

# Phylogica 2016 Broker Meets Biotech (PYC:ASX)

Developing new drugs against intracellular cancer targets beyond the reach of existing therapies



#### **Disclaimer**

The purpose of the presentation is to provide an update of the business of Phylogica Limited (ASX:PYC) ['Phylogica']. These slides have been prepared as a presentation aid only and the information they contain may require further explanation and/or clarification. Accordingly, these slides and the information they contain should be read in conjunction with past and future announcements made by Phylogica and should not be relied upon as an independent source of information. Please contact Phylogica and/or refer to the Company's website for further information.

The views expressed in this presentation contain information derived from publicly available sources that have not been independently verified. No representation or warranty is made as to the accuracy, completeness or reliability of the information.

Any forward looking statements in this presentation have been prepared on the basis of a number of assumptions which may prove incorrect and the current intentions, plans, expectations and beliefs about future events are subject to risks, uncertainties and other factors, many of which are outside Phylogica's control. Important factors that could cause actual results to differ materially from assumptions or expectations expressed or implied in this presentation include known and unknown risks. Because actual results could differ materially to assumptions made and Phylogica's current intentions, plans, expectations and beliefs about the future, you are urged to view all forward looking statements contained in this presentation with caution.

This presentation should not be relied on as a recommendation or forecast by Phylogica. Nothing in this presentation should be construed as either an offer to sell or a solicitation of an offer to buy or sell shares in any jurisdiction.



#### Phylogica's exciting transformation:

#### From:

A platform company using its proprietary Phylomer technology for drug discovery



#### To:

An cancer-focussed company using its disruptive technology to develop novel drugs against intracellular targets that are beyond the reach of existing therapies



#### **2015** Highlights

- Completed \$10m capital raise in July, 2015
- Validated Phylomers for 'best-in-class' ability to deliver large drugs (biologics) inside cancer cells and to hit 'undruggable' cancer targets
- Advanced in-house pipeline towards clinic focussed on blood cancers
- Progress with commercialisation:
  - Genentech collaboration Genentech Roche
  - First non-exclusive license of Phylomer libraries to Phoremost

#### **Corporate Snapshot**

Shareholders	%
B. Hockings	28
Sietsma Holdings	9
Swift	5
Top 15	56

Summary		
ASX	PYC	
Cash (Dec/15)	\$9.7m	
Net Burn	\$2.9m	
Market Cap	\$28m	
Shares on issue	~2,000m	

#### **Executive Team**

Dr Richard Hopkins – CEO
Dr Paul Watt - CSO

#### **Board of Directors**



B. McHarrie
Chairman



Dr D. Wilson NED



J. Curnock-Cook NED



Dr B. Hockings NED



S. Unwin NED



Dr R. Hopkins
CEO

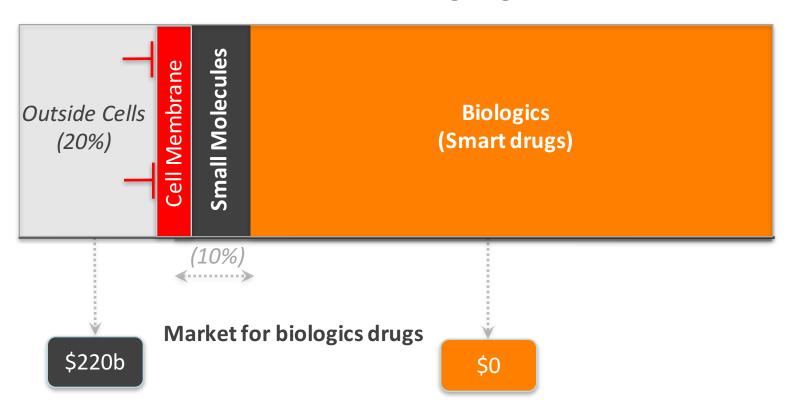


### **Core Technology**



#### Majority of drug targets (80%) are inside cells

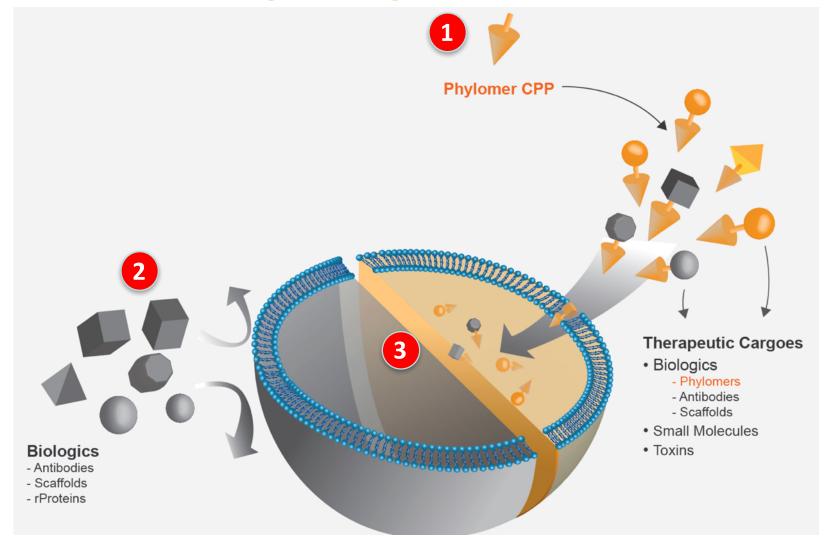
#### **Distribution of drug targets**



PYC addressing unmet need to deliver biologic drugs inside cells!



## Cell Penetrating Phylomer peptides for delivering biologics cargoes inside cells



Potential to expand the druggable intracellular landscape by >10-fold



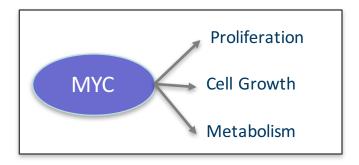


# Using cell penetrating Phylomer drugs to hit MYC – an 'undruggable' intracellular cancer target



#### **MYC:** A classic cancer target

 MYC: Is 'activated' in most human cancers (>50%) –recognised as a key driver of disease for > 40years



Myc is found inside cells. Considered undruggable with normal therapies.

 Treating MYC can eradicate existing tumours including lung, liver, pancreatic, blood and brain cancers

OmoMYC: most potent biologics Myc inhibitor (can't penetrate cells)

#### Phylomer CPP-Omomyc fusions are potent!

Kills different types of cancer cells with unprecedented potencies

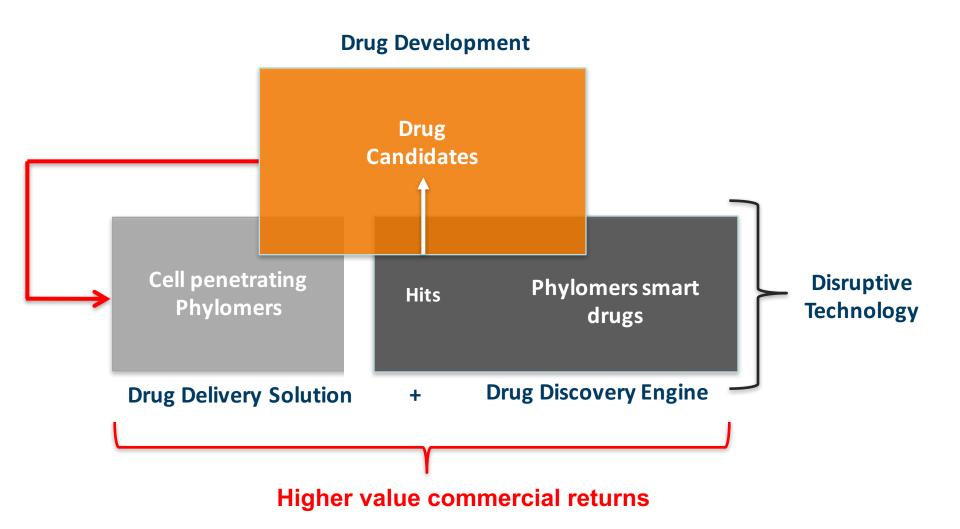
Improves efficacy of other cancer drugs up to 10X.

 CPP-Omomyc fusion significantly reduced tumor size in an animal model of breast cancer.

 Identified Phylomers that are 'Best-in-Class' Inhibitors of MYC (replaces OmoMYC)



#### Drug development focus transforms disruptive platform







## Phylogica's Proprietary Cancer Pipeline



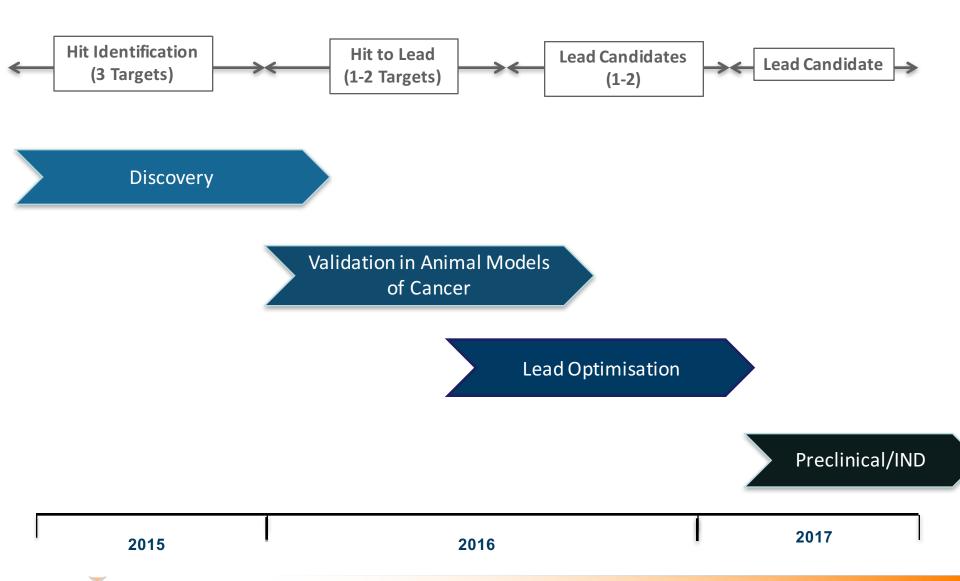
#### Phylogica's Pipeline focussed on blood cancers

- Confirmed ability to address unmet need and establish fast and efficient path to clinical trial
- Blood cancers considered easier to access than solid tumours.

Program	Target Indications	Hit Discovery	Hit to Lead Validation In vitro animals	Preclinical
MYC	Blood cancer Breast		Blood Cancer	
Stat 5	Blood cancer		Blood Cancer	
YB1	Blood cancer Breast		Blood Cancer	



#### Key phases to clinical development







# Preclinical phase offers significant commercial returns



#### Preclinical deals: continuing trend to higher values

- Significant trend towards preclinical licensing as pharma looks to replenish dwindling pipelines (focus on discovery engines)
- > 50% of top value licensing deals in 2013 & 2014 involved preclinical/discovery assets
- Median preclinical upfront deal value was US\$16M
- > 50% of preclinical deals were in cancer



#### **Essential requirements for preclinical deals**

Feature	PYC
Platform addresses unique target landscape and unmet medical need.	<b>✓</b>
Strong IP barriers and Freedom to Operate (FTO)	~
Well supported biological rationale for target	~
Differentiated product/disruptive technology – 'first-in-class' therapies	~
Validation/formulation in appropriate animal models of cancer	ongoing
Clear and compelling commercial target product profile (essential!)	ongoing



#### **Summary**

Disruptive Phylomer technology offering integrated drug delivery and discovery solutions

 Advancing proprietary pipeline of novel 'best-in-class' drugs against challenging intracellular cancer targets (MYC)

 Immediate focus on validating candidate drugs in animal models of blood cancer (lymphoma)

 Drug development focus and strong cash position has company well positioned to realise commercial value for shareholders



### Thankyou!



#### **Contact Details**

**Dr. Richard Hopkins Chief Executive Officer** 

Tel: +61 8 9489 7777
Fax: +61 8 9489 7700
Mobile: +61 405 656 868
richardh@phylogica.com

Dr. Paul Watt Chief Scientific Officer

Tel: +61 8 9489 7777 Fax: +61 8 9489 7700 Mobile: +61 421 550 213

paulw@phylogica.com

