

Phylogica Ltd

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Phylomer® libraries: the most structurally diverse libraries available for discovery of high quality peptide leads targeting protein interactions

- Highest functional hit rates for peptides
- Intracellular and extracellular targets
- Compatible with intranasal delivery
- Structural leads for pharmacophore design

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Phylogica Ltd has developed a new class of proprietary therapeutics called Phylomer® peptides. Phylomers are fragments of naturally occurring proteins sourced from the genomes of ancient bacteria [Watt, *PM Nature Biotech* 24: 177–183 (2006)]. The unique Phylomer approach is based on structural motifs found within proteins occurring in ancient bacteria, which have evolved over billions of years, providing a multitude of stable sequences capable of binding to biological molecules. Phylomer peptide libraries are therefore particularly rich in stable secondary and tertiary structures, which bind tightly and specifically to a wide range of disease targets. Many Phylomer sequences have evolved favorable drug-like properties, including high specificity, potency and stability, and with their small size allows for flexible chemical or recombinant means of manufacturing and for intranasal, buccal or inhaled delivery.



Phylogica's proprietary **Phylomer libraries** contain billions of distinct peptide sequences that represent a rich source of biologically active drug leads for a broad range of disease targets. Phylomer libraries possess a key versatility advantage over other classes of antibody alternatives in that they comprise the most comprehensive collection of distinct protein-based structures available. This feature of high structural diversity has resulted in Phylomer libraries successfully yielding high quality functional primary hits (pM-nM affinity) against multiple classes of intracellular and extracellular drug targets, as well as in direct phenotypic screens.

Commercialization opportunities

Phylogica enters into contract discovery alliances with partners who provide them with a target of choice (intracellular or extracellular) on the basis of fee-for-service deals, with associated payments on delivery of agreed milestones. Alternatively Phylogica can conduct direct phenotypic screens of its libraries on behalf of partners. The Phylomer hits resulting from such screens can be used as probes to discover the targets to which the hits bind to effect the desired phenotype.

Phylogica is also open to pre-clinical out-licensing of its internal discovery programs in inflammation (CD40L antagonists), in anti-infectives (Phylomers with activity against clinical *Acinetobacter*, *Klebsiella* and *Pseudomonas* isolates from hospital infections) and in neuroprotective activity (for stroke and acute traumatic brain injury).