

PHYLOGICA

BREAKTHROUGH PEPTIDE THERAPEUTICS



Olivia
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Cancer Research Institute



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ASX | News Release

NHMRC grant awarded to Phylogica's collaborators to support research into targeting key survival pathways of blood cancers

- Grant supports research into improving potency of drugs for blood cancers by simultaneously targeting both the MYC and prosurvival pathways
- Utilises Phylogica's proprietary Myc inhibitors and FPPs (Functional Penetrating Peptides) with potentially synergistic drug cargoes
- Funds of ~\$750,000 were awarded to the investigators for a collaborative study

Perth, Australia, 5th December 2016: A collaboration between Phylogica (ASX: PYC), the Telethon Kids Institute (www.telethonkids.org.au) and the Olivia Newton John Cancer Research Institute (ONJCRI) (<http://www.onjcancercentre.org/research/research/our-people>) has resulted in a grant of ~\$750,000 to support a 4 year project entitled "Dual targeting of Myc and apoptosis pathways for improved blood cancer treatment outcomes". The Investigators on the grant are Dr Doug Fairlie (ONJCRI), Adjunct Professor Paul Watt (TKI/Phylogica), Dr Erinna Lee (La Trobe University) and Dr Gemma Kelly (Walter and Eliza Hall Institute of Medical Research). Chief investigators Fairlie and Watt also hold appointments at La Trobe University and the University of Western Australia, respectively.

Professor Watt said: "We're delighted to have secured this support for our exciting collaboration with ONJCRI around developing novel treatments for blood cancers. ONJCRI is one of the leading research institutes in the country and is integrated with the Austin Hospital in Melbourne, which enables its strong track record of translation of research to the clinic".

Dr Fairlie commented: "Our collaboration with Phylogica has provided us with access to what we've found to be the most potent direct Myc inhibitors and intracellular delivery peptides we've tested. This is important as Myc is a key 'master switch' which drives the growth of many blood cancers. The project this grant is funding will build upon exciting data we have already obtained through this alliance, which shows synergy between Phylogica's compounds which simultaneously target Myc and drugs that inactivate the key pro-survival proteins such as Bcl-2 and Mcl-1 which cancer cells use to cheat death.

About the Project

Cancer cells generally possess genetic defects that enable them to grow and survive in the face of insult that should otherwise kill them. One of the critical genes that controls cell growth is called Myc. The production of Myc is defective in 70% of all cancers making it one of the most important drivers of cancer development. Cellular survival, on the other hand, is regulated by a separate family of genes called the Bcl-2 family. These genes encode proteins that regulate the natural process of cell suicide which is used to eliminate cells when they become damaged or are no longer needed. Levels of Bcl-2 pro-survival proteins are also aberrantly high in many cancers.

Our preliminary studies have shown that combining novel reagents that specifically target Myc *plus* Bcl-2 leads to enhanced lymphoma cell killing. In the proposed research, we will further develop

these reagents and evaluate their ability to preclinically treat blood cancer. We expect our approach will provide new avenues for treating cancer patients that respond poorly to current treatments.

In addition to generating further data on Phylogica's iMycs and FPPs, the grant subsidises Phylogica's costs in provision of reagents such as peptides and proteins for the collaboration.

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For further information, please contact:

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About Phylogica

Phylogica Limited (ASX: PYC) is an oncology-focussed biotech company discovering and developing a new generation of biologics-based therapies against intracellular cancer targets. The company was originally spun out from the Telethon Kids Institute (Perth, Australia) and the Fox Chase Cancer Centre (Philadelphia, USA). Phylogica controls access to the world's most structurally diverse source of peptides - called Phylomers. The company specialises in Phylomer-based solutions to discover and deliver novel biologics drugs against intractable intracellular cancer targets with unprecedented potencies. Phylogica is advancing its proprietary oncology programmes developing first-in-class therapies against transcription factors such as Myc and Stat5. These targets play a critical role in many common cancers such as breast, lung, prostate and pancreatic, but have proven undruggable with conventional small molecule therapies. Within the last six years, the company has entered into discovery collaborations with Roche, Genentech, MedImmune, Pfizer, Janssen and Cubist Pharmaceuticals.

About Olivia Newton John Cancer Research Institute

The Olivia Newton-John Cancer Research Institute (ONJCRI) is Australia's newest medical research institute, established to help find the cure for cancer by translating our research discoveries to clinical application. ONJCRI is an independent not-for-profit medical research institute embedded within the Olivia Newton-John Cancer and Wellness Centre. The strategic co-location of research laboratories and research-training within a clinical environment enables clinicians and researchers to work together to integrate clinical medicine with basic and translational cancer research for the ultimate benefit of cancer patients. All research activities are enhanced and supported by outstanding platform technologies, facilities and technical expertise located within 5500 sqm state-of-the-art laboratories. ONJCRI is the successor to the Melbourne Branch of the Ludwig Institute for Cancer Research, building on the investment and scientific contributions from Ludwig, which has committed \$250 million in cancer research funding to Australia over the last 35 years.

About Telethon Kids Institute (www.telethonkids.org.au)

Established in 1990 by Founding Director Professor Fiona Stanley, the Institute was among the first to adopt a multidisciplinary approach to major health issues: clinical research, laboratory sciences and epidemiologists all under the one roof, to tackle complex diseases and issues in a number of ways. Research at Telethon Kids is grouped around four Research Focus Areas: Aboriginal Health, Brain & Behaviour, Chronic and Severe Diseases of Childhood and Early Environment. Located in Subiaco, Western Australia, Telethon Kids has strong affiliations with Princess Margaret Hospital for Children and all the major Western Australian universities, particularly The University of Western Australia and Curtin University.