ADALTA LIMITED

Research Note

TICKING THE RIGHT BOXES ON THE WAY TO CLINICAL TRIALS

Investment Highlights

- **AdAlta Limited (1AD) has now achieved some near-term catalysts for its lead candidate, including further fibrosis data (ongoing); partnerships (ongoing) and; orphan designation (complete). Additionally, we expect further catalysts to be an update on manufacturing of the drug (June Q 2017); further partnerships (ongoing) and results from the toxicology study (second half 2017); which all lead up to Phase 1 clinical trials in 2018. We believe the market will now focus on the phase 1 trial, and that value should be attributed to 1AD as the trial nears, given it is the first commercial opportunity (via partnership or licencing) and is gradually being de-risked in accordance with the Company's timeline. We maintain our Speculative Buy rating.**
- **Company Overview:** 1AD has developed a proprietary protein therapeutics platform, called the i-body, which is a human protein with larger loops for binding to a drug target. This novel approach has created to the lead candidate, AD-114, which is being developed to treat a rare and fatal disease, Idiopathic Pulmonary Fibrosis (IPF), which is underserved by the two current approved drug therapies. 1AD has raised $10m to expedite its path to clinical trials, with Phase 1 now set to be concluded in the first half of CY18.
- **AdAlta Fibrosis Symposium Review**: In late February 2017, 1AD hosted a well attended symposium on IPF and other human fibrotic diseases in Melbourne; with well over 30 analysts and investors engaged throughout. The main take-away from the event was the pressing need for alternative and effective treatments for fibrotic diseases. Interesting, the difficultly of treating liver fibrosis (NASH) was particularly emphasised. AdAlta's data released in January 2017 with AD-114 in NASH positions 1AD well in the long-term given its initial successes in studies done on liver fibrosis models.
- **Orphan Designation Obtained:** In January 2017, 1AD announced it had received Orphan Designation from the US Food & Drug Administration (FDA) for its lead candidate (AD-114). AD-114 is a novel first-in-class drug targeting treatment of IPF, which has a 50% to 70% mortality rate and affects 135,000 people in the US every year. Orphan Drug status allows for significant R&D tax credits, new drug application fee waivers and a seven year period of market exclusivity from the FDA after pharmaceutical approval. Companies pursuing orphan treatments are usually granted accelerated development and regulatory timelines, as well as premium pricing. Thus, the Orphan Designation and the significant pre-clinical work done should allow 1AD to accelerate its development path; towards commercialization of the AD-114 via a partnership during/after Phase 1 clinical trials.
- **Indication Expansion and Market Overview**: The Company also plans to continue further drug discovery and development directed towards other drug targets and diseases with its i-body technology platform. The next possible indications (after IPF) being fibrosis of the eye, liver, heart, kidney and skin with AD-114. Thus, while 1ADs current addressable market is cUS$4bn, this could grow substantially to c$50bn by 2022, as it expands its novel i-body approach into adjacent fibrosis applications and treatments.
- **Balance Sheet and use of Funds**: As at 31 December 2016, 1AD had $8.7m in cash on hand. The Company has budgeted: $2.7m for the manufacturing of its lead candidate, AD-114, which is currently underway; $2m for toxicology tests; $2.3m for Phase 1 trials; and $2m for indication expansion and further i-body platform development. We believe 1AD is well funded for the next 2 years, particularly as it has received the Orphan Designation, as the current cash burn is c$850,000 per quarter; much of which is expected to be recuperated via the R&D tax incentive scheme.

31 March 2017

12mth Rating		SPEC BUY
Price	A$	0.22
RIC: **1AD.AX**		BBG: **1AD AU**
Shares o/s	m	100.0
Free Float	%	49.7
Market Cap.	A$m	22.0
Net Debt (Cash)	A$m	
Net Debt/Equity	%	na
3m Av. D. T'over	A$m	0.02
52wk High/Low	A$	0.28/0.17

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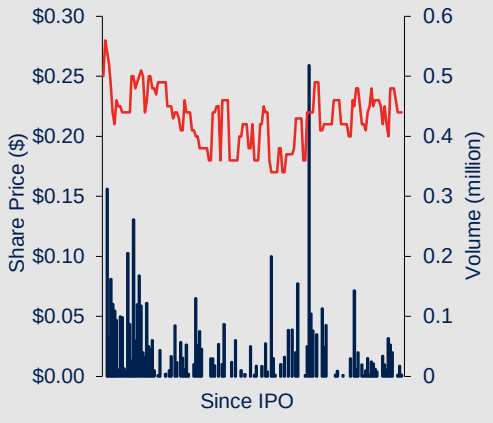
Disclosure: Patersons Securities Ltd acted as Lead Manager to an Initial Public Offering that raised $10.0m at $0.25/sh for AdAlta Limited in August 2016. It was paid a fee for this service.

An investment in this company should be considered speculative and note assumptions employed are contingent on broader market conditions remaining supportive. These can change at short notice. Recommendations are current at the time of publication.

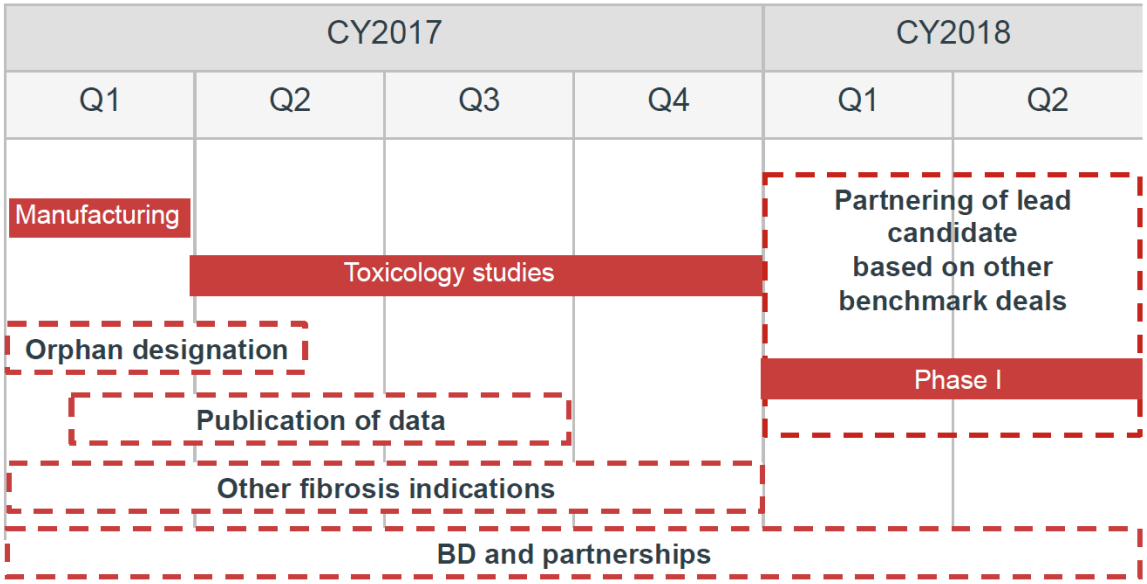
12 Month Share Price Performance



TIMELINE AND PROGRESS TO DATE

AdAlta Limited (1AD) has now achieved some near-term catalysts for its lead candidate, including further fibrosis data (ongoing); partnerships (ongoing) and; Orphan Designation (complete). Additionally, we expect further catalysts to be an update on manufacturing of the drug (June Q 2017); further partnerships (ongoing) and results from the toxicology study (second half 2017); which all lead up to Phase 1 clinical trials in 2018.

Figure 1: 1AD Timeline



Source: AdAlta Limited

Orphan Drug Designation - COMPLETE

In January 2017, 1AD announced it had received Orphan Designation from the US Food & Drug Administration (FDA) for its lead candidate (AD-114). AD-114 is a novel first-in-class drug targeting treatment of idiopathic pulmonary fibrosis (IPF), which has a 50% to 70% mortality rate and affects 135,000 people in the US every year.

1AD has done extensive pre-clinical work on AD-114, showing strong results in both anti-fibrotic and anti-inflammatory activity. It has also shown signs of greater efficacy than existing approved IPF drugs and treatments.

Orphan Drug status allows for significant R&D tax credits, new drug application fee waivers and a seven year period of market exclusivity from the FDA after pharmaceutical approval. Companies pursuing orphan treatments are usually granted accelerated development and regulatory timelines, as well as premium pricing.

Thus, the Orphan Designation and the significant pre-clinical work done should allow 1AD to accelerate its development path; through commercialization of AD-114 via a partnership during/after Phase 1 clinical trials.

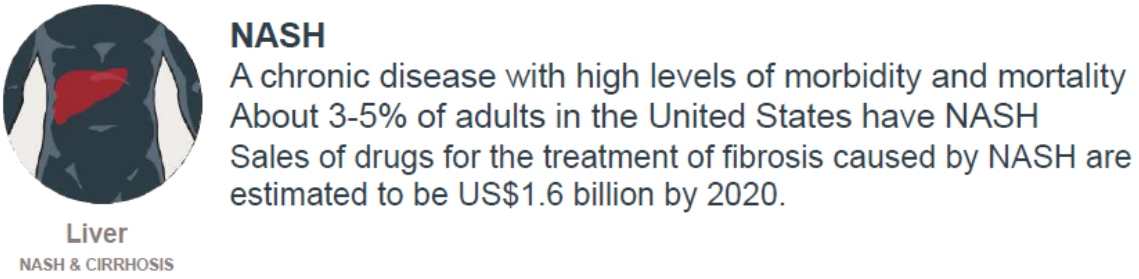
This was a highly positive result for 1AD, and one which we had highlighted as a major catalyst for the Company. We do note that the Orphan Designation was received slightly later than originally anticipated, or guided to by the Company's timeline at the time of its IPO. However, by receiving this designation, 1AD is now in a positive position leading into the Phase 1 trial. We believe the market will now focus on the Phase 1 trial, and that value should be attributed to 1AD as the trial nears, given it is the first commercial opportunity (via partnership or licencing) and is gradually being de-risked in accordance with the Company's timeline.

Further Fibrosis Data - ONGOING

Also in January 2017, 1AD released further positive pre-clinical data for its lead i-body candidate, AD-114. The results showed that AD-114 has the potential to be used in a broad range of fibrosis treatment, with this data set showing reduction in lung and liver fibrosis in mouse models.

The liver fibrosis (NASH or Non-alcoholic steatohepatitis) data is particularly interesting, given that is a very large and currently undertreated area. AD-114 has demonstrates both anti-fibrotic and anti-inflammatory activity in the liver, which is important for arresting and modifying the disease and tackling the treatment of NASH.

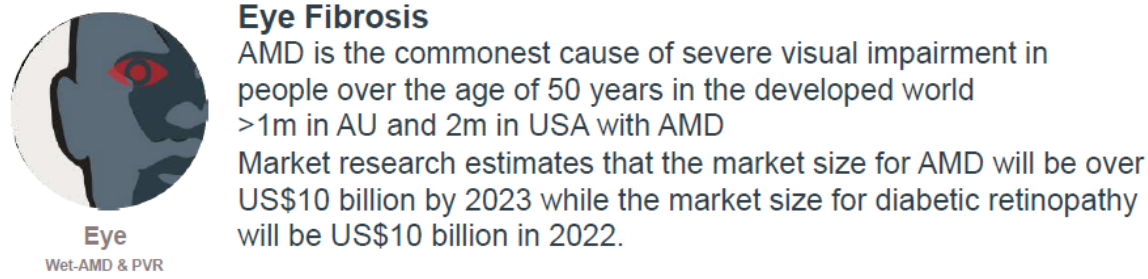
Figure 2: Non-alcoholic steatohepatitis (NASH)



Source: AdAlta Limited

1AD will use this additional data to support its use of the i-body as a platform for multiple treatments. The Company has completed similar studies on hypertrophic scarring in animal models we well as a mouse model of eye fibrosis (Wet- AMD). The latter is funded by a National Health and Medical Research Council (NHMRC) development grant.

Figure 3: Eye Fibrosis (Wet –AMD)



Source: AdAlta Limited

The Company has reiterated that it is focused on getting to Phase 1 human clinical trials for AD-114 for use in IPF by early 2018, with the view to license the drug during/post Phase 1 studies.

Partnerships - ONGOING

1AD has signed an exclusive commercial license agreement with Crossbeta Biosciences. Crossbeta has been granted exclusive license to three beta-amyloid oligomer (ABO) specific shark antibodies, which were identified via the collaboration agreement between the companies spanning from December 2013.

1AD will receive royalties on future revenues, while research and development and ongoing costs are to be managed by Crossbeta. The novel technology is to be used in the treatment of Alzheimer's, which is the most common form of dementia and affects about 1 in 10 people over the age of 65.

This is a highly positive agreement for 1AD, which opens up a new potential revenue stream and goes toward validating its i-body platform approach. 1AD has previously stated that the i-body technology could be used in treatments outside of its current main focus (fibrosis), and could be seen as a new class of treatment and delivery system. This licensing agreement goes toward validating the i-body as a multiuse/treatment platform.

We note that commercialization of Crossbeta's treatment would be some years away and thus do not expect any revenue from the license agreement in the near-term.

1AD has also expanded its partnership with Alfred Hospital in Melbourne, and the clinical research team led by Dr Glen Westall, an expert in lung fibrosis and IPF. The expanded collaboration further validates AD-114's role in the treatment of IPF, will run for an additional six months and will be funded by an Innovation Connection grant from the Australian Federal Government, as well as 1AD's research and development, and clinical budget.

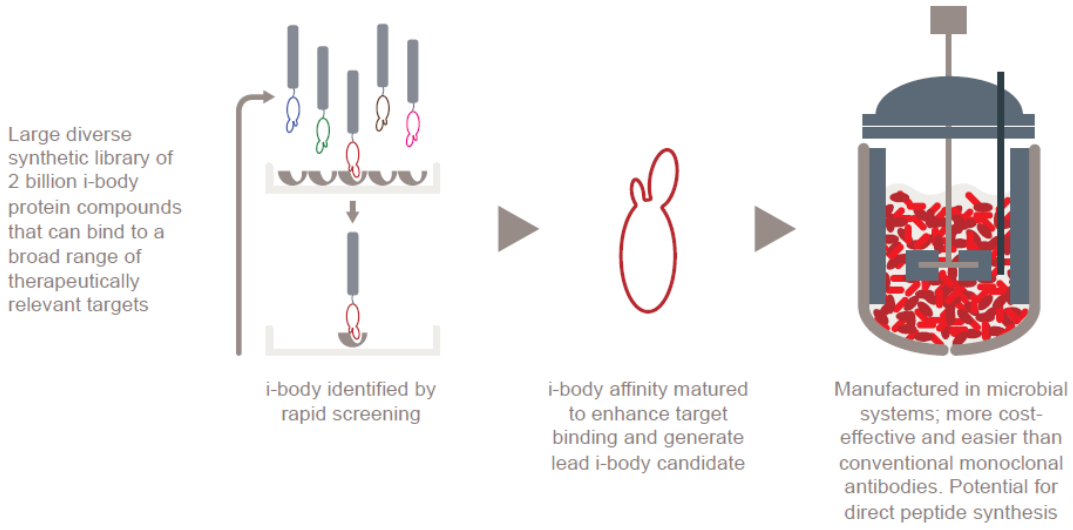
Manufacturing - UNDERWAY

1AD has signed an agreement with FujiFilm Diosynth Biotechnologies to begin manufacturing AD-114. FujiFilm Diosynth Biotechnologies is one of the world's leading global biologics and vaccines contract development and manufacturing organisations with development and manufacturing sites in Billingham (United Kingdom), North Carolina and Texas (United States), with over 1,000 employees.

1AD plans to produce the lead i-body drug candidate to provide materials for toxicology studies and for human clinical trials. The i-bodies will be manufactured in bacterial systems, a more cost effective and easier method than the types of human cell culture required for conventional monoclonal antibodies. This takes advantage of FujuFilm's proprietary pAVEway advanced protein platform (proven via the manufacturing of more than 90 biologics and drug therapies).

The signing of an established manufacturer is a key step in de-risking 1AD's path to its Phase 1 trial, as many therapies stumble during manufacturing. 1AD expects the first batch from the manufacturing process to be delivered by the end of June 2017.

Figure 4: i-body Identification and Manufacturing Process



Source: AdAlta Limited

Toxicology – YET TO START

Once the manufacturing of the first batch of AD-114 i-bodies is completed (end of June 2017), 1AD may undertake a variety of standard toxicology studies in two animal models which are required before human clinical trials.

Subsequently, safety trials should comprise safety and dosage testing in human volunteers. Levels of AD-114 in the blood will be measured and any adverse effects will be noted. Preliminary efficacy studies should be completed on patients with IPF.

These studies are expected to occur over CY17, and lead into the Phase 1 trial in CY18. We note that significant testing has already been done, both *in-vitro* and *in-vivo*, thus the toxicology and efficacy testing should not be a hurdle in the development progress. These tests may also speed up the Phase 1 trial process, and the data gained from the tests could also provide 1AD with added impetus in early discussions with potential partners or licensors.

Phase 1 Trials – YET TO START

Phase I clinical trials are conducted to test a new biomedical intervention for the first time in a small group of people (e.g. 20-80) to evaluate safety (e.g. to determine a safe dosage range and identify side effects) and the pharmacokinetics (e.g. how long the i-body will last in the blood stream). The length of the study is normally several months, plus additional time for ratification and verification of data. 70% of treatments move onto Phase 2.

We also note that 1AD's Board has significant experience in clinical trials (with 2 members currently sitting on Australian based Phase I clinical research boards), and this should assist the Company in completing the Phase 1 trials in a timely manner.

In the pharmaceutical sector, there have been significant licensing and acquisition deals completed for anti-fibrotic drug candidates after Phase I clinical development. Thus, post Phase 1 (scheduled for the first half of CY18) may be the first material commercial opportunity for 1AD. We believe that 1AD is currently in talks, and will continue negotiations with major pharmaceuticals and drug partners, which may lead to an early agreement, likely subject to successful Phase 1 results.

AdAlta Fibrosis Symposium Review

In late February 2017, 1AD hosted a symposium on IPF and other human fibrotic diseases in Melbourne for analysts and investors. The main take-away from the event was the pressing need for alternative and effective treatments for fibrotic diseases. Interesting, the difficultly of treating NASH was particularly emphasised, which positions 1AD well in the long-term given its initial successes in studies done on liver fibrosis animal models.

The symposium was well attended, with over 30 participants (including speakers, investors and analysts) engaged throughout.

The speakers included Robert Peach (Non-Executive Director), who gave an overview of the $8 bn Receptos acquisition; Glen Westall (Alfred Hospital), who spoke about the current research in IPF; Muh Geot Wong, who discussed renal fibrosis and kidney diseases; Erica Fletcher (University of Melbourne), who gave an overview of eye fibrosis and its causes and current treatments; and Sam Cobb (CEO of 1AD), who provided an update on the Company's activities.

COMPANY OVERVIEW

AdAlta Limited (1AD) is an Australian-based drug discovery and development company headquartered in Melbourne. The Company has developed a proprietary technology platform that generates i-bodies, a new class of protein therapeutics that mimics the shape of shark antibodies and engineers its key stability features into human proteins. This breakthrough class of novel biological drugs may be used for the treatment of numerous underserved chronic diseases, with the initial target being fibrotic diseases.

1ADs key differentiator is that the proprietary i-body proteins combine the stability and alternative routes of administration of a small molecule drug, with the safety and specificity of an antibody.

To date, 1AD has spent more than $11m on the development of the i-body technology platform, including the pre-clinical development of the lead i-body drug candidate. This lead candidate, AD-114, is developed for the treatment of fibrosis of the lung (idiopathic pulmonary fibrosis or IPF); a rare, chronic and ultimately fatal disease.

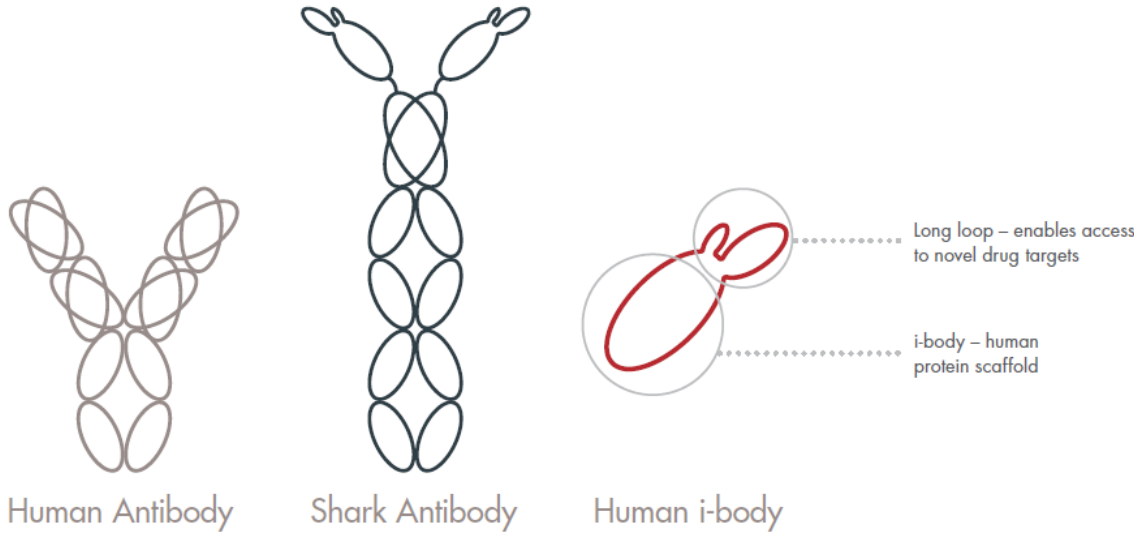
THE I-BODY

The i-body is a human protein scaffold with a long binding loop. The i-body combines the advantages of monoclonal antibodies (high target specificity and affinity) with the beneficial stability features of small molecules.

Additionally, this long binding loop that is a feature of shark single domain antibodies and is not present in either human or next generation antibodies, enables the i-body to recognise and bind to a diverse range of drug targets that are currently difficult to access by current antibody therapies. These include clinically important targets such as G-protein coupled receptors (GPCRs) and ion channels.

1AD has a portfolio of granted patents and applications that protect the i-body technology platform, including its lead i-body drug candidate, in key countries.

Figure 5: 1AD's Human i-body



Source: AdAlta Limited

LEAD DRUG CANDIDATE (AD-114)

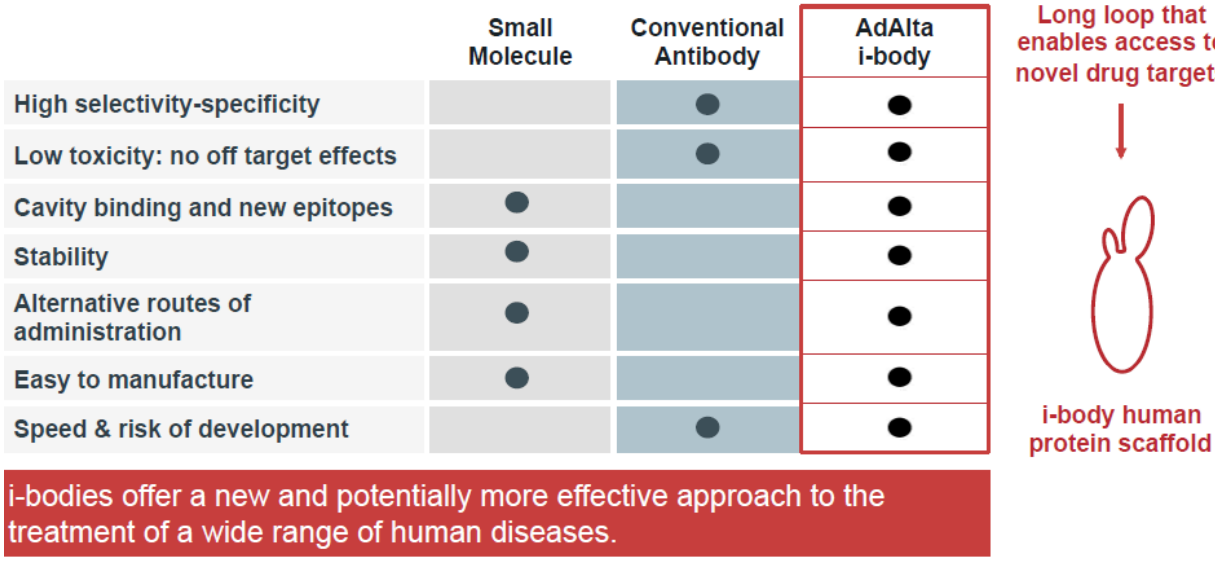
The first application of 1AD's lead drug candidate, AD-114, is for the treatment of fibrosis of the lung (idiopathic pulmonary fibrosis or IPF), a rare, chronic and ultimately fatal disease for which current therapies are sub-optimal and there is a high-unmet medical need.

AD-114 has shown anti-fibrotic activity, as well as anti-inflammatory activity in pre-clinical studies in multiple animal models, which are important for the treatment and prevention of IPF.

1AD has also tested AD-114 on human patient lung tissue samples – including normal lung tissues and tissue from patients with IPF disease and with various classifications of disease. These tests have demonstrated that AD-114 binds specifically to IPF patient tissue and also has an anti-fibrotic effect on the lung tissue of patients with IPF and that AD-114 has no binding or activity with normal patient lung tissue.

1AD's strategy is to further develop and then license its lead candidate to a pharmaceutical or biotechnology company, potentially earning up-front, milestone payments and licensing revenues. This has recently occurred in the industry after successful completion of Phase 1 trials.

Figure 6: The i-body Advantage



Source: AdAlta Limited

Compared to current approved drug treatments, 1AD's technology is designed to bind very selectively to the chemokine receptor CXCR4. This receptor is elevated in what are called 'fast progressing' IPF patients. The Company has shown in a disease animal model of IPF, that AD-114 can inhibit the migration of the fibroblast or fibrocyte cells that produce collagen and damage via migration to the lungs. Using human lung tissue containing fibroblast cells, 1AD has also shown that AD-114 does not inhibit normal, as opposed to diseased IPF fibroblast cells. This would appear to confer an advantage over Nintidanib, which cannot distinguish between either groups of fibroblast cells; and Pirfenidone, which does not affect normal fibroblast cells nor is it able to affect IPF fibroblast cells. AD-114 also has a different mechanism of action to other drugs that bind to the chemokine receptor CXCR4, demonstrated by the comparison to the Sanofi drug AMD3100 which also had no affect on normal or IPF diseased fibroblast cells.

Figure 7: AD-114 Key Advantages over Approved Therapies

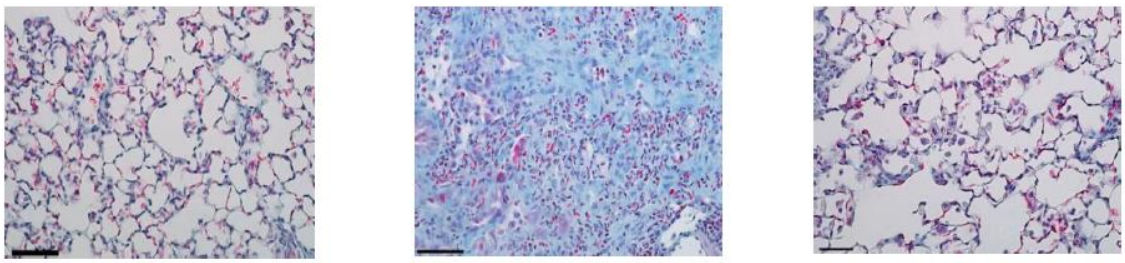
Human tissue *In vitro* activity	No effect on normal tissue	Effect on diseased / IPF tissue
i-body AD-114	✔	✔
Nintedanib (Boehringer)	✗	✔
Pirfenidone (Roche)	✔	✗
Other CXCR4 drug (Sanofi)	✔	✗

Source: AdAlta Limited

Pre-clinical studies have shown AD-114:

- has specificity for diseased human tissue with effects only shown on IPF tissue and no effects displayed on normal lung tissue nor any evidence of off target effects;
- is more effective than existing IPF approved drugs showing greater *in vitro* efficacy compared to the only approved therapies Nintedanib and Pirfenidone;
- demonstrates both anti-fibrotic and anti-inflammatory effects in multiple animal models; and
- is a novel mechanism of action for fibrosis making AD-114 a potential "first in class" therapy.

Figure 8: Lab Test Results of AD-114



Source: AdAlta Limited

The Company also plans to continue further drug discovery and development directed towards other drug targets and diseases with its i-body technology platform. The next priority (after IPF) is currently fibrosis of the liver (NASH) with data demonstrating AD-114 has anti-fibrotic activity and of the eye with data demonstrated AD-114 has anti-fibrotic activity in models of wet-AMD, with models of the skin, heart and kidney also to be completed over the next twelve months. In addition, the Company has developed proprietary libraries containing over 2 billion unique i-body protein compounds from which it aims to identify other drug candidates with the potential to address a number of therapeutic areas.

MARKET OVERVIEW

Worldwide sales of drugs for the treatment of IPF are estimated to grow to cUS$4.2bn by 2020. In the pharmaceutical sector there have been significant licensing and acquisition deals completed for anti-fibrotic drug candidates after Phase I clinical development. 1AD's strategy is to license its lead candidate to a biotechnology or pharmaceutical company, with negotiations and talks believed to be currently underway.

While 1AD is initially targeting idiopathic pulmonary fibrosis (IPF) with AD-114, it may expand to target:

- Eye Fibrosis: Treatment of diabetic retinopathy and wet-AMD, which causes eye fibrosis, is estimated to be a cUS$10bn market by 2022.
- Liver Fibrosis: treatment of fibrosis caused by non-alcoholic steatohepatitis (NASH) is estimated to be a cUS$1.6bn market by 2020.
- Heart Fibrosis: The cardiomyopathy market is estimated to reach cUS$1.4bn by 2023
- Kidney Fibrosis: The Chronic kidney disease (CKD) market is estimated to reach cUS$11.7bn by 2022.
- Skin Fibrosis: The markets for anti-scarring drugs for hypertrophic scarring; burn related scarring; diabetic wounds; and other skin fibrotic conditions is estimated to reach US$12bn by 2020.

Thus, 1ADs current addressable market (being IPF) for AD-114 is cUS$4bn. However, this could grow substantially to c$50bn by 2022, as additional treatments are targeted.

Figure 9: Fibrosis Market

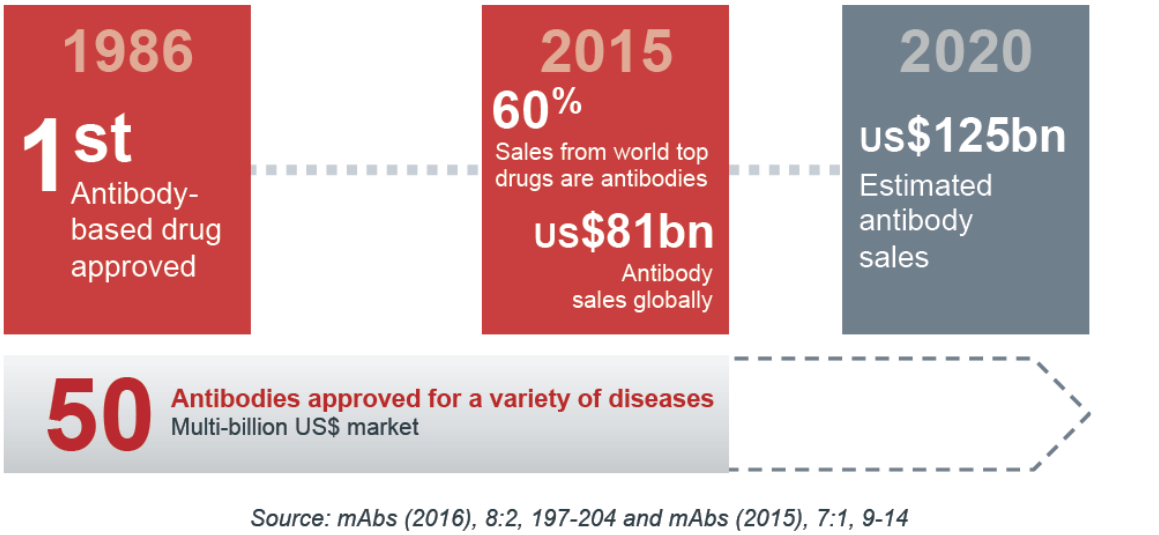
Source: AdAlta Limited

The lead candidate, AD-114, is a derivative of antibody-based drugs and has successfully demonstrated both anti-fibrotic and anti-inflammatory effects in pre-clinical studies in multiple animal models. Novel approaches, such as the i-body, are expected to lead the next wave of antibody treatment advancement.

The first antibody-based drug was approved in 1986. Since then, more than 50 antibodies have been approved, and are often the preferred method, to treat a variety of ailments. In 2015, global sales revenue for all antibody based products was nearly US$81bn. Based on the current rate of approvals, antibody based drug sales are expected to be cUS$125bn per annum by 2020.

The i-bodies offer a new, and potentially more effective, approach to the treatment of a wide range of human diseases. Advantages compared to existing antibodies include stability and a long binding loop for efficient target selection.

Figure 10: Antibody Market



Source: AdAlta Limited

Idiopathic Pulmonary Fibrosis (IPF)

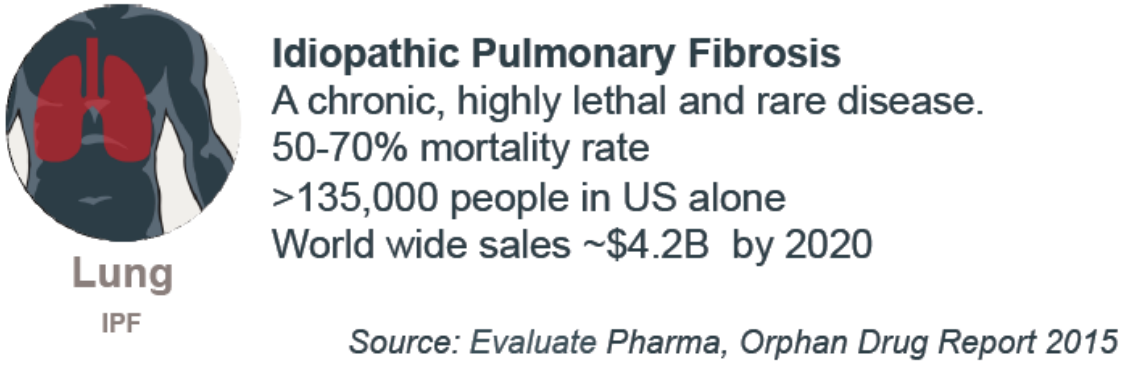
There is currently no cure for idiopathic pulmonary fibrosis (IPF), with IPF drugs currently on the market either having no effect in individual patients or only slowing down disease progression. Therefore, there is a need for more effective treatments.

Fibrosis can occur in many tissues of the body as a result of inflammation or damage. As a result, collagen build up occurs which can result in scarring of vital organs such as the lung, liver, skin, eye, heart and kidney leading to irreparable damage and eventual organ failure. It has been estimated that fibrosis can be attributed to 45% of all diseases in the developed world and this condition represents a large unmet clinical need. There is currently no satisfactory treatment for IPF and the rate at which the disease progresses is highly variable, with some patients remaining stable for several years while others may deteriorate rapidly. Patients diagnosed with IPF survive for an average of two-three years, post diagnosis.

IPF is categorized as a rare disease and thus potential treatment, such as 1AD's novel AD-114 candidate, may acquire Orphan Drug Designation. IPF affects an estimated:

- 138,000 people in the United States (US), with about 48,000 new cases being diagnosed annually. In the US, 50,000 people die each year from IPF; the same mortality rate as breast cancer;
- 110,000 people in Europe; and
- 10,000 people in Australia.

Figure 11: Idiopathic Pulmonary Fibrosis



Source: AdAlta Limited

IPF represents an attractive market opportunity due to its potential to achieve orphan status, thus supportive regulatory tailwinds, and due to there being few approved treatments. We note that the current treatments only work to slow the progress of IPF, and have varying (mostly low) degrees of success.

Current approved drug treatments for IPF include Pirfenidone and Nintidanib, which are both approved in Europe and the USA.

Figure 12: Currently approved IPF drug treatments

Chemical Name	Brand	Company	Approval	Notable Transactions	Comment
Pirfenidone	Esbriet	Roche	USA - 2014, Europe - 2011	Roche purchased Esbriet's developer, Intermune, for $8.3bn in August 2014	Significantly reduces the risk of disease progression by 30%*
Nintedanib	Ofev, Vargetef	Boehringer Ingelheim	USA - 2014, Europe - 2015		Slowed disease progression by reducing the annual rate of decline in forced vital capacity, with a manageable side-effect profile**

Source: Patersons Securities Limited, fda.gov

**Cochrane Collaboration Review*

*** Therapeutic Advances in Musculoskeletal Disease (December 1, 2015)*

Non pharmacological interventions include:

- **Lung transplantation**: used as a last resort and is inhibited by being a major operation with strict guidelines for qualifying patients;
- **Long-term oxygen therapy**: recommendation for use in those patients with clinically significant resting hypoxemia, although has not been shown to improve survival in IPF; and
- **Pulmonary rehabilitation**: Typical programs of rehabilitation include exercise training, nutritional modulation, occupational therapy, education and psychosocial counselling. Used to alleviate some overt symptoms of IPF.

Recent Commercial Deals in IPF

The anti-fibrosis sector is characterised by numerous significant licensing and acquisition deals completed for anti-fibrotic drug candidates after the Phase I clinical development stage (Figure 13).

1AD will look to license its lead candidate AD-114 to a biotechnology or pharmaceutical company on the completion of its Phase I clinical studies, potentially earning up-front, milestone payments and licensing revenues. We believe the Company is currently in talks with numerous parties, and may look to sign a deal which could be subject to the Phase 1 results.

Figure 13: Global Market Interest in Fibrosis Treatment

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)

CAPITAL STRUCTURE AND BALANCE SHEET

1AD raised A$10m in an oversubscribed Initial Public Offering at $0.25/sh in August 2016. As at 31 December 2016, 1AD had $8.7m in cash on hand. The funds are set to be used to expedite the Phase 1 clinical trial process for its lead candidature drug, AD-114. The entire process from drug manufacturing, which is currently underway, to testing to the completion of the Phase 1 trial is expected to take 2 years (first half of CY18). While this is an expensive process, we believe 1AD is well funded for the next 2 years; particularly that it has received the Orphan Drug Designation.

The current quarter cash burn is c$850k, increasing from $400k the quarter period largely due to an increase in R&D expenditure. However, much of this is expected to be recouped from the R&D tax incentive scheme. 1AD has budgeted: $2.7m for the manufacturing of AD-114, which is currently underway; $2m for toxicology tests; $2.3m for Phase 1 trials; and $2m for indication expansion and further i-body platform development.

Figure 14: Use of Funds

Use of Funds	AU$m
Manufacturing	2.7
Toxicology Studies	2.0
Clinical Studies	2.3
Indication Expansion	0.3
i-body Platform Development	1.6
Woking Capital	0.5

Source: AdAltda Limited, Patersons Securities Limited

1AD currently has 100m shares outstanding of which 23.9m are escrowed for 24 months from the IPO. Yuuwa Capital, which was an initial seed investor, currently holds 53.5% of the outstanding shares and participated in the IPO.

Yuuwa Capital is a Perth-based, early-stage venture capital firm that invests in software, life sciences and biotech. The fund is closed ended and has a 10 year lifetime. We believe the fund life-cycle is set to end approximately 12 months after the conclusion of Phase 1 clinical trial of the AD-114 lead candidate (end CY19). We believe the timing is positive for 1AD investors as it acts as a timely motivator for commercial success.

Figure 15: Substantial Shareholders

Major Shareholders	%
Yuuwa Capital	53.5
Platinum Asset Management	7.97
Citycastle Pty Ltd	5.26
Top 20	**83.07**

Source: Bloomberg, Patersons Securities Limited

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