



patrys

INVESTOR PRESENTATION

June 2020

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.

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 highlights



**Novel
lead asset**

Developing a first-in-class, synthetically lethal, DNA-binding molecule with the potential to change the oncology landscape



**Platform
technology**

Tumor-agnostic targeting of cancers with multiple treatment approaches, with potential synergistic benefits with existing treatments



**Targeted
indications**

Initial focus glioblastoma and triple negative breast cancer, expanding into other solid tumors



**Validation to
date**

Pre-clinical single agent activity in multiple cancer models, human safety data in autoimmune disease, and growing international recognition



**Significant
upside value**

Multiple development and commercialisation opportunities. Novel MOA and ability to cross the BBB generate potential to address severe unmet needs



**World class
team**

Experienced management team with significant clinical development and commercialisation expertise

Near and mid term de-risking milestones and value drivers

Initiation of non-GLP toxicology and pharmacokinetic studies	Q3 2020
Expansion of Deoxymab platform applications (eg nanoparticles)	Q3 2020
Completion of stable cell line development	Q4 2020
Initiation of GMP production and formulation program	Q1 2021
Initiation of GLP toxicology studies	H1 2021
IND (as Australian HREA) submission	H2 2021/H1 2022
Scientific publications	Ongoing
New IP filings and patent grants	Ongoing
Alliances and collaborations	Ongoing

Financial overview

Overview

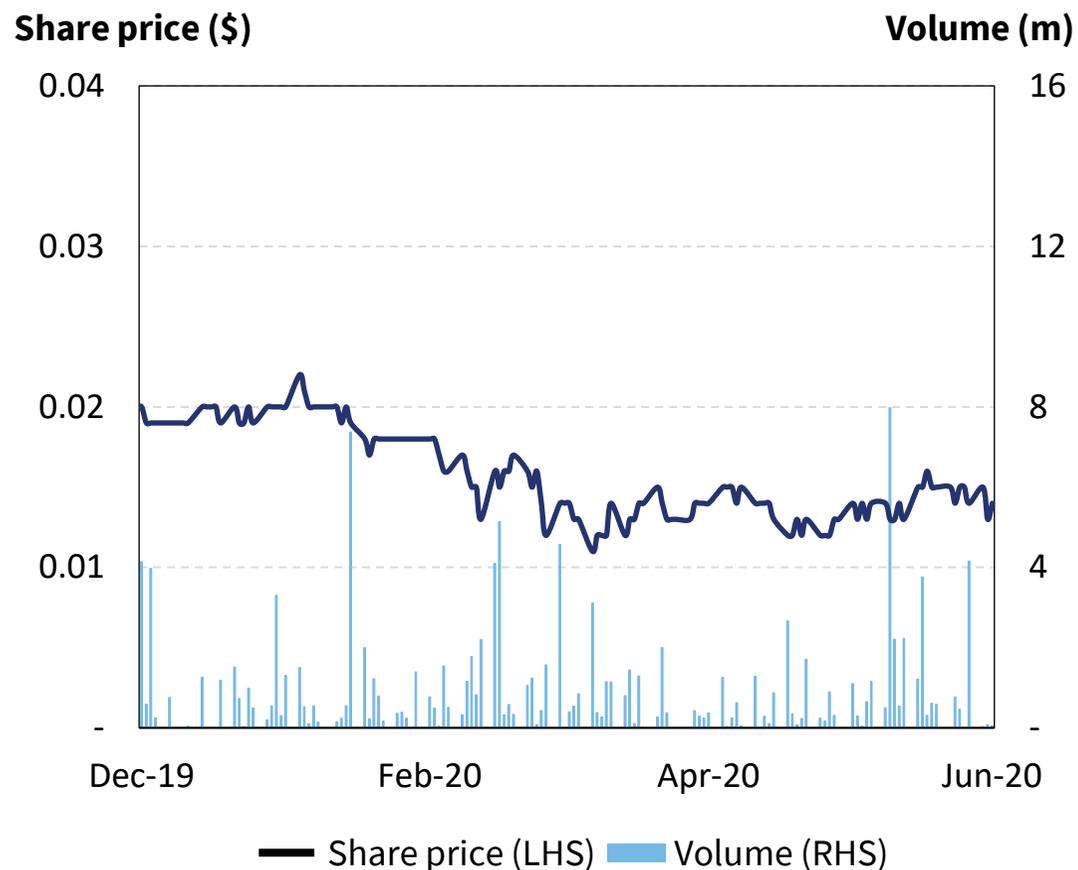
Trading information

Share price (17-Jun-20)	A\$0.014
52 week low / high	A\$0.012 / A\$0.029
Shares outstanding ¹	1.073bn
Market capitalisation	A\$15.0m
Net cash (31-Mar-20)	A\$4.74m

Top shareholders – April 2020

Dr Dax Marcus Calder	11.9%
Stork Holdings	9.2%
Other Board and management	1.0%

Share price performance (6 months)



Board of Directors has a wealth of experience in development and deals



John Read - Non-Executive Chairman

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



Dr James Campbell – Managing Director and CEO

- >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.



Dr Pamela M. Klein – Non-Executive Director

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



Suzy Jones – Non-Executive Director

- 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 – Non-Executive Director and Deputy Chairman

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

Scientific Advisory Board members have invented and progressed multiple assets



Dr Allen Ebens

- PhD at UCLA and a Post-Doc at UCSF
- 5 years with Exelixis in the Discovery Biology group
- 11 years at Genentech in the Research Oncology working from concept to clinic across multiple therapeutic platforms including antibodies, small molecule drugs, antibody-drug conjugates, and cell-based therapies
- Established the oncology research lab at Juno Therapeutics
- Currently Chief Scientific Officer, Vera Therapeutics



Dr Peter Ordentlich

- PhD at U. Penn and a Post-Doc at the Salk Institute
- 5 years at X-Cepto Therapeutics, which was acquired by Exelixis in 2004
- Currently Chief Scientific Officer of Syndax Pharmaceuticals, which he co-founded in 2005
- Syndax is a Nasdaq-listed, clinical stage biopharmaceutical company developing an innovative pipeline of cancer therapies with three clinical stage assets

THE HOW

A closer look at the science



PAT-DX1 – a new approach to the fight against cancer

PAT-DX1 is tumour agnostic and can cross the blood brain barrier, meaning development opportunities for a range of challenging cancers. PAT-DX1 is synthetically lethal as a single agent and synergistic with other therapies



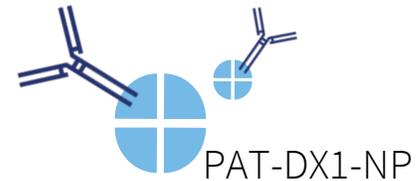
Single agent

Synthetically lethal (targets the DNA damage repair (DDR) process) as a single agent to block tumour cells' ability to repair



Combination therapy

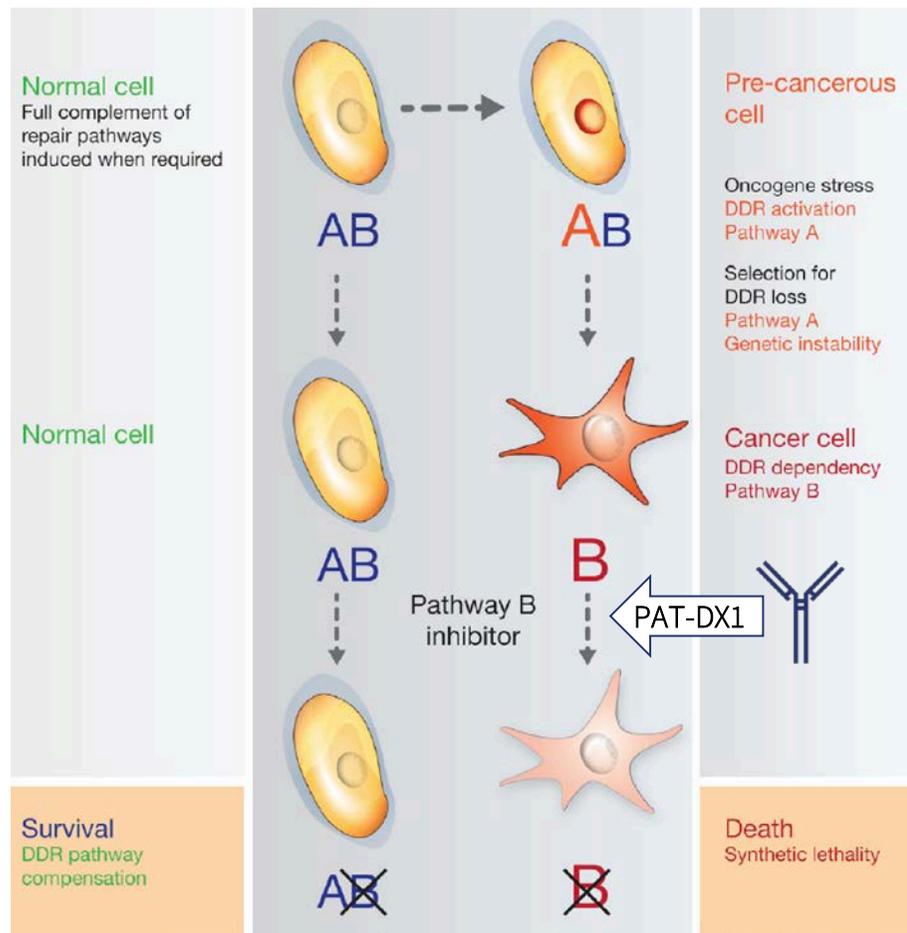
Couple DDR with existing therapies, such as radiation, to create synergistic, anti-cancer effects



Antibody drug conjugates

Delivering highly potent cancer-killing agents or drugs directly to cancer cells via a linked nanoparticle

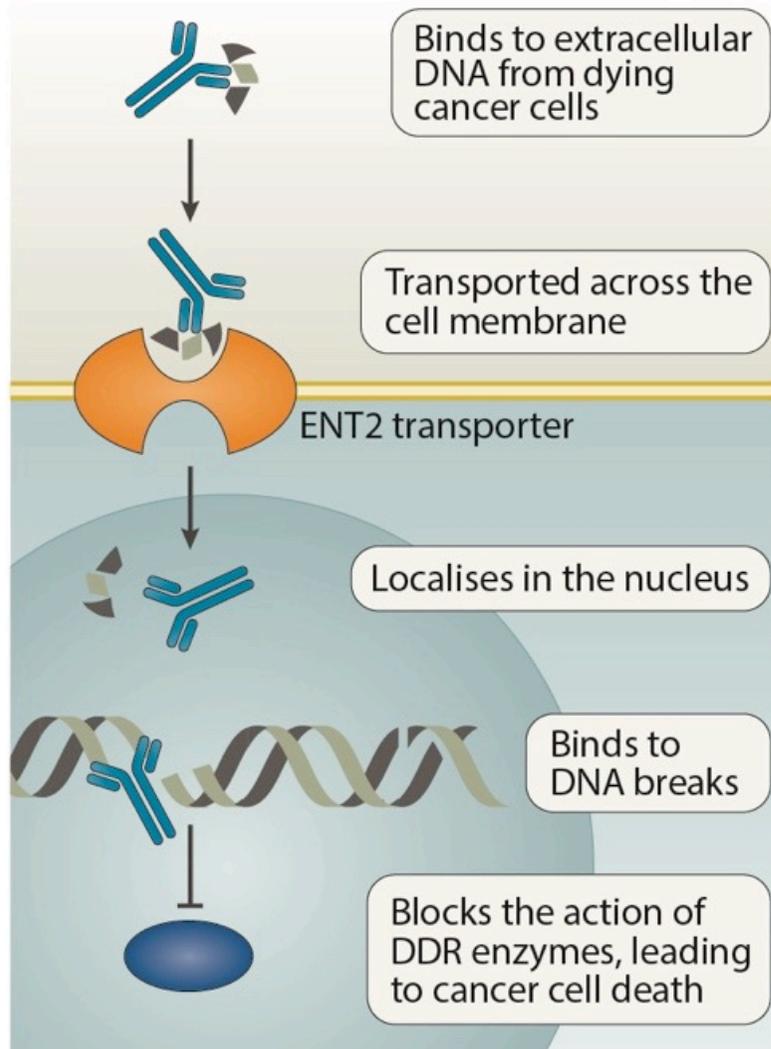
Synthetic lethality is tumour agnostic and transforms cancer treatment



New paradigm, kills cancer cells but spares healthy cells deficient in DNA repair

- **Diminishes cancer cells' ability to repair themselves** – blocking action of DDR enzymes, leading to cancer cell death
- **Selectively toxic** to cancer cells that have deficiencies in DNA repair
- **Exemplified by PARP inhibitors** – first approved in 2014 (olaparib) with three other molecules launched and increasing indications approved. Olaparib has progressed to be approved in multiple indications, including breast and pancreatic cancers, with sales exceeding US\$1.2B in 2019
- **Significant corporate activity** in the field

PAT-DX1 has a novel mechanism of action, killing cancer cells via synthetic lethality and crosses the blood brain barrier



Preferentially localises to tumours

- Tumour cells release ‘clouds’ of extracellular DNA
- **PAT-DX1 is specifically attracted** to extracellular DNA from dying cancer cells

Transported across the cell membrane and enters the cell

- **Penetrates the cell membrane, then enters and localises in the nucleus** via ENT2¹
- This novel MOA enables **transit of the blood brain barrier (BBB)**, a near impenetrable barrier that very few proteins or antibodies can cross, and 98% of small molecules can’t cross²

Kills cancer cells via synthetic lethality

- **Single agent activity** in cancers that have specific mutations (eg BRCA, PTEN)
- **Effective when combined with DNA-damaging agents** (e.g. chemotherapy or radiation)
- **Spare** healthy cells

1. ENT2: Equilibrative nucleoside transporter 2

2. Pardridge, W. (2009). Alzheimer’s disease drug development and the problem of the blood-brain barrier. *Alzheimer’s & Dementia*, 5(5), 427-432. doi: 10.1016/j.jalz.2009.06.003

PAT-DX1 synthetic lethality has been shown in a range of cancer cells lines

Model	Cell lines with DDR deficiency	
	+	-
Ovarian cancer <i>in vitro</i>	X	✓
Colon cancer <i>in vitro</i>	X	✓
Pancreatic cancer <i>in vitro</i>		✓
Pancreatic cancer <i>in vitro</i>		✓
GBM <i>in vitro</i>	X	✓
GBM <i>in vivo</i>		✓



Causes cancer cell death

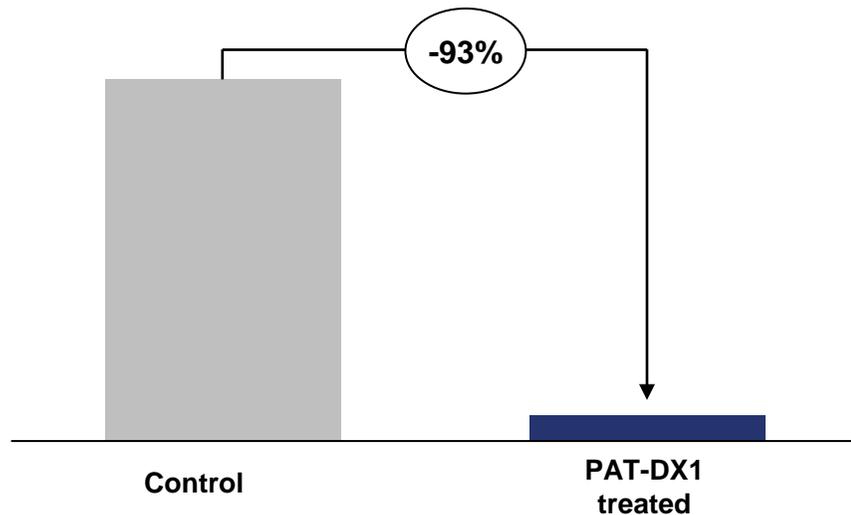


No effect on cancer cells

Blank cells reflect no experiment performed

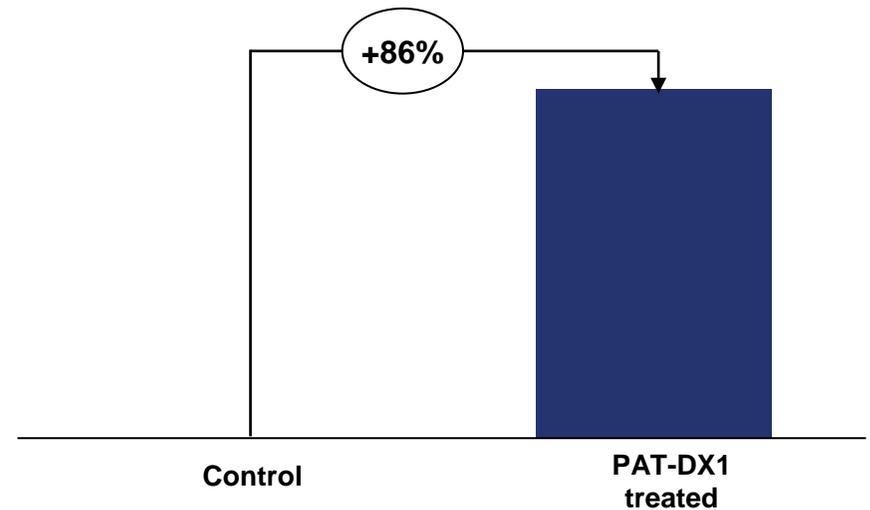
PAT-DX1 suppressed growth of breast cancer metastases and increased survival in a mouse model

Suppressed brain metastases



After 4 weeks of treatment, treated mice showed 93% less brain metastases than untreated mice (quantified by luminescence intensity)

Significantly increased survival

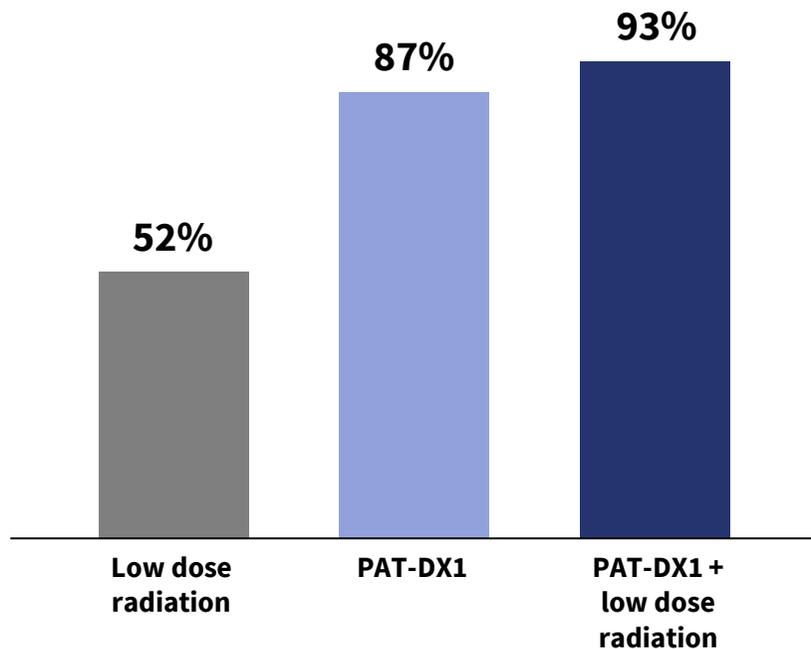


PAT-DX1 treatment significantly improved survival, with 86% of the mice treated with PAT-DX1 still alive after all control mice had died

PAT-DX1 suppresses TNBC brain metastases and increases survival with no toxicity observed

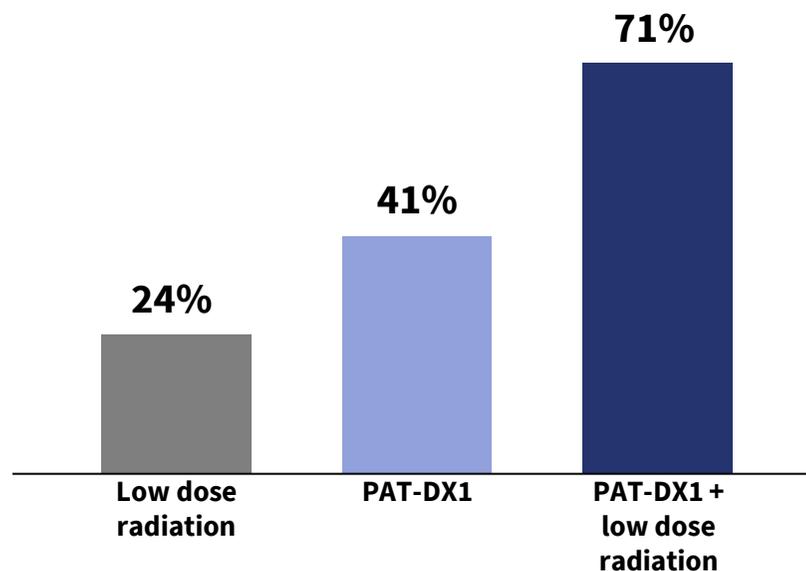
PAT-DX1 enhances the efficacy of low dose radiation in an aggressive model of GBM

Supressed GBM tumor growth



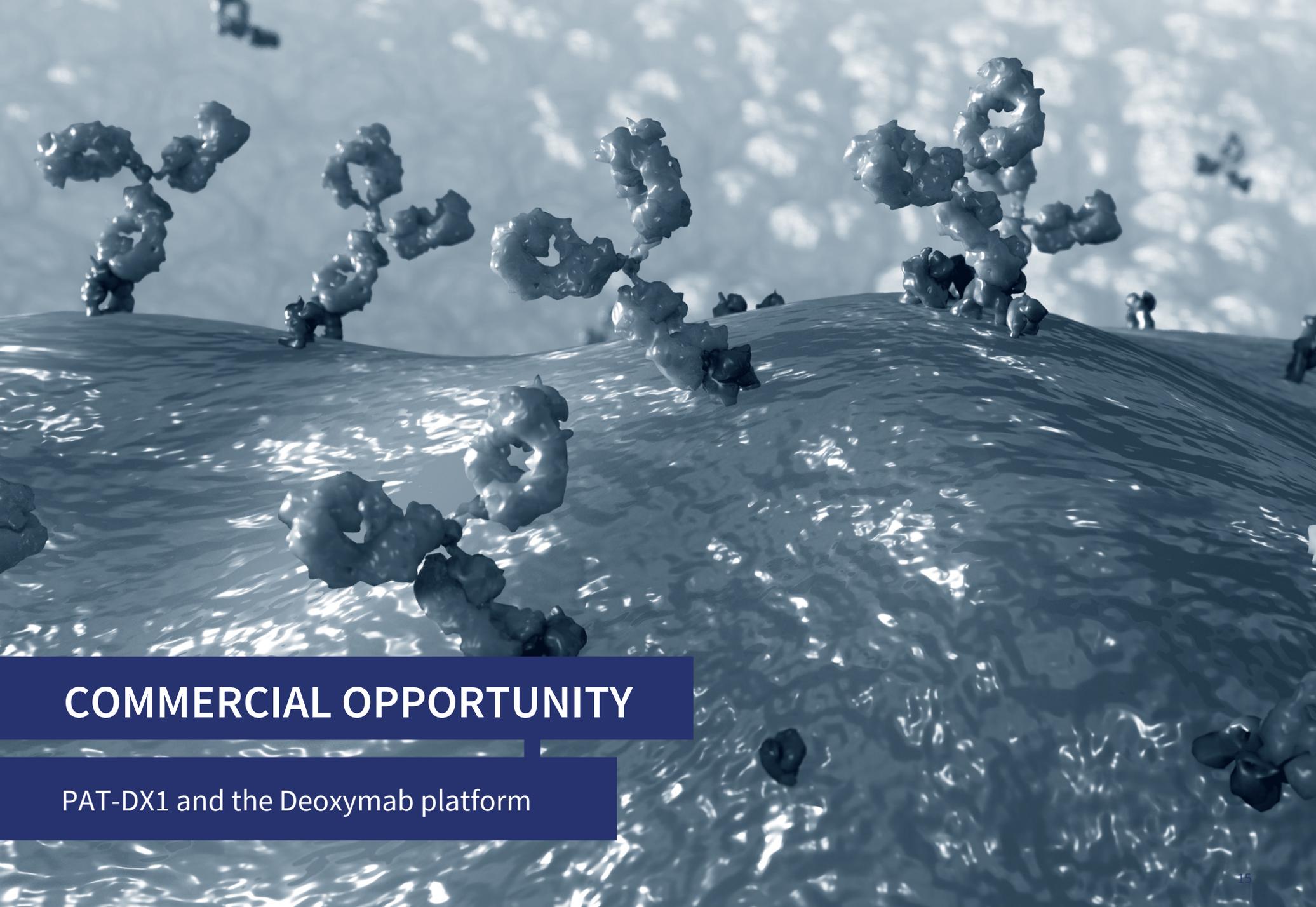
After 2 weeks, treatment with PAT-DX1 reduced tumor size by 87% and treatment with PAT-DX1 in combination with low dose radiation reduced tumor size by 93% , relative to the control.

Significantly increased survival



PAT-DX1 as a single agent extended survival by 41% and PAT-DX1 in combination with low dose radiation extended survival by 71%. No toxicity associated with PAT-DX1 was observed.

1. Yale School of Medicine used a highly aggressive human GBM tumor explant (PS30 luc glioblastoma stem cells) to generate brain tumors in mice. Then tested tumor growth and mouse survival across four treatment regimens: 1.) Control vehicle 3X/week (n=7) 2.) Control vehicle delivered three times a week + a single fraction of 4 Gy IR targeted to cranium ~4 hours after the second tail vein injection) (n=7) 3.) PAT-DX1 alone (20 mg/kg) 3X/week (n=7) 4.) PAT-DX1 (20 mg/kg) 3X/week + single fraction of 4 Gy IR targeted to cranium ~4 hours after the second tail vein injection) (n=7)

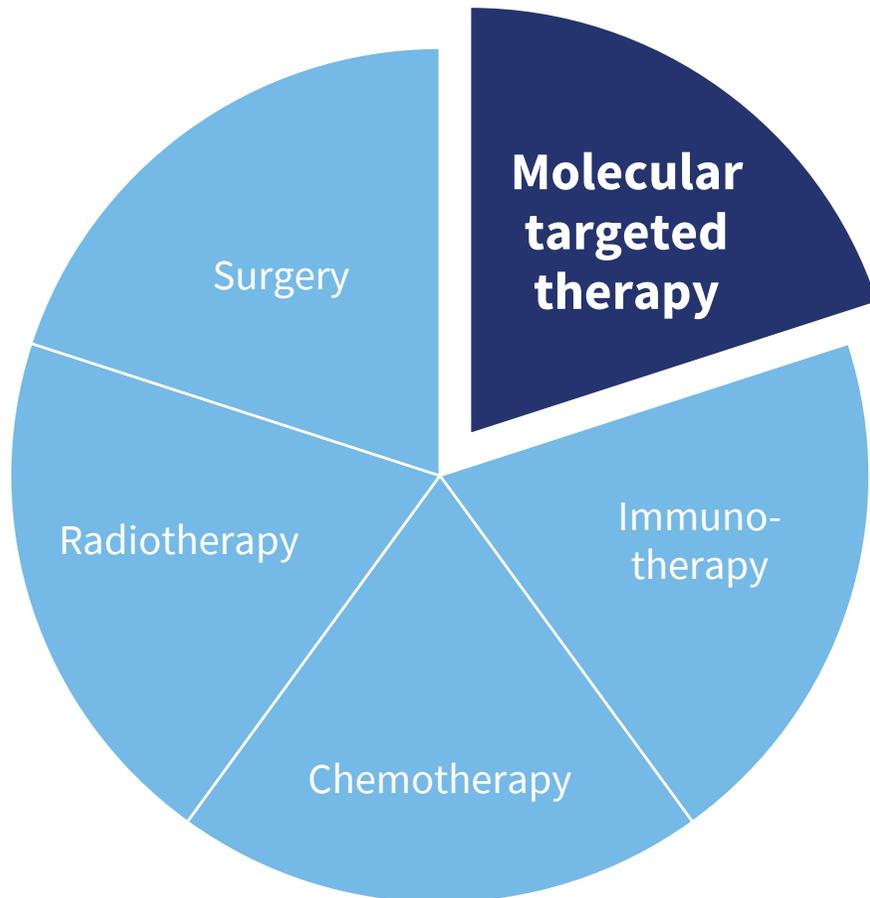


COMMERCIAL OPPORTUNITY

PAT-DX1 and the Deoxymab platform

Patrys is tackling cancer with a transformative new paradigm that could significantly alter the oncology landscape

Key 'pillars' of cancer care



A transformative approach

Antibodies (Abs or mAbs)

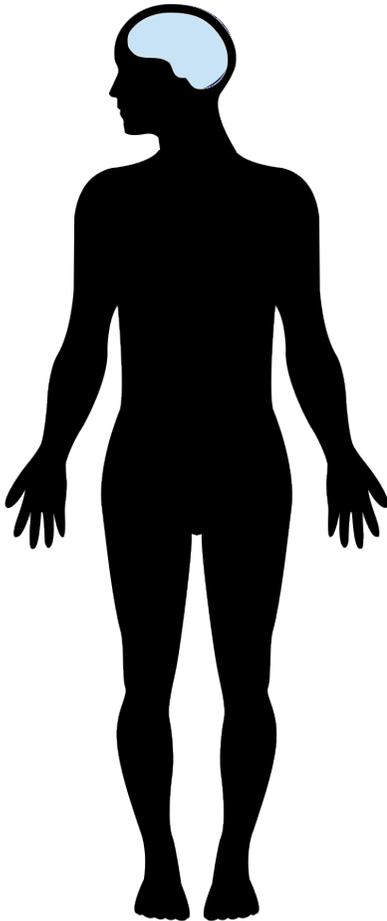
Target and kill cancer cells, with **fewer side effects** than small molecules

Patrys is targeting cancer at the nexus of two transformative anti-cancer therapies

Synthetic lethality

DDR inhibition blocks 'back up' DDR systems, causing **cancer cell death** across a **broad range of cancers**, while **healthy cells are spared**

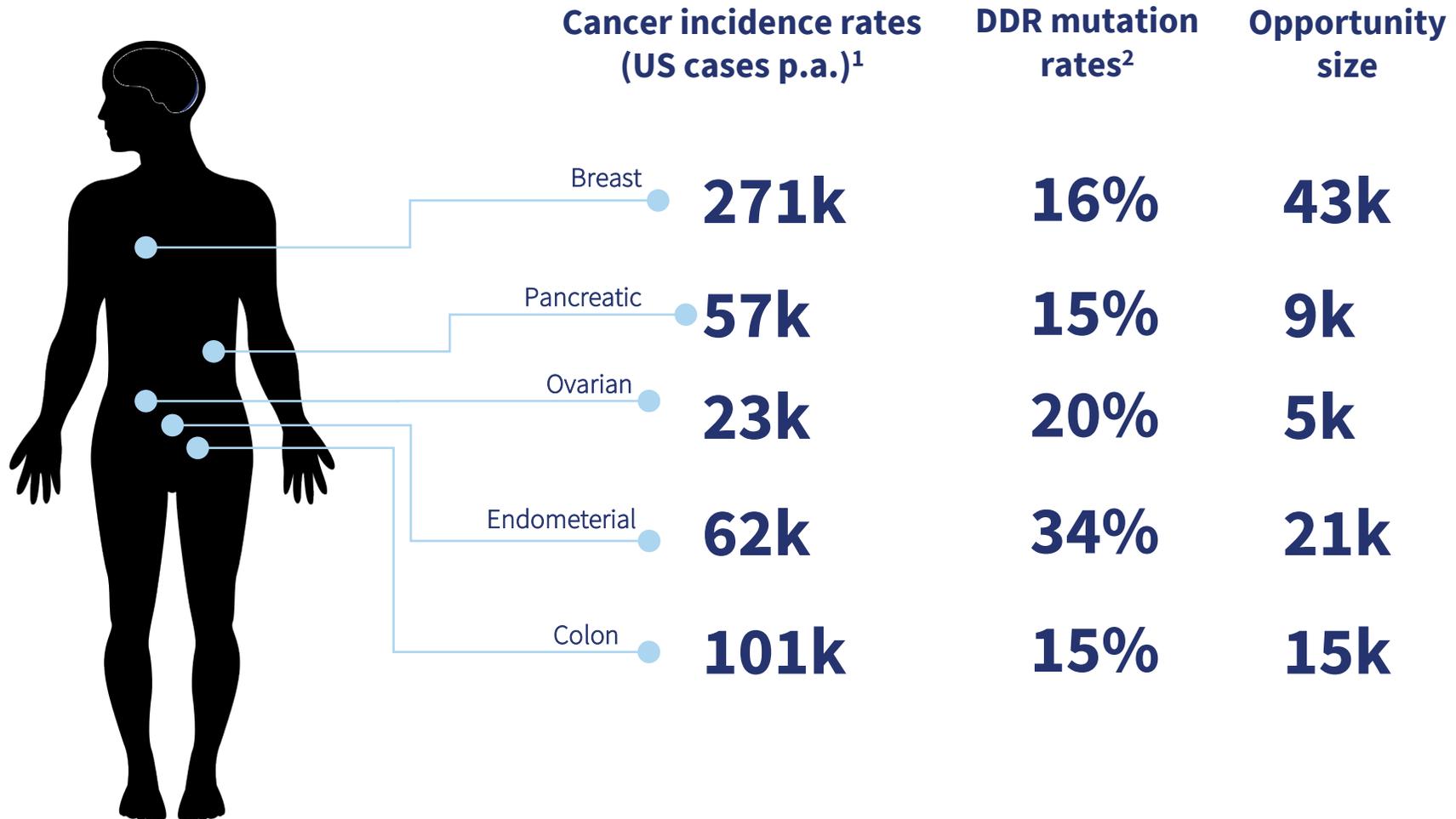
Development opportunities in CNS cancers and CNS metastases



- GBM and TNBC brain metastases US incidence of 32k¹
- High incidence of DDR mutations and PTEN loss in brain tumors and metastases make these attractive targets
 - PTEN lost in 30-40% of primary GBM
 - PTEN loss associated with brain metastases in breast cancer
 - Brain metastases commonly exhibit PTEN loss, even when primary tumor is PTEN+ (evolution to PTEN loss and/or brain microenvironment effect mediated by PTEN-targeting miRNAs from astrocytes)

1. American Cancer Society - Cancer Facts & Figures 2019

Development opportunities in systemic DDR deficient tumours

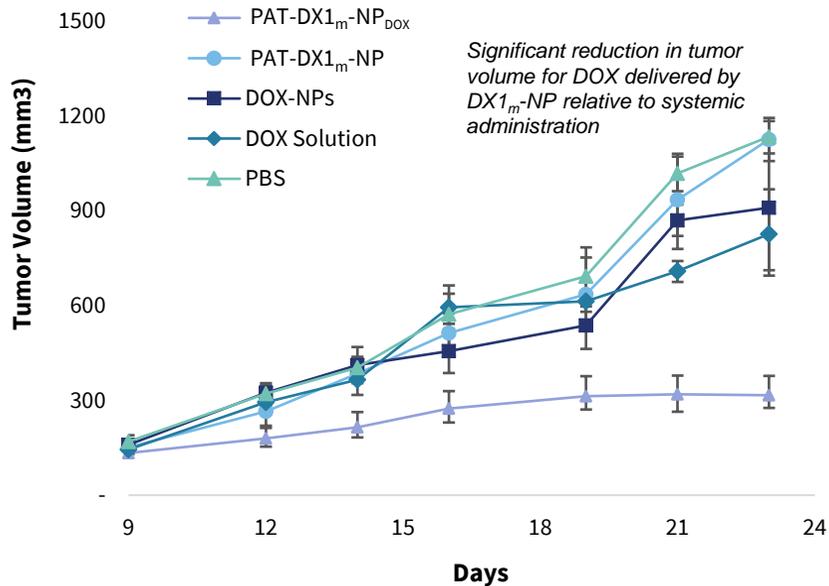


1. American Cancer Society - Cancer Facts & Figures 2019

2. Heeke *et al.* 2018. Prevalence of Homologous Recombination-Related Gene Mutations Across Multiple Cancer Types. *JCO Precis Oncol.* 2018; 2018: 10.1200/PO.17.00286.

Beyond the immediate opportunities for PAT-DX1 lie broader platform applications including nanoparticle conjugation

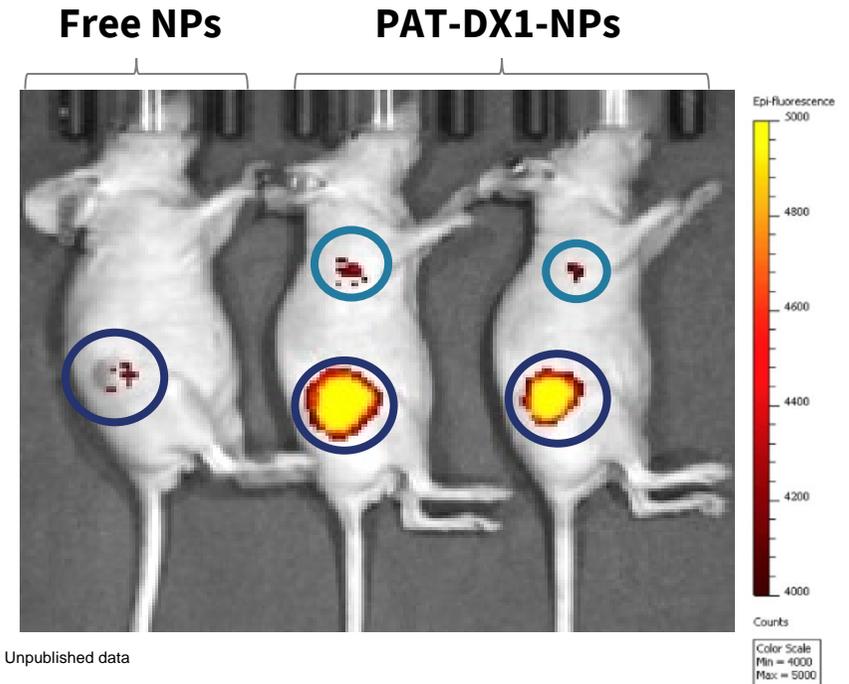
PAT-DX1-NP (PLGA) suppresses tumour growth



Chen *et al.*, *Oncotarget* (2016) 7(37): 59965-59975

PAT-DX1_m-NPs used to deliver doxorubicin (DOX) preferentially to tumours and significantly suppressed tumour growth in a breast cancer xenograft

PAT-DX1-NPs (PLGA) localize to metastases



PAT-DX1-NPs are preferentially attracted to tumours and localise to both primary and secondary (axillary lymph node metastases) tumours

1. PAT-DX1_m is the original academic form, murine PAT-DX1
2. PLGA nanoparticles are ~86nm, hydrodynamic diameter ~190nm

WHY NOW?

Growing interest



Increased awareness of the potential of PAT-DX1 and the broader platform technology reflected in grants and collaborations



- R01 grant @ Yale: “Targeting Glioblastoma with a Nuclear-Penetrating Anti-DNA Autoantibody” (**US\$1.83m**)



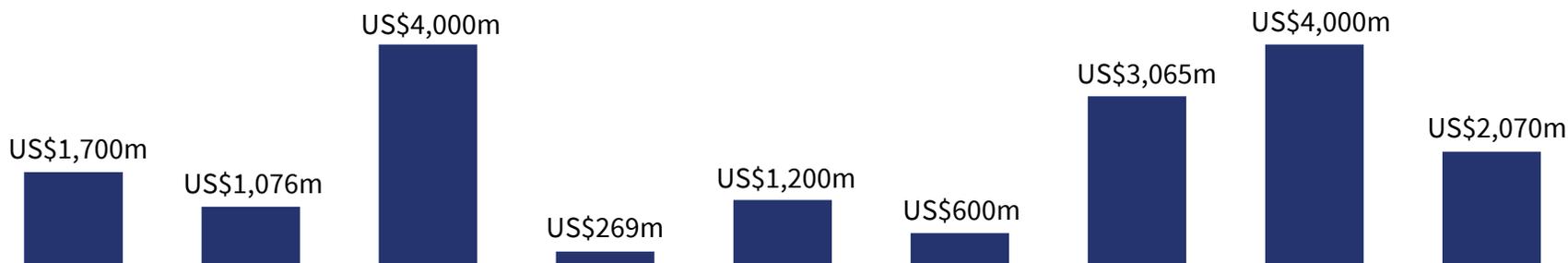
- BCRP grant @ Yale: “Targeting Breast Cancer Brain Metastases with an Anti-DNA Autoantibody ” (**US\$1.25m**)

Yale University



Significant upside value for Patrys underpinned by recent significant pre-clinical deals executed for antibody and synthetic lethality assets

Recent pre-clinical transactions (licensing, asset and corporate)¹



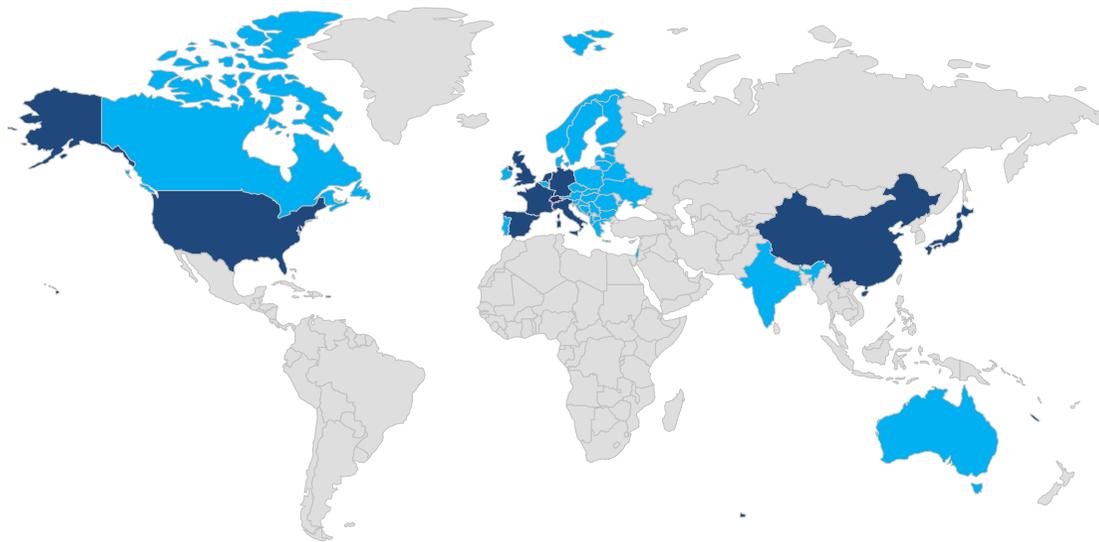
Deal date	4Q18	1Q19	1Q19	2Q19	3Q19	1Q20	2Q20	2Q20	2Q20
Deal type	Licensing	Licensing	Licensing	Licensing	Licensing	Licensing	Licensing	Alliance	Co-development
Up front payment	US\$50.0m	US\$56.0m	-	US\$20.0m	-	US\$5.0m	US\$65.0m	US\$750.0m	US\$120.0
Licensee/ Acquirer	GILEAD	Jazz Pharmaceuticals	CTTQ	BeiGene	AMGEN	Seattle Genetics	Bristol-Myers Squibb	abbvie	gsk GlaxoSmithKline
Licensor/ Target	TANGO therapeutics	CODIAK	abpro	bicatla	Hummingbird BIOSCIENCE	FivePrime Precision Medicines For Life	REPAIR THERAPEUTICS	Genmab	IDEAIA BIOSCIENCES
Technology & target indication(s)	Synthetic lethality discovery platform with potential in various cancers	engEx™ Precision engineering platform for exosome therapeutics	DiversImmune™ Platform: Novel bi-specific antibodies for cancer in China /Thailand territory	BA3071: Anti-CTLA-4 checkpoint blockade antibody for treatment of cancers	Antibody drug discovery platform for treatment of cancer	Novel antibody drug conjugate (ADC) platform for solid tumor cancers	SNIPRx®: Synthetic lethality discovery platform with potential in various cancers	Combination of Genmab's DuoBody® and AbbVie's payload and ADC technology	Synthetic lethality programs: MAT2A (solid tumors) and Werner Helicase (colorectal cancer)

Source: Company information

1. All deal values exclude potential royalty payments

Active intellectual property strategy in place to protect key assets

Patrys' Deoxymab patent portfolio¹



 IP protection granted  IP protection pending

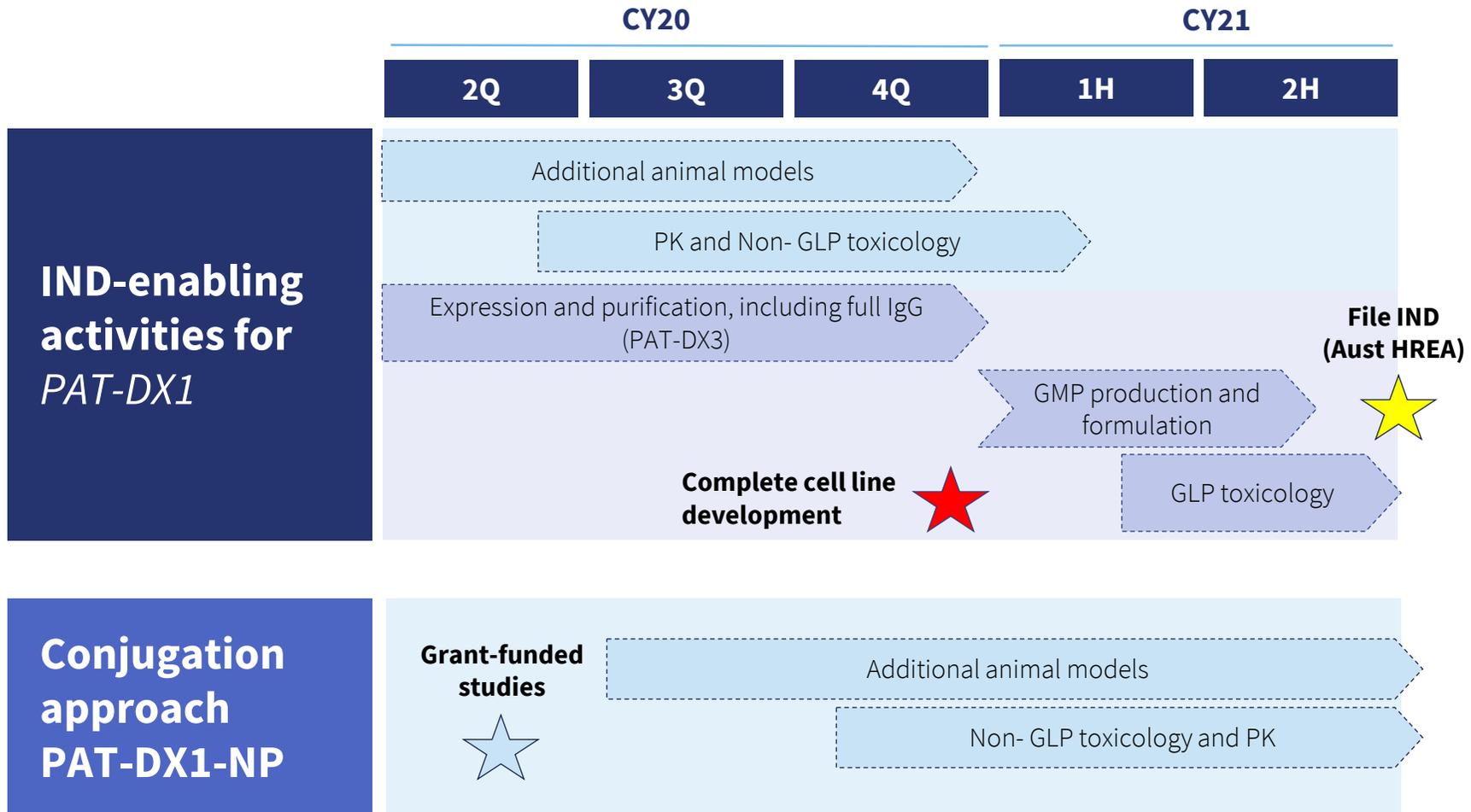
Deoxymab patent portfolio

10 | Active patent families
5 | Granted patents²
19 | Patent applications pending¹

Patrys' patent portfolio is targeted at major jurisdictions across United States, China, Europe and Australia; which represent attractive market opportunities

1. All patent applications (pending or granted) do not expire until at least 2032
2. Five patents granted in Europe, China, Japan and two in the US. Patents pending in US, Hong Kong, AU, Canada, India, Israel, Japan and China.

Development timelines



Looking Ahead

Initiation of non-GLP toxicology and pharmacokinetic studies	Q3 2020
Expansion of Deoxymab platform applications (eg nanoparticles)	Q3 2020
Completion of stable cell line development	Q4 2020
Initiation of GMP production and formulation program	Q1 2021
Initiation of GLP toxicology studies	H1 2021
IND (as Australian HREA) submission	H2 2021/H1 2022
Scientific publications	Ongoing
New IP filings and patent grants	Ongoing
Alliances and collaborations	Ongoing

Summary



Improve patient outcomes

PAT-DX1 targets both primary and metastatic tumors on either side of the blood brain barrier



Better tolerated treatments

Coupling PAT-DX1 with low-dose radiation could allow a treatment paradigm with reduced toxicity and side-effects



Broad anti-cancer potential

PAT-DX1 has demonstrated therapeutic potential in a range of different cancers with large unmet medical need



Improve existing treatments

The possibility to combine PAT-DX1 with existing treatments creates opportunities to create synergistic anti-cancer effects

Risk factors

Key Risks

- Investment in the Company involves risks that may be higher than the risks associated with an investment in other companies. The shares to be issued under the Rights Issue and the Share Top Up Facility carry no guarantee with respect to the payment of dividends, returns of capital or the market value of the shares.
- Before deciding to participate in any of the offers detailed in this Offer Document, you should refer to announcements made by the Company to the ASX to ensure you understand the operations of the Company and appreciate the risks involved with investing in the Company. Further, you should consider the investment in the context of your individual risk profile for speculative investments, investment objectives and individual financial circumstances.
- Nothing in this presentation is financial product advice and this document has been prepared without taking into account your investment objectives or personal circumstances.
- The business, assets and operations of the Company are subject to certain risk factors that have the potential to influence the operating and financial performance of the Company in the future. These risks can impact on the value of an investment in the securities of the Company.
- Accordingly, an investment in the Company should be regarded as speculative and investors should be in a position to bear the loss of their entire investment. Before deciding whether to invest in the Company potential investors should seek professional advice from their accountant, stockbroker, lawyer or other professional advisor.
- Set out on the following pages are some Specific and General risks that the Company is exposed to.

Specific Risks - i

Innovative technological development

The Company's product range includes candidates that are in pre-clinical development and need to be further tested before they can progress to human clinical trials. Pre-clinical and clinical development of the Company's product candidates could take several years to complete, and might fail for a number of reasons including but not limited to lack of efficacy, failure to obtain regulatory approval, difficulty or failure to manufacture the Company's products on a large scale, or toxicity. There is no guarantee that Patrys' products will be commercially successful.

Regulatory risks

The research, development, manufacture and sale of products deploying the Company's technology is subject to a number of regulations prescribed by government authorities in Australia and overseas. Generally, there is a high rate of failure for drug candidates proceeding through pre-clinical and clinical trials. Further, even if the Company views the results of a trial to be positive, the FDA or other regulatory authorities may disagree with the Company's interpretation of the data. Thus, any product deploying Patrys' technology may be shown to be unsafe, non-efficacious, difficult or impossible to manufacture on a large scale, uneconomical to market, compete with superior products marketed by third parties, fail to secure meaningful reimbursement approval, or not be as attractive as alternative treatments.

Dependence on service providers and third party collaborators

The Company relies upon independent third party service providers and third party collaborators including academic institutions to complete the development and commercialisation of its products. The Company therefore is exposed to the risk that any of these parties can experience problems related to operations, financial strength or other issues, which in turn could negatively impact the progress or success of the Company's product development efforts.

The COVID-19 pandemic creates particular risks and challenges for companies that outsources both research and manufacturing activities, as operational progress may be slowed or arrested as jurisdictions and suppliers respond to differing conditions.

Specific Risks - ii

Reliance on key personnel

The responsibility of overseeing the day-to-day operations and the strategic management of the Company depends substantially on its senior management and its key personnel. There can be no assurance given that there will be no detrimental impact on the Company if one or more of these employees cease their employment.

Intellectual Property

The Company's ability to leverage its innovation and expertise depends upon its ability to protect its intellectual property including maintaining patent protection for its product candidates and their respective targets. The Company owns, or has licensed issued and pending patent applications covering a range of antibodies, cell lines, molecular targets, potential drug candidates and platform technologies. The prospect of attaining patent protection for products such as those Patrys proposes to develop is highly uncertain and involves complex and continually evolving factual and legal questions. The Company may incur significant costs in prosecuting, or defending its intellectual property rights.

Competition risk

The biotechnology and bio-pharmaceutical sectors are highly competitive and subject to rapid and significant technology change. The development of therapeutics is very difficult and demanding; even more so if this competition is against competitors who may have larger resources than the Company. A number of companies, both in Australia and overseas, may be developing products that target similar markets that Patrys is targeting. Patrys may face competition from companies with superior technologies or greater resources. As a result, there is the risk that the Company may be beaten to the market by one or more competitors.

Specific Risks - iii

Currency risk	Revenue and expenditure in overseas jurisdictions are subject to the risk of fluctuations in foreign exchange markets. The Company carries on part of its business outside of Australia and intends to continue to do so. Accordingly, revenues and payments will be made in those countries' currencies and may deviate from budgeted expectations if there are adverse currency fluctuations against the Australian dollar.
Requirement to raise additional funding	The Company may be required to raise additional funds in the future. There is no guarantee that Patrys will be able to raise such additional capital when it is required, or on terms satisfactory to the Company. If the Company is unsuccessful in obtaining funding when required, Patrys may need to delay, scale down or cease its operations.
Risk of delay and continuity of operations	Patrys may experience delays in achieving some or all of its milestones, including but not limited to product development, completion of trials, obtaining regulatory approvals manufacturing delays, or delays in sales or out licensing. The Company is also dependent on amongst other things its technology, key personnel and IT systems. Any disruption or delay to any key inputs could impact adversely on the Company.

General Risks - i

Securities investment

Applicants should be aware that there are risks associated with any securities investment. The prices at which the Company's securities trade may be above or below the issue price, and may fluctuate in response to a number of factors. There can be no assurance that an active market may exist for the Company's shares.

Furthermore, the stock market, and in particular the market for biotech companies, has experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of such companies. These factors may materially affect the market price of the securities, regardless of the Company's operational performance.

Share market conditions

The market price of the securities may fall as well as rise and may be subject to varied and unpredictable influences on the market for securities in general and biotech stocks in particular. Neither the Company nor the Directors warrant the future performance of the Company or any return on an investment in the Company.

General economic climate and share market conditions

Factors such as global credit risks, inflation, government policies, currency fluctuation, interest rates and supply and demand have an impact on operating performance and stock market prices. The Company's future performance and the market price for its listed securities may be affected by these factors that are beyond the Company's control.

General Risks - ii

Underwriting risk

The Company has entered into an Underwriting Agreement under which the underwriters have agreed to fully underwrite the Rights Issue, subject to the terms and conditions of the Underwriting Agreement. If certain conditions are not satisfied or certain events occur, the underwriters may terminate the Underwriting Agreement. Termination of the Underwriting Agreement may have a material adverse impact on the proceeds raised under the Rights Issue. Termination of the Underwriting Agreement could materially adversely affect the Company's business, cash flow, financial condition and results.

Litigation risk

There is a risk that Patrys may in the future be the subject of or require to commence litigation, mediation or arbitration. The impact of such actions may have a material adverse impact on the Company.

Taxation and Accounting Standards Risks

Changes to the rate of taxes imposed on Patrys or changes in tax legislation or changing interpretations enforced by taxation authorities, whether in Australia or such other foreign jurisdiction in which the Company may operate, may lead to an increase in Patrys' taxation obligations and a reduction in potential shareholder returns.

Personal taxation liabilities are the responsibility of each individual shareholder, Patrys is not responsible either for taxation or tax penalties incurred by investors. Australian accounting standards are set by the Australian Accounting Standards Board (AAS Board) and are outside the directors and Patrys' control. Changes to accounting standards issued by the AAS Board may have a material adverse impact on the financial performance and position of Patrys as reported in its financial statements.

General Risks - iii

COVID-19

At the time of issue of this presentation, the COVID-19 global pandemic is having a significant and material impact on global markets and providing substantial impingement on the day-to-day operations of businesses. The pandemic may disrupt or prevent the Company from undertaking its operations and intended programs and may impact the Company's ability to raise capital in the near to medium term future

CONTACT

Dr. James Campbell
CEO and Managing Director
+61 3 9670 3273
info@patrys.com



www.patrys.com

patrys

Patrys Limited (ASX:PAB)