



# Shareholder Newsletter

## What's inside:

**01**

Letter from the CEO

**02**

Progress with  
PAT-DX1

**03**

Overview of  
target indications

**04**

Biologics M&A activity

**05**

Development  
supported by grants

**06**

Building awareness  
at key conferences

**07**

Meet Michael Stork



# 01

patrys

## Letter from the CEO

**PATRY'S SET FOR A PIVOTAL YEAR AHEAD AS WE CONTINUE TO ACCUMULATE EXCITING DATA AND PROGRESS TOWARDS THE CLINIC**

Dear Shareholders,

Since the Company's last newsletter, Patrys has made substantial headway on pre-clinical development, operational and corporate activities, and I am pleased to share an update.

Patrys has been successful in establishing a strong position in the field of DNA damage repair therapeutics with a novel approach that employs cell-penetrating antibodies to selectively kill cancer cells.

We are excited about the prospects of our Deoxymab platform and the lead candidate PAT-DX1.

Patrys has reported on several research

discoveries and new strategic collaborations over the past 12 months and many of these observations were presented at the prestigious 2019 American Association for Cancer Research Annual Meeting.

A range of new pre-clinical studies have also been planned to enhance shareholder value and support our business development efforts, and we are expecting to release further pre-clinical data in the near term.

Patrys has bolstered its cash position, with a focus on non-dilutive funding opportunities and has pleasingly benefited from grants worth more than \$700k since our last update, including a collaborative grant from the Victorian Medical Research Acceleration Fund and the R&D Tax Incentive Refund.

Further, we successfully negotiated a manufacturing insurance settlement of \$3m in October 2018.

As of March 31, 2019 Patrys held a strong cash balance of \$7.2m and we are well

positioned to fund pre-clinical work moving forward. Further details on development plans and grants are provided in the newsletter.

Patrys is in an exciting space and we are attracting interest from both academic and broader pharmaceutical communities, the latter of which is seeking to build its development pipelines. This has been reflected in the increased deal activity within the broader pre-clinical biologics space, particularly for oncology assets, as it remains one of the more attractive areas for big pharmaceutical companies to invest.

In closing, I would like to thank all our supportive shareholders and trust you are excited as we are about the potential of our therapeutics. We are looking forward to keeping you updated as we continue to focus on the development of our novel Deoxymab platform.

Sincerely,  
**James Campbell**  
CEO and MD

# Progress with PAT-DX1

## COMPELLING PRE-CLINICAL DATA DEMONSTRATES PAT-DX1'S UNIQUE INTRACELLULAR MECHANISM OF ACTION AND CLINICAL POTENTIAL

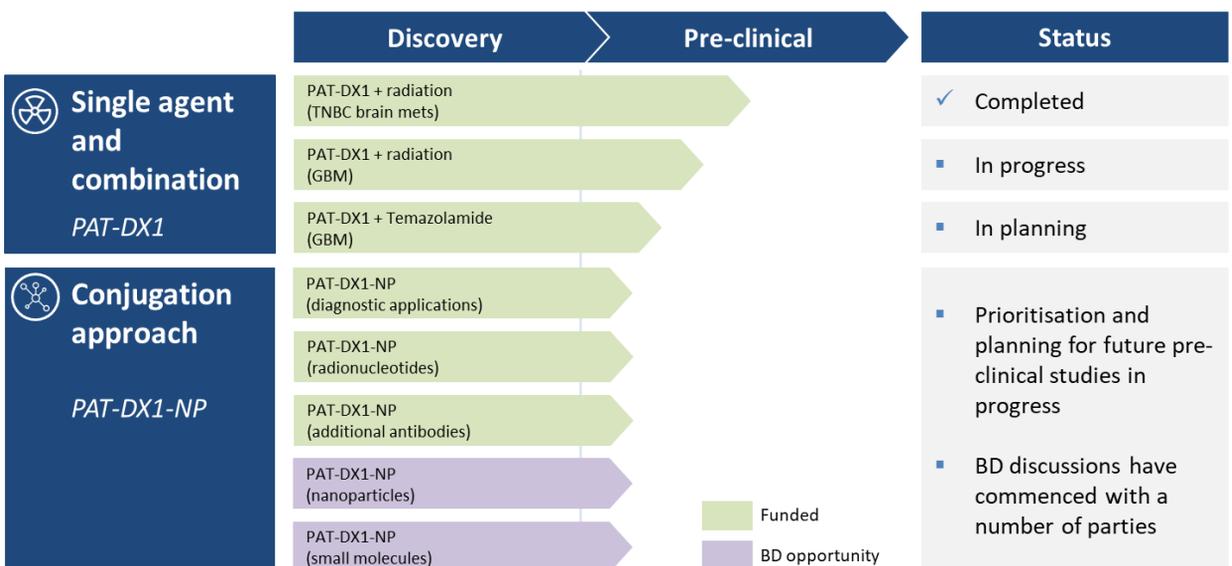
Patrys has made significant research discoveries in the development of PAT-DX1, while also progressing its nanoparticle-conjugated form (PAT-DX1-NP). Recent pre-clinical studies have demonstrated PAT-DX1:

- ✓ **Penetrates the cell nucleus** and interferes with cancer cell DNA repair
- ✓ **Kills cancer cells** in pre-clinical cancer studies including cell models, human tumour explants, stem cells and both xenograft and orthotopic animal models
- ✓ **Crosses the blood brain barrier** in orthotopic animal models of glioblastoma (GBM) and triple negative breast cancer (TNBC) brain metastases
- ✓ **Suppresses tumor growth and improves survival** in orthotopic models of GBM and TNBC brain metastases
- ✓ **Enhances efficacy of low dose radiation therapy** in an orthotopic animal model of TNBC brain metastases

In collaboration with Yale School of Medicine, Patrys has completed the first phase of studies on the pharmacokinetics of PAT-DX1. Preliminary data, reported in July 2018 was confirmed by subsequent experiments, showing tumor penetration 8 hours after administration and clearance from the system within several days.

In October 2018, Patrys engaged an experienced international service provider for cell line development and further manufacturing development of PAT-DX1. This is an essential component for the development of PAT-DX1 as it sets the foundation for future study and regulatory processes.

A study of PAT-DX1 in combination with radiation in an animal model of GBM is ongoing and will be followed by a study of PAT-DX1 and Temazolamide in GBM.



# Overview of target indications

## METASTATIC TRIPLE NEGATIVE BREAST CANCER (MTNBC)

Patrys' pre-clinical work has demonstrated PAT-DX1 has potential to improve outcomes for patients suffering from MTNBC.

MTNBC is a challenging disease, with up to 50% of patients developing brain metastases, which has devastating effects on quality of life and survival<sup>1</sup>.

- **Current treatments have limited efficacy**, in part due to the challenges of crossing the blood brain barrier
- **A significant unmet medical need exists** for new therapeutic approaches<sup>1</sup>
- Represents a significant market with **more than 125,000 new cases per year**

## GLIOBLASTOMA (GBM)

GBM is a particularly aggressive, highly malignant form of brain cancer characterised by fast cellular reproduction and limited treatment success. GBM constitutes ~17% of all primary brain cancers, with ~12,000 new cases diagnosed in the U.S. each year<sup>2</sup>.

- ✓ There is a **low median overall survival** of only 15 months for patients receiving the current standard of care (surgical resection followed by radiation and temozolomide)
- ✓ **Drug development has been exceedingly challenging**, predominantly due to the challenges of the blood brain barrier
- ✓ Although GBM is a rare disease, the **high level of unmet need** in this market creates ample opportunities for players with effective therapies



## Biologics M&A activity

### NUMEROUS HIGH VALUE TRANSACTIONS HAVE INVOLVED PRE-CLINICAL ASSETS WITH BIOLOGICS, ANTIBODIES AND CANCER TREATMENTS

Recently, the demand for advanced and novel therapeutics within the biotechnology and pharmaceutical space, namely biologics, has prompted a flurry of M&A, licensing and strategic partnerships deals.

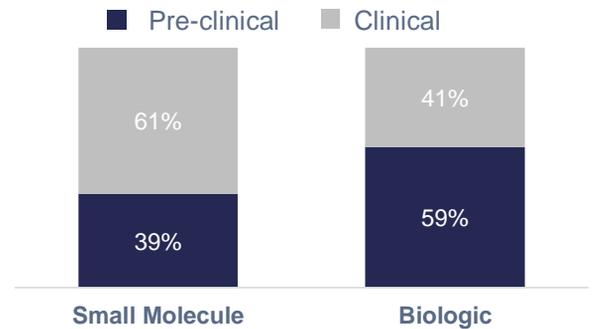
Early stage biologics are generating significant interest from big pharmaceutical companies, where relative to small molecule assets, biologic assets are typically transacted at an earlier stage, with relatively more interest and at materially higher values.

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



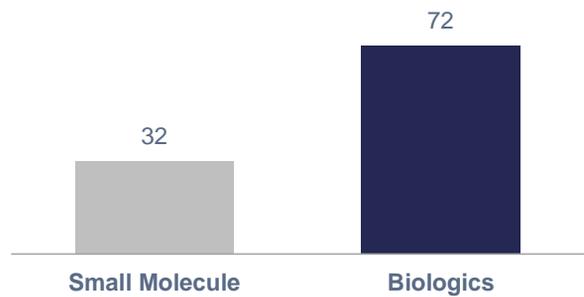
### Majority of biologic deals occur at the pre-clinical stage

Proportion of total deals (%)



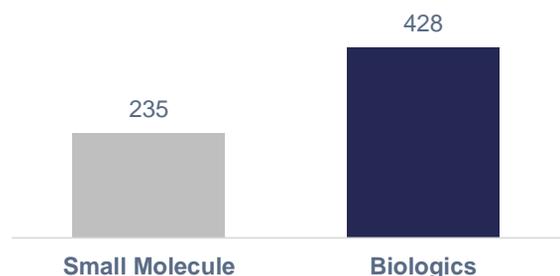
### Significantly more interest in pre-clinical biologic assets

Number of pre-clinical deals (#)



### Pre-clinical biologic deals executed at higher valuations

Pre-clinical avg. potential deal size (US\$m)



# Development supported by grants

**SUCCESSFULLY PURSUING MULTIPLE NON-DILUTIVE FUNDING OPPORTUNITIES TO ACCELERATE DEVELOPMENT OF TREATMENTS FOR AGGRESSIVE AND HARD-TO-TREAT CANCERS**

## R&D Tax Incentive Fund

Eligible Australian companies can receive rebates of up to 43.5% of eligible expenditure on R&D activities

**\$556k**

---

## Victorian Medical Research Acceleration Fund

Collaboration between Patrys and Walter and Eliza Hall Institute of Medical Research to support research to generate a bi-specific antibody

**\$100k**

---

## Australian Academy of Technology and Engineering (ATSE) Global Connections Bridging Grant

Collaboration between Patrys and Yale's PET Centre to develop 'proof-of-concept' testing of PAT-DX1 as a PET imaging agent to detect metastatic cancers in animal models

**\$50k**

---

## CSIRO Kick Start Program

Awarded a dollar-matched grant to support the ongoing development of the novel Deoxymab platform, under CSIRO's kick-starter initiative

**\$24k**

---

## Export Market Development Grant

Awarded to support the costs associated with business development activities

**\$11k**

# Building awareness at key conferences



*‘Our Deoxymab platform is a truly novel approach to cancer treatment and its ability to cross the blood brain barrier is a game changer – we want the industry to be aware of its potential’*

Patrys is committed to increasing awareness about the exciting potential of the Deoxymab platform and we are pleased to present at key industry conferences globally.

Attendance at these conferences provides the opportunity to present the key findings of pre-clinical data and the potential benefits of the Deoxymab platform.

Conference	Comments
<b>Biotech Showcase™ Annual Conference</b> San Francisco, USA (Jan 2019)	<ul style="list-style-type: none"> <li>• Investment and partnering conference (coinciding with the JPM Healthcare Conference)</li> <li>• Attracts attendees from the global investment community and industry strategic partners</li> </ul>
<b>American Association for Cancer Research (AACR) Annual Meeting</b> Atlanta, USA (Mar 2019)	<ul style="list-style-type: none"> <li>• Scientific conference</li> <li>• Poster presentation by Dr James Hansen (inventor and primary investigator of the Deoxymab program) - “Deoxymab: A targeted biologic that is synthetically lethal to TNBC brain metastases”</li> </ul>
<b>Bioshares Biotech Summit</b> Queenstown, New Zealand (Jul 2019)	<ul style="list-style-type: none"> <li>• Investment conference</li> <li>• Attracts attendees from the Australian and New Zealand investment communities</li> </ul>
<b>Society for Neuro-Oncology (SNO) Inaugural Conference on Brain Metastases</b> New York, USA (Aug 2019)	<ul style="list-style-type: none"> <li>• Scientific conference</li> <li>• Attracts global experts on brain metastases and allows Patrys to showcase the potential benefits of the Deoxymab platform</li> </ul>

# Meet Michael Stork

## INTRODUCING MICHAEL STORK, A SHAREHOLDER SINCE IPO AND BOARD MEMBER



*In the global biotechnology sector with numerous investment ideas and macro themes – what key trends have you seen emerge over the past decade?*

'Personalised medicine' is an exciting emerging trend that has real potential to totally revolutionise the traditional 'one drug fits all' approach. Mapping of the human genome has allowed the possibility for personalised genetic profiling, where drugs and dosages can be personalised and tailored to the individual patient to optimise outcomes in areas such as oncology and other diseases.

More specifically, the application of biotechnology to oncology is an exciting area, potentially allowing multiple therapies to treat cancer and other diseases. The combined impact of advances in personalised medicine and increasing breadth of available therapies for cancers could result in a step change in treatment success.

*You have a wealth of investing experience in the technology sector. How do you apply your key investment selection criteria to biotechnology opportunities?*

To date, the majority of my investments have been in the technology sector. More specifically, in opportunities where the technology addresses a unique problem, has the potential to disrupt or enhance

existing solutions or replace existing technologies entirely with superior performance characteristics.

These factors combined with strong intellectual property (IP) protection and an experienced management team are necessary to ensure a company can penetrate the market and rapidly scale to create growth and value upside for shareholders.

The necessary pre-clinical activity for biotechnology companies requires relatively higher investments in time and capital. Therefore, the importance of identifying an unmet need and significant market opportunity exists becomes crucial.

Further to this, biotechnology companies need to demonstrate the ability to accurately plan for capital requirements and deliver on value catalysts.

*You are currently based in Canada. Why invest in an Australian biotechnology company?*

Over time, there has been a significant decrease in the barriers to migration of biotechnology innovations and drug development globally. In addition to enhanced innovation and sharing of ideas, globalisation has also increased the ability of companies to access capital. We see this reflected in the emergence of a vibrant Australian biotechnology sector, underpinned by numerous investments from international financial institutions and specialist healthcare funds.

*Continued on next page...*

## Meet Michael Stork (cont'd)

*'The exciting area, novel mechanism of action and flexible clinical development pathway combined with Patrys' strong IP protection and endorsement by the impressive Scientific Advisory Board provides further confidence in the Deoxymab platform technology.'*

I originally invested in a predecessor company based in the US, whose early research in monoclonal antibodies led to Patrys' early IgM assets. Patrys' Australian CEO, James Campbell, has invested significant time and effort establishing strong connections to the US and has previously been involved in two successful US biotech companies.

Patrys' US-based Scientific Advisory Board also brings years of pre-clinical and clinical experience from some of the world's most successful biotech firms. Further, Patrys' technology is exclusively licensed from Yale University, one of the premier universities globally.

The combination of these key strengths ensures Patrys is well positioned within the Australian biotechnology industry.

*What do you find exciting about Patrys and its Deoxymab platform?*

Patrys is led by industry leaders and is well capitalised to develop its effective and novel technology platform. The Company is initially focused on targeting significantly underserved oncology applications, with the potential to expand to other indications, underpinned by the platform technology.

In addition, Patrys has demonstrated the potential to pursue multiple development pathways, either standalone or in partnership.

Patrys' pleasing early results published on the Deoxymab platform indicate a novel mechanism of action with the potential for several development pathways, which ultimately de-risks the clinical development of the overall technology platform.

The exciting area, novel mechanism of action and flexible clinical development pathway combined with Patrys' strong IP protection and endorsement by the impressive scientific advisory board provides further confidence in the Deoxymab platform technology.

Patrys stands out as an attractive investment opportunity and I look forward to its progress in the near to medium term.