



BUY \$0.51

Patrys (PAB)

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The Benefits of Being Human

Company Data

ASX Code	PAB
Price	\$0.51
12 month price target	\$1.00
Implied return	96%

Shares on issue	152.9m
Market capitalisation	\$76.4m
12 Month price range	\$0.44 - \$0.70
Monthly turnover (shares)	2.8m

Cash Flow Summary

Yr to 30 June	2007A	2008F	2009F	2010F
Receipts	0	0	0	0
Interest	0.1	1.1	0.5	0
Oper. Cash Inflow	0.1	1.1	0.5	0
Oper. Cash Out	(1.1)	(9.0)	(10.5)	(11.5)
Net Oper Cash	(1.0)	(7.9)	(10.0)	(11.5)
Net Inv. Cashflow	(4.7)	(1.7)	(1.6)	(0.1)
Net Fin. Cashflow	33.0	0	0	0
Inc/(Dec) Cash	27.3	(9.6)	(11.6)	(11.6)
Opening Cash	0	27.3	17.7	6.1
Closing Cash	27.3	17.7	6.1	(5.5)

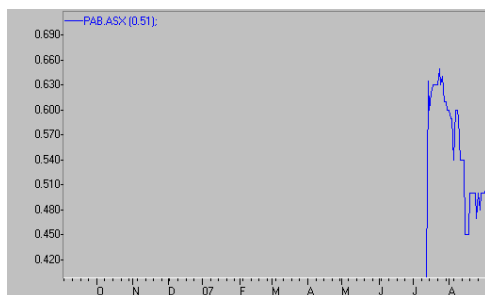
Board of Directors

John Read	Chairman (Non-Exec)
Daniel Devine	CEO
Michael Stork	Non-Exec. Dir.
Alan Robertson	Non-Exec. Dir.

Major Shareholders

PNK Holdings	17.2%
OncoMab GmbH	13.2%
Daniel Devine (CEO)	9.4%

Share Price Chart



Source: Iress Market Technology

Summary

We initiate coverage of PAB with a **BUY** recommendation and a price target of **\$1.00**. While PAB's internal therapeutic products are yet to commence clinical development, we believe the risk that would normally be associated with a company still in preclinical development is offset by the:

- **underlying technology platform,**
- **deep product pipeline,**
- **extensive commercial opportunities for targets and drugs.**

Next Generation Of Therapeutic Antibodies

PAB has a proprietary approach for generating human cell lines that produce natural human antibodies. These antibody-producing cell lines are from human subjects and, thus, the antibodies are the same as those that the human body generates to protect itself from cancer, infection and other diseases. As a consequence, these differ from the other antibody therapeutics that are on market or currently being developed in that they:

- **have been generated by the human immune system**
- **are completely human in structure including modifications**

The initial data indicates that these natural human antibodies are very effective as both therapeutics and for other applications:

- **very effective and safe in clinical trials**
- **react only with disease (cancer), and not healthy, tissues**
- **identify new and novel cancer-specific targets**

PAB has already generated a set of 40,000 human antibody-producing cell lines. This collection has been screened to identify 275 cancer specific antibodies of which 10 are currently in active lead development programs.

Strong Commercial Potential

For both structural and commercial reasons, antibody therapeutics are of immense interest to pharmaceutical companies as demonstrated by the large number of recent antibody deals. This provides PAB with good market opportunities for any therapeutics it develops. We expect that the company will be able to establish additional partnerships and collaborations in addition to those it currently has with Astra Zeneca, Takeda and Debiopharm.

For PABs 3 internal leads, the next stage is scale-up manufacturing and production. This is expected to be completed within 12 months and will allow two of its internal leads to commence Phase I/IIa clinical trials in 2H CY08. Both of these steps are expected to have a significant positive impact on PAB's valuation.

We believe that PAB is set to become one of the most exciting companies in the biotech arena and provides a very attractive opportunity for investors with a 12-24 month investment horizon.

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Investment Thesis

Expect announcements on deals, progress and partnerships

We believe that PAB has all the elements in place to become one of Australia's leading biotechnology companies. While the company is still at an early stage in terms of the clinical development of its own products, there are a number of elements that significantly reduce the risk profile and commercial potential of PAB:

- **Unique antibody technology** – high interest to pharma
- **Deep pipeline of drug candidates** – 275 anticancer antibodies with 10 leads
- **Established partnerships** – Takeda, Astra Zeneca and Debiopharm
- **Strong IP generation** – existing patents and new, unique targets being identified
- **Multiple partnering opportunities** –back-up antibodies provide license opportunities

Good risk profile with strong commercial potential

The next developmental milestones for the commercial development of PAB's antibodies are manufacturing and demonstration of safety and efficacy. While these have technical risk, the initial data in these areas is encouraging. Thus we believe the company has a good probability of successfully meeting these milestones:

- **Pilot small-scale** manufacturing has produced acceptable yields
- **Good safety profile** expected due to human origin – supported by clinical data
- **Efficacy data** from human IgMs in clinical trials, while limited, is extremely positive

Important technical milestones in next 12 months

Full investment potential requires at least 12-24mth view

PAB is currently trading at a 28% premium to its list price of \$0.40. With scale-up production for two of PAB's lead antibodies and commencement of Phase I/IIa clinical trials in 2H CY08, a minimum of 5 other lead antibodies being progressed by partners and further work on identification of new targets and new leads, we believe PAB will continue to provide shareholders with significant upside. While we expect that these events will provide ongoing support and underlying share price growth for PAB, we believe investors should be prepared to take at least a 12-24mths view to realise the full potential from their investment.

Valuation

Price target of \$1.00

We have a valuation and price target for PAB of **\$1.00**, a significant premium to the current share price of \$0.51 and to the issue price of \$0.40.

Given the preclinical stage of PAB's internal drug candidates, the depth of its development pipeline and variety of commercial opportunities available, the construction of a particular scenario to represent the company's cash consumption and generation for a DCF valuation is somewhat arbitrary. In view of this, we have taken two approaches to provide valuation guidance on PAB. Both of these approaches are based on an estimate of the value of the company in 2 years time. At this time, the current cash will have been invested in progressing its most mature internal leads through Phase I/IIa clinical development. We have made the appropriate adjustments taking into account risk and the time value of money (using a discount rate of 16%) to bring these estimates to a relevant, present day value.

Approach 1 – License Valuation

Single license on successful product supports \$0.99 valuation

Using DCF, we estimate a licensing deal for just one of PAB's antibodies at the end of the Phase I/IIa trial would support a present valuation of **\$0.99**. In our model of this licensing deal, we used a 16% discount rate and assumed milestone payment totalling \$100m (\$15m on signing in FY10, \$30m on completion of Phase-II in FY12 and \$50m on approval in FY14). We have assumed that PAB receives 10% royalty and first sales occur in FY15 with peak sales of \$1B being attained in FY18. Our DCF only projects to FY22 with no terminal value included.

Multiple commercial opportunities

Given the multitude of commercial options that PAB's technology provides, we believe using a single licensing deal of one of their internal leads represents a base-case scenario for the company. We expect that the company will receive nearer term payments from existing license partners (Takeda, AstraZeneca and Debiopharm) and the company has the potential to develop several therapeutic products as well as generate additional income from its target intellectual property. However, the precise indication (ie: cancer type/s) that their antibodies will be developed for will be guided by the results from the Phase I/IIa trial. In view of this and the range of different commercial opportunities, we believe that our base case scenario provides a reasonable approach for estimating a cash-flow based valuation.

Peak sales of \$1B is quite achievable

Our estimate of end sales of \$1B has come from two considerations. First existing sales of anticancer antibodies have been able to generate sales well in excess of \$1B. Second, the current cost of antibody therapies is very high ranging from US\$10,000 to US\$100,000. In view of this and given that PAB's antibodies seem to all be active against a range of tumours, we feel that treatments for 50,000-100,000 patients at a price of \$10K-\$20K should be very achievable.

Table 1: Anticancer Antibody Sales and Cost of Treatment

Antibody	2006 Sales (US\$)	Treatment Cost
Rituxan*	\$3.7B	US\$10K
Herceptin	\$3.1B	US\$40K
Avastin	\$2.4B	US\$50K - \$100K
Erbitux	\$1.1B	US\$100K

NOTE: Sales includes non-cancer applications
SOURCE: Industry press articles

Using this approach of representing the potential cash flows to Patrys as a single licensing deal values PAB at **\$0.99** per share.

Approach 2 – Comparable Acquisition Valuation

Acquisition of Morphotek provides good comparator

As a second approach to valuing PAB, we have assumed that in 2 years time, the product pipeline will be comparable to the pipeline of Morphotek which was acquired by Eisai in 2007 for US\$325m. Discounting that value to present day and putting a 60% probability of success in generating the pipeline provides a value for PAB of **\$1.02**.

At the time of acquisition by Eisai, Morphotek had two antibodies in clinical development and two technologies related to antibody generation.

Table 2: Morphotek's Assets At Time Of Acquisition

Asset	Type	Description
MORAb-003	Anticancer Antibody	In Phase-II trial for platinum-resistant ovarian cancer
MORAb-009	Anticancer Antibody	In Phase-I trial for pancreatic and other marker-expressing cancers
MORPHIDOMA	Technology	Ex vivo approach for generating fully human antibodies
Libradoma	Technology	Hybidoma technology for generating human antibodies

SOURCE: www.morphotek.com

PAB should have similar portfolio of assets in 2yrs time

In addition to these assets, Morphotek also has four antibodies in preclinical development. PAB, in 2 yrs time (which is funded by the company's current cash reserves) is likely to have 2 antibodies that have completed Phase I/IIa and thus demonstrated safety and potentially given some indication of efficacy. In addition, it will have advanced some of its back-up leads through further preclinical development and be developing a number of antibodies with partners.

We have used a 60% probability adjustment to take into account the technical risk associated with generating this asset profile in 2yrs time. In combination with our 16% discount rate, we believe this appropriately factors in risk into our valuation estimate.

Table 3: Probability Adjustments For Technical Risk

Risk Area	Probability of Success	Rationale
Preclinical	90%	Low risk of tox issues with antibodies, targets are disease specific
Scale Up	85%	Initial process development done, acceptable yields from mid-scale
Phase I/IIa	78%	Phase-I success rate for humanized oncology antibodies (n=46)
Cumulative	60%	

SOURCE: Lodge estimates, Nature Biotechnology

Both of these approaches support a price target of **\$1.00** for PAB. The next 12 months may provide announcements that raise this target including licensing deals (with Takeda or other parties), successful scale up production of antibodies, and further work on characterisation of targets and other lead candidates. In view of this and with the current share price at \$0.51, we initiate our coverage on PAB with a **BUY** recommendation.

Being Human Is A Good Thing – PAB’s Unique Antibodies

PAB formed from US and German companies

PAB was formed by the consolidation of the complimentary technologies, anticancer human antibody pipelines, and key personnel of Acceptys Inc. (USA) and OncoMab GmbH (Germany). Acceptys and OncoMab had independently developed technologies and reagents for routinely generating libraries of natural human antibodies and associated human hybridoma production lines all originating from B-cells isolated from human subjects.

B-cells are the cells in the body that produce antibodies which protect the body from infection and from ‘rogue cells’ that can develop into cancers. The therapeutic potential of antibodies has always been appreciated. However, until recently, it was not possible to routinely take the human B-cells out of the body and grow them in culture to produce large amounts of natural human antibodies. Instead, researchers have predominately used antibodies generated in mice (whose B-cells can be immortalised and grown in culture) and then genetically engineered them to make them look more like human antibodies. This approach has advanced to the point where antibodies with a fully human protein structure can be made. However, these are still often engineered versions of antibodies that a mouse has generated and they are usually produced in non-human cells. Consequently, they are not chemically identical to true human antibodies.

Proprietary technology for making natural human antibodies

PAB is developing the next generation of antibodies which are natural human antibodies. What makes these antibodies naturally human is that they are:

- **Selected by the human body** - to defend itself against ‘foreign’ elements
- **Encoded by human genes** - resulting in a 100% human protein structure
- **Produced in human cells** - additional modifications such as glycosylation are human

The expectation is that these antibodies will have very good potential as therapeutics:

- **More likely to be more effective and safe**
- **Likely to recognise new and more relevant targets**

Lower risk of failure during clinical development

Better Safety And Efficacy

Antibodies, in general, have proven to be safer and more effective as therapeutics than traditional small molecule drugs. The reason for this is that many small molecules, or their breakdown products, have chemical properties that are toxic to parts of the body. The underlying chemical properties of all antibodies is very similar, with the key differences between them being the antigen, or target, to which they bind and their class or isotype.

We expect that PAB’s natural human antibodies will have a better safety profile than artificially generated antibodies as they have already been in, and in fact have been naturally generated by, the human body. In addition, the recruitment of other elements of the immune system to assist with the neutralisation of foreign elements relies on the structure of the additional chemical modifications made to an antibody. These modifications differ in different species. Thus the modifications added in a rodent cell will be less effective at invoking the full defensive response in humans than the modifications added by human cell lines.

Unique approach leads to new, disease specific targets

More Relevant Targets

Most of the antibodies on the market or in development react with targets whose role in cancer or other diseases has come from scientific elucidation. While these have, in many cases, proven to be very effective, they tend to be based on ‘what is known’ rather than ‘what is best’. PAB’s approach is non-assumptive and instead uses the body to determine what the best targets are for developing therapeutics. For both technical and commercial reasons, we believe this is an incredibly powerful approach.

A second limitation of many of the targets for current therapeutic antibodies is that they are not truly disease specific. Many of the targets, while being present in disease tissues, are also found in some normal, healthy tissues and thus the administration of an antibody against these targets can have undesirable side-effects. The identification of antibodies that only react with targets found on specific disease cells, such as cancer cells, and never found on healthy tissues cells represents the most precise form of targeted therapeutics.

Over the course of more than a decade, PAB’ scientists have used the company’s unique human hybridoma technologies to generate a library of over 40,000 human hybridoma cell lines that produce naturally occurring human antibodies. This is the underlying technology that PAB is developing to create the next generation of therapeutic antibodies.

Why Antibodies Are Hot

In the past 24 months, pharmaceutical companies have been very active in acquiring antibody assets and technologies. The key drivers for this are:

- **Industry dynamics**
- **Strong commercial potential**

INDUSTRY DYNAMICS

Patent expiries and generic entry will impact on pharma profitability

Growth in the pharmaceutical industry has, until recently, been primarily driven by sales of patent-protected, small-molecule pharmaceuticals. Typically, these small molecules are synthesised chemicals with a molecular weight of less than 500 Daltons.

Across the industry, the patents protecting these molecules are starting to expire. Drugs whose patents will have expired by 2012 are estimated to currently generate around US\$70B of sales for the industry. While the majority of these patent expiries do not occur until 2011-12, this will have a considerable impact on most of the major pharmaceutical companies who derive a significant part of their revenue from the sale of a few blockbuster drugs.

Because the majority of drugs on the market are small, synthetic molecules, generic pharmaceutical players are able to make chemically identical versions and sell them once patent protection expires. As generic companies have not had to make the investment in R&D and clinical testing for these drugs, they are able to sell them profitably at a much lower price than the branded versions. Typically, one year after the entry of a generic in the US market, the price declines by 70%-80%.

This structural problem has been recognised in the industry for sometime and has been one of the key drivers for consolidation amongst the large pharmaceutical players. However, while the consolidation of drug portfolios and pipelines has brought some respite, the underlying eventuality of patent expiry and generic entry leading to profit erosion has remained a key threat.

Antibodies less susceptible to off-patent competition

Antibodies and other biological therapies have provided pharmaceutical companies with an attractive alternative to build their product pipelines and secure future growth. Unlike small molecules, the threat of generic competition, even following patent expiry, is limited because:

- **Proprietary reagents:-** biologicals often require specific cell lines for their production
- **Chemical equivalence:-** small differences in preparation can change composition

From a strategic perspective, these factors have made investment in developing antibodies and other biological therapeutics very attractive, if not essential, for pharmaceutical companies.

STRONG COMMERCIAL POTENTIAL

Aside from the underlying industry dynamics, therapeutic antibodies are attractive products from a commercial perspective:

- **Lower development costs:-** shorter timelines and lower attrition rates
- **High revenue potential:-** several blockbuster products with rapid market uptake

Lower Development Costs

Shorter development times and lower attrition rates

One of the key factors that impacts on the development of new drugs is attrition. This can be particularly expensive when failure occurs in late stage clinical trials. The key reasons that drugs fail during clinical development are lack of safety or lack of efficacy.

While the data available on attrition rates for antibodies is limited, they appear to have significantly lower failure rates. Approval rates for chimeric and humanized Abs entering the clinic are 21% and 18% respectively. Furthermore, to date the approval rate for Abs which enter Phase III clinical testing is close to 100%. In the area of cancer drugs, chimeric and humanized Abs have had approval rates of 18% and 24% respectively. By comparison, the

historical success rate of all new small molecule drugs is around 11% and, in particular therapeutic areas such as oncology, can be as low as 5%.

On historical data, the average clinical development time for FDA-approved antibodies has been around 6.5yrs, similar to small molecule drugs. However, the preclinical development stage for antibodies is significantly shorter and, with more clinical data from antibodies now available, the need for extensive safety studies in the clinic has been reduced leading to even shorter and smaller clinical trials.

Antibody sales growing at 14.2% and expected to be over \$40B in 2012

High Revenue Potential

In 2006, sales of therapeutic monoclonal antibodies were US\$19.6B. Current market projections suggests that these will continue to grow at a CAGR of 14.2% over the next 5 years to reach sales in excess of US\$40B by 2012.

Table 4: Top 5 Therapeutic Antibodies By Sales

Antibody	Sales 2003 (US\$)	Sales 2006 (US\$)	Target	Antibody Type	Indication	Company
Remicade	\$2.1B	\$4.3B	TNF α	Chimeric	Rheumatoid Arthritis Crohn's Disease	J&J Schering Plough
Rituxan	\$2.2B	\$3.7B	CD20	Chimeric	Non-Hodkin's Lymphoma Rheumatoid Arthritis	Biogen Genentech
Herceptin	\$0.98B	\$3.1B	Her2	Humanized	Breast Cancer	Roche/ Genentech
Avastin	Not launched	\$2.4B	VEGF	Humanized	Colorectal Cancer Breast Cancer	Roche/ Genentech
Humira	\$0.28B	\$2.1B	TNF α	Fully Human	Rheumatoid Arthritis Psoriatic Athritis	Abbott
% Market	80%	80%				

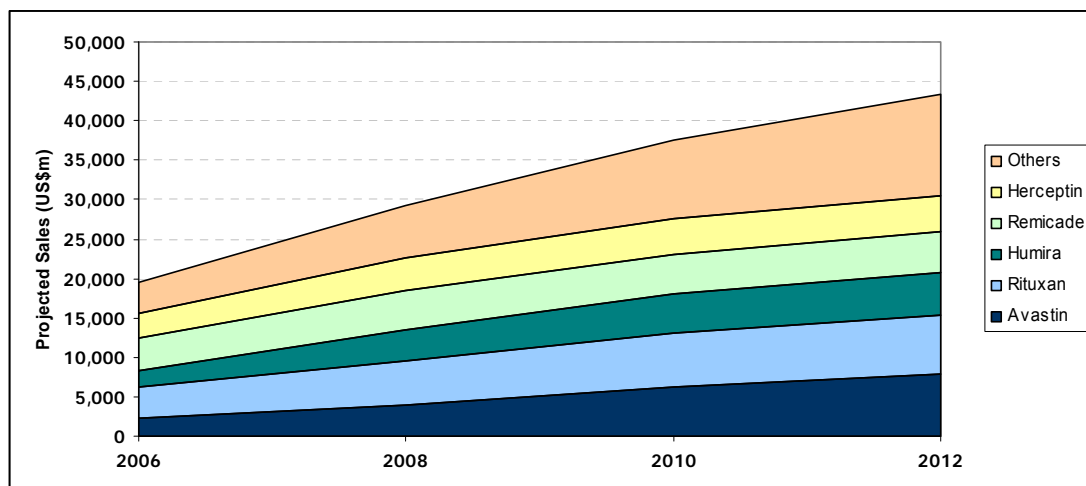
SOURCE: Datamonitor, Company reports

The market is dominated by the top 5 antibodies which are for oncology and autoimmune & anti-inflammatory diseases (AIID). In addition to level of sales, the ramp-up of sales for new antibody products is impressive with new therapeutic antibodies showing strong sales growth soon after launch.

Sales to 2012 will be dominated by top 5 products on market

Industry projections indicate that the top 5 therapeutic antibodies will continue to dominate as they gain regulatory approval for further indications. While new therapeutics will need to compete in the market with these established products, antibodies directed at new targets, with more specific anti-tumour activity, with improved safety profiles and/or providing lower overall cost of treatment will be very competitive in the market. We believe that such products should be able to secure good sales and, for some products, still be able to achieve blockbuster status (annual sales > US\$1B)

Figure 1: Projected Sales Of Antibody Therapeutics



SOURCE: Industry Reports

Pharma Spending Up Large On Antibodies

All major pharmas have bought antibody assets in past 3yrs

The attractiveness of antibodies for pharmaceutical companies, both from a product perspective and from a strategic imperative, is reflected in the number and magnitude of recent deals. Virtually all of the major pharmaceutical companies have been active in securing access to therapeutic antibodies and antibody technologies.

Table 5: Recent Pharma Deals For Antibodies

Pharma	Ab Company	Date	Deal	Terms	Technology
Eisai	Morphotek	2007	Acquisition	US\$325m	2 human antibody technologies and 2 antibodies in early clinical trials
Roche	THP	2007	Acquisition	US\$56.5m	Transgenic technology for generating antibodies
Astra Zeneca	CAT	2007	Acquisition	£702m	Phage display technology for generating human antibodies
Astra Zeneca	Regeneron	2007	License	\$120m	Access to genetically engineered mice for making human antibodies
Pfizer	Elusys	2007	License	US\$200m	Preclinical antibody for infectious diseases.
Genentech	BioInvent	2007	Co-development	US\$190m	Preclinical MAb for cardiovascular (\$15m upfront, \$170m milestones)
Takeda	Xoma	2007	Co-development	US\$230	Phage display, optimisation and manufacturing of MAbs.
GSK	Domantis	2006	Acquisition	£230m	Technology for generating antibody fragments called domain antibodies
Novartis	NeuTec	2006	Acquisition	£305m	Genetically recombined antibodies for infectious diseases
Merck	Abmaxis	2006	Acquisition	US\$80m	Optimisation and humanization of monoclonal MAbs
Merck	GlycoFi	2006	Acquisition	US\$400m	Technology for adding carbohydrate modifications to MAbs
Roche	GlycArt	2005	Acquisition	US\$185m	Technology to enhance efficacy of MAbs through glycosylation
Pfizer	Bioren	2005	Acquisition	N/a	Technologies for optimising therapeutic properties of MAbs
Biogen	PDL	2005	Co-development	\$660m	Commercialisation of 3 Phase-II Abs. \$140m was upfront plus stock purchase
Amgen	Abgenix	2005	Acquisition	US\$2.2B	Late stage products and genetically modified mouse producing human Abs
BMS	Medarex	2004	Co-development	US\$530m	MAb in Phase-III. \$50m upfront, \$205m development milestones, \$275m sales.

SOURCE: Company announcements

Strong demand provides PAB with multiple commercial opportunities

This activity provides companies such as PAB, with a large collection of human hybridomas producing natural human antibodies, 275 anti-cancer lead candidates including 10 lead products, and a unique underlying technology platform, with several future commercial opportunities including:

- **Out-licensing** of internally developed therapeutic antibodies
- **Development/co-development** of lead candidates by partners
- **Potential acquisition** by pharma to access pipeline and technology

In addition, PAB's technology has already identified four new cancer-specific targets which should provide further commercial opportunities. In our view, PAB's rich pipeline provides multiple deal opportunities for the company which significantly reduces risk from an investment perspective.

A Brief History of Monoclonal Antibodies

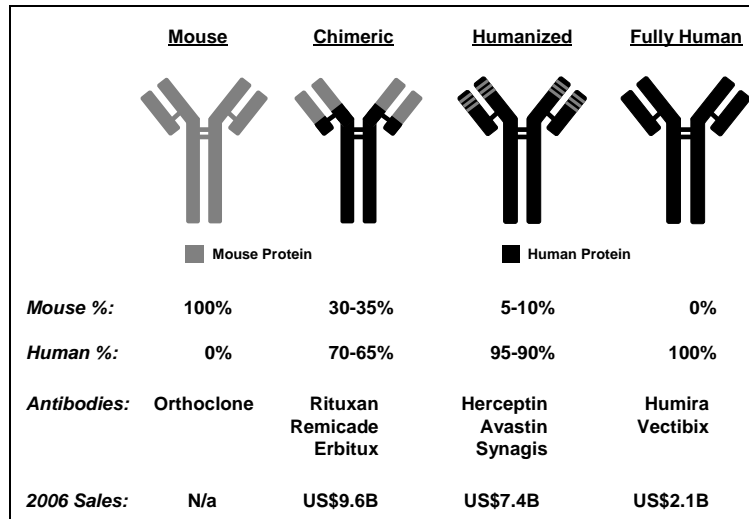
Technology started with mouse antibodies in the '70s

Since the generation of the first monoclonal antibody-producing mouse cell lines in the mid-'70s, antibody technology has evolved dramatically. As it has been difficult to generate stable, human, antibody-producing cell lines, the focus has been on engineering mouse antibodies to look more like human antibodies for therapeutic uses. This work has focused primarily on replacing only the protein sequence of antibodies which has resulted in antibodies that are:

- **Produced in non-human cells** – chemical modification is non-human
- **Raised against known targets** or targets identified by the mouse immune system

However, these approaches have generated several successful antibody therapeutics with blockbuster sales status:

Figure 2: Categories of Therapeutic Antibodies



SOURCE: Datamonitor

MOUSE MONOCLONAL ANTIBODIES ('70s)

Focus for last 30yrs has been making antibodies more human

Mouse monoclonal Abs promised great things in terms of offering highly targeted therapeutic agents. However, mouse antibodies are foreign to the human body and thus cause the human immune system to be activated against them in what is called the Human Anti-Mouse Antibody (or HAMAs) response. Approaches to overcome the HAMA response have involved engineering antibodies from mice to become more human in structure.

CHIMERIC ANTIBODIES (late '80s / early '90s)

The first approach was to generate chimeric antibodies in which a major portion of the mouse antibody was replaced with the corresponding portion of a human antibody protein. The end result of this process was an antibody whose protein is 30-35% derived from mouse genes and 60-65% from human genes.

HUMANIZED ANTIBODIES ('90s)

The next step in antibody technology was replacing additional regions of the mouse antibody with human sequences. These antibodies are called "humanized" and their protein backbone is 90%-95% from human genes with only 5%-10% from the original mouse antibody.

FULLY HUMAN ANTIBODIES (late '90s / early '00s)

The final step has been to generate antibodies that are generated entirely from human antibody genes. Two key technologies have been involved in this:

- **Phage Display:** - screening libraries containing fragments of human antibody genes
- **Genetically Engineered Mouse Strains:** - containing human antibody genes

While these are described as "fully human", this description only relates to the protein component of the antibody. Usually these antibodies are produced in rodent cells lines and thus the additional chemical modifications to the antibody are not the same as those produced in human cells.

Natural Human Antibodies – The Next Generation

PAB has developed technology for the next generation of therapeutic antibodies, namely 'natural human antibodies'. These antibodies are the very same ones that the body naturally generates to protect itself from cells that can become cancerous and from infection by bacteria and other microorganisms. One of the systems in the human body which provides this protection is called 'natural immunity' or 'innate immunity' and differs from 'acquired immunity' in that it does not require exposure to the foreign body in order to be activated.

PAB can grow human antibody producing cells in culture

The breakthrough that PAB has achieved is the development of what are called "fusion cell lines" that can be used to immortalise the human B-cells that produce antibodies. Once these human B-cells are immortalised, in the form of what is called a hybridoma, they can be grown in large quantities outside of the body where they continue to produce antibodies.

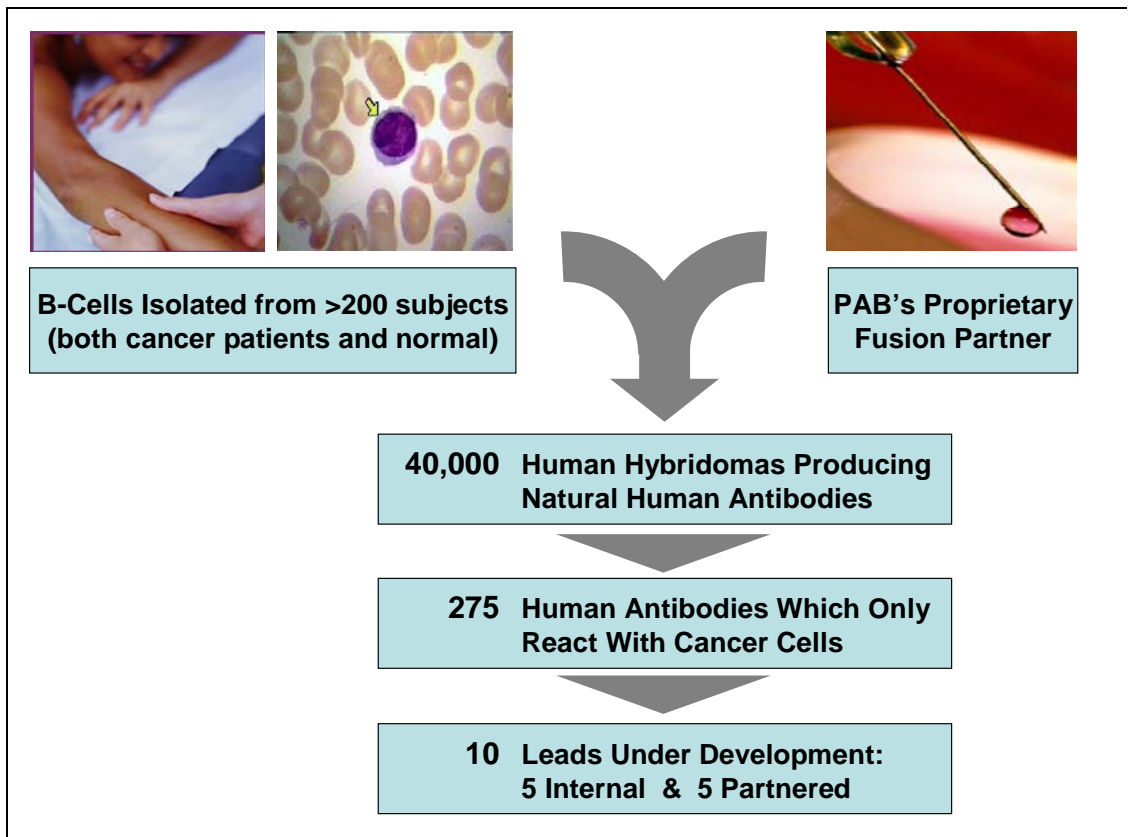
Company has 40,000 antibody-producing cell lines

PAB has used its proprietary fusion cell lines to immortalise the antibody-producing B-cells from over hundreds of different subjects, many who had some kind of cancer but also from normal, healthy individuals. From this work, which took over 10yrs to complete, the company has screened over 40,000 human hybridoma cell lines that are able to be grown in culture and produce natural human antibodies.

275 of PAB's antibodies only bind to cancer cells

The company has screened the antibodies generated from each of its 40,000 cell lines to identify those antibodies which bind to cancer cells but do not react with normal, healthy human cells. From this, the company has identified 275 antibodies in its collection that, in initial screening, only bind to cancer cells and completely ignore normal, healthy cells.

Figure 3: Development of PAB's Antibody Pipeline



SOURCE: Company presentation

Of the 275 cancer-specific antibodies produced from immortalised human B-cells, 10 have been progressed into further drug development programs (discussed later). It is important to appreciate that the development on these 10 commenced while the collection was still being developed. Thus, these 10 leads are not necessarily the best in the collection and further screening of the 275 is likely to continue to identify other very attractive lead candidates.

10 of these are in active lead development programs

A Revolutionary Approach To Antibody Therapeutics

PAB's antibodies belong to different class than others in development

What has been one of the most remarkable findings is that from this screening, the majority of antibodies that have been identified belong to a particular class called IgMs. Analysis of the library has shown that all classes of antibody are present (IgA, IgD, IgG, IgM etc) but the one that show specific reactivity to cancer tissue have all turned out to be IgMs. IgMs are the first class of antibody produced by a developing B-cell and are a key component of natural immunity. By contrast, the majority of antibody therapeutics on the market belong to the IgG class. IgGs are produced in large quantities and secreted into the blood as part of the secondary immune response which occurs when the body is exposed to a foreign, or non-self, structure.

Table 6: Properties of IgMs v IgGs

Property	IgM	IgG
Structure	pentameric	monomeric
Antigen-binding sites	10	2
Biological Role	natural immunity	acquired immunity
Immune Response	primary (immediate)	secondary (slower)
Mode of cell killing	CDCC (complement-dependent) apoptosis (cell independent)	ADCC (antibody-dependent) phagocytosis (cell dependent)
Binding Affinity	Low	High
Reactivity	Conserved structures	Specific structures
Genetic origin	Existing genes	Recombination & mutation

SOURCE: Molecular Biology of the Cell

The reason that IgGs currently dominate the therapeutic antibody landscape is a combination of scientific history and scientific prejudice.

Focus on IgGs result of historical approach

Historically, the approach for generating antibodies has been to inject mice with antigens and then isolate the antibodies the mice have raised against the antigen. This approach uses the acquired immune response that results in the generation of large quantities of IgGs. As a consequence, the research and pharmaceutical industry has focussed on this class of antibodies.

Scientific prejudice against IgMs has come from the belief that they were 'non-specific' and also too large to pass through the blood-epithelial barrier and penetrate into tumour tissues. The results from work done by PAB and other groups have shown that these concerns are unfounded and that IgMs have extremely good therapeutic potential.

Clinical Data With IgMs Is Spectacular

While there have only been a few clinical trials using IgMs, the results from these trials have been truly spectacular.

Clinical trials have shown that IgMs are very effective

The results from another group (not PAB) of a Phase-I clinical trial in which 9 late-stage melanoma patients who had failed to respond to all other therapies and were treated with an IgM called L612 was published in 2004. All of these patients had a life expectancy of less than 6-months and were given between 1-3 doses of L612. Two of the patients had a complete recovery and were still alive 5½yrs later with no evidence of the cancer. Four other patients showed various levels of response. Given the late stage of these patients, these results are quite remarkable and indicate that this antibody would be extremely effective in patients who were not as advanced in their disease.

One of PAB's antibodies called PAT-SC1 has been used in an investigator-led clinical trial to treat patients with gastric cancer. These patients were given a single dose of 20mg of SC1 prior to surgical removal of the primary tumour. Patients who were treated with SC1 had an 80% higher chance of still being alive 3yrs later than those who were not treated.

Furthermore, analysis of biopsies or the surgically removed primary tumour taken from treated patients showed that within 48hrs, SC1 was killing the tumour cells directly by triggering a process called apoptosis or programmed cell suicide.

While these results are from only two trials, the results are impressive for three reasons:

- **Good efficacy**:- the IgM antibodies had a significant impact on the cancers
- **Good safety**:- there did not appear to be any significant side effects
- **Minimal dosing**: - in both trials, relatively low total doses of antibody were given

Good therapeutic outcomes with small amounts of antibody

The fact that these results were obtained from only giving 1-3 doses of antibody is quite remarkable. In the L612 trial, the average total dose given was 1.5g while in the SC1 trial it was only 20mg (ie: 0.02g). By comparison, treatment with IgGs usually involves administration every 3-6 weeks. On average, during the course of a year, as much as 15g or more of IgG antibody often needs to be administered. The ability to get a positive therapeutic outcome from a lower amount of antibody is commercially significant for two reasons:

- **Manufacturing**:- produce more treatments from equivalent yields
- **Cost Effectiveness**:- can price treatments competitively improving reimbursement

We believe that these results overcome any concerns on the therapeutic potential of IgMs. Furthermore, they support PAB's approach of using natural immunity, which is designed to detect and eliminate cancer cells whenever they form in the body, to provide effective antibodies for treating cancer.

Pipeline With 10 Products In Active Development

From its collection of 275 natural human cancer-specific antibodies, PAB has progressed 10 antibodies into active lead development programs. The company is currently advancing 2 of these to the clinic, advancing 3 other leads internally, and the remaining 5 leads have been partnered under various arrangements.

10 leads in development internally and with partners

In addition to these active lead development programs, the company has an ongoing program to identify additional leads from the remaining 265 cancer-specific antibodies for either internal development or partnering.

Figure 4: PAB's Pipeline of Anti-Cancer Antibodies

Antibody	Indication	Discovery	Lead Selection	Animal Testing	Preclinical & Scale Up	Phase I/IIa Trials	Partner
LM1	Lung				In Progress		
SM6	Pancreas				In Progress		
CM1	Colon				In Progress		
SC1	Gastric						Astra Zeneca
PA1	Pancreas						Debiopharm
NM2	Lung						Takeda
4 Leads	N/a			In Progress			Takeda
265 HuMabs	N/a		In Progress				

SOURCE: Company documents

LEADS UNDER INTERNAL DEVELOPMENT

PAB is currently developing 5 of its lead anticancer antibodies internally with the aim of bringing 2 of those to the clinic. Several of these antibodies have completed initial preclinical testing including demonstrating anticancer activity in mouse xenograft models. PAT-SM6, PAT-LM1 and PAT-CM1 are PAB's most advanced internal leads.

Internal program is developing 3 leads

Through its association with the laboratory of Dr Peter Vollmer's, the inventor of the company's key technologies, PAB has access to one of the largest known tissue collections in Europe which contains over 1.2 million samples of normal and tumour tissue from humans. This allows the company to rapidly profile its lead antibodies against panels of different tumour types, tumours from different patients and tumours at various stages of development. These data help establish the utility of these antibodies in a clinical setting.

SM6 has shown good preclinical data and uses a new target

PAT-SM6

PAB's SM6 antibody was isolated from a patient with stomach cancer and is initially being developed to treat pancreatic and gastric cancer. The antibody reacted with 90% of 211 different tumours screened indicating that its target is expressed on the majority of these cancers and thus could be used to treat most patients with this disease. By comparison, the antibody Herceptin, which is on market for the treatment of breast cancer, only reacts with around 30% of only breast cancer tumours. As a result, breast cancer patients need to be screened to check if Herceptin will work for them. Despite this, Herceptin still generated US\$3.1B in sales in 2006.

In addition to reacting with 90% of tumours, SM6 reacts with all stages of tumour including metastases. Metastases are cancer cells that are shed from the primary tumour and which spread to establish new tumours throughout the body. More often than not, it is the metastases rather than the primary tumour that eventually kills patients with cancer. In laboratory experiments, SM6 inhibited tumour proliferation by directly inducing apoptosis.

PAB has identified the target for SM6 which is a cancer-specific form of a protein called GRP78. This protein normally resides inside the cell, but in cancer cells a modified version with a unique pattern of glycosylation is made and expressed on the outside of the cell. This is a novel target for the treatment of cancer that has only been discovered as a result of the anticancer activity of SM6. PAB has filed a patent on this new anticancer target.

In addition to binding to GRP78, SM6 appears to induce the accumulation of neutral lipids in tumour cells which causes apoptosis (cell suicide) of the tumour cells. Thus SM6 almost behaves like a naturally-occurring conjugated antibody in that it delivers a toxic load of oxidized LDL specifically to cancer cells which results in their death. How cool is that?

Following GMP manufacturing, the human clinical evaluation of SM6 is expected to commence at the end of 2008 with results from the Phase I/II clinical trial in 2H CY09.

PAT-LM1

LM1 reacts with 98% of tumours

LM1 was isolated from a patient with lung cancer and is initially being developed to treat lung and colon cancer. LM1 reacted with 98% of 201 different tumours screened indicating that the antibody could be used for many types of cancer. Like SM6, LM1 reacts with all stages of tumour, including metastases, and did not react with any normal healthy tissues. In laboratory experiments, LM1 inhibited tumour proliferation by inducing apoptosis.

Work on identifying the target for LM1 is still in progress. However the results to date indicate that the target is a tumour-specific glycoprotein and is different from the targets identified by PAB's other lead antibodies. We believe there is a high likelihood that, like SM6, LM1 will identify a new target which will provide the company with new intellectual property.

PAT-CM1

CM1 is close follow-on lead for colon cancer

CM1 was isolated from a patient with colon cancer and reacted with 114/135 (84%) different tumours at all stages or progression. In cell culture experiments, CM1 has induced apoptosis in colon and pancreatic tumour cells with further tumour types yet to be tested. CM1 is not as advanced as SM6 and LM1 and further characterisation of its activity is underway. However, the company will progress CM1 close behind the other two leads.

The Next Steps

For SM6, LM1 and CM1, the next step is to develop scaled-up GMP manufacturing to provide suitable material for clinical development. The company is developing manufacturing processes for all three antibodies and is in the process of appointing a contract manufacturer for scale-up production of SM6 and LM1 which we believe will be completed within the next 12-months.

Scale-up production within 12 months

While the scale-up of production processes for IgMs is not as established as for IgGs, we do not see this as a major impediment. Optimisation usually involves adjusting certain key parameters (aeration, media, culture volumes etc) but ultimately is able to establish a viable production process. Non-optimised, medium scale production runs for these antibodies have already generated acceptable yields. Increasing these yields by further optimisation combined with the possibility that lower amounts of IgMs may be required in a clinical setting makes it unlikely that problems with scale-up production will limit the commercial viability of these products.

Clinical trials starting in second half of 2008

Once the GMP material is available, the company will commence clinical testing of SM6 and LM1 at the end of 2008. The first clinical trials that PAB will undertake will be Phase I/IIa trials that will involve up to 40 cancer patients. As is typical for anti-cancer drugs, these will involve patients with different types of cancers to identify those that are most responsive to the treatment. Although the primary endpoint for these trials will be safety, with 40 patients involved, it is likely that the trial results will provide some indication of efficacy.

Preliminary data from these trials should be available in mid-2009 with final results available at the end of CY09.

LEADS UNDER DEVELOPMENT WITH PARTNERS

Astra Zeneca – PAT-SC1

SC1 has shown good results in non-IND clinical trial

OncoMab, one of the companies of PAB, transferred the rights to the PAT-SC1 antibody to the European company Debiopharm. Debiopharm's business model is to in-license technologies, undertake additional development and then on-license them to another party. Debiopharm on-licensed SC1 to AstraZeneca (AZ) and its wholly owned subsidiary Cambridge Antibody Technologies (CAT). CAT is one of the world's leading antibody companies with phage-display technology. Given CAT's expertise in the area of antibody technology, this in itself was a major endorsement of PAB's technology. In 2006, CAT was acquired by AZ which has elected to continue with the development of SC1.

Under the terms of the license, PAB will receive 20% of any payments that are made to Debiopharm from AZ/CAT. The company is currently not privy to the precise terms of the license between Debiopharm and AZ/CAT however we would expect that the terms would include various development-based milestone payments plus a royalty on end sales which we would expect to be in line with market standards of 10%-20%.

SC1 was isolated from a patient with stomach cancer and is the most advanced of PAB's antibodies in terms of clinical development. An investigator-led (non-IND) clinical trial was undertaken in Germany in which patients were given a single 20mg dose of SC1 prior to having a complete gastrectomy. In this trial, patients who received SC1 had an 80% higher chance of still being alive 3yrs after the operation than those who did not receive the antibody. With these results, we believe that most people would have preferred to have received the antibody.

SC1 reacts with a novel target which is a tumour-specific glycosylated version of CD55. In addition, analysis of the tumour tissue isolated from patients in the trial demonstrated that SC1 induced tumour cells to undergo apoptosis (cell suicide) and that 48hrs after administration, there were clear signs of tumour regression. Thus, SC1 acted very quickly and directly in killing the tumour cells in the body.

Debiopharm – PAT-PA1

Debiopharm likely to on-license PA-1

Debiopharm also acquired the rights to a second antibody called PAT-PA1 from OncoMab. At this stage, Debiopharm has not on-licensed this antibody but we believe the terms are the same as for SC1 with PAB receiving 20% of any commercial income that Debiopharm receives from the on-licensing of this product.

PA1 was isolated from a patient with stomach cancer. The antibody reacts with a tumour specific isoform of a protein called CFR-1 on which the company filed a patent in 2001. This protein is expressed on all epithelial cancers of every type and origin, including in the earliest stages, but is not found on any normal healthy cells. PA1 also directly induces apoptosis in tumour cells however the precise mechanism for this is yet to be established.

Takeda

Takeda has 12-month option to license up to 5 of PABs antibodies

PAB has a collaboration agreement with Takeda, Japan's largest pharmaceutical company which had sales revenue of US\$11.4B in 2006 of which 50% came from the US. Under this agreement, Takeda has a 12-month period to experimentally evaluate up to 5 of PAB's antibodies. During the evaluation period and for a short time after its expiry, Takeda has a first right to negotiate a commercial license for any or all of the antibodies it nominated to evaluate.

It is important to note that Takeda only has a right to negotiate. If Takeda and PAB are unable to agree on commercial terms for the license, or Takeda decides not to license, all

rights to the intellectual property generated by PAB on the antibodies remain with PAB. Any IP that Takeda may have generated during its evaluation period is licensed to PAB and a very low royalty leaving PAB with the ability to continue development of the antibody.

Takeda has already nominated 3 antibodies for evaluation and has until 23 September 2007 to nominate a further 2 antibodies. In addition to this collaboration, Takeda has made a US\$1.5m equity investment in PAB at the IPO price of \$0.40 and thus holds a 2.9% equity stake in PAB.

We view this as a very positive collaboration for PAB as it results in further work being undertaken on up to 5 of the company's antibodies at no cost to PAB and the opportunity to secure one or more licenses in the next 12-15 months. Furthermore, Takeda is a major player in the pharmaceutical industry and has been active in building up its antibody pipeline including significantly expanding its agreement with Xoma for antibody discovery and development in February 2007.

New Targets Provide Significant Upside

As PAB's leads have shown, one of the most significant benefits of PAB's unique approach of isolating antibodies that the body has naturally raised against cancer cells is that it leads to the identification of new, cancer-specific targets. The new intellectual property generated from these targets has a number of significant commercial benefits:

- **Strong competitive position:** advantage for development of PAB's therapeutics
- **Unencumbered:** PAB does not need to obtain licenses to use the targets
- **Additional commercial opportunities:** for diagnostic and imaging agents

Strong Competitive Position

The combination of owning a therapeutic antibody and the target with which it reacts will give PAB's products a significant advantage in the market. As a result, the company will have the option to preserve its commercial position through the exclusive use of the targets it identifies or to provide licenses to other companies for specific uses. In addition, this package of IP will be very attractive to potential licensee's of PAB's antibodies and give the company a strong position at the negotiating table.

The other benefit that this provides is that PAB's therapeutic antibodies will have a different mechanism of action to other products which are being developed. This will open up new therapeutic opportunities for the company to establish products in the market for conditions that are not adequately treated by other drugs. For example, PAB's antibodies to act on both primary tumours and metastases and also the target for SM6 is highly expressed on drug resistant cancer cells offering the potential to use the antibody to treat resistant tumours.

Unencumbered Target IP

Many of the therapeutic antibodies currently on the market are against targets whose role in cancer has been deduced from scientific research. As a consequence of this rational approach, these targets are generally subject to a large number of filed or granted patents.

The commercial use of such targets often requires obtaining one or more licenses from the owners of the existing patents. If granted, these licenses usually will include commercial obligations in terms of milestone and royalty payments. As PAB's targets are new, the company avoids the risk that such licenses may not be granted and PAB will have no commercial obligations to other parties for their use.

Additional Commercial Opportunities From Targets

Finally, cancer-specific targets have a number of uses beyond the development of new therapeutics. These targets can be incorporated into new diagnostic tests for cancer and also used for imaging tumours within the body.

The fact that some of PAB's targets are found on both primary tumours and metastases will make them especially attractive for the development of new imaging agents. PAB does not have any plans in the near term to develop diagnostics or imaging agents based on its targets and thus this provides additional opportunities in terms of licensing.

PAB' approach identifies new therapeutic targets

Robust IP position and attractive to licensees

New targets provide freedom to operate

Targets can be used for diagnostics and imaging agents

Company Structure

PAB formed by merger of two overseas companies

PAB was formed from the merger of technology, pipelines and personnel from two companies who had both developed technologies for generating human hybridomas: OncoMab GmbH in Germany and Acceptys Inc in the US. PAB listed on the ASX on Friday 13 July 2007 in an Initial Public Offering that raised A\$25m at \$0.40. PAB is headquartered in Melbourne, Australia but has research facilities based in Wurzburg Germany and drug development resources based in the US to handle the clinical and regulatory development of its products.

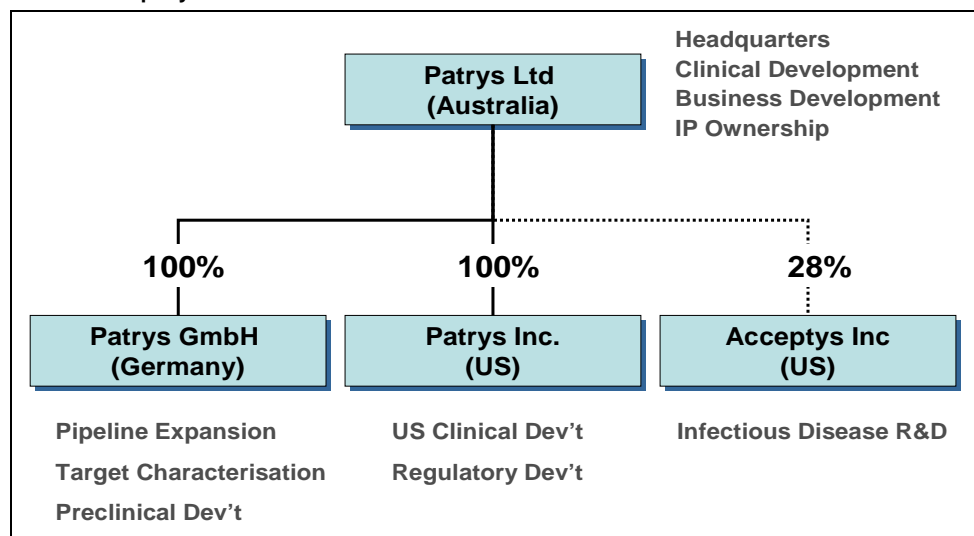
One of the questions that many investors have asked is, given its origins, why the company listed on the ASX. We believe that there is no single factor that prompted this decision but rather it was a combination of several considerations:

Listed on ASX with HQ in Melbourne

- **Direct access to leading high quality institutes for cancer clinical trials**
- **Geographically-neutral territory with respect to the founding companies**
- **Public market that supports earlier-stage biotechnology investments**

In combination, these factors made Australia an attractive choice for PAB to establish a base.

Figure 5: PAB Company Structure



SOURCE: Company Presentation

EQUITY STAKE IN ACCEPTYS INC.

PAB will hold 28% of Acceptys Inc after \$2.8m investment

While all the IP rights from Acceptys Inc. have been transferred to PAB, Acceptys has a license from PAB to use the human hybridoma technology to develop antibodies for the treatment of infectious diseases from which PAB may earn royalties and milestones. In addition, PAB will make an investment totalling A\$2.9m (4 payments of A\$725K) during 2008. On completion of this investment, PAB will have a 28% equity stake in Acceptys Inc. The work on identifying natural human antibodies for infectious diseases being conducted by Acceptys is at a much earlier stage than PAB's cancer programs and much of the current work being undertaken by Acceptys is funded by government agencies.

SHARE CAPITAL

Total of 152.9m shares on issue with strong institutional holding

Following the issue of 62.5m shares in the IPO and the second US\$750K (in addition to a pre-IPO investment of (US\$750K) investment by Takeda, the company has a total of 152.9m ordinary shares on issue. All of the pre-IPO shares (ie: 90.4m shares) are under escrow with 63.3m escrowed until July 2009. In addition, there are 9.2m \$0.45 options and 15.3m \$0.80 options on issue. These are also under escrow (50% for 6mths, 50% for 12 months) and expire in July 2012.

STRONG REGISTER

The largest shareholder of PAB is PNK Holdings with a 17.2% equity stake. PNK Holdings is a subsidiary of F. J. Stork Holdings headed by Michael Stork, a Canadian based Angel investor with an impressive track record in start-ups. The other significant shareholders in PAB are the founders OncoMab GmbH and Dan Devine. PAB's IPO was strongly supported by institutional investors which should provide good ongoing support for the stock.

Sufficient Cash To Achieve Clinical Validation

Cash raised can support two leads to end of Phase I/IIa clinical trials

With the A\$25m raised in the IPO, the second US\$750K equity investment by Takeda and existing cash, PAB is estimated to have cash reserves of approximately \$27m (after costs of the capital raising). Even assuming that the company does not access any additional cash (either through further raisings, government grants or from licensing), this should be sufficient for the company to complete scale-up production and Phase I/IIa clinical trials for its SM6 and LM1 antibodies.

COSTS OF DEVELOPMENT

Completion of scale-up and clinical trials will significantly increase value

The completion of scale-up production and initial clinical trials will significantly reduce the technical risk in PAB and provide validation of its technology platform. Thus, this funding will take the company to through a number of key, value-creating technical milestones. In addition, this cash will allow the company to continue progressing some of its back-up leads and further developing the IP around its novel targets.

In its prospectus, PAB had an expenditure estimate of \$12.8m to get two of its lead candidates through to the end of Phase I/IIa clinical testing. We estimate that scale-up production costs for each antibody will be in the order of \$2.0m-\$2.5m. The Phase I/IIa clinical trials, which will involve around 40 patients each, are likely to cost around \$1.5m-\$2.0m. Taking into account other preclinical studies such as animal toxicity, we believe PAB will have sufficient cash to reach the end of two Phase I/IIa trials.

CASH COMMITMENTS

Acceptys Investment

Near term cash payments for technology limited

PAB has committed to invest an additional US\$2.3m (A\$2.8m) into Acceptys Inc in return for taking its equity stake up to 28%. This additional investment will be made in 4 quarterly payments of US\$575K (A\$700K) commencing on Feb 2008.

Payment for Vollmers Intellectual Property

Royalty obligation to inventors at 3-5%

Under the Vollmer's Acquisition Agreement, PAB will need to pay \$150K in January 2008 and 4 additional payments of \$100K each on the 18th, 30th, 42nd and 60th month after the IPO date of 13 July 2007. In addition, there are various developmental milestone payments associated with antibodies covered by this agreement however these milestone relate to events that will occur after the initial Phase I/IIa trial and are thus unlikely to be triggered in the next 2½yrs.

Other IP Obligations

As part of the terms for assigning IP to PAB, there are various development milestone payments back to OncoMab, Acceptys and the University of Columbia. These relate to development milestones beyond the Phase I/IIa trial and only one party is entitled to received payment for a particular milestone (ie: there is no double dipping). In addition, there is a potential royalty obligation of approximately 3%-5% back to the various original owners of the IP if PAB change the manufacturing cell line. PAB will not have any commercial obligations on targets or for other technologies such as humanisation of its antibodies.

SUMMARY OF CASH POSITION

In summary, PAB's cash reserves following the IPO are sufficient for it to complete Phase I/IIa clinical testing for two of its own lead antibodies. When this is achieved and assuming it is successful, we expect that the company will trade at a multiple of its current valuation. We also expect that, during this time, the company will be able to secure additional funding either from government grants or from licenses.

Management & Board provides necessary skill set

Management & Board

PAB is headed up by Dan Devine (CEO) who founded Acceptys in 2002 and then orchestrated the merger with OncoMab GmbH to form PAB in 2006. Mr Devine has a legal background as well as an MBA from Columbia University (USA). He has extensive experience in the pharmaceutical industry having worked in business development for Pfizer and in licensing and manufacturing at Walter Lambert. With PAB now listed on the ASX, Mr Devine is relocating from the US to Melbourne in the next couple of months.

PAB has a very experienced management team including: Vic Ilag (COO) who previously worked for Morphosys (a leading German antibody company), Paul Andrews (R&D) ex-Imclone with extensive experience taking antibody therapeutics through the FDA, Frank Hensel (Development) co-founder of OncoMab, and Peter Vollmers who established the human hybridoma technology and has characterised and developed many of PAB's anti-cancer antibodies. This team covers the technical, regulatory and commercial expertise required to develop PAB's antibodies and targets.

The Board is led by John Read (Non-Executive Chairman) who has an extensive career in venture capital, private equity and commercialisation. In addition to Dan Devine, there are two Non-Executive Directors: Michael Stork, the angel-investor who funded the early development of PAB, and Alan Robertson who has extensive experience in drug discovery and development and is currently CEO of one of Australia's most successful biotechnology companies, Pharmaxis.

In addition to management, the R&D team which is based in Wurzburg, Germany, will be expanded to focus on preclinical evaluation and development as well as characterisation of PAB's targets.

Summary And Recommendation

We believe that PAB is well positioned to become one of the leading companies in the Australian biotechnology sector. While the product pipeline is currently early, with only one licensed product that has clinical proof of concept, we believe that the underlying technology combined with a deep pipeline and a multitude of commercial opportunities makes this company a very attractive investment opportunity. In addition, this portfolio combined with the nature of its technology and the strong commercial interest of pharma in antibodies significantly reduces the risk profile of PAB compared with other companies at this stage in development.

The two key technical milestones that the company will achieve in the next 12-24mths are:

- **Process development and scale-up manufacturing**
- **Clinical demonstration of safety and efficacy**

The first of these milestones should be achieved during 2H CY08 with the second coming in 12 months later. Both of these milestones can be achieved with the company's current cash reserves. Furthermore, the available data provides some comfort that they will be successful with both of these milestones. Should that be the case, we believe that PAB will be trading at a multiple of its current valuation.

We recommend PAB as a very high quality speculative investment. Given the nature of the technology that PAB is developing, investors should be prepared to hold the stock for at least 12-24 months to realise the full potential of their investment.

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The analyst holds shares in Patrys Limited (PAB).**Analyst Verification**

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