



# Investor Presentation

Dr. Deanne Greenwood, Senior Director, Business Development  
December 2014

ASX: PAB

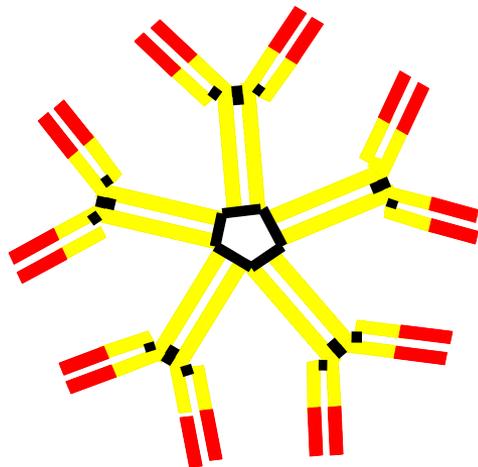
# Safe Harbour Statement

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This presentation contains forward-looking statements that are subject to risks and uncertainties. Such statements involve known and unknown risks that may cause the actual results, performance or achievements of Patrys Limited to be materially different from the statements in this presentation.

Actual results could differ materially depending on factors such as the availability of resources, the results of clinical studies, the timing and effects of regulatory actions, the strength of competition and the effectiveness of the Company's patent protection.

# Patrys in 2014



**IgM**

- Oncology-focussed clinical-stage Company
- Deep pipeline of novel cancer-specific IgM monoclonal antibodies
- PAT-SM6 moving to next clinical trial
- Out-licensing program for clinical product PAT-SC1
- Diagnostic focus for lead product PAT-SM6
- CAR T cell program
- Experienced Board of Directors and Management Team
- Network of Internationally-renowned collaborators
- Headquarters in Melbourne, Australia. R&D centre in Würzburg, Germany

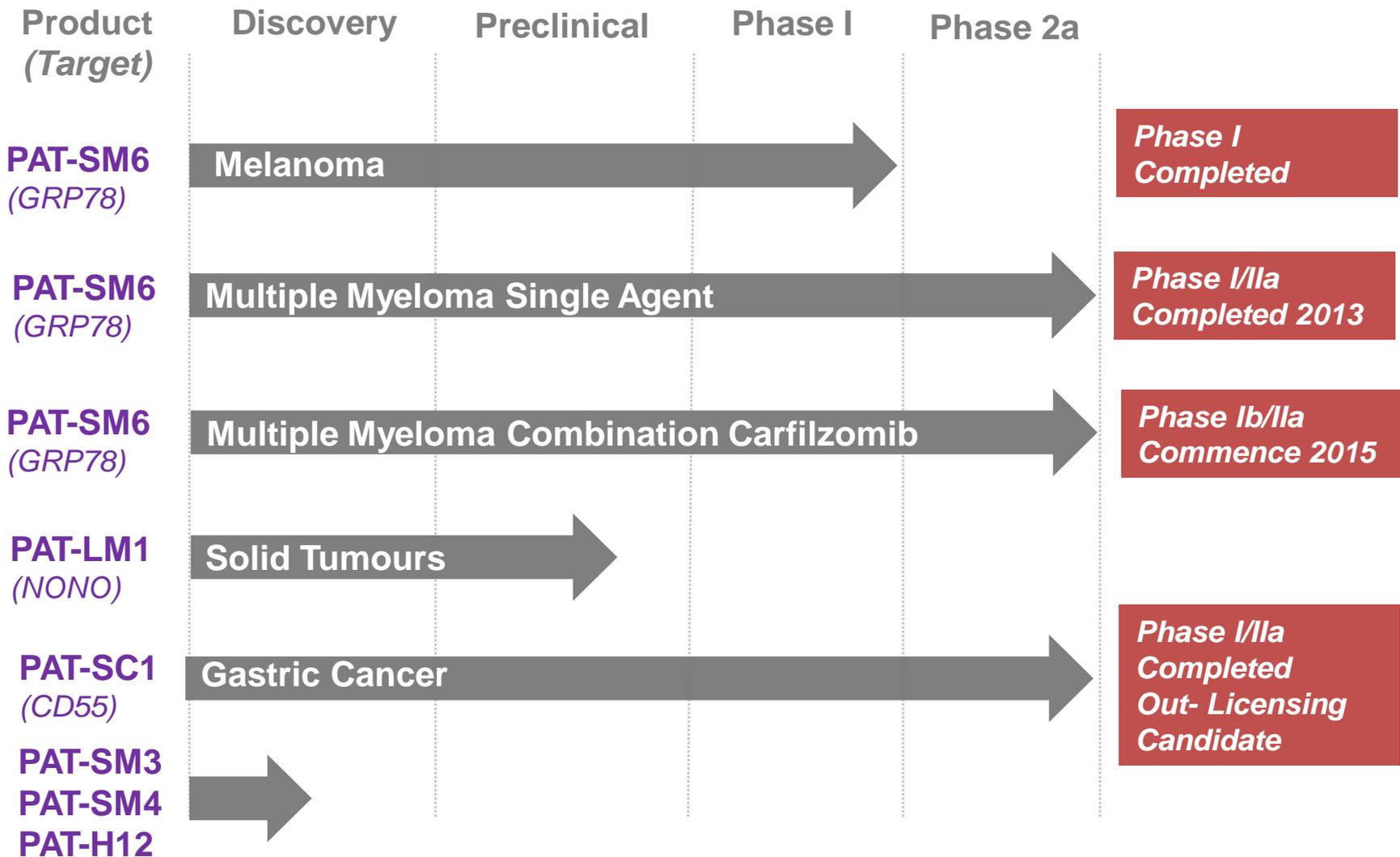
# Experienced & Capable Team

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John Read	Chairman
Mike Stork	Non-Executive Director
Suzy Jones	Non-Executive Director
James Campbell	Non-Executive Director
Roger McPherson	CEO (Interim), CFO & Company Secretary
Frank Hensel	VP Research & Development
Deanne Greenwood	Senior Director Business Development
Valentina Dubljevic	Senior Director Operations
Stephanie Brändlein	Research Group Leader Immunology

- International clinical and business development expertise
- Dedicated R&D team based in Wurzburg, Germany
- Experienced in corporate financings, licensing and M&A transactions
- Extensive big biotech & pharma contacts

# Pipeline



# Patrys' Lead Antibody: PAT-SM6

## PAT-SM6:

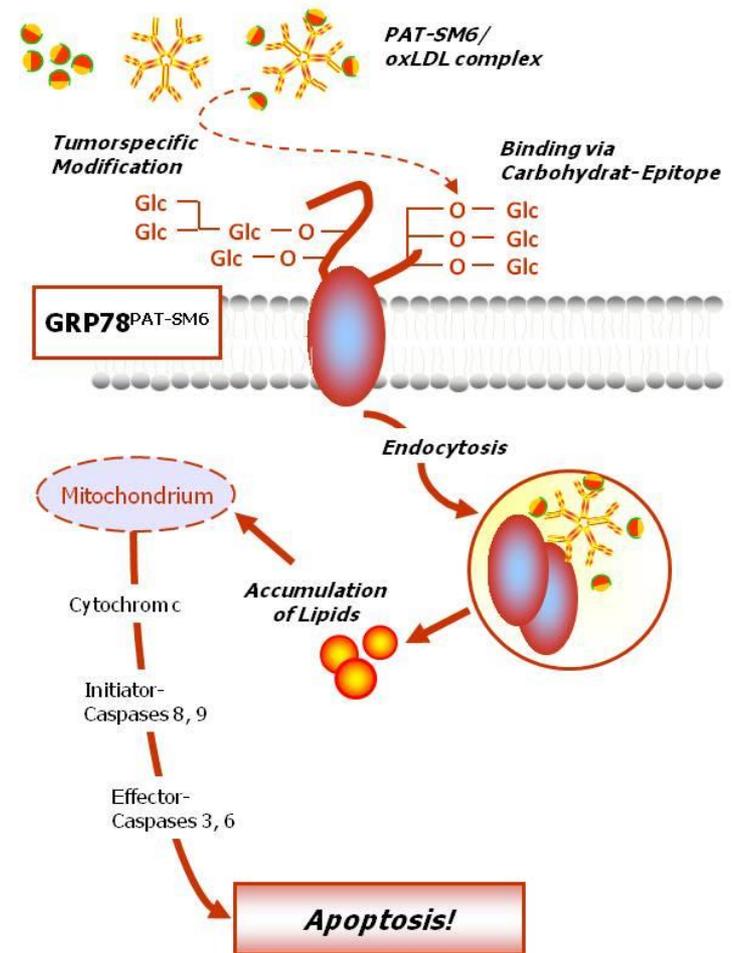
- IgM isotype,  $\lambda$ -light chain
- Isolated from stomach cancer patient
- Targets tumour specific epitope on GRP78
- Binds also to oxidised LDL and VLDL

## Mode of Action:

- Internalisation upon binding of oxidised LDL & GRP78<sup>PAT-SM6</sup>
- Internalisation triggers apoptosis

## *In vivo* & *In vitro* Reactivity:

- Effective in multiple xenograft models
- Expression data show specific expression in wide range of tumours incl. melanoma and myeloma



# Multiple Myeloma – Opportunity

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- Cancer of the plasma cells in bone marrow. Cells grow out of control and form tumours in solid bone, cause damage to other organs
- Estimated to be more than 220,000 cases worldwide and incidence increasing
- 5 year survival of ~30%
- Market expected to increase from ≈\$8B (2013) to >\$15B (2018)
- Market currently dominated by 3 products:
  - Revlimid (net sales \$4.28B 2013)
  - Velcade (net sales \$3.77B 2013)
  - Kyprolis® (carfilzomib) (net sales \$272M 2013)
- Several MAbs currently in clinical development but none approved to date. Likely to be used in combination therapies
- Significant interest in MM from both large pharmaceutical and biotechnology companies

# Therapies for Multiple Myeloma

## Proteasome inhibitors

- Bortezomib (Velcade)
- **Carfilzomib (Kyprolis)**

## Immunomodulators (IMiDs)

- Lanalidomide (Revlimid)
- Pomalyst (Pomalidomide)
- Thalidomide

## Chemotherapeutics

- Melphalan
- Cisplatin
- Cyclophosphamide
- Doxorubicin

## Stem cell transplantation

- Autologous
- Allogeneic

## Clinical studies

- Small molecules
- Antibodies, peptides
- Immunotherapeutics



# PAT-SM6 Highlights

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## Phase I/IIa multi-dose multiple myeloma trial:

- Completed Phase I/IIa clinical trial in multiple myeloma in Dec 2013
- Results showed indications of clinical efficacy with 33% of treated patients showing evidence of stable disease (SD) according to the International Myeloma Working Group (IMWG) criteria.
- The patients had a mean time to next therapy of 51 days
- Well tolerated with no serious adverse events (SAEs) or dose limited toxicities being reported at all dose levels tested.
- No evidence of immunogenicity and PAT-SM6 PK half-life of 7 hrs
- Positive results in “individual treatment” patient in combination with Velcade and Revlimid

## Preclinical:

- PAT-SM6 showed promise in preclinical combination studies and several additional animal models
- ARC Linkage program underway investigating diagnostic utility of PAT-SM6

## Commercial Achievements:

- Granted orphan drug designation in MM by the USA Food and Drug Administration (FDA) and the European Medicines Agency (EMA)

# PAT-SM6 & Carfilzomib Combination Trial

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## Endpoints:

- *Primary:* The safety and tolerability of PAT-SM6, given with carfilzomib and dexamethasone in patients with MM who are refractory and/or intolerant to bortezomib, a currently-marketed proteasome inhibitor
- *Secondary:* Overall response rate, duration of response, time to progression and a series of well-established assays will measure immunological and disease parameters

## Design:

- Single-arm study with a 2-stage design: after treating 9 pts in the 1<sup>st</sup> stage, if > 2 respond (a partial response or better), the trial will continue to the 2nd stage and a total of 24 pts will be treated
- Each pt will be treated with up to 4 cycles of PAT-SM6 (6 mg/kg/dose) + carfilzomib (20-27 mg/m<sup>2</sup>) + dexamethasone (40 mg)
- Each cycle will consist of 3 doses of PAT-SM6, 6 doses of carfilzomib and 4 doses of dexamethasone administered over one month

## Timelines:

- Trial projected to start 2Q 2015 at 2 clinical centres in Germany (Würzburg & Dresden)
- Progressive recruitment of up to 24 pts estimated to take 15-18 months. Data from first 9 patients will be released

# PAT-SC1 (Gastric Cancer)

## PAT-SC1:

- Pentameric IgM isotype,  $\lambda$ -light chain
- Isolated from a stomach cancer patient
- Targets isoform of CD55 (Decay Accelerating Factor) expressed on surface of multiple types of cancer cells

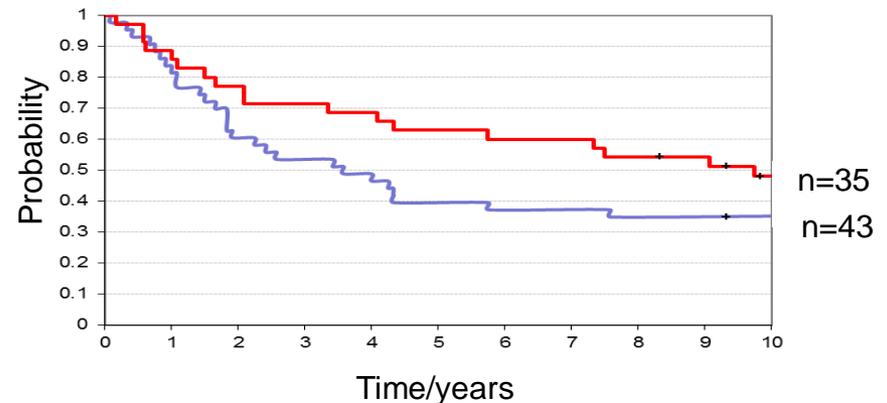
## POC Trial Results:

- Phase I/IIa (POC) open-label trial conducted 1997-2001 (Germany)
- Safe in 51 pts receiving single 20 mg dose PAT-SC1
- Significant 10 year survival benefit

## Intellectual Property:

- Key patent granted in various jurisdictions

## 10-Year Survival Data



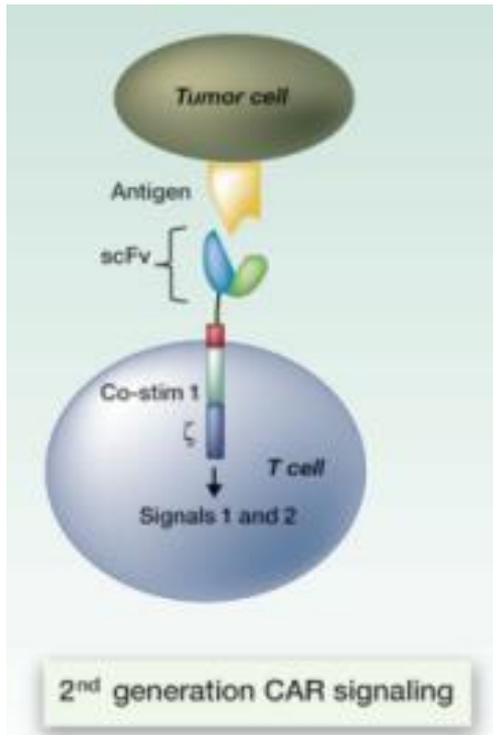
CD55<sup>PAT-SC1</sup> positive, untreated      CD55<sup>PAT-SC1</sup> positive, treated

## Current Stage/Competition:

- Currently in out-licensing process; *in vivo* data generated by potential licensee
- Orphan designation by the FDA for use in gastric cancer
- No other known clinical products targeting CD55

# CAR T Cell Program

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- CAR program collaboration underway with European based development company
- CAR constructs have been developed for 2 products in Patrys' pipeline. Cell surface expression has been confirmed and T-cell activation assays are underway
- Feasibility studies are being conducted and if data are positive the collaboration will be extended into 1H 2015

# 2015 Key Milestones

Key Milestone	Projected Timing (CY)
<p><b>PAT-SM6:</b></p> <ul style="list-style-type: none"> <li>○ Commence combination Phase Ib/IIa MM trial</li> <li>○ Preclinical and clinical data published</li> </ul>	<p>2Q, 2015 1Q, 2015</p>
<p><b>PAT-SC1:</b></p> <ul style="list-style-type: none"> <li>○ Identify partner for out-licensing deal</li> </ul>	<p>1H, 2015</p>
<p><b>Collaborations:</b></p> <ul style="list-style-type: none"> <li>○ <b>CAR T Cell Program:</b> <ul style="list-style-type: none"> <li>○ Preclinical feasibility studies</li> </ul> </li> <li>○ <b>Discovery Abs:</b> <ul style="list-style-type: none"> <li>○ Target work on PAT-SM3, PAT-SM4, PAT-H12</li> </ul> </li> </ul>	<p>1H, 2015  2015</p>
<p><b>Other:</b></p> <ul style="list-style-type: none"> <li>○ Publications</li> <li>○ Further patents granted</li> </ul>	<p>1H, 2015 2015</p>

# For Further Information

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