



AdAlta

next generation protein therapeutics

i-bodies: drugging difficult targets for next generation protein therapeutics

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AdAlta: clinical stage company, validated platform for asset creation, unique lead asset

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Process to create additional valuable assets

Build pipeline assets in methodical way with validated technology:

- ✓ AD-214 indications and partnering
- ✓ Internal pipeline products: G-protein coupled receptors (GPCRs) in fibrosis, inflammation, oncology
- ✓ External pipeline partnerships (partner led, funded targets)

3

GE Healthcare collaboration: commercially validates platform

Partner target + AdAlta i-body discovery engine = targeting challenge solved
Validates commercial attractiveness and target diversity of platform



2

AD-214 anti-fibrotic product in Phase I: clinically validates platform

First in class (anti-CXCR4) for Idiopathic Pulmonary Fibrosis (IPF): orphan disease, high unmet need, \$3 billion market
Validates platform capability, safety and our drug development capability

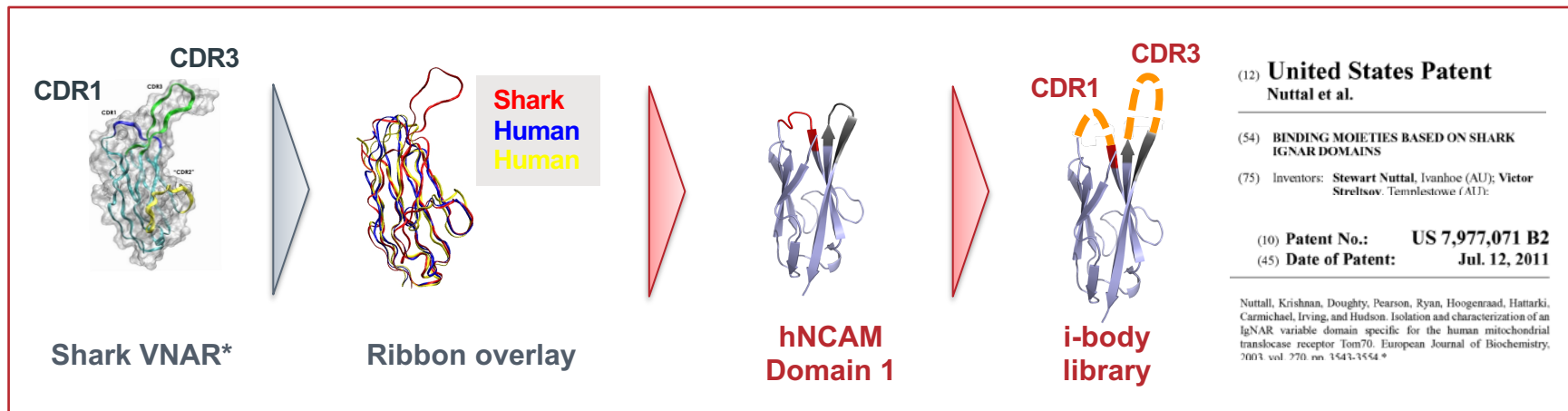


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Patented i-body platform: unique, validated capabilities against difficult targets

Unique single domain antibody-like platform capable of drug discovery against "difficult" targets that challenge traditional antibodies; multi-drug opportunity

i-bodies: in clinic for “difficult to drug” targets



Unique i-body properties

- Small size, long binding loop
- Novel, tunable pharmacology
- Range of half-life extension options
- Stable under pH, temperature cycling
- Non-glycosylated
- Multiple routes of administration

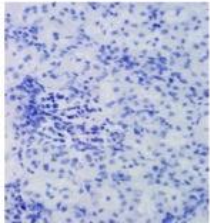
Advantage over traditional antibodies

- Access to unique epitopes (binding sites)
- Biased receptor/target engagement
- Optimised by clinical setting
- Wider formulation, manufacturing conditions
- Bacterial, yeast cell culture potential
- Not limited to intravenous, subcutaneous

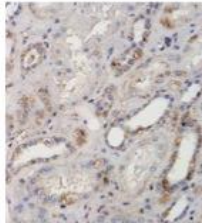
Lead product AD-214: first-in-class anti-fibrotic

Strong biological rationale: CXCR4 receptor is critical player in, and biomarker of, development of fibrosis in many organs

Human kidney tissue

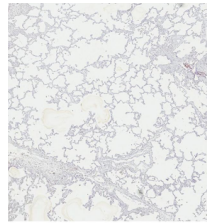


Normal

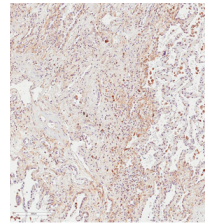


Diseased

Human lung tissue



Normal



Diseased

Brown stain is an indicator of CXCR4 expression

CXCR4 is also

- ▶ Associated with more than 23 types of cancers
- ▶ Important in maintaining stem cells in bone marrow
- ▶ Co-receptor for HIV virus entry into cells

AD-214 is the *only* CXCR4 antagonist being developed for fibrosis

- ▶ Novel mode of action: inhibits migration of inflammatory, fibrotic cells
- ▶ Very specific for CXCR4
- ▶ Novel pharmacology: does not significantly mobilize stem cells

First-in-class product designed specifically for fibrotic disease

- ▶ Suitable for chronic use, not cytotoxic
- ▶ Multiple fibrosis and cancer indications (with data)
- ▶ Monotherapy or combination therapy potential

Lead indication IPF: \$3b market, poor options

Idiopathic Pulmonary Fibrosis (IPF) is irreversible, unpredictable, incurable

>300,000
people living with IPF

40,000
people die from IPF every year

3.8 years
median survival after diagnosis

Safety, efficacy limitations with current treatments

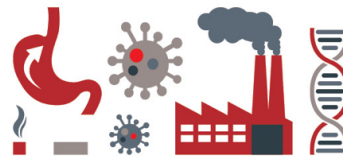
IPF incidence



of sufferers die within 2 to 3 years following diagnosis

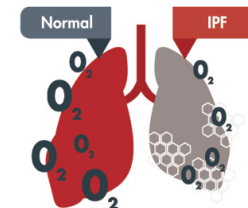


Causes



The cause is unknown but risk factors may include: smoking, environmental exposures, chronic viral infections, abnormal acid reflux and family history of the disease.

Pathology



Resultant scarring/honeycombing in the lung restricts breathing and oxygen exchange.

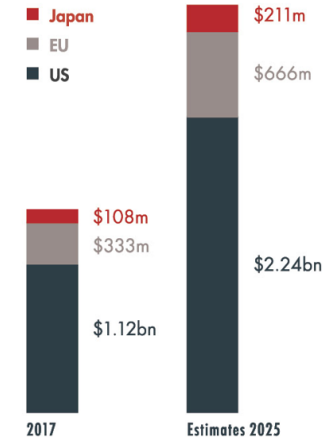
Current IPF treatments

Pirfenidone

Nintedanib



IPF Therapy Sales (US\$)

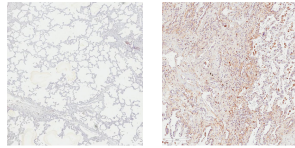


Source: GlobalData 2018

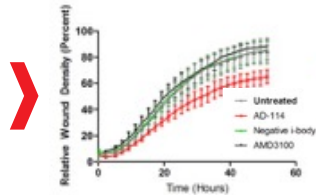
Burden of fibrotic lung disease following COVID-19 is likely to be high

"Antifibrotic therapies could have value preventing severe COVID-19 in IPF patients, preventing fibrosis after SARS-CoV-2 infection"¹

AD-214: road to the clinic

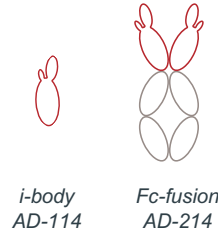


Normal Diseased

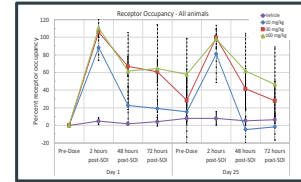


✓ **Validated target**

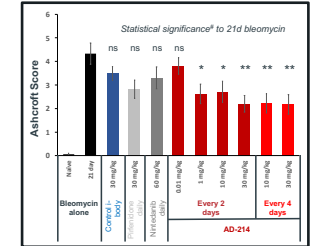
✓ **Novel mode of action, IP**



✓ **GMP manufacturing**



✓ **NHP GLP toxicology**



✓ **In vivo efficacy**

➤ CXCR4

➤ Player in inflammatory, fibrotic processes

➤ Biomarker, prognostic indicator

➤ **Patented CXCR4 i-body antagonist**

➤ CXCR4 expressed on diverse cell types

➤ Inhibition of fibrotic cell migration

➤ Fc-fusion format

➤ CDMO: KBI Biopharma

➤ IND-ready CMC package

➤ Very clean tox profile

➤ Half-life supports weekly dosing

➤ Sustained receptor occupancy

➤ Bleomycin mouse model of IPF

➤ Ashcroft Score, gene expression, collagen

➤ Eye, kidney, liver cancer PoC



Pre-IND meeting

Panel of pre-clinical studies sufficient to support an Investigational New Drug application

The Phase I trial design is reasonable

Specific guidance readily incorporated into Phase I protocol and ongoing development plans

Three-part phase I design*

Part A

(Ongoing to early 2021)

Single dose,
healthy
volunteers
(HV SAD)

• ~44 subjects

Part B

(early 2021 to late 2021)

Single dose,
ILD patients
(Pax SAD)

• ~15-30 subjects**

Part C

(late 2021 to mid-2022)

Multiple dose,
ILD patients
(Pax MAD)

• ~12-24 subjects**

Objectives

Primary

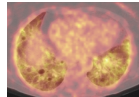
- Safety, tolerability of AD-214

Secondary

- PK, PD of AD-214
- Immunogenicity of AD-214

Exploratory

- Effect of AD-214 on respiratory function
- Localisation/distribution of ^{89}Zr -AD-214 by PET-CT***



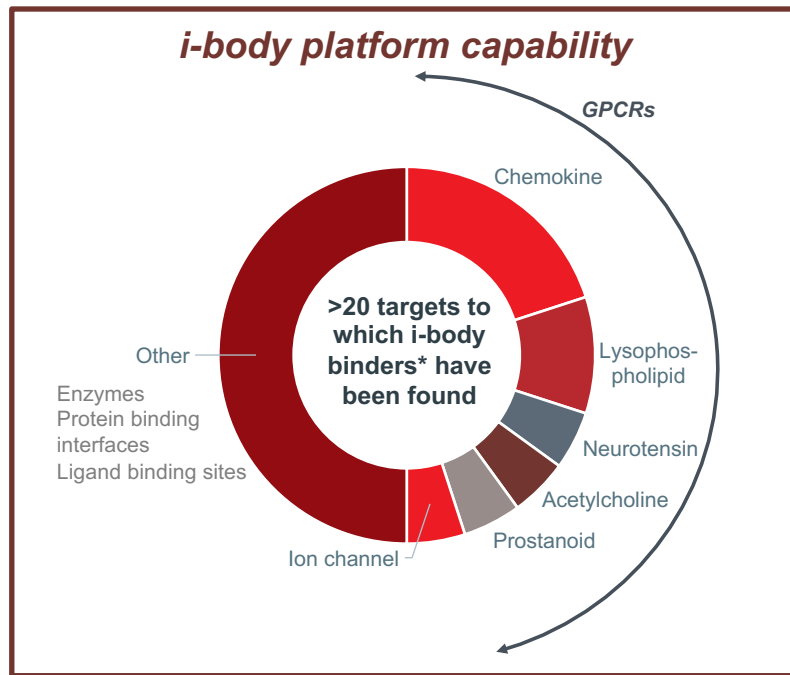
Includes AD-214 PET tracer for distribution and receptor occupancy

* <https://clinicaltrials.gov/ct2/show/NCT04415671?term=adalta&draw=2&rank=1>; Part A is fully funded

** Standard 3 + 3 safety design: up to 3 additional ILD pts will be recruited into any dose group if required to provide additional safety

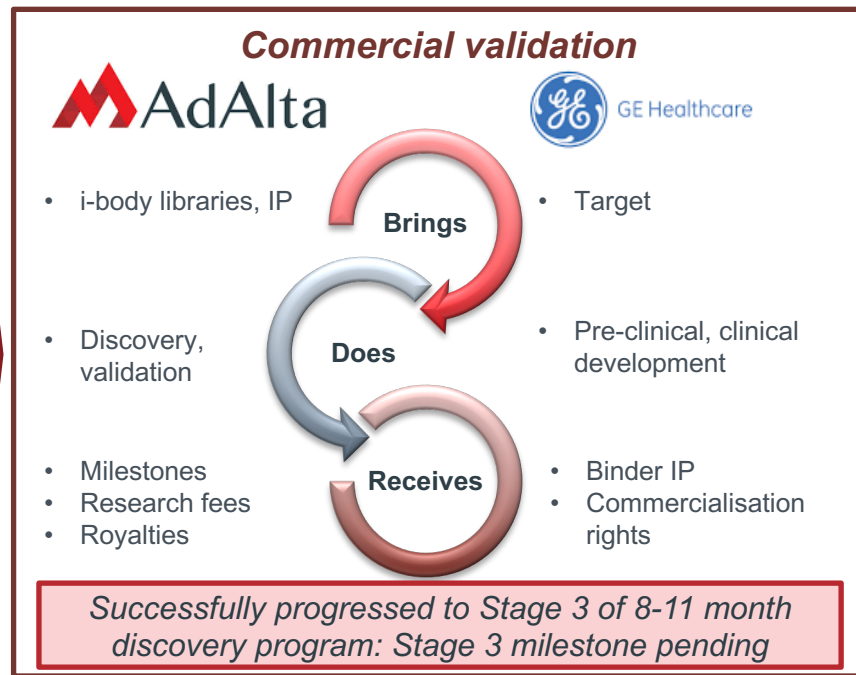
*** Subject to successful development and subsequent ethics approval of ^{89}Zr -Ad-214

Pipeline: diverse target capability supports internal and external pipeline assets



Internal pipeline asset creation

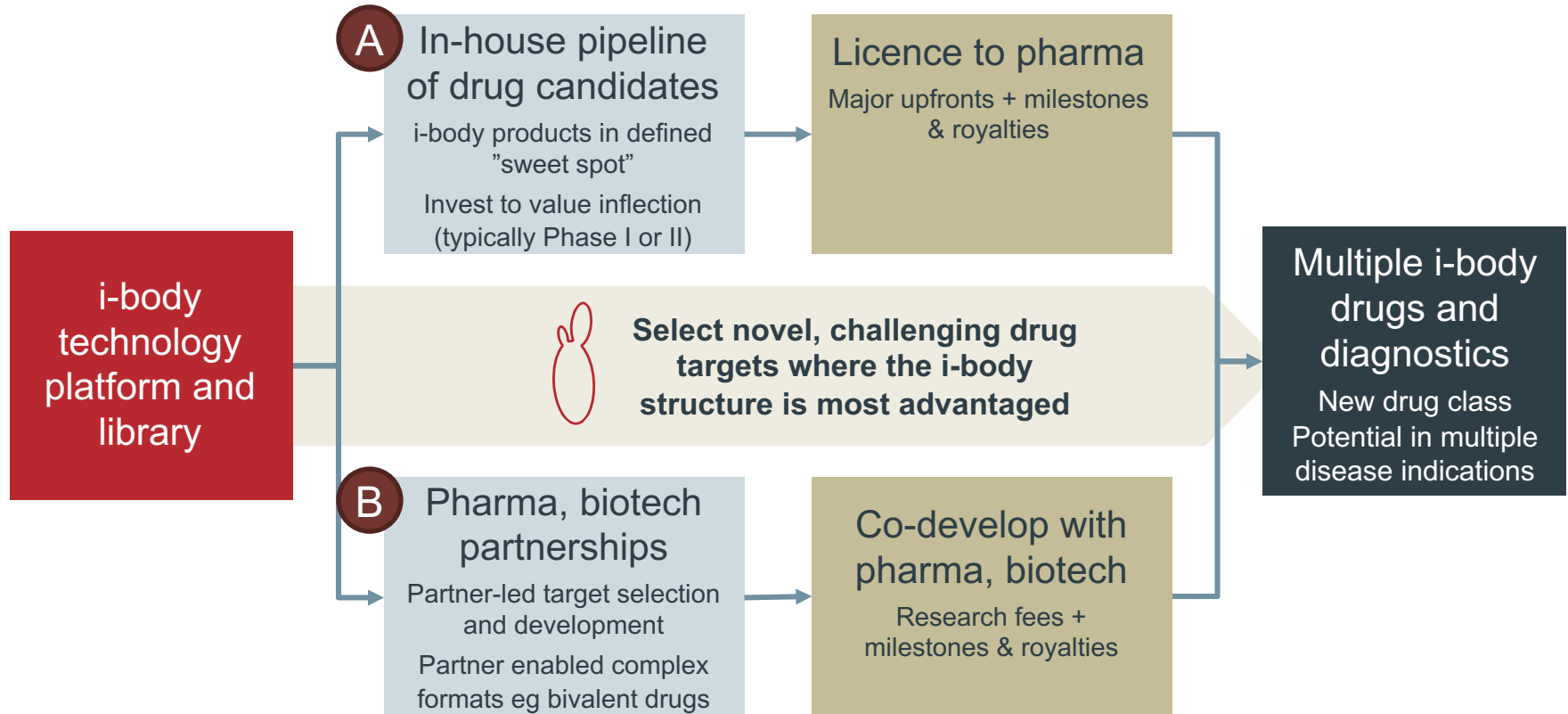
- G-protein coupled receptors
- Fibrosis, inflammation, oncology



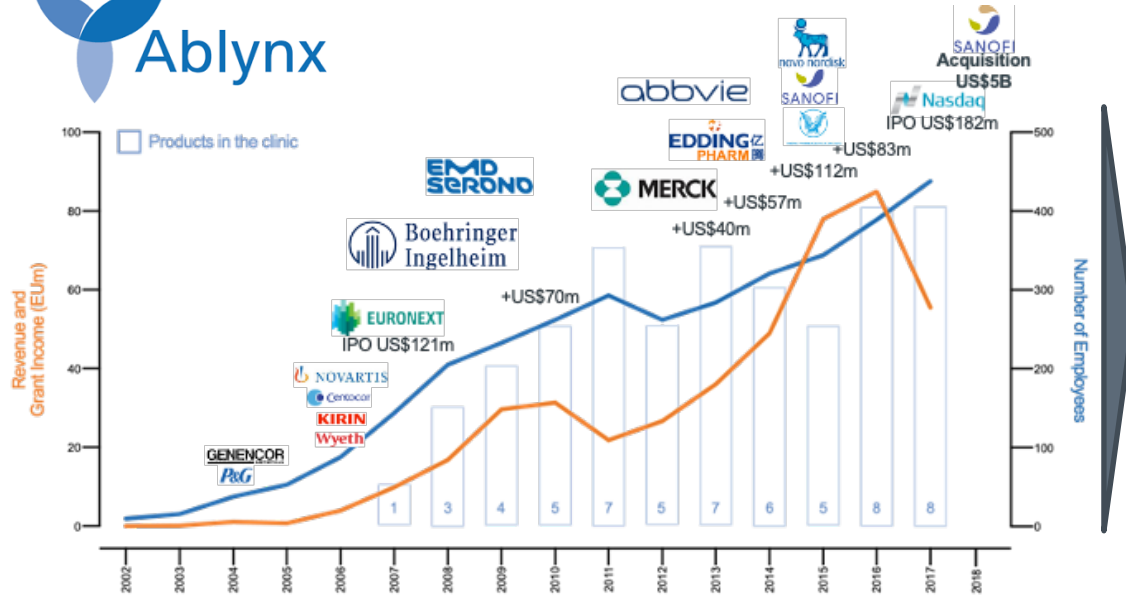
External pipeline asset creation

- Multiple co-development partnerships
- New target biology, non-dilutive funding

AdAlta's twin strategies to create valuable assets from the i-body platform



Single domain antibody platform potential: Ablynx case study

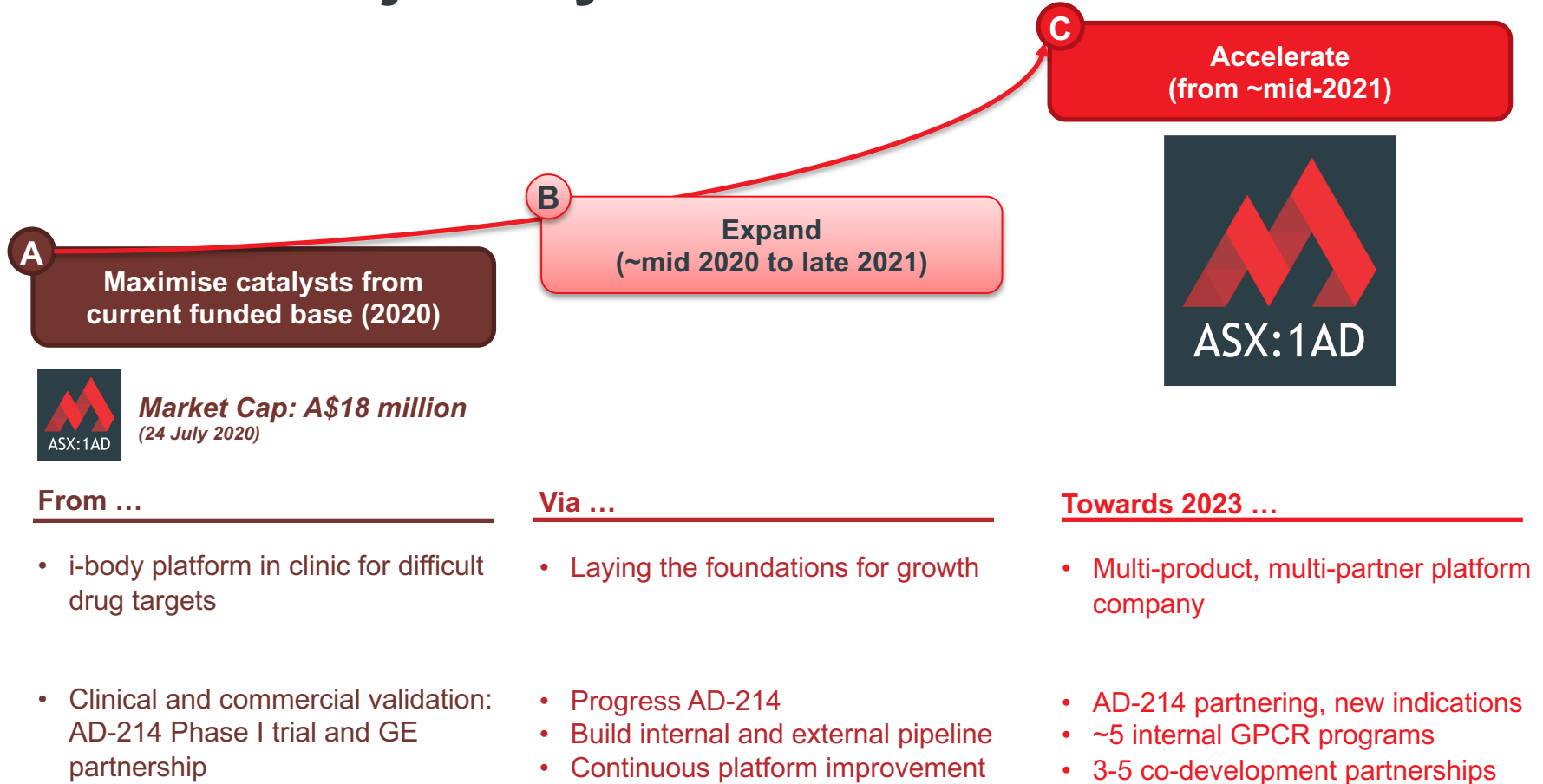


- Ablynx strategy (2007)**
- A. Leverage platform to rapidly identify potential drug candidates
 - B. Drive lead product candidate through clinical development
 - C. Selectively partner to maximize market opportunity
 - D. Maintain and expand technology and IP position



Comparator position: year first product reaches clinic
Opportunity: use first clinical trial as catalyst for acceleration

Growth trajectory to build value



Key execution milestones

Strategic priority	2020 YTD achievements	H2 2020	H1 2021	H2 2021
AD-214 clinical progression	<p><i>US patent</i></p> <p><i>Pre-clinical efficacy, PK/PD</i></p> <p><i>Phase I approval</i></p> <p><i>FDA pre-IND advice</i></p> <p><i>Phase I Part A: first participant</i></p>	<p>Phase I Part A (HV) interim drug safety committee findings*</p> <p>PET tracer pre-clinical proof of concept (PET images in mouse)*</p>	<p>Phase I Part A (HV): top line safety, PK/PD results*</p> <p>Phase I Part B (ILD) first patient, first PET images</p> <p>Expanded clinical plans: proof of concept data, program definition</p>	<p>Phase I Part C (ILD) first patient multi-dose</p> <p>First partnering window opens</p> <p>Manufacturing process optimised, scaled for late stage clinical trials</p> <p>IND preparation begins</p>
Internal pipeline assets			First new targets selected	2-3 new i-bodies progressing
External pipeline assets	<i>GE Healthcare stage 2 milestone</i>	GE Healthcare stage 3 milestone*	Second platform partnership	
i-body platform asset	<i>AdAlta strategy update</i>			i-body 2.0 scaffold developed, IP filed

Experienced board and advisors

Board



Dr Paul MacLeman
Chair



Tim Oldham, PhD
CEO & Managing Director



Liddy McCall
(alt: Dr James Williams)
Director



Dr Robert Peach
Independent Director



Dr David Fuller
Independent Director



Scientific Advisory Board



Brian Richardson
Drug discovery and
development expert



Steve Felstead
Clinical development

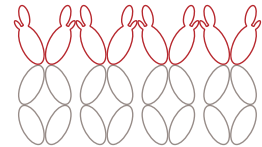
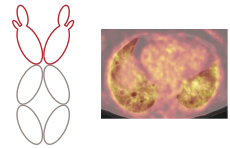


John Westwick
Pulmonary drug discovery
and development



AdAlta (ASX:1AD) investment proposition

- ▶ **Patented i-body platform for asset creation: designed for “difficult” targets**
 - Unique structure, properties addresses targets traditional antibodies cannot
- ▶ **AD-214: clinical stage first-in-class asset for fibrosis**
 - Product, platform validation
 - Phase I trial in US\$2.9 billion orphan disease idiopathic pulmonary fibrosis (IPF)
 - Partnering window end of Phase I
 - Pre-clinical data in multiple fibrotic indications and cancer
- ▶ **GE Healthcare: commercial validation of platform**
 - Partner funded discovery program meeting all milestones
 - First of a portfolio of similar asset partnerships
- ▶ **Poised for expansion: clear vision for growing existing assets, adding more**
 - AD-214: Phase I patient data, expand indications, partner
 - Internal pipeline: GPCRs in fibrotic and inflammatory disease and cancer
 - External pipeline: partner selected and funded targets
 - Platform leadership: continuous improvements to i-body platform, formulation and manufacturing
- ▶ **Experienced drug development team driving strategic focus on the foundation**
- ▶ **Unique investment opportunity : validated platform, unrealized expansion potential**



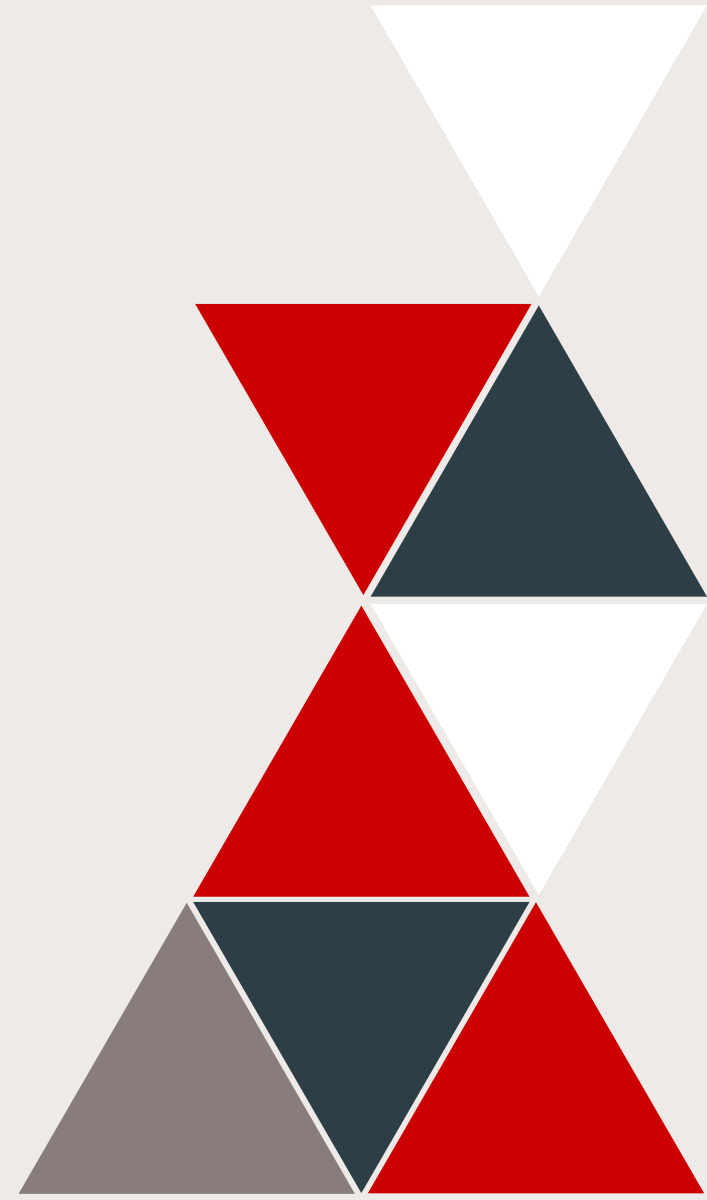


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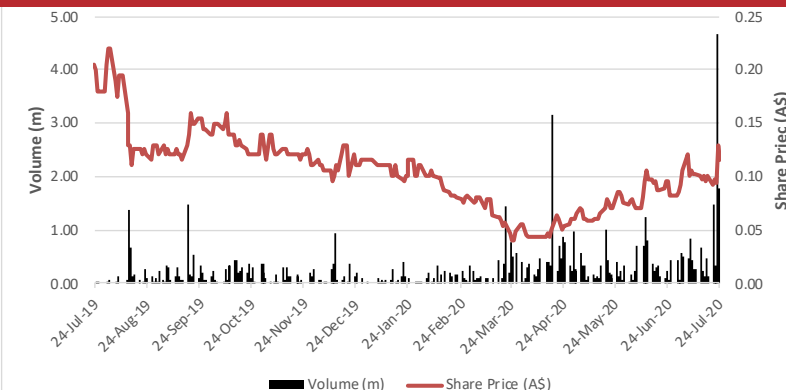
APPENDIX

Financial position and results

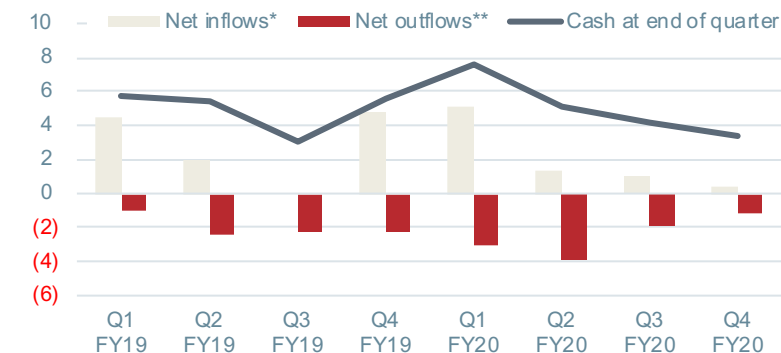
Key financial details	
ASX code	1AD
Share price (24 July 2020)	AUD\$0.115
Market capitalisation	AUD\$18.85m
Ordinary Shares	163,945,613
Listed Options	23,348,803
Unlisted Options	7,514,067
Current cash (30 June 2020)	AUD\$3.37m
Trading range (last 12 months)	AUD\$0.04 to \$0.22
Average daily volume	255,000

Major shareholders	%
Yuuwa Capital LP	32.97
Platinum Asset Management	8.54
Meurs Holdings Pty Ltd	3.27
CS Fourth Nominees Pty Ltd	3.02
Citycastle Pty Ltd	2.10
Other shareholders	50.09
Total	100%

Share price performance (last 12 months)



Quarterly cash flows



Market benchmarks: reaching for the stars!

Fibrosis pipelines



Jul-19 license by Boehringer
Ingelheim €45m + €1.1b
Phase I



Promedior

Nov-19 acquired by Roche
\$390m + \$1b – Phase II
Aug-15 BMS option to buy
\$150m + \$1.25b milestones



ENLEOFEN

Jan-20 platform license by
Boehringer Ingelheim
\$?m + \$1b milestones
Preclinical

Micro-antibody platforms



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



Feb-18 collaboration with
Seattle Genetics (3 targets)
\$30m upfront + \$1.2b
milestones & royalties



Ablynx

Feb-18 acquired by Sanofi
€3.9b

GPCR platforms



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



receptos

Jul-15 acquired by Celgene
\$7.8b Ph III, Ph II and GPCR
platform



Ablynx

April-16 license with
Boehringer
€8m + €125m milestones
Phase I GPCR nanobody

Breadth and depth in executive leadership

Executive



Tim Oldham, PhD
CEO & Managing Director



Mick Foley, PhD
Chief Scientific Officer



Dallas Hartman, PhD
Chief Operating Officer



Claudia Gregorio-King, PhD
VP Clinical Product Development



Kevin Lynch, MD
Consultant Medical Expert



Near term strategic priorities (expansion phase)

Create value inflections for lead asset AD-214

- Clinical development in IPF/ILD
- Expand indications, create licensing options

Add 2 assets to *internal* pipeline in our “sweet spot”

- G-protein coupled receptors (GPCRs)
- Fibrosis, inflammation, cancer

Add to *external* pipeline through a new partnership

- Earlier revenue; access to additional target expertise

Continuous i-body platform and AD-214 product improvement

- Ensures continued technology leadership, competitive advantage

NHP GLP toxicology: AD-214 safe

- ▶ 3 non-human primate studies completed
- ▶ Good Laboratory Practice (GLP) study to evaluate safety and toxicology prior to initial human studies
 - 10mg/kg, 30mg/kg and 100mg/kg multiple doses over four weeks plus recovery (human equivalent dose 32mg/kg)
 - AD-214 well tolerated with no deaths, no AD-214-related clinical signs, no changes in a panel of clinical observations
 - body weight
 - electrocardiography
 - coagulation
 - macroscopic and microscopic findings
 - ophthalmoscopy
 - respiratory function
 - urinalysis
 - blood pressure
 - neurological function
 - organ weight
 - Low, transient and completely reversible changes in stem cell counts and some blood protein levels observed

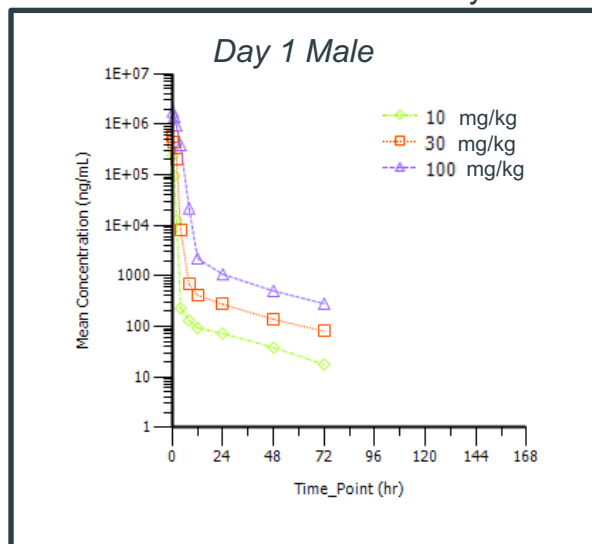
Tox study results were in line with expectations and in keeping with previous studies

Separate tissue cross reactivity and cytokine release study results of “little to no toxicological significance”

Non-human primate GLP toxicology: Phase I dose justification

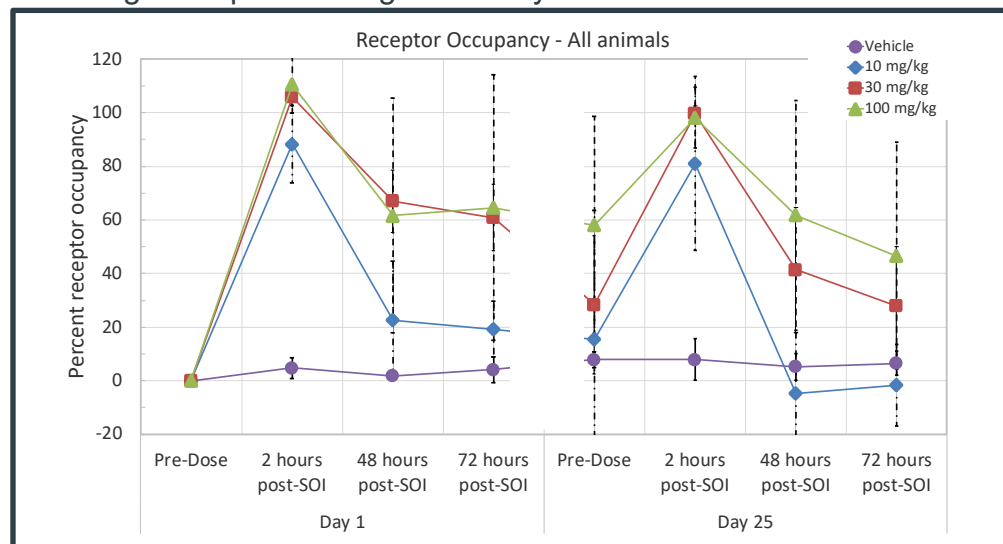
Pharmacokinetics

- Elimination half-life 22-29h
- Human equivalent: ~71h (estimate)
- AD-214 available for >3 days



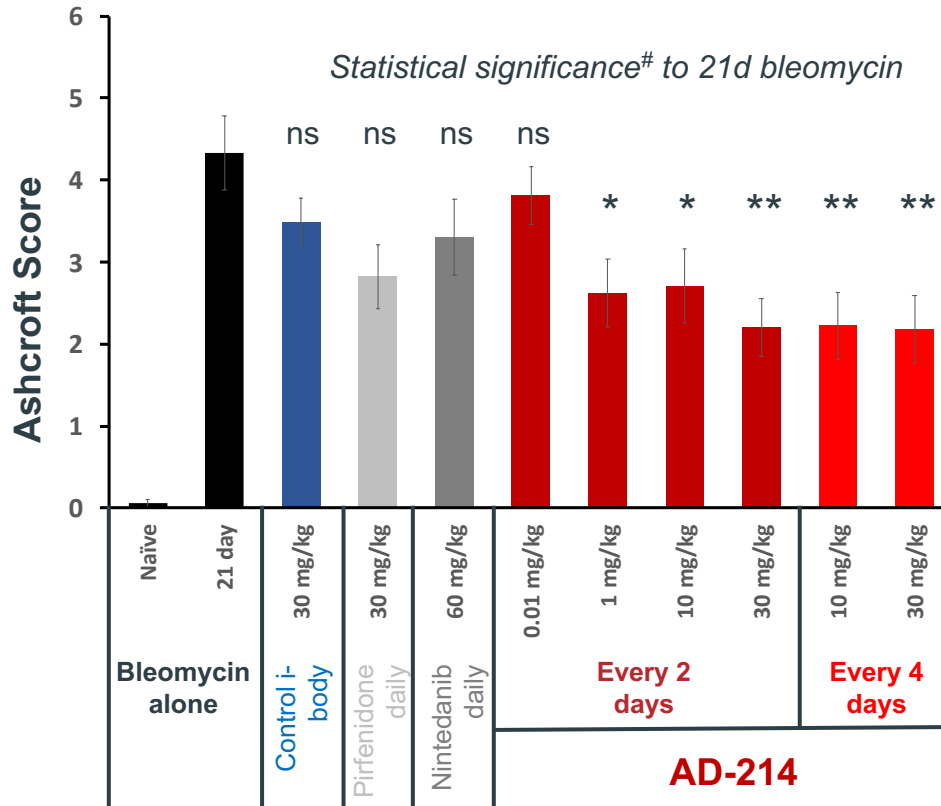
Pharmacodynamics

- >60% receptor occupancy* for 72h at >30mg/kg
- Human equivalent: ~10mg/kg (estimate)
- High receptor binding for >3 days



Supportive of human therapeutic dose window including 10mg/kg intravenously, weekly or every second week

AD-214 induced reduction in progression of fibrosis in mouse bleomycin model



- ▶ AD-214 reduced Ashcroft Score with statistical significance compared to bleomycin treated mice at:
 - 1-30mg/kg every second day
 - 10-30mg/kg every fourth day
- ▶ Wide range of dosing regimens can be used to test efficacy
 - 10mg/kg every second day exhibited effectiveness by most study parameters
 - Human equivalent dose: 1mg/kg (estimated)

AD-214 efficacy demonstrated in gold standard IPF disease model

Supportive of potential human therapeutic window beginning as low as 1mg/kg

Three-part phase I design*

Phase I, dose-escalating study of the safety, tolerability, PK & PD of single and repeat doses of AD-214 in healthy volunteers (HVs) and patients with interstitial lung disease (ILD)

Part A (Ongoing to early 2021)

**Single dose,
healthy
volunteers
(HV SAD)**

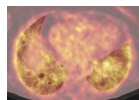
- ~44 subjects
- 0.01-20 mg/kg iv
- 1 site



Part B (early 2021 to late 2021)

**Single dose,
ILD patients
(Pax SAD)**

- ~15-30 subjects**
- 0.1-20 mg/kg iv
- 2-3 sites



Includes AD-214 PET tracer for distribution and receptor occupancy

Part C (late 2021 to mid-2022)

**Multiple dose,
ILD patients
(Pax MAD)**

- ~12-24 subjects**
- iv weekly, 4 weeks
- 2-3 sites

Objectives

Primary

- Safety, tolerability of AD-214

Secondary

- PK, PD of AD-214
- Immunogenicity of AD-214

Exploratory

- Effect of AD-214 on respiratory function
- Localisation/distribution of ⁸⁹Zr-AD-214 by PET-CT***

Contracted vendors

Partners in development and clinical validation of PET tracer for Parts B and C



theAlfred



* <https://clinicaltrials.gov/ct2/show/NCT04415671?term=adalta&draw=2&rank=1>; Part A is fully funded

** Standard 3 + 3 safety design: up to 3 additional ILD pts will be recruited into any dose group if required to provide additional safety

*** Subject to successful development and subsequent ethics approval of ⁸⁹Zr-Ad-214