

NASDAQ: BNTC ASX: BLT

Corporate Presentation
November 2016

#### **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 forwardlooking 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.

## **Company overview**



## NOVEL GENE SILENCING PLATFORM

ddRNAi combines RNAi with gene therapy delivery to change the way patients are treated and cured for unmet human therapeutic needs

#### **FOCUSED PIPELINE**

Programs in indications with high unmet clinical need or large patient populations such as hepatitis B, OPMD, AMD, and solid tumours

#### **COMMERCIAL STRATEGY**

Building therapeutic product franchise for partnering and seeking technology partnerships to diversify utility of ddRNAi platform

#### **IP PORTFOLIO**

Portfolio of patents, patent applications, and rights to intellectual property directed to our ddRNAi platform and each product candidate

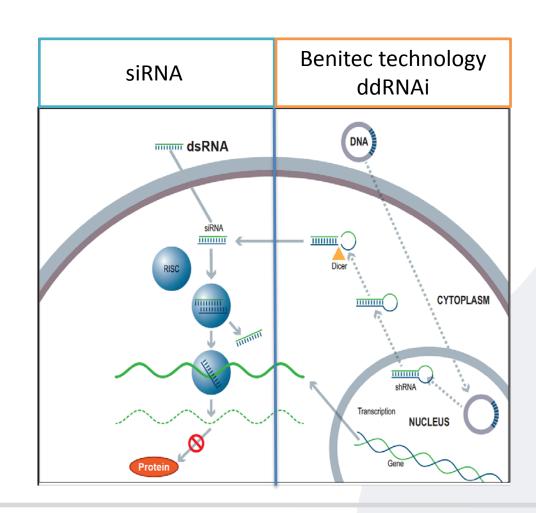


Gene therapy approach to silence disease-associated genes

## Benitec technology: DNA-directed RNAi

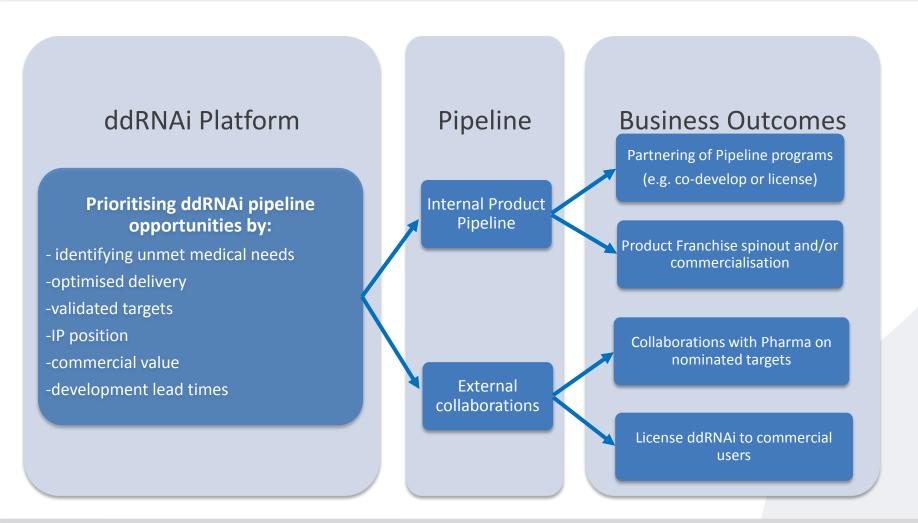


- Combines RNA interference with gene therapy delivery
- Long term therapeutic potential from a single administration
- Steady state levels of shRNA expression
- Silence a single gene or target multiple genes simultaneously
- Silence/replace strategies of mutant proteins



#### **Business Model**





## **Pipeline Programs**



Program	Discovery	Preclinical	IND- Enabling	Phase I/II	Status	
Oncology						
Head and Neck Cancer RNA antisense program					<ul> <li>Subject to sub-license agreement with NantVentures</li> <li>Clinical POC completed</li> <li>Follow on PII/III trial design under review</li> </ul>	
Head and Neck Cancer ddRNAi Program					To be initiated in Q1 2017	
Infectious Disease						
Hepatitis B BB-101 / BB-103					<ul> <li>Initial <i>in vivo</i> POC completed,</li> <li>Follow on <i>in vivo</i> efficacy and acute toxicity in progress</li> <li>PBX 90 day study data expected early 2017</li> </ul>	
Hepatitis C TT-034					<ul> <li>Program terminated February 2016</li> <li>Primary endpoint of safety and tolerability met</li> <li>Hepatic transduction but no change in viral load</li> </ul>	
Ocular Disease						
AMD BB-201					<ul> <li>Capsid biodistribution in process</li> <li>Laser induced CNV mouse models – data 1Q 2017</li> </ul>	
Genetic Disease						
OPMD BB-301					<ul> <li>Initial in vivo POC completed</li> <li>Finalization of clinical candidate in process</li> <li>Follow on in vivo POC - data 1Q 2017</li> </ul>	

## **New ddRNAi Applications**



Program	Discovery	Preclinical	IND- Enabling	Phase I/II	Phase III	Status	
Cell Therapy							
Stem Cells						Program terminated	
Immunotherapy							
CAR-T						• In vitro POC underway	
			New Tech	nologies			
Non-Viral Delivery						In vitro POC underway	

## **Out-licensed Programs**



Focus	Indication	Product Candidate	Company	Discovery	Preclinical	Phase I/IIa
Infectious Disease	HIV/AIDs	Cal-1	Calimmune			
Cancer	Cancer Immunotherapy	dCellVax	Regen Biopharma			
Ocular Disease	Retinitis Pigmentosa	RhoNova	Spark Therapeutics			
Genetic Disease	Huntington's Disease		uniQure			
Central Nervous System	Intractable Neuropathic Pain		Circuit Therapeutics			

## **Global IP portfolio**



#### ddRNAi Technology (CSIRO Licensed)

- International coverage for ddRNAi platform technology
- 30 Granted Patents (in-licensed)
- 9 Patent Applications (in-licensed)
- Expected expiration: 2019

#### Pipeline IP Portfolio (Benitec Owned)

- Target indications, product candidates, technology improvements
- 32 Granted Patents (owned, co-owned or inlicensed)
- 29 Patent Applications (owned, co-owned or inlicensed)
- Product and method of treatment patent filings for HCV, HBV, AMD, OPMD, CAR-T
- Expected expiration for target indications and product candidates at least 2025 and for technology improvements at least 2021



# Strategic Collaboration with NantVentures

## Strategic Engagement With NantVentures



#### **Highlights:**

- Two phased investment with oncology focused R&D collaboration
- Returns Benitec to the clinic through in-licensing of a Phase II/III gene silencing asset for the treatment of squamous cell carcinoma associated with the head and neck (SCCHN)
- Follow-on second generation program utilising ddRNAi for treatment of same indication (SCCHN)

#### **Significance of this Transaction:**

- Demonstrates mutual high regard for expertise and capabilities
- Demonstrates Benitec can deliver on previously communicated strategy
- Brings a highly regarded strategic Investor to Benitec with initial 16.67% stock holding
- Returns Benitec to being a clinical stage company
- Extension of ddRNAi platform into oncology
- Enhances funding of programs and provides a platform for additional funding early in 2017
- Strengthens Board through appointment of Dr Jerel Banks
- Positions company for growth and enhancement of shareholder value

### **Deal Structure and Mechanics**



#### Two tranche investment structure:

#### First Tranche

- Placement of 19.99% issued shares to NantCapital LLC (29.3m shares at \$0.0895 per share)
- Total proceeds AUD 2.6m
- Dr. Jerel Banks appointed to Benitec Board
- Parties agree to finalise research collaboration agreement by end of December 2016

#### Second Tranche

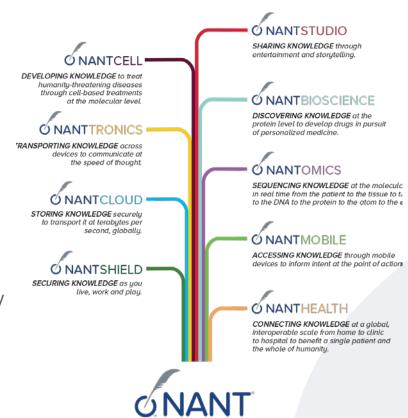
- Issue of up to additional 29.3m shares to NantCapital subject to shareholder approval (AGM 14th December 2016)
- To be completed within 90 days of shareholder approval
- Pricing at 7day VWAP
- Potential for broader placement to other investors: total 60m shares including NantCapital

#### **Nant's Vision and Focus**



#### 'The Cognitive Age': Convergence of Science, Technology and Communication

- Nantworks: founded by Patrick Soon Shiong in 2011
- Shiong is pioneer of novel therapies for diabetes and cancer (e.g. Abraxane) and prolific innovator
- Ecosystem of companies to create transformative global health information and next gen pharmaceuticals
- Incorporates unique systems-based approach to personalized healthcare integrating novel diagnostics with large-scale, biometric and phenotypic data to track patient outcomes and deliver precision medicine
- GPS Cancer Platform:
- Personalized molecular decision support for cancer therapy
- Identify Actionable Targets





### Framework for Research Collaboration



Gene silencing treatments directed against squamous cell carcinoma associated with head and neck (SCCHN) targeting epidermal growth factor receptor (EGFR)

# Sublicense of RNA antisense program for the purpose of initiating a follow-on Phase II/III clinical trial

- DNA construct to produce antisense RNA
- Previous clinical proof of concept demonstrating anti-tumour activity and safety
- New trial may encompass a Phase II/III design and GPS technology for patient stratification
- Benitec to be sponsor on record
- Sub-license terms and clinical development program under negotiation

## ddRNAi Program: a second generation therapeutic for the treatment of SCCHN

- Follow on therapeutic program for durable gene silencing of EGFR via RNAi
- Benitec to define development plan and timing to clinical phase
- Benitec and NantWorks scientists, clinicians and consultants to define clinical development plan and regulatory strategy
- Key focus and delivery mechanism for efficient transfection/transduction in SCC lesions



Corporate and Financial

## **Company financial snapshot**



Key Financial Details	ASX: BLT NASDAQ: BNTC NASDAQ: BNTCW
BLT Share Price as of 28 <sup>th</sup> Oct, 2016:	AUD 11 cents
Market Capitalisation as of 28 <sup>th</sup> Oct, 2016:	AUD 19.3M
Issued Securities as of 30 June, 2016: Ordinary shares Options	175,834,915 36,366,203
Cash Balance as of 30 Sept, 2016:	AUD \$13.4M
Registered Office	Sydney Australia

## **Management team**



Greg West Chief Executive Office	<ul> <li>Former CFO of Benitec Biopharma, 10 years biotech experience</li> <li>Prior roles at PriceWaterhouse, Bankers Trust, Deutsche Bank and NZI</li> </ul>
Dr. Cliff Holloway Chief Business and Operating Officer	<ul> <li>Former CEO and MD of Sienna Cancer Diagnostics, and Biosceptre International</li> <li>Prior VP BD role at Arana Therapeutics (now Teva Pharma)</li> </ul>
Dr. David Suhy Chief Scientific Officer	<ul> <li>Former SVP of Research &amp; Development, Benitec Biopharma</li> <li>Prior roles at Tacere Therapeutics, Antara Biosciences and PPD Discovery</li> </ul>
Bryan Dulhunty Chief Financial Officer	<ul> <li>Former Executive Chairman, Viralytics</li> <li>Prior roles as NED, MD, CFO and Company Secretary of a number of listed and non-listed biotech companies</li> </ul>
Georgina Kilfoil Chief Clinical and Development Operations Officer	<ul> <li>Former VP of Clinical Operations, Benitec Biopharma</li> <li>Prior roles at Anthera Pharmaceuticals, InClin and Peninsula Pharmaceuticals</li> </ul>
Dr. Michael Graham Head of Discovery and Founding Scientist	<ul> <li>Discoverer of ddRNAi at CSIRO; Former Senior Research Fellow, University of Queensland</li> <li>Prior roles at Benitec, QDPI and CSIRO</li> </ul>

## **Board of Directors**



Peter Francis Chairman (Melbourne, AU)	<ul> <li>Partner at Francis Abourizk Lightowlers Lawyers</li> <li>Director at Optiscan Imaging Ltd, Former Director, Xceed Capital</li> </ul>
Megan Boston Director (Melbourne, AU)	<ul> <li>Acting Chair at Adult Multicultural and Education Service</li> <li>Chair of Audit and Risk Committee for Victorian Human Rights and Equal Opportunity Commission</li> </ul>
Kevin Buchi Director (Philadelphia, US)	<ul> <li>President and CEO, TetraLogic Pharmaceuticals</li> <li>Director at Stemline Therapeutics, Inc., Forward Pharma A/S, Alexza Pharmaceuticals, Inc., and Epirus Biopharmaceuticals</li> </ul>
Dr. John Chiplin Director (San Diego, US)	<ul> <li>Executive Chairman at Scancell Holdings plc, Director at Cynata Therapeutics         Ltd, Adalta Ltd, Sienna Cancer Diagnostics     </li> <li>Former CEO at Polynoma, Arana Therapeutics Ltd</li> </ul>
Dr. Jerel Banks Director (Los Angeles, US)	<ul> <li>Chief Investment Officer, NantVentures</li> <li>Former VP, Portfolio Manager at Franklin Biotechnology Discovery Fund (Franklin Templeton Investments)</li> </ul>



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