

## Leading UK cancer research group validates Phylogica's peptide library advantages

- Collaboration with UK based Cambridge Molecular Therapeutics Programme blocks key pathway involved in cancer and inflammation
- Independent confirmation of the high hit rates for drug discovery made possible by the Phylogica's exclusive Phylomer<sup>®</sup> peptide libraries
- Proves Phylomer<sup>®</sup> libraries are suitable for phenotypic screening

## 4 March 2009

Phylogica Limited (ASX: PYC) today announced the success of its collaboration with the Cambridge Molecular Therapeutics Programme (CMTP) at the prestigious MRC Hutchison Institute affiliated with Cambridge University in the United Kingdom.

The MRC Hutchison Institute is one of the worlds' leading cancer research groups with a prime focus on identifying ways to make new cancer drugs.

In the collaboration, a selection of Phylogica's Phylomer<sup>®</sup> libraries was provided to the Hutchison where they were incorporated into their in-house screening systems to test against a biological pathway involved in cancer. Multiple peptides from a small sample of the Phylomer<sup>®</sup> library blocked this pathway, providing a valuable third party validation of the unique and medically relevant richness of the Phylomer<sup>®</sup> libraries.

Phylogica's Chief Scientist, Dr Paul Watt, said the results of the collaboration were particularly exciting, given the CMTP's world class reputation in the area of drug target discovery and validation. "The Cambridge group has shown our technology is compatible with many more screening platforms, allowing us to work with more companies to help them efficiently discover new drugs," he said. "Our collaboration was designed to test whether the high hit rates from Phylomer<sup>®</sup> peptide libraries were sufficient to use directly in screens on human cancer cells. Now we have evidence that Phenotypic screening is feasible with Phylomer<sup>®</sup> libraries, opening up many new opportunities to efficiently discover new peptide drugs."

CMTP project manager Dr Grahame McKenzie said "We are delighted at how this collaboration with Phylogica has progressed. Working closely with Phylogica's scientists, we have observed high hit-rates from a Phylomer<sup>®</sup> library when we screened directly for the blockade of a key biological pathway involved in inflammation and cancer."

Professor Ashok Venkitaraman, who jointly directs the CMTP, commented "The Phylomer" library has a unique advantage over existing libraries of random peptide sequences, which simply don't have sufficient complexity to allow direct phenotypic screening. Given the encouraging results to date, we are looking forward to extending the collaboration with Phylogica in the future, where we hope to use the technology to discover and validate new cancer targets."

Phylogica's Executive Director Dr Doug Wilson said the project would now progress in two directions. "Firstly the best binding Phylomer<sup>®</sup> peptides will be used as signposts for their targets in the cancer cell which may be unique and open the door to building new chemical

Phylogica Ltd, PO Box 8207, Subiaco East, Western Australia 6008 ACN 098 391 961 drugs. Secondly, the Phylomer<sup>®</sup> peptides will be tested for their potential as anti-cancer drugs in their own right. These options are currently the subject of commercial discussions between Phylogica and the Hutchison to determine the most efficient and lucrative path forward with pharmaceutical partners," he said.

**About Phenotypic Screening:** Phenotypic screening is a powerful way to discover new drugs and new drug targets by screening directly for desired biological effects (such as killing of cancer cells or microorganisms). This approach was how many successful drugs such as penicillin were discovered, but has not been compatible with traditional peptide libraries, due to their low hit rates.

## For further information, please contact:

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**Phylogica Ltd** (ASX: PYC) (www.phylogica.com) is a biotechnology company involved in drug discovery, using its proprietary Phylomer<sup>®</sup> peptide libraries. Phylomer<sup>®</sup> peptides are stable fragments of naturally-occurring proteins which bind tightly and specifically to disease targets. Phylomer<sup>®</sup> peptides have drug-like properties, including specificity, potency, stability and flexible production, allowing for chemical or recombinant means of manufacturing. In addition, these unique peptides are able to block both extracellular and intracellular disease targets. Phylogica's proprietary Phylomer<sup>®</sup> libraries are collections of hundreds of millions of Phylomer<sup>®</sup> peptides that represent a rich source of drug leads for a broad range of disease targets.

## About The Cambridge Molecular Therapeutics Programme (CMPT)

The Cambridge Molecular Therapeutics Programme (<u>http://www.cmtp.cam.ac.uk</u>) is a new Medical Research Council and University of Cambridge initiative that aims to accelerate progress in drug discovery by using a range of novel approaches. The CMTP harnesses a multi-disciplinary approach, involving leading Cambridge research teams in the fields of structural biology, chemistry, physics, and molecular cell biology, in order to develop therapeutic small molecules in the areas of cancer and infectious diseases. The CMTP is based in the Hutchison/MRC Research Centre (<u>http://www.hutchison-mrc.cam.ac.uk</u>), along with the MRC Cancer Cell Unit and programmes of the University of Cambridge Department Of Oncology. The CMTP is jointly directed by Professor Ashok Venkitaraman (MRC Cancer Cell Unit and Cambridge University Department of Oncology) and Professor Tom Blundell (Cambridge University Department of Biochemistry).