



ASX/Media Release

Benitec CEO's presentation to BioEquity Europe 2011

24 May 2011, Melbourne, Australia: Overnight Dr Peter French, Chief Executive Officer of Benitec Ltd (ASX:BLT), a world leader in gene silencing for human therapeutics, presented the attached presentation to BioEquity Europe 2011, which is currently being held Paris, France.

Dr French's presentation highlighted the relaunch of the Company following the 2010 decision of the US Patent and Trademark Office (USPTO) Board of Appeal to reinstate the Company's foundational Graham patent for the use of DNA-directed RNA interference (ddRNAi) for the development of human therapeutics, and the AU\$8 million capital raising which was successfully completed earlier this month. The presentation also provided details of Benitec's in-house programs in cancer and infectious disease as well as collaborative opportunities for its ddRNAi platform.

A copy of the presentation is attached.

For Further Information

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About Benitec www.benitec.com

Benitec Limited is developing new novel treatments for chronic and life-threatening conditions based on a transformational technology, DNA-directed RNA interference (ddRNAi) - sometimes called expressed RNAi. The technology's potential to address unmet medical needs and, potentially, to cure disease results from its demonstrated ability to permanently silence genes which cause the condition.

Benitec now either owns or exclusively licences from CSIRO more than 40 granted or allowed patents in the field of RNA interference for human therapeutic applications. Patents have been granted in key territories such as the USA, the UK, Japan, Europe, Canada and Australia. In addition, Benitec has almost 50 patent applications pending for which it is the owner or exclusive licensee from CSIRO, and has further intellectual property under development as a result of its pipeline program.

Benitec trades on the Australian stock exchange under the symbol "BLT". The Company was founded in 1997 and has been publicly held since 2001. The Company aims to deliver a range of novel ddRNAi-based therapeutics to the clinic in partnership with the pharmaceutical industry. In-house it is pursuing a focused R&D strategy in infectious diseases, cancer and chronic cancer-associated pain, as well as programs with licensees that have advanced to pre-clinical and/or clinical trials.

Silencing Genes for Life

BioEquity May 2011, Paris

Presented by

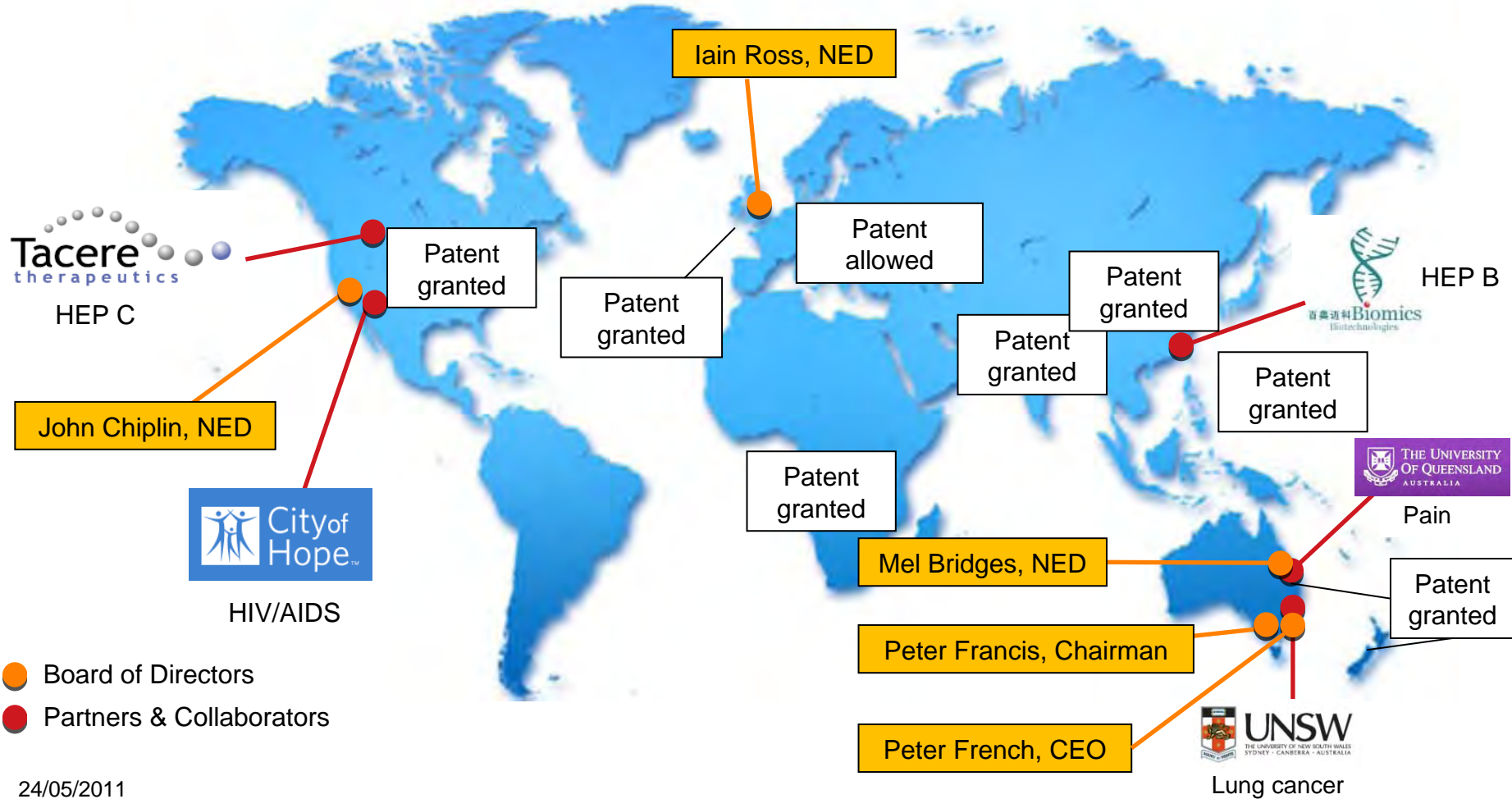
Dr Peter French

CEO

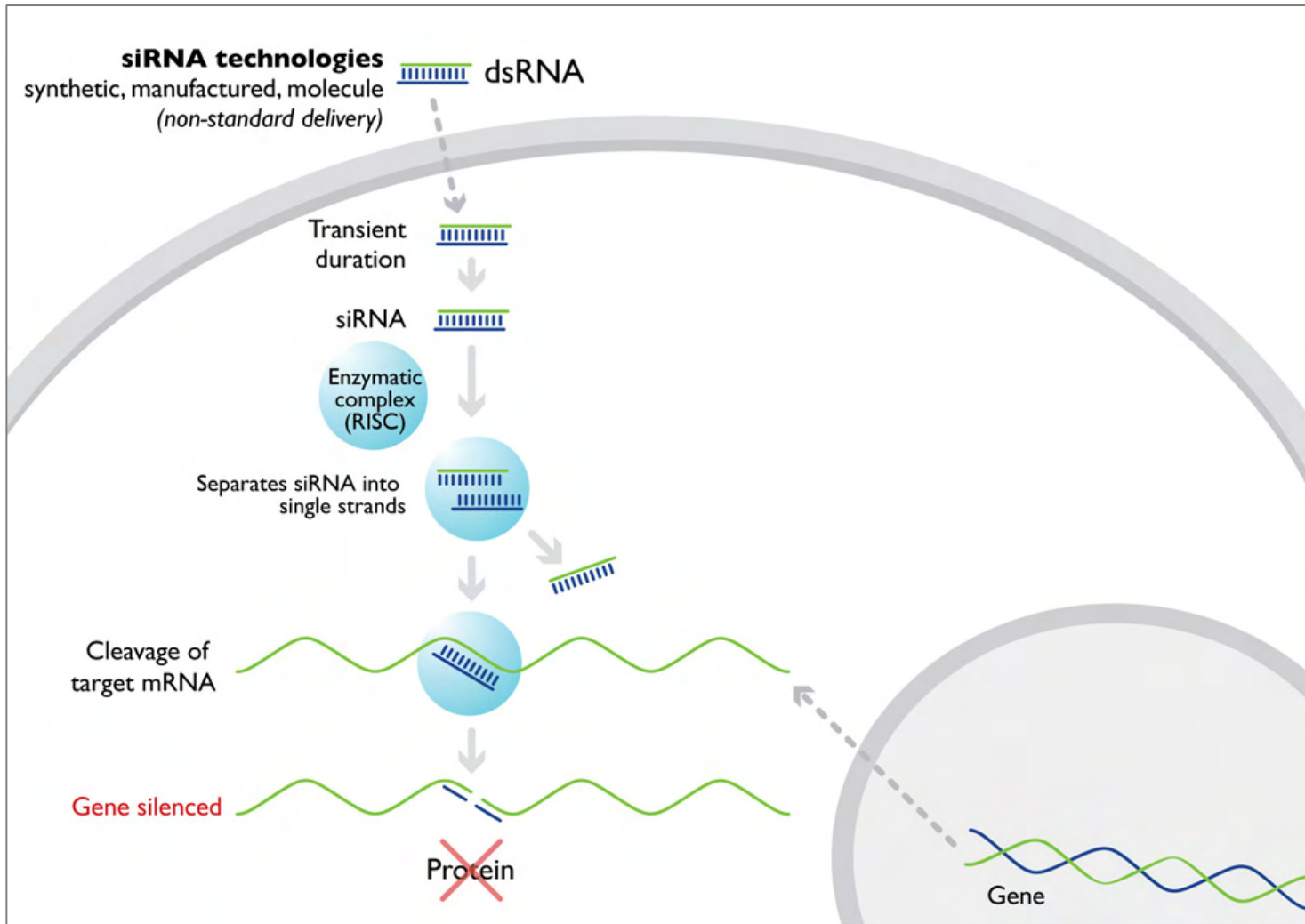
Overview

- Developing new therapies for life-threatening diseases based on long-term silencing of genes
 - Utilises proprietary transformational DNA-directed RNA interference (ddRNAi) technology
- In house and partnered therapeutic programs with huge potential markets
 - Chronic pain, lung cancer and Hepatitis B
 - Hepatitis C (partnered with Tacere/Pfizer)
- Dominant global position with robust intellectual property
- Strategy aimed at building value through R&D portfolio and licensing
- ASX-listed (ASX:BLT), market cap ~AU\$25M, AU\$7M cash at hand

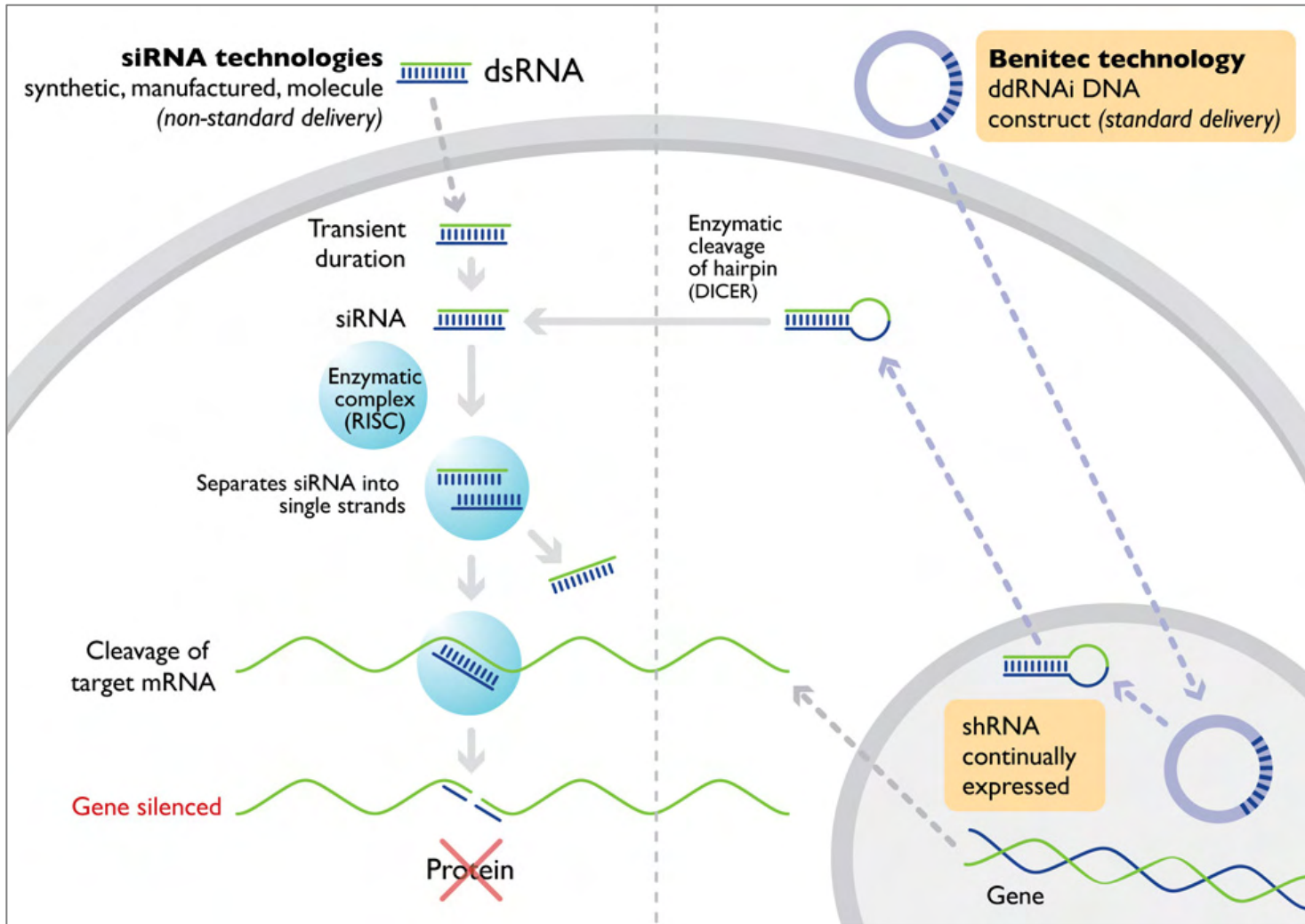
International perspective



Transformational gene silencing technology: DNA-directed RNA interference



Transformational gene silencing technology: DNA-directed RNA interference



Advantages of ddRNAi over siRNA

- Able to use a range of proven delivery options
- Long term silencing of genes
- Single construct can target multiple genes
 - Significantly reduces the likelihood of development of resistance
- Lower cost of goods and easier manufacturing
- Catalytic

HIV/AIDS

Science Translational Medicine

RESEARCH ARTICLE

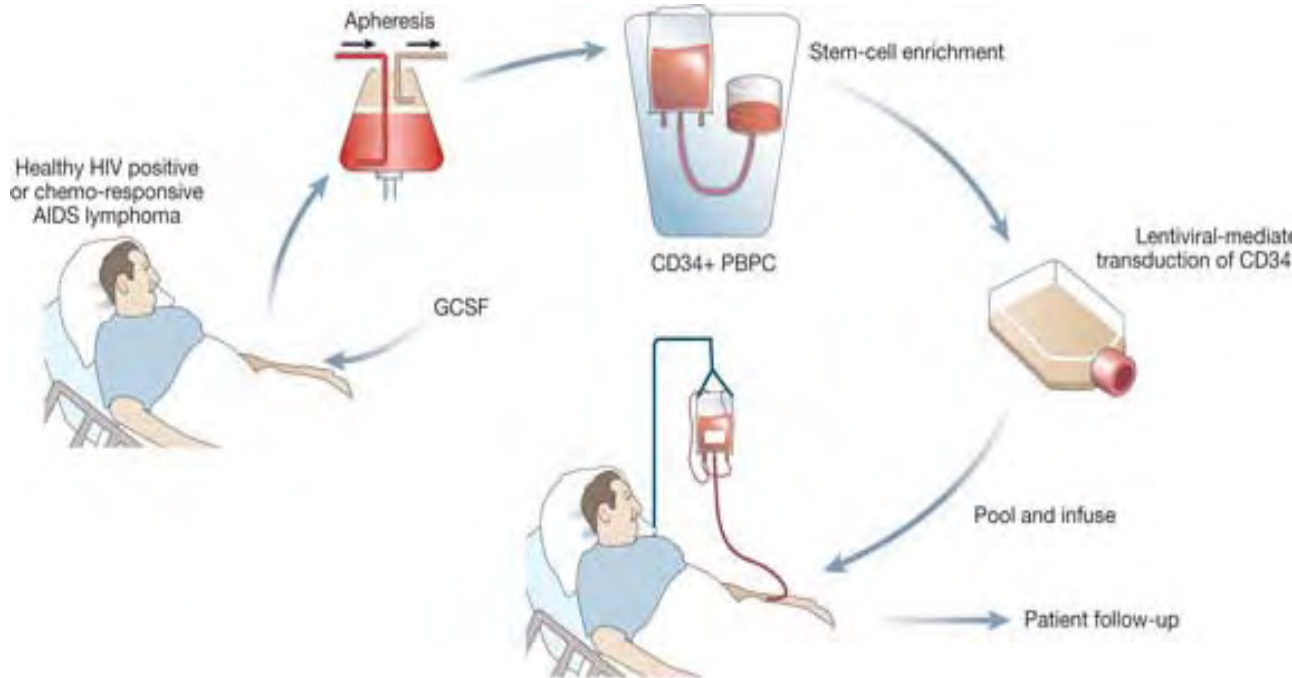
GENE THERAPY

RNA-Based Gene Therapy for HIV With Lentiviral Vector-Modified CD34⁺ Cells in Patients Undergoing Transplantation for AIDS-Related Lymphoma

David L. DiGiusto,^{1*} Amrita Krishnan,^{1*} Lijing Li,¹ Haitang Li,² Shirley Li,³ Anitha Rao,¹ Shu Mi,⁴ Priscilla Yam,³ Sherri Stinson,⁵ Michael Kalos,⁶ Joseph Alvarnas,¹ Simon F. Lacey,⁴ Jiing-Kuan Yee,³ Mingjie Li,⁷ Larry Couture,^{3,8} David Hsu,⁸ Stephen J. Forman,¹ John J. Rossi,^{2†} John A. Zaia³

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HIV/AIDS Phase I proof of concept: first human ddRNAi trial



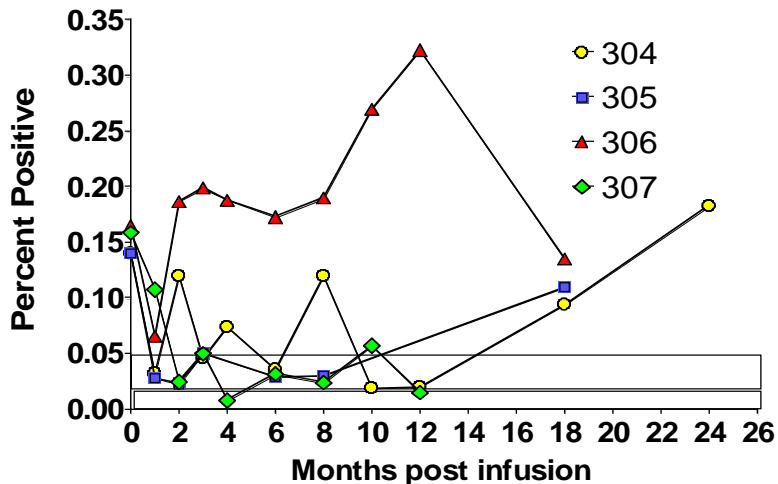
City of Hope
National Medical
Center, Duarte,
CA, USA

- Pilot study to assess safety and feasibility of stem cell therapy for AIDS lymphoma using stem cells treated with a lentiviral RNA vector encoding multiple targets:
 - Cell surface receptor
 - HIV genome (tat/rev gene) – ddRNAi
 - Replication machinery

HIV/AIDS Phase I: results

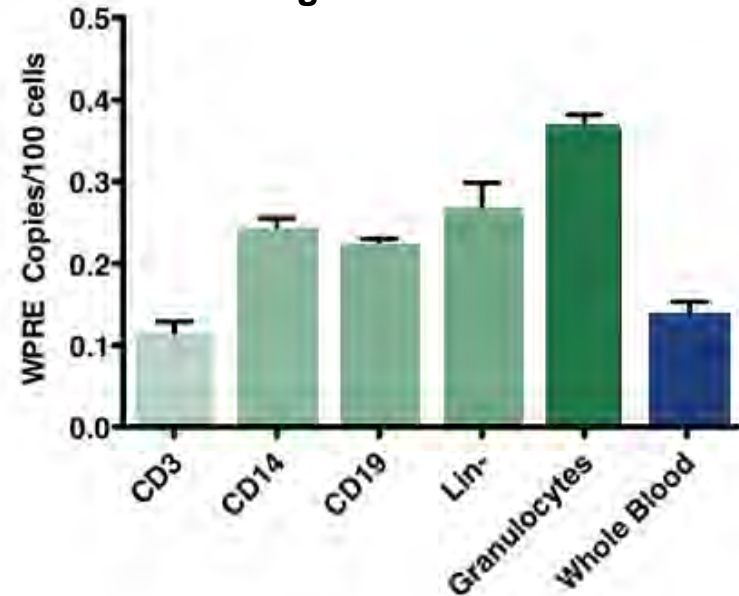
- ddRNAi therapy is safe and feasible
- Long lasting (at least 2 years) from a single treatment
- Able to rebuild a new and resistant immune system

A. Gene Marking of Peripheral Blood Monocytes



Expressed shRNA persists for at least 2 years

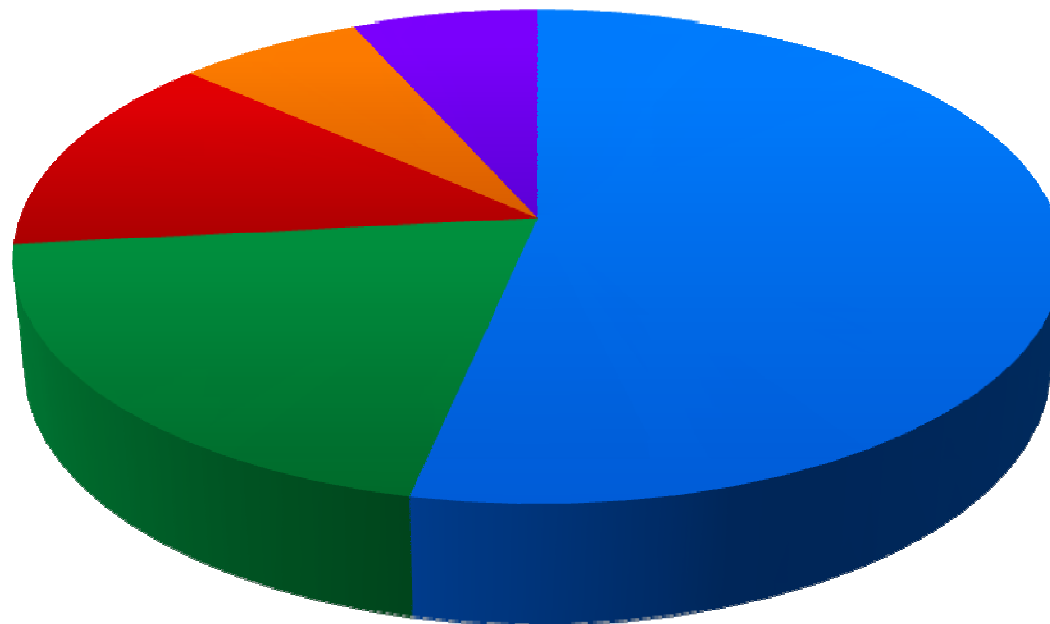
B. Gene Marking in Immune Cells



Differentiated immune cells (T and B cells, monocytes and granulocytes) carry the expressed shRNA.

ddRNAi addressable diseases: a plethora of targets

Potential to block 22,000+ human genes and infectious disease organisms genes



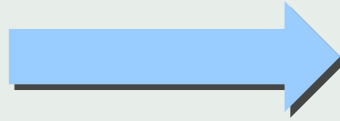
- **Cancers**
- lung, breast, liver
- **Neurological diseases**
- huntingtons, dementia, glioblastoma
- **Infectious diseases**
- HIV/AIDS, Hep B, Hep C, TB
- **Autoimmune disease**
- Rheumatoid arthritis
- **Other diseases**
- Duchenne muscular dystrophy, cardiovascular, asthma

Strategy behind target selection

Considerations

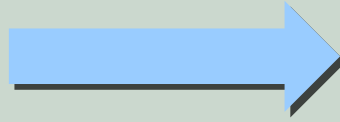
Solutions

Gene therapy long term regulatory concerns



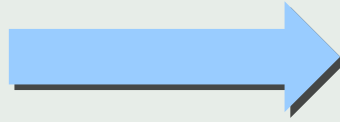
Select diseases where patients have short life expectancy

Patent life



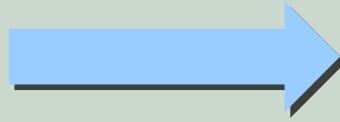
Rapid clinical path

Market size



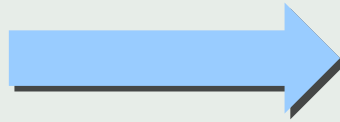
High incidence life threatening diseases

Resistance to new technology



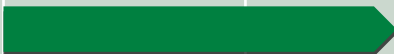



Unmet clinical need for new technology

Maximising Benitec resources



Collaborate with organisations with demonstrated capacity and expertise

Therapeutic pipeline

	Collaborator /Licensee	R & D	Pre-Clin	Ph I	Ph II	Ph III
Cancer-associated pain	UQ (Aust)					
Drug resistant lung cancer	UNSW (Aust)					
Hepatitis B	Biomics (China)					
Hepatitis C	Tacere (Pfizer) (US)					



Partnered program



Benitec funded programs

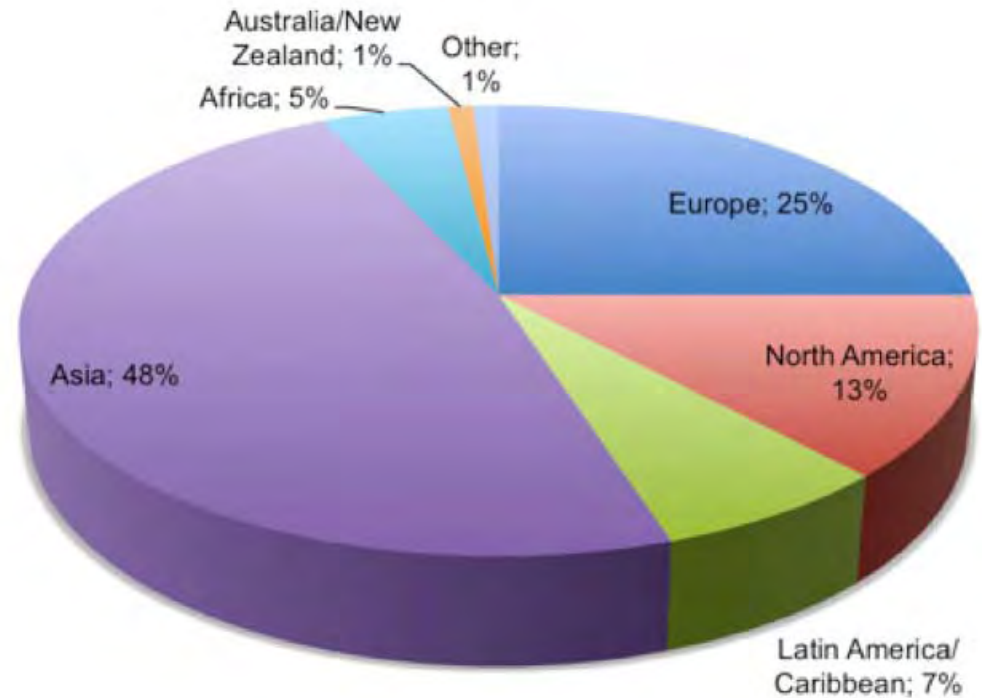


Licensed program

Chronic cancer pain program: new focus and novel approach to pain relief

MARKET

- 12.7 million new cases of cancer worldwide p.a.
- 65% of all cancer patients experience pain
- 80% affected in terminal stage cancer



Chronic cancer pain program: new focus and novel approach to pain relief

PROGRAM

- Developing ddRNAi-based therapeutic targeting a spinal pain mediator

RATIONALE

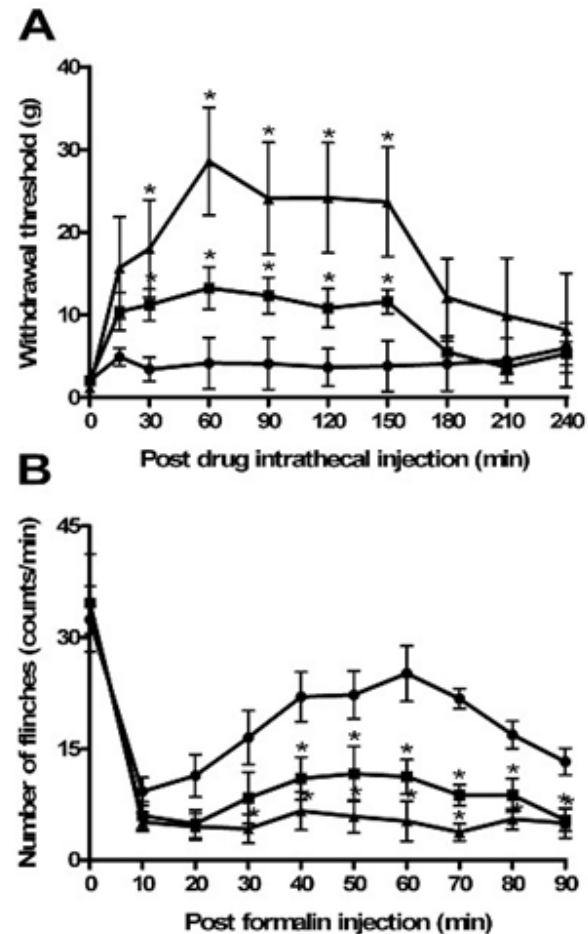
- Enzyme turned on in chronic pain
- Chemical inhibition transiently reduces the pain to levels similar to morphine
- ddRNAi based therapeutic can deliver single injection to treat pain for the life of the patient

Chronic cancer pain program: background spinal enzyme target data

***In vivo* model of neuropathic pain.**

Effects of intrathecal injection of a chemical inhibitor of spinal enzyme on neuropathic pain

A ddRNAi approach is likely to be equally effective, with the added advantage of being long-lasting



Chronic cancer pain program: a novel approach to serious pain relief

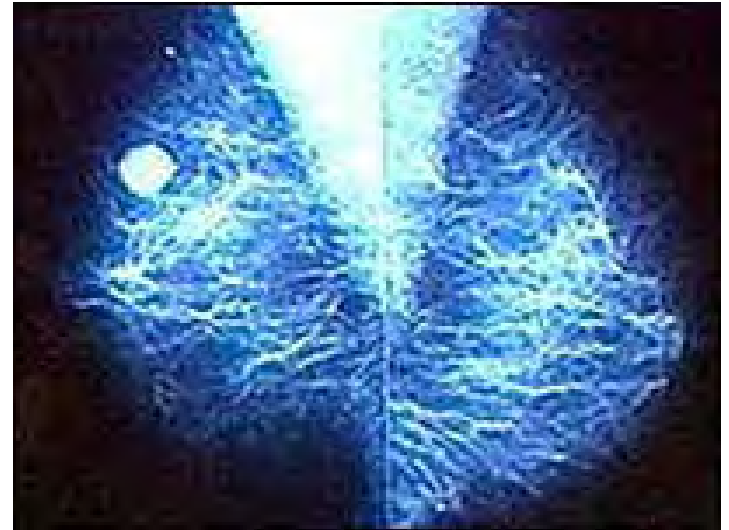
NEXT STEPS

- | | |
|-------------------------------------------------------------|----------|
| 1. POC in a preclinical model of pain <i>in vivo</i> | Aug 2011 |
| 2. Toxicology studies | Dec 2011 |
| 3. Progress to Phase I trial | 2012 |

Drug Resistant Non-Small Cell Lung Cancer (NSCLC) program

MARKET

- Lung cancer is the leading form of cancer worldwide in terms of incidence and mortality
- 1.4 million new cases being identified each year
 - NSCLC accounts for >80% of all lung cancers
 - High mortality due to rapid development of resistance to chemotherapy drugs



Drug Resistant Non-Small Cell Lung Cancer (NSCLC) program

PROGRAM

- ddRNAi-based therapeutic targeting a gene associated with drug resistance

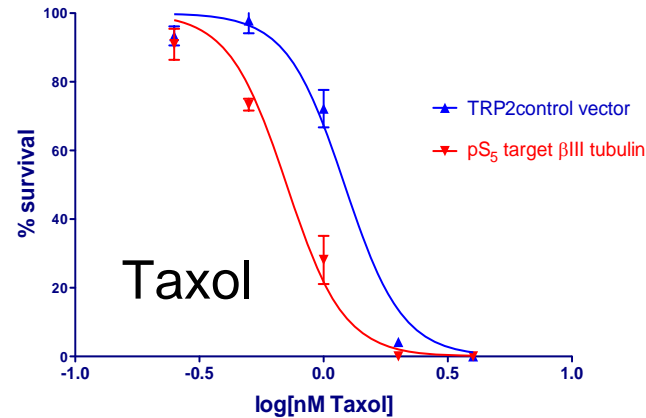
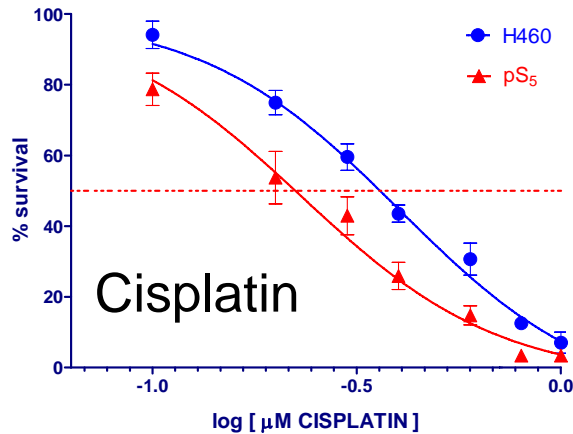
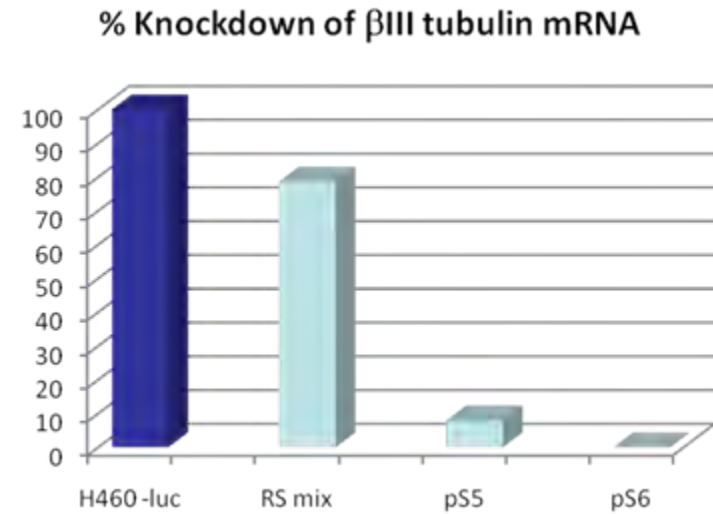
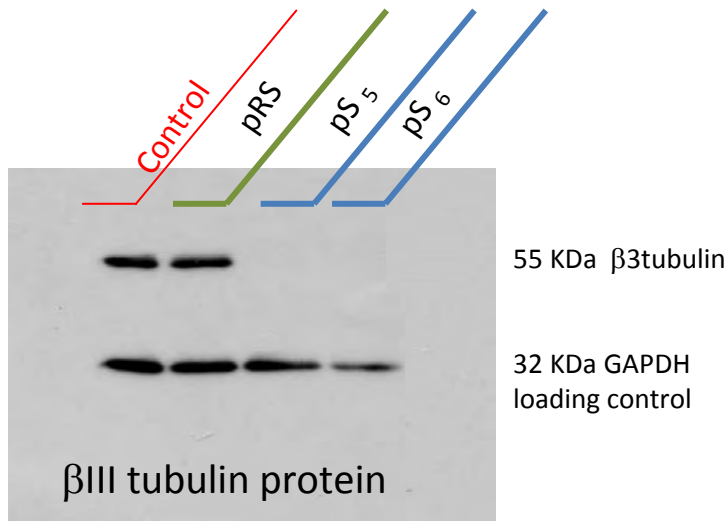
COLLABORATOR



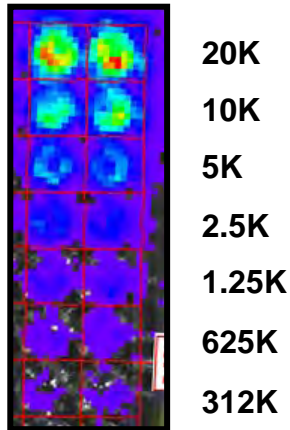
RATIONALE

- β III-tubulin shown to be associated with drug resistance in NSCLC
- Silencing β III-tubulin using ddRNAi significantly increases the killing of NSCLC cells by chemotherapy agents
- Multi-target construct (three sequences) to prevent resistance in a single drug “cocktail”
- ddRNAi delivery to lung using Jet PEI has been demonstrated

NSCLC program *in vitro* results: highly effective silencing of beta III tubulin

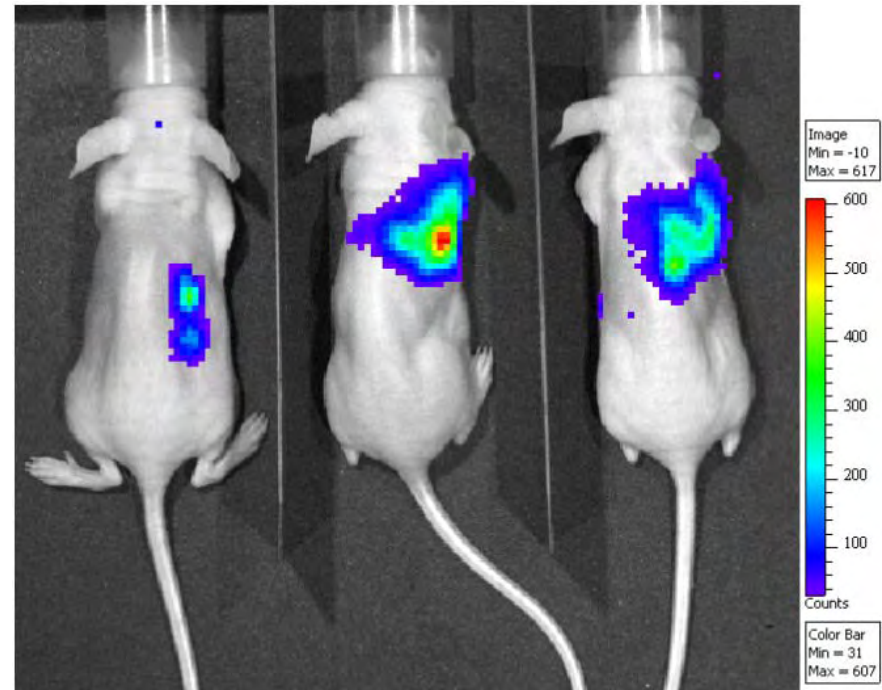


NSCLC program: Establishment of orthotopic xenograft mouse model



Testing of luciferase activity in NSCLC cells stably expressing luciferase

14 days post-injection



1X10⁶ cells

2X10⁶ cells

4X10⁶ cells

NEXT STEPS

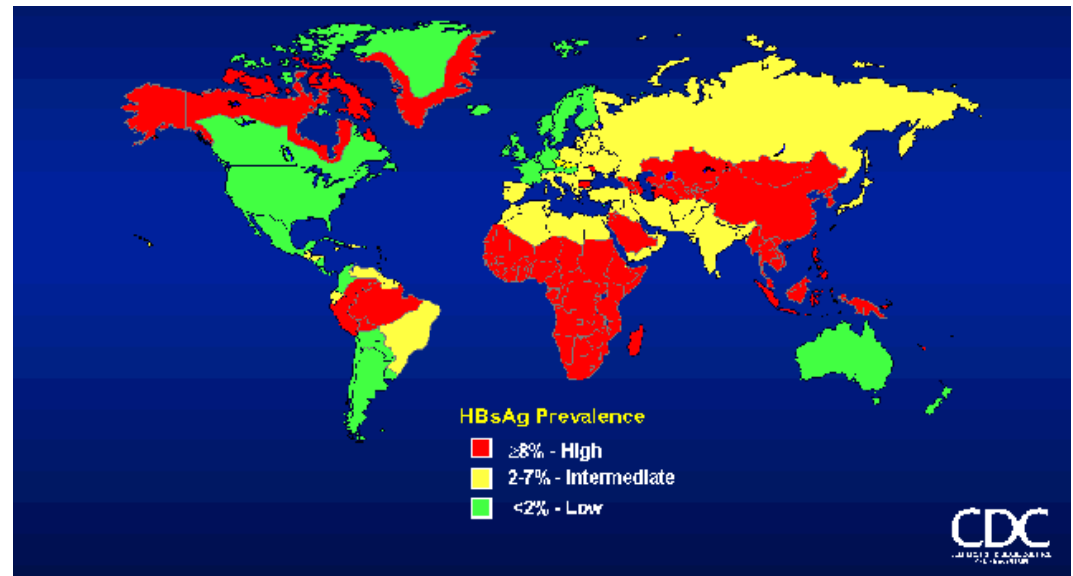
- | | |
|----------------------------------------------------------------------------------------|-----------|
| 1. Delivery of construct <i>in vivo</i> in an animal model of human lung cancer | Sept 2011 |
| 2. Determine <i>in vivo</i> toxicology | Dec 2011 |
| 3. Clinical trial | 2012 |

Hepatitis B (HBV) Program

MARKET

- Individuals with chronic HBV infection (about 400 million worldwide)
- Up to 300 times higher risk of developing liver cancer than non-carriers
- HBV causes 60-80% of the world's primary liver cancers

Geographic distribution of chronic HBV infection (worldwide 2006)



PROGRAM

- Developing a ddRNAi-based therapeutic targeting a key HBV gene

COLLABORATOR

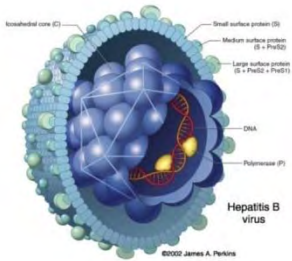


RATIONALE

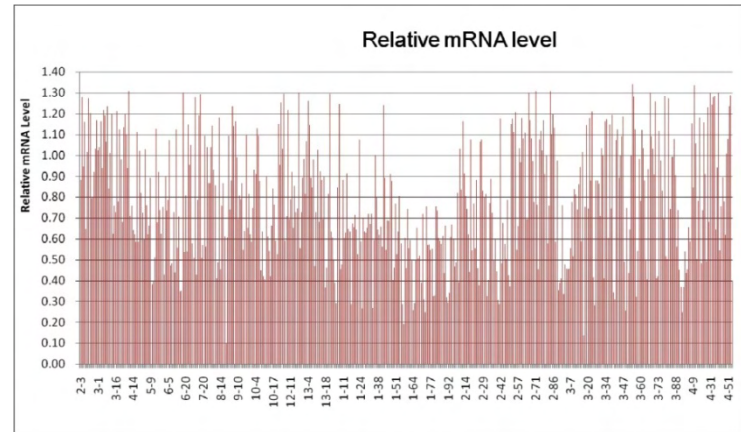
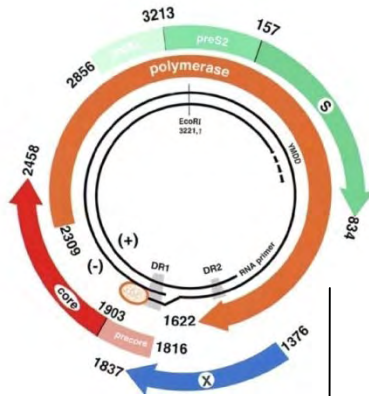
- Enzyme key to HBV replication
- ddRNAi delivery to liver has been demonstrated
- Treatment of existing infection AND long-lasting protection from re-infection

HBV program: target identification - from virus to gene to effective sequences in 9 months

Virus

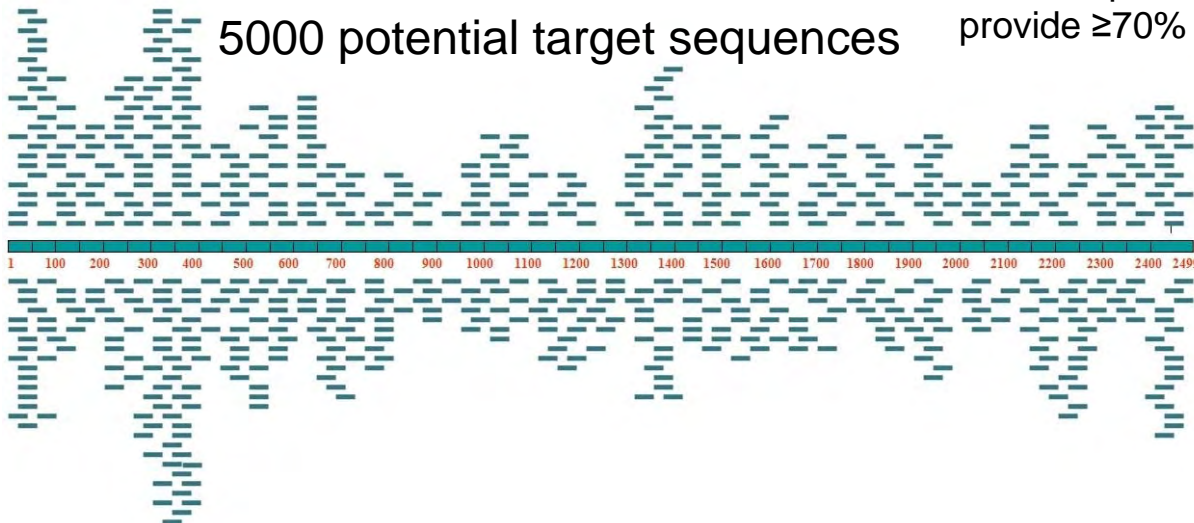


Viral Genes



14 RNA sequences identified by Biomics that provide $\geq 70\%$ knock down of HBV gene mRNA

5000 potential target sequences



NEXT STEPS

- 1. Confirm effectiveness of identified target sequences** June 2011
- 2. Design vector-expressed constructs and test their anti-viral efficacy in vitro** Oct 2011
- 3. Preclinical testing using in vitro and in vivo models of chronic HBV disease** Nov 2012

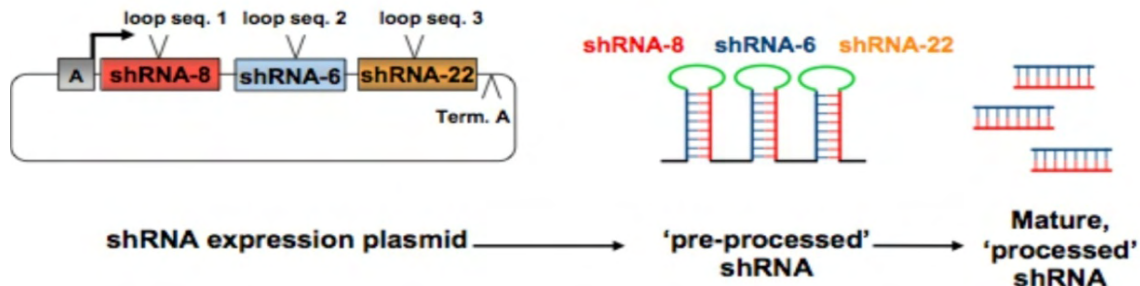
Hepatitis C (HCV) Program: partnered with Tacere/Pfizer

PROGRAM

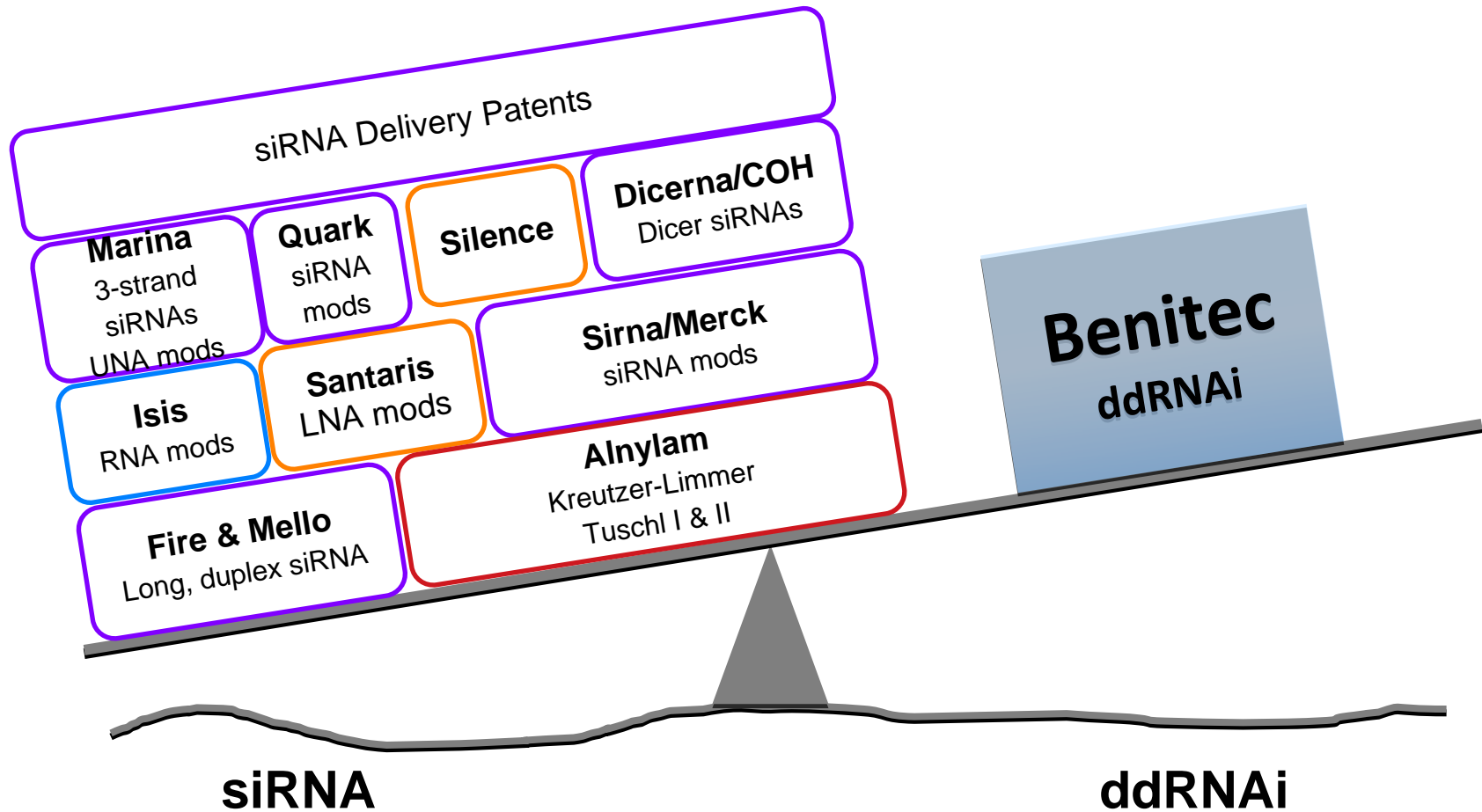
- ddRNAi-based therapeutic targeting Hepatitis C virus genome

RATIONALE

- Multi-target construct (three sequences) to prevent viral escape in a single drug “cocktail”
- Delivered using AAV-protein coat encapsidation
 - Licensed to Tacere Therapeutics Inc - USD\$143M deal with Pfizer Inc
 - Benitec has an equity stake in Tacere



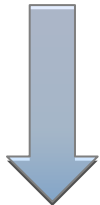
Benitec IP: low licensing burden - ideally placed for partnering



A strategy to build value

ddRNAi technology

Human therapeutics



Long-term value by developing own pipeline and licensing drugs to pharma after Phase Ib/II



**Revenues from
Upfronts,
milestones &
royalties**



Immediate opportunities to leverage potential for wide range of therapeutics



Deals with biotechs & pharma



Joint ventures



Research tools



Exploit platform as a research tool through technology licensing



**Revenues from
Licensing**

Partnering and licensing

Therapeutic
use of ddRNAi

Research
reagent

Research freedom
to operate

Cross-licensing



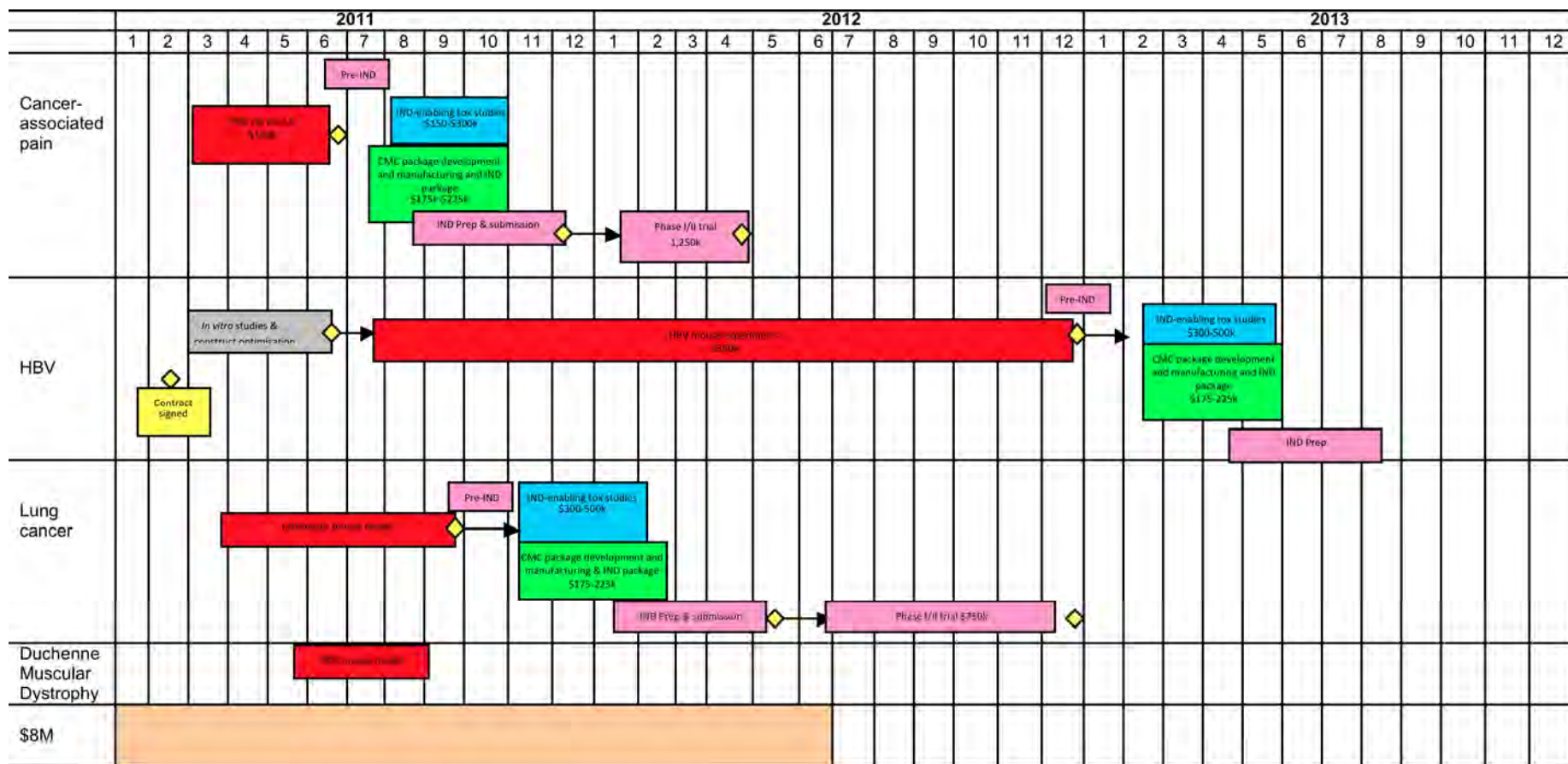
Carnegie Institute



Future strategy and prospects

- In house R&D program
 - Progress with hepatitis B, cancer and cancer-associated pain programs
 - Move programs into phase I/II trials in 12-18 months
- Progress in hepatitis C program through Tacere/Pfizer
- IP prosecution and maintenance
 - New IP generated from R&D program to extend portfolio
- Licensing growth
 - Grow revenues from current technology licensees
 - Expand licenses in areas of research use, reagents and human therapeutics
- Partnering and joint ventures
 - Secure new partnerships in disease areas beyond core focus

Forthcoming milestones



Investment highlights

- Financially strengthened with recent funding

DETAILS POST RAISING

Issued Shares		906,379,779
Current Share Price	AUD\$	0.030
Cash Available (post Raising)	AUD\$	7.1 M
Market Cap	AUD\$	27.2 M

- Huge market potential
 - 22,000 + human genes and disease causing organisms genes
- Dominant global position with robust intellectual property
- Building value through ddRNAi portfolio of therapeutics and licensing of therapeutics and technology

Silencing Genes for Life

BioEquity May 2011, Paris

Presented by

Dr Peter French, CEO