

6th May 2014

Updated Investor Presentation

Melbourne, Australia, 6 May 2014 - Antisense Therapeutics Limited ("ASX:ANP" or "the Company") is pleased to release a copy of the updated investor presentation that CEO and Managing Director, Mark Diamond will deliver at domestic road shows in Melbourne, Sydney and Brisbane from the 6th through to the 8th of May.

The Company will be updating Australian brokers and institutional investors with the Company's progress on its development programs in acromegaly, multiple sclerosis and stem cell mobilisation.

For further information, please refer to the website www.antisense.com.au or contact Managing Director: Mark Diamond +61 (3) 9827 8999.

Background Information

Antisense Therapeutics Limited (ASX: ANP) is an Australian publicly listed biopharmaceutical drug discovery and development company. Its mission is to create, develop and commercialise second generation antisense pharmaceuticals for large unmet markets. ANP has 5 products in its development pipeline that it has in-licensed from Isis Pharmaceuticals Inc., world leaders in antisense drug development and commercialisation - ATL1102 (injection) which has successfully completed a Phase II efficacy and safety trial, significantly reducing the number of brain lesions in patients with relapsing-remitting multiple sclerosis (RRMS) and is also in clinical development as a potential stem cell mobilisation agent, ATL1103 a second-generation antisense drug designed to block GHr production and thereby lower blood IGF-I levels and is in clinical development as a potential treatment for growth and other GH-IGF-I disorders, ATL1102 (inhaled) which is at the pre-clinical research stage as a potential treatment for asthma and ATL1101 a second-generation antisense drug at the pre-clinical stage being investigated as a potential treatment for cancer.



Antisense Therapeutics Ltd

ASX:ANP

Investor Presentation
May 2014



Forward Looking Statements

This presentation contains forward-looking statements regarding the Company's business and the therapeutic and commercial potential of its technologies and products in development. Any statement describing the Company's goals, expectations, intentions or beliefs is a forward-looking statement and should be considered an at-risk statement. Such statements are subject to certain risks and uncertainties, particularly those risks or uncertainties inherent in the process of developing technology and in the process of discovering, developing and commercializing drugs that can be proven to be safe and effective for use as human therapeutics, and in the endeavor of building a business around such products and services. Actual results could differ materially from those discussed in this presentation. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in the Antisense Therapeutics Limited Annual Report for the year ended 30 June 2013 and the report for Half Year ending 31 December 2013, copies of which are available from the Company or at www.antisense.com.au.

Antisense Therapeutics Ltd

- ✓ Developing advanced RNA-based antisense drugs designed to 'block'/'silence' specific disease causing genes
- ✓ **Access to state of the art RNA-based antisense technology** via collaboration with world leader, Isis Pharmaceuticals
- ✓ Renewed global interest in ribonucleic acid (RNA)-based technologies
- ✓ Developing drugs for diseases with **large unmet medical need** and with **potential significant competitive advantages**:
 - *Acromegaly, Multiple Sclerosis, Stem Cell Mobilisation, Cancer*
- ✓ Advanced pipeline of antisense drugs with two drugs at **Phase II development stage**
- ✓ Listed on the Australian Stock Exchange in 2001 (ASX: ANP); Level 1 ADR program in US (OTC: ATHJY)



Rise of Alnylam, ISIS Gives RNA Therapeutics Value

FRED ZUCKER | MORE ARTICLES
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Is RNA Drug Development Coming of Age?

By Terry Chisomalla - April 11, 2013 | Tickers: [ALNY](#), [ISIS](#), [SBPT](#) | 1 Comment



RNA Therapeutics Are Coming of Age

Kleanthis Xanthopoulos | 2/8/13

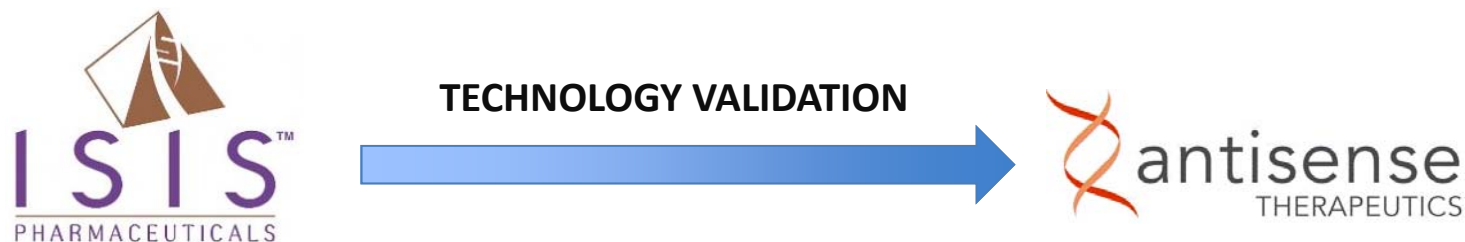
The Boston Globe

Boston area is leading RNA renaissance

Science is leaping forward, and investors are watching closely

By Robert Weisman | GLOBE STAFF FEBRUARY 03, 2014

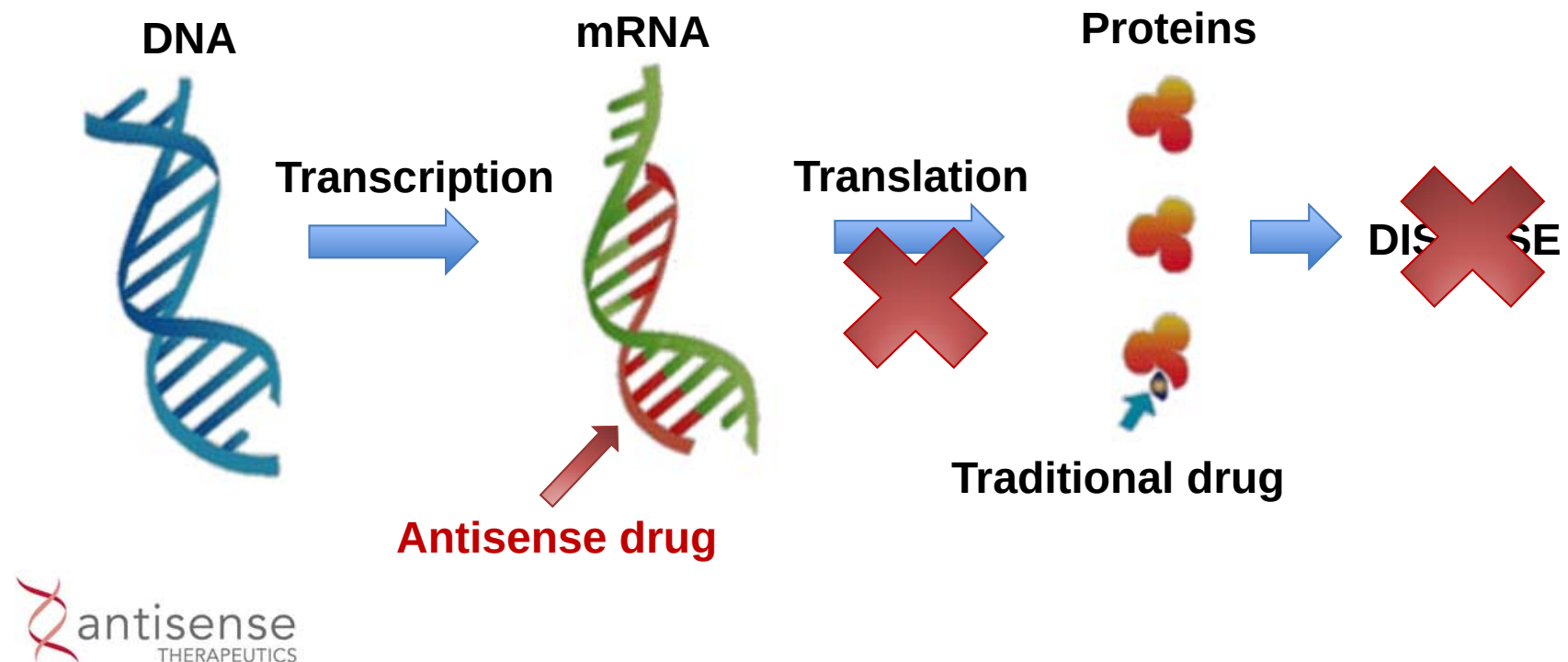
Collaboration with Isis Pharmaceuticals



- ✓ Technology partnership with global leader in RNA therapeutics, Isis Pharmaceuticals
- ✓ ANP has in-licensed its antisense compounds from Isis
- ✓ Isis is owner of one of the largest antisense and RNA patent estates in the industry
- ✓ Technology alliances with a number of major, global pharmaceutical companies
- ✓ 31 antisense drugs in development
- ✓ 1 antisense drug approved
 - *Genzyme commercialising Isis' product KYNAMROTM in the US for treatment of high cholesterol*

Antisense Technology and Advantages

- ✓ Rationally designed to block production of disease causing proteins by binding to specific mRNA sequence
- ✓ Increased drug potency and stability through chemical modifications
- ✓ Highly targeted and potent therapeutics



Pipeline Program

PRODUCT	INDICATION	RESEARCH	PRECLINICAL	PHASE I	PHASE II	PHASE III
ATL1103 s.c. injection	Acromegaly					
ATL1102 s.c. injection	Multiple Sclerosis					
ATL1102 s.c. injection	Stem cell mobilisation					
ATL1101 s.c. injection	Prostate Cancer					
ATL1102 inhaled	Asthma					

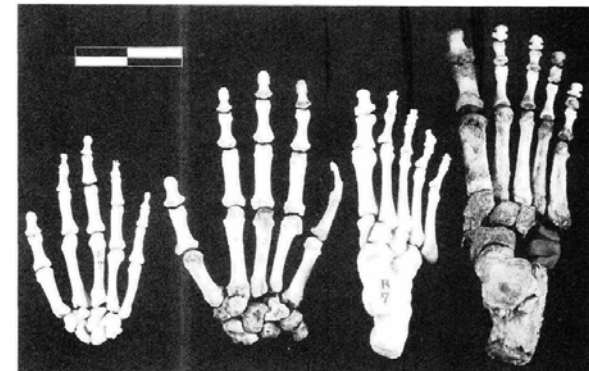
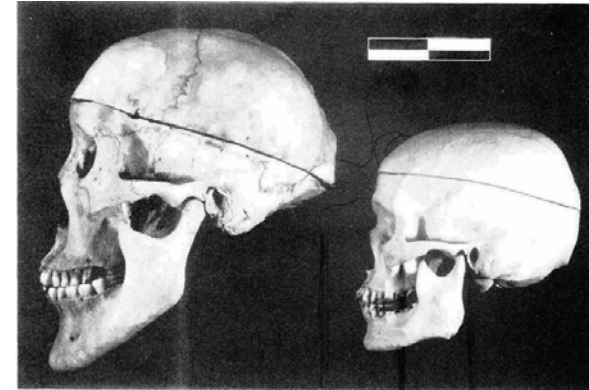
- ✓ Pipeline drugs are Second Generation antisense compounds delivered via Isis collaboration

ATL1103 for Acromegaly

- Acromegaly - occurs when a benign tumor of the pituitary gland causes over-production of Growth Hormone (GH) and Insulin-like Growth Factor 1 (IGF-I)
- Orphan indication - affects ~85 per million in the US and Europe (~85,000 adults)
- IGF-I causes enlargement of organs and the bones of the face, feet and hands
- Can also lead to diabetes, hypertension, and cancer

ATL1103 targets Growth Hormone receptor (GHR)

- ATL1103 reduces liver GHR & blocks GH action on the liver, which reduces IGF-I in blood
- Normalising IGF-I is the treatment goal
- ↓IGF-I also has a potential role in the treatment of diabetic retinopathy, nephropathy and certain cancers



Comparison of acromegaly skull, hand and feet; Source: clas.ufl.edu

Treatment of Acromegaly

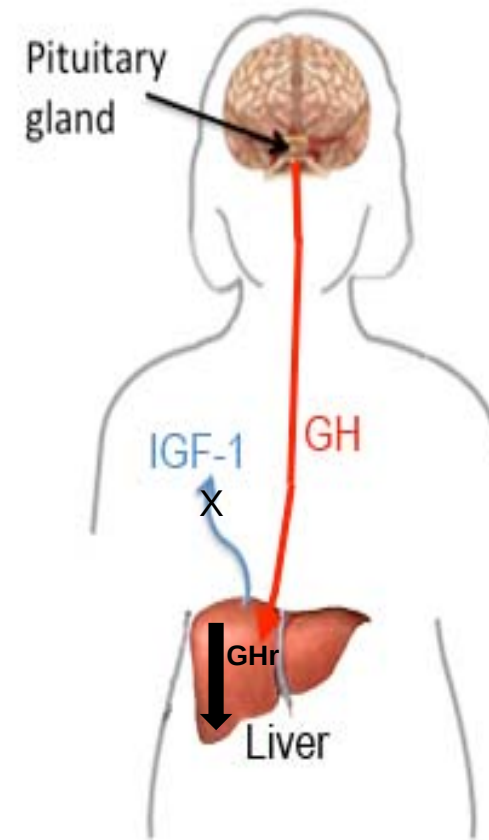
Surgical Treatment

- Approx 60% of patients treated by surgical removal of the tumour
- Surgical failures require drug therapy to normalise sIGF-I

First-line Drug Therapy

- Somatostatin agonists of somatostatin 2 receptor (e.g. octreotide) are first line drug therapy
 - *Effective in up to 60-65% of cases only*
 - *Treatment costs up to \$30K/annum*
 - *Existing sales of somatostatin agonists ~\$1Billion*

Pegvisomant (Somavert®) GHr antagonist **for first line therapy failures**



ATL1103 – Treatment of Acromegaly

Second-line Therapy

- Somavert® a GHR antagonist is approved for first line therapy failures
- Estimated sales of > \$200 million/annum

Comparing second line therapy Somavert® to ATL1103

Pegvisomant (Somavert®)	ATL1103 Target Product Profile (TPP)
In clinical trial effective in greater % of patients in normalising sIGF-I than somatostatins	✓ Broad based efficacy like Somavert
Average treatment cost of \$60K/annum (up to \$90K/annum)	✓ Lower cost of therapy due to less expensive cost of manufacture
Limited by high cost, inconvenient administration • lyophilized powder requiring reconstitution and daily dosing regimen	✓ More convenient dosing/administration regimen • prefilled syringe; once/twice weekly dosing for improved patient compliance

- Low Somavert® market penetration (~25%) likely due to high cost, inconvenient administration, and daily dosing
- ATL1103 has potential to convert share from Somavert® and for use with currently untreated patients

ATL1103 Development Summary

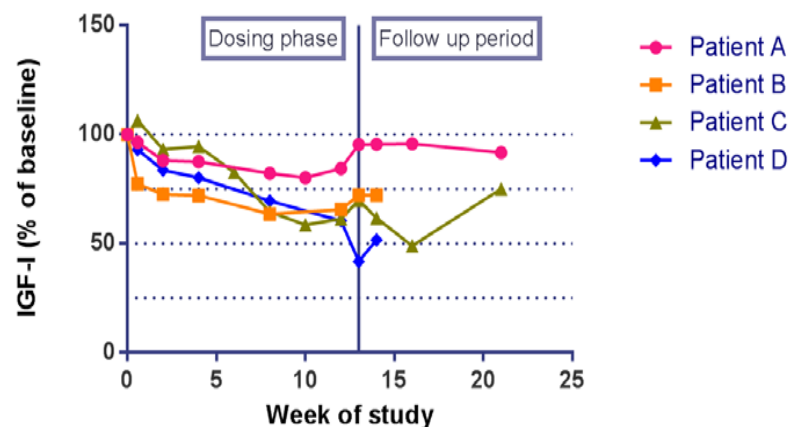
- ATL1103 has suppressed sIGF-I in all animal and human studies undertaken to date
 - ✓ Repeat mouse studies
 - ✓ 6 week non human primate study
 - ✓ 3 week multiple dose Phase I study in volunteers
- Currently undergoing 13 week Phase II trial in acromegalic patients
 - ✓ Trial Sites: UK, France, Australia, Hungary, Spain
 - ✓ Endpoints: Safety, PK, tolerability, drug activity including effect on sIGF-I levels
 - ✓ Open label study with 24 acromegaly patients

Phase II interim analysis conducted with 8 patients who had completed dosing

- Positive Interim data reported Dec 2013
- 4 patients received 200mg 1x/week
- 4 patients received 200mg 2x/week
 - ✓ 4 patients showed average sIGF-I reduction of 30%
 - ✓ 3 of 4 patients of lighter body weight (< 85kg) showed average sIGF-I reduction of 38%
 - ✓ Well tolerated; anticipate higher and longer dosing in Phase III to lead to further reductions in sIGF-I

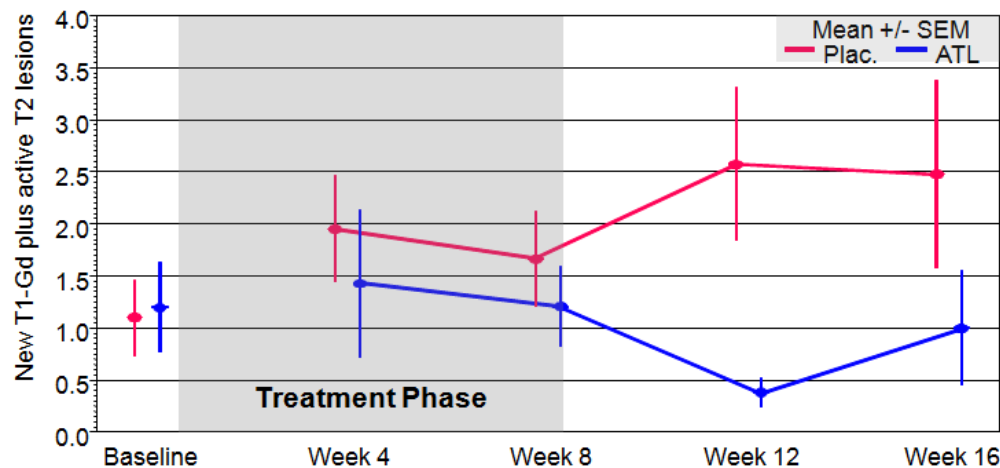


sIGF-I reduction: 200mg 2x/week



ATL1102 for Multiple Sclerosis

- Disease affects central nervous system – brain and spinal cord
- ATL1102 is an antisense inhibitor of VLA-4 protein (clinically validated target in MS)
- Successful Phase 2 trial completed in RR-MS
- ATL1102 demonstrated comparable/potentially superior activity to VLA-4 monoclonal antibody Tysabri® (current efficacy benchmark) at same stage development



ATL1102 reduced cumulative no of new MS lesions by 54.4% at week 12

ATL1102 Opportunity in MS

ATL1102 has the potential to be well differentiated from Tysabri® (2013 sales of USD1.6B/yr)

Parameter	ATL1102	Tysabri®
Efficacy	✓ Highly potent	✓ Highly potent
Safety	✓ Well tolerated	Safety concerns
Route of administration	✓ Self-administered	IV infusion
Manufacturing	✓ Less expensive	More expensive

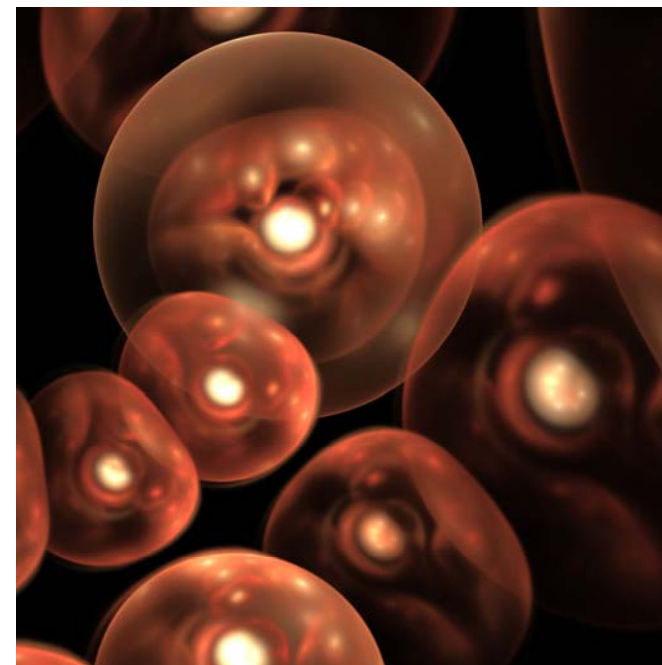
New US patent granted to 2029 and potentially extendable to 2034

Completed chronic tox studies
in monkeys

Next development step -
potential Phase 2b study of
ATL1102 in MS patients

ATL1102 for Stem Cell Mobilisation

- SCM - Bone marrow stem cells (CD34+) mobilised for collection before chemotherapy for certain cancers
- GCSF agonist is first line therapy for SCM
- Unmet need - globally around 10,000 patients/annum still failing mobilisation in 2011
- ATL1102 increased CD34+ RNA levels in MS patients
- ATL1102 in Phase I trials used with GCSF to increase SCM; results expected mid 2014
- Market opportunity
 - ✓ Orphan drug indication
 - ✓ Patent application seeking protection to 2031
 - ✓ Sales of Neupogen® (Filgrastim), a GCSF agonist in SCM: ~USD1.3B/yr
 - ✓ Sales of Mozobil® (Plerixafor), which is used with GCSF: ~USD130M/yr



Corporate Structure

FINANCIAL PERFORMANCE

Market Capitalisation	A\$20 million
Cash as at March 2014	A\$2.7 million
Shares on Issue	144 million
Share price performance	\$0.09 - \$0.23

BOARD OF DIRECTORS

Robert (Bob) Moses Chairman	35 years experience in pharma/biotech industry; Former Vice President at CSL
Mark Diamond Managing Director	28 years experience in pharma/biotech industry; Former Project Planning/ International Business Development at Faulding (Mayne)
Dr. Chris Belyea Non-Executive Director	Former CEO at Metabolic Pharmaceuticals and Licensing & Projects Manager at Circadian
Dr. Graham Mitchell Non-Executive Director	An advisor in Innovation to the Victorian, Tasmanian and Northern Territory Governments. Former Director of Research at CSL.

Investment Highlights

- ✓ RNA based technologies seeing renewed investor and Big Pharma interest
- ✓ Commercialising platform technology with world leader in RNA therapeutics, Isis Pharmaceuticals
- ✓ Technology validation provided by FDA approved drug for Kynamro™ and Isis's licensing deals with Big Pharma
- ✓ 4 advanced development programs with multiple disease applications and significant commercial potential
 - **ATL1103 in Acromegaly** - Phase II trial positive interim results reported; results expected mid 2014
 - **ATL1102 in MS** – Proposed pre-IND meeting with FDA for Phase IIb study in MS patients in Q3 2014
 - **ATL1102 in SCM** – Proof of concept trial results available mid 2014
 - **ATL1101 in Prostate Cancer** - Positioned to move into clinical trials
- ✓ Multiple program 'shots on goal' with key value inflection points imminent