## Rare Disease

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## Forward looking statements

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This presentation includes references to new molecular entities and life-cycle management programmes that are being investigated in current or future clinical trials, and as such have not been approved by any regulatory agency. For a list of new molecular entities and indications in development, see pages 7-11 of the Clinical Trials Appendix that accompanied AstraZeneca's Q1 2024 results.

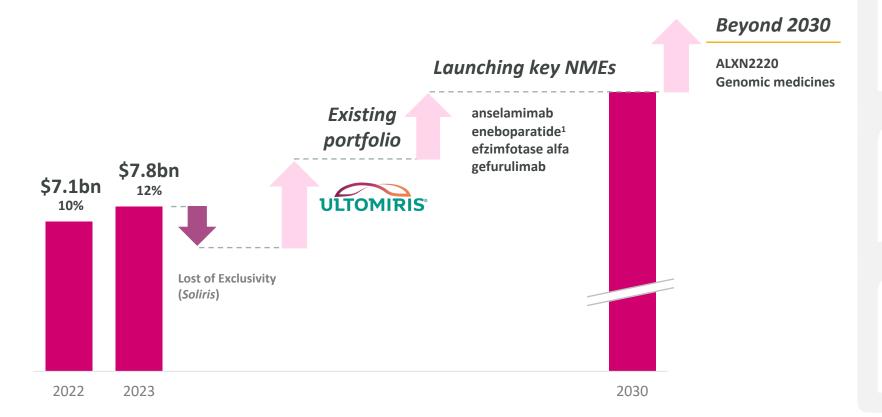
#### Basis of AstraZeneca ambitions, forecasts and targets

AstraZeneca ambitions, forecasts and targets in this presentation (the "Financial Ambition Statements") are derived from AstraZeneca's most recent risk-adjusted mid- and long-term plans, adjusted for developments in the business since those plans were finalised. Financial Ambition Statements presented are based on management's risk-adjusted projections for individual medicines and individual clinical trials. Estimates for these probabilities are based on industry-wide data for relevant clinical trials in the pharmaceutical industry at a similar stage of development adjusted for management's view on the risk profile of the specific asset. The peak year revenue (PYR) potential for individual medicines referred to in this presentation are the maximum estimated Total Revenue to be recognised by AstraZeneca in a single calendar year, during the lifecycle of the medicine, and are based on management's latest non-risk adjusted forecast estimates. Estimates are based on customary forecasting methodologies used in the pharmaceutical industry. Peak year revenue may occur in different years for each NME depending on trial outcomes, approval label, competition, launch dates and exclusivity periods, amongst other variables. The peak year revenue figures are derived from net sales at nominal values and are not risk-adjusted or time-value discounted. The development of pharmaceutical products has inherent risks given scientific experimentation and there are a range of possible outcomes in clinical results, safety, efficacy and product labelling. Clinical results may not achieve the desired product profile and competitive environment, pricing and reimbursement may have material impact on commercial revenue forecasts. By their nature, forecasts are based on a multiplicity of assumptions and actual performance in future years may vary, significantly and materially, from these assumptions. The Financial Ambition Statements based on future currency movements



## Rare Disease – next wave of growth to 2030 and beyond

Illustrative only, not to scale



#### Complement

continued leadership

#### **Beyond Complement**

focused on first- and/or best-in-class medicines

#### **Technologies**

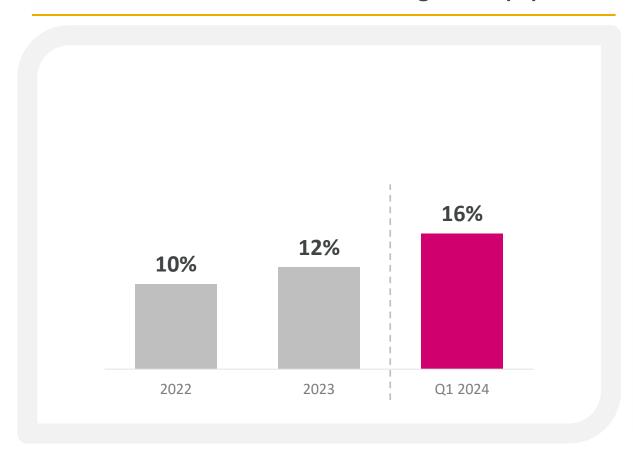
investing in new, potentially curative, modalities

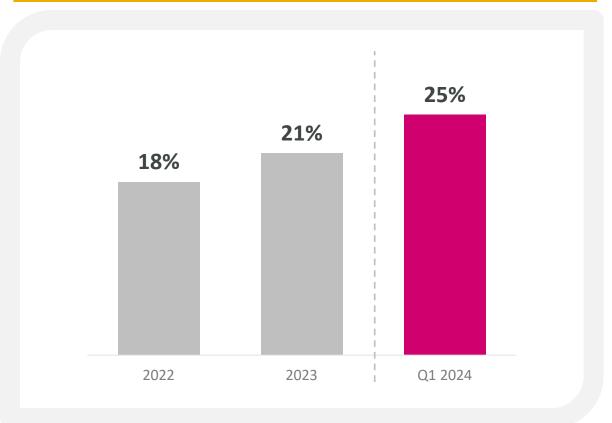


## Alexion has delivered sustainable and robust growth since acquisition

Rare Disease Total Revenue growth (%)

Rare Disease patient growth (%)

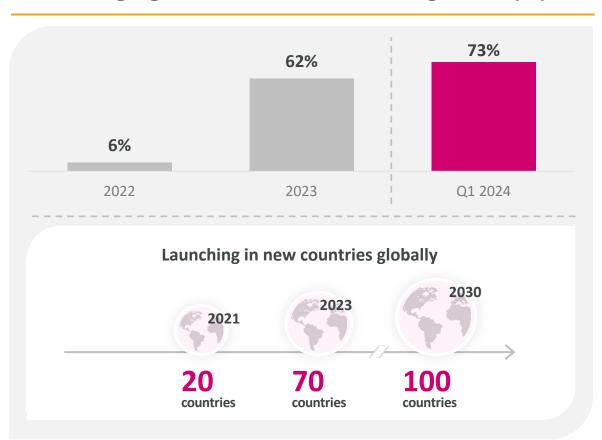






# **Emerging Markets growth leveraging AstraZeneca global footprint**

#### **Emerging Markets Total Revenue growth (%)**



#### **Strategic opportunity in China**



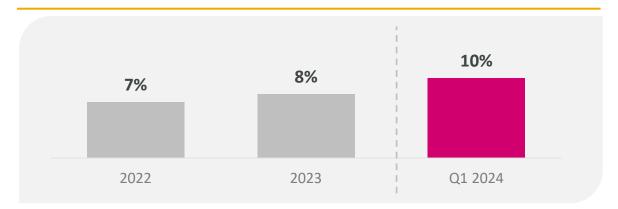




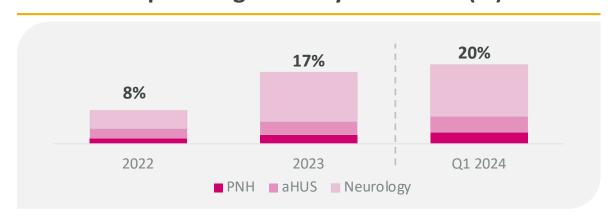


## **Sustainable growth of C5 Franchise**

#### C5 Total Revenue growth (%)



### C5 patient growth by indication (%)





Rapid conversion from Soliris to Ultomiris



**Superior efficacy** with rapid, sustained complement inhibition and steroid sparing data



Geographic reach leveraging well-established AstraZeneca network



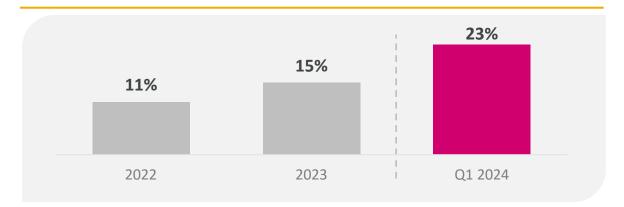
**Indication expansion** to maximise complement-mediated and adjacent diseases

<sup>\*</sup>Peak Year Revenues, non-risk adjusted. FY 2022 growth rates on medicines acquired with Alexion have been calculated on a pro forma basis comparing to the corresponding period in the prior year. Neurology includes gMG and NMOSD. In FY 2022 Total Revenue from Koselugo is included in Rare Disease (FY 2021: Oncology) and Total Revenue from Andexxa is included in BioPharmaceuticals: CVRM (FY 2021: Rare Disease). The growth rate shown has been calculated as though 7 these changes had been implemented in FY 2021. All growth rates at CER. Acronym definitions can be found in Glossary.

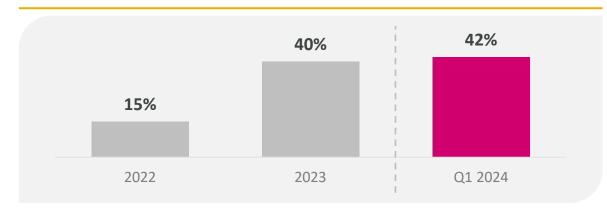


## Neurology driving C5 growth in the short- to mid-term

#### **Neurology Total Revenue growth (%)**<sup>1</sup>



### **Neurology patient growth (%)**



#### **Sustained long-term improvements**

**88%** of *Ultomiris* patients saw clinically meaningful improvements in activities of daily living to Week 164<sup>2</sup>

**Steroid sparing data >75%** of *Soliris* patients were on low dose steroids after 2 years<sup>3</sup>

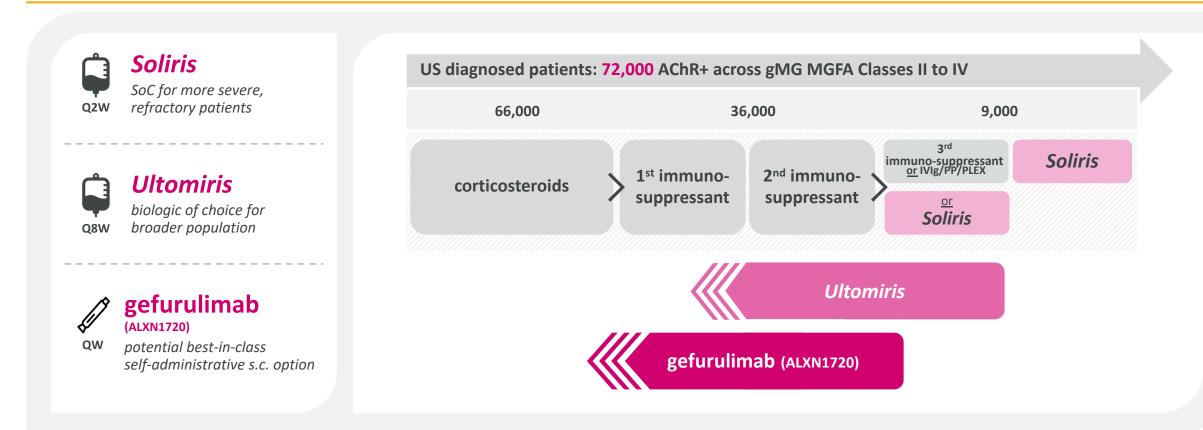
**Vs competition (FcRN)** switch dynamic has consistently favoured *Ultomiris* since Q3 2023<sup>4</sup>

Long-term evidence of superior efficacy in gMG

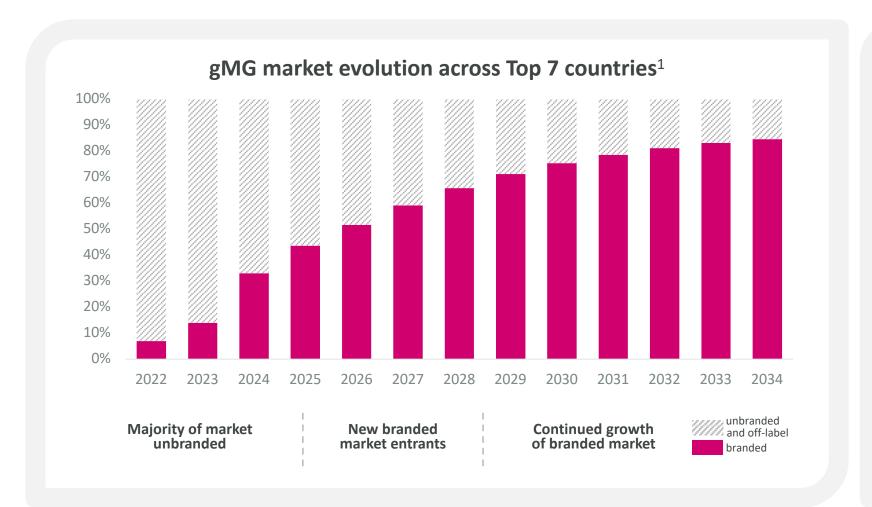


## gMG – expanding reach with next-generation gefurulimab

Opportunity to treat earlier and broader patient population<sup>1</sup>



## gMG – forecasted market evolution across Top 7 countries



**80% of patients** to move to branded medicines by 2034<sup>2</sup>

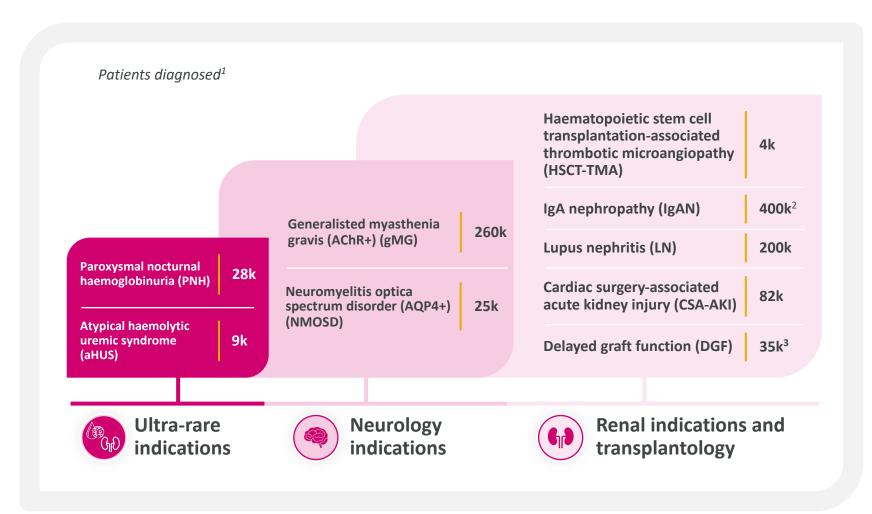
gMG launched in 31 countries with additional 25 countries by 2025

We anticipate patients treated with *Ultomiris*, *Soliris* and **gefurulimab** to grow significantly over the next 10 years



## **Ultomiris** indication expansion, maximising complement-mediated and adjacent diseases





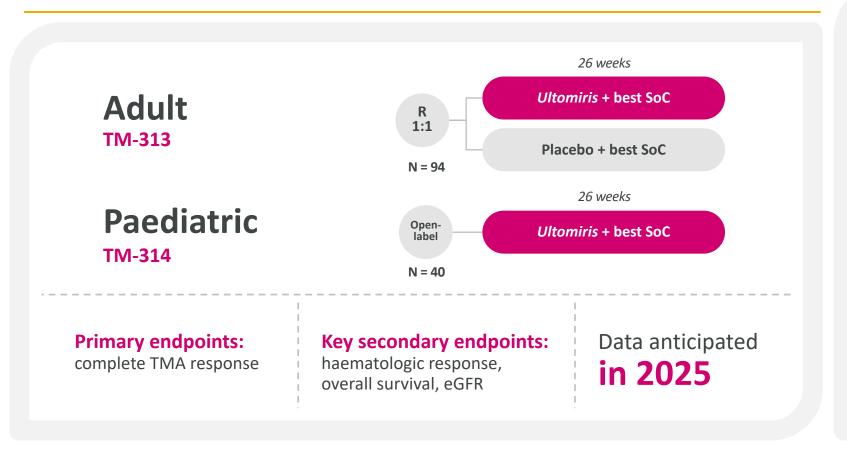
#### Phase III near-term catalysts





# HSCT-TMA – potential for *Ultomiris* in rare, life-threatening complication of bone marrow transplant

#### Phase III trials ongoing



Factors associated with HSCT induce dysregulation of the complement system

Adult and paediatric trials advanced recruitment

Approximately **50k HSCT procedures** per year<sup>1</sup>



# IgAN – potential to transform course of disease with complement inhibition

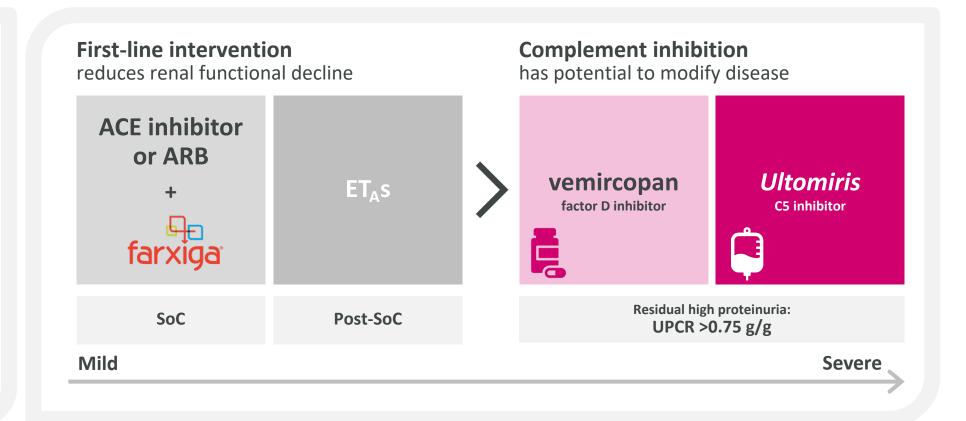
### **IgAN** patient progression

**120k diagnosed** with IgAN in US

### Poor IgAN outcomes,

few patients avoid kidney failure<sup>1</sup>

**60-80% of high-risk patients** experienced kidney failure within 10 years<sup>1</sup>

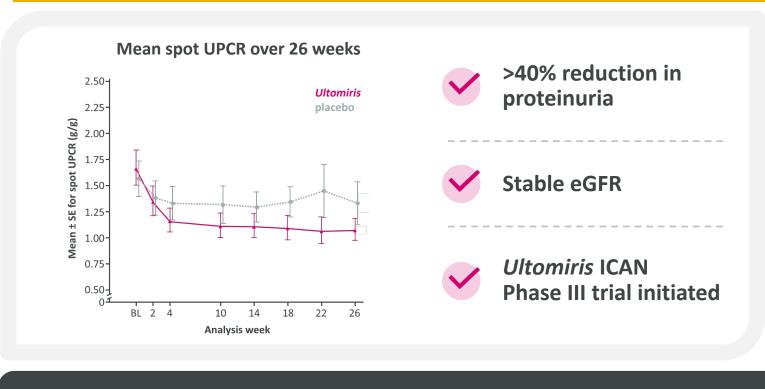




# IgAN – rapid and sustained proteinuria reduction in Phase II supports Phase III trial

**Ultomiris Phase II SANCTUARY**<sup>1</sup>

#### **Ultomiris** Phase III ICAN



Placebo +SoC | Q8W i.v.

Placebo +SoC | Q8W i.v.

Primary endpoints:

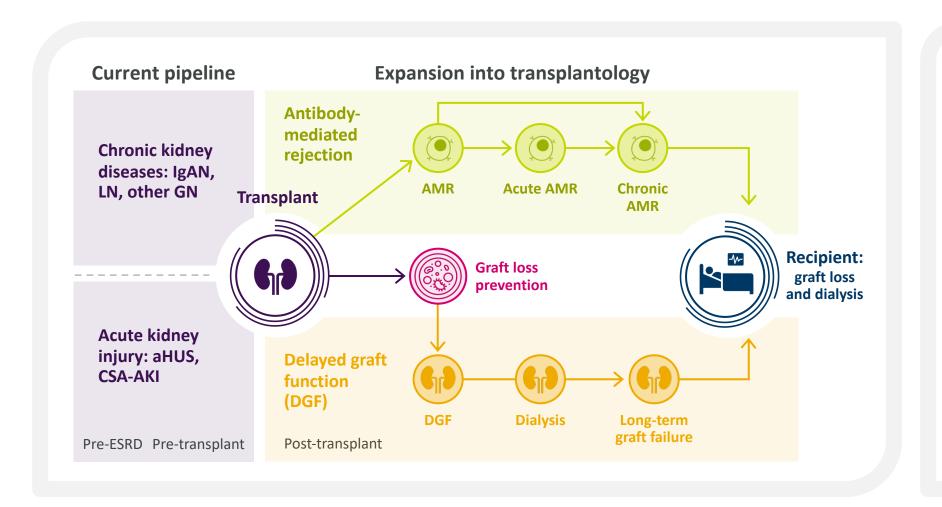
UPCR change at 34 weeks

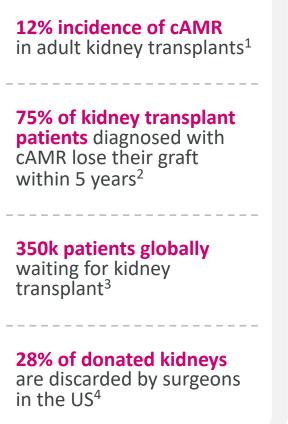
eGFR evaluated at 106 weeks

Rapid, complete and sustained complement inhibition at Week 4



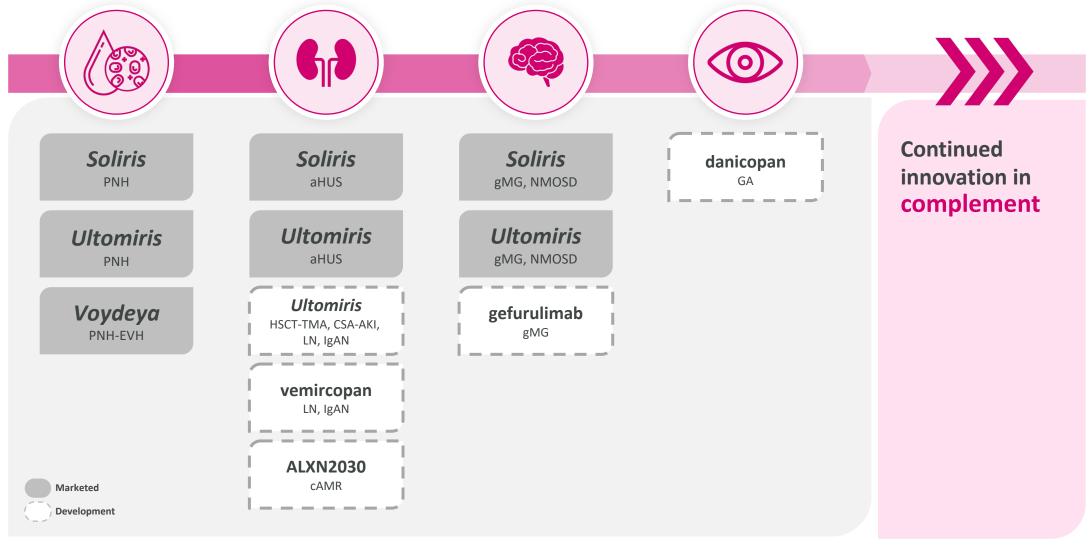
## Future plans to improve success rates of kidney transplant







## Future innovation planned in complement



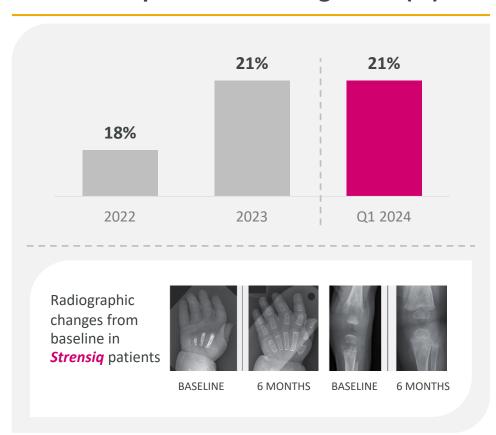


# Hypophosphatasia – building on *Strensiq*, efzimfotase alfa drives innovation and expanded access



**Strensiq** Total Revenue growth (%)

efzimfotase alfa (ALXN1850)





Phase III trials ongoing with data anticipated >2025

- MULBERRY paediatric naïve
- CHESTNUT paediatric switch
- HICKORY adolescent/adult naïve

Patient-centred innovation expands label to all HPP patients



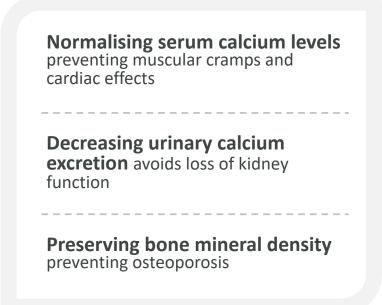
## Hypoparathyroidism – Amolyt Pharma acquisition



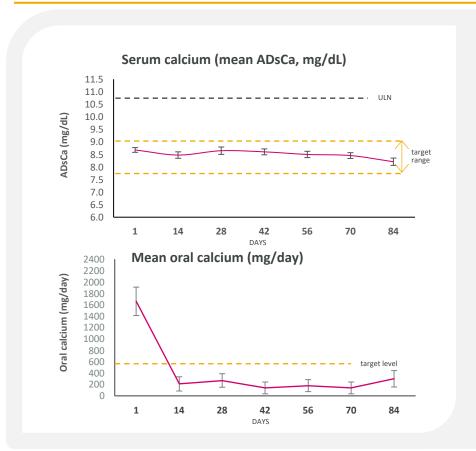
## yields potential best-in-class therapy with eneboparatide

**Clinical priorities** 

eneboparatide Phase IIa<sup>2</sup>



>250K patients in Top 8 countries<sup>1</sup>
>50% are peri- or postmenopausal women



Strengthening Alexion presence in rare endocrinology

**Expansion** from *Strensiq* physician call points

Phase III CALYPSO data anticipated in 2025

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## Novel anti-fibril depleter mechanisms with potential to restore normal organ function

**ALXN2220** | transthyretin (ATTR) amyloidosis

anselamimab | light-chain (AL) amyloidosis



ATTR amyloid fibrils

~114k diagnosed

in US and EU5

Phase III

recently initiated



**Selectively binds** 

 $\kappa$  and  $\lambda$  light chain fibrils

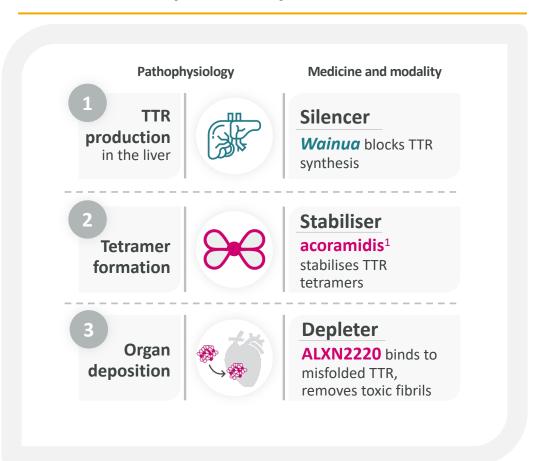
~28k diagnosed

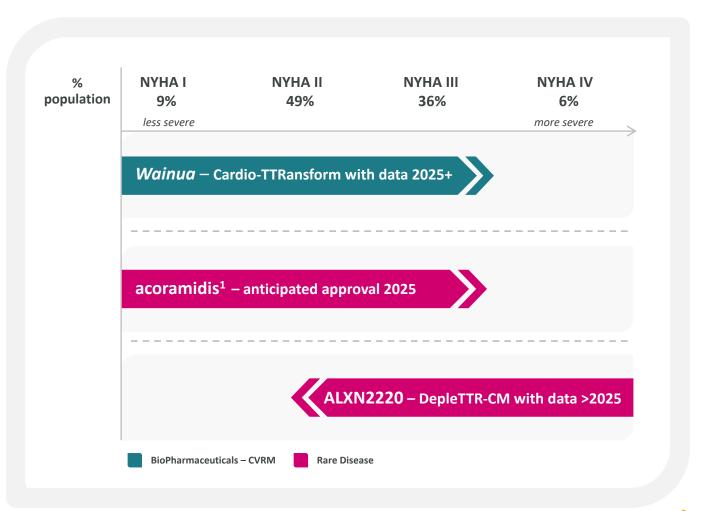
in US and EU5

Phase III enrollment complete data in 2025

## Leveraging CVRM and Rare Disease expertise in ATTR-CM

#### **Complementary mechanisms**







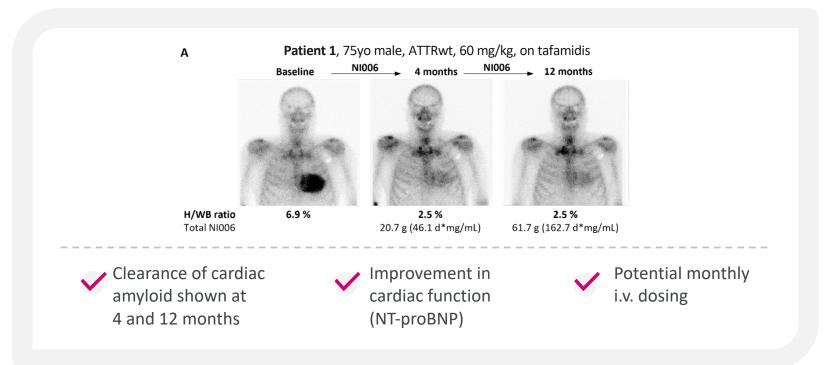
## Amyloidosis (ATTR-CM) – depleter mechanism with the potential to reverse course of disease

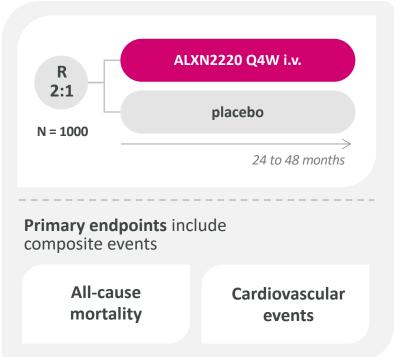


ALXN2220 (NI006) Phase Ib<sup>1</sup>



#### Phase III DepleTTR-CM





ALXN2220 selectively binds and removes misfolded amyloid fibrils to potentially improve overall survival



## Amyloidosis (AL) – transforming patient outcomes with potential first-in-class depleter



#### Cause

progressive accumulation of amyloid fibrils in tissues and organs including kidneys and heart

#### Result

organ dysfunction and eventual death

### ~9 months

median overall survival for newly diagnosed Stage IIIb patients<sup>1</sup>

#### anselamimab addressing key clinical outcomes

Novel depleter mechanism to eliminate deposited fibrils to improve



Overall survival



Cardiac function



Renal function

Two trials ongoing in Mayo Stage IIIa and IIIb



#### **Primary endpoints**

- Time to all-cause mortality
- Number of cardiovascular hospitalisations





# Genomic medicines – unlocking transformative and potentially curative therapies for rare diseases



### **Today**

building capabilities through strategic investments

**80%** of rare diseases are genetic<sup>1</sup>





### **Tomorrow**

engineering portfolio with curative potential

Advancing up to 2 INDs per year to 2030



### **Future**

addressing diseases in areas of high unmet need

Revenue-generating potential by 2030



## Several major assets with blockbuster potential support our growth ambition

Growth drivers to 2030 and beyond

**Peak Year Revenue potential** \$5bn+ \$1-3bn \$3-5bn efzimfotase alfa anselamimab AL amyloidosis hypophosphatasia eneboparatide<sup>1</sup> **ALXN2220** hypoparathyroidism ATTR-CM gefurulimab generalised myasthenia gravis

acoramidis<sup>2</sup> **Ultomiris** TM-313/4 **HSCT-TMA** ATTR-CM Koselugo KOMET eneboparatide<sup>1</sup> CALYPSO hypoparathyroidism NF1-PN (adult) anselamimab 301/2 AL amyloidosis

2024

Five Phase III readouts in 2024 and 2025



2025

## **Q&A** session



Marc Dunoyer
CHIEF EXECUTIVE OFFICER,
ALEXION



Gianluca Pirozzi SVP, HEAD OF DEVELOPMENT, REGULATORY & SAFETY



Nicola Heffron

SVP, HEAD OF GLOBAL

MARKETING & MARKET ACCESS



Seng Cheng
SVP, HEAD OF RESEARCH
& PRODUCT DEVELOPMENT



## Glossary – 1 of 2

1L, 2L, 3L	first-, second-, third-line	CLL	chronic lymphocytic leukaemia	GLP-1/glu	glucagon-like peptide 1 receptor/glucagon dual peptide agonist
6MWT	6-minute walk test	cm	centimetre	GLP-1RA	glucagon-like peptide 1 receptor agonist
AAV	adeno-associated virus	CM	cardiomyopathy	gMG	generalised myasthenia gravis
ACE	angiotensin-converting enzyme	сМЕТ	c-mesenchymal epithelial transition factor	GN	glomerulonephritis
AChR+	acetylcholine receptor-positive	COPD	chronic obstructive pulmonary disease	GPC3	Glypican-3
ADC	antibody conjugate	CRwNP	chronic rhinosinusitis with nasal polyps	GPRC5D	G protein-coupled receptor class C group 5 member D
ADsCa	albumin-adjusted serum calcium	CSA-AKI	cardiac surgery-associated acute kidney injury	GU	genitourinary
AER	annual exacerbation rate	ctDNA	circulating tumour DNA	GYN	gynaecologic
AEs	adverse effects	CTLA4	cytotoxic T-lymphocyte associated protein 4	HbA1c	glycated haemoglobin
AGA	actional genomic alteration	СТх	chemotherapy	нсс	hepatocellular carcinoma
aHUS	atypical haemolytic uraemic syndrome	CV	cardiovascular	HER2	human epidermal growth factor receptor 2
AL amyloidosis		CVRM	Cardiovascular, Renal and Metabolism	HF	heart failure
AML	acute myelogenous leukaemia	DDR	DNA damage response	HFrEF	heart failure with reduced ejection fraction
AMR	antibody mediated rejection	DGF	delayed graft function	нк	hyperkalaemia
anti-PCD	anti plasma cell dyscrasia	DLBCL	diffuse large B-cell lymphoma	HLR	high-level results
AQP4+	aquaporin-4 antibody positive	dnTGFb	dominant-negative transforming growth factor-beta	hMPV	human metapneumovirus
ARB	angiotensin receptor blockers	dPTEN	phosphatase and tensin homolog deficient	HNSCC	head and neck squamous cell carcinoma
ASCO	American Society of Clinical Oncology	EBITDA	Earnings before interest, tax, depreciation and amortisation	HR	hazard ratio
ASI	aldosterone synthase inhibitor	EGFR	epidermal growth factor receptor	HR+	hormone receptor positive
ASO	antisense oligonucleotide	eGFR	estimated glomerular filtration rate	HRR	homologous recombination repair
ATTR-CM	transthyretin amyloid cardiomyopathy	EGPA	eosinophilic granulomatosis with polyangiitis	HSCT-TMA	hematopoietic stem cell transplantation-associated thrombotic
ATTR-PN	transthyretin amyloid polyneuropathy	EM	Emerging Markets		microangiopathy
B-ALL	B-cell acute lymphoblastic leukaemia	EOS	eosinophil	i.v.	intravenous
всма	B-cell maturation antigen	EPI	epigenetics	IBD	inflammatory bowel disease
BRCA	breast cancer gene	EPS	earnings per share	ICS	inhaled corticosteroid
втс	biliary tract cancer	ERoW	Established Rest of World	ICU	intensive care unit
ВТКі	Bruton's tyrosine kinase	ESR1	estrogen receptor alpha	IgAN	IgA nephropathy
C5	complement component 5	ESRD	end stage renal disease	IIT	investigated initiated trial
CAGR	compound adjusted growth rate	ETA RA	endothelin receptor A antagonist	iJAK1	inhaled Janus kinase
cAMR	chronic antibody-medicated rejection	ETARA	endothelin receptor A antagonist	IL-33	interleukin-33
CAR-T	chimeric antigen receptor T-cells	FDC	fixed dose combination	IL-5	interleukin-5
CD19	Cluster of differentiation 19	FeNO	fractional exhaled nitric oxide	IND	investigational new drug
CD3	Cluster of differentiation 3	FL	Follicular lymphoma	10	Immuno-oncology
CDK4/6i	cyclin-dependent kinase 4/6 inhibitor	FLAP	5-lipoxygenase activating protein	IPF	idiopathic pulmonary fibrosis
CER	constant exchange rates	FRα	folate receptor alpha	IRA	Inflation Reduction Act
CI	confidence interval	FX	foreign exchange	iTSLP	inhaled thymic stromal lymphopoietin
CKD	chronic kidney disease	G7	US, Japan, EU5	ITT	intent to treat
CLDN 18.2	Claudin-18.2	GA	geographic atrophy	IVIg	intravenous immunoglobulin



## Glossary – 2 of 2

K+	potassium	NST	neoadjuvant systemic treatment
KCCQ	Kansas City Cardiomyopathy Questionnaire	NT-proBNP	N-terminal pro-B-type natriuretic peptide
LA amylin	long-acting amylin	NYHA	New York Heart Association
LABA	long-acting beta 2-agonists	oGLP1	oral glucagon-like receptor peptide 1
LAMA	long-acting muscarinic antagonists	oPCSK9	oral protein convertase subtilisin/kexin type 9
LCM	life cycle management	ORR	overall response rate
LDL-C	low-density lipoprotein cholesterol	oRXFP1	oral relaxin family peptide receptor 1
LN	lupus nephritis	os	overall survival
LoE	loss of exclusivity	PALB2m	partner and localizer of BRCA2
LS-SCLC	limited stage small-cell lung cancer	PARP1	poly(ADP-ribose) polymerase-1
LV	left ventricular	PARPi	poly-ADP ribose polymerase inhibitor
mAb	monoclonal antibody	PD1	programmed cell death protein 1
MASH	metabolic dysfunction-associated steatohepatitis, also known as non-	PD-L1	programmed cell death ligand 1
	alcoholic steatohepatitis (NASH)	PFS	progression free survival
MASLD	metabolic dysfunction-associated steatotic liver disease	PIK3CA	phosphatidylinositol-4,5-biphosphate 3-kinase catalytic subunit
mBC	metastatic breast cancer	PK/PD	pharmacokinetic/pharmacodynamic
MCL	mantle cell lymphoma	PLEX	plasma exchange
mDOR	median duration of response	PN	polyneuropathy
mg/dL	milligrams per decilitre	PNH	paroxysmal nocturnal haemoglobinuria
MGFA	Myasthenia Gravis Foundation of America	PNH-EVH	paroxysmal nocturnal haemoglobinuria with extravascular haemolysis
mHSPC	metastatic hormone sensitive prostate cancer	PNPLA3	phospholipase domain-containing protein 3
mL	millilitre	PP	plasmapheresis
MM	multiple myeloma	PSA	prostate-specific antigen
MoA	mechanism of action	PSA50	prostate-specific antigen 50
МРО	myeloperoxidase	PTEN	phosphatase and TENsin homolog deleted on chromosome 10
MRA	mineralocorticoid receptor antagonist	PYR	peak year revenue
MRM	mineralocorticoid receptor modulator	Q2W	every 2 weeks
n/m	not material	Q4W	every 4 weeks
NBRx	new-to-brand prescription	Q8W	every 8 weeks
Neo-adj	neoadjuvant	QCS	quantitative continuous scoring
NF1-PN	neurofibromatosis type 1-plexiform neurofibromas	QoQ	quarter on quarter
ngSERD	next-generation oral selective estrogen receptor degrader	R&D	research and development
NHA	novel hormone agent	R&I	Respiratory and Immunology
NME	new molecular entity	r/r	relapsed/refractory
NMOSD	neuromyelitis optica spectrum disorder	RA	rheumatoid arthritis
NP	nasal polyps	RAGE	receptor for advanced glycation end products
NRDL	national reimbursement drug list	RC	radioconjugates
NSCLC	non-small cell lung cancer	RP2D	recommended Phase II dose

respiratory syncytial virus
severe asthma
subcutaneous
short acting beta agonist
systolic blood pressure
stereotactic brain radiotherapy
subcutaneous
Selling, General and Administrative
sodium/glucose cotransporter 2 inhibitor
serum potassium
systemic lupus erythematosus
standard of care
suppression of tumorigenicity 2
Stage I/II/III
Stage III unresectable non-small cell lung cancer
type-2 diabetes
US, China, Japan, EU5
T-cell engager
tonnes of carbon dioxide equivalent
T-cell receptor
tumour drivers and resistance
T-cell immunoreceptor with immunoglobulin and ITIM domains
T-cell immunoglobulin and mucin domain-containing protein
tyrosine kinase inhibitor
triple negative breast cancer
tumour protein 53
Regulatory T-cell
trophoblast cell surface antigen 2
transthyretin
uncontrolled or treatment resistant hypertension
urinary albumin/creatinine ratio
upper limit of normal
Vaccines and Immune Therapies
virus-like particle

