ASX ANNOUNCEMENT

Benitec Biopharma Quarterly Report Conference Call Transcript

Sydney Australia, 25 May 2016: Benitec Biopharma Limited (ASX: BLT; NASDAQ: BNTC; NASDAQ: BNTCW) today lodged its transcript for the conference call taking place at 8.00am AEST on 25 May, 2016.

Good morning everyone.

The purpose of today's call is to provide an update in line with our commitment to provide quarterly reporting following our US listing on the NASDAQ.

Board members Peter Francis, our Chairman, and John Chiplin join me today.

I also have on this call David Suhy, our Chief Scientific Officer, Carl Stubbings, our Chief Business Officer and Georgina Kilfoil, our Chief Clinical and Development Operations Officer. We will take questions at the end of this update.

I would like to begin by reiterating the company's strategy, which is in three parts:

- First, to continue the scientific development on our platform and related scientific discovery activities. Through this scientific development, we will build our pipeline programs through to commercialization or partner the programs with other biotechnology and pharmaceutical companies at major value inflection points.
- Second, to establish co-development and collaboration arrangements for non-pipeline projects with pharmaceutical companies using the ddRNAi platform, and
- Third, to out-license ddRNAi to companies who are developing therapeutic programs independently.

Over recent years, Benitec has changed the way it operates to adapt to evolving conditions and opportunities. Since 2013, we have transitioned to being a product development company in which our highly qualified research staff develops our own pipeline.

The two significant fund raisings in 2014 and 2015 gave us the capability to build an experienced and respected laboratory team in San Francisco. As you may know, the San Francisco Bay Area is one of the most well-known and productive global centres for the biotech industry. We now have 15 staff in the US, 11 who have doctorate degrees in relevant scientific fields. This has added valuable bench strength to our operations and the ability to progress the programs.

With the change in strategy to product development, along with the growth in the science team, we have implemented changes that are critical to position us for future success.

To this end, over the past six months, we have specifically been working to drive improvements in the way we operate. These improvements include a comprehensive review of the scientific pipeline, enhancement of our project management practices, and resource restructuring and consolidation. I will cover each of these items in more detail.

- In relation to the scientific pipeline, we have completed an in-depth review to ensure efforts are focused on those areas with a high probability of return on investment and commercial success. The review included a careful analysis of achievable outcomes versus the company's near term and long term cash positions and, where relevant, involved input from key opinion leaders and/or clinicians. In addition to our key pipeline programs of HBV, AMD and OPMD, we have retained early stage

discovery activities, such as CAR-T and new applications of ddRNAi technology, while we discontinued the hep C, lung cancer and stem cell programs.

- In addition, project management practices have been enhanced to ensure that future activities are outcome driven and that there is improved control over timelines, deliverables and cash management. This continues to be informed by periodic scientific and budget reviews. We have defined project teams around each of our programs with scientific project leaders focusing on timely delivery of results.
- Finally, we restructured internal and external resources to reduce annual expenses and extend our cash position. We have reduced our headcount outside of the scientific team as part of our efforts to drive focus on prioritised activities. This has already contributed to a reduction in our expenditure compared to the last two quarters.

In the immediate future, we see a number of key areas of focus.

- First, we need to continue to progress our scientific programs towards the clinic and deliver on our milestones.
- Second, we need to secure collaborations or partnerships to move our business forward. We continue to see strong interest in our Hep B program, particularly since the announcement of our in vivo data. This will be discussed further in updates that David will provide. In addition to this, we have several parties interested in collaborating with us to use our technology for targets outside of our pipeline.
- To capitalise on the current commercial interest, we have initiated a search for a seasoned US business development executive with experience in US markets to join the team. In the meantime, we are developing a network of BD consultants with deal-making experience in the US. In particular, we are working with individuals who have commercial experience at some of the top five global pharmaceutical companies and they have already provided us with valuable insight into pharma transaction practices and valuations for programs at preclinical stages.

We are confident that these changes and the focus on our established strategy will deliver value to Benitec.

I will now hand over to our Chairman Peter Francis

Thank you Greg. I appreciate the opportunity to be here today and would be pleased to answer any questions at the conclusion of this briefing.

I understand the interest that shareholders have in the CEO appointment and acknowledge that the process has taken longer than we expected. It is important for Benitec that we appoint the most culturally suitable and qualified leader with the appropriate industry depth to take the Company forward. We continue with our global search and will let the market know when this appointment is made.

Looking forward, the Board will be augmented in the short term with the appointment of a new director to head up our audit and risk committee and so align our board composition with the requirements of our NASDAQ listing.

It is important to reiterate Greg's comments about the significant operational changes that have taken place within the company over the last six months and emphasise the Board's strong support for Greg's leadership and ability to successfully implement those changes. The company continues to be focused on three key deliverables (1) developing the pipeline, (2) partnering programs and (3) establishing key collaborations to realise value.

Back to you Greg

Thanks Peter. I will now ask David Suhy to provide an update on our pipeline programs.

Thank you Greg,

I would like to take this opportunity to cover a few of the major advancements that we have made in the pipeline programs since the last quarterly call presented in February.

We've recently presented five abstracts on three of our programs at the May 2016 American Society of Gene and Cell Therapy (ASGCT) meeting and issued a press release on those results as well as posted the presentations on the company website. This annual meeting is the pre-eminent conference for scientific advancement within our field.

Acceptance of the five abstracts, including three of which were oral presentations, is evidence of the high quality of our scientific endeavours and the keen interest still shown in ddRNAi technology and our programs. I'll cover a few of the salient points and offer why we believe the results are significant and exciting to our investors.

On the hepatitis B program, our ddRNAi therapeutic, BB-HB-331, continues to progress towards the clinic. *In vivo* experiments were conducted in a chimeric mouse model which possesses a liver comprised largely of human hepatocytes and can be infected with HBV. In data released in March we demonstrated the following results from a single administration of BB-HB-331 in the chimeric mouse model:

- The first result was the reduction in serum HBV DNA by 1.83 logs, equivalent to 98.5% reduction of circulating HBV. This was correlated with reduced intracellular liver HBV DNA by 95%.
- Secondly, we noted suppressed serum antigens, HBsAg and HBeAg, by 97% and 92%, respectively.
- Lastly, there was significant reduction in the levels of HBV viral RNA and cccDNA.

One of the most compelling aspects of these data was that many of these key parameters continued to decrease through the end of the 56-day experiment, a pre-determined endpoint, and suggests the possibility of even further reductions. We thus believe that these data stack up exceptionally well as compared to other RNAi-based strategies being developed by many of our competitors and tested similarly in this model.

Ongoing and future work in this area involves similar *in vivo* experiments with longer time frames as well as using combination based approaches of BB-HB-331 with other antiviral drugs already on the market or that are being developed in the clinical pipelines of other companies.

In relation to the hepatitis C program, since announcing the dosing of the second subject in cohort 4, which was also the 9th and final subject to be dosed in this trial, we have continued to monitor the patients through to the completion of the study at 24 weeks and the data will be released in Q4 as previously noted.

We presented results of the TT-034 trial at ASGCT which highlighted both the safety aspects of this study as well as the transduction and expression data accumulated to date. For the gene therapy community as a whole, these data are critical to further our understanding of systemic gene therapy administration. The Company is still committed to following all patients dosed with TT-034 in a long-term safety protocol for an additional 4 ½ years.

Also at the ASGCT meeting, we presented data on our program in oculopharyngeal muscular dystrophy. If you recall, this is a program being performed in collaboration with leaders in the field at Royal Holloway University of London as well as the Institut de Myologie in Paris. OPMD, as it is otherwise known, is primarily characterised by the inability of patients to swallow, ultimately resulting in death.

In developing a therapeutic to treat this orphan disease, we use a ddRNAi strategy that knocks down the expression of a mutant gene which is then coupled with the expression of a healthy wildtype gene. This type of approach can only be accomplished using traditional gene therapy vectors that are employed with the ddRNAi technology.

In the data presented at the ASGCT meeting, the "silence and replace approach" for treating a mouse model of OPMD significantly reduced the disease pathology, including reducing the amount of nuclear aggregates in affected muscles as well as decreased the intramuscular fibrosis. Most importantly, the treatment reverted the muscle strength to the level of healthy wild-type muscles.

In this initial study, the experiment was performed using two different AAV vectors: one to express the short hairpin RNA to knock out the mutant form of the gene and a second vector to express a codon-optimized healthy version of the same gene. In moving this program forward, our ongoing efforts have now combined the two approaches into the same vector with a number of additional safety features built into the construct.

Finally, we'd like to provide an update on Age Related Macular Degeneration (AMD), our ocular-based program.

We have developed a ddRNAi genetic construct that targets clinically validated members of the VEGF pathway that, when upregulated in the diseased condition, cause the breakthrough of blood vessels into the eye and destroys the field of vision in the affected patient.

Although the ddRNAi expression cassette has been validated for some time, we have been working towards developing a corresponding viral delivery technology which can be administered into the eye via an intravitreal injection, no different than the current standard of care that is delivered for the treatment of AMD.

We have been engaged in a collaboration with 4D Molecular Therapeutics, to utilize their technology called "directed evolution". This methodology is used to screen complex libraries of AAV particles containing over a 100 million different AAV capsid variants in order to identify and isolate a handful of AAV variants that have the desired properties of being able to transduce nearly all of the cells within the retina from a single intravitreal injection.

We are pleased to report that 4DMT has finished the directed evolution screens and have used molecular techniques to isolate a number of different AAVs that reach the appropriate tissues. We are currently in the process of validating the AAV capsid with a fluorescent reporter gene to visualize expression within multiple cell types of the retina. In parallel, we are screening to ensure that the selected vectors have reduced immunogenicity when administered into the eye.

As reported in our last quarterly call, we remain on track to complete validation of the initial AAV capsids in Q2 and aim to have POC studies with the combination of the new capsid and the ddRNAi payload completed in Q4 2016.

Back to you Greg.

Thank you David

I want to thank you for your time today.

We believe deeply in the potential of ddRNAi and its novel capabilities for broad application in human therapeutics.

It is critical that we adapt and evolve for the long-term best interests of the company and its shareholders. Reprioritisation of our programs and consolidation of our resources is a reflection of our commitment to this.

We will continue to develop a unique combination of gene therapy and gene silencing technology, in-house, in collaboration with partners and out-licensing to companies developing ddRNAi for their own targets.

Strategic partnering has, and will always remain, a crucial part of our strategy. Hep B in particular, but also AMD and OPMD, are demonstrating proof of concept at various stages of the programs that are generating strong interest in our technology as a whole. With my team, I will be working actively to identify appropriately experienced business development capability to capitalise on the interest that exists, especially in the US markets.

We remain committed to developing our ddRNAi technology to one day change the way we treat human disease and cure patients. I would like to thank all of our investors for their continued support.

At this point, I will ask the operator for questions.

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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.