

November 13, 2012

ASX ANNOUNCEMENT

High Delivery and Significant Gene-Silencing Demonstrated in Lung Cancer Program

- Positive *in vivo* results from Benitec-CCIA program
- Gene-silencing molecule delivered to tumour cells by intravenous injection
- Efficient uptake demonstrated (100-1000 fold higher than non-tumour controls)
- Significant silencing of target tumour gene demonstrated
- Benitec to exercise option to license relevant beta III tubulin patent from UNSW.

Benitec Biopharma (ASX:BLT) and researchers at the Children's Cancer Institute Australia (CCIA) are pleased to announce significant pre-clinical data from their lung cancer program, which is targeting the silencing of a gene (beta III tubulin) associated with chemotherapy resistance in non-small cell lung cancer (NSCLC). On the basis of these data, Benitec has decided to exercise its option to take an exclusive license from the University of New South Wales of the patent covering targeting of beta III tubulin by RNAi to overcome chemotherapy resistance.

The data confirm that an intravenous injection of the program's silencing molecule, Tribetarna™, is very efficiently taken up by lung tumours and results in significant silencing of the target gene in those tumours. This is likely to result in the reduction of tumour resistance to chemotherapy drugs, which is being confirmed in ongoing experiments. These data are based on six control-treated mice and six Tribetarna™ treated mice with human lung tumours.

Benitec and CCIA believe this is the first time that an intravenous injection of a ddRNAi silencing molecule has been shown to be able to reach a lung tumour and to provide high levels of efficacy within the tumour.

"This positive data is very pleasing for Benitec. Given the concern from some in the RNAi field around delivery of RNAi molecules to the target tissue, these data clearly demonstrate that the therapeutic molecule can be delivered to the tumours at very high levels via a systemic injection. Being able to deliver potent gene silencing molecules specifically to the lung tumours opens the door to accelerate this program towards the clinic," Benitec CEO Dr Peter French said.

The Chief Investigator on the program, Professor Maria Kavallaris from the CCIA, said, "We are very pleased by this result. The theoretical and operational challenges to achieve this degree of silencing in an *in vivo* model of lung cancer were considerable when we started the program. These results have exceeded our most optimistic expectations. This data gives us the confidence to further refine the program and begin planning for clinical testing of Tribetarna™."

An update from this and other Benitec Biopharma programs will be provided at 12 noon on Friday 16th November at Grant Thornton's Melbourne office (Level 2, 215 Spring Street) following Benitec's AGM.



About Non- Small Cell Lung Cancer

Lung cancer is the most common cancer worldwide. Non-small cell lung cancer (NSCLC) accounts for 80% of lung cancers. The outlook for NSCLC patients is extremely bleak, as the cancer rapidly develops resistance to current chemotherapy drugs. High expression of β III-tubulin is associated with poor survival clinically, and drug resistance in a range of tumour types including lung, ovarian, breast, and gastric cancers. Benitec Biopharma and the Children's Cancer Institute Australia at the University of New South Wales are collaborating on a project to use RNAi to silence β III-tubulin in NSCLC with the aim of increasing the tumor's sensitivity to chemotherapeutic drugs. Data demonstrating the effectiveness of this approach *in vitro* and *in vivo* were published in *Cancer Research* in June 2010. Successful *in vitro* studies have demonstrated the potential of this approach in human lung cancer cells in the CCIA laboratory, and this is now showing promise in *in vivo* pre-clinical studies.

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About Benitec Biopharma Limited:

Benitec Biopharma Limited is an ASX-listed biotechnology company (ASX:BLT) based in Sydney, Australia. The company has a pipeline of in-house and partnered therapeutic programs based on its patented gene-silencing technology, ddRNAi, also called expressed RNAi. Benitec Biopharma is developing treatments for chronic and life-threatening human conditions such as cancer-associated pain, Hepatitis B, Hepatitis C, drug resistant lung cancer and oculopharyngeal muscular dystrophy based on this technology. In addition, Benitec Biopharma has licensed ddRNAi technology to other biopharmaceutical companies for applications including HIV/AIDS and retinitis pigmentosa. For more information on Benitec Biopharma refer to the Company's website at www.benitec.com.