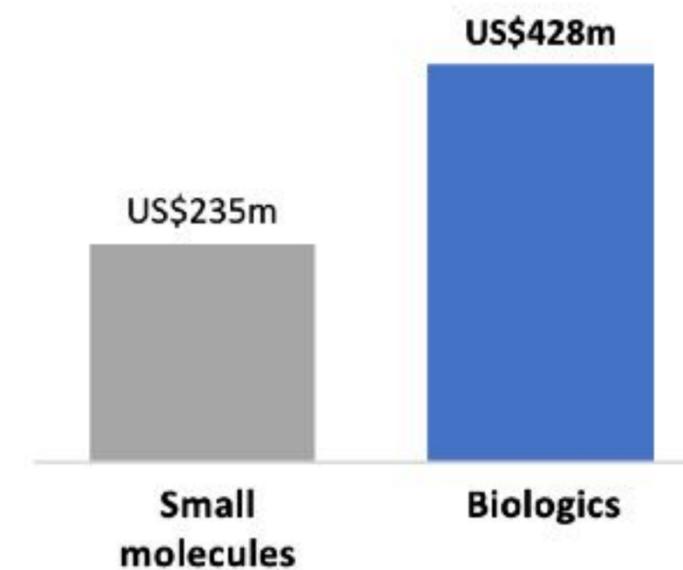
### Number of pre-clinical deals<sup>1</sup>

*Significantly more interest in pre-clinical biologic assets*



### Pre-clinical avg. deal size<sup>1,2</sup>

*Pre-clinical biologic deals executed at higher valuations*



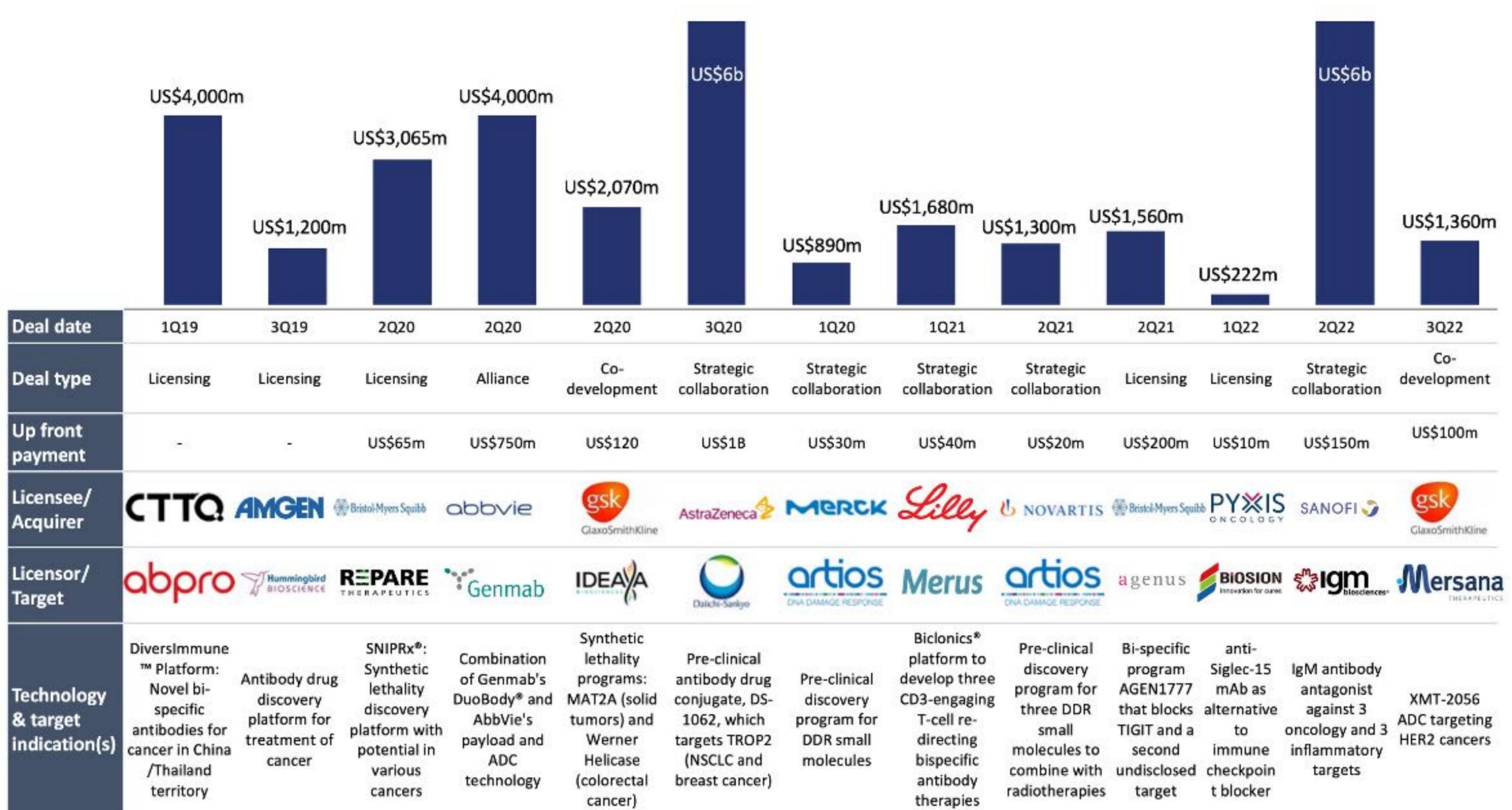
The value of Patrys' novel therapy is underpinned by potential for multiple applications to achieve better patient outcomes

Source: GlobalData

1. Small molecules and biologics transactions between 2017 and 2019

2. Deal size includes upfront and potential milestone payments

# Relevant recent pre-clinical transactions



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

# Contact

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**patrys.com**

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