ASX ANNOUNCEMENT

Benitec's Hepatitis B Therapy Reduces HBV DNA by 98.5% *In Vivo*

Sydney Australia, 8 March 2016: Benitec Biopharma Limited (ASX:BLT; NASDAQ:BNTC; NASDAQ: BNTCW) is pleased to announce that BB-HB-331, a DNA-directed RNA interference (ddRNAi) therapy targeting the hepatitis B virus (HBV), demonstrates robust and durable suppression of HBV *in vivo* following a single administration.

Benitec's ddRNAi technology is a unique combination of gene silencing using RNA interference coupled with the long term therapeutic potential of gene therapy. BB-HB-331 is comprised of an AAV8 capsid and recombinant DNA engineered to express three short hairpin RNA (shRNA) that target and inhibit viral RNA expressed from three well conserved regions across multiple HBV genotypes.

The current *in vivo* study assessed the activity of BB-HB-331 in the PhoenixBio (PXB) mouse model, in which mouse liver cells have been replaced with human hepatocytes making the animals susceptible to HBV infection. Once infected with HBV, mice were treated with a one-time systemic injection of BB-HB-331. Weekly assessment of serum antigen levels, HBV viral proteins and extracellular HBV DNA were conducted for the duration of the 56-day study.

The key findings in this study were that a single BB-HB-331 treatment:

- Reduced serum HBV DNA by 1.83 logs, equivalent to 98.5% elimination of circulating HBV
- Reduced intracellular liver HBV DNA by 94.9%
- Suppressed serum antigens, HBsAg and HBeAg, by 97.6% and 92.6%, respectively
- Decreased levels of HBV viral RNA and cccDNA

This *in vivo* experiment validates the BB-HB-331 *in vitro* findings previously observed in human hepatocytes isolated from the PXB mouse model. This *in vitro* data, announced to the market on 7 December 2015, was presented by Dr. David Suhy at the Hep Dart Conference in December 2015.

Benitec's Chief Scientific Officer, Dr. David Suhy said, "These results demonstrate the utility of an approach that combines RNAi with gene therapy to treat HBV. In addition to these encouraging results, we note that the HBV serum DNA and antigen levels continued to drop through the pre-determined conclusion of the study, and may not have reached their lowest levels. As previously communicated, Hep B represents a significant commercial opportunity and we will continue to apply key learnings from our clinical stage hepatitis C program to advance the Hep B program towards the clinic."

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 clinical-stage 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. Benitec has tried to identify such forward-looking statements by use of such words as "expects," "intends," "hopes," "anticipates," "believes," "could," "may," "evidences" and "estimates," and other similar expressions, but these words are not the exclusive means of identifying such statements. Such statements include, but are not limited to, any statements relating to Benitec's pipeline of ddRNAi-based therapeutics, including the initiation, progress and outcomes of clinical trials and any other statements that are not historical facts. Such forward-looking statements involve risks and uncertainties, including, but not limited to, risks and uncertainties relating to the difficulties or delays in our plans to develop and potentially commercialize our 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 our product candidates, potential future out-licenses and collaborations, our intellectual property position and duration of our patent portfolio, the ability to procure additional sources of financing and other risks detailed from time to time in filings that Benitec makes with US Securities and Exchange Commission, including our most recent annual report on Form 20-F and our reports on Form 6-K. Such statements are based on management's current expectations, but actual results may differ materially due to various factors, including those risks and uncertainties mentioned or referred to in this press release. Accordingly, you should not rely on those forward-looking statements as a prediction of actual future results.