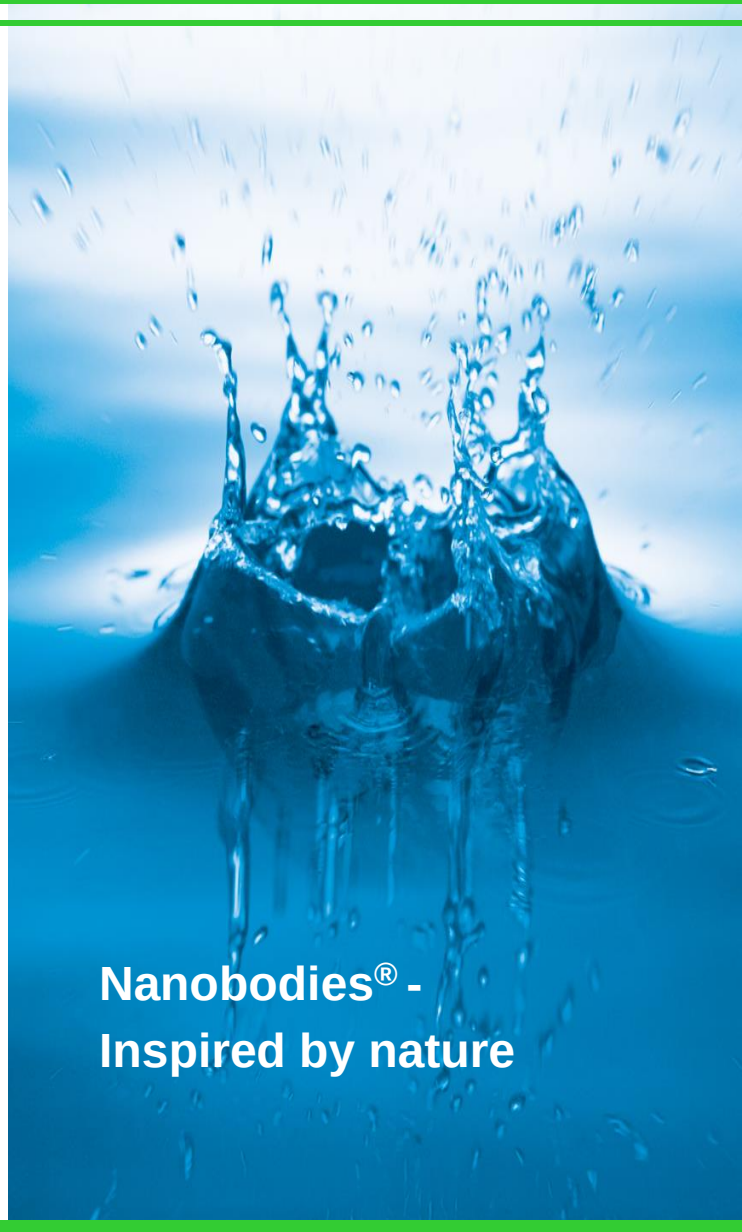
Nanobodies® – a unique product engine

Corporate presentation – April 2013



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Outline

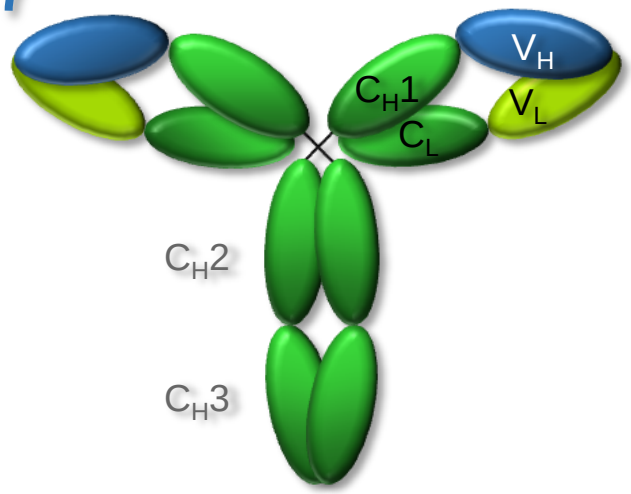
- Ablynx overview, technology and strategy
- FY12 financial results
- Product pipeline and examples of clinical assets
  - anti-IL-6R to treat RA – strong efficacy and safety results in Phase II
  - anti-vWF (caplacizumab) to treat TTP – potentially pivotal Phase II on-going
  - anti-RSV – Phase I on-going
- Partnering strategy
- Upcoming news flow

Ablynx – company overview

- Drug discovery and development company based in Ghent, Belgium
- A pioneer in next generation biologics - Nanobodies®
- Worldwide exclusive rights to commercialise Nanobody products in human healthcare
- ~25 programmes in the R&D pipeline
- Two products achieved clinical proof-of-concepts in RA
- 5 Nanobody products in the clinic - 3 Phase II & 2 Phase I
- Exclusive rights to >500 patent applications and granted patents
- Partnerships with Boehringer Ingelheim, Merck Serono, Novartis and Merck & Co
- Cash at 31 December 2012 of €62.8M
- €31.5M raised through ABO in February 2013
- >250 employees

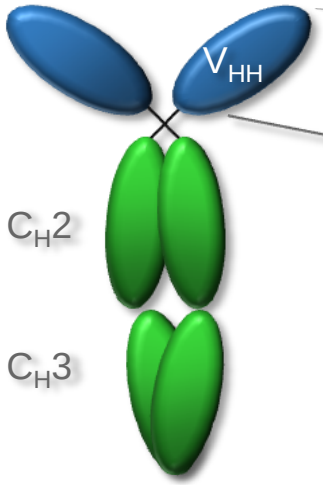
Ablynx's Nanobodies – proven single variable domain approach

Camelidae family has both forms



Conventional antibody

- Heavy and light chains
- Both chains required for antigen binding and stability
- Large size and relatively low formatting flexibility
- Administered through injection



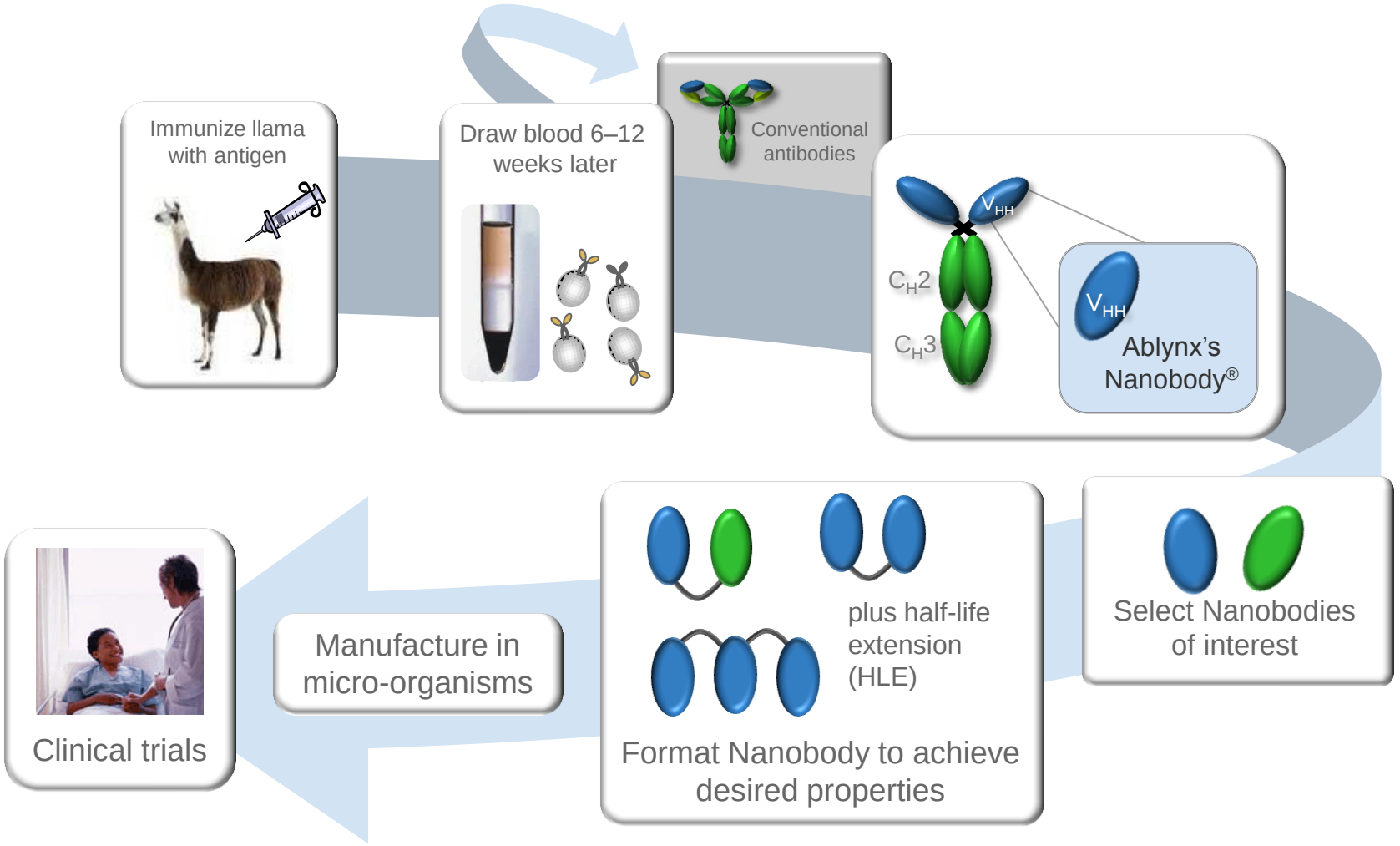
Heavy-chain antibody

- Only heavy chains
- Full antigen binding capacity and very stable

Ablynx's Nanobody®

- Small (1/10 size of a mAb)
- Flexible formatting
- Highly potent, robust and stable
- Broad target applicability
- Multiple administration routes
- Ease of manufacture
- Speed of discovery

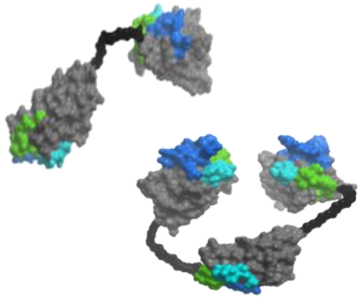
Nanobody discovery process – the power of evolution



Nanobodies – demonstrated track record

1st inhaled Nanobody successfully completes Phase I safety study

>750 patients and subjects have received Nanobodies



Two clinical POCs in RA

Clinical grade material produced up to 2,500L scale

Nanobodies have been tested in 18 countries, 4 continents

Ablynx's corporate strategy

- Exploit the Nanobody platform broadly in a combination of own-financed, co-financed and fully funded programmes
- Target first-in-class and best-in-class opportunities in any therapeutic area where there is a clear Nanobody advantage
- Maintain multiple programmes to maximise the chances of success
- Consider taking products to market where there is a niche indication (e.g. TTP) otherwise partner at the clinical development stage
- Generate significant non-dilutive cash income through creative deal structures as well as accessing equity financing

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Financial results 2012

	2012 (€M)	2011 (€M)	% change
Revenues	**26.7**	**21.9**	**22%**
R&D	25.6	19.9	29%
Grants	1.1	2.0	(45%)
Operating expenses	(56.3)	(66.7)	(16%)
R&D	(46.9)	(56.3)	(17%)
G&A	(9.4)	(10.4)	(10%)
Other operating income/(expenses)	(0.2)	(0.7)	(71%)
Operating result	**(29.8)**	**(45.5)**	**35%**
Net finance income	1.3	1.6	(23%)
Net result	**(28.5)**	**(43.9)**	**35%**
Cash burn	**(21.1)**	**(32.0)**	**(34%)**
Cash at year end*	**62.8**	**83.8**	**(25%)**

*incl €2.7M restricted cash

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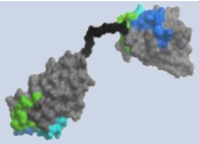
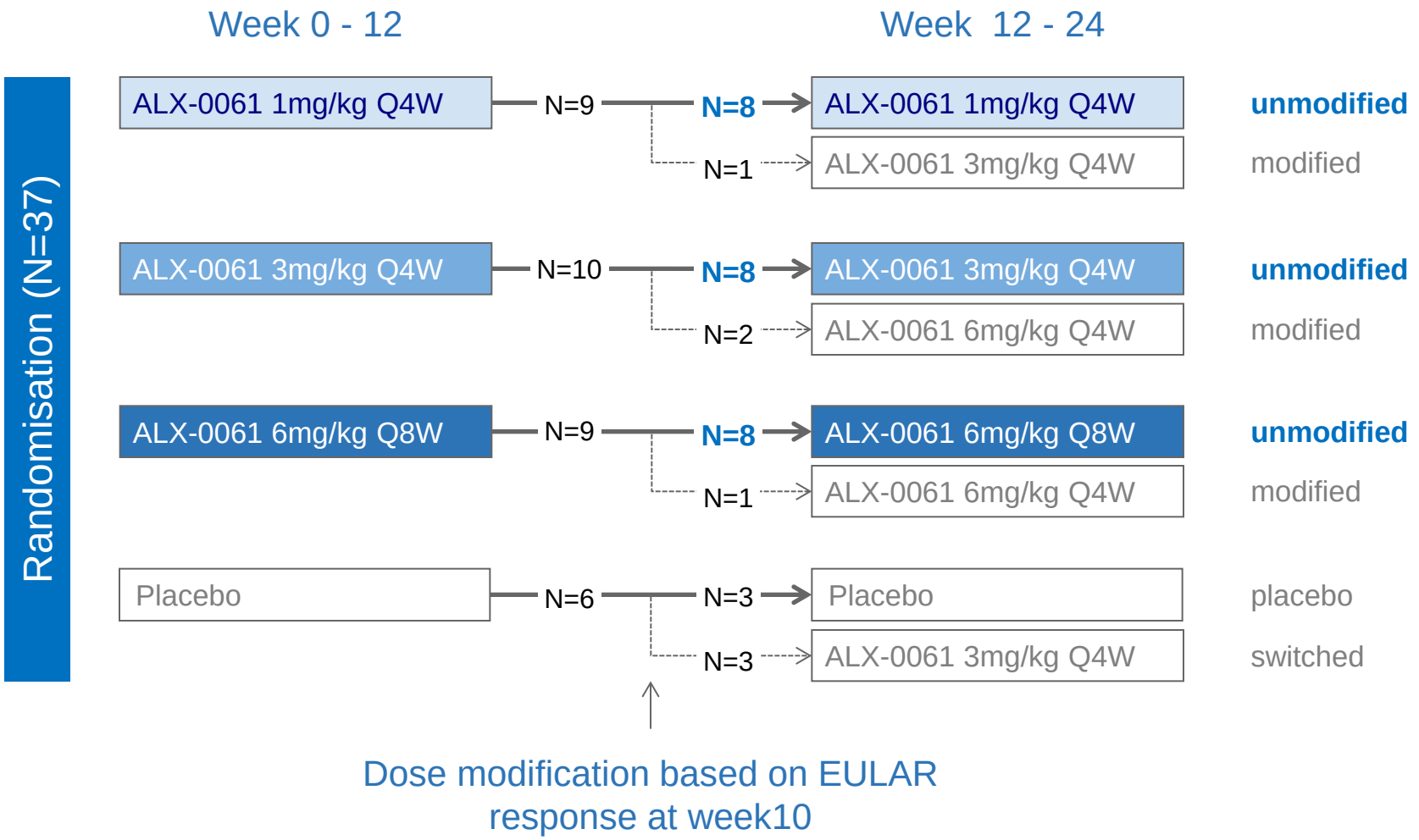
Pipeline – internal and funded programmes

ALX-0061 (anti-IL-6R) – designed to be potentially best-in-class

Features	Potential Benefits
Small (26kD) 	• penetrates faster and more effectively into tissues
Targets human serum albumin (HSA)	• prolongs half-life • improved trafficking to inflamed tissue
Monovalent binding	• avoids target cross-linking
Preferential binding of soluble vs. membrane bound IL-6R	• superior benefit/risk profile
Strong affinity to soluble IL-6R	• fast target engagement resulting in fast onset of action
Low immunogenic potential	• improved safety profile
Tailored PK	• extended therapeutic window • convenient dosing and scheduling

ALX-0061 – Phase II study design (MAD)



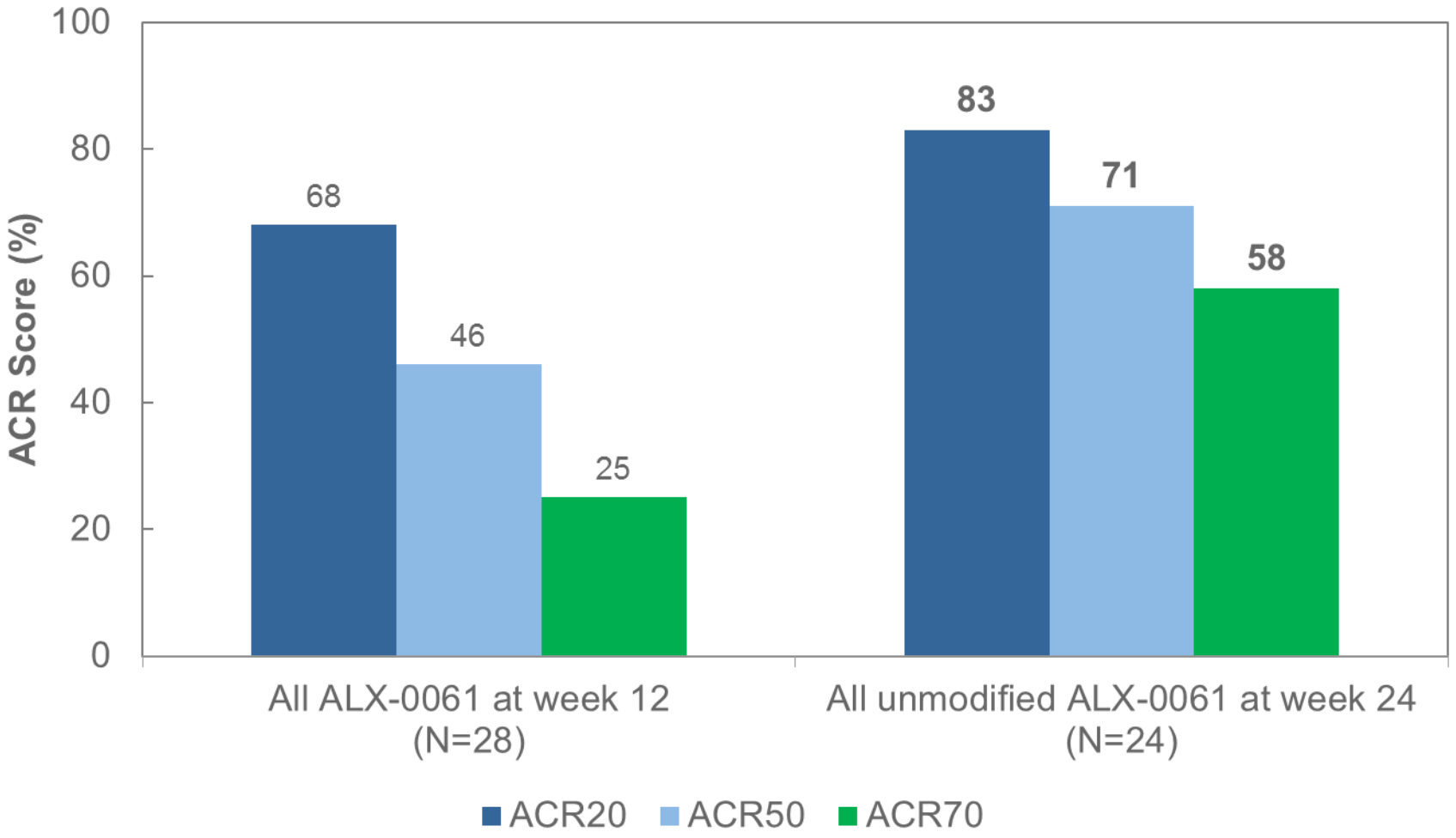
24/28 patients completed the study at their ALX-0061 starting dose

ALX-0061 – Phase II study in a representative RA population

Baseline characteristics at start of MAD (median)	ALX-0061 All doses (N=31)
Age	53
Gender - female	81%
BMI	25.5
DAS28 score	4.7
Swollen joint count 28	6
Tender joint count 28	10
Patient score disease severity (VAS)	49
Disease duration in years (diagnosis)	5.7

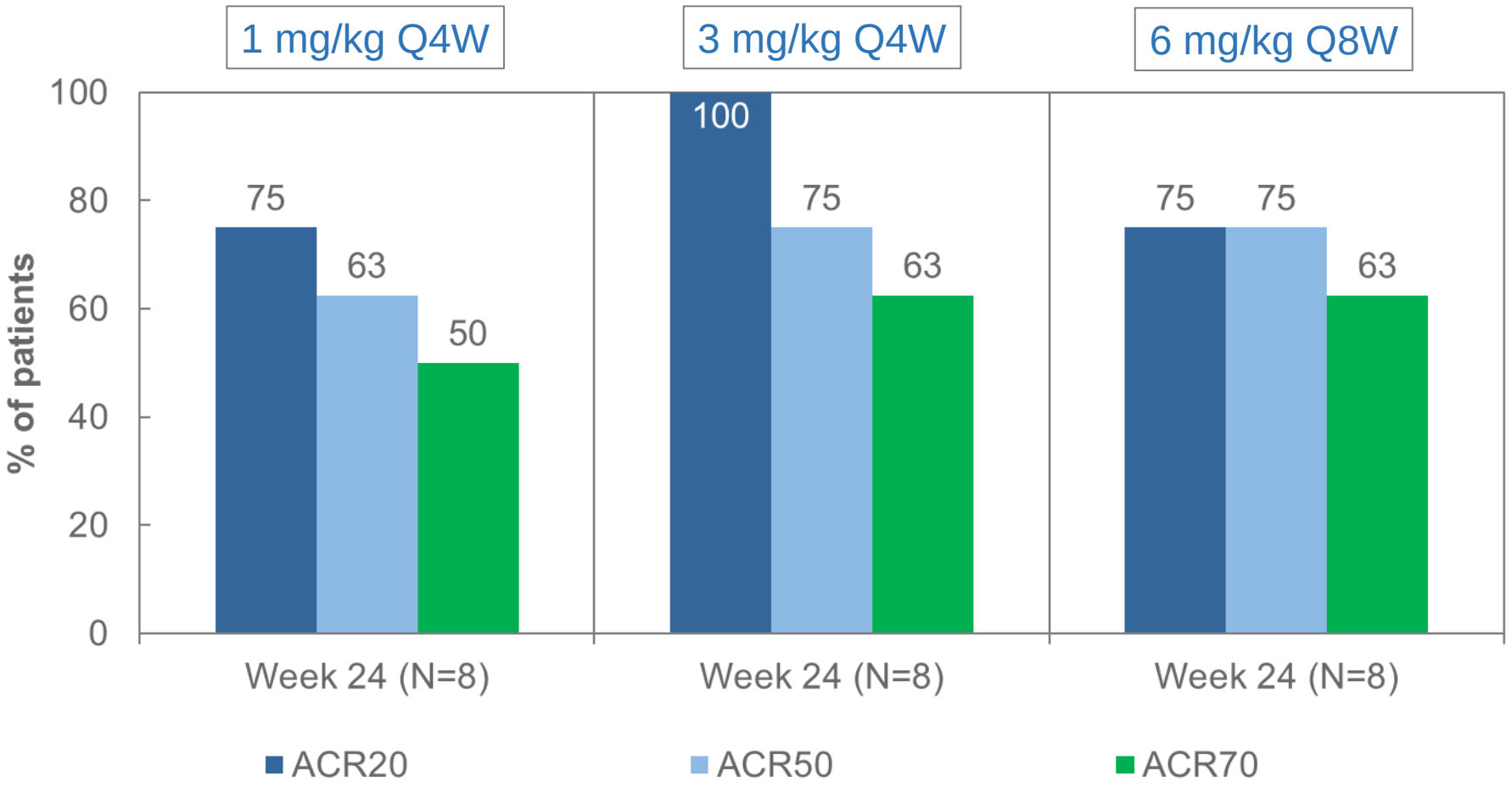
The majority of ALX-0061 treated patients had moderate disease activity

ALX-0061 – ACR scores further improved from week 12 to 24



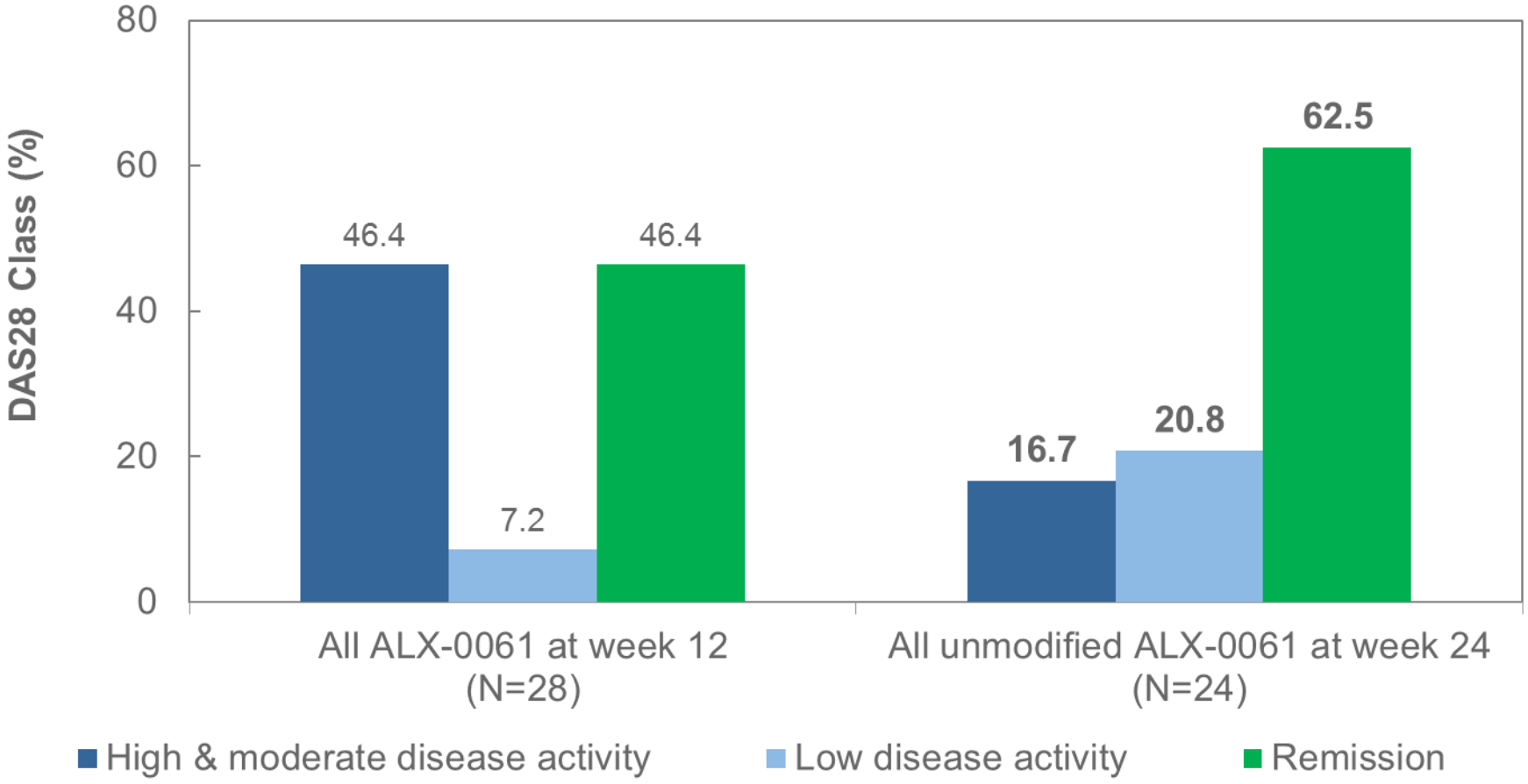
ALX-0061 – ACR scores by dose regimen

Patients continuing on initial dosing regimen (unmodified)



- Strong reduction of disease activity across all dose groups
- Administration once every 8 weeks possible

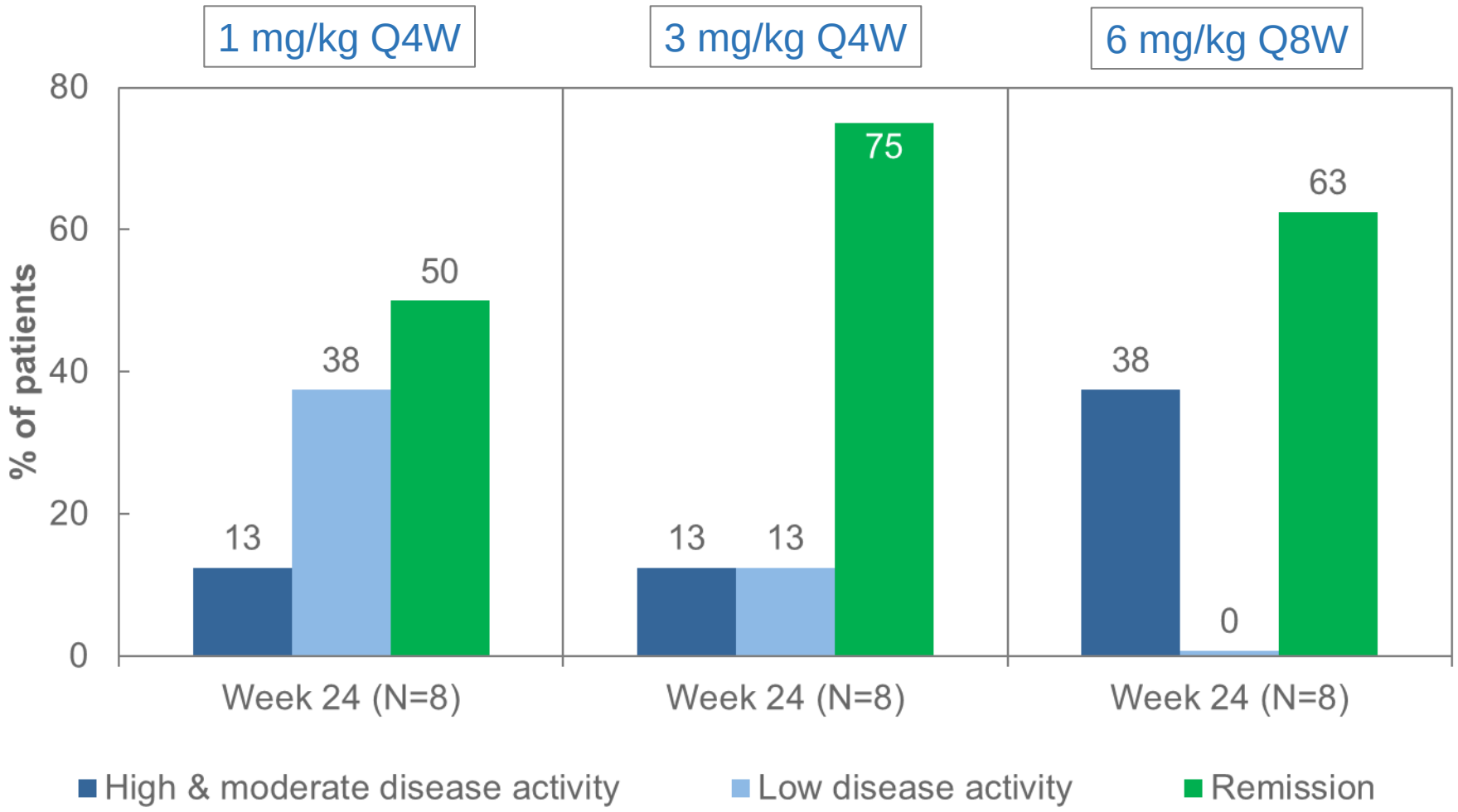
ALX-0061 – strong induction of DAS28 remission



- All DAS28 components contributed substantially to the score
- 20/24 patients achieved low disease activity or remission

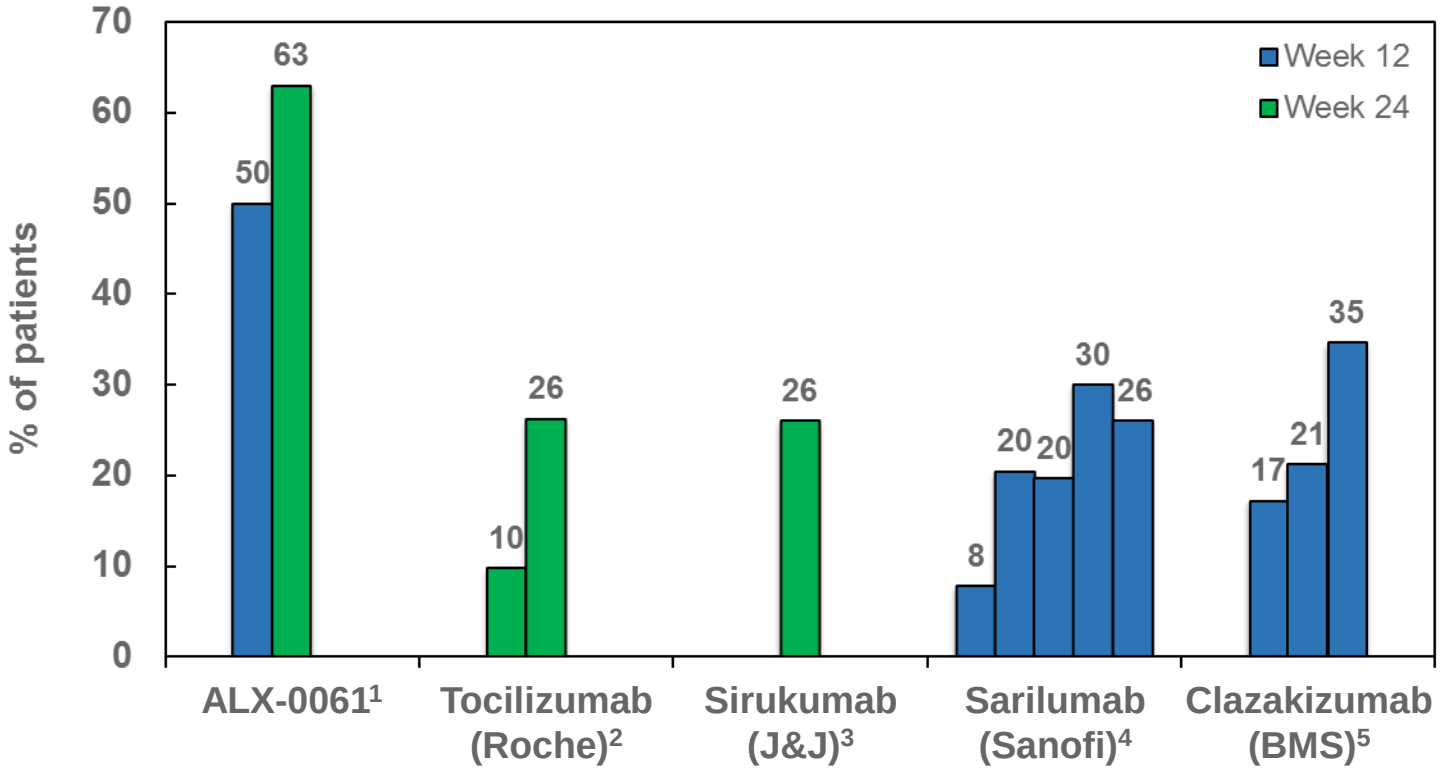
ALX-0061 – DAS28 remission by dosing regimen

Patients continuing on initial dosing regimen (unmodified)



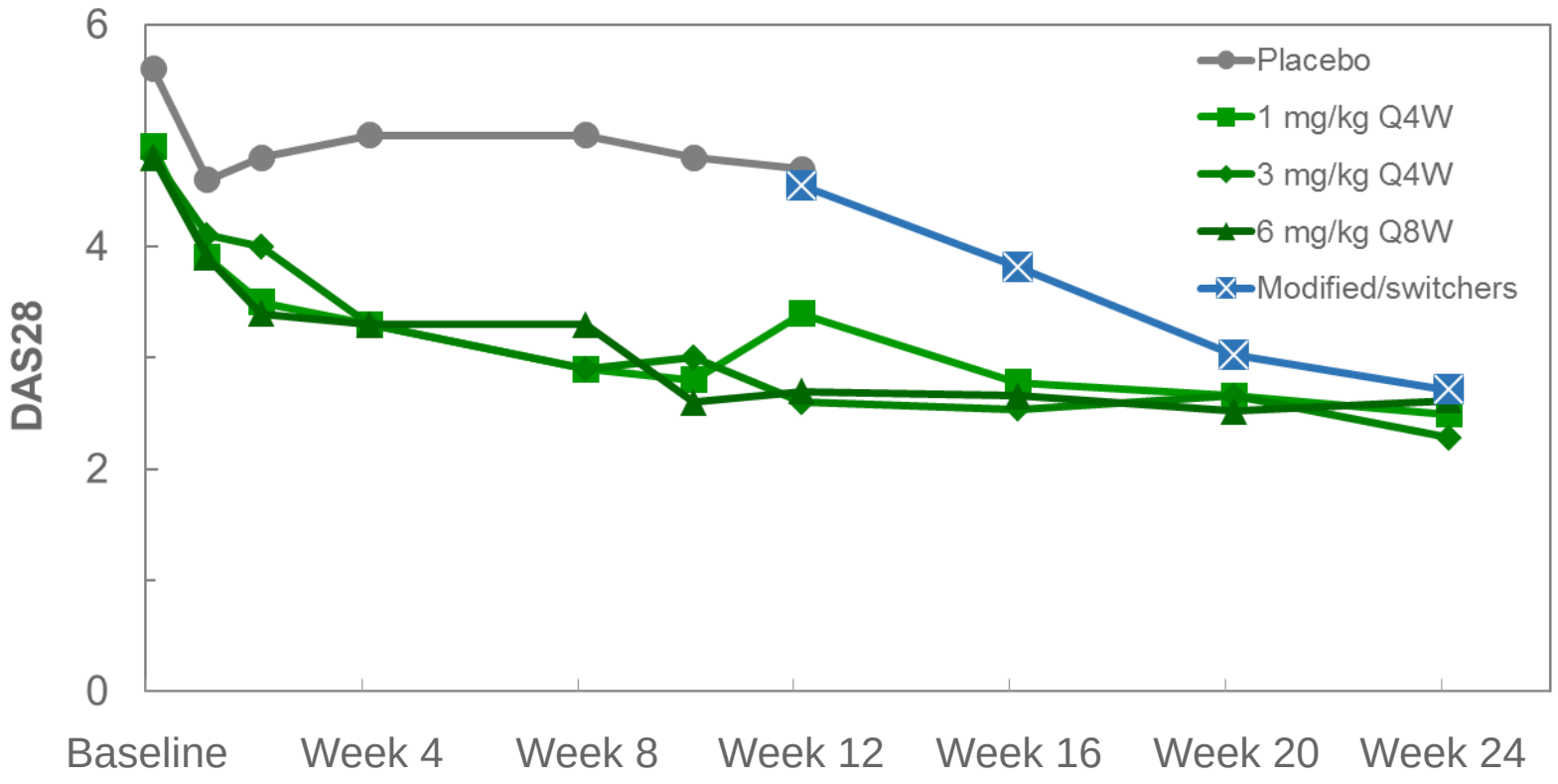
Strong induction of remission across all dose groups

ALX-0061 – potentially differentiated DAS28 remission profile



1. All unmodified ALX-0061 treated patients at week 24 (N=24) and pooled ALX-0061 data at week 12 (N=28) as reported in Oct 2012
2. Data estimated from ACT-RAY, OPTION, RADIATE, ROSE, SAMURAI, SATORI and TOWARD trials, for 4 and 8 mg/kg tocilizumab, Q4W. The data was described by a weighted non-linear regression model. [Quantify RA clinical database, Feb 2013]
3. Combined data, Phase II trial, EULAR 2012
4. Phase IIb MOBILITY trial; 100 mg Q2W, 100 mg Q1W, 150 mg Q2W, 150 mg Q1W, 200 mg Q2W
5. Phase II trial, Q8W; 80 mg, 160 mg, 320 mg

ALX-0061 – evolution of disease activity improvement



- Strong and rapid effect on disease activity
- Robust and sustained throughout treatment period

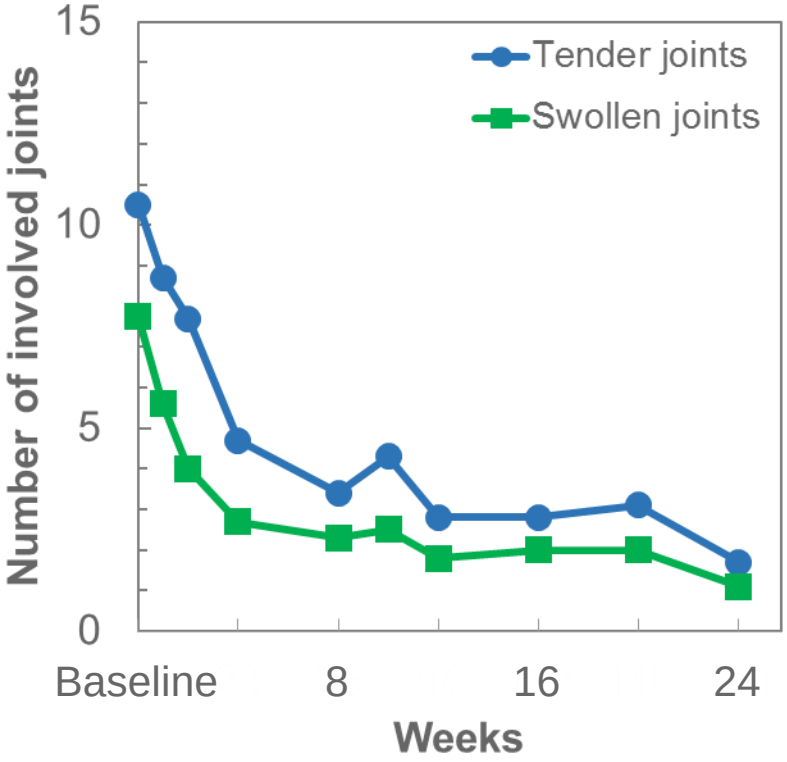
ALX-0061 – excellent overall efficacy profile

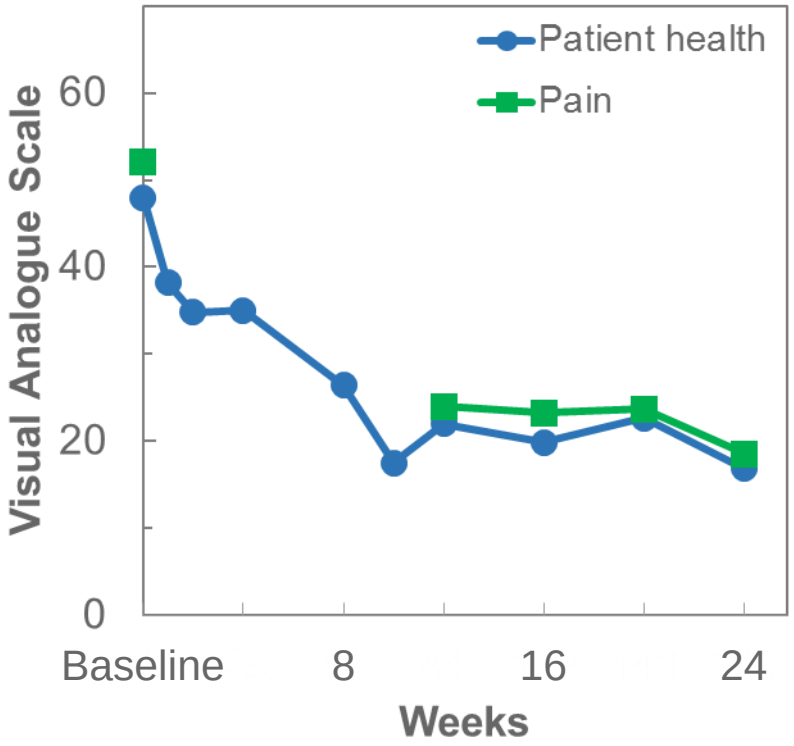
Signs and symptoms of RA	All ALX-0061 treated patients at week 12 (N=28)*	**All unmodified ALX-0061 treated patients at week 24 (N=24)**
ACR20	68%	**83%**
ACR50	46%	**71%**
ACR70	25%	**58%**
CDAI relative change (median)	72%	**85%**
EULAR good	48%	**75%**
DAS28 remission	50%	**63%**
Boolean remission**	21%	**29%**

* Reported, October 2012
** Boolean remission: SJC, TJC, patient assessment by VAS and CRP all ≤1

ALX-0061 – effects on joints and patient-reported outcomes

Patients continuing on initial dosing regimen (unmodified)





Signs and symptoms of RA consistently improve

ALX-0061 – excellent safety profile confirmed

Treatment Emergent Adverse Events (AE) Patient counts	All ALX-0061 week 0-12 N=31	**All ALX-0061 week 12-24 N=31**
Any AE	17 (57 events)	**16 (56 events)**
Serious Adverse Events	1*	**1***
Rash**	3	**1**
ALT and AST elevations (>2.5x ULN, <5x ULN)	1	**1**
Lipid level changes	0	**0**
Neutropenia	0	**0**
Serious infections	0	**0**

* Unlikely to be associated with ALX-0061 treatment
** One patient with pre-existing condition. Rash disappeared in the other 2 patients.

- No worsening or increase of adverse events upon extension of treatment
- Treatment was well tolerated at all doses

No anti-drug antibodies were detected

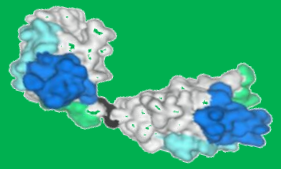
ALX-0061 – opportunity in an expanding market

- Efficacious
  - ACR20, ACR50 and ACR70 scores of up to 100%, 75% and 63%, respectively
  - up to 75% of patients in DAS28 remission
  - up to 38% of patients in boolean remission
  - first onset of remission as of week 2
  - early signs of effect on bone oedema
  - no disease progression as determined by MRI
  - wide therapeutic window with option to dose every two months
- Well-tolerated and favourable safety profile across all doses
- No anti-drug antibodies detected

ALX-0061 – next steps

- Present the 24 week data to interested pharmaceutical companies
- Maintain the momentum of the programme and review paths which will allow us to maximise the value of this asset, e,g. consider
  - funding additional clinical trials
  - co-development
  - retaining certain co-promotion rights

Caplacizumab (anti-vWF) – designed to address an unmet medical need in TTP

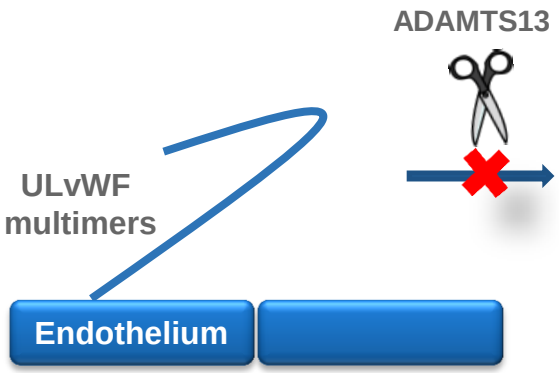


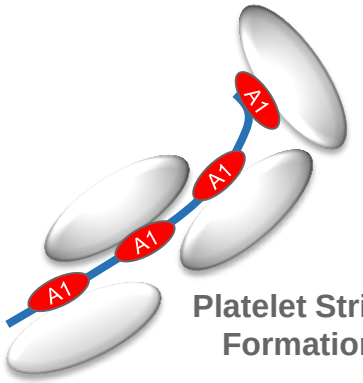
Unique Nanobody Format

Small	Specific	Robust	Modular
not an antibody	high potency towards target	high stability	bivalent interaction with target
no Fc	avoid “off-target” effects	good manufacturability	increased avidity leads to higher potency
rapid distribution and onset of action		*iv* and *sc* formulation	
rapid clearance limits toxicity risk		liquid, lyophilised	

- Orphan Drug designation in US and EU
- Patent term (excluding extensions) will run until 2026
- Potential pivotal Phase II study on-going with the aim to complete recruitment in 2013

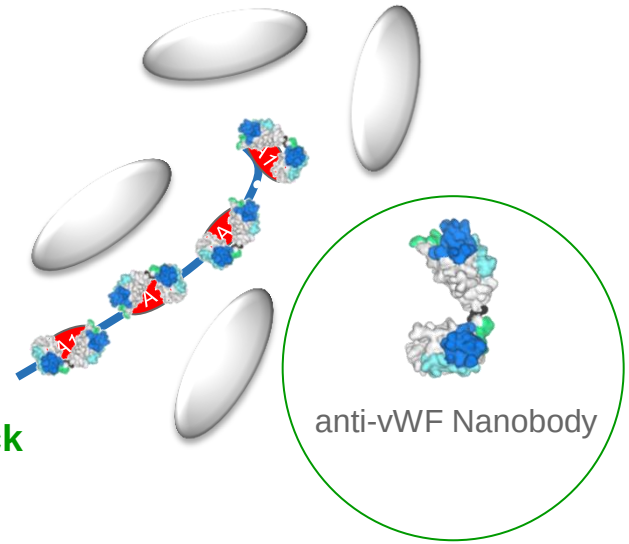
Caplacizumab – blocks the platelet and ULvWF interaction





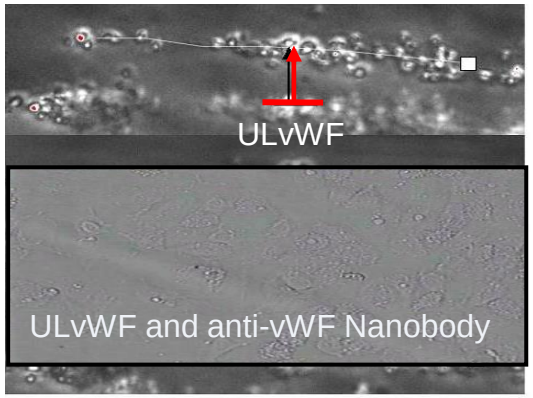
Platelet String Formation

Microthrombi form which block the small blood vessels in thrombotic thrombocytopenic purpura (TTP)



Target for the Nanobody is in the bloodstream, *i.v.* and *s.c.* formulations ensure desired exposure

***Ex vivo* platelet string formation**



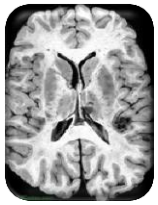
Anti-vWF Nanobody inhibits platelet string formation caused by UL-vWF in plasma of TTP patients

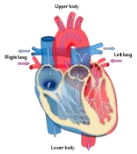
Acquired TTP – an unmet medical need

Healthy active adult

Sudden onset:

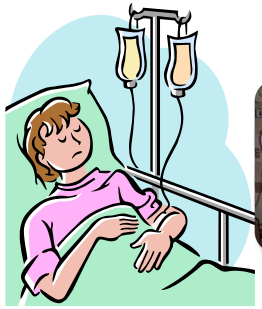
severe fatigue, headache, bizarre behaviour, vertigo, seizures, coma, various other symptoms

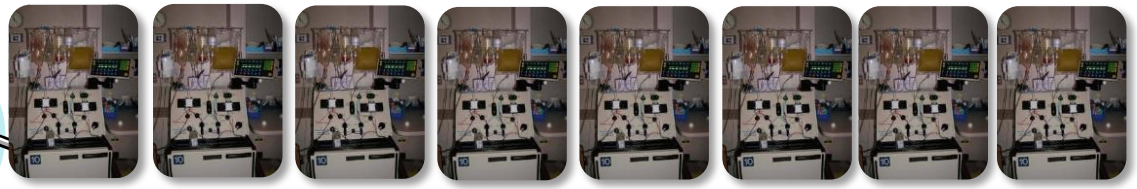




+ caplacizumab

Potentially:
fewer days of PEX
reduction in relapse/exacerbations
improved longer term outcome





Day 1 Day 2 Day 3 Day 4 Day 5 Day 6 Day 7 Day 8 ...

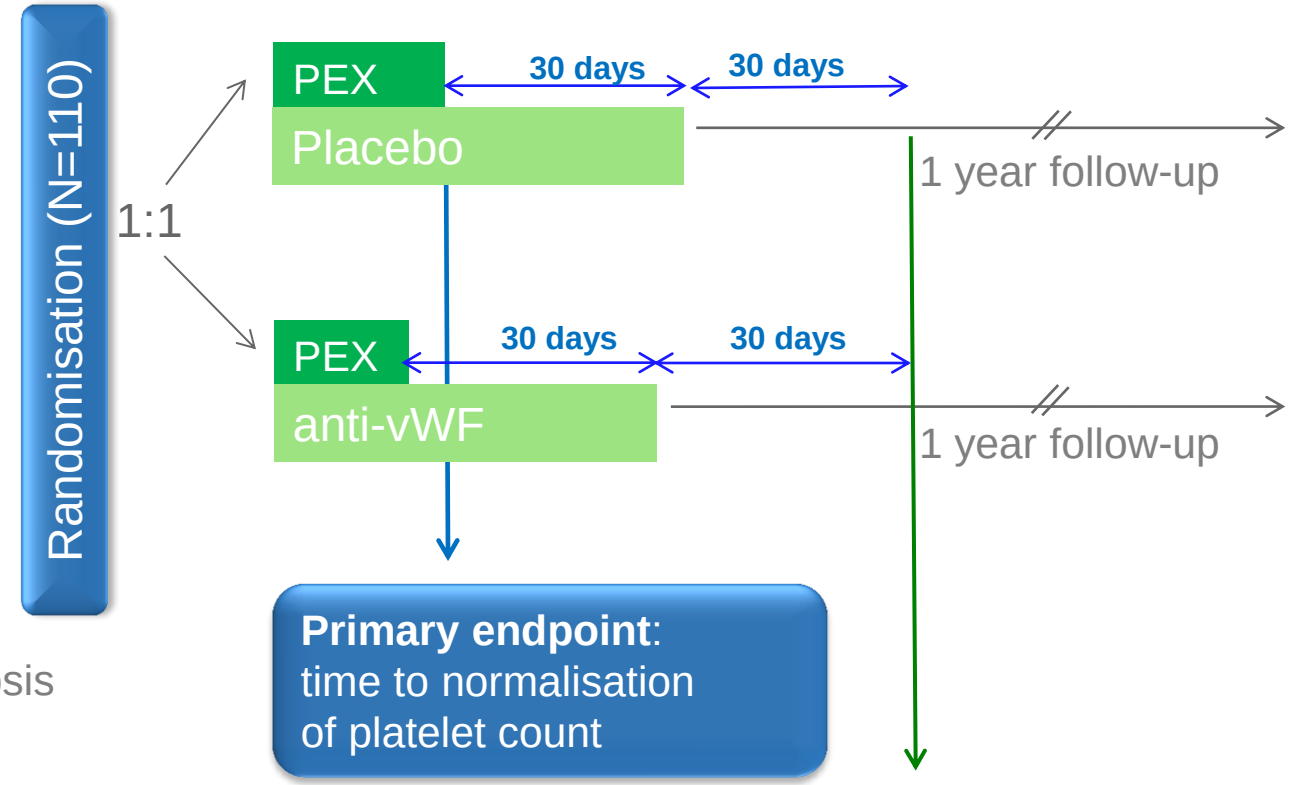
Diagnosis of TTP

Daily plasma exchanges in hospital until recovery of platelets count

Caplacizumab – Phase II design and schedule

Inclusion criteria:
patients with acquired TTP requiring plasma exchange (PEX)

Exclusion criteria:
- severe infection/sepsis
- pregnancy
- BMT
- DIC
- known congenital TTP



Primary endpoint:
time to normalisation of platelet count

Secondary endpoints:
- plasma exchange regimen
- exacerbations and relapses
- major clinical events and mortality
- recovery from symptoms

Caplacizumab – current status and commercial opportunity

- Potential first-in-class opportunity with Orphan Drug Status
- ~ 10,000 events per year in US and top 15 EU countries
- Shorter time to platelet recovery could lead to
  - reduction of volume and days of plasma exchange
  - shorter duration of acute and life-threatening episodes
  - shorter time in intensive care
  - reduced risk of costly “follow-on” adverse events
- Peak global sales for use of anti-vWF Nanobody in acquired TTP estimated to be potentially in range of €180-250 million
- Worldwide Phase II study on-going with 50+ sites participating, aiming to have recruited 110 patients by end 2013
- Trial intended to be accepted as a pivotal study for conditional Marketing Authorisation (MA) in Europe and post-Phase II meeting with the FDA is planned to agree on the next steps

Respiratory syncytial viral (RSV) infections – unmet need

Duration: 1-2 weeks

***medical cost year after infection**
****risk asthma**




Evolves to distressing symptoms

Symptomatic treatment including inhaled corticosteroid & bronchodilator

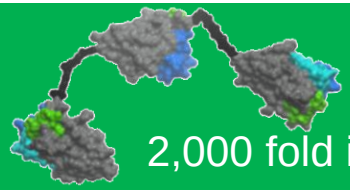
8-20% hospitalised

"RSV infection is the most common cause of lower respiratory tract disease and hospital admission in infants. No effective therapy is available at present. Current prophylaxis with a mAb is expensive and only partially protective. Any new treatment strategy for RSV bronchiolitis is very welcome"

Prof De Boeck, Pediatric Pulmonology

* Shi et al., J Med Econ, 2011; **Sigurs et al., Thorax, 2010; Krishnamoorthy et al., Nature Medicine 2012

ALX-0171 – anti-RSV Nanobody designed for delivery to site of infection



Unique Nanobody Format

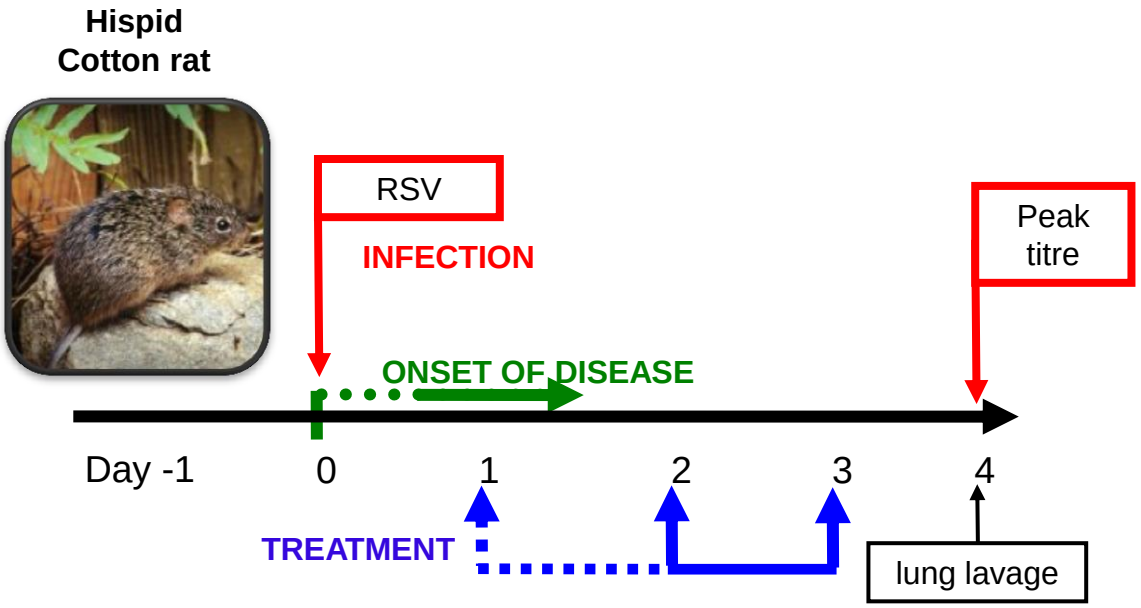
2,000 fold increase in potency compared with monovalent structure

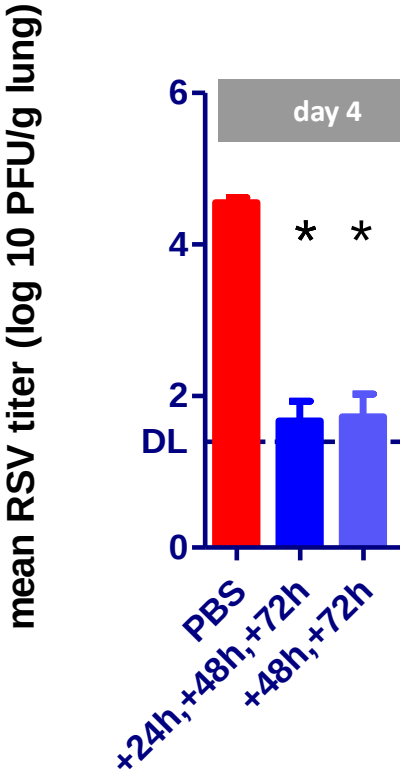
Specific	Robust	Convenient
high potency towards the virus	high stability	inhalation
avoid “off-target” effects	efficient nebulisation without loss in potency	opportunity for once or twice daily dosing
well tolerated in Phase I study	potentially reduces viral replication in the lungs	dosing time < 3 minutes

- Patent term (including extensions) will run until 2035

ALX-0171 – proven antiviral effect in cotton rat model

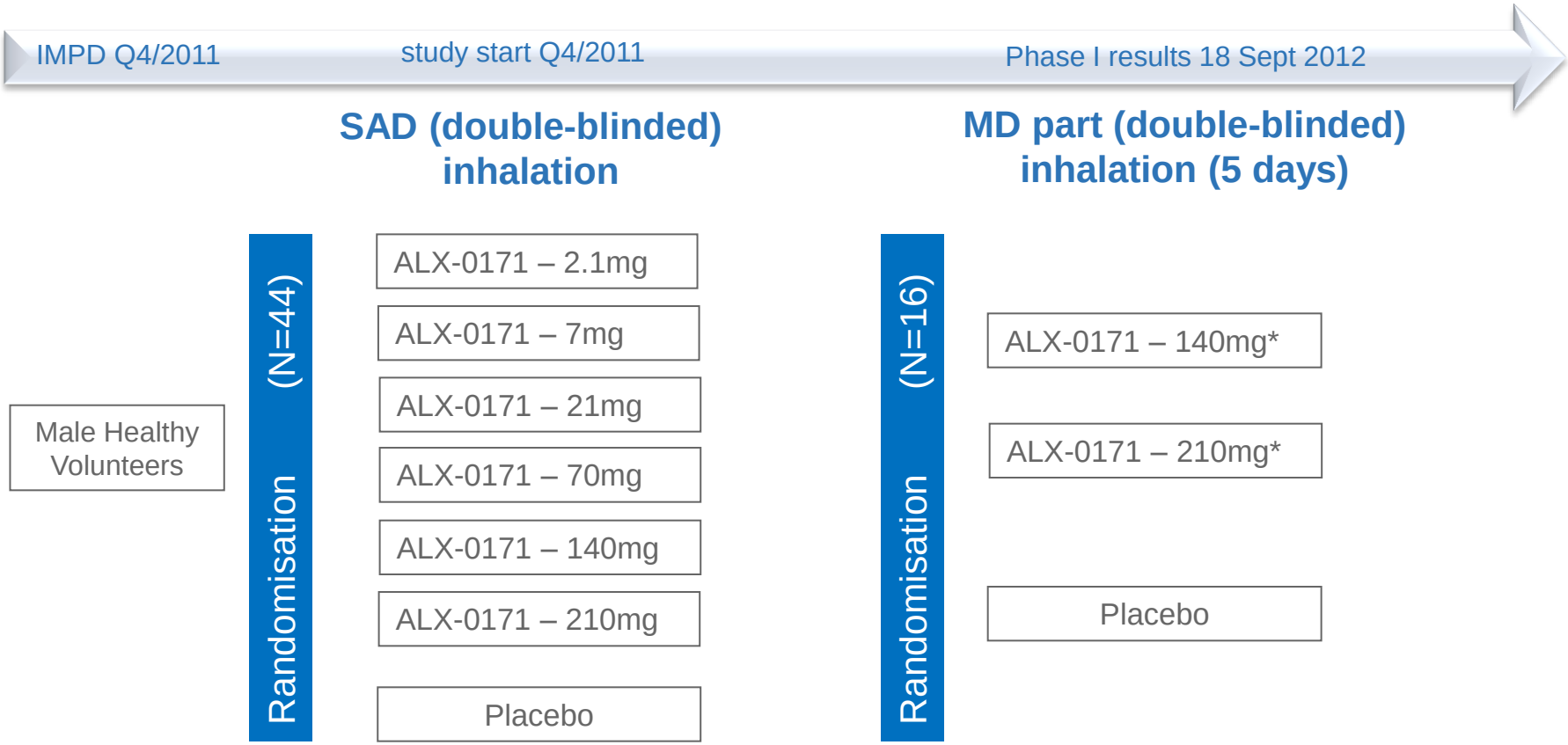
- ALX-0171 significantly reduces viral replication in lung even if administered two days after infection





RSV Nanobody intranasal instillation as mimic for nebulisation

ALX-0171 – Phase I design



* Administered in two inhalation sessions

ALX-0171 – Phase I successfully completed

- We believe this is the first antibody-derived drug that has been successfully administered to humans through nebulisation
- Nanobody was well-tolerated and no dose-limiting toxicity was observed
- Nanobody had no clinically relevant effect on lung function
- No treatment emergent immunogenicity was observed
- Opportunity for once daily dosing

Excellent outcome for both ALX-0171 and the Nanobody platform

ALX-0171 – next steps

- Next clinical studies
  - safety study in adults with hyper-reactive airways to assess potential of inhaled ALX-0171 to induce bronchoconstriction
  - local (broncho-alveolar lavage) and systemic PK study in healthy volunteers
  - results expected H1 2014
- Next pre-clinical studies
  - study in juvenile animals to extend PK knowledge of ALX-0171
  - additional inflammatory/histopathological endpoints (*in vitro / ex vivo* efficacy study in human infant lung 3D epithelial cell cultures; *in vivo* neonatal lamb efficacy study)
  - results expected in H2 2013
- Phase II study in infants
  - potential to start in 2014

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- Upcoming news flow

Three-pronged approach to balancing risk and reward

1.	Fully Funded + Milestones and Royalties	2.	Co-discovery/Co-development	3.	Wholly-owned clinical assets
	Boehringer Ingelheim, Novartis and Merck & Co •11 active programmes • €113 million in cash received since 2005 • BI is current shareholder (4.4%)		**Merck Serono – Ablynx** • 5 active programmes in inflammation, immunology and oncology • First Phase I expected in 2013 • €47 million in cash received since 2008		**Ablynx** • TNFα (ozoralizumab) – Ph II* • vWF (caplacizumab) – Ph II • IL-6R (ALX-0061) – Ph II • RANKL (ALX-0141) – Ph I • RSV (ALX-0171) – Ph I

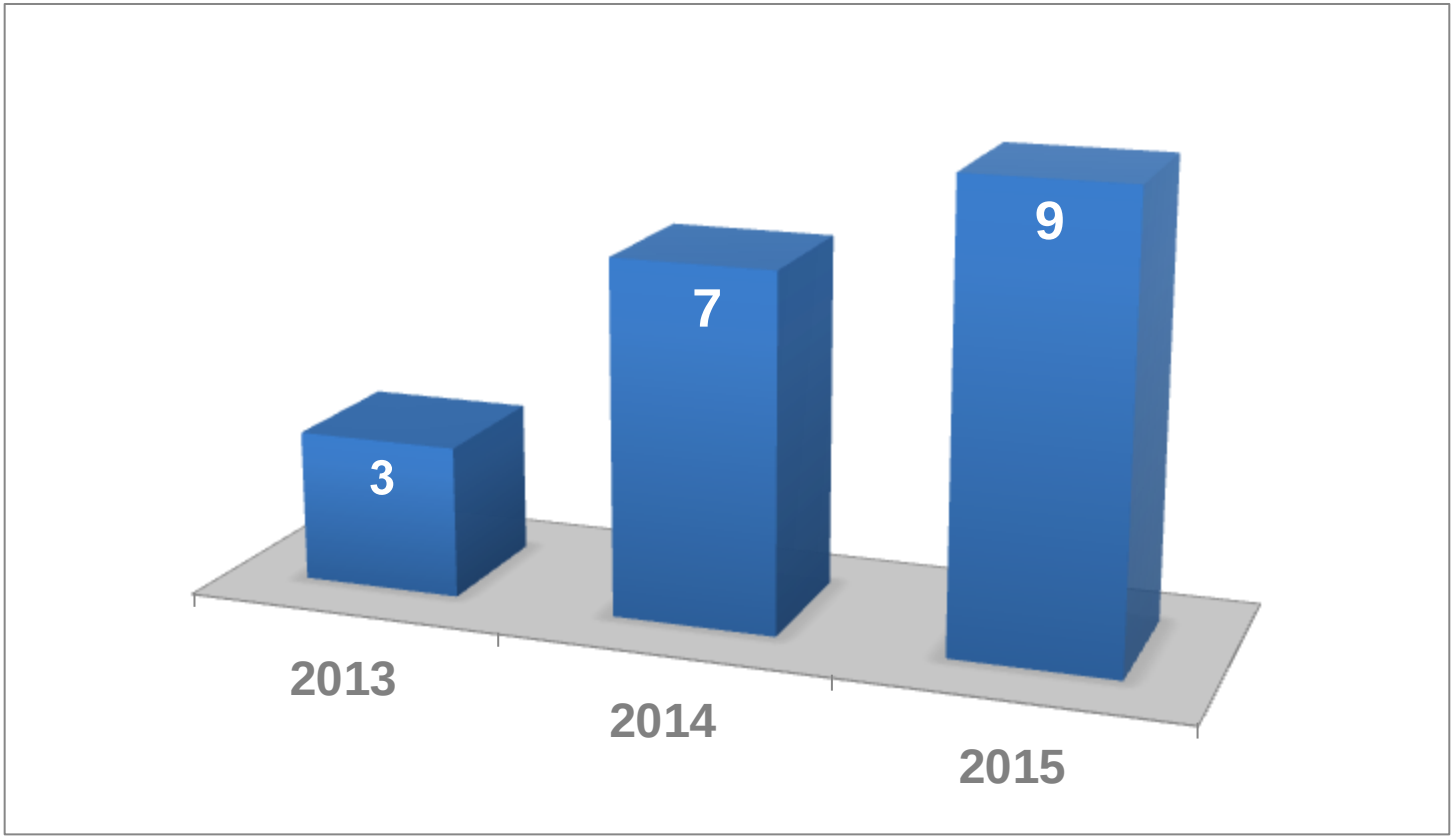
Balancing risk and reward

€160M in non-dilutive cash from collaborators received to date

* No investment in clinical trials made to date by Ablynx

Near-term clinical pipeline impact by partners

Potential, cumulative, already partnered
Nanobody programmes in the clinic



Expanding the use of the Nanobody technology

- Targeted drug delivery using Nanobody-drug conjugates
- Research collaborations in cancer with Algeta and Spirogen

Thomas Ramdahl, Executive Vice President and Chief Technology Officer of Algeta:
"The collaboration with Ablynx, the fifth TTC programme to be disclosed by Algeta, is designed to evaluate the potential of a Nanobody to act as the targeting molecule for the alpha-pharmaceutical payload, thorium-227. This payload has the potential to provide higher potency and more effective delivery over other therapeutic payloads, with the further advantage that there are no known cellular resistance mechanisms to the cell killing properties of alpha particles."

Dr Chris Martin, Chief Executive Officer of Spirogen:
"The collaboration with Ablynx is designed to evaluate the potential of a Nanobody to act as the targeting molecule for the PBD warhead, which is released once it is inside the cancer cell. These warheads have the potential to be extremely potent without distorting the DNA helix thus avoiding mechanisms that lead to tumours becoming resistant to other anti-cancer drugs."

- Results from feasibility studies expected early 2014

Outline

- Ablynx overview, technology and strategy
- FY12 financial results
- Product pipeline and examples of clinical assets
  - anti-IL-6R to treat RA – strong efficacy and safety results in Phase II
  - anti-vWF (caplacizumab) to treat TTP – potentially pivotal Phase II on-going
  - anti-RSV – Phase I on-going
- Partnering strategy
- Upcoming news flow

Potential news flow in 2013

- 24 week data from Phase IIa study for ALX-0061 (anti-IL-6R) in Q1 ✓
- Complete recruitment of Phase II study for caplacizumab (anti-vWF)
- Further development of anti-RSV (ALX-0171) - additional results by end 2013
- Start of Phase I clinical development for a number of partnered programmes
- Licensing of clinical assets
- New collaborations or expansion of existing relationships
- Additional milestones from existing collaborations
- Data from key feasibility studies

Investment highlights

Proprietary Platform	Unique, powerful and broadly validated next generation biologics platform with >500 granted patents and patent applications
Broad Pipeline	~25 Nanobody programmes – 5 in clinical development Target disease areas include: inflammation, haematology, oncology, neurology and virology
Clinical Data	Two clinical proof-of-concepts for Nanobodies in RA >750 healthy volunteers and patients have been treated
Commercial Partnerships	Range of risk-reward partnerships including 16 partnered projects with Boehringer Ingelheim, Merck Serono, Novartis and Merck & Co - 9 of which may enter the clinic in the next 3 years
Strategy	Multiple shots on goal with managed financial risk
Corporate	Strong cash position (€62.8M at 31st Dec '12; €31.5M raised Feb '13) Based in Ghent, Belgium; listed on NYSE Euronext Brussels: ABLX.BR

Nanobodies® – a unique product engine

Corporate presentation – April 2013