

**24 February 2023**

**ASX Announcement**

## **AdAlta presentation to Spark Plus Singapore Biotech Day**

**MELBOURNE Australia, 24 February 2023:** AdAlta Limited (ASX:1AD), the clinical stage drug discovery company developing novel therapeutic products from its i-body platform is presenting at Spark Plus' Biotech Day in Singapore on 24 February 2023.

CEO and Managing Director, Tim Oldham PhD's presentation "Next generation protein therapeutics: doing what antibodies cannot" will comprise highlights from the attached and fully updated company overview.

Authorised for lodgement by:

**Tim Oldham**  
**CEO and Managing Director**  
**February 2023**

### **Notes to Editors**

#### **About AdAlta**

AdAlta Limited is a clinical stage drug development company headquartered in Melbourne, Australia. The Company is using its proprietary i-body technology platform to solve challenging drug targeting problems and generate a promising new class of single domain antibody protein therapeutics with the potential to treat some of today's most challenging medical conditions.

The i-body technology mimics the shape and stability of a unique and versatile antigen binding domain that was discovered initially in sharks and then developed as a human protein. The result is a range of unique proteins capable of interacting with high selectivity, specificity and affinity with previously difficult to access targets such as G-protein coupled receptors (GPCRs) that are implicated in many serious diseases. i-bodies are the first fully human single domain antibody scaffold and the first based on the shark motif to reach clinical trials.

AdAlta has completed Phase I clinical studies for its lead i-body candidate, AD-214, that is being developed for the treatment of Idiopathic Pulmonary Fibrosis (IPF) and other human fibrotic diseases for which current therapies are sub-optimal and there is a high unmet medical need. AdAlta has a second target in discovery research, also in the field of fibrosis and inflammation.

The Company is also entering collaborative partnerships to advance the development of its i-body platform. It has a collaboration with Carina Biotech to co-develop precision engineered, i-body enabled CAR-T cell therapies (i-CAR-T) to bring new hope to patients with cancer. It has an agreement with GE Healthcare to co-develop i-bodies as diagnostic imaging agents (i-PET imaging) against Granzyme B, a biomarker of response to immuno-oncology drugs, a program now in pre-clinical development.

AdAlta's strategy is to maximise the products developed using its next generation i-body platform by internally discovering and developing selected i-body enabled product candidates against GPCRs implicated in fibrosis, inflammation and cancer and partnering with other biopharmaceutical companies to develop product candidates against other classes of receptor,



in other indications, and in other product formats.

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

**For more information, please contact:**

**Investors**

Tim Oldham, CEO & Managing Director  
Tel: +61 403 446 665  
E: [t.oldham@adalta.com.au](mailto:t.oldham@adalta.com.au)

**Media**

IR Department  
Tel: +61 411 117 774  
E: [jane.lowe@irdepartment.com.au](mailto:jane.lowe@irdepartment.com.au)

# Next generation protein therapeutics: doing what antibodies cannot

*Tim Oldham PhD, CEO and Managing Director, AdAlta (ASX:1AD)*

Investor presentation to Spark Plus Biotech Day, 24 February 2023

## Disclaimer

Investment in AdAlta is subject to investment risk, including possible loss of income and capital invested. AdAlta does not guarantee any particular rate of return or performance, nor do they guarantee the repayment of capital.

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.

## AdAlta business and focus

### Purpose: to go where antibodies cannot

AdAlta enables a high-value therapeutic product pipeline by deploying antibody-like molecules in applications where traditional antibodies are ineffective or sub-optimal

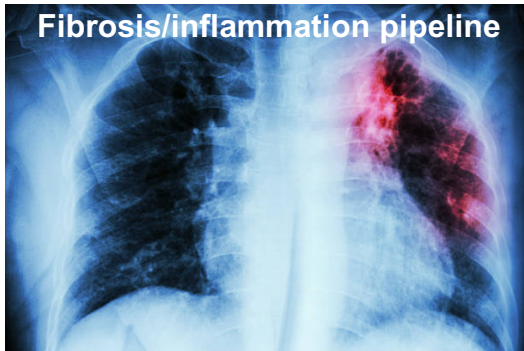
#### Discovery business



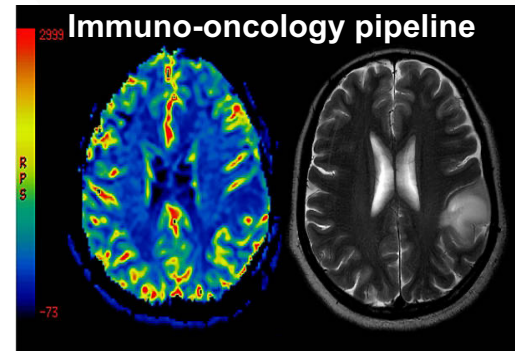
*Proprietary i-body platform*  
+  
*In-house discovery team*  
+  
*Own labs*  
=

*Repeated discovery of multiple, high value product candidates*

#### Product development business



**Fibrosis/inflammation pipeline**

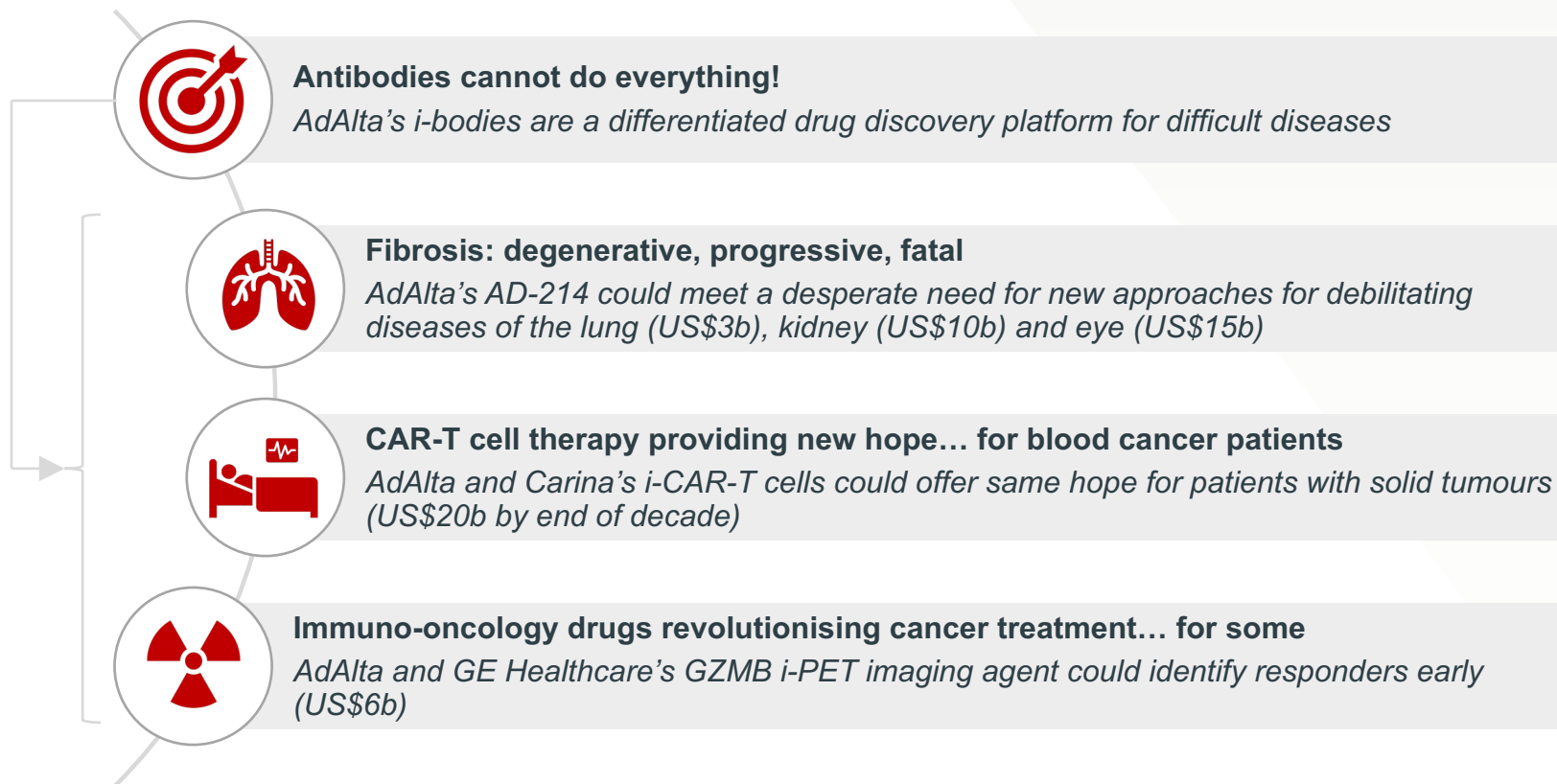


**Immuno-oncology pipeline**

*Experienced pre-clinical and clinical leaders*  
+  
*In-house protein engineering*  
+  
*Cost effective Australian location*  
=

*Product candidates progressed through value enhancing preclinical and early clinical development milestones prior to out-licensing*

## AdAlta's customer value proposition: high value therapeutics addressing difficult targets for challenging diseases



# AdAlta's pipeline ... so far



# Discovery platform: i-bodies



**i-bodies allow for high affinity, high specificity binding to targets that are intractable for traditional antibodies**

## Small Molecules



High specificity, avoiding off-target issues of small molecules

## Antibodies



~10% the size of human antibodies  
Capable of engaging sterically hindered cell membrane receptors, delivering payloads, efficient vector delivery

## i-bodies



Structure confers unique binding capabilities (unique receptor and epitope engagement) and tunable pharmacology

## Flexible, modular formats

Current strategic focus



CAR cell therapy



ADC/  
radiotherapeutic



Bi-specific



Fc-fusion



PEGylation



Naked i-body

# AD-214 program

## About | Idiopathic Pulmonary Fibrosis (IPF)

Scarring and stiffening of the lungs progressively and irreversibly reduces lung function

>300,000 people living with IPF; 40,000 people die from IPF every year

Only 3.8 years median survival after diagnosis

Two current therapies sell for \$3b per year ...

... despite having limited effectiveness and serious side effects

Many other fibrosis market opportunities

- Fibrosis affects almost every organ: eye, kidney, heart
- “Long COVID” is a developing issue – further increasing the need for better anti-fibrotic drugs.\*
- Re-emergence of silicosis

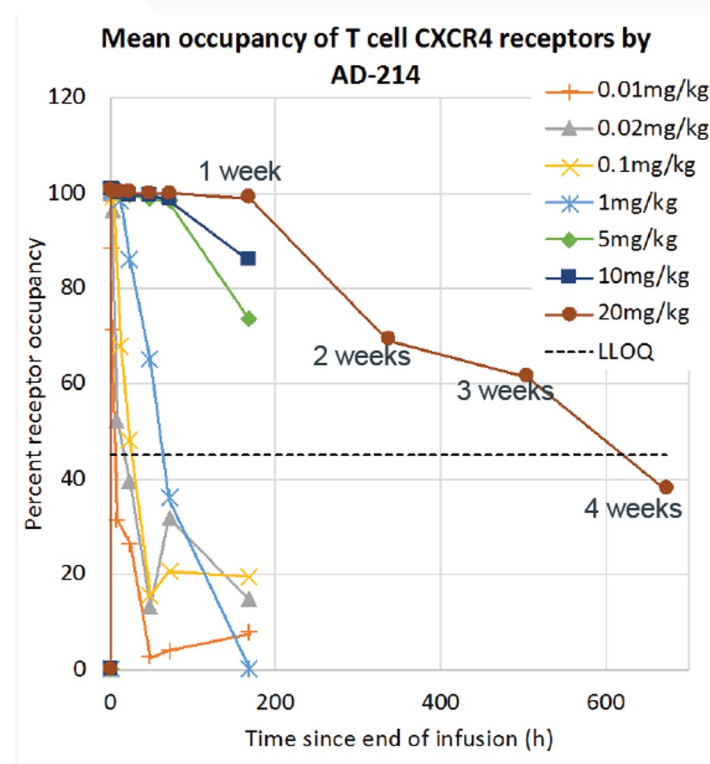
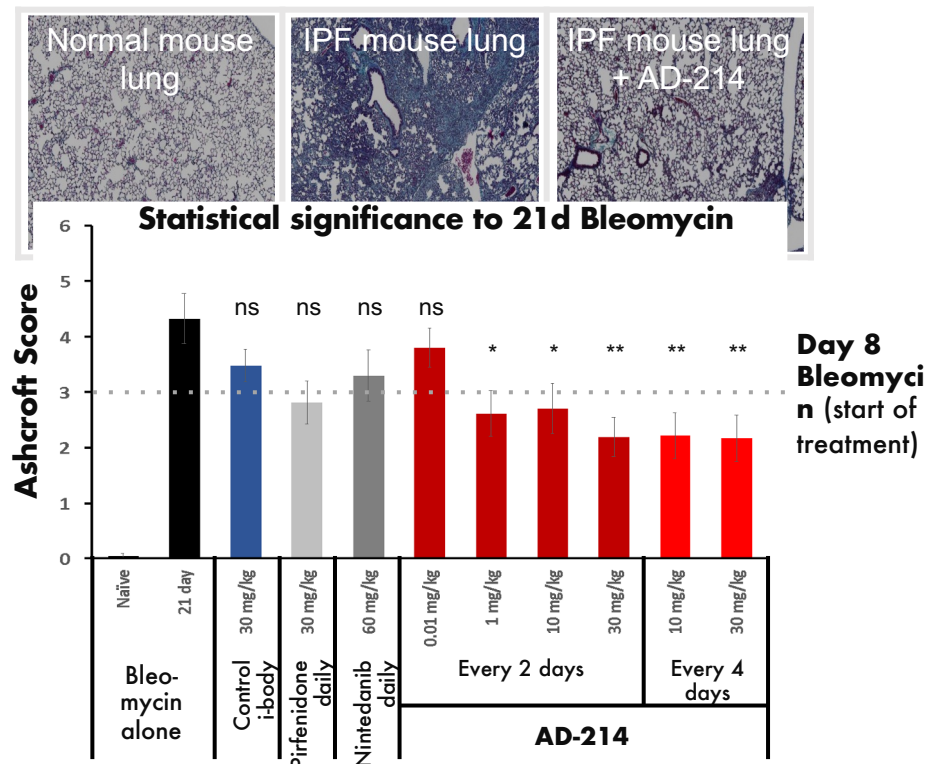
\* PM George, et al, “Pulmonary fibrosis and COVID-19: the potential role for antifibrotic therapy”, Lancet published online May 15, 2020.



## AD-214 efficacy validated in IPF mouse model; safety and target engagement in Phase I

AD-214 inhibited the development of fibrosis in a bleomycin mouse model of lung fibrosis at concentrations as low as 1 mg/kg every two days and 10 mg/kg every four days<sup>1</sup>

AD-214 was well tolerated in Phase I clinical trials and demonstrated high and durable receptor occupancy on circulating immune cells at single and multiple doses<sup>2</sup>



<sup>1</sup> Murigenics\_20210208. (Fibrosis induced by bleomycin at day 0; treatment commenced day 8; images from 10 mg/kg AD-214 every 4 days; statistical significance assessed using ANOVA and post-hoc Dunnett's test; ns (not significant) =  $p > 0.05$ , \* =  $p < 0.05$ , \*\* =  $p < 0.01$  relative to 21-day bleomycin vehicle; negative control is an i-body that does not bind specifically to CXCR4; error bars are standard error of the mean); test substances administered IV except pirfenidone and nintedanib orally.

<sup>2</sup> Clinical Study Report: Protocol ID: ADA-AD-214-1A : Version 1 Dated 07 October 2022

## Four indications offer best commercial potential, most favourable landscape

- Compelling data from preclinical tissue and animal models show that AD-214 improves outcomes in lung, kidney and eye fibrosis; partnership exploring cancer
- Unique formulations for different indications (inhaled, eye) enables multiple potential partnering deals, extends product life cycle
- Each additional indication could address multiple markets with US\$ billion potential

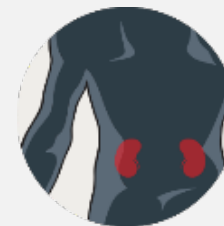


### Lung

IPF/ILD

>US\$3b

82 fibrosis trials in  
or entering clinic



### Kidney

Lupus nephritis, FSGS

>US\$10b

6 fibrosis trials in  
or entering clinic

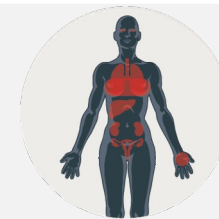


### Eye

Wet-AMD, PVR

>US\$15b

2 fibrosis trials in  
or entering clinic







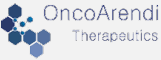

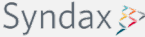









### Cancer

23 different cancers, I/O

>US\$1b ea

22 trials of CXCR4 agents in  
or entering clinic

## Pharma companies continue to see value in fibrosis assets: IPF examples

Date	Licensor/target	Licensee/acquirer	Transaction Terms	Clinical Phase
Aug-22		 <small>A Member of the Roche Group</small>	US\$80m Upfront US\$620m Milestones	2 (Ready)
Nov-21			US\$254m Upfront	2 (Ready)
Nov-21			€320m Milestones	2 (Ready)
Sep-21			US\$152m Upfront US\$602m Milestones	2 (Ready)
Nov-19			US\$390m Upfront US\$1b Milestones	2
Feb-21			US\$517.5m Milestones	1
Jul-19			€45m Upfront €1.1b Milestones	1
Oct-22			US\$255m Upfront Contingent Milestones	Pre-clinical (+ platform)

Source: Company press releases

## Co-developed immuno-oncology discovery programs



## About CAR-T therapies

CAR-T therapies are providing new hope for patients with cancer who have failed all other options

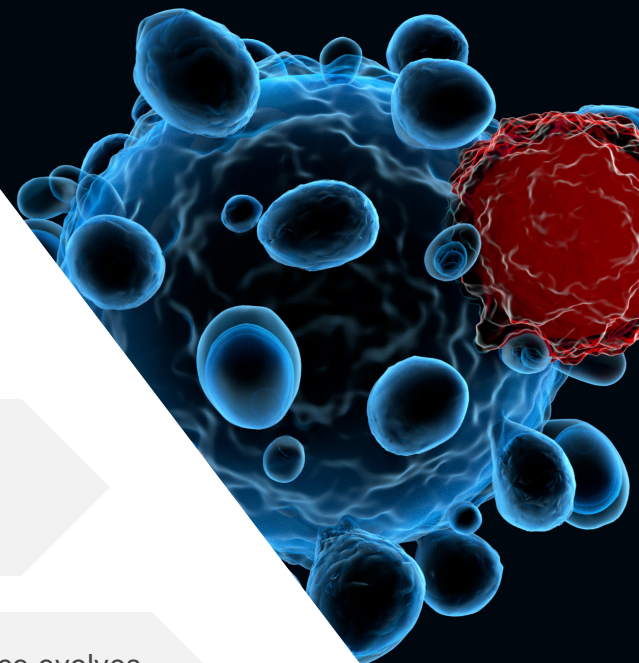
Therapy involves removing immune cells from blood and re-engineering them so they “see” cancer as a pathogen

Already 6 FDA-approved CAR-T therapies... but so far only for blood cancers

>\$US1 billion earned by CAR-T therapy products in 2020

\$US20.3 billion<sup>1</sup> revenue forecast for 2028 as more products are commercialised, science evolves

Solid tumours to account for >50% of CAR-T revenues by 2030<sup>2</sup>



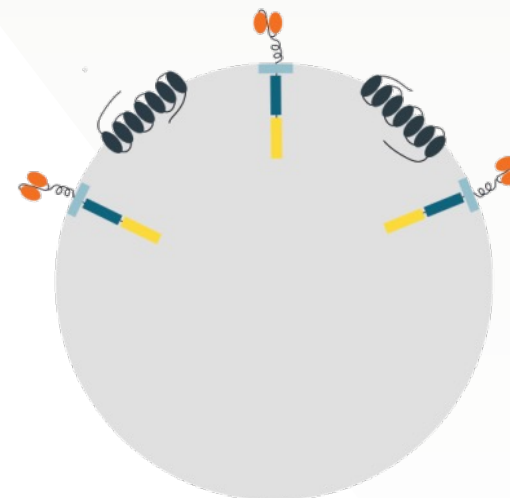


## i-CAR-T assets: Carina co-development collaboration status

**AdAlta and Carina are combining i-bodies and a world class CAR-T platform to create i-CAR-Ts that could offer improved precision, performance and persistence**













- ✓ i-body enabled CAR-T (i-CAR-T) cells have been successfully generated by Carina and demonstrate *in vitro* cancer cell line killing (lysis)<sup>1</sup>
- ✓ First target (target A) selected and 9 candidate A-i-CAR-T cells screened in vitro against cancer cell lines
- ✓ 3 A-i-CAR-T candidates to progress to more extensive *in vitro* screens and *in vivo* proof of concept H1 2023
- ✓ Next two targets (targets B and C) anticipated to enter i-body discovery in 2023



**Significant industry interest (from potential additional partners) in using i-bodies for targeting CAR cells**

1. ASX release 29 November 2021

## i-CAR-T: Valuable cell therapy partnering potential at pre-clinical proof of concept

Date	Licensee	Licensor	No. of assets	Upfront payment (US\$m)	Deal Value (US\$m)	Upfront/target (US\$m)	Deal value/target (US\$m)
Jun-22	 Bristol Myers Squibb	 Immatics	2	60	1460	30	730
Jul-20	 SANOFI	 Kiadis <sup>pharma</sup>	1	20	988	20	988
Feb-20	 GSK	 Immatics	2	50	600	25	300
Nov-19	 Allogene <sup>therapeutics</sup>	 Notch <sup>THERAPEUTICS</sup>	1	10	304	10	304
Oct-18	 Roche	 SQZBIOTECH <sup>®</sup>	1	45	1702	45	1702
Median value				45	988	25	730

## About: Immuno-oncology (I/O) PET imaging

Immuno-oncology (I/O) drug market is worth US\$95 billion<sup>1</sup> ...

... but only 20-40% of patients respond<sup>2</sup> to therapy

Granzyme B (GZMB) is produced by immune cells to kill cancer: potential biomarker of I/O drug activation of the immune system

PET imaging GZMB could help identify early who has – and hasn't – respond to I/O drugs: enabling timely switch to alternative strategies

The PET imaging agent market is valued at US\$6.4billion<sup>3</sup>

Largest products >US\$400m<sup>4</sup>

1. 2026 forecast by ResearchandMarkets.com, Immuno-Oncology - Market Analysis, Trends, Opportunities and Unmet Needs - Thematic Research, March 2021 2. P Sharma, et al, Cell 168(4) 707 (2017) 3. 2027 forecast by Global Industry Analysts, Imaging Agents: Global Market Trajectory and Analytics, April 2021 4. AD Nunn, J Nucl Med (2007) 169

## GZMB i-PET imaging asset: GE Healthcare co-development collaboration status

**AdAlta and GE are co-developing a GZMB i-body PET imaging (i-PET) asset to evaluate the effectiveness of immuno-oncology drugs**



- ✓ Panel of GZMB specific i-bodies identified
- ✓ Pre-clinical proof of concept studies and i-body optimization continuing
- ✓ Manufacturing development underway
- Further updates as commercially relevant milestones are achieved



**Market feedback confirms value and importance of this target**

# The investment opportunity

## Strategy and upcoming milestones to create and crystallise value

Strategy	Milestone	Impact
<b>Realise the value of AD-214</b>	Manufacture toxicology material (H1'23)	→ <i>Ph II enabling, shortest timeline for partners</i>
	Preclinical lung, kidney, eye data (Q1-H2'23)	→ <i>Strengthens partner package, Ph II kidney enabling</i>
	<i>Finalise Phase II strategy, financing (mid'23)</i>	→ <i>Enables final Ph II preparation below</i>
	6 month toxicology studies (Q4'23-Q1'24)	→ <i>Ph II enabling</i>
	Manufacture Phase II clinical material (H1'24)	→ <i>Ph II enabling</i>
	<i>Progress/ accelerate existing partnering discussions (through 2023)</i>	→ <i>Refines Ph II; potential first major RoI (return on investment)</i>
<b>Extend i-CAR programs</b>	A-i-CAR-T <i>in vivo</i> efficacy studies (H1-H2'23)	→ <i>Preclinical PoC; opportunity for early RoI</i>
	Commence discovery on two targets (Q2'23)	→ <i>Carina pipeline expansion – future value</i>
	<i>Progress/accelerate existing co-development discussions (through 2023)</i>	→ <i>Potential non-dilutive financing for future programs</i>
<b>i-PET program</b>	Lead candidate preclinical efficacy (timing not forecast)	→ <i>Visibility to product potential, time to royalties</i>
<b>Invest in platform</b>	i-body2.0 and research excellence program	→ <i>Maintain competitive advantage</i>

## Experienced, in-house team to execute from discovery through product development

### BOARD



**Dr. Paul MacLeman**

CHAIR



**Tim Oldham, PhD**

CEO & MANAGING  
DIRECTOR



**Liddy McCall**

DIRECTOR  
(alt: Dr. James Williams)



**Dr. Robert Peach**

INDEPENDENT DIRECTOR



**Dr. David Fuller**

INDEPENDENT DIRECTOR



### EXECUTIVE



**Claudia Gregorio-King, PhD**

VP, CLINICAL  
PRODUCT  
DEVELOPMENT



**Patrick James, PhD**

DIRECTOR, PLATFORM  
AND PRODUCT  
DISCOVERY



**Angus Tester, PhD**

SENIOR MANAGER,  
PROJECTS AND  
PROGRAMS



**Michael Rasmussen**

CONSULTANT  
MEDICAL EXPERT



**Joseph Tyler**

CONSULTANT CMC  
EXPERT

### SCIENTIFIC ADVISORY BOARD



**Mick Foley, PhD**

FOUNDING CHIEF  
SCIENTIST



**Brian Richardson**

DRUG DISCOVERY &  
DEVELOPMENT EXPERT



**Steve Felstead**

CLINICAL DEVELOPMENT



**John Westwick**

PULMONARY DRUG  
DISCOVERY &  
DEVELOPMENT



### IN-HOUSE DISCOVERY & DEVELOPMENT TEAM

**8 PhD Staff + La Trobe Uni location**

Skills in protein chemistry, i-body discovery, product development, pre-clinical development

# Corporate snapshot

## Key financial details (16 Feb 2023)

HQ and operations	Melbourne, Australia
<b>Market capitalisation</b>	<b>A\$12.91m</b>
Share price (12 month closing range)	A\$0.041 (\$0.038 - 0.077)
12 month return	(50)%
Ordinary Shares (daily volume)	314,851,412 (158,238)
Unlisted Options	14,184,060
<b>Cash (31 Dec 2022)</b>	<b>A\$7.16m</b>

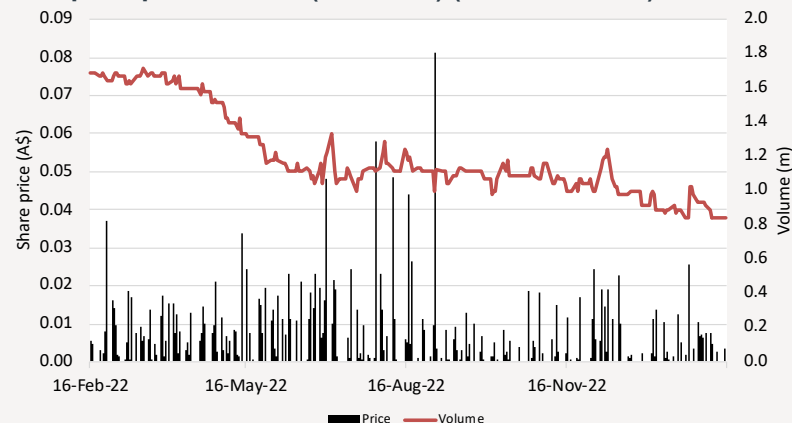
## Major shareholders (21 Nov 2022)

	%
Meurs Group	17.1
Platinum Asset Management	15.7
FMI Pty Ltd atf Commonwealth of Australia	8.6
Radiata Super Pty Ltd	3.5
Sacavic Pty Ltd	3.1
HB Biotechnology Ltd	2.9
Other (1,415 total holders)	49.1
<b>Total</b>	<b>100%</b>

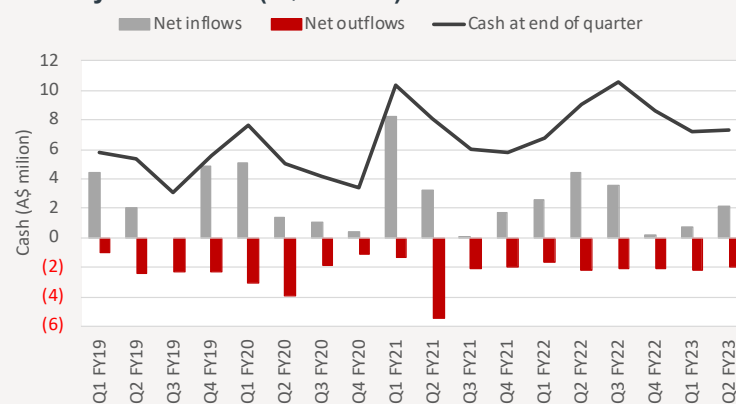
## Analyst Coverage

Lodge Partners

## Share price performance (ASX:1AD) (last 12 months)



## Quarterly cash flows (A\$ million)





# Investment proposition



## **i-body platform to create value**

Delivering high value therapeutic candidates and products beyond the reach of traditional antibodies



**Fibrosis/inflammation  
AD-214 advancing to Phase II**  
>\$3b market potential in first indication<sup>1</sup>  
Multiple indication expansion initiatives and partnership

**Discovery set up for 2<sup>nd</sup> target**



**Immuno-oncology  
2 x co-development collaborations to leverage platform**

- ✓ Carina Biotech: \$20b CAR-T market<sup>2</sup>
- ✓ GE Healthcare: \$6b PET market<sup>3</sup>



**Demonstrated expertise  
In house team and technology**  
Demonstrated product development and commercial partnership capability  
Australian location advantage



**Substantial growth opportunities**  
Shareholders supportive of expansion  
Potential partnering revenue contributes cash



**Steady news flow  
Transaction potential provides upside  
Attractive current valuation**






1. GlobalData, Idiopathic Pulmonary Fibrosis Opportunity Analysis and Forecasts to 2029, November 2020; kidney and eye fibrosis markets are larger 2. 2028 forecast by Grandview Research, "T-cell Therapy Market Size, Share & Trends Analysis" Feb 2021 3. 2027 forecast by Global Industry Analysts, Imaging Agents: Global Market Trajectory and Analytics, April 2021

**Contact:**



Tim Oldham, CEO and Managing Director  
[enquiries@adalta.com.au](mailto:enquiries@adalta.com.au)  
[www.adalta.com.au](http://www.adalta.com.au)

## Achievements over past year add value to our portfolio

### ***New indications and route of administration for AD-214 and CXCR4 program***

	New pre-clinical data in kidney fibrosis	→	<i>Two clinic-ready indications</i>
 	Initiated pre-clinical studies (eye fibrosis) and partnership (cancer)	→	<i>Two further indication options</i>
	Demonstrated feasibility, possible efficacy of inhaled administration	→	<i>Alternate route; adds value to lung fibrosis partners</i>
	Progress of manufacturing and IV formulation continuous improvement initiatives	→	<i>Enhances target product profile</i>

### ***Immuno-oncology programs advanced***

	First <i>in vitro</i> cell killing results for first i-CAR-T target (Carina collaboration)	→	<i>Proof of principle; supports active business development pipeline</i>
	Progressed GZMB i-PET imaging lead optimisation	→	<i>Growing market awareness of significance of this approach</i>

## Our business model

