



AdAlta

next generation protein therapeutics

Strategic plan

Investor Briefing

3 March 2020



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Agenda today

- 1 Welcome and overview
- 2 Vision and strategic goals
- 3 AD-214: pre-clinical update and PET tracer
- 4 AD-214: Phase I clinical strategy
- 5 Pipeline and partnership expansion
- 6 Continuous i-body platform and AD-214 product improvement
- 7 Staging growth

Presenters today



Dr Paul MacLeman
Chair



- >25 years broad life sciences sector experience in start-up and early stage commercialization
- Extensive ASX listed company executive, board and chair experience



Tim Oldham, PhD
CEO & Managing Director



- >20 years of international life sciences business development and commercialisation experience
- Significant ASX listed company experience



Mick Foley, PhD
Chief Scientific Officer



- Founding scientist of AdAlta and inventor of lead i-body candidate, AD-214
- Recognized expert in phage display; >70 scientific publications



Claudia Gregorio-King, PhD
VP Clinical Product Development



- 15 years experience in clinical operations, regulatory affairs and R&D program management



Dallas Hartman, PhD
Chief Operating Officer



- >20 years experience in protein product development and characterisation



Kevin Lynch, MD
Consultant Medical Expert



- >25 years experience across all phases of clinical development, regulatory and reimbursement approval and medical affairs

International Board, Scientific Advisory Board

Extensive track record of drug, antibody development, capital raising and exits

Board



Dr Paul MacLeman
Chair



Liddy McCall
Director



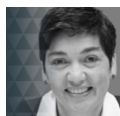
In attendance today



Dr Robert Peach
Independent Director



Dr James Williams
Director



Dr Ros Wilson MBBS
Independent Director



Scientific Advisory Board



Dr Mick Foley
AdAlta CSO
Expert in phage display



Brian Richardson
Drug discovery and
development expert



Steve Felstead
Clinical development



John Westwick
Pulmonary drug discovery
and development



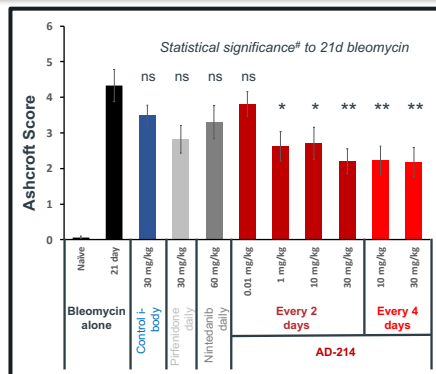
Significant achievements in past 3 months

A\$1m BTB grant to radiolabel AD-214 for PET imaging



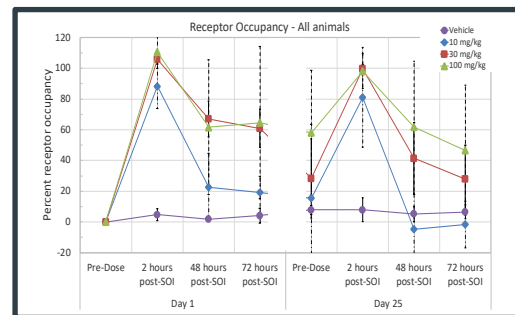
- ▶ AD-214 distribution and target engagement information in lungs of IPF patients earlier than planned
- ▶ **Adds significant commercial and clinical value to Phase I**
- ▶ Potential product in own right

Pre-clinical efficacy: mouse bleomycin model



- ▶ AD-214 efficacy demonstrated in gold standard animal model of IPF
- ▶ **Enables progression to Phase I in mid-2020**

Pharmacokinetics and pharmacodynamics: non-human primate



- ▶ AD-214 exhibits binds target receptor for at least three days in NHP
- ▶ Supports potential therapeutic effect at weekly or every second week human dosing
- ▶ **Phase I includes potential therapeutic window**

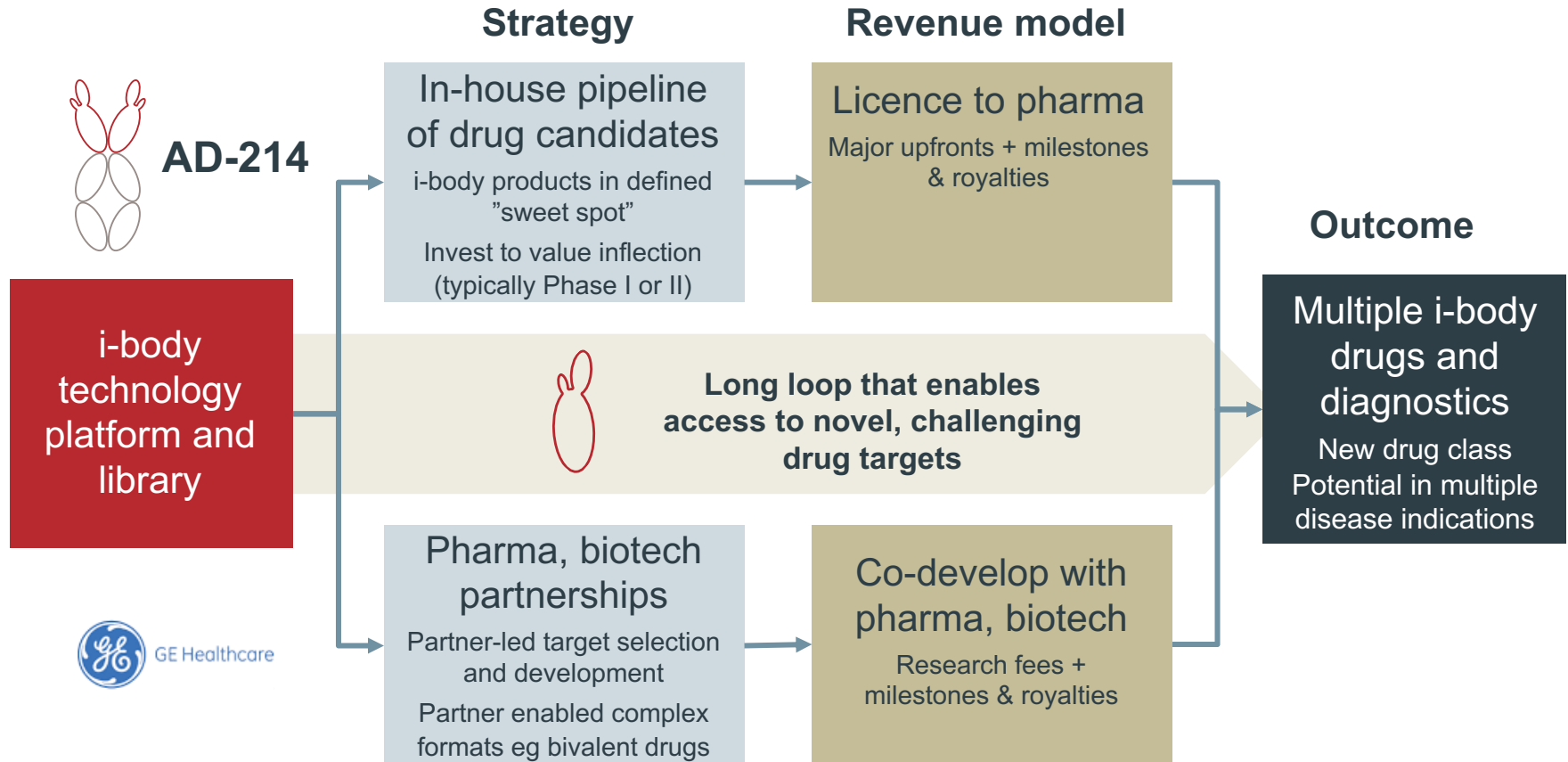
AdAlta's purpose



“Next generation protein therapeutics”
“Drugging difficult targets”

AdAlta Limited (ASX:1AD) is a late pre-clinical stage biotechnology company using its i-body platform to discover and develop next generation protein therapeutics acting on hard to drug targets

AdAlta's strategy, business model to create value



Near term strategic priorities

Create value inflections for AD-214

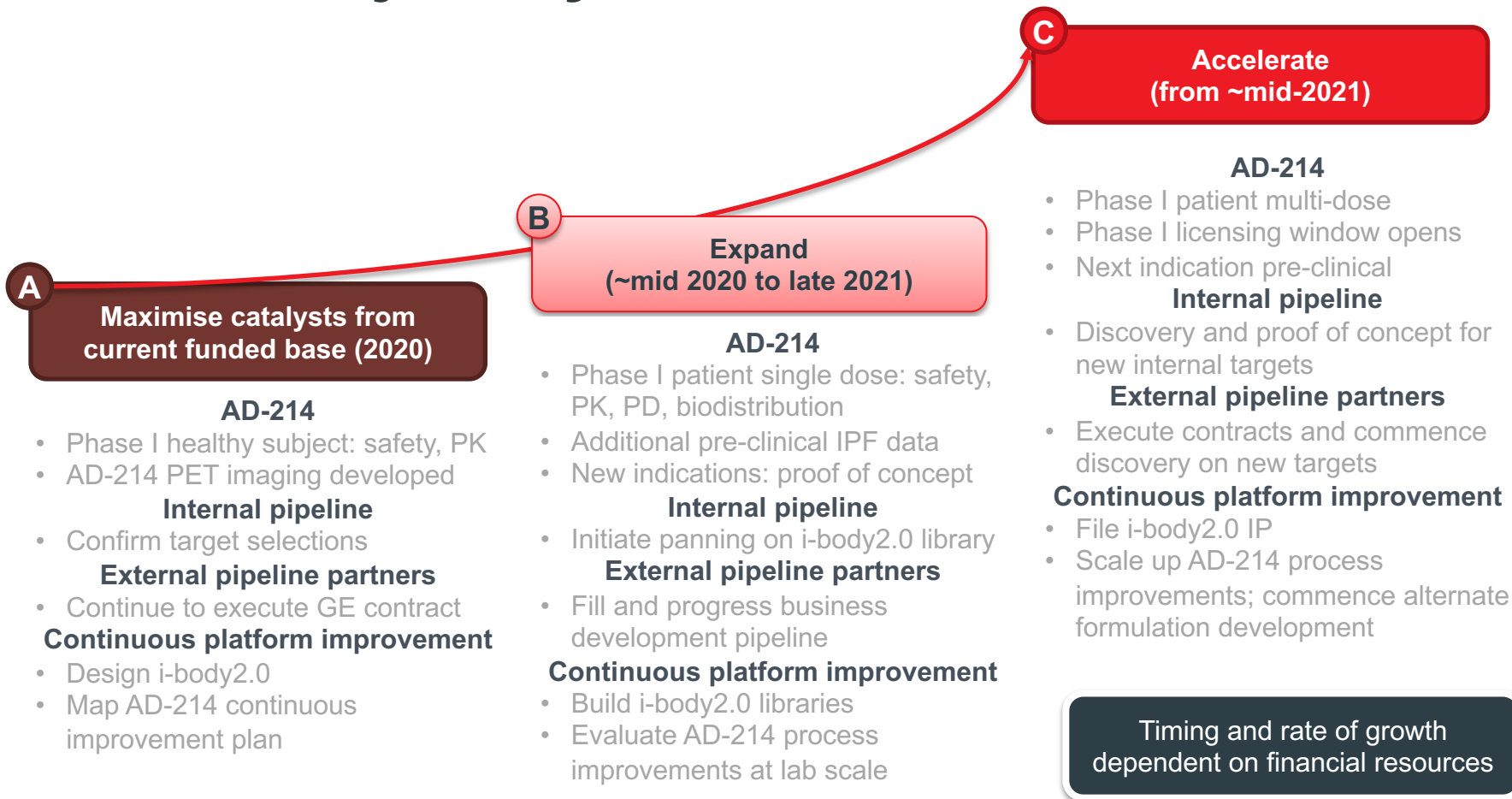
- Advance to clinic in IPF
- Expand indications and licensing options

Build internal pipeline of GPCR candidates

Build external pipeline through partnerships

Continuous i-body platform and AD-214 product improvement

Growth trajectory to build value



Building a diversified, valuable pipeline

Metric	From AD-214 focus today ...		To multi-product by 2023 ...
AD-214 development	▶ Pre-clinical in IPF	 Numerous milestones, inflection points and transactions along the way	▶ Clinical in two indications ▶ Phase I partnering window
Internal pipeline	▶ Substantial “proof of principle” ▶ <i>Ad hoc</i> target selection		▶ GPCR target selection rigor ▶ 2 pre-clinical programs ▶ >3 discovery programs
Revenue generating partnerships	▶ 1 (GE Healthcare)		▶ 3-5 co-development partnerships in multiple target, product classes
News flow	▶ Large gaps between inflection points		▶ Frequent news flow, regular inflection points
Financing	▶ Primarily equity; frequent, small raises for “next steps” to date		▶ Partnerships: low double-digit share of annual costs ▶ >18 months cash to achieve inflections

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Strategic plan overview (1/2)

► **AdAlta's i-body platform has potential to generate multiple therapeutic products against multiple difficult to drug targets in multiple therapeutic indications**

- i-body platform has been designed and demonstrated to be capable of generating single domain antibodies against difficult and complex drug targets that exhibit biased pharmacology, tunable half life and potential for delivery via multiple routes of administration
- AdAlta has to date been built around a single target, CXCR4, and a single product, AD-214, and has not been able to fully exploit the capability of the platform

► **AD-214 entering initial human clinical trials provides catalyst to realise platform potential**

- Validates platform and capabilities of company to develop drug candidates; removes generic concerns about platform safety; generates platform and product partner interest
- Roadmap to grow AD-214 and build a broad internal and external product pipeline are outlined today
- Current investment focus: execute AD-214 Phase I health volunteer program, lay foundations for pipeline expansion
- Rate of acceleration can then be matched to available financial resources

Strategic plan overview (2/2)

► Lead product candidate, AD-214, can drive substantial value

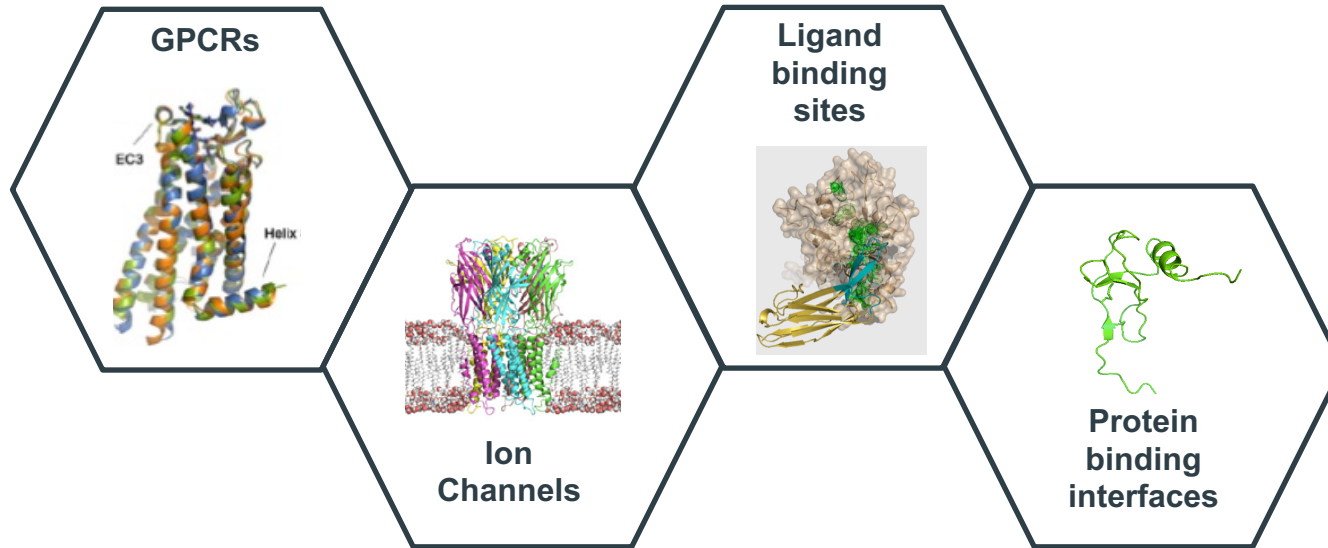
- **Compelling pre-clinical data in pulmonary fibrosis** supportive of weekly or longer dosing
- **Proof of concept data in several \$billion fibrotic indications** creates many options; investing in continuous process improvement to ensure accessibility
- **Radio-labelled AD-214 for PET imaging** aims to provide **added commercially and clinically valuable information** about target engagement
- **On track to commence Phase I program mid-year**, complete healthy volunteer SAD component second half of 2020 and enroll first IPF/ILD patients by end of 2020
- **Significant licensing interest in the field and in AD-214**: partnering windows mid-to-late Phase I and end of Phase II with process to ensure multiple offers in hand then

► Additional opportunity to build a broad and valuable internal and external pipeline of i-body based product candidates

- **Internal pipeline**: robust selection process in place to select i-bodies in “**AdAlta’s internal sweet spot**” (single GPCRs implicated in fibrosis, inflammation and oncology)
- **External pipeline**: increasing business development to partner with other firms to co-develop product candidates in **other target classes, formats and therapeutic areas** where i-bodies can create distinctive products
- **i-body platform and product development**: enhancing and continuously improving to maximise discovery throughput, commercialization options and extend IP

i-bodies: targeting “difficult to drug” targets

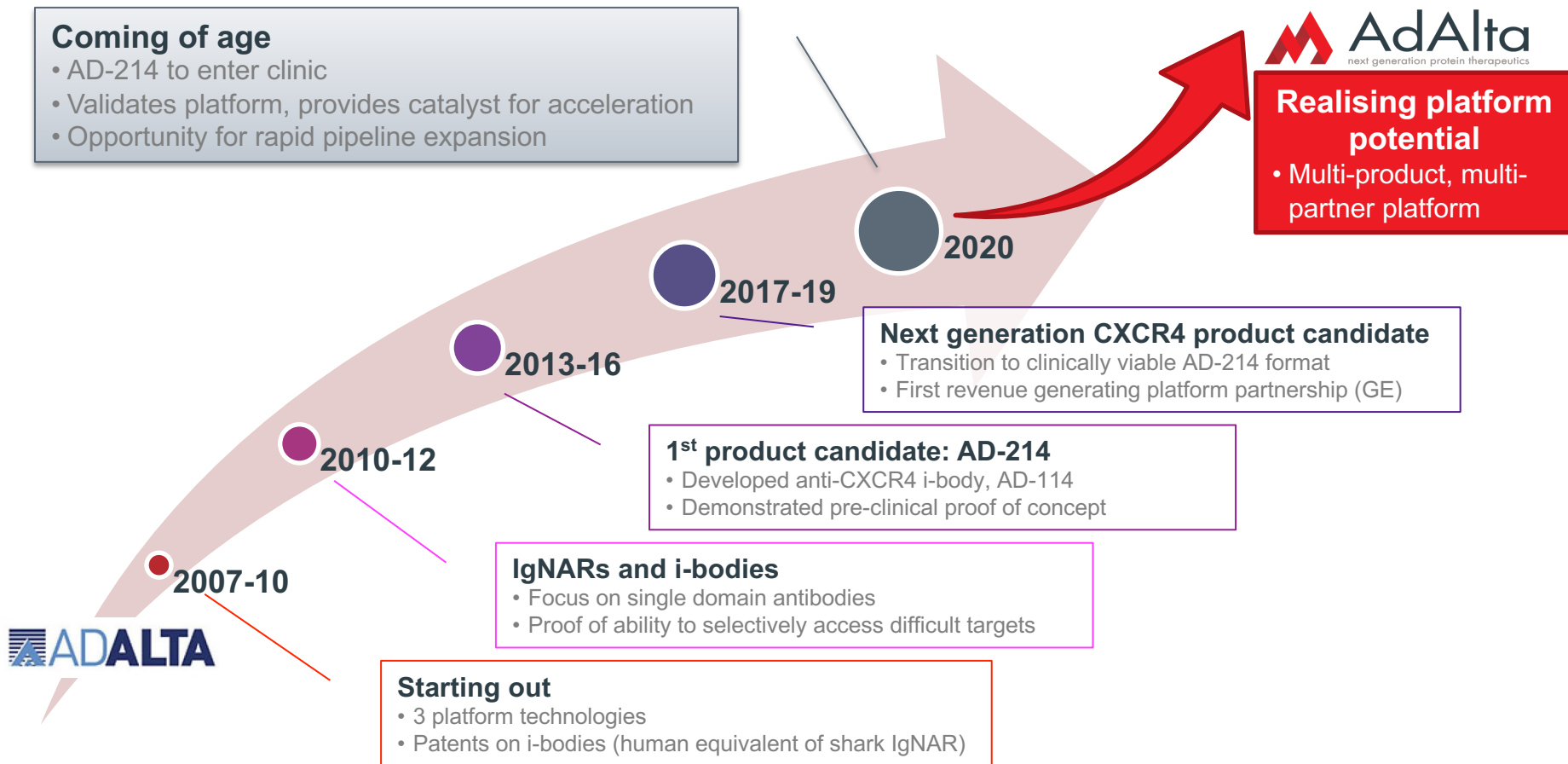
Small size, long loop of i-body can access unique, challenging binding sites



Additional differentiating i-body properties

- Novel, tunable pharmacology
- Flexible half-life
- Resistance to pH and temperature cycling
- Multiple potential routes of administration

The journey to today



Shareholder, capital market and partner feedback

Like

- Novel platform with capabilities to creating products with pharmacology not achievable with conventional antibody or small molecule approaches
- Advisors/advisory network
- Fibrosis and CXCR4 as a target

Want

- “Bold, creative” product selections with clear evidence of differentiation
- Expand pipeline, fully leverage platform
- Clinical, third party validation of platform
- Multi-year financing to real value inflection points
- Global clinical KOLs

Don't like

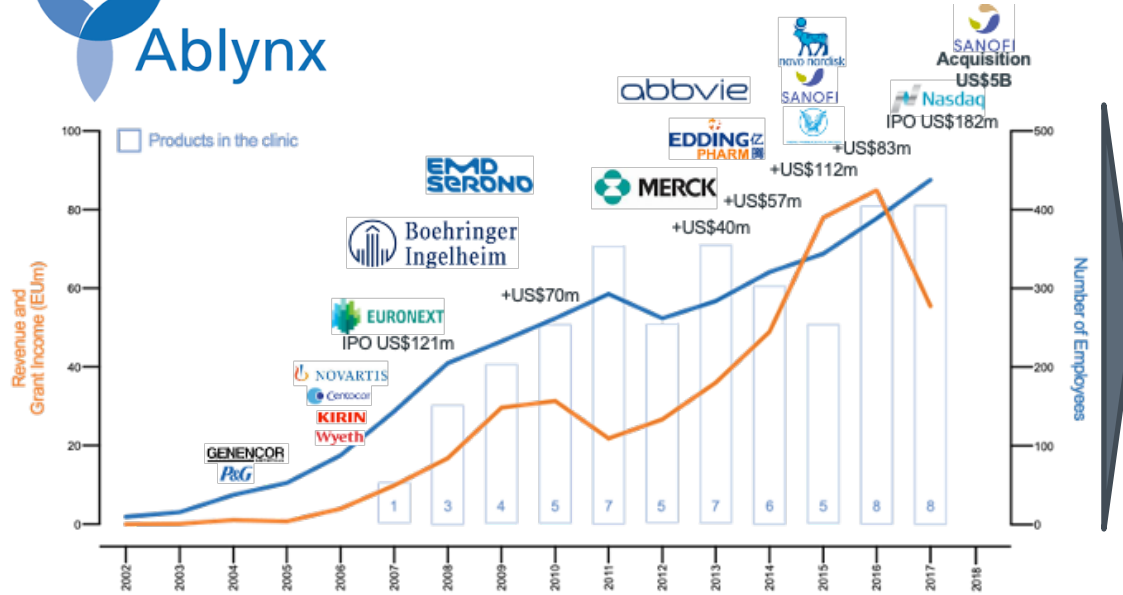
- Operating strategy/vision not aligning with financing rounds
- History of set-backs/timeline adjustments

Don't want

- “Another TNF- α drug”
- Annual capital raisings
- Significant dilution without a growth plan

Strategy aims to address this feedback

Building a platform company: Ablynx case study



Comparator position:
year first product
reaches clinic

Opportunity: use first clinical trial as catalyst
for acceleration
Constraint: rate of acceleration dependent on
capital resources

Strategy (2007)

A. Leverage platform to rapidly identify potential drug candidates

- Core competence: discovery, *in vitro/in vivo* validation
- No specific therapeutic area focus: >9 therapeutic areas (6 internal); multiple programs per disease area/molecule
- Target: 5 IND's in 5 years

B. Drive lead product candidate through clinical development

C. Selectively partner to maximize market opportunity

- Partner by target, not indication
- Secures targets (ie target selection largely outsourced)
- Supports large discovery team

D. Maintain and expand technology and IP position

- IP land grab: identify, validate (cell-based assay) many targets rapidly
- 60% of disclosed programs discontinued or inactive in 2020

Ablynx sets the activity benchmark to be on track for \$billion exit, AdAlta ready to accelerate

	Ablynx in 2007 (Euronext IPO)	AdAlta in 2020
<i>Products in clinic</i>	1	1 (pending)
<i>Clinical stage pipeline</i>	1-2 new products/year for next 4 years	New AD-214 indications at proof of concept
<i>Pre-clinical</i>	16 animal models for <i>in vivo</i> efficacy 6 therapeutic areas (internal programs)	5 animal models for <i>in vivo</i> efficacy data 1 therapeutic area (fibrosis)
<i>Leads</i>	100 nanobodies generated against different disease targets (including <i>in vitro</i> pharmacology)	15 i-bodies, 7 IgNARs generated against 21 receptors (incomplete <i>in vitro</i> pharmacology)
<i>Platform partnerships</i>	6	2
<i>IP</i>	>40 patent families (granted and applications)	2 patent families (granted and applications)
<i>Revenue and grant income</i>	A\$6.4-14.4m (2006, 2007 H1 annualized)	A\$3.6m (2019 calendar)
<i>Employees</i>	100 → 150	8
<i>Gross operating expenses</i>	A\$30-36m (2006, 2007 H1 annualized)	A\$11.5m (2019 calendar)
<i>Cash burn/opex</i>	35-65% (2006, 2007 H1 annualized)	67%
<i>Capital raised</i>	A\$115m + A\$125m IPO	A\$28m
<i>Time from formation to first product in clinic</i>	5 years	12 years

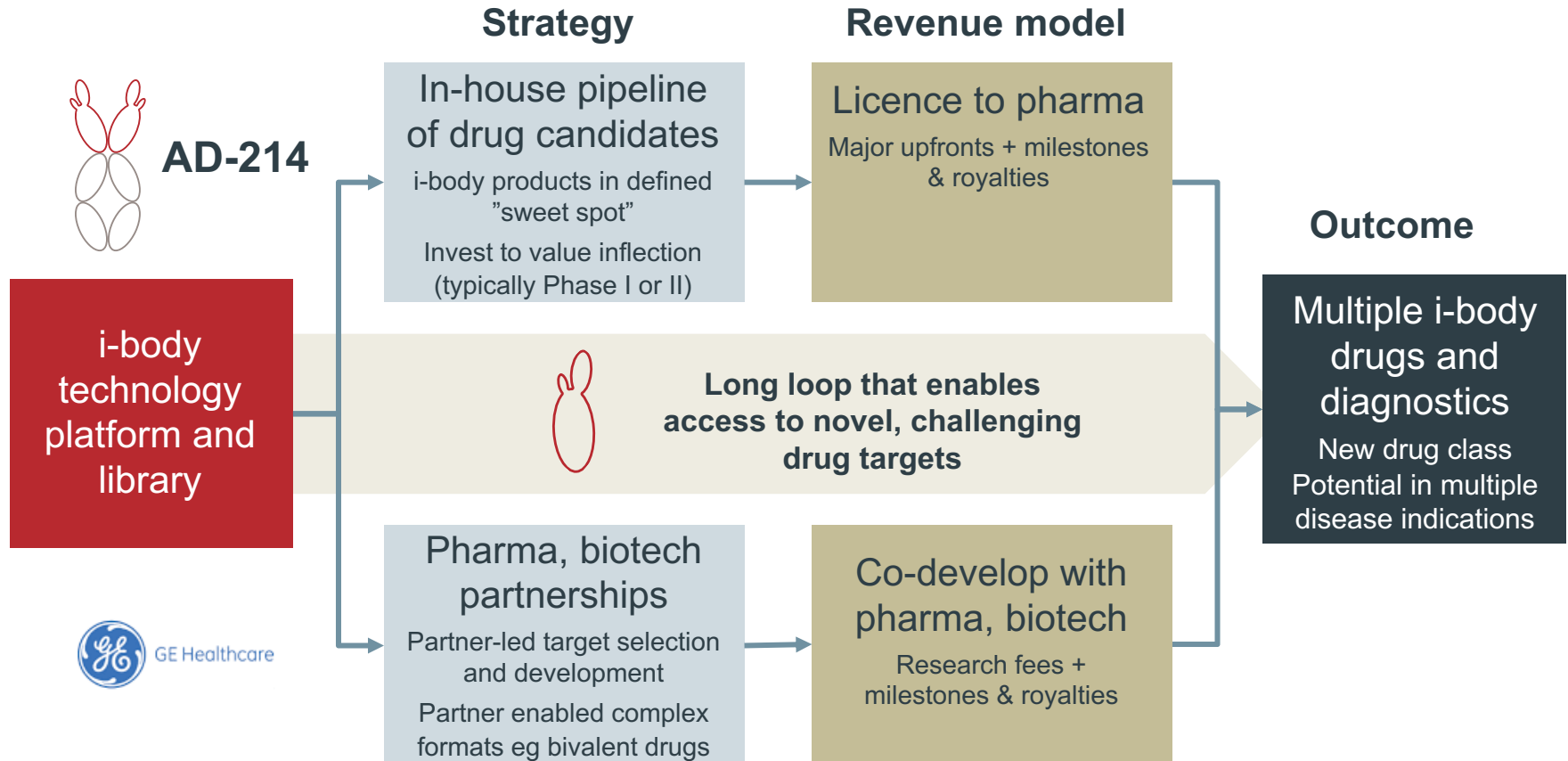
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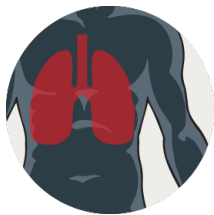
Continuous i-body platform and AD-214 product improvement

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AD-214 pre-clinical overview

- ▶ **Pre-clinical efficacy data from gold standard disease model now in hand** to support commencement of human clinical studies of AD-214 and human therapeutic dose range beginning as low as 1mg/kg
- ▶ **Pharmacokinetic (PK) and pharmacodynamic (PD) data support weekly or fortnightly iv dosing hypothesis** for AD-214 and human therapeutic dose range likely to include 10mg/kg
- ▶ AD-214 has a **good safety profile** and selectively blocks its target, CXCR4
- ▶ **⁸⁹Zr-labelled AD-214 development will significantly enhance value of Phase I program**
 - PET imaging of AD-214 in patients enables confirmation of biodistribution, receptor occupancy and receptor saturation in target tissue
 - Enhances understanding of dose range, dose intervals and mechanism of action
 - *Critical partnering information to be available earlier than would otherwise have been possible*
- ▶ **Pre-clinical proof of concept data pending** in likely next indications: eye and kidney fibrosis



AD-214 pre-clinical data package: lung fibrosis

FOCUS TODAY

AD-214 study

In vitro pharmacology

- **High CXCR4 expression** in fibrotic lung tissue (and other fibrotic organs)
- **High binding affinity** to human CXCR4
- **Very high specificity** to CXCR4 in panels of GPCR and other membrane proteins
- **Inhibition of CXCR4** activation and internalization by natural ligand (SDF-1)
- **Inhibition of PBMC migration*** (*inhibition of IPF fibroblast migration planned*)
- **Modulation of inflammatory, fibrotic markers**;^{*} with different profile to nintedanib and pirfenidone
- **Absence of concerning tissue cross reactivity**
- **Absence of concerning cytokine release profile**

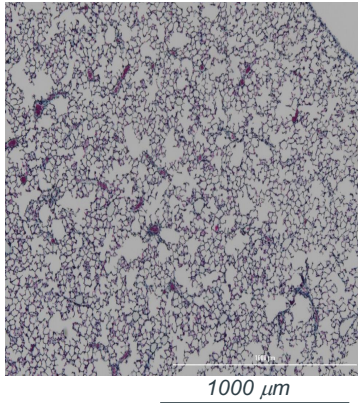
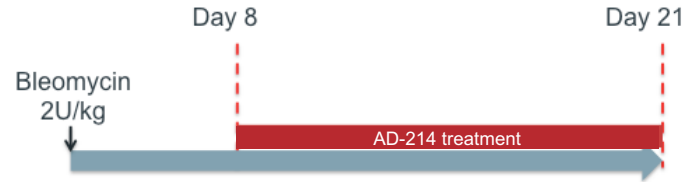
In vivo efficacy

- Mouse bleomycin model (therapeutic mode): reduction in Ashcroft score, hydroxyproline

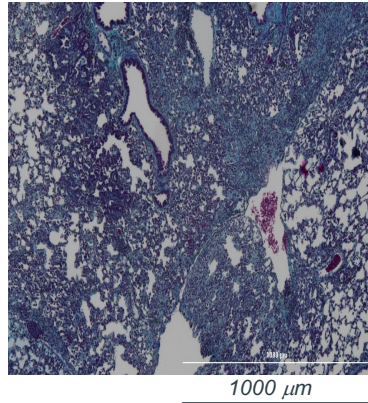
In vivo toxicology

- Normal mouse (single dose: PK, PD (PBMC receptor occupancy), toxicology (clinical observations))
- Non-Human Primate: single dose, multi-dose, GLP multi-dose (i.v.): PK, PD (PBMC receptor occupancy, no adverse toxicology (clinical observations, haematology, chemistry, pathology, cytokines, no significant stem cell mobilisation)

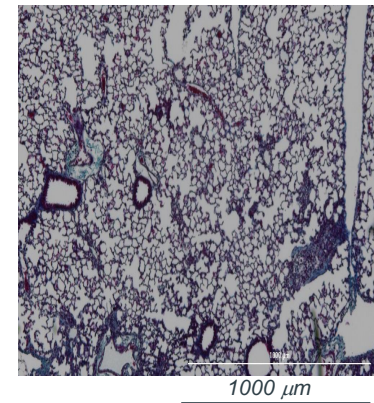
AD-214 *in vivo* activity in bleomycin-induced mouse model of lung fibrosis



Normal mouse lung tissue



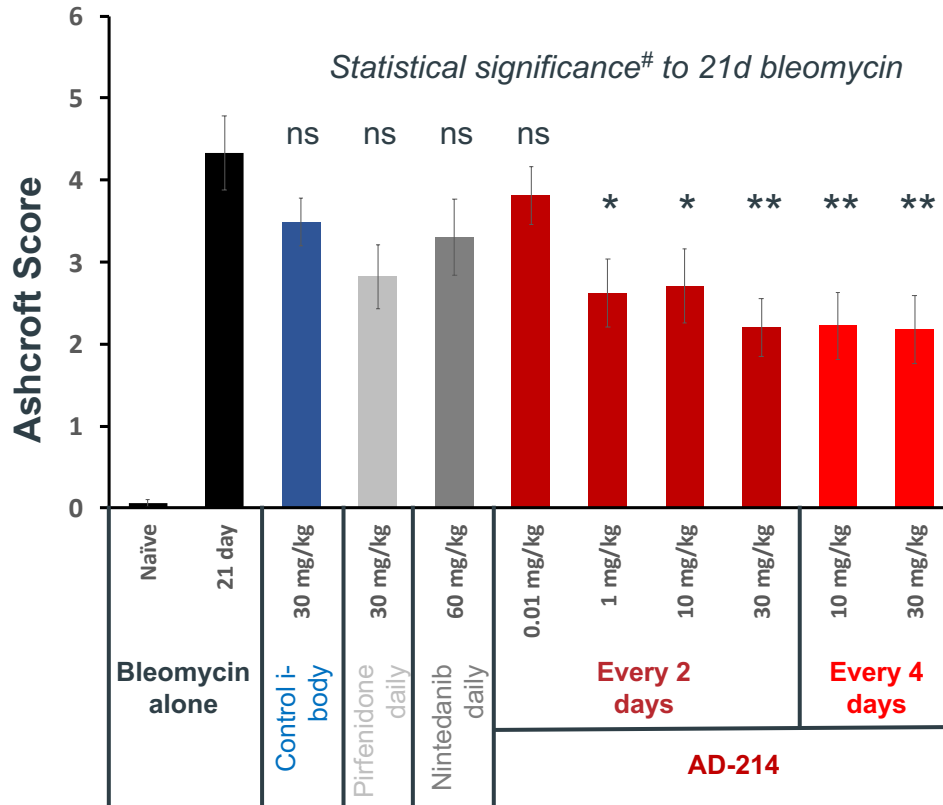
IPF mouse lung tissue
(21 days after bleomycin)



IPF mouse lung tissue + AD-214
(21 days after bleomycin; AD-214 at 10mg/kg every 4 days from day 8)

Blue staining represents collagen, a hallmark of fibrosis

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)

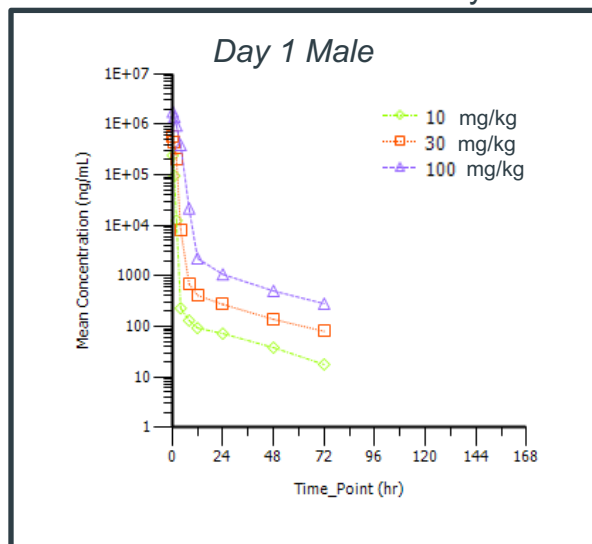
AD-214 efficacy demonstrated in gold standard IPF disease model

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

Non-human primate GLP toxicology: Phase I dose justification

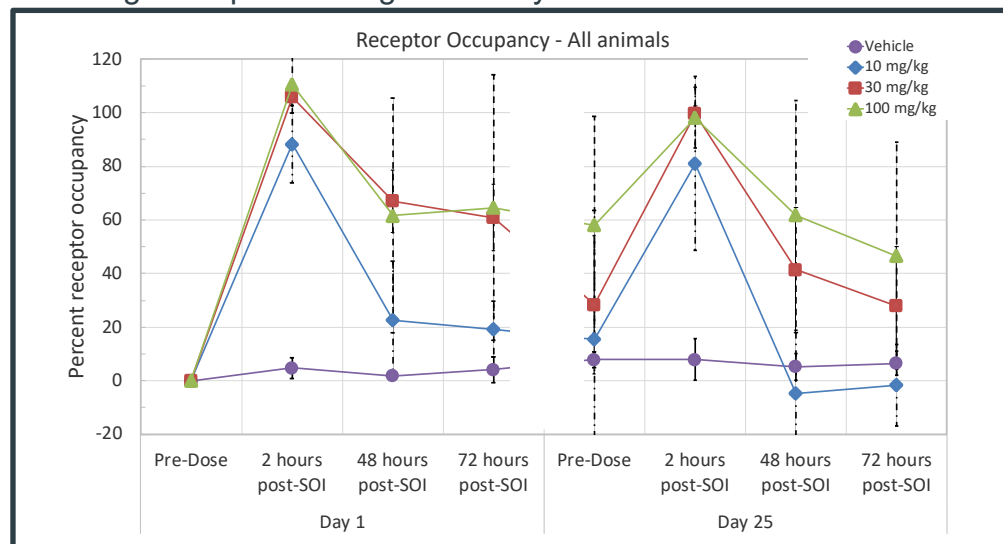
Pharmacokinetics

- 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

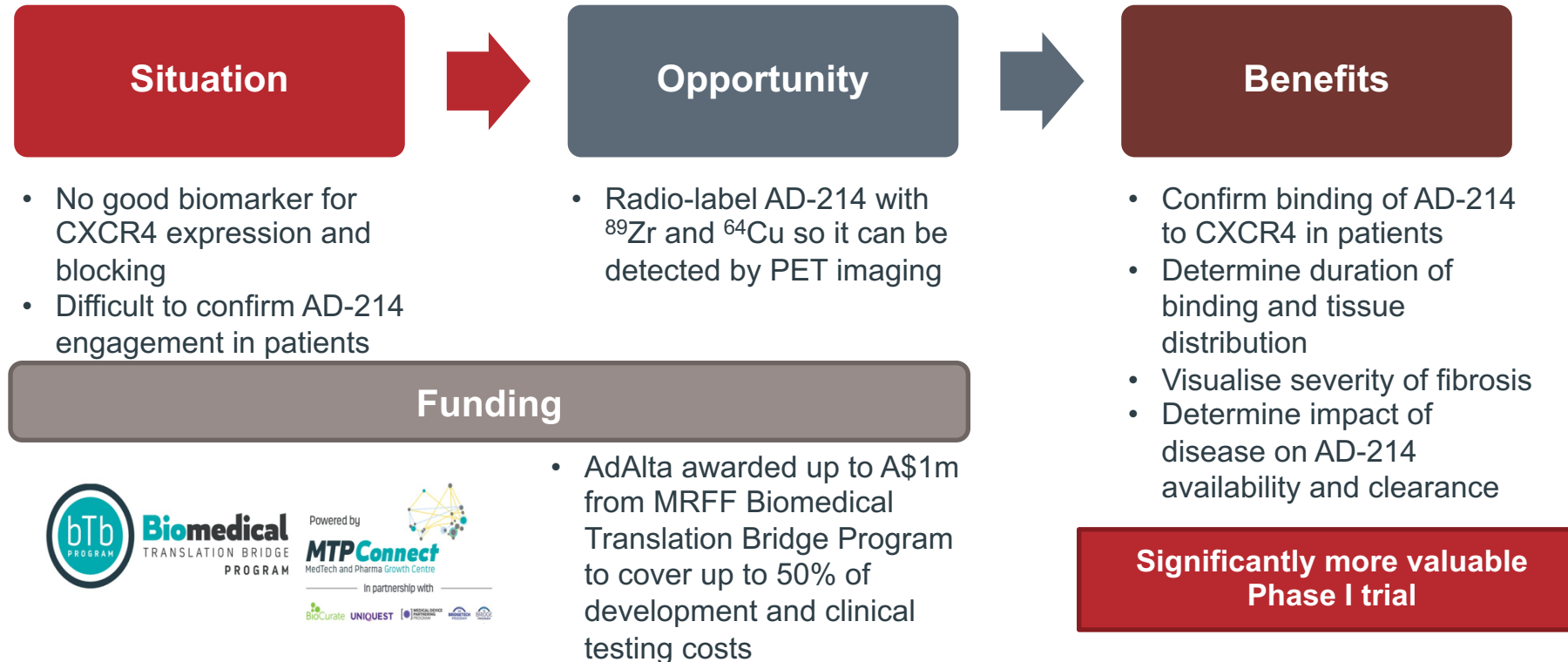
NHP GLP toxicology: AD-214 safe

- ▶ 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”

AD-214 radio-labelled PET tracer to enhance clinical development



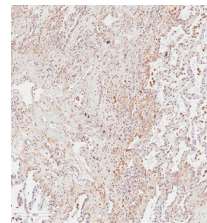
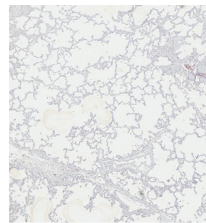
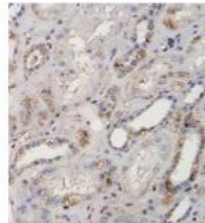
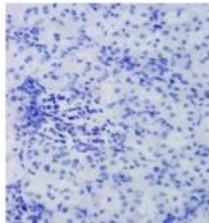
AD-214: first in-class anti-fibrotic with potential in multiple indications

AD-214's biological target, CXCR4:

- ▶ Is important in maintaining stem cells in bone marrow
- ▶ Used by HIV-1 as a co-receptor for viral entry into cells
- ▶ Has been associated with more than 23 types of cancers
- ▶ Now recognised as a biomarker and critical player in development of fibrosis in many organs

Human kidney tissue

Human lung tissue



Normal

Diseased

Normal

Diseased

Brown stain is an indicator of CXCR4 expression

Only one approved drug targeting CXCR4: Mozobil (plerixafor or AMD3100)*



- ▶ Indicated for stem cell mobilization (is also anti-fibrotic)
- ▶ Indicated for single use only (toxicity prevents chronic use)

Several anti-CXCR4 biologics in development for cancer; none in fibrosis

AD-214 is a first in class anti-fibrotic

Indication extension: establishing proof of concept

✓✓ Number of ticks proportional to strength of PoC signal

AD-114



Lung
IPF

- ✓✓ Mouse bleomycin
- ✓✓ Human IPF fibroblast
- ✓✓ Human airway basal cell organoids

AD-214

- ✓✓ Mouse bleomycin

Human IPF fibroblast - planned



Eye
Wet-AMD & PVR

- ✓ Mouse laser induced CNV
- ✓ Mouse laser induced sub-retinal hemorrhage

Mouse laser induced CNV – subject of grant application



Kidney
Renal fibrosis

- ✓✓ Mouse folic acid
- ✓ Renal tubule cell collagen and fibronectin

- ✓ Renal tubule cell collagen and fibronectin

Mouse UUO - pending

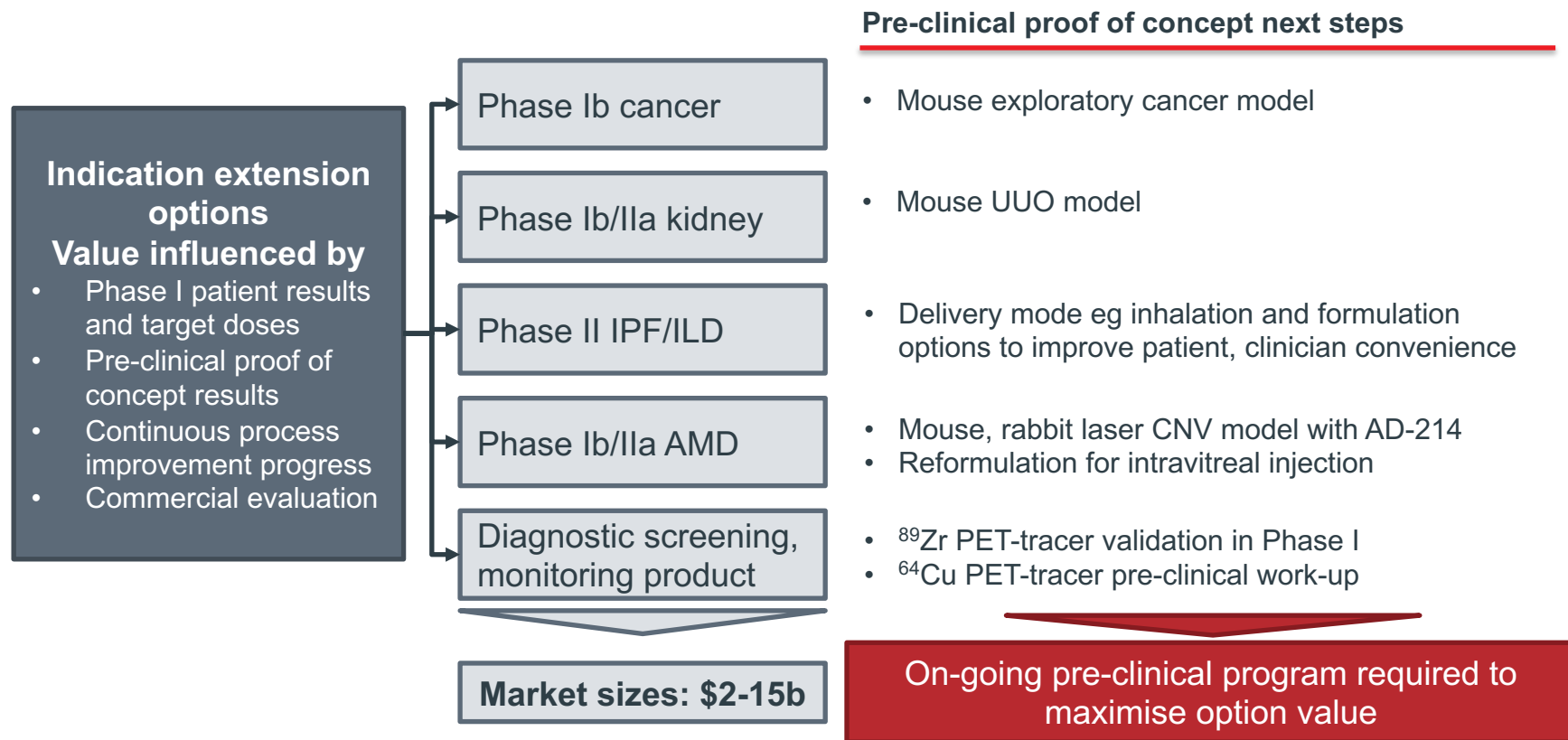
OTHER

Cancer: exploratory mouse model - planned

Diagnostic PET imaging – exploratory in Phase I

AdAlta is demonstrating broad anti-fibrotic and anti-inflammatory effects in several animal models of disease and with human tissues with its lead i-body candidate

Options for indication extension after phase I



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AD-214 phase I overview

► Proposed two part phase I clinical program features

- Initial safety and pharmacokinetic assessment in single dose health volunteer cohort
- Rapid transition to patient single and multiple dose cohorts, giving insights into effect of disease on pharmacokinetic and pharmacodynamic
- ^{89}Zr -AD-214 PET imaging to be included in patients to provide additional insight into target engagement, biodistribution and pharmacodynamic
- Recruiting a broad range of interstitial lung disease (ILD) patients (faster recruitment, indication extension opportunities, CXCR4 known to be over-expressed)

► Key vendors engaged

► Key milestones

- Study to commence mid-2020
- Healthy volunteer safety and pharmacokinetic/pharmacodynamic data in Q4
- First patient results in early 2021

Proposed two 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

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

- ~40 subjects
- 1-20 mg/kg iv
- Randomized 3:1 drug:placebo
- 1 site

Part B

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

- ~15-30 subjects*
- 0.1-20 mg/kg iv
- Can begin after 5mg/kg cohort of HV SAD
- 2-3 sites

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

- ~12-24 subjects*
- 1-20 mg/kg iv weekly over 4 weeks
- Can begin after 5mg/kg cohort of Pax SAD
- 2-3 sites

Primary Objective

- Safety, tolerability of AD-214

Secondary Objectives

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

Exploratory Objectives

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

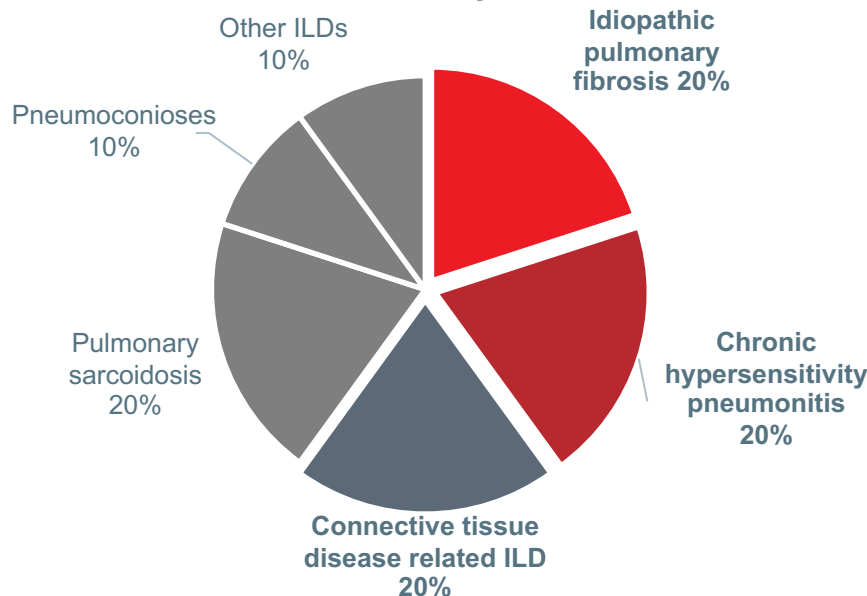
Contracted vendors



Partners in development and clinical validation of PET tracer

Target patient population: ILD

Relative distribution of specific ILDs in US



Patient selection for optimal recruitment and potential to broaden indications for AD-214

Eligible patients

► Clinical diagnosis of idiopathic pulmonary fibrosis (IPF) and

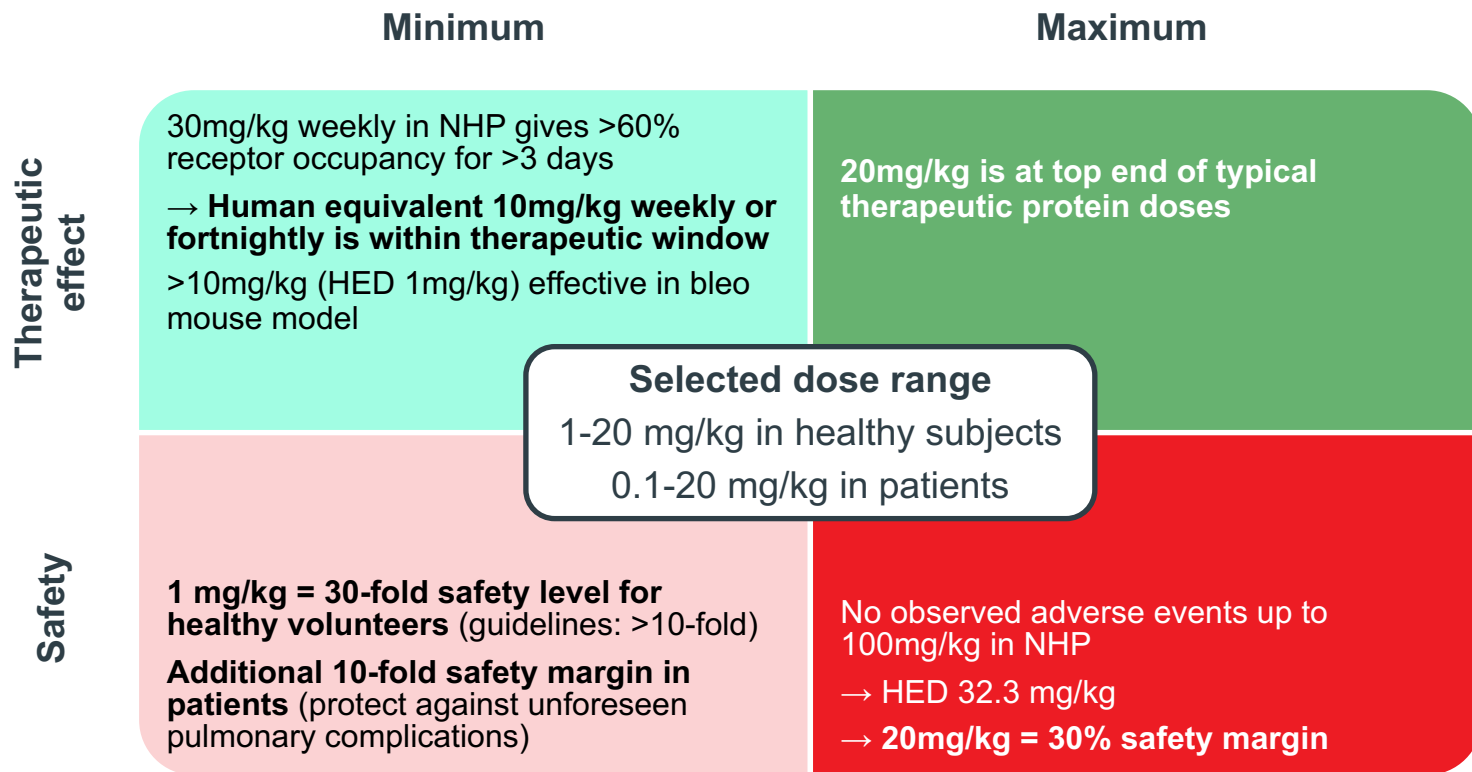
- Intolerant to, or have failed, standard of care treatment (e.g. pirfenidone or nintedanib); OR
- Not yet able to receive standard of care medications

OR

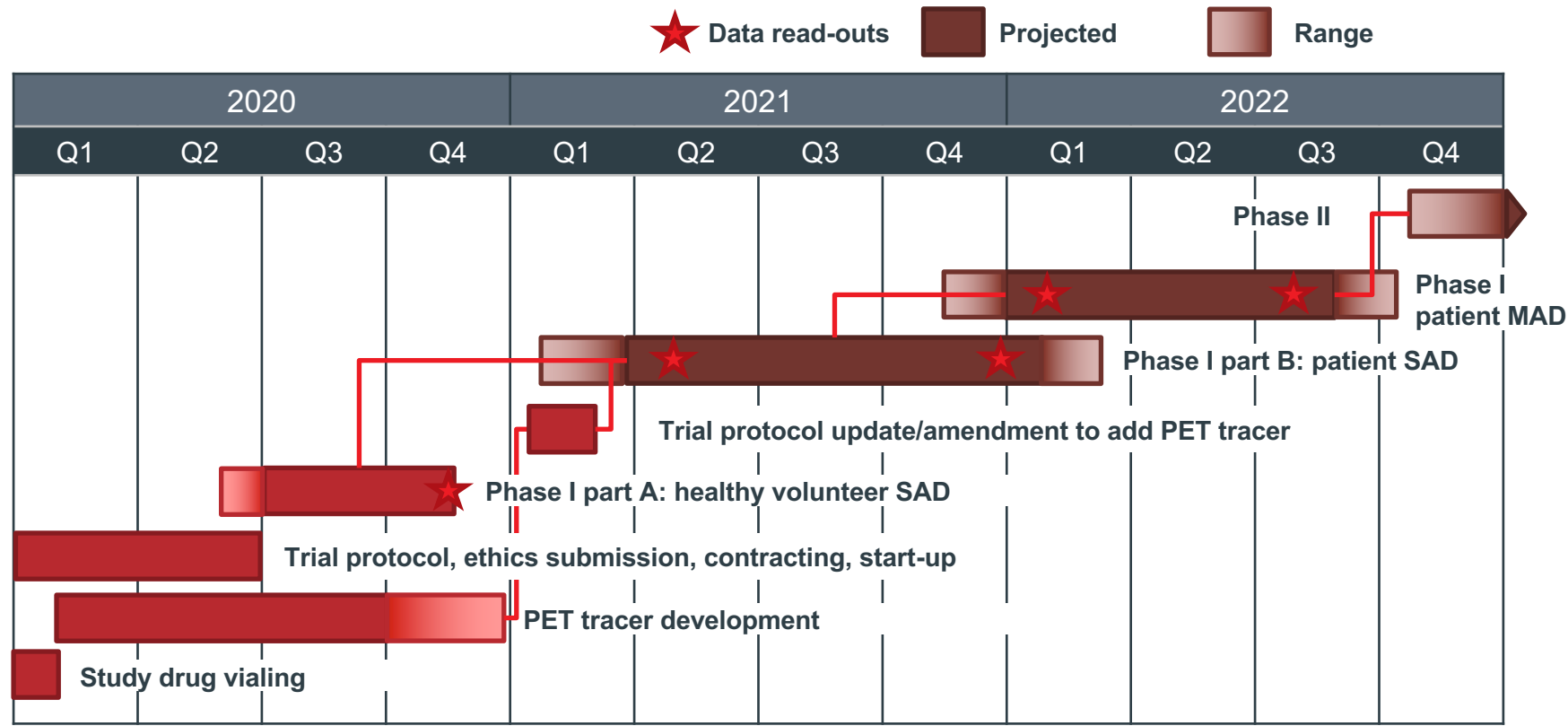
► Clinical and radiological features consistent with fibrotic interstitial lung disease (ILD) associated with any of the following (all known to over-express CXCR4):

- Collagen-vascular disease
- Fibrotic non-specific interstitial pneumonia lung disease
- Chronic fibrosing hypersensitivity pneumonitis

Dose rationale: Phase I doses within safety window, potential therapeutic range



AD-214 Phase I clinical development includes patients



IPF Phase II trial designs

	Phase II	Phase III	FDA Fast Track	FDA Orphan Drug
Galapagos GLPG1690	12 weeks, 23 patients	ISABELA 1 and 2 52 weeks, 1500 patients total		✓
FibroGen Pamrevlumab	48 weeks, 103 patients	ZEPHYRUS 52 weeks, 565 patients	✓	✓
 Liminal BioSciences PBI-4050	12 weeks, 40 patients	Not defined, planning additional Phase II studies	✓	✓
Promedior PRM-151	24 weeks, 116 patients	Details not available Acquired by Roche Nov 2019	✓	✓
Kadmon KD025	24 weeks, 76 patients	Focusing on other indications		✓

Phase II programs in IPF

- 20-100 patients; 3-12 months follow-up; open label
- Estimated \$5-20m

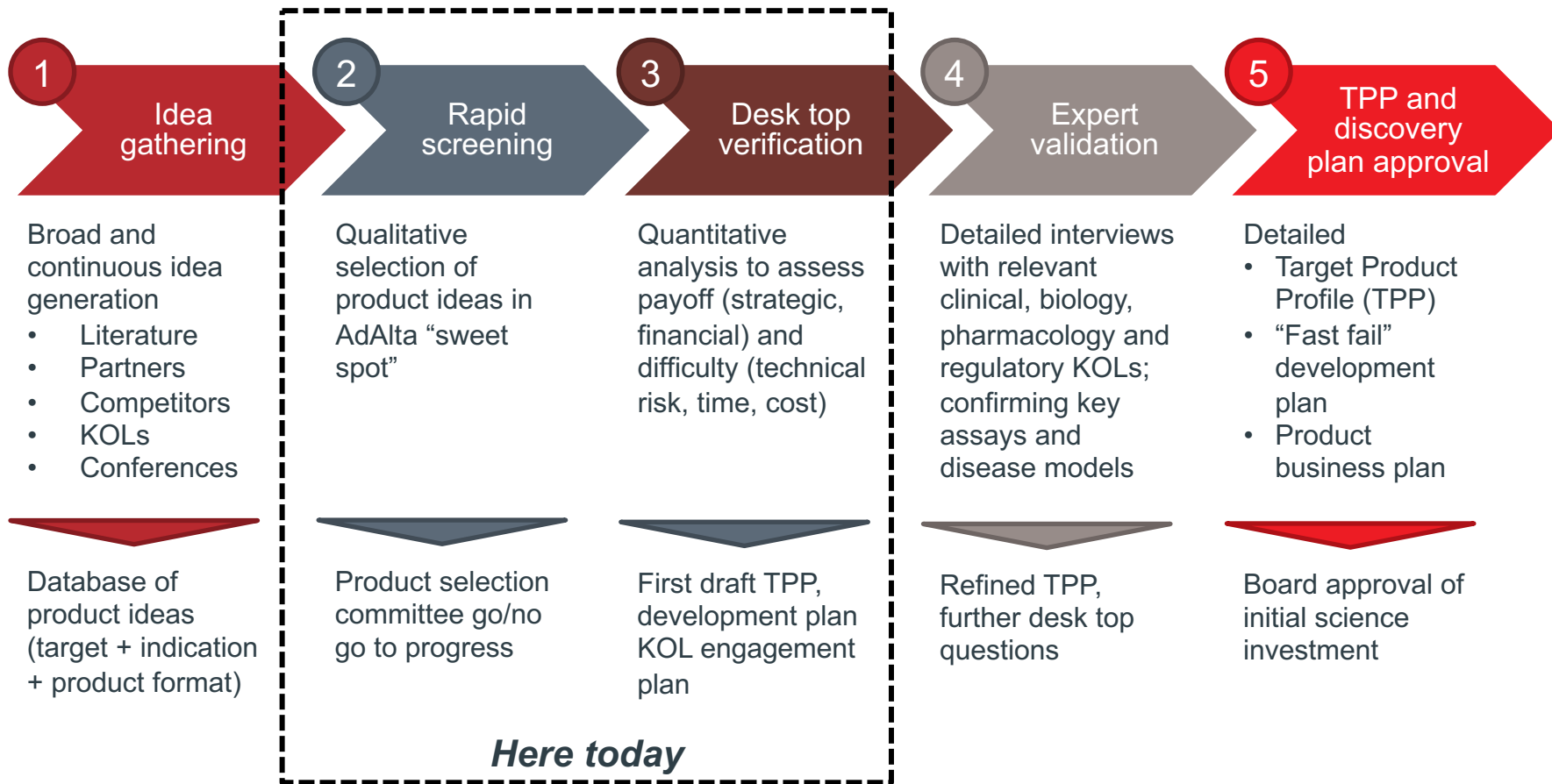
Agenda today

- Welcome and overview
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Pipeline and partnerships summary

- ▶ **Internal development projects to focus on a “sweet spot” encompassing G-protein Coupled Receptors (GPCRs) with well understood, complex pharmacology implicated in fibrosis, inflammation or oncology**
 - A robust and comprehensive process will be used to identify in-house targets in GPCR sweet spot
 - Screening of existing binders is well advanced
- ▶ **Platform partnerships will be continually developed to pursue targets outside this “sweet spot” where i-body attributes are differentiating and partners bring targets and complementary technology**
 - Decreases development and investment risk; level of risk taken by AdAlta to be assessed on a case-by-case basis
 - Brings complimentary skills in alternate target classes eg ion channels and product formats eg bispecifics, GPCR heterodimers
 - Partnering the platform is a 6-12 month process, with our aim to have a balanced pipeline of discussions
- ▶ **Partnering AD-214 and other internal development projects will be geared towards creating multiple offers in key partnering windows towards end of Phase I and end of Phase II**
 - Decision to partner at Phase I will be based on deal terms, risk-benefits of continuing to invest beyond Phase I, and strategic value

Internal target and product selection process



AdAlta's "sweet spot" facilitates more rapid screening of internal product ideas

AdAlta's internal development "sweet spot" – i-bodies to "difficult to drug" G-protein Coupled Receptors (GPCRs)

- Clinically validated
- Indications in fibrosis, inflammation or oncology
- Not adequately addressed with small molecule or conventional antibody approaches due to complex pharmacology

Partnering will enable platform to be deployed more widely including:

- Other "difficult to drug" targets eg ion channels
- Products that require complementary formatting technology eg bispecifics

1. **Mechanism:** Is there a GPCR clearly implicated in a disease mechanism (validated target)? ☐
2. **Need:** Is the target indication an orphan indication with high unmet medical need (poor prognosis, no disease modifying therapy) in fibrosis, inflammation or oncology? ☐
3. **Competition/positioning:** Are there limited approved drugs for the indication and receptor/indication combination (best in class/first in class opportunity)? ☐
4. **Opportunity:** Is there evidence of multiple unsuccessful attempts to drug the GPCR or ligand for this/other indications (small molecule, biol)? ☐
5. **Selectivity and specificity:** Is the pharmacology of the GPCR well understood and does prior lack of success indicate a clear need for biased or allosteric engagement (ideally antagonism) or a clear need to avoid engagement of very similar GPCRs or ligands with a single i-body? ☐
6. **Execution:** Are *in vitro* assays and disease models available? ☐
7. **Synergy:** Is there in-house evidence of ability to achieve specificity of binding and to conduct necessary discovery assays? ☐

GPCRs are very attractive drug targets

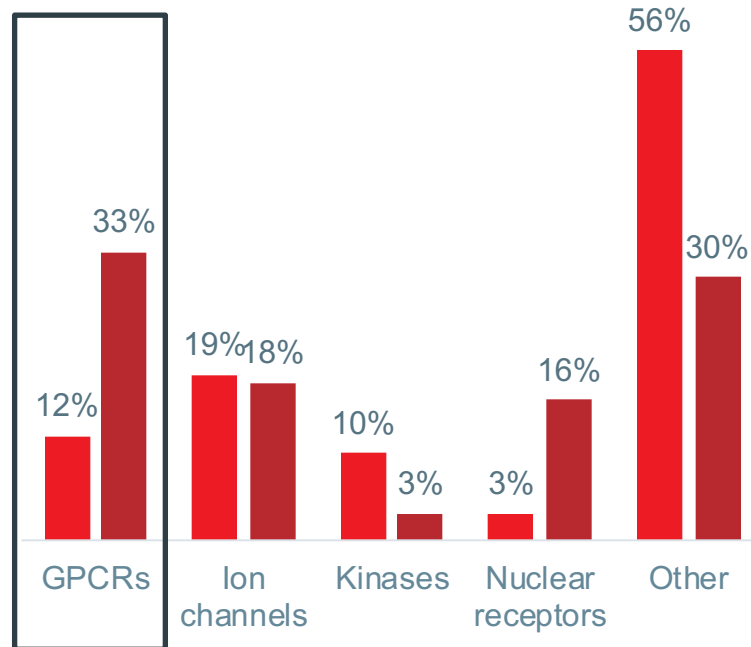
G-protein Coupled Receptors (GPCRs)

- Largest, most diverse group of membrane receptors
- Act like an “inbox” for messages to cells about their environment or from other cells
- Behave like a switch turning an intracellular function on or off in response to an outside signal

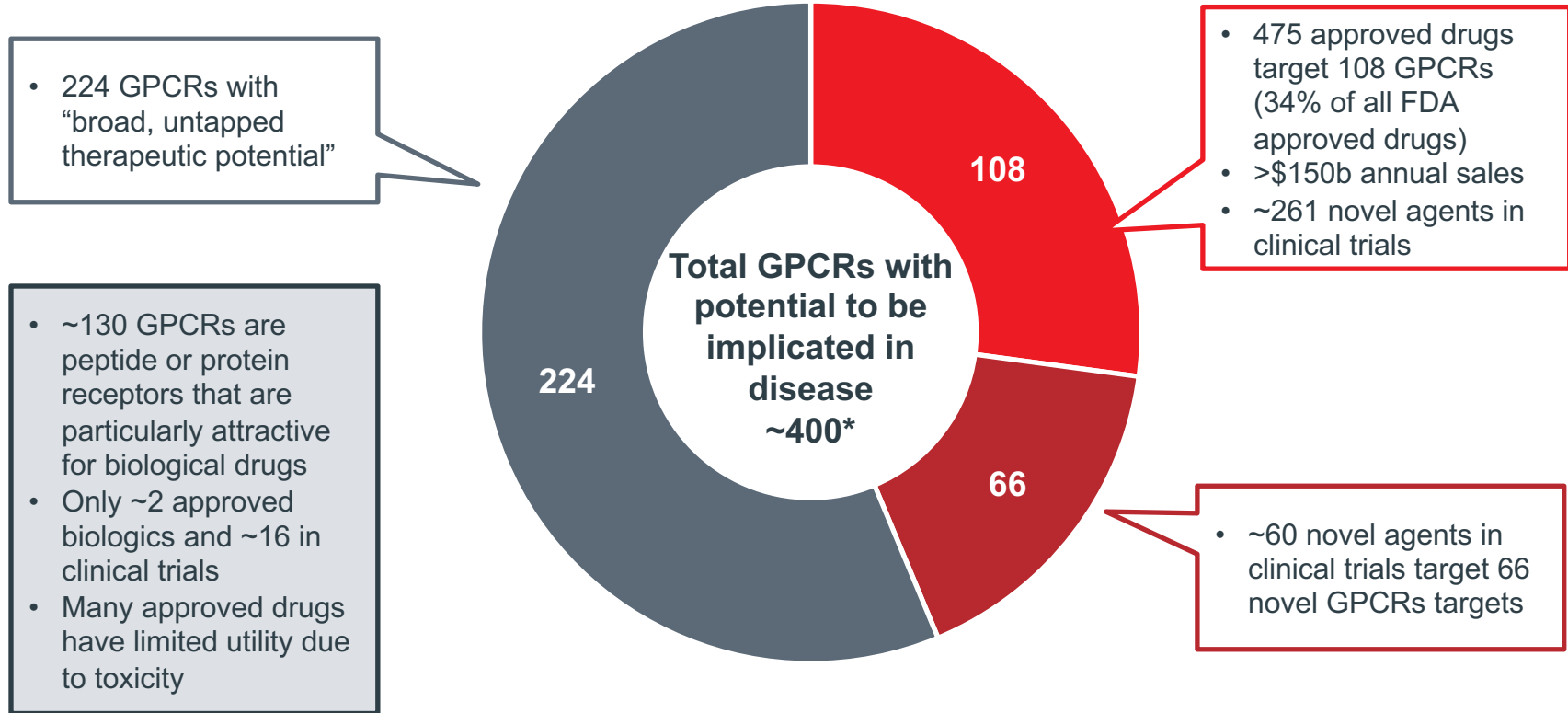
GPCRs

- Represent **12% of all drugged targets**
- Target of **33% of all approved drugs**
- **Often display complex pharmacology** (multiple biological effects) making them **difficult to drug** specifically and without off target side effects

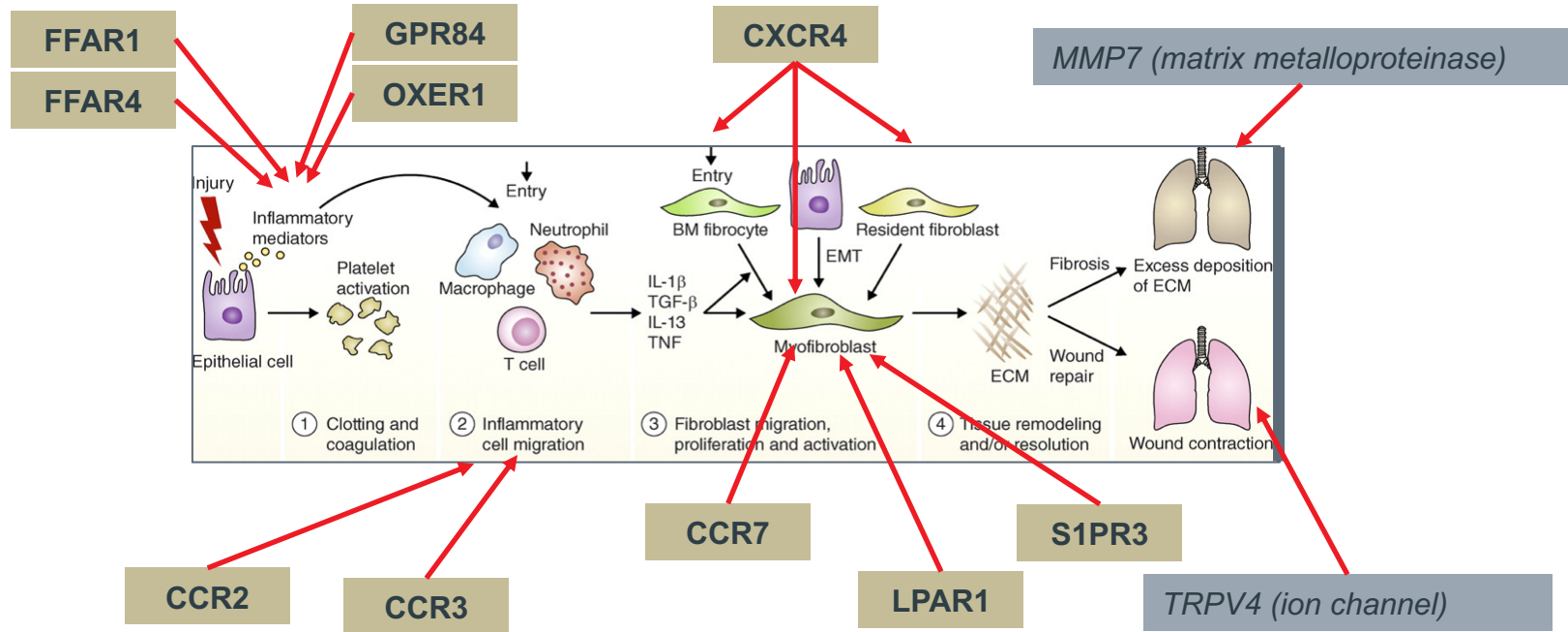
■ Share of drug targets ■ Share of approved drugs



Many potential “difficult to drug” GPCR targets remain



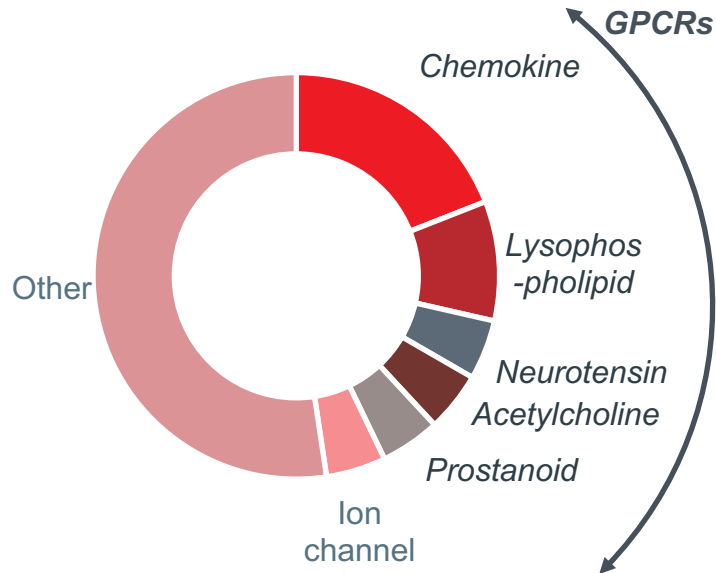
Many GPCRs (and other complex targets) implicated in the fibrosis cascade: examples



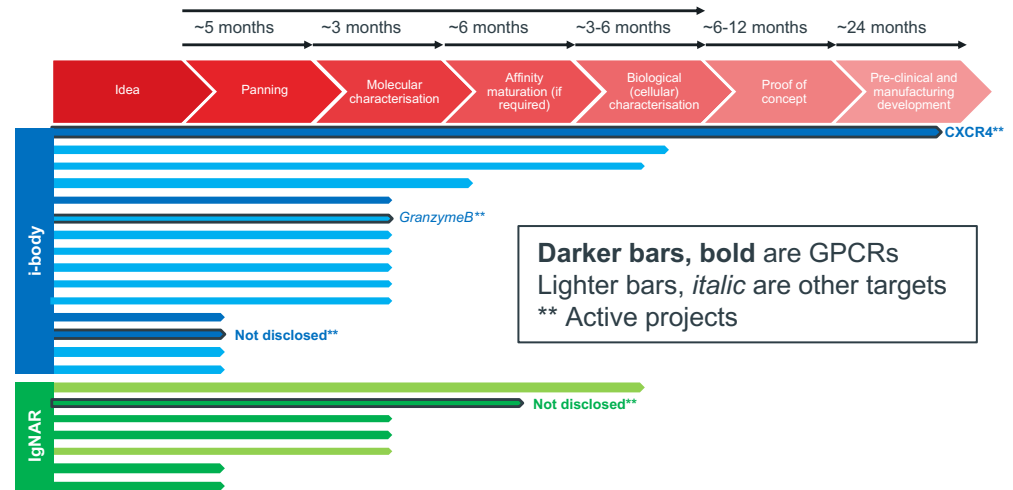
Realistic to build a pipeline around fibrosis (and similarly for inflammation or oncology)
Therapeutic focus maximises leverage of pre-clinical and clinical skills

Initial screening is focused on existing targets to shorten discovery time*

>20 targets to which i-body* binders have been found

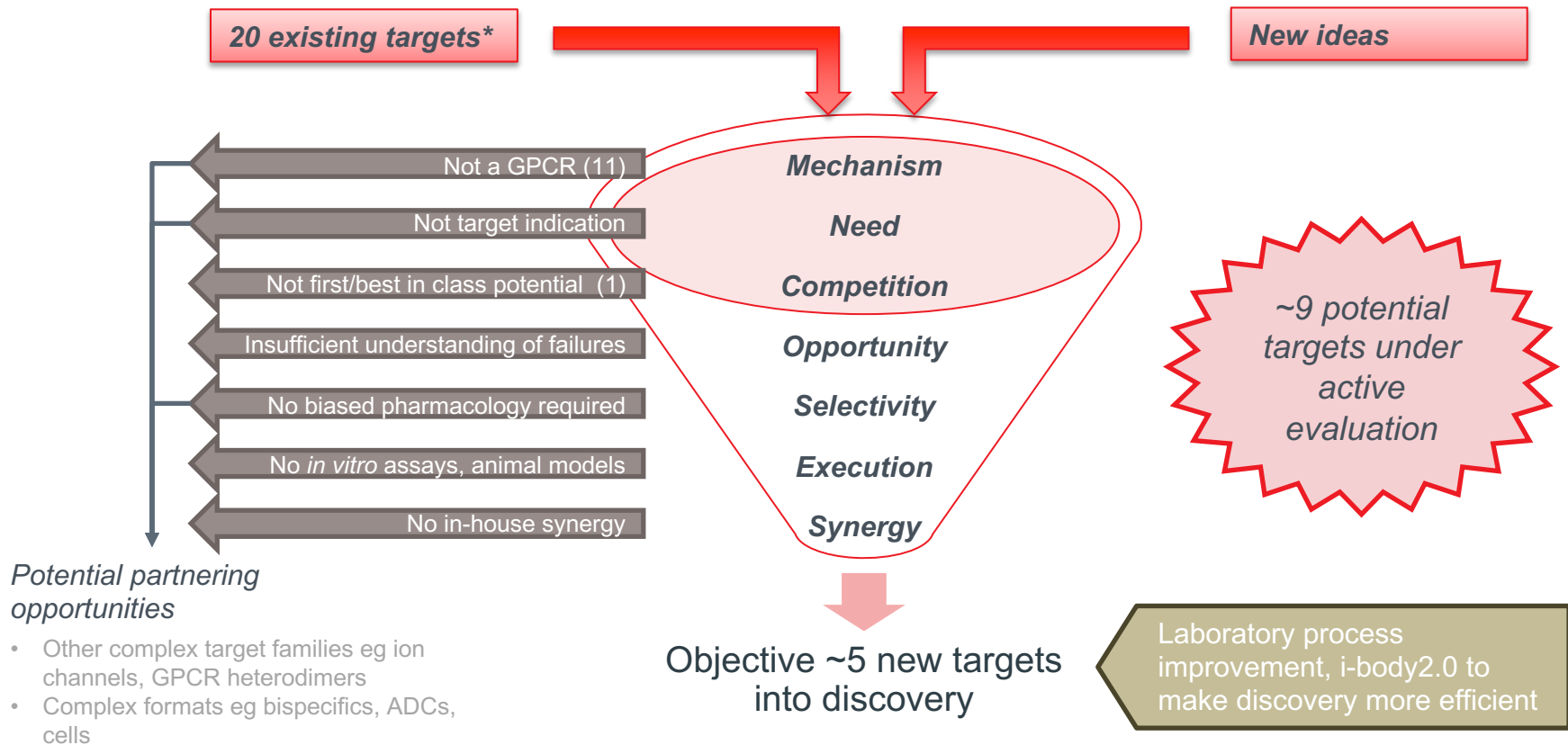


Discovery process



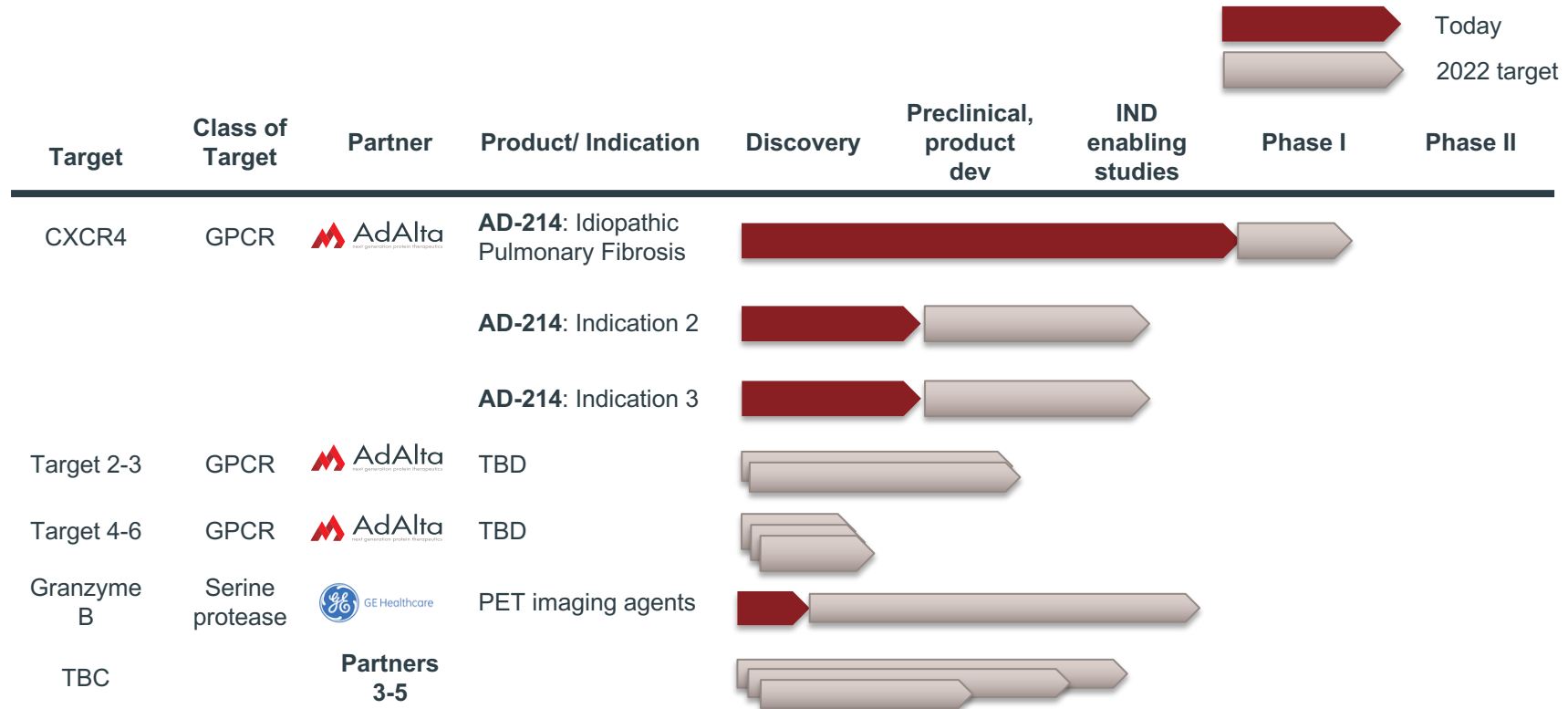
- Few binders yet taken to biological characterisation
- Pursuing existing targets in “sweet spot” will save 3-5 months
- Opportunity to shorten discovery process

Near term aim: add 5 new targets into discovery



AdAlta target pipeline evolution

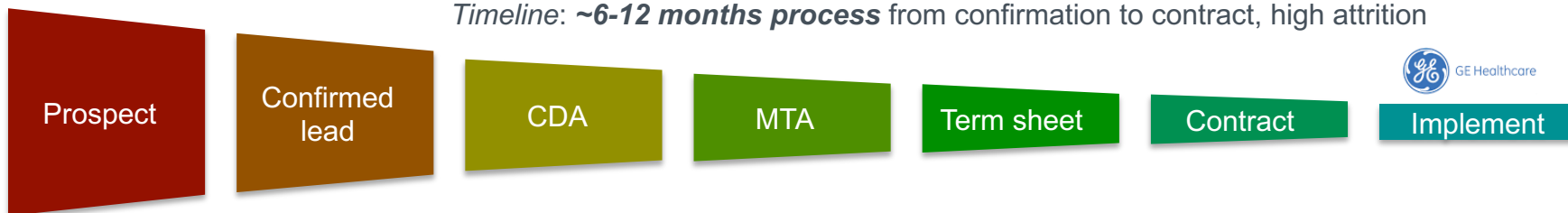
SUBJECT TO FINANCE,
TECHNICAL SUCCESS



Differing strategies for partnering platform and products

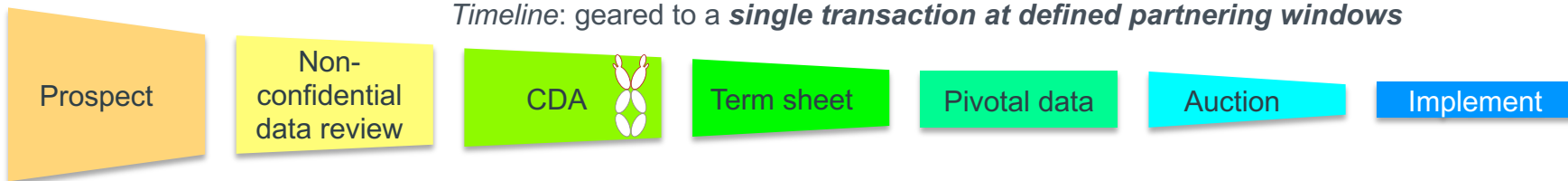
Platform partnering process

Strategy: **continuous lead generation** and movement through the process
Timeline: **~6-12 months process** from confirmation to contract, high attrition



Product licensing process

Strategy: move a small number of high-quality prospects to CDA to **create options at pivotal data points** (end of Phase I or Phase II)
Timeline: geared to a **single transaction at defined partnering windows**



Business development resources and time devoted to:

- Establishing multiple platform discussions at various pipeline stages
- Ensuring sufficient licensing partners engaged so real options are available at data inflection points

Market opportunity for IPF (lung fibrosis)

Idiopathic Pulmonary Fibrosis (IPF) is an irreversible, unpredictable and incurable disease

THE STATISTICS

People living with IPF
300,000

People die from IPF every year
40,000

Median length of survival after IPF diagnosis
3.8 years

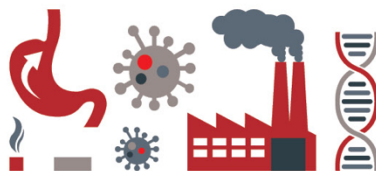
IPF incidence



of sufferers die within 2 to 3 years following diagnosis

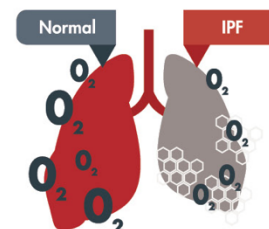


Causes



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.

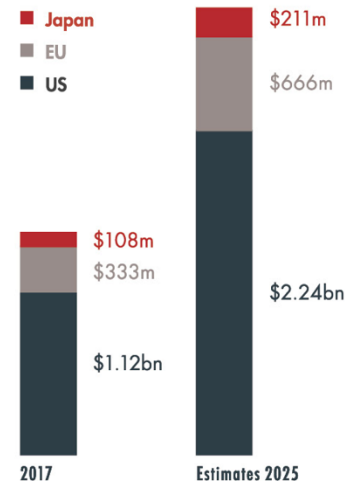
Current IPF treatments

Pirfenidone

Nintedanib



IPF Therapy Sales (US\$)



Source: GlobalData 2018

Market benchmarks

Breaking: Jan-20 Boehringer Ingelheim and Enleofen ink \$1 Billion+ fibrosis deal

Fibrosis lead AD-214



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



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



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

Micro-antibodies



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



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



Feb-18 acquired by Sanofi
€3.9b

GPCRs



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



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



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

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Continuous i-body and AD-214 product improvement

- ▶ **Targeted investments in i-body platform and AD-214 product development secure the foundations for growth strategy and maintain AdAlta at the forefront of advanced antibody technologies**
- ▶ **Opportunities to enhance the i-body platform to improve discovery speed and further improve manufacturability can be evaluated and implemented quickly**
 - Optimal to implement prior to pipeline expansion
 - Extends platform IP beyond 2025
- ▶ **Current AD-214 product (process and formulation) is clinically viable. Continuous product development – normal for this stage of development – optimizes partnering value**
 - Continuous improvements in AD-214 manufacturing process ensure process is commercially viable for a wider range of indications, routes of administration and dosing
 - Commencing this work now enables introduction in Phase II, mitigating potential for repeat studies in future
 - New formulations may be required to pursue certain indications and improve patient and clinician convenience eg inhaled, intravitreal (eye) delivery, shelf life extension
 - Commence this work later enables Phase I study to better inform likely dosing ranges, indications and prioritise effort

Next generation i-body platform opportunity

i-body platform today

- ▶ Core patent expires 2025
- ▶ Structural data and sequence alignments suggest that modifications to scaffolds may improve manufacturing and stability properties of i-bodies
- ▶ Current libraries lack some features that enable high throughput screening of hits during discovery
- ▶ Current processes lack bias to enhanced pharmaceutical properties eg solubility

i-body 2.0: improved i-body platform goals

- ▶ **Extend patent protection** over AdAlta's platform technology
 - More cost effective and comprehensive than an "IP land grab" based on a portfolio of binders to individual targets
- ▶ **Improve discovery efficiency**
 - Automation enabled; high throughput and whole cell screening capable
 - Some process steps eliminated
- ▶ **Improve pharmaceutical properties of i-bodies**
 - Reduce complexity and cost of manufacturing development for future targets; increased hit to lead conversion rate

AD-214 continuous product improvement

AD-214 product development status: clinically viable process and formulation, acceptable for stage of development, opportunities to add value

- ▶ GMP process in place, improvement opportunities identified as expected
 - Down stream purification: good yield
 - Upstream process: best opportunity to improve on current mid-range expression yields and recovery
- ▶ Scarce manufacturing capacity across industry: current batch volumes could exceed capacity available at CDMO
- ▶ Current COGS impose some limits on maximum dose, route of administration, indications
- ▶ Formulation suitable for in-patient intravenous administration; not always patient preferred

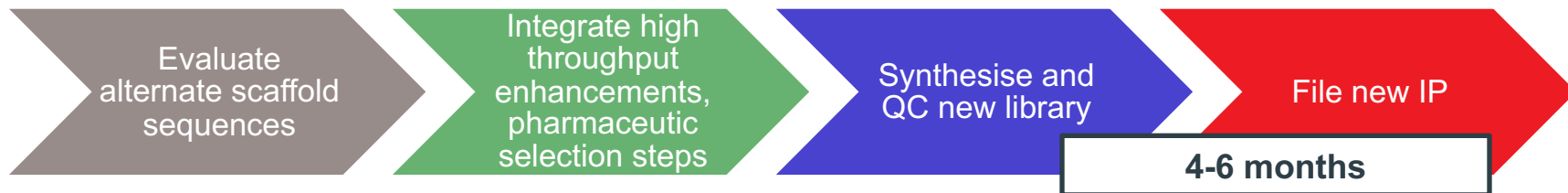
Why invest in continuous improvement now?

- ▶ Process changes for biologics take time, more difficult beyond Phase I
- ▶ Ensure access to higher doses, alternate routes of administration if required
- ▶ Improve clinical convenience
- ▶ Minimise requirement for scarce CDMO capacity (reduce batch numbers)
- ▶ Further improve cost of goods/margin

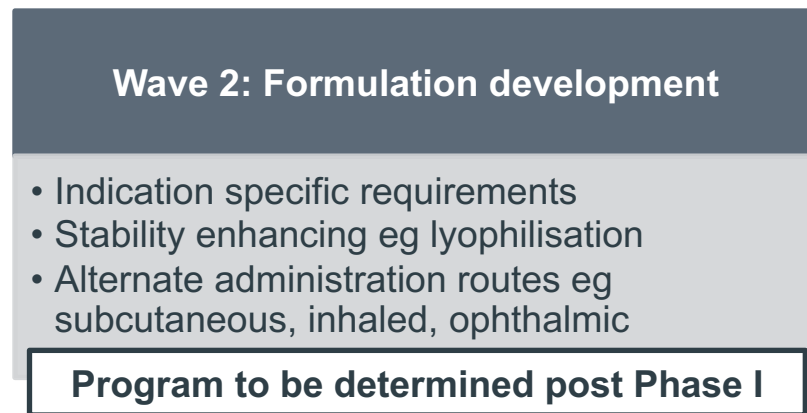
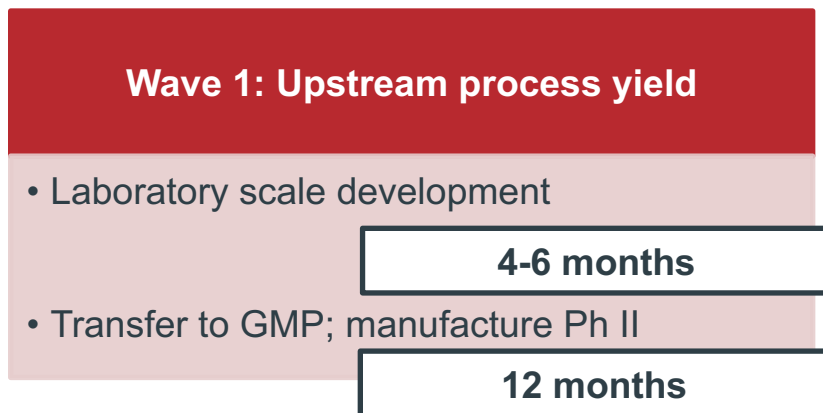
Robust, multi-strategy plan in place

Continuous improvement initiatives

i-body2.0



AD-214 product development



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Staging growth: summary

- ▶ **Bringing AD-214 to the clinic provides catalyst for accelerating growth, creates many growth options**
 - Currently funded to end of healthy volunteer component of Phase I
- ▶ **Expand access to growth opportunities while healthy volunteer safety data is delivered with modest investments in:**
 - **i-body2.0** and lab scale **AD-214 process improvement** – enables all growth programs
 - **Patient single dose component of the Phase I** program – ensures earliest possible biodistribution and target engagement data
 - **Proof of concept experiments in new AD-214 indications** – informs post Phase I program
- ▶ **Accelerate growth with new programs ahead of the first licensing window for AD-214**
 - Launch up to **5 new discovery programs** using i-body2.0
 - **Implement AD-214 process improvements** for Phase II manufacturing; commence formulation improvements
 - Complete pre-clinical work on **two additional AD-214 indications**
 - **Additional platform partnerships**

Using AD-214 Phase I as catalyst for growth

What getting AD-214 to clinic means

- ▶ Validates platform and AdAlta capability to produce clinical candidates
- ▶ Removes concerns that platform is inherently unsafe or unstable
- ▶ Reduces risk for partners: expect increased deal flow
- ▶ Begins to open licensing window: several parties waiting for initial clinical data
- ▶ Reduces risk, increases attractiveness to investors: several expressing interest in investing at this point

Benefits of gaining pipeline scale

- ▶ Multiple potential revenue sources
- ▶ Portfolio effect: overall company risk reduced
- ▶ Each new product creates value
- ▶ More risk reducing inflection points that also create value
- ▶ Improved staff and skills through experience, scope and scale

Financial results: funded into Phase I

AUD million

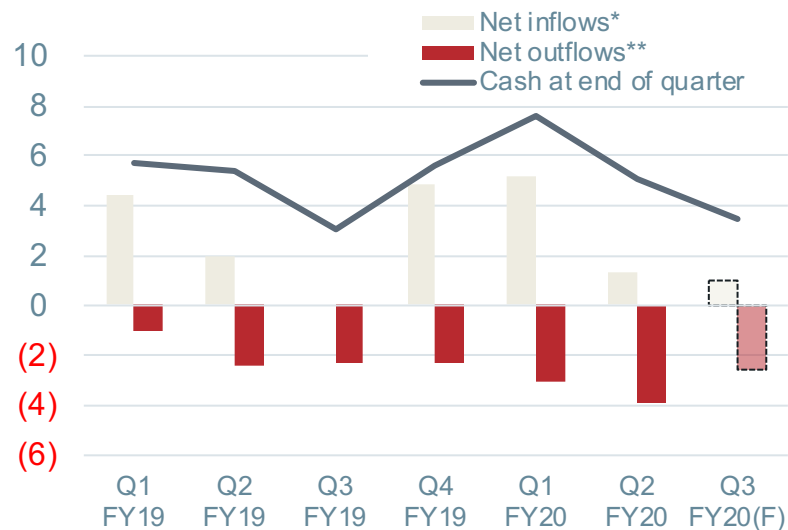
Financial year cash flows

Cash	FY18 (AUD million)	FY19 (AUD million)	FY20 H1 (AUD million)
Operating inflows	1.86	2.11	3.88
Operating/investing outflows	(5.79)	(8.10)	(7.00)
Financing cash flows	0.01	9.24	2.59
Starting cash	6.22	2.31	5.56
Ending cash	2.31	5.56	5.03

Key drivers

- Capital raising Q1FY19 (\$4.3m) and mid-2019 (\$7.0m)
- R&D Tax refund Q2FY19 (\$2.0m) and Q1FY20 (\$3.5m)
- Platform partnering revenues and R&D Tax loan facility H1 FY20
- Key drivers of outflows: GMP manufacturing, NHP toxicology study; clinical trial costs are lower burn rate

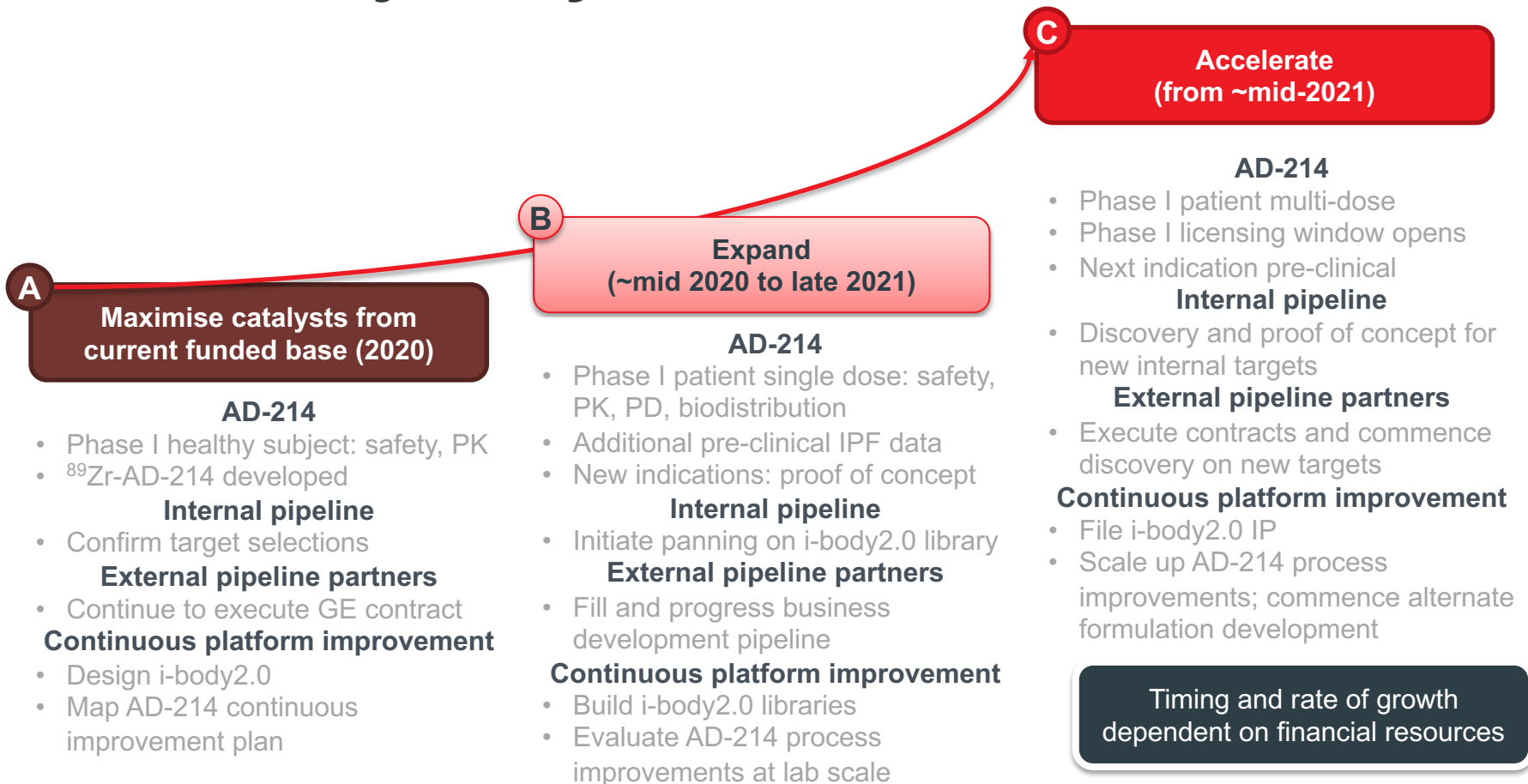
Quarterly cash flows



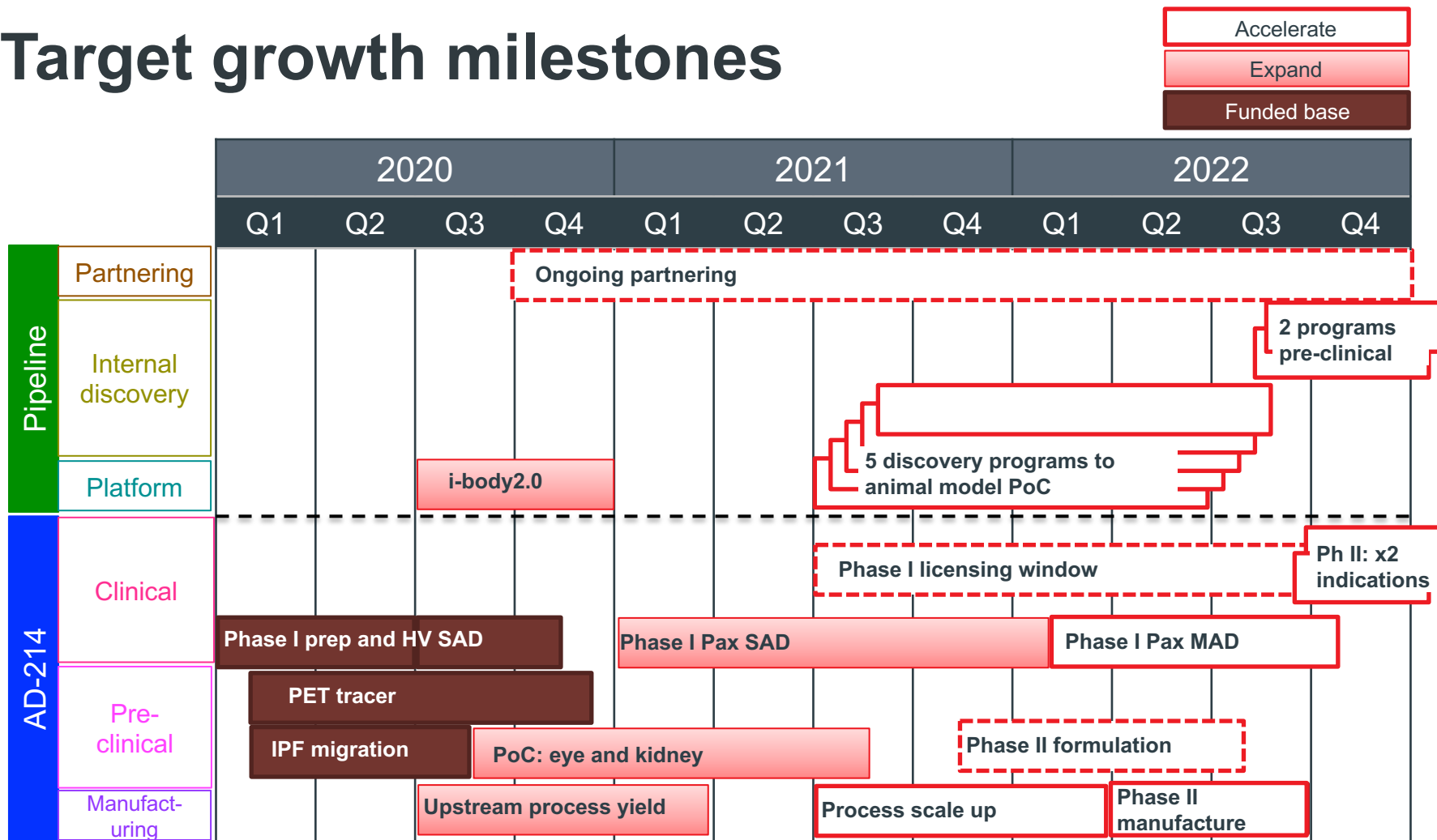
Outlook

- **Cash balance plus cash management strategies fund the Company to complete healthy volunteer Phase I clinical studies**

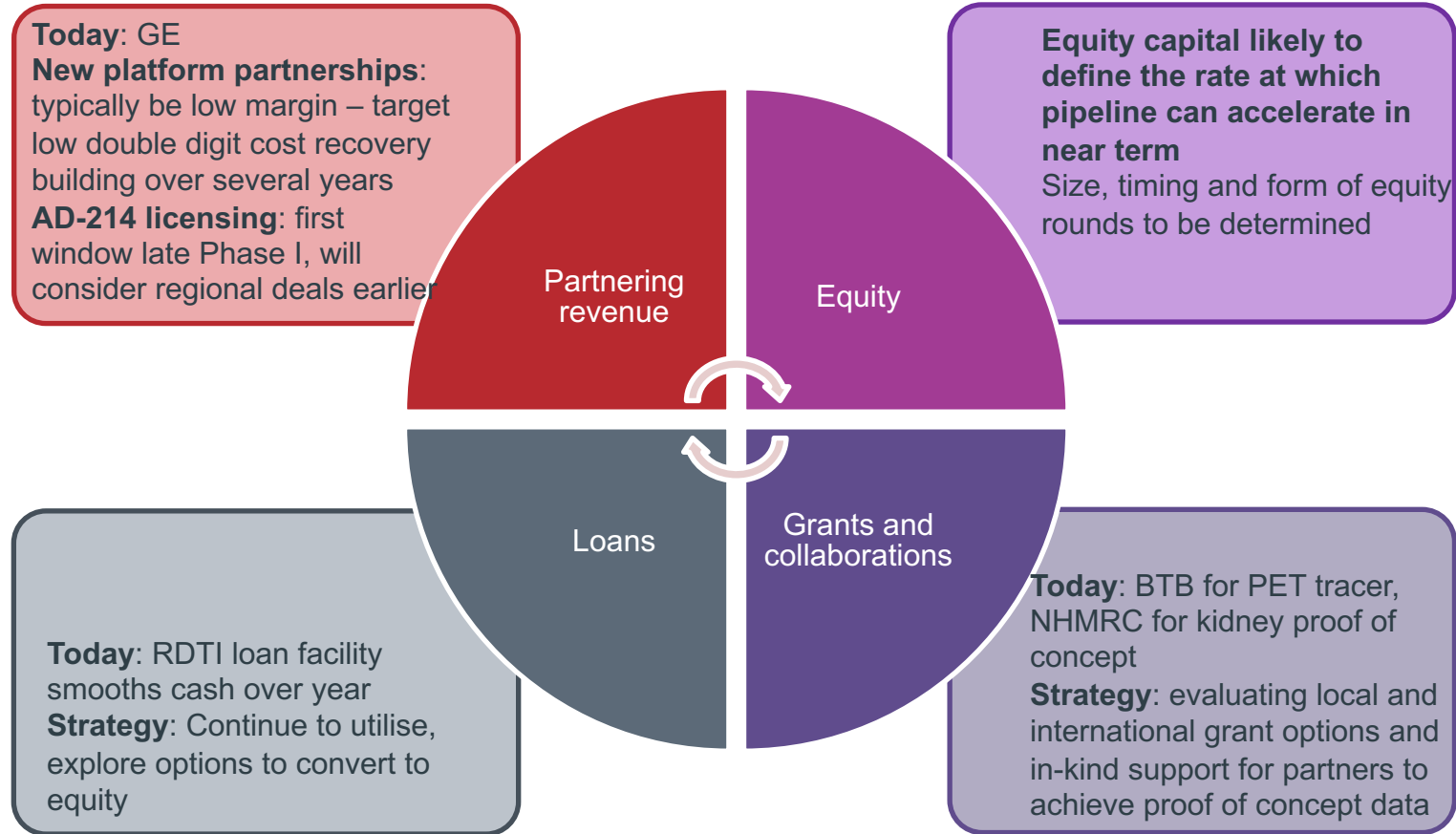
Growth trajectory to build value



Target growth milestones



Financing strategies and options



2020 news flow

► Early 2020

- ✓ Patent granted covering AD-214 granted in the US
- ✓ Publication of role of CXCR4 in fibrosis
- ✓ Pre-clinical efficacy and PK/PD of AD-214
- ✓ AdAlta strategy update (AD-214 clinical development and i-body platform growth)

► Mid-2020

- PET tracer pre-clinical images in bleomycin mouse
- Ethics committee approval for Phase I human clinical studies
- **Phase I healthy volunteer studies with AD-214 commence mid-year**
- Inhibition of human fibroblast migration by AD-214

► Late 2020

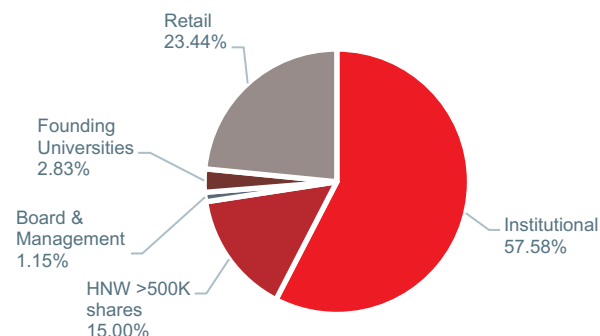
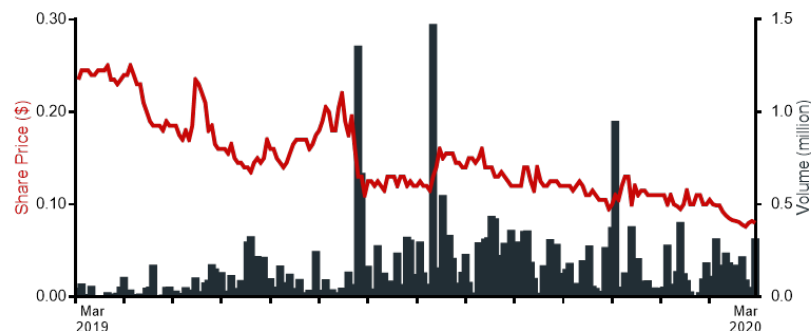
- **Phase I healthy volunteer studies – top line results (safety and PK)**
- **Ethics approval to introduce PET tracer to Phase I patient single dose studies**
- **First patient image with PET tracer (early 2021)***
- Proof of concept animal data in new AD-214 indications*

Financial position

Key financial details	
ASX code	1AD
Share price (28 February 2020)	AUD\$0.08
Market capitalisation	AUD\$13.12m
Ordinary Shares	163,945,613
Listed Options	23,348,803
Unlisted Options	7,514,067
Current cash (31 December 2019)	AUD\$5.03m
Trading range (last 12 months)	AUD\$0.085 to \$0.27
Average daily volume	103,880

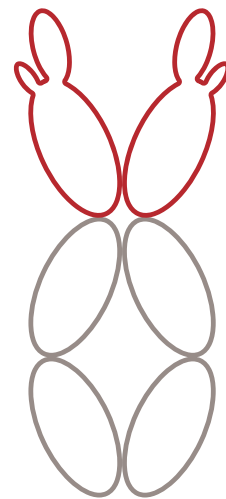
Major shareholders	%
Yuuwa Capital LP	32.97
Platinum Asset Management	8.66
Brispot Nominees Pty Ltd	4.79
CS Fourth Nominees Pty Ltd	3.08
Meurs Holdings Pty Ltd	3.05
Other shareholders	47.45
Total	100%

Share price performance (last 12 months)



AdAlta strategy summary

- ▶ **i-body platform for generating multiple products against “difficult” targets**
 - Internal pipeline focused on GPCRs implicated in fibrotic and inflammatory disease and cancer
 - External pipeline leveraging partner expertise to pursue wider range of targets, indications
- ▶ **First in class lead asset, AD-214, due to commence human Phase 1 clinical trial in mid-2020 provides catalyst for growth**
 - Efficacy demonstrated in gold-standard animal model of IPF; receptor occupancy data supportive of desired weekly dosing and potential therapeutic window within Phase I dose range
 - Multiple additional indications with emerging proof of concept data
- ▶ **Clear plan to use the i-body platform to accelerate pipeline expansion**
 - Bring AD-214 to the clinic and expand its indications ahead of first partnering window at end of Phase I
 - Add new internal pipeline candidates in a clearly defined “sweet spot”
 - Add external pipeline candidates by replicating the recent GE deal
 - Support growth with continuous improvements to i-body platform and AD-214 product
- ▶ **Experienced drug development team driving strategic focus on the foundation**
 - Developing network of partners and investors to share in the opportunity ahead



AD-214



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