



BREAKTHROUGH PEPTIDE THERAPEUTICS

Market Announcements Platform
Australian Securities Exchange

PHYLOGICA & THE UNIVERSITY OF QUEENSLAND RECEIVE \$546K GRANT TO DEVELOP NOVEL CANCER DRUG CANDIDATES

PERTH, AUSTRALIA: 2nd September 2014 – Phylogica Ltd (ASX: PYC, XETRA: PH7), is delighted to announce that in conjunction with its partner, The University of Queensland's Institute for Molecular Bioscience (IMB), it has been awarded a \$546,420 Linkage Grant from the Australian Research Council (ARC) to identify Phylomer peptides inhibiting tumour metastasis. The grant will be administered by University of Queensland with Phylogica as a commercial partner.

Phylogica's CEO, Dr Richard Hopkins, said: "This grant strongly supports Phylogica strategic focus to develop Phylomer-based therapies against high-value cancer targets. The outcomes of this collaboration will enable us to accelerate our oncology programs, which are aimed at delivering potent Phylomer drugs inside cells."

In this project Phylogica and IMB will exploit the unique structural diversity of Phylogica's Phylomer libraries for screening against a critical protein complex involved in cancer metastasis. It is centred on a key intracellular 'master switch' protein known as SOX18, which is involved in the spread of cancer throughout the body (metastasis) via the control of blood and lymphatic vessel outgrowth.

The transcription factor SOX18 is a promising anti-metastatic drug target, acting as a molecular switch that triggers the development of the entire lymphatic vasculature. In solid tumours such as melanoma, SOX18 is re-expressed in lymphatic endothelial cells helping the cancer to spread through the lymphatic system. Encouragingly, genetic disruption of SOX18 function in this context has been shown to protect from tumour metastasis and tumour growth, so blocking its function with Phylomers is expected to reduce the potential for metastasis.

IMB and Phylogica aim to develop a new platform to validate networks of protein interactions using Phylomer peptides as probes to inhibit specific interactions and to identify therapeutically relevant epitopes on target proteins. Using the endothelial specific transcription factor SOX18 as a target, we will apply this concept to this family of proteins, which have so far largely eluded pharmacological intervention.

IMB chief investigator Dr Gambin said: "We are looking forward to working with Phylogica to explore the enormous diversity of Phylomer libraries and dissect the components of a protein machine used by cancer cells to spread. Phylogica's expertise in drug development, particularly intracellular delivery, makes it an ideal partner for this exciting medical research project."

Phylogica's CSO Dr Paul Watt said: "We are delighted to be working with the team at IMB because of their complementary expertise. Dr Yann Gambin is an expert in the application of cutting-edge microfluidics and fluorescence detection technologies, in combination with characterisation of complex protein machines at the nanoscale, and Dr Mathias Francois is a leader in vascular biology research."

"This partnership between UQ and Phylogica will allow us to accelerate the search for safer drugs with fewer side effects, and considerably expand the landscape of therapeutic targets. This world-class team has extensive experience in working with industry to achieve commercial objectives and translate their research into benefits for the community."

"Our existing collaborations with Dr Gambin and Professor Kirill Alexandrov's labs at IMB around this protein-protein interactions screening platform are already yielding exciting results. Their expertise in mapping complex protein networks involved in transcription machinery has recently been validated experimentally, so we expect this new project to be particularly promising as we have now assembled all the key technologies. Moreover, Dr Francois's lab has access to cutting-edge technologies at IMB to validate in-vivo the effects of the Phylomers on blood and vessel growth, which will be a valuable asset in our search for new drug targets."

Fellow IMB chief investigator Dr Francois said: "We have now entered a new technology era that enables us to validate a novel type of molecular target that was previously considered beyond reach of any drug discovery pipeline. It is a really exciting time to pioneer this cutting-edge approach to peptide-based drug development in partnership with Phylogica."

The University of Queensland was awarded the grant in partnership with Phylogica. The project is entitled: "Targeting the undruggable: epitope mapping using Phylomers to modulate the activity of transcription factors".

-ends-

For further information, please contact:

Rudi Michelson
Monsoon Communications
Tel + 61 3 9620 3333
rudim@monsoon.com.au

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. The Company was incorporated in 2001 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 have stable drug-like structures. Phylogica offers fully integrated drug discovery services to the pharmaceutical industry utilising its Phylomer® libraries and proprietary screening technologies. Its Pharma partners have included Genentech (a member of the Roche Group), MedImmune (the worldwide biologics arm of AstraZeneca), Pfizer, Cubist Janssen.

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.

About IMB

Established in 2000 as UQ's first research institute, IMB is a multidisciplinary life sciences research institute committed to improving quality of life by pursuing discoveries in medical genomics, drug discovery and biotechnology.

IMB's 500 researchers, postgraduate students and support staff work in partnership with their academic, industry and clinical colleagues around the world to advance knowledge in the institute's seven impact areas: cancer, pain, childhood diseases, infection and inflammation, diabetes and obesity, agriculture, and clean energy.