



ASX & Media Release

## Chairman's Address and CEO Presentation at Annual General Meeting

**Melbourne, Australia; 19 November 2020:** Patrys Limited (ASX: PAB, "Patrys" or the "Company"), a therapeutic antibody development company, is pleased to release the Chairman's Address and CEO Presentation to be made at the Annual General Meeting (AGM) to be held at 1.00pm (AEDT) today, 19 November 2020.

### Chairman's Address:

Ladies and gentlemen again welcome and thank you for your participation today.

Our CEO and Managing Director, Dr James Campbell, will shortly elaborate on the 2020 financial year, which has been both a very challenging and very productive period for your Company – despite the impact of COVID-19. I am proud to say, that despite these challenges we have made significant progress in the development of our unique deoxymab platform.

I will now present my Chairman's Address.

### Patrys' Deoxymab 3E10 Development Program:

We believe that deoxymab 3E10 is the first antibody that has been identified that binds to damaged DNA molecules, is able penetrate into cells, and is able to cross the blood brain barrier. This unique combination of properties opens up a whole range of new and exciting approaches to use deoxymabs to develop new options to treat a broad range of cancers.

Throughout FY20, Patrys and its research partners continued to expand the knowledge base around PAT-DX1 and our deoxymab platform. Patrys continued to work with a well-respected international manufacturing partner to develop a stable cell line to produce PAT-DX1 and this work is expected to be completed this quarter.

In 2021, our key focus will be on manufacturing clinical-grade antibody and using this material to complete the final studies required to enable your Company to initiate a Phase-1 clinical trial of PAT-DX1 in H1 2022. In parallel, we will conduct a series of non-clinical studies to further elaborate the mechanisms of PAT-DX1, PAT-DX1-NP and PAT-DX3, our full sized antibody.

Patrys' deoxymab platform has the potential to target a broad range of hard-to-treat cancers. In addition, the ability of PAT-DX1 to cross the blood brain barrier means it may provide much-needed, new treatment options for both primary and secondary cancers in the brain. Our current funding round will allow Patrys to accelerate the development of the PAT-DX3 program, significantly expanding the breadth and depth of potential partnering opportunities available for the Company.



Earlier this year, we also announced the initiation of a new program focused on antibody drug conjugates (ADC's) based on deoxymabs. The ability to use antibodies to deliver cytotoxic or radionucleotide payloads into cells in combination with the ability of PAT-DX1 to cross the blood brain barrier is something that has already started to attract a great deal of attention.

**Corporate and Financial Developments:**

The Company has achieved several significant milestones throughout the year, both from an R&D perspective and from a corporate perspective.

In October 2019, we were delighted to welcome Dr Pamela Klein onto the Board as a Non-Executive Director. Dr Klein is an US-based oncology biotech executive with over 20 years of experience. Dr Klein's expertise has been pivotal in essential planning for Patrys' first-in-man clinical trial for PAT-DX1.

Patrys strengthened its financial position by raising \$4.3M through a fully underwritten Rights Issue in June 2020. After June 30, 2020, the Company announced an additional \$7.3M Placement and fully unwritten Rights Issue. In combination, these funds are expected to be sufficient for the Company to complete the enabling studies required to initiate the first-in-man studies with our deoxymab antibodies. Furthermore, the research that the Company and our academic partners is conducting on deoxymabs is being supported in parallel by approximately \$5M worth of non-dilutive research grant funding, for which we are very grateful and which provides great leverage for our shareholders.

**Concluding Remarks:**

Our achievements throughout this year were made possible through the tireless efforts of our research collaboration partners, particularly at the Yale School of Medicine and our international manufacturing CRO. I would like to congratulate them and thank them for their efforts during this challenging time.

Patrys is fortunate to have an experienced, strong, and cohesive Board of Directors whose interests and expertise enable the Company to work towards creating meaningful value for our shareholders. I acknowledge the substantial contribution and judicious counsel of my fellow Directors and our CEO and Managing Director, Dr James Campbell, and his team throughout the year.

Finally, may I take this opportunity to thank our shareholders for their ongoing support of Patrys and I look forward to continuing to share this journey going forward. We wish each and every one of you good health.

**-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](mailto:info@patrys.com)

**Media enquiries:**

Haley Chartres  
HACK  
P: +61 423 139 163  
[haley@hck.digital](mailto:haley@hck.digital)

**Registered Office Address**

Level 4, 100 Albert Road  
South Melbourne VIC 3205

**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](http://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. Five patents covering the unconjugated form of Deoxymab 3E10 (and derivatives thereof) have already been granted (Europe, Japan, China, and 2 in the USA), and one patent covering nanoparticle conjugation has been granted (Australia).



patrys

2020 Annual General Meeting  
CEO presentation

19 November 2020



# Disclaimer

---

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.

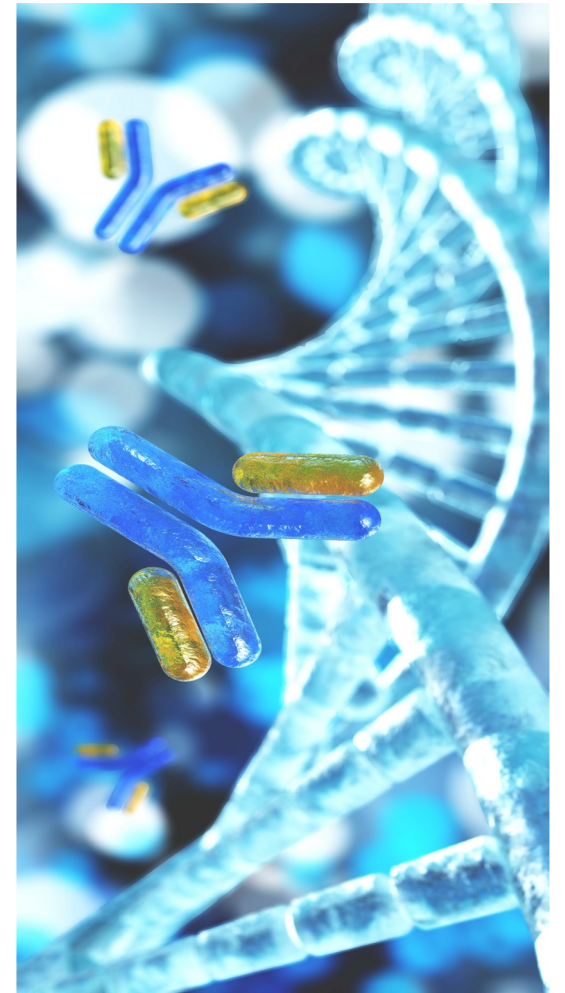
In particular, this presentation is not a recommendation, offer or invitation to subscribe for or purchase Patrys securities. It is not for general distribution or third party reliance or use. While it has been prepared from sources Patrys believe to be reliable, Patrys cannot guarantee its accuracy or completeness and undertakes no obligation to advise of changes or updates to any such materials.

These materials are not exhaustive of all of the information a potential investor or their professional adviser would require. Nor do these materials take into account any specific objectives, financial situation or needs of investors. In addition, the past performance of Patrys cannot be assumed as indicative of the future performance of the company. For these and other reasons, before making any investment decision regarding Patrys securities you are strongly recommended to obtain your own up to date independent legal, financial and investment advice – those acting without such advice do so at their own risk.

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

- Deoxymabs are the first antibody platform able to naturally enter cells and target DNA damage repair (DDR)
- Recent transactions in cancer drugs targeting DDR, and sales of PARP inhibitors (2019/20 sales >US\$1.5 billion) highlight the commercial attractiveness of this space
- Patrys has exclusive, worldwide rights for the use of deoxymabs in cancer and has created humanised versions of the antibodies for therapeutic development
- Preclinical studies have shown that deoxymabs have therapeutic potential as single agents, and in combination with chemo and radiation therapies, supporting clinical development
- Preclinical studies have shown that deoxymabs can cross the blood-brain barrier, opening up the possibility of using deoxymabs to treat primary and secondary brain cancers
- Post completion of the current capital raising, the company is funded to complete manufacture, the remaining preclinical studies, and initiate first-in-man studies



# Achievements over the last year

---

- ✓ **PAT-DX1 manufacturing program**  
Significant advances in product yield, purification and formulation. On track for stable cell line in CY 20
- ✓ **PAT-DX1 pre-clinical program**  
Ongoing animal studies to inform clinical dossier (dosing, PK, PD, toxicology). Goal of phase 1 in H1 2022
- ✓ **Deoxymab platform expansion**  
Design and production of PAT-DX3 (full sized IgG), ongoing NP research, initiation of Antibody Drug Conjugate (ADC) program
- ✓ **Secure financial position**  
\$11.6 million raised (includes \$4.3 million completed Rights Offer, \$2.5 million placement and ongoing \$4.8 million Rights Offer)
- ✓ **Secure non-dilutive funding**  
~\$5 million awarded to Patrys and its collaborators to advance pre-clinical research on PAT-DX1 and PAT-DX1-NP
- ✓ **Build human capital**  
Dr. Pamela M. Klein appointed as Non-Executive Director; Dr Peter Ordentlich appointed to SAB; exec training programs
- ✓ **Consolidate intellectual property position**  
Additional patents granted. Protection now across the USA, Europe, China, Japan and Australia
- ✓ **Build industry and clinical awareness at key industry conferences**  
Attendance at BioEurope and ChinaBio; Presentations at PARP and DDR Inhibitors Summit, US SNO<sup>1</sup> Brain Metastases Meeting

# Board of Directors with drug development expertise



## 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 Pamela M. Klein

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



## 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.



## 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 a number of leading Canadian technology start-up companies



Rituxan



# Management and advisors



**Valentina Dubljevic**

**VP, Scientific & Clinical Development**

- >20 years experience in anti-cancer therapies, vaccines and diagnostics
- Extensive experience in of pre-clinical studies, manufacturing, regulatory and clinical ops



**James E. Hansen, MD (Inventor, Dept of Therapeutic Radiology, Yale Medicine)**

- Physician-scientist and practicing radiation oncologist specialising in treatment brain, head and neck cancers
- 15+ years of experience working with deoxymabs



**Dr Deanne Greenwood**

**VP, Business Development & IP**

- Extensive experience in drug development, r'ship management, contracts and grants
- 10-years experience in immunology research



**Dr Allen Ebens (Scientific Advisory Board)**

- 11 years at Genentech in Research Oncology working from concept to clinic across multiple therapeutic platforms including antibodies, small molecule drugs, antibody-drug conjugates and cell-based therapies



**Melanie Leydin CFO and Company Secretary**

- > 25 years experience in public companies, including ASX and ASIC compliance, control and implementation of corporate governance, statutory financial reporting and shareholder relations



**Dr Peter Ordentlich (Scientific Advisory Board)**

- Co-founder and Chief Scientific Officer of Syndax Pharmaceuticals, a Nasdaq-listed, clinical stage biopharmaceutical company developing an innovative pipeline of cancer therapies with three clinical stage assets



# Company snapshot

Shares<sup>1</sup> 1.80B

Market cap<sup>1</sup> A\$39.6M

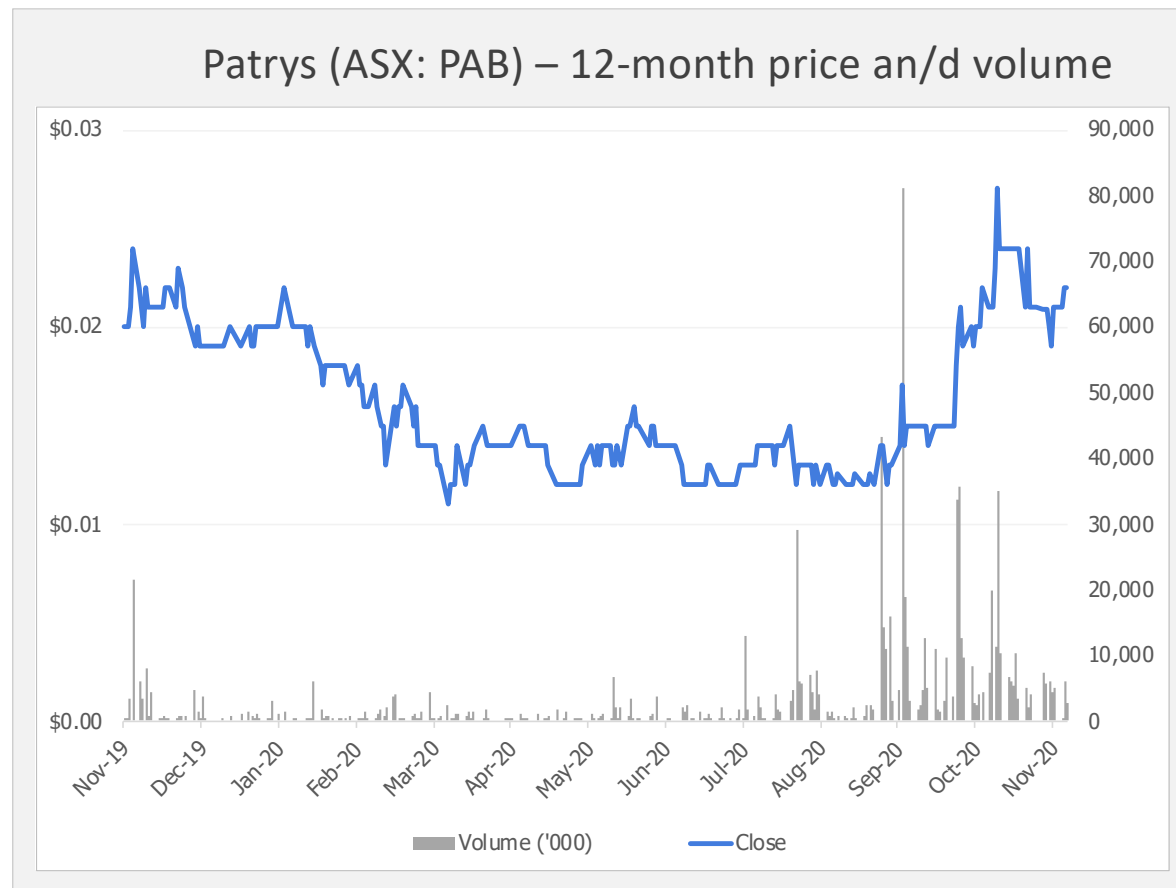
Cash <sup>2</sup> A\$14.3M

Last qtr burn <sup>3</sup> (A\$0.8M)

Headquarters Melbourne

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

Substantial <sup>4</sup>  
 Dr Dax Marcus Calder – 12.1%  
 Stork Holdings – 6.9%  
 Mason Stevens – 5.2%



price <sup>5</sup> \$0.022

12mth high - low \$0.029 - \$0.011

av. daily volume 7,300,000

<sup>1</sup> including all shares to be issued under \$7.3M capital raise announced 9 Nov 2020

<sup>2</sup> reported cash balance of \$7.0M at 30 Sep 2020 plus proceeds before costs from \$7.3M raise announced 9 Nov 2020

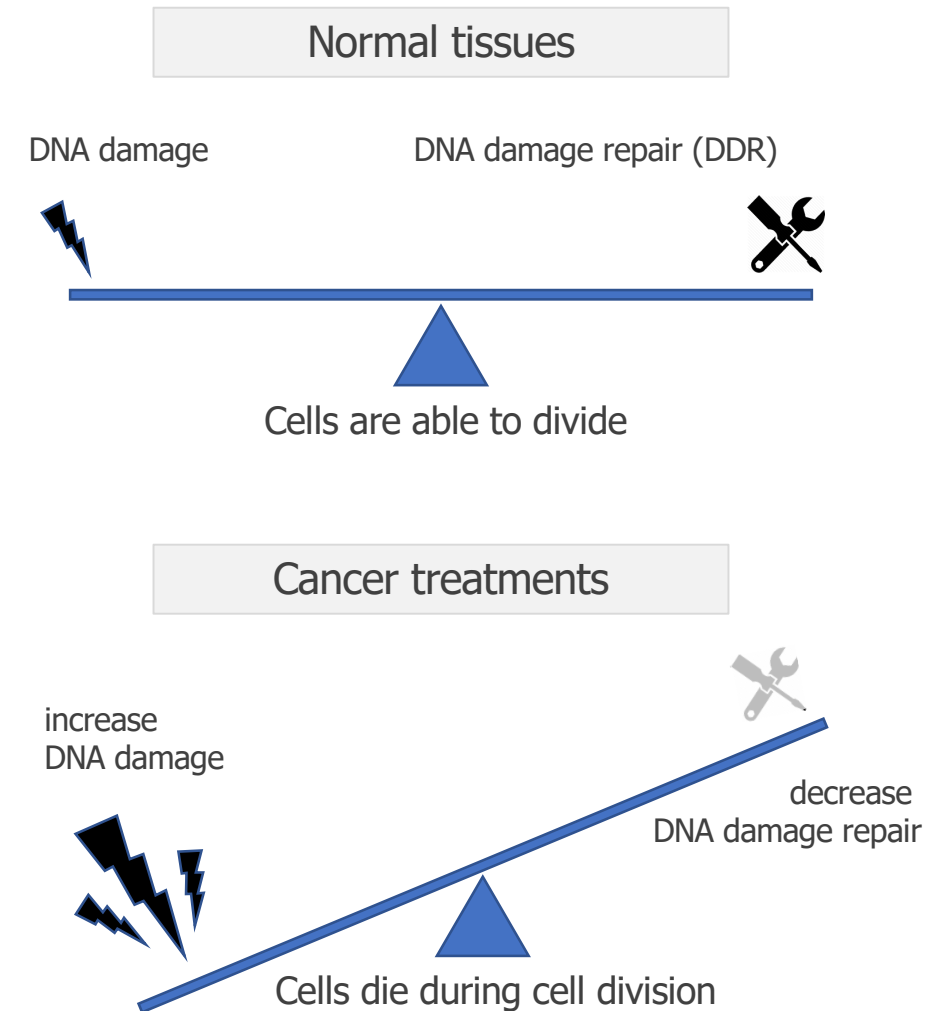
<sup>3</sup> cash burn for quarter ending 30 Sep 2020

<sup>4</sup> substantial holdings prior to \$7.3M capital raise announced 9 Nov 2020

<sup>5</sup> closing share price on 18 Nov 2020

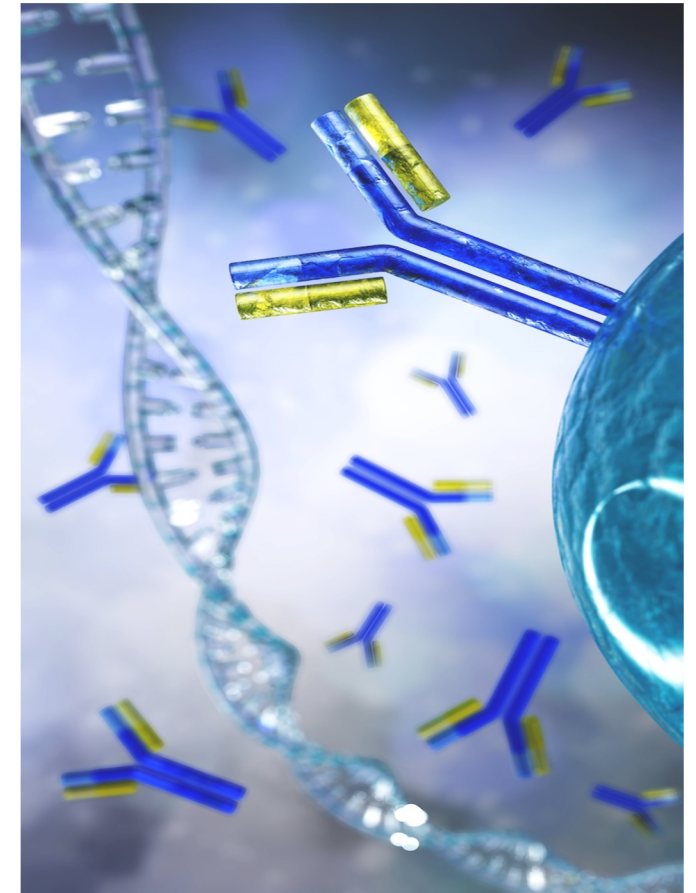
# Targeting DNA damage is effective for treating cancer

- Low-level damage occurs to DNA normally, but is usually fixed by DNA damage repair (DDR) systems
- Many current cancer treatments exploit the vulnerability cancer cells have from damage to their DNA
- Many cancer therapies increase the level of DNA damage by:
  - **Increasing the amount of DNA damage;** overloading the system (radiation and many chemo drugs)
  - **Blocking DNA damage repair systems;** decreasing the repair capacity (PARP inhibitors)
- Cells with damaged DNA usually die during cell division
- Cancer cells divide rapidly, making them more vulnerable to therapies that increase levels of DNA damage



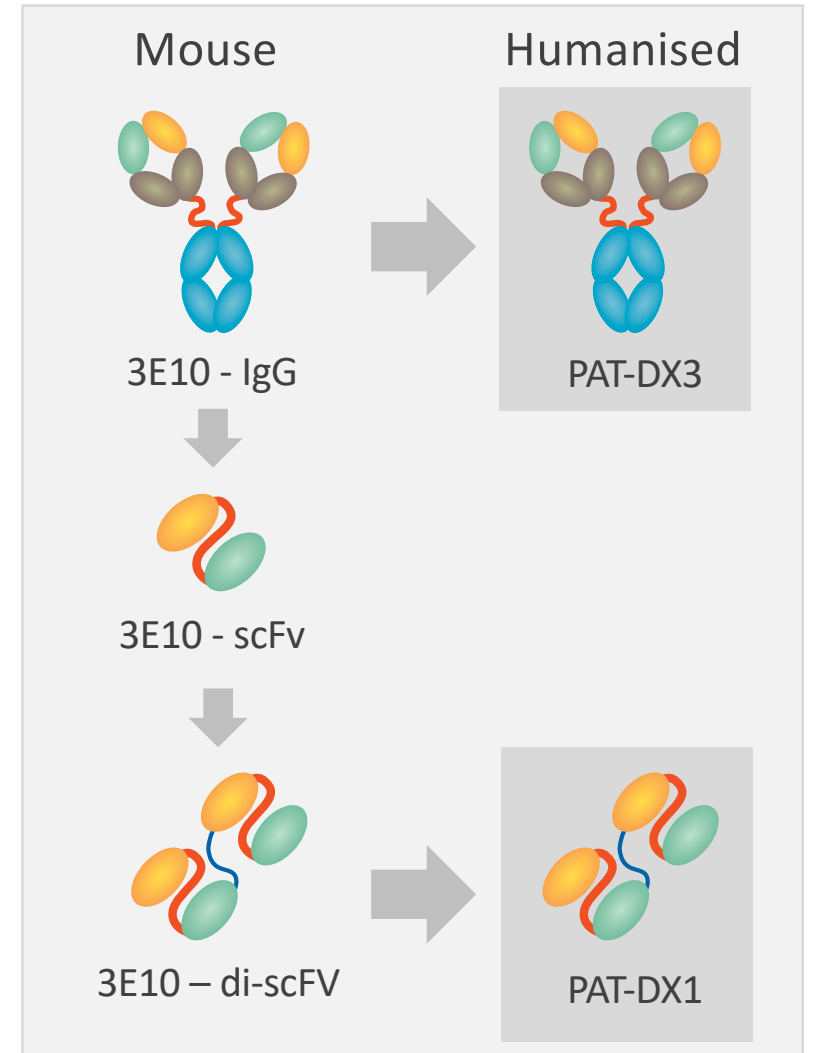
# First anticancer antibody therapeutic targeting DDR

- Patients with systemic lupus erythematosus (SLE) generate antibodies against antigens from their own tissues and cells
- Deoxymab, an antibody which binds to DNA, was isolated from a mouse model of SLE
- Deoxymab has a unique combination of properties that has not been seen in other antibodies, including those isolated from SLE patients:
  - Tumors release DNA which attracts deoxymabs
  - Deoxymabs penetrate into cells and the cell nucleus
  - Block DNA damage repair (DDR) systems within the nucleus
  - Can cross the blood-brain barrier (BBB)
- Preclinical studies show deoxymabs appear to be safe, with very little effect on normal, healthy cells
- Previous phase 1 clinical trial of 3E10 in 9 SLE patients showed no safety issues<sup>1</sup>



# 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 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 are likely to have different pharmaceutical properties, enabling their use for a wide range of healthcare applications
- Manufacturing and formulation program is underway



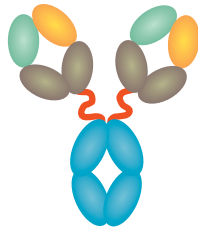
# Deoxymab platform offers multiple therapeutic approaches

## Single Agent

PAT-DX1

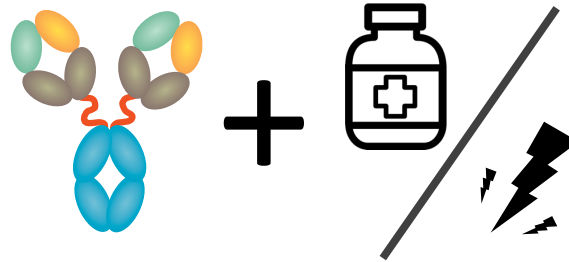


PAT-DX3



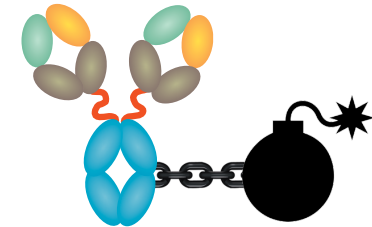
- Many cancers have pre-existing defects in their DNA damage repair (DDR) systems
- Additional blocking of DDR by deoxymabs can increase the amount of DNA damage to a level where it is lethal
- This additive approach is called "synthetic lethality"

## Combination Therapies



- DNA damage can be increased by combining deoxymabs with existing DNA-damaging 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

## Targeted Therapies



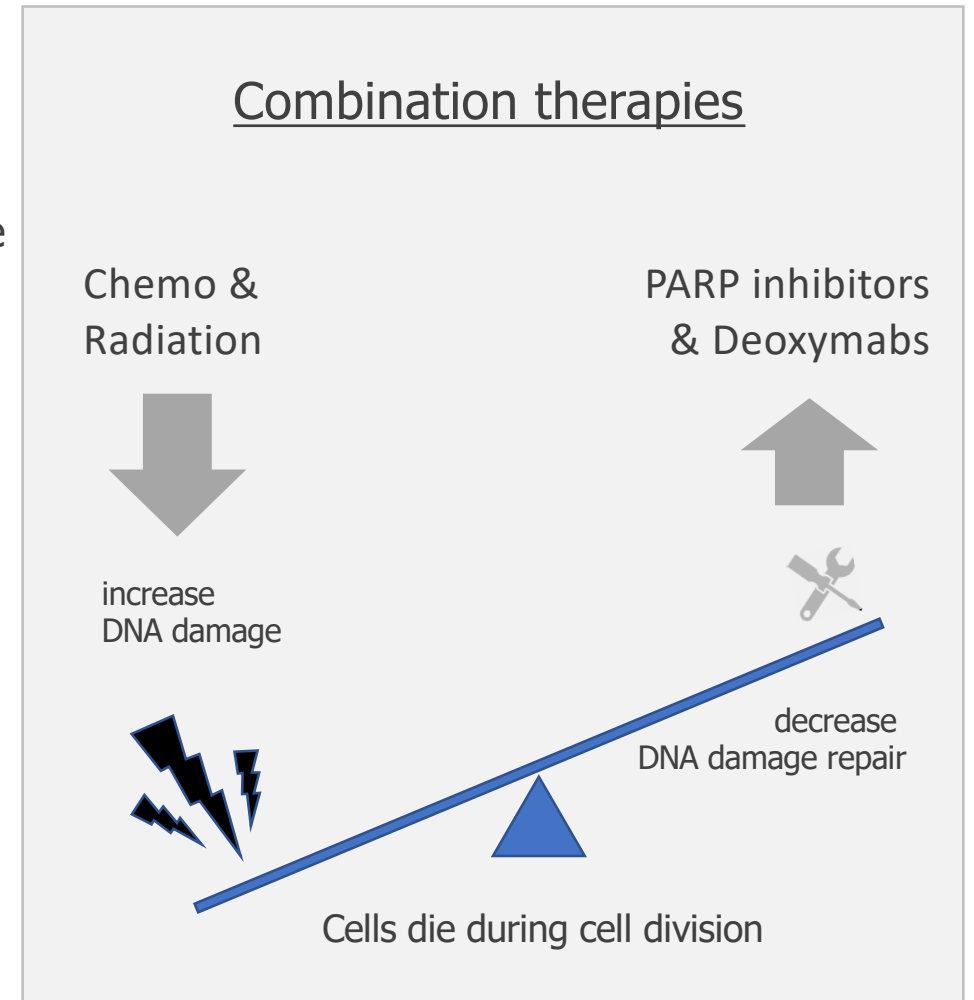
- Deoxymabs can direct delivery of toxic payloads to cancer cells and the cell nucleus
- Tumors release DNA which attracts deoxymabs that then enter the cancer cells
- Deoxymabs can target toxic payloads to the cell nucleus, killing the cancer cell

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



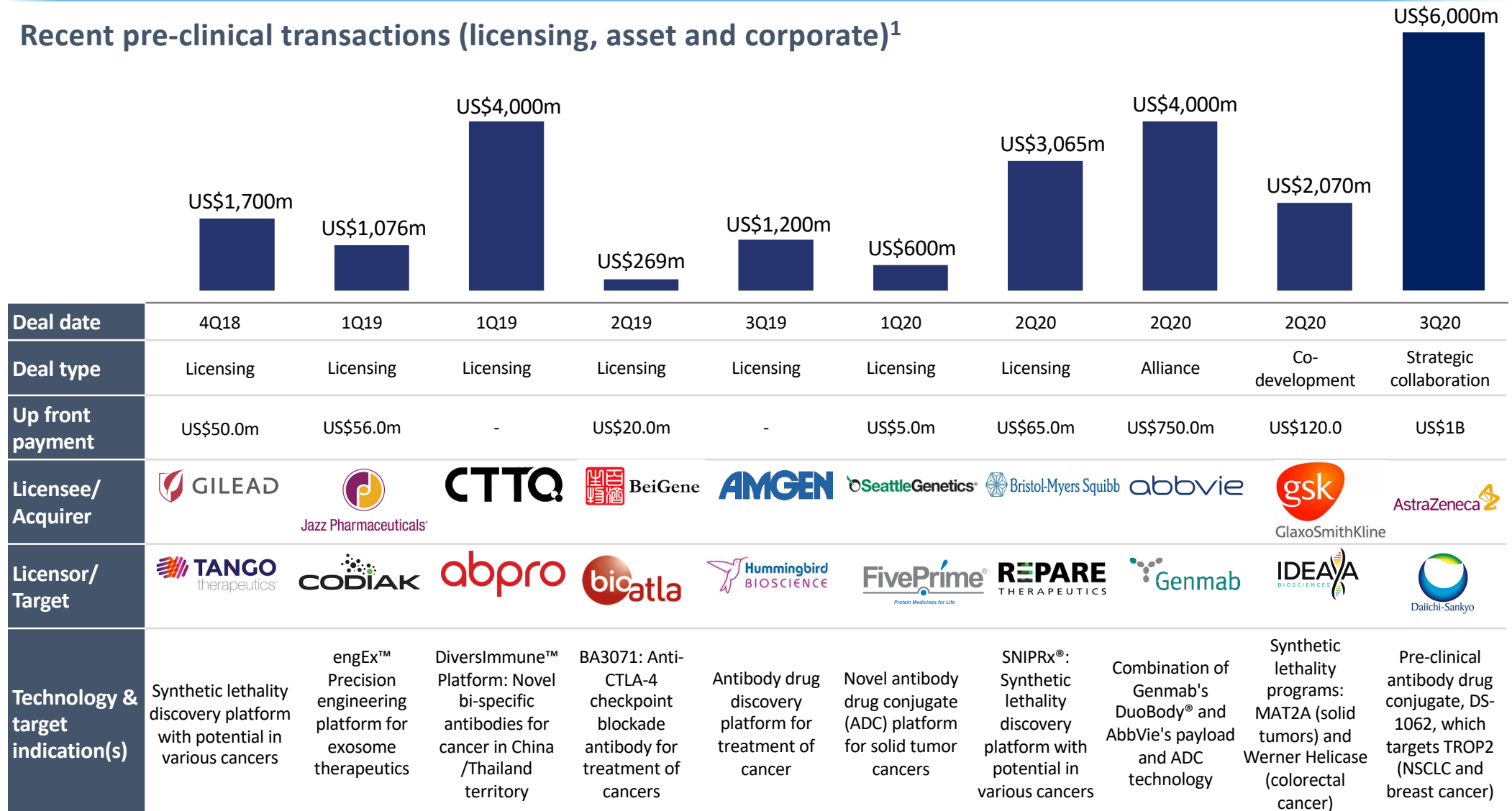
# Combination therapies – doubling down on DNA damage

- Deoxymabs can be combined with radiation or chemotherapy drugs to increase the levels of DNA damage:
  - **Radiation/chemo:** damage DNA in cancer cells
  - **Deoxymabs:** reduce ability of cancer cells to repair DNA damage
- Combinations aim to enhance the therapeutic windows of radiation or chemotherapies:
  - **Same efficacy:** but with a lower dose (lower side effects)
  - **Greater efficacy:** from the same dose of radiation or chemo
- PARP inhibitors have been used in combination with radiotherapy, but combining them with chemo drugs has been less successful:
  - **Narrow therapeutic window** limiting dose reduction
  - **High incidence of myelosuppressive** side effects
  - **Potential combination partners limited** by targeted MoA



# Recent deals for antibody and synthetic lethality assets

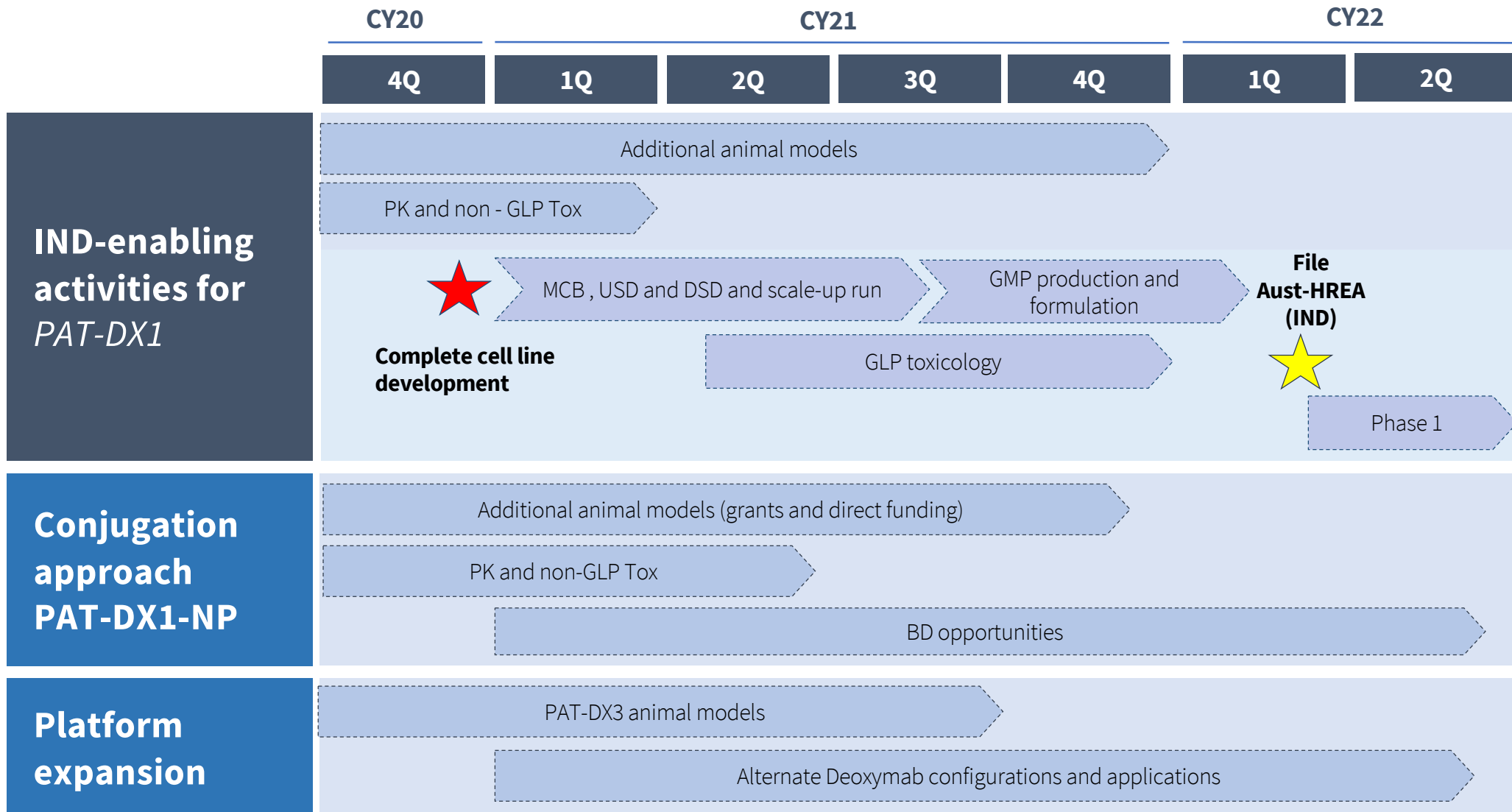
Recent pre-clinical transactions (licensing, asset and corporate)<sup>1</sup>



Source: Company information

1. All deal values exclude potential royalty payments

# Timeline



# Anticipated newsflow / Milestones

---

PAT-DX1 stable cell line development completed	Q4 2020
PAT-DX1 & PAT-DX3 comparative animal studies initiated	Q4 2020
PAT-DX1 non-GLP toxicology and pharmacokinetic studies completed	Q1 2021
PAT-DX1 master call bank completed	Q2 2021
PAT-DX3 pre-clinical studies initiated	H1 2021
PAT-DX1 GLP toxicology studies initiated	Q2 2021
PAT-DX1 GMP production and formulation program initiated	H2 2021
PAT-DX1 IND (as Australian Human Research Ethics Application) submitted	Q1 2022
PAT-DX1 Phase 1 clinical study initiated	H1 2022
Expansion of Deoxymab platform (nanoparticles, ADCs, bispecific antibodies)	Ongoing
Scientific publications	Ongoing
New IP filings and patent grants	Ongoing
Alliances, collaborations and grants	Ongoing



## CONTACT

Dr. James Campbell  
CEO and Managing Director

+61 3 9670 3273

info@patrys.com



**[www.patrys.com](http://www.patrys.com)**

Patrys Limited (ASX:PAB)

