ASX ANNOUNCEMENT

Benitec to present at the ASGCT 2016 Annual Meeting

Sydney Australia, April 21 2016: Benitec Biopharma Limited (ASX: BLT; NASDAQ: BNTC; NASDAQ: BNTCW), a biotechnology company developing innovative therapeutics based on its patented gene-silencing technology called ddRNAi or 'expressed RNAi', today announced acceptance of five presentations at the 19th Annual Meeting of American Society of Gene and Cell Therapy (ASGCT) being held in Washington D.C. on May 4-7, 2016. The abstracts cover the scientific results from three of Benitec's programs: hepatitis B, OPMD and hepatitis C, with the key findings briefly summarised below.

David Suhy, Chief Scientific Officer of Benitec Biopharma, stated: "This meeting is one of the most important international meetings on gene and cell therapy. To have five abstracts accepted demonstrates the interest and importance in the work that Benitec is doing across its programs and will give our research further exposure to a global audience. As we move ahead with our programs, we will update both the scientific and investor communities on our clinical priorities and next phases of development."

1. Oral Presentation: **BB-HB-331, a DNA-Directed RNA Interference (ddRNAi) Agent Targeting Hepatitis B Virus (HBV), Can Effectively Suppress HBV *In Vitro* and *In Vivo***
   Presenter: David Suhy, PhD

   - *In vitro* treatment of PXB-derived primary human hepatocytes with Ad-BB-HB-331 led to significant decreases in HBV parameters with dose dependent expression of the anti-HBV shRNAs and corresponding inhibition of the HBV viral RNAs.
   - Similarly, effective suppression of HBV infection was observed following *in vivo* treatment of PXB mice with AAV8-BB-HB-331.
   - Through the first 28 days of an ongoing 56-day experiment, treatment with the high dose resulted in decreases in extracellular levels of HBsAg and HBeAg by 90% and 84%, respectively, when compared to the untreated control. In addition, treatment with the same dose resulted in nearly a log reduction of extracellular HBV DNA at 28 days.

   In a press release dated March 8, 2016, Benitec reported the data from the full 56-day *in vivo* study which demonstrated a further marked improvement over the results above. Dr Suhy will present the full data set at the conference.

2. Oral Presentation**: Gene Therapy Rescues Disease Phenotype in the Oculopharyngeal Muscular Dystrophy Mouse Model**
   Presenter: David Suhy, PhD (on behalf of Professor George Dickson)

   - Treating mice affected by OPMD over 4 months with an AAV gene therapy strategy based on DNA-directed RNA interference to silence the endogenous expPABPN1, combined with the re-expression of a healthy sequence-optimized human PABPN1 gene, significantly reduces the amount of nuclear aggregates in affected muscles, decreased the intramuscular fibrosis and reverted the muscle strength to the level of healthy wild-type muscles.
   - Although muscle atrophy was not reverted, the expression of a healthy PABPN1 markedly increased the cross sectional area of muscle fibres.

3. Oral Presentation: **Phase I/IIa Study of TT-034, a DNA-Directed RNA Interference (ddRNAi) Agent Delivered as a Single Administration for the Treatment of Subjects with Chronic Hepatitis C Virus (HCV)**
   Presenter: David Suhy, PhD

   - The three doses of TT-034 administered to date have been well tolerated in human subjects infected with the hepatitis C virus (HCV) and there have been no reported serious adverse events related to administration of the study drug.
   - The initial dose (4E10 vg/kg) resulted in very low levels of transduction as expected.
   - The second dose (1.25E11 vg/kg) resulted in the detection of substantially higher levels of TT-034 in hepatocytes, the predominant cell type in the liver, yielding 0.48, 3.65 and 10.44 copies of TT-034 DNA per cell in the three patients, respectively.
   - The first subject administered with the third dose (4.00E11 vg/kg) had 17.74 copies of TT-034 per cell, indicating that a significant portion of their hepatocytes may have been transduced, and expression of anti-HCV shRNAs was clearly detected in the transduced hepatocytes.

4. Poster: **Durable Expression of TT-034 in Cynomolgus Monkey Hepatic and Cardiac Tissues without Long-Term Adverse Effects on Endogenous MicroRNA Levels**
   Presenter: David Suhy, PhD

   - A single, intravenous infusion of TT-034 results in almost complete transduction of Cynomolgus monkey hepatocytes and results in durable expression of three anti-HCV shRNAs.
   - The doses of TT-034, meant to encompass the range of doses administered in a human clinical study, do not cause long-term perturbation of endogenous miRNA levels.

5. Poster: **A Comparison of scAAV8-TT-034 Mediated Transduction and shRNA Expression in Human Liver Biopsy Samples versus a Chimeric Mouse Model with Humanized Liver**
   Presenter: David Suhy, PhD

   - Residual mouse hepatocytes present in the chimeric livers are transduced more efficiently with the scAAV8 vector than human hepatocytes resulting in lower overall transduction and shRNA expression as compared to similar data obtained from the TT-034 human clinical samples.
   - While these models can serve as a surrogate to assess the activity of gene therapy constructs against functions of normal human liver, the doses required for optimal activity may be modestly higher than required in the human clinical setting.

The full abstracts have been published on the conference website and can be accessed at the following link: http://www.abstractsonline.com/pp8/#!/4077. A copy of the oral presentations and posters will be accessible on May 4, 2016 by visiting the Investor sections of www.benitec.com and selecting News/Resources and Presentations.

For further information regarding Benitec and its activities, please contact the persons below, or visit the Benitec website at www.benitec.com

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About Benitec Biopharma Limited:

Benitec Biopharma Limited (ASX: BLT; NASDAQ: BNTC; NASDAQ: BNTCW) is a biotechnology company developing innovative therapeutics based on its patented gene-silencing technology called ddRNAi or 'expressed RNAi'. Based in Sydney, Australia with labs in Hayward, CA (USA) and collaborators and licensees around the world, the company is developing ddRNAi-based therapeutics for chronic and life-threatening human conditions including hepatitis B, wet age-related macular degeneration and OPMD. Benitec has also licensed ddRNAi to other biopharmaceutical companies for applications including HIV/AIDS, Huntington's Disease, chronic neuropathic pain and retinitis pigmentosa.

Safe Harbor Statement:

This press release contains "forward-looking statements" within the meaning of section 27A of the US Securities Act of 1933 and section 21E of the US Securities Exchange Act of 1934. Any forward-looking statements that may be in the press release are subject to risks and uncertainties relating to the difficulties in Benitec's plans to develop and commercialize its product candidates, the timing of the initiation and completion of preclinical and clinical trials, the timing of patient enrolment and dosing in clinical trials, the timing of expected regulatory filings, the clinical utility and potential attributes and benefits of ddRNAi and Benitec's product candidates, potential future out-licenses and collaborations, the intellectual property position and the ability to procure additional sources of financing. Accordingly, you should not rely on those forward-looking statements as a prediction of actual future results.