BENITEC BIOPHARMA

NASDAQ: BNTC | ASX: BLT

PATHWAY TO VALUE CREATION

Annual General Meeting Presentation

8 November 2018

Jerel A. Banks, M.D., Ph.D.
Chief Executive Officer and Executive Chairman

SAFE HARBOR STATEMENT

This presentation 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 presentation. Accordingly, you should not rely on those forward-looking statements as a prediction of actual future results.

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EXECUTIVE TEAM

Jerel A. Banks, M.D., Ph.D.

Chief Executive Officer and Executive Chairman

- Former Chief Investment Officer of Nant Capital, LLC
- Prior role as vice president at Franklin Templeton Investments
- Earned an M.D. and Ph.D. at Brown University, and holds an A.B. in Chemistry from Princeton University

Megan Boston

Executive Director
Head of Operations Australia

- CEO and Managing Director of ASX listed entities
- Chartered Accountant with over 20 years of experience
- Held senior executive roles at various banking institutions in the area of risk and compliance, as well as working for PricewaterhouseCoopers

Gregory R. Reyes, MD, Ph.D.

Senior Scientific Advisor

- Former Senior Vice President, Drug Discovery & Site Head at Celgene Corporation
- Prior roles at Pfizer and Schering-Plough

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CORPORATE SNAPSHOT

KEY SHAREHOLDER DETAILS	AUSTRALIA Listed ASX 2002: BLT	US Listed NASDAQ 2015: BNTC/BNTCW
Share Price as of 30th September, 2018: (ADS ratio 20:1)	A$0.18	US$2.37
52 week high/low as of 30th September, 2018	A$0.33/A$0.11	US$4.90 / US$1.85 (ADS)
Average daily volume (6 months to 30th September, 2018)	448,251 shares	49,876
Market Capitalization as of 30th September, 2018 (all shares)	A$46M	US$33M
Issued ordinary shares as of 30th September, 2018	257,029,426	--
Total options and warrants on issue as of 30th September, 2018	35,158,203	
Insider holdings – Nant Capital LLC	34%	
Cash balance as of 30th September, 2018	A$24.6M	
Net assets as of 30th September, 2018	A$30.9M	
Net profit as of 30th September, 2018	A$12.2M	
Capital raised to 30th September, 2018	US$56m since 2014	
US SEC shelf registration	June 2017	
Facilities	Corporate Sydney, Australia	Scientific Operations Hayward, California

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Strong In-House Capabilities

- Leadership and scientific teams possess extensive research & development and commercial expertise
- In-house manufacturing expertise at every stage including preclinical, clinical, and commercial

Unique & Proven Technology

- Flexibility of ddRNAi platform can potentially accelerate clinical programs with the ability to move proven ddRNAi therapeutics into additional rare diseases
- Unique 'silence and replace' therapeutic approach
- Extensive portfolio of patents relating to the ddRNAi platform technology, ensures a dominant position in the field of expressed RNAi

Cutting Edge Pipeline Programs

- BB-401 is currently undergoing clinical evaluation in a Phase 2 study in patients with advanced HNSCC
- AXO-AAV-OPMD in collaboration with Axovant
- AXO-AAV-ALS and AXO-AAV-FTD in collaboration with Axovant

FY 2018 HIGHLIGHTS

Corporate Restructuring

- Restructured senior management and continued streamlining of operations to better position for value creation through scientific discovery and clinical advancement

Secured Non-Dilutive Funding

- Axovant Partnership - upfront and near-term cash payments totalling US$27.5M
- Axovant Partnership - Benitec and Axovant partnership results in the development of five fully-funded gene therapy programs

Research and Collaboration Agreement

- Global licensing agreement for BB-301
- In collaboration with Axovant's scientific and regulatory team members, will develop five new programs

Pipeline Progress

- Enrollment for Phase 2 study of BB-401 in advanced Squamous Cell Carcinoma of the Head and Neck
- Positive data from second Phase I study of BB-401 program published in the journal *Cancer*

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KEY HIGHLIGHT: BENITEC-AXOVANT AGREEMENT

Secured Non-Diluted Funding

- Upfront and near-term cash payments totalling US$27.5M
- Total potential long-term payment of US$187.5 million

Retain 30% Profits

- Retain 30% of the net profits on worldwide sales of AXO-AAV-OPMD upon commercialisation

Five Additional Fully-Funded Programs

- Partner with Axovant on the development of five additional gene therapy programs
- Receive full research funding and be eligible for US$93.5 million in development, regulatory and commercial milestones for each program

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FIRST BENITEC-AXOVANT PROGRAM
C9orf72

AXO-AAV-ALS

- Preclinical
- Identified a relationship between C9orf72 mutations and ALS
- Impacts ~40% of familial ALS cases and ~8-10% of sporadic ALS cases

AXO-AAV-FTD

- Preclinical
- Mutations in the C9orf72 gene have been causally linked to FTD
- Approximately 40% of familial FTD cases are caused by a hexanucleotide repeat expansion in the gene for C9orf72

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PROGRAM SELECTION INSIGHTS

C9orf72

Significant Unmet Medical Need

Amyotrophic lateral sclerosis (ALS) and frontotemporal dementia (FTD) are fatal neurodegenerative disorders for which no effective treatments are available

Genetic Abnormality Amenable to Treatment

The characteristic hexanucleotide repeat of GGGGCC, a core genetic defect being targeted in this planned research and development project, is amenable to treatment with the ddRNAi approach

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Bolster the Core Management Team

Planned additions to senior management and scientific teams will focus on gene therapy, drug development and industry leadership experience

Build a Robust Pipeline

Selectively develop proprietary and partnered pipeline programs for which our genetic medicines have a high probability of commercial success

Attract Long-Term Growth Investors

Continue to build relationships with institutional investors who will serve as collaborative long-term partners

Develop Industry Partnerships

Formalize research and development partnerships with global biopharmaceutical companies supported by the differentiated nature of our scientific platform and intellectual property portfolio

KEY NEW HIRES

Gregory R. Reyes, Ph.D.

Senior Scientific Advisor

- Former Senior Vice President, Drug Discovery & Site Head at Celgene Corporation
- Prior roles at Pfizer and Schering-Plough

Associate Scientist / Lab Manager

- Master's degree in Molecular Biology and Microbiology from San Jose State University
- Previously served as an Associate Scientist for Aridis Pharmaceuticals and Tacere Therapeutics

Scientist I

- PhD in Molecular and Cell Neurobiology from UC Berkeley
- Previously worked at UC Berkeley - Flannery lab as a PhD candidate

Research Associate

- Master's degree in Biotechnology from the University of Alabama at Birmingham
- Previously served as a Graduate Research Assistant, University of Alabama at Birmingham

Research Associate

- Biotechnology and Bio-Manufacturing Certification from Ohlone College
- Previously worked as a research associate for Armo Biosciences and the Celltheon Corporation

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PROGRAMS PIPELINE

Program	Delivery	R&D and Budgeting	Discovery	Preclinical	IND-Enabling	Early Stage Clinical (IND – Ph 2)	Late Stage Clinical (Ph 2 – Ph 3)	Commercial Rights
Proprietary Programs								
Oncology – Head and Neck Squamous Cell Carcinoma (HNSCC)								
HNSCC BB-401	Plasmid Intratumoral	→	→	→	→	→	→	Global
HNSCC BB-501	ddRNAi Intratumoral	→	→	→	→			Global
Infectious Disease – Hepatitis B (HBV)								
HBV BB-103	AAV Intravenous	→	→	→	→	Continued development dependent on partnership or funding		Global
New Indication (To Be Disclosed Q1 2019)								
Benitec Proprietary Program		→						
Partnered Programs (Orphan Neurological and Neuromuscular Disorders)								
Oculopharyngeal Muscular Dystrophy (OPMD)								
OPMD BB-301	AAV Intramuscular	→	→	→	→	Axovant leads program development		30% of Global Profits
Amyotrophic Lateral Sclerosis (ALS) and Frontotemporal Dementia (FTD)								
Axovant Funded Program 1		→						
Indications Determined, But Not Yet Disclosed								
Axovant Funded Program 2-5		→						

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BB-401-01: PHASE 2 CLINICAL STUDY IN HNSCC

Intratumoral BB-401 in patients with recurrent or metastatic head and neck squamous cell carcinoma

Key Entry Criteria	Multi Center Single Arm Study Fleming 2 Stage Design	Endpoints after 2 cycles of BB-401 (1 cycle = 4 weekly injections BB-401)

- Histologically or cytologically confirmed HNSCC
- Refractory to all available standard therapies
- At least one lesion amenable to injection
- Performance status (ECOG) 0-2

Stage 1:
12 patients

Potential Outcomes

- 0 response
  Stop for futility
- 1-2 responses
  Proceed to Stage 2
- ≥ 3 responses
  Stop for success

Stage 2:
~15 patients

- Objective response rate
- Disease control rate
- Duration of response
- Survival
- Safety
- Quality of Life

Study now open* with value inflection point at end of Stage 1

*Approval in Australia in March 2018 and Russia in May 2018

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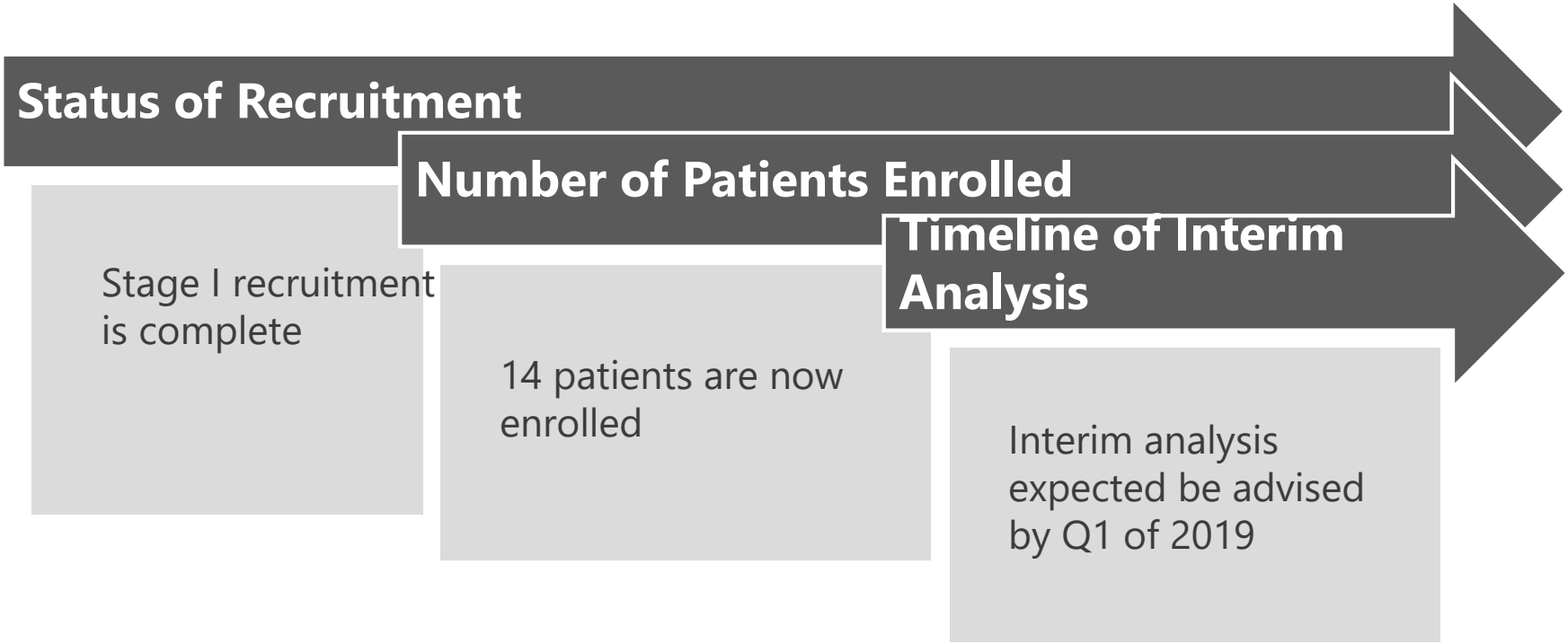
HEAD & NECK SQUAMOUS CELL CARCINOMA

Clinical Candidate BB-401: Product Progress



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2019 MILESTONES

Additional Proprietary Programs

- Benitec to announce new proprietary pipeline program in Q1 2019

Axovant License and Collaboration Agreement

- Benitec to become eligible for additional near-term cash payments totaling US$17.5 million

Clinical Progress for BB-401

- Benitec to provide update on safety and efficacy for patients enrolled in Stage 1 of the clinical trial in Q1 2019

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- Corporate restructuring better positions the company to create value through scientific discovery and clinical advancement
- Non-dilutive funding ensures that programs in the pipeline are fully-funded
- Licensing agreement with Axovant continues to produce a sustainable, positive impact in FY18 and beyond
- With greater financial stability and six fully-funded research opportunities, Benitec is positioned for long-term success

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