

ASX / Media Release

AdAlta to present at 2019 Bioshares Biotech Summit

MELBOURNE, Australia, 26 July 2019: AdAlta Limited (ASX: 1AD), the biotechnology company focused on advancing its lead i-body candidate towards clinical development today announced Chief Executive Officer Sam Cobb will be presenting at and attending the forthcoming Bioshares Biotech Summit conference in New Zealand.

The Bioshares meeting will be held from July 26 to July 28, 2019, in Queenstown, New Zealand, and attendees will hear from 28 speakers, including analysts and biotech representatives who will discuss current biotech industry trends and the hottest areas of clinical development.

CEO Sam Cobb will present data on AdAlta's i-body platform and lead candidate, AD-214, for the treatment of fibrosis and explain what sets both the i-body technology and AD-214 apart from other drugs in market or being developed for the treatment of fibrosis.

Details of the presentation:

Session Title:	Therapeutics for Chronic Diseases – Competitive Positioning
Session Details:	The companies presenting in this session are exploiting their in-
	house drug discovery capabilities, to competitively position their
	businesses to treat a suite of chronic diseases. These start in orphan
	indications such as idiopathic pulmonary fibrosis and a rare kidney
	disease FSGS, and seeking to leverage those capabilities into major
	diseases such as NASH and chronic kidney disease through
	eventual global licensing deals.

Session Date/Time: July 26, 2017 from 4:00 PM to 5:00PM

A copy of the AdAlta presentation is attached with this cover note and will also be made available on the Company's website at <u>www.adalta.com.au</u>.

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Notes to Editors About AdAlta

AdAlta Limited is an Australian based drug development company headquartered in Melbourne. The Company is preparing for its phase 1 clinical studies for its lead compound AD-214. The clinical program is expected to commence early 2020 following the release of the current toxicity study data.

AdAlta's lead i-body candidate, AD-214 is for the treatment of idiopathic pulmonary fibrosis (IPF) and other human fibrotic diseases, for which current therapies are suboptimal and there is a high-unmet medical need. AdAlta is also in collaborative partnerships to advance the development of its i-body pipeline announcing an agreement with UK-based research organisation, Excellerate Bioscience on an undisclosed target of commercial interest.

AdAlta has a proprietary technology platform to generate i-bodies, a new class of protein therapeutics, with applications as therapeutic drugs to treat disease. Our technology mimics the shape and stability of a crucial antigen-binding domain, that was discovered initially in sharks and then developed as a human protein. The result is a range of unique compounds, for use in treating serious diseases.

The Company also plans to continue further drug discovery and development directed towards other drug targets and diseases.

Further information can be found at: <u>www.adalta.com.au</u>.

For more information, please contact:

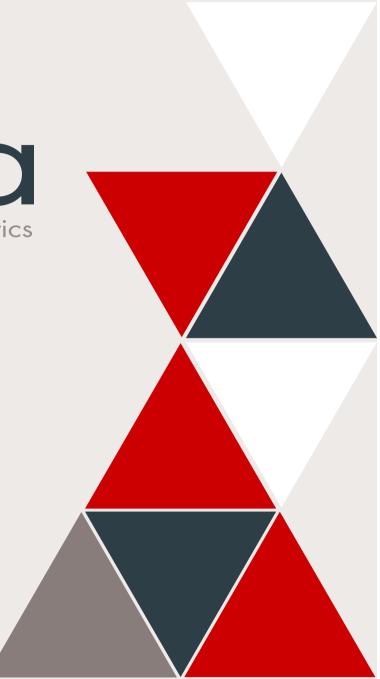
AdAlta Limited Sam Cobb, CEO Tel: +61 (0)3 9479 5159 E: <u>s.cobb@adalta.com.au</u> AddAlta next generation protein therapeutics

AdAlta Bioshares Presentation

July 2019

Sam Cobb, CEO and Managing Director AdAlta Limited (ASX:1AD)

s.cobb@adalta.com.au



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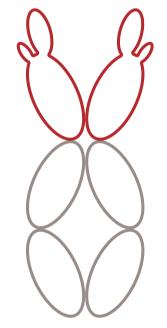
This presentation is not an offer or invitation for subscription or purchase of or a recommendation of securities. It does not take into account the investment objectives, financial situation and particular needs of the investor. Before making any investment in AdAlta, the investor or prospective investor should consider whether such an investment is appropriate to their particular investment needs, objectives and financial circumstances and consult an investment advisor if necessary.

This presentation may contain forward-looking statements regarding the potential of the Company's projects and interests and the development and therapeutic potential of the company's research and development. Any statement describing a goal, expectation, intention or belief of the company is a forward-looking statement and should be considered an at-risk statement. Such statements are subject to certain risks and uncertainties, particularly those inherent in the process of discovering, developing and commercialising drugs that are safe and effective for use as human therapeutics and the financing of such activities. There is no guarantee that the Company's research and development projects and interests (where applicable) will receive regulatory approvals or prove to be commercially successful in the future. Actual results of further research could differ from those projected or detailed in this presentation. As a result, you are cautioned not to rely on forward-looking statements. Consideration should be given to these and other risks concerning research and development programs referred to in this presentation.



1AD competitive positioning

- i-body technology: AdAlta's next-generation antibody platform technology
 - i-body platform technology for generating multiple products and collaborations for hard to treat diseases and difficult drug targets
 - Targeting 1-2 partnering deals with upfront payments (and future royalties and milestones) within the next 6-12 months
- AD-214 lead therapeutic: AdAlta's first i-body candidate for the treatment of fibrosis
 - Initial focus on Idiopathic Pulmonary Fibrosis (IPF) with US FDA Orphan Drug Designation and strong pre-clinical data
 - A disease with high unmet medical need and early transaction potential



AD-214



Treating 'undruggable' diseases



www.nature.com/ord



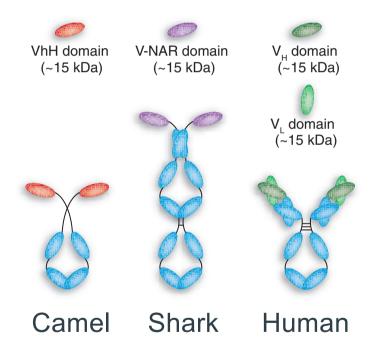


Where's the niche? If you keep that in mind there are many possibilities

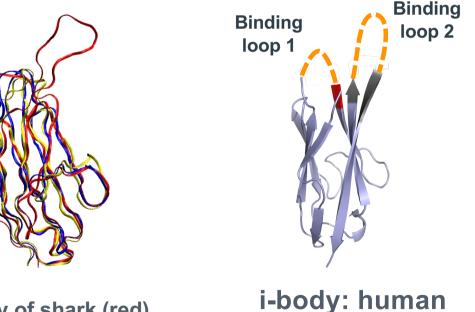


AdAlta i-body technology

 Camels and sharks have a unique single domain antibody



AdAlta's i-body technology based on the shape of the shark single domain



Overlay of shark (red) and human I-SET proteins (yellow/blue) i-body: human i-set protein with synthetic loops

M AdAlta

Advantages of the i-body

- ► High affinity and specificity like monoclonal antibodies: no off-target effects
- Long loop: potential to identify new epitopes, cavity binding and novel pharmacology
- **Extreme stability**: alternative routes of administration
- **Human framework**: less risk of immunogenicity

Drugging the undruggable: i-bodies can bind to targets like G protein-coupled receptors (GPCRs) and ion channels that have proved difficult to block with traditional antibodies



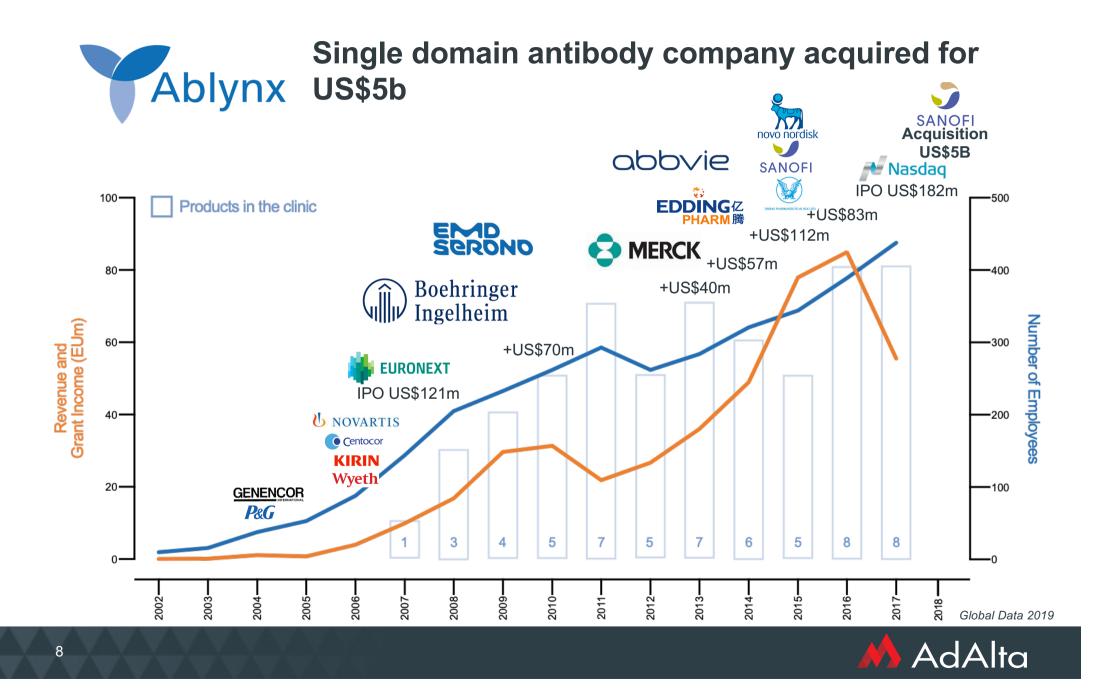
Building a multi-billion dollar antibody company: a case study

Product	Indication	Target	Pre-clinical	Phase I	Phase II	Phase III	Filing	
caplacizumab	aTTP	vWF			Japan		*	Ablynx
	RA	IL-6R			oupun			Ablynx
vobarilizumab	SLE	IL-6R						Ablynx +
ALX-0171	RSV	RSV			Japan			Ablynx
1st programme		bispecific						1
2nd programme	Immuno-Oncology	not disclosed						MERCK
Up to 15 program	mes	various						
Up to 8 programmes	Immuno-Inflammation	various	-					SANOFI
ozoralizumab	RA	TNFα				Japan		
ALX-0761/M1095	Psoriasis	IL-17A/IL-17F						MERCK
ALX-1141/M6495	Osteoarthritis	ADAMTS-5						MERCK
BI 836880	Oncology	VEGF/Ang2						Boehringer Ingelheim
BI 655088	Chronic kidney disease	CX3CR1		-				Boehringer Ingelheim
ALX-0141	Bone disorders	RANKL		Greater China				
>20 wholly-owned	l and partnered programm	ies						
								novo nordisk Boehri Ingelh

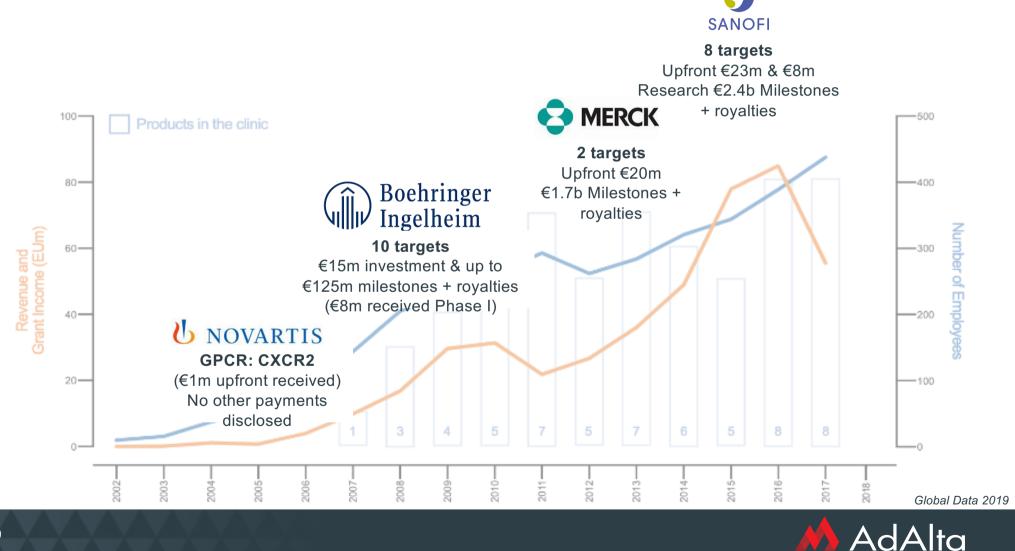
★ Filing in EU based on Phase II TITAN and Phase III HERCULES data



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Ablynx Deal metrics changed as programs advanced



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i-body platform: ability to build partnerships and pipeline

- AdAlta i-body platform technology providing potential for generating multiple products and collaborations
- Fibrosis focused lead program, AD-214, demonstrating advantages of the i-body platform

 moving shortly into first in man trials
 - Targets CXCR4 involved in fibrosis and many other disease areas
 - First in class / best in class treatment with US FDA orphan drug designation

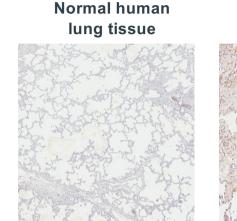
AdAlta targeting 1-2 partnering deals with upfront payments (and future royalties and milestones) within the next 6-12 months



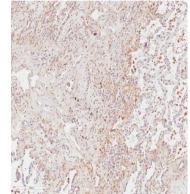
CXCR4 increased in disease

- CXCR4 expression increased in a number of human fibrotic diseased tissue (represented by brown staining)
- ► For example:
 - IPF diseased lung tissue in upper right panel compared with normal lung tissue
 - Diabetic diseased kidney tissue in lower right panel - compared with normal kidney tissue

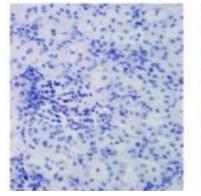
In each of the diseased tissue examples, CXCR4 is shown to be increased



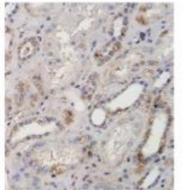
Diseased lung tissue



Normal human kidney tissue



Diseased kidney tissue





CXCR4 a known target with approved drug

CXCR4 is important for maintaining stem cells in bone marrow, with Mozobil (AMD3100, pictured) approved for single use – in combination with G-CSF to prepare patients to receive cancer treatments

Mozobil is cardio-toxic if dosed more than once in humans; currently being evaluated for chronic treatment of WHIMs (CXCR4 mutation) at micro-doses

All other CXCR4 antagonists in development focused on mobilisation of stem cells

CXCR4 has more recently been recognised as a critical player in development of a number of areas of fibrosis including lung, kidney, heart, eye and skin





i-bodies have novel pharmacology

Activity with human tissue

- Anti-CXCR4 i-body inhibited migration of IPF fibroblasts only, no effect on normal fibroblasts
- This profile is unlike existing two IPF treatments and existing CXCR4 antagonist Mozobil (AMD3100)

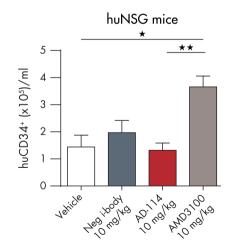
normal fibroblasts	fibroblast migration
\checkmark	\checkmark
Х	\checkmark
\checkmark	Х
\checkmark	Х
	fibroblasts √

No effect on

Inhibits IPF

No stem cell mobilisation

- Anti-CXCR4 i-body did not mobilise stem cells in a humanised mouse model and NHP studies
- This profile is unlike other CXCR4 antagonists including small molecule drug Mozobil (AMD3100)







Current treatments for IPF

Pirfenidone (Esbriet)

- US Approval October 15th 2014 previous rejection in 2010 (albeit positive advisory committee vote) with FDA requiring an additional study
 - 2018 sales of US\$1 billion
 - Sales continued to expand, driven by growth in the US (+19%) and Europe (+17%)

Nintedanib (Ofev)

- US Approval October 15th 2014
 - 2018 sales of US\$1.2 billion
 - 29% increase from 2017



Most advanced IPF trials

Г	Pha	se II complete	Phase III commenced			
	Kadmon [®] +	Prometic.	Promedior	Galápagos		
	PBI-4050	KD025	PRM-151	Pamrevlumab	GLPG-1690	
Molecule Type	Small Molecule to CTGF	Small molecule to ROCK2	Recombinant Protein, Serum Amyloid A	Monoclonal Antibody to CTGF	Small molecule to Autotaxin (LPA)	
Phase II Trial Design	41 patients 12 weeks Background of pirfenidone and nintedanib	39 patients 24 weeks No background therapy	116 patients 24 weeks Background of pirfenidone and nintedanib	103 patients 48 weeks No background therapy	23 patients 12 weeks No background therapy	
Phase II Trial Results	Change in FVC PBI-4050: -12mL PBI + Nin: +2mL PBI + Perf: - 102mL	Change in FVC KD025: -48mL SOC: -175mL	FVC %pred PRM-151: -2.5% Placebo: -4.8%	Change in FVC FG3019: -126mL Placebo: -308mL	Change in FVC GLPG: +8mL Placebo: -87mL	
Phase III Progress	No details released	No details released	Aim to commence recruitment in 2019	First patient dosed July 2019	First patient dosed Dec 2018	



A thin competitive landscape with more therapies critically required

19			85		25	14	2 <mark>2</mark>				
■ Discovery ■ Preclinical ■ Phase I ■ Phase II ■ Phase III ■ Marketed											
 Biogen Inc Small Phase II trial for BG- 00011 completed Plans to initiate a second larger Phase II trial for AVB6 antagonist Small Phase II 00011 comple Plans to initiate larger Phase II antagonist 		trial for BG-	 Bristol Myers Squibb Completing Phase II trial for RNAi compound licensed from Nitto BioPharma Inc. (BMS-986263) BMS have exclusive rights to acquire PRM-151 following completion of Phase II trial 		 Galecto Biotech Completed small Phase IIa for TD-139 that demonstrated safety but efficacy yet to be determined (Galectin3) 						
	Vicore Pharma • Phase I trial completed and a Phase II trial planned for late 2019 with AT2R antagonist		Indalo Therapeutics • To commence Phase II with Integrin inhibitor 2019 IDL-2965		 Comp MediciNova (t Celgene Corp 90001) Merck & Co (g Novartis (iana) 	oration (CC-					



Global market interest in fibrosis treatments

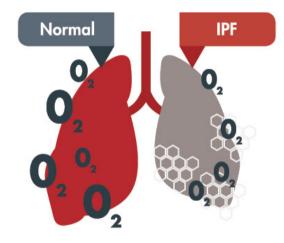
Fibrosis assets acquired at an early stage – typically based on Phase I results

Date	Company	Product	Acquired by	Deal value (US\$)	Deal commentary
Jul-19	Bridge Biotherapeutics	BBT-877	BI	\$50m upfront + \$1.2B in milestone payments	Phase I single dose completed with Phase I still in progress
Sep-18	Samumed	SM04646	United Therapeutics	\$10m upfront + \$340m milestones	Undergoing Phase I, USA rights only
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



AdAlta's place in the IPF treatment landscape

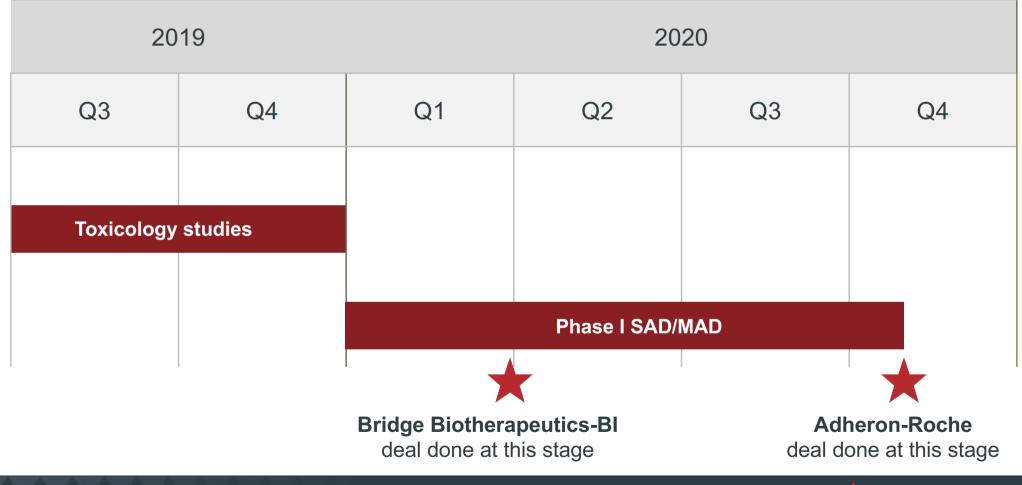
- Landmark decade for treatments for IPF, approval of Pirfenidone and Nintedanib, which has led to greater confidence in the development of drugs for IPF
 - Neither are optimal therapies the disease process is slowed, not reversed
- A number of products ahead of AdAlta:
 - Provide pathway for Phase II and III trials
 - Increased treatment options and probable survival benefit in IPF, will lead to an
 effective increase in prevalence, such that more patients will be seeking therapy
 - No IPF treatments under development targeting CXCR4
 - Existing approved CXCR4 small molecule antagonist Mozobil very different pharmacology to AD-214 and toxic when provided in chronic setting



High unmet medical need: there is a significant opportunity for multiple classes of drug to be clinically valuable and commercially successful for the management of IPF patients



AD-214 development: key milestones



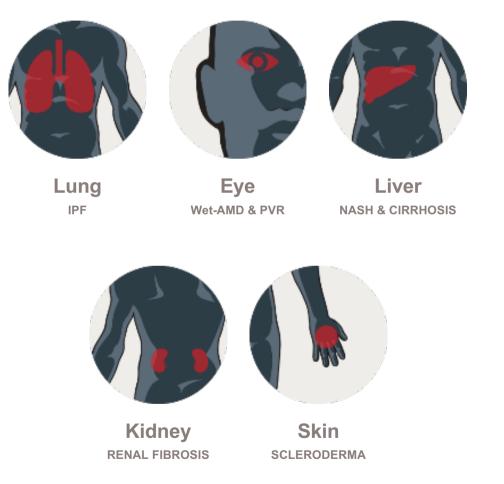


AD-214 has broad application in treating fibrosis

AdAlta data suggests that AD-214 can improve fibrosis across a range of fibrotic diseases

- LUNG: Idiopathic Pulmonary Fibrosis
- EYE: Wet-Age Related Macular Degeneration
- LIVER: NASH
- **SKIN:** Hypertrophic scar
- KIDNEY: Chronic kidney disease

AdAlta has demonstrated broad anti-fibrotic and anti-inflammatory effects in several animal models of disease and with human tissues





AdAlta pipeline today

			Target	Class of Target	Discovery	Preclinical	Manufacturing	IND enabling studies	Phase I
	AD-214	ldiopathic Pulmonary Fibrosis	CXCR4	GPCR					
gine		Other fibrotic indications	CXCR4	GPCR					
very en	Shark anti	body discovery	MCP-1	Novel ligand pocket					
i-body discovery engine	i-body dis	covery	TRPV4	lon Channel					
	Exce	Adalta next generation protein therapeutics illerate NCE	Target X	GPCR					
	External P	artnerships	Target X	TBC					



AdAlta pipeline 2020

	_		Target	Class of Target	Discovery	Preclinical	Manufacturing	IND enabling studies	Phase I
	AD-214	Idiopathic Pulmonary Fibrosis	CXCR4	GPCR					
igine		Other fibrotic indications	CXCR4	GPCR					
i-body discovery engine	Shark anti	Shark antibody discovery		Novel ligand pocket					
	Exce BIOSCIEI	Adalta next generation protein therapeutes lierate	Target X	GPCR					
	External P	artnerships	Target X	TBC	C	>			
	External P	artnerships	Target X	TBC	C	>			



AdAlta Limited (ASX:1AD) Summary

- AD-214 has significant pre-clinical validation demonstrating broad anti-fibrotic and anti-inflammatory effects as well as safety. Manufacturing on track with AD-214 set to be in clinic by Q1 2020
- Initial focus on treating Idiopathic Pulmonary Fibrosis (IPF) and other fibrotic diseases high unmet clinical need. Market has history of early commercialisation transactions in fibrosis
- Platform technology for pipeline expansion and partnerships
- Targeting of 1-2 partnership transactions with upfront payments (and future milestone and royalty payments) within the next 6-12 months
- Cash balance sufficient to fund the Company through pre-clinical and Phase 1 clinical studies for AD-214 and multiple value inflection points

Experienced management and Board to drive AD-214 development and secure technology platform partnerships / product licensing deals



next generation protein therapeutics

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