



AdAlta
next generation protein therapeutics

i-bodies – a new class of protein therapeutics to
treat human disease

Biotech meets Broker: September 2016

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Corporate and investment summary

- ▶ A drug discovery and development company focused on using its proprietary technology platform to generate a new class of protein therapeutics, known as i-bodies, for treating a wide range of human diseases
- ▶ **Investment highlights**
 - ▶ Initial focus on treating fibrosis – high unmet medical need
 - ▶ Advanced lead fibrosis drug candidate AD-114 with significant pre-clinical validation
 - ▶ Fully funded for phase 1 development of lead fibrosis drug and i-body pipeline
 - ▶ Early commercialisation potential
 - ▶ Experienced team with strong track record of drug development and ability to deliver

Capital structure	
ASX code	1AD
Shares on issue*	100m
Share price (6 Sept)	22 cents
Market capitalisation	\$22m
Current cash	\$10m
Total	100%

* 50.3m shares escrowed for 6-24 months

Major Shareholders	%
Yuuwa Capital LP	54.06
Platinum Asset Management	8.00
Citycastle Pty Ltd	5.31
La Trobe University	3.04
Robin Beaumont	1.84
Other shareholders	27.75
Total	100%

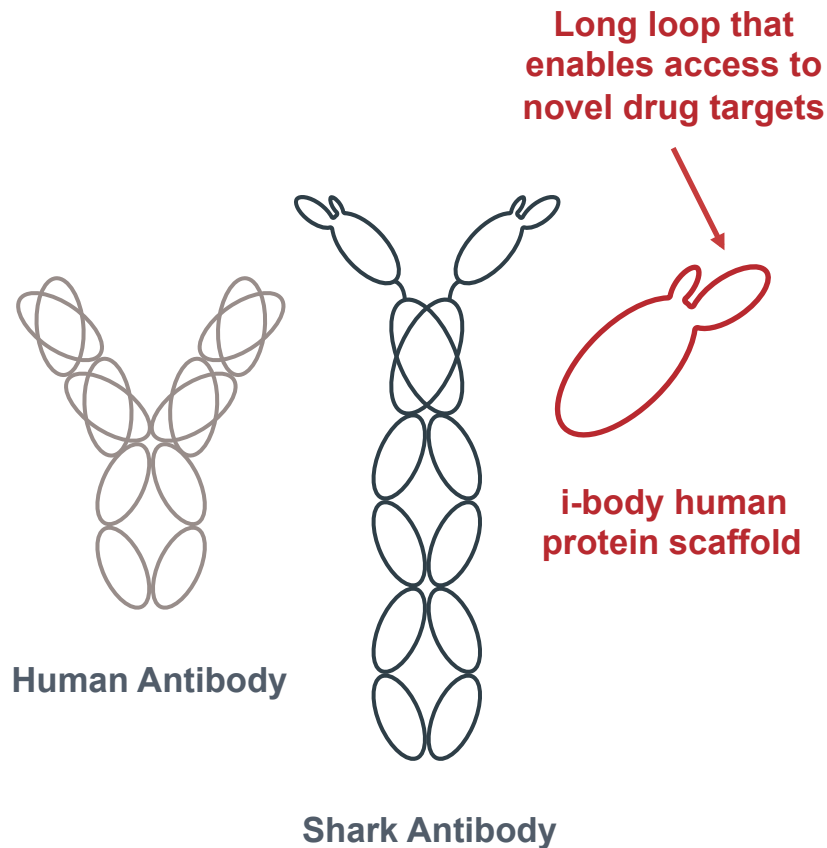
i-body technology

AdAlta is developing a new technology platform that produces unique proteins known as i-bodies, that mimic the shape of shark antibody binding domain and engineers their key stability features into a human protein, for therapeutic intervention in disease.

The single domain antigen binding region of shark antibodies is extremely stable and has a long binding loop not present in either human or next generation antibodies.

Advantages of i-bodies

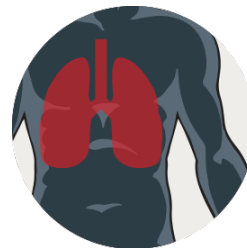
- ▶ High target specificity and high affinity for their target
- ▶ Small proteins; 10% the size of a typical human antibody
- ▶ Highly stable to proteases, high temperatures and low pH
- ▶ Long loop that can bind to a diverse range of therapeutically relevant targets including those that are difficult for current antibody therapies
- ▶ Human protein – reduced risk of immune response



Fibrosis: unmet medical need with multiple indications

- ▶ Developing i-bodies as improved therapies for the treatment of fibrosis
 - a condition that is prevalent in 45-50% of all diseases
- ▶ Fibrosis can occur in many tissues of the body as a result of inflammation or damage
 - it can result in scarring of vital organs causing irreparable damage and eventual organ failure
- ▶ AdAlta's initial focus is on lung fibrosis

Collectively fibrosis represents a large unmet clinical need



Lung
IPF



Eye
Wet-AMD & PVR



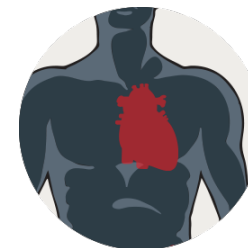
Liver
NASH & CIRRHOSIS



Kidney
RENAL FIBROSIS



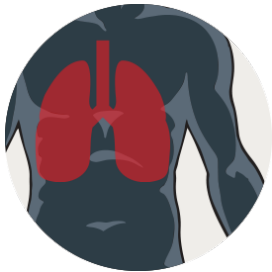
Skin
SCLERODERMA



Heart
CARDIAC FIBROSIS

AD-114 lead program in Idiopathic Pulmonary Fibrosis (IPF)

- ▶ AD-114 is lead i-body candidate in pre-clinical development
 - Demonstrates both anti-fibrotic and anti-inflammatory activity in the lung
 - Important for arresting and modifying the disease and tackling the treatment of idiopathic pulmonary fibrosis (IPF); this is the primary indication



Lung

IPF

Idiopathic Pulmonary Fibrosis

A chronic, highly lethal and rare disease.

50-70% mortality rate

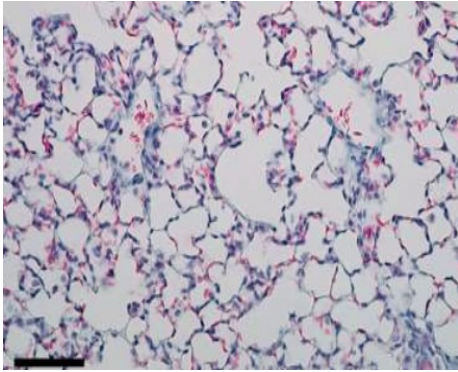
>135,000 people in US alone

World wide sales ~\$4.2B by 2020

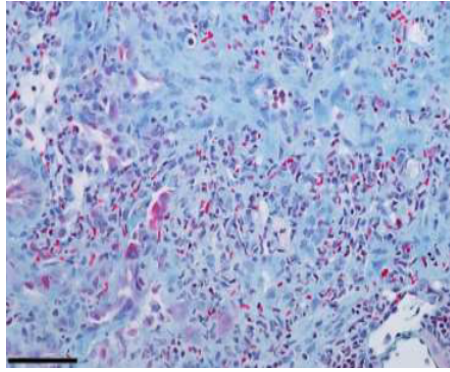
Source: Evaluate Pharma, Orphan Drug Report 2015

AD-114 prevents lung fibrosis in disease models

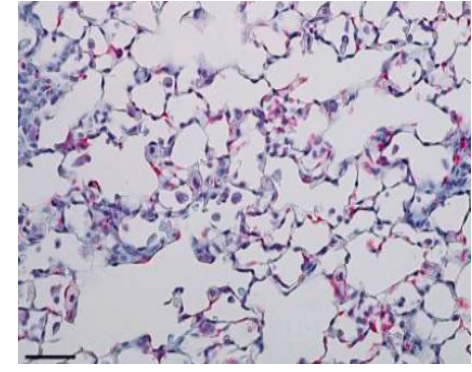
Extensive pre-clinical AD-114 studies have demonstrated positive *in vitro* (in the lab) and *in vivo* (in animals) data



**Normal
lung tissue**



IPF lung tissue
(lung disease mouse model)



**IPF lung tissue + AD-114
dosed for 21 days**
(lung disease mouse model)

AD-114 reduces collagen content and inflammatory cell infiltration and demonstrates a similar architecture to that of the normal lung in the Bleomycin mouse model

AD-114 key advantages compared to existing IPF treatments

Human tissue <i>In vitro</i> activity	No effect on normal tissue	Effect on diseased / IPF tissue
i-body AD-114	✓	✓
Nintedanib (Boehringer)	X	✓
Pirfenidone (Roche)	✓	X
Other CXCR4 drug (Sanofi)	✓	X

- ▶ AD-114 has greater *in vitro* efficacy compared to the only approved therapies Nintedanib and Pirfenidone for IPF treatment
 - Existing IPF treatments have limited efficacy; either no effect or slow down disease progression i.e. no cure
- ▶ Novel mechanism of action compared to other drugs targeting CXCR4
- ▶ Very specific for diseased tissue and no effects on normal tissue
- ▶ AD-114 has both anti-fibrotic and anti-inflammatory effects

Novel mechanism of action for fibrosis treatment enabling a “first in class” therapy

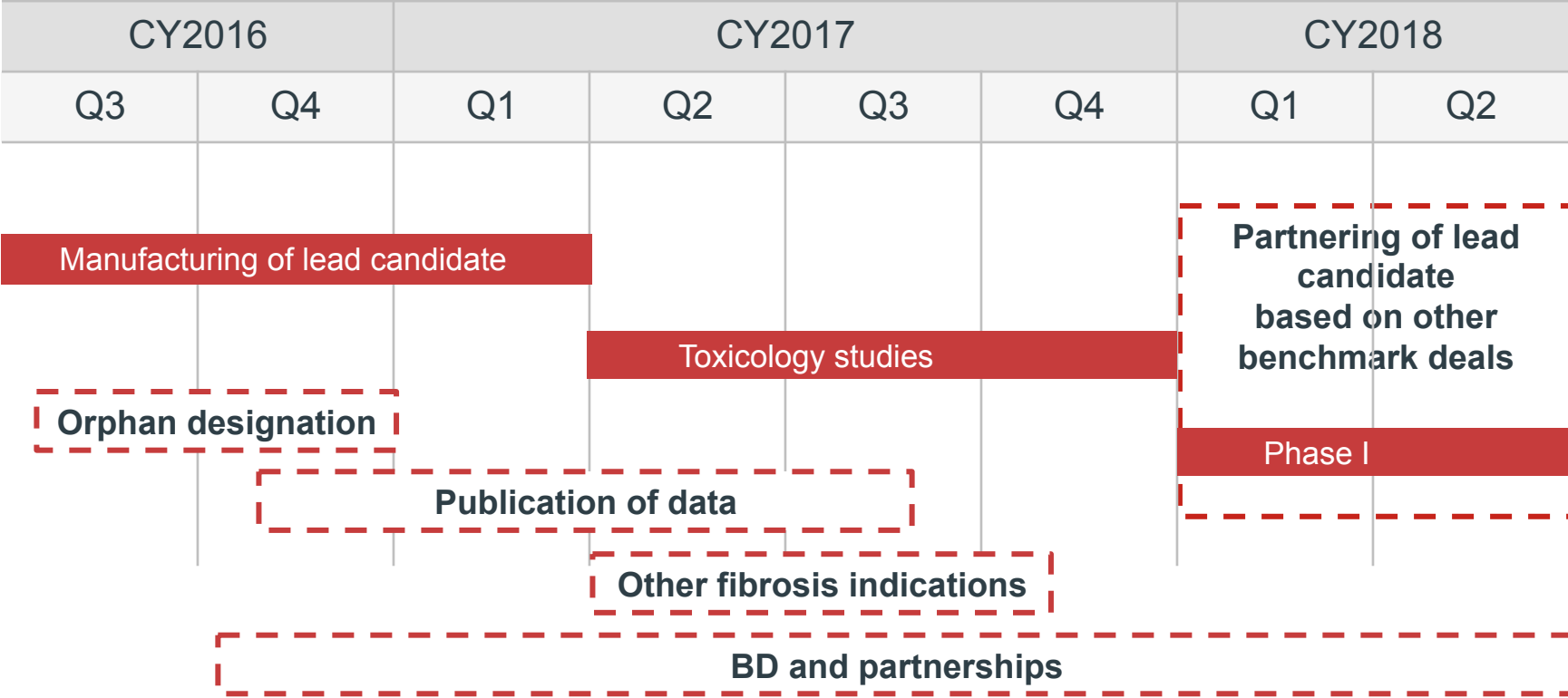
Global market interest in fibrosis treatments

Recent transactions confirm that big pharma are actively acquiring fibrosis assets at an early stage – typically based on Phase I results

Date	Company	Target	Acquired by	Deal value (US\$)	Deal commentary
Sep-15	Adheron Therapeutics	SDP051	Roche	\$105M upfront, plus \$475M in milestones	SDP-51 at end of Phase I for IPF
Aug-15	Promedior	PRM-151	BMS	\$150m upfront + \$1.25B	Phase II IPF and myelofibrosis
Nov-14	Galecto Biotech AB	TD139	BMS	\$444M	Option to acquire at end of clinical POC (no later than 60 days following Ph 1b for IPF completion)
Aug-14	Intermune	Esbriet / Pirfenidone	Roche	\$8.3B	Approval in Europe / Japan, phase III in the US
Jun-13	MicroDose Therapeutx	MMI0100	Teva Pharmaceuticals	\$40M upfront \$125M milestones	MMI0100 was in pre-clinical development
Mar-12	Stromedix	STX100	Biogen Idec	\$75M upfront \$487.5M milestones	End of phase I for IPF
Jul-11	Amira / BMS	BMS-986020	BMS	\$325M upfront \$150M milestones	End of phase I for IPF

Source: Medtrack Pharma Intelligence, Informa (all IPF deals since 2011)

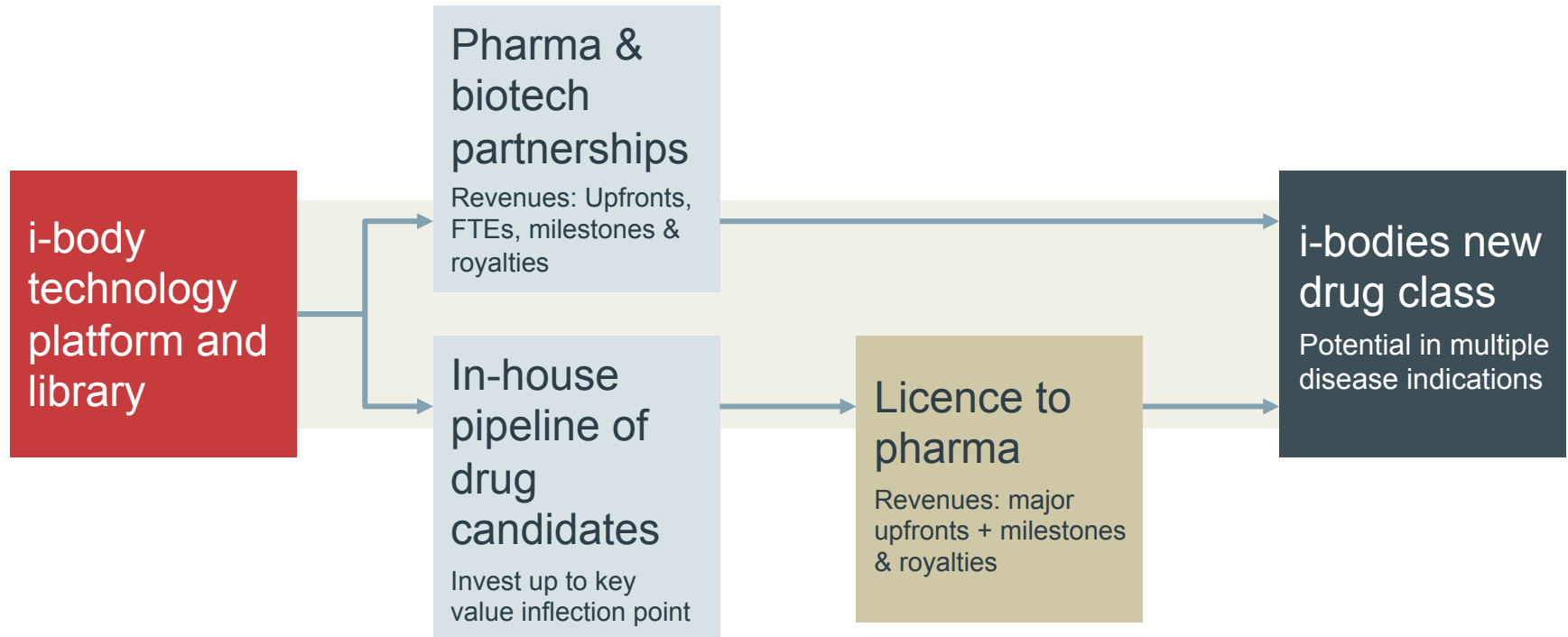
AD-114 development: key milestones



Expected newsflow next 18 months

- Q3 2016
 - ▶ Orphan Drug Designation (US FDA)
 - ▶ Commence manufacturing of material for toxicology testing
 - ▶ Presentation at Discovery on Target, Boston
- Q4 2016
 - ▶ Additional AD-114 IPF fibrosis data
 - ▶ Hypertrophic scarring animal results for AD-114
 - ▶ Completion of evaluation of AD-114 with IPF clinicians Alfred Hospital
- H1 2017
 - ▶ Presentation at Biotech Showcase, San Francisco
 - ▶ Data available from AD-114 NASH animal studies
 - ▶ Manufactured material for toxicology testing available
- H2 2017
 - ▶ Eye fibrosis additional data, funded by NHMRC development grant
 - ▶ Completion of other pre-clinical study animal models of AD-114
 - ▶ Initial Kidney/Heart data available for AD-114
 - ▶ AD-114 toxicology results

AdAlta business model – strategy to create value



Market benchmarks

Fibrosis lead AD-114



Sep-15 acquired by Roche
\$105m + \$475m milestones
phase I asset



Aug-15 acquired by BMS
\$150m + \$1.25b milestones
phase IIa asset

Galecto Biotech AB

Nov-14 acquired by BMS
\$444m
phase I asset

Next gen antibodies



April-16 with Abbvie
\$40m upfront + \$645m
milestones & royalties



Dec -15 with Roche
\$6.4m upfront + \$410m
milestones & royalties



Nov-15 with Novo-Nordisk
€9m upfront + €182m
milestones & royalties)

GPCRs



Acquired Feb-15 by Sosei
\$400m Phase Ib asset + 7 pre-
clinical leads



Acquired by Celgene July-15
\$8b Ph III, Ph II and GPCR
platform



April-16 with Boehringer
€8m payment for Ph1 GPCR
nanobody (€125m milestones
& royalties)

Management and Board in place to deliver strategy



Sam Cobb: Founding CEO and Director

Extensive experience in raising equity and commercialisation of technology



Dr John Chiplin: Independent Director

Managing Director of acquired antibody company Arana Therapeutics



Dr Mick Foley: Founding CSO

Expert in phage display for screening of the i-body library



Liddy McCall & Dr James Williams: Yuuwa Capital Directors

Founders and investment Directors of Yuuwa Capital



Dr Paul MacLeman: Chairman

Managing Director of a ASX listed IDT Australia Ltd

Founded biologics companies, experienced ASX listed executive



Founders of iCeutica Inc (acquired 2011) and Dimerix Limited

Directors of several Australian biotech and AgriTech companies
Multiple FDA, CE Mark and TGA approvals

Internationally recognised SAB with proven track record of drug development



David McGibney: pre-clinical and clinical advisor

20 years with Pfizer, including Head of European R&D, developed 10+ blockbuster drugs



Brian Richardson: drug discovery and development expert

Ex-Sandoz and Novartis (40+ years), including Head of Pre-clinical Research



John Westwick: pulmonary drug discovery and development

Over 14 years experience at Novartis, head of respiratory drug discovery, with five product launches and 13 products currently in the clinic

AdAlta investment summary

- ▶ Powerful proprietary technology platform to develop a pipeline of i-bodies for the treatment of a wide range of human diseases
- ▶ Initial focus on treating Idiopathic Pulmonary Fibrosis and other fibrotic diseases - high unmet clinical need
- ▶ Advanced lead candidate with significant pre-clinical validation of AD-114 demonstrating anti-fibrotic and anti-inflammatory effects
- ▶ Early commercialisation opportunity
- ▶ Experienced management and Board to drive AD-114 development and secure technology platform partnerships and product licensing deals
- ▶ IPO August 2016 raised \$10M to meet major milestones: clinical trials of AD-114 in fibrosis and development of i-body pipeline