

### BREAKTHROUGH PEPTIDE THERAPEUTICS

# Three Phylogica patents granted in US/Japan

- Allowance in Japan of a patent for rationally designed synthetic Phylomer libraries for therapeutics and diagnostics
- The core patent allowance further secures Phylogica's ownership of the Phylomer peptide class
- The new patent extends the life of Phylogica's core patent estate in Japan to cover next generation Phylomer libraries priority out to 2027
- New patent granted in the US covering Phylomers for chronic inflammatory diseases
- New patent granted in the US covering Phylomers for acute lung inflammation.

**Perth, Australia August 28th 2014:** Phylogica Limited (ASX:PYC) has received notice of the allowance in Japan for a patent application (# JP2008-555282) entitled: "Methods of constructing and screening libraries of peptide structures". This core patent which is also granted in the US (USSN 11/672,419) as well as in Australia (AU 2007218045), covers generic methods of designing synthetic Phylomer peptide libraries based on the identification of parts of natural proteins, which are predicted to form structures independently when isolated from the parent protein from which they are derived. The patent also contains methods for maximising the diversity of such structures represented in such synthetic libraries.

This technology allows Phylogica to rationally choose from the most suitable structures found in nature, providing the ability to customise the properties of the peptides to suit particular screening applications. For example libraries can be designed to capture the most diverse set of different peptide shapes available with the greatest stability in the smallest set of Phylomers possible.

This ability to design Phylomer libraries enriched for desirable properties offers great potential for applications such as phenotypic screening of arrayed library libraries to discover new disease associated drug targets. Synthetic Phylomer libraries are ideal for high throughput screening applications and can be applied to the construction and screening of libraries of Phylomers immobilised on beads, peptide microarrays or biosensor chips as well as in phenotypic screening contexts.

The patent covers the design of Phylomer libraries based on bioinformatic analysis of any available protein databases and is not restricted to particular sources of protein sequence. The new patent allowance reinforces Phylogica's strong IP position in the synthetic biology space, while significantly extending the period of exclusivity over the Phylomer peptide class out to November 2027.

Phylogica has also recently received notice that another two patents have been granted in the US that cover particular Phylomers relevant to inflammatory diseases. The first of these patents is entitled: "CD40-L inhibitory peptides" (US Patent # 8,802,634 ) covers a set of Phylomer peptides against a target relevant for the treatment of inflammatory diseases such as rheumatoid arthritis and inflammatory bowel disease.

The second US patent entitled: "Compositions and uses thereof for the treatment of acute respiratory distress syndrome (ARDS) and clinical disorders associated with therewith" (US Patent Application # 12/665,263 derived from PCT/AU2008/000903), relates to Phylomers that block lung inflammation in an animal model of ARDS.

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## About Phylogica

Phylogica Limited (ASX: PYC) is a biotechnology company based in Perth, Australia with a world-class drug discovery platform harnessing the rich biodiversity of nature to discover novel peptide therapeutics from the most structurally diverse libraries available. The Company listed on the ASX in 2005 as a spin out from the Telethon Institute for Child Health Research (Perth, Australia) and the Fox Chase Cancer Centre (Philadelphia, USA). The Company's drug discovery platform is based on its proprietary Phylomer® libraries containing over 400 billion unique natural peptides, which have been optimised by evolutionary selection to adopt stable drug-like structures. Phylogica offers fully integrated drug discovery services to the pharmaceutical industry utilising its Phylomer® libraries and proprietary screening technologies in exchange for licence fees, milestones and royalties. Within the last four years Phylogica has entered into discovery alliances with several of the largest global Pharmaceutical companies. Partners from alliances within the last 5 years include Roche, MedImmune, Pfizer, Janssen, Cubist Pharmaceuticals and Genentech.

# About Phylomer® Peptides

Phylomer peptides are derived from biodiverse natural sequences, which have been selected by evolution to form stable structures, which can bind tightly, and specifically to disease associated target proteins, both inside and outside cells. Suitable targets for blockade by Phylomers include protein interactions that promote multiple diseases, such as infectious diseases, cancer, autoimmunity and heart disease. Phylomer peptides can have drug-like properties, including specificity, potency and thermal stability, and are capable of being produced by synthetic or recombinant manufacturing processes. Phylomer peptides are also readily formulated for administration by a number of means, including parenteral or intranasal delivery approaches. Current Phylomer libraries comprise more than 400 billion distinct sequences derived from thousands of protein structure families encoded by biodiverse genomes, representing the most structurally diverse peptide libraries available.