Phase 2 clinical proof-of-concept trial of ARGX-113 (efgartigimod) in generalized myasthenia gravis

Topline Data

management call

December 11, 2017

Forward Looking Statements

THIS PRESENTATION HAS BEEN PREPARED BY ARGENX SE ("ARGENX" OR THE "COMPANY") FOR INFORMATIONAL PURPOSES ONLY AND NOT FOR ANY OTHER PURPOSE. NOTHING CONTAINED IN THIS PRESENTATION IS, OR SHOULD BE CONSTRUED AS, A RECOMMENDATION, PROMISE OR REPRESENTATION BY THE PRESENTER OR THE COMPANY OR ANY DIRECTOR, EMPLOYEE, AGENT, OR ADVISER OF THE COMPANY. THIS PRESENTATION DOES NOT PURPORT TO BE ALL-INCLUSIVE OR TO CONTAIN ALL OF THE INFORMATION YOU MAY DESIRE. THIS PRESENTATION ALSO CONTAINS ESTIMATES AND OTHER STATISTICAL DATA MADE BY INDEPENDENT PARTIES AND BY US RELATING TO MARKET SIZE AND GROWTH AND OTHER DATA ABOUT OUR INDUSTRY. THIS DATA INVOLVES A NUMBER OF ASSUMPTIONS AND LIMITATIONS, AND YOU ARE CAUTIONED NOT TO GIVE UNDUE WEIGHT TO SUCH ESTIMATES.

Safe Harbor: Certain statements contained in this presentation, other than present and historical facts and conditions independently verifiable at the date hereof, may constitute forward-looking statements. Examples of such forward-looking statements include those regarding our investigational product candidates and preclinical and clinical trials and the status and related results thereto, future results of operations and financial positions, business strategy, plans and our objectives for future operations. When used in this presentation, the words "anticipate," "believe," "can," "could," "estimate," "expect," "intend," "is designed to," "may," "might," "will," "plan," "potential," "predict," "objective," "should," or the negative of these and similar expressions identify forward-looking statements. Such statements, based as they are on the current analysis and expectations of management, inherently involve numerous risks and uncertainties, known and unknown, many of which are beyond the Company's control. Such risks include, but are not limited to: the impact of general economic conditions, general conditions in the biopharmaceutical industries, changes in the global and regional regulatory environments in the jurisdictions in which the Company does or plans to do business, market volatility, fluctuations in costs and changes to the competitive environment. Consequently, actual future results may differ materially from the anticipated results expressed in the forward-looking statements. In the case of forward-looking statements regarding investigational product candidates and continuing further development efforts, specific risks which could cause actual results to differ materially from the Company's current analysis and expectations include: failure to demonstrate the safety, tolerability and efficacy of our product candidates; final and quality controlled verification of data and the related analyses; the expense and uncertainty of obtaining regulatory approval, including from the U.S. Food and Drug Administration and European Medicines Agency; the possibility of having to conduct additional clinical trials and our reliance on third parties such as our licensors and collaboration partners regarding our suite of technologies and product candidates. Further, even if regulatory approval is obtained, biopharmaceutical products are generally subject to stringent on-going governmental regulation, challenges in gaining market acceptance and competition. These statements are also subject to a number of material risks and uncertainties that are described in the Company's filings with the U.S. Securities and Exchange Commission ("SEC"), including in the final prospectus related to the Company's initial U.S. public offering filed with the SEC pursuant to Rule 424(b) of the Securities Act of 1933, as amended, as well as subsequent filings and reports filed by the Company with the SEC. The reader should not place undue reliance on any forward-looking statements included in this presentation. These statements speak only as of the date made and the Company is under no obligation and disavows any obligation to update or revise such statements as a result of any event, circumstances or otherwise, unless required by applicable legislation or regulation.

Myasthenia Gravis Overview

What is Myasthenia Gravis (MG)?

- Rare autoimmune disorder; 64,000[1] patients in U.S., 55,000[2] with generalized MG (gMG), affecting all ages and both genders
- MG associated with muscle weakness; can be life threatening if respiratory muscles affected
- Symptoms include: Life-threatening choking; muscle dislocation; eyelid fatigue; pain; problems with vision, speech, mobility, fatigue

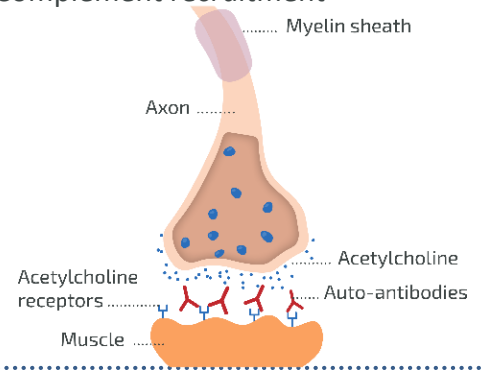
Limited current treatment options

- Limited treatment options
  - Cholinesterase inhibitors
  - Corticosteroids
  - Immunosuppressants
  - IVIg, Plasmapheresis (exacerbations or rescue)
  - Soliris®
  - Thymectomy (minority of patients)
- Severe side effects of current treatment options: Injury, liver malignancy, osteopenia, osteoporosis, cataracts, depression, hypertension, hematologic suppression, headache, disfigurement, infection, thrombosis
- IVIg, Plasmapheresis and Soliris® place a heavy cost burden on healthcare systems (~$79,000[3] ,~$101,000[3] and ~$700,000[4] respectively)

Myasthenia Gravis Cause

Autoantibodies (IgG type) destroy neuromuscular junctions:

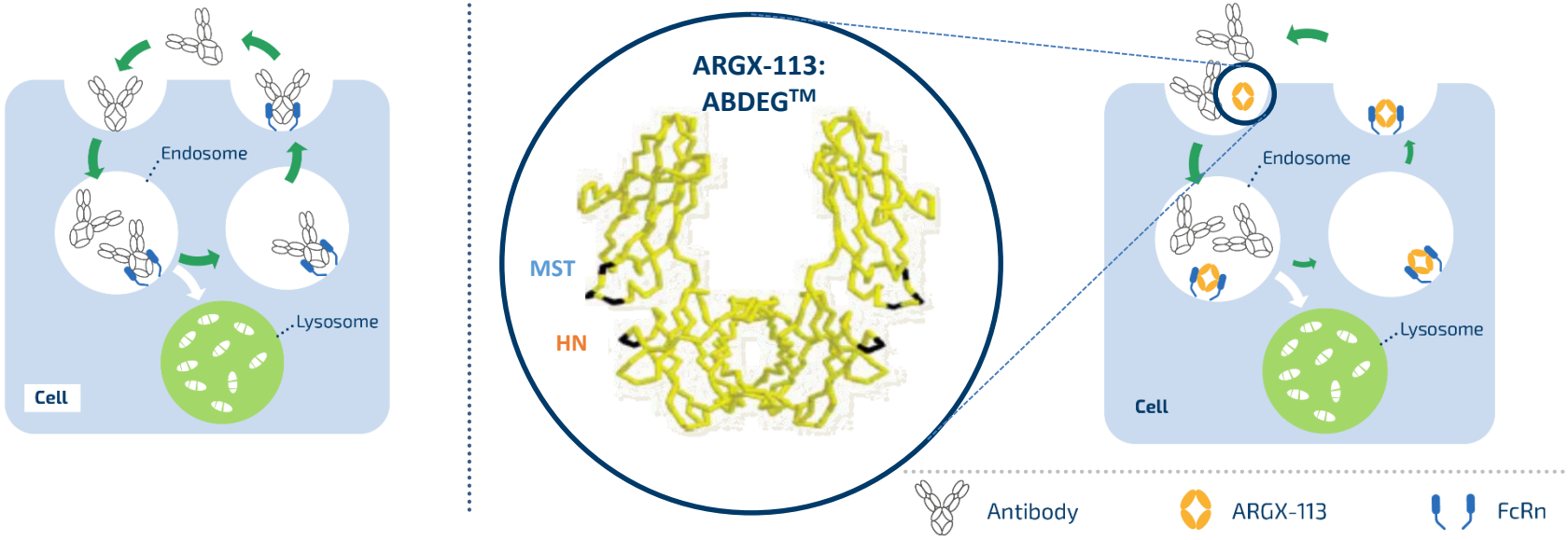
- Blocking of Acetylcholine Receptors (AChRs)
- Cross-linking + internalization of AChRs
- Complement recruitment



(1) Philips et al. 2003, Ann N Y Acad Sci
(2) Drachman et al. 1993, New Eng J Med.
(3) Heatwole et al. 2011, J Clin Neuromuscul Dis.
(4) Source: Reprinted with permission by First Databank Inc. WAC = Wholesale Aquisition Cost 8/21/17

ARGX-113 Exploits The Natural Fc/FcRn Interaction Site, Leveraging Our Proprietary ABDEG™ Technology

IgG antibodies recycle through FcRn(1)… **…ARGX-113 potently blocks FcRn…** **…leading to IgG elimination**



- ARGX-113 is a human IgG1 Fc-fragment that utilizes ABDEG™ Fc engineering technology(2)(3)
- ARGX-113 does not expose the Fc tail and cannot engage Fcγ receptors
- ARGX-113 targets and binds to FcRn blocking the recycling of IgG leading to an elimination of IgG antibodies
- Pathogenic IgG antibodies mediate multiple autoimmune diseases

(1) Roopenian et al. 2007, Nat Rev Immunol.
(2) Vaccaro et al. 2005, Nat Biotech.
(3) argenx data

Autoantibody Levels (IgGs) Correlate With MG Disease Score

>30% autoantibody reduction clinically meaningful

Treatment*	Plasmapheresis	Immuno-adsorption	IVIg
Decrease in autoantibody levels (%) after treatment	62.6 ± 0.9	55.1 ± 3.2	28.9 ± 3.8
Decrease in disease score (%) after treatment	60.8 ± 3.5	42.4 ± 4.2	23.8 ± 3.7
Clinical efficacy rate after 14 days**	12/15	7/10	6/15
Duration of hospital stay (days)	12.80 ± 0.28	13.50 ± 0.50	16.00 ± 0.50

* Comparison between 3 cycles of Plasmapheresis/Immunoadsorption every 24h-48h and 5 cycles of IVIg every 24h
** Clinically effective if disease score has improved by >50% 14 days after treatment

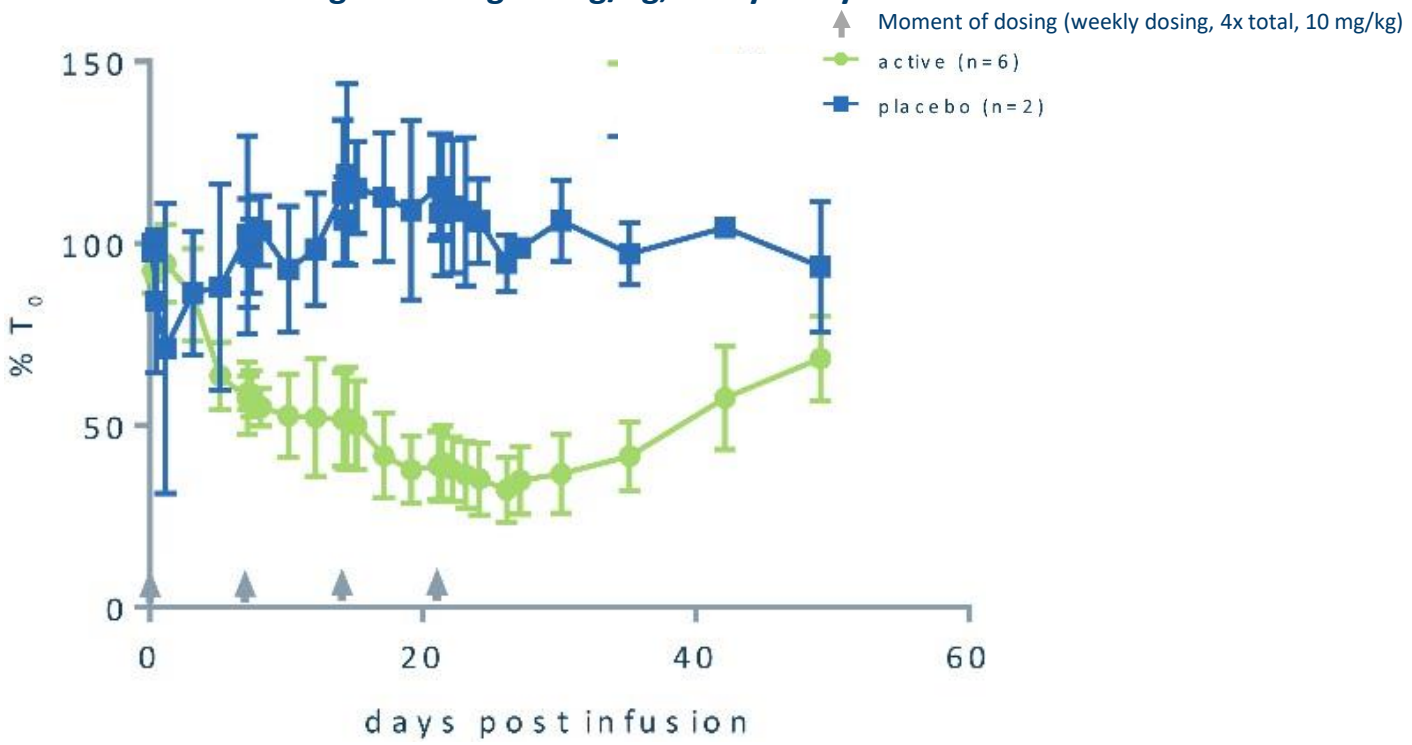
Degree of autoantibody reduction correlates with clinical improvement and reduced hospital stay

Liu et al. 2010, Ther Apher Dial.

ARGX-113: Selective and Lasting IgG Reduction

PD data multiple ascending dose (MAD) study in healthy volunteers

Total IgG - Dosing 10 mg/kg; every 7 days

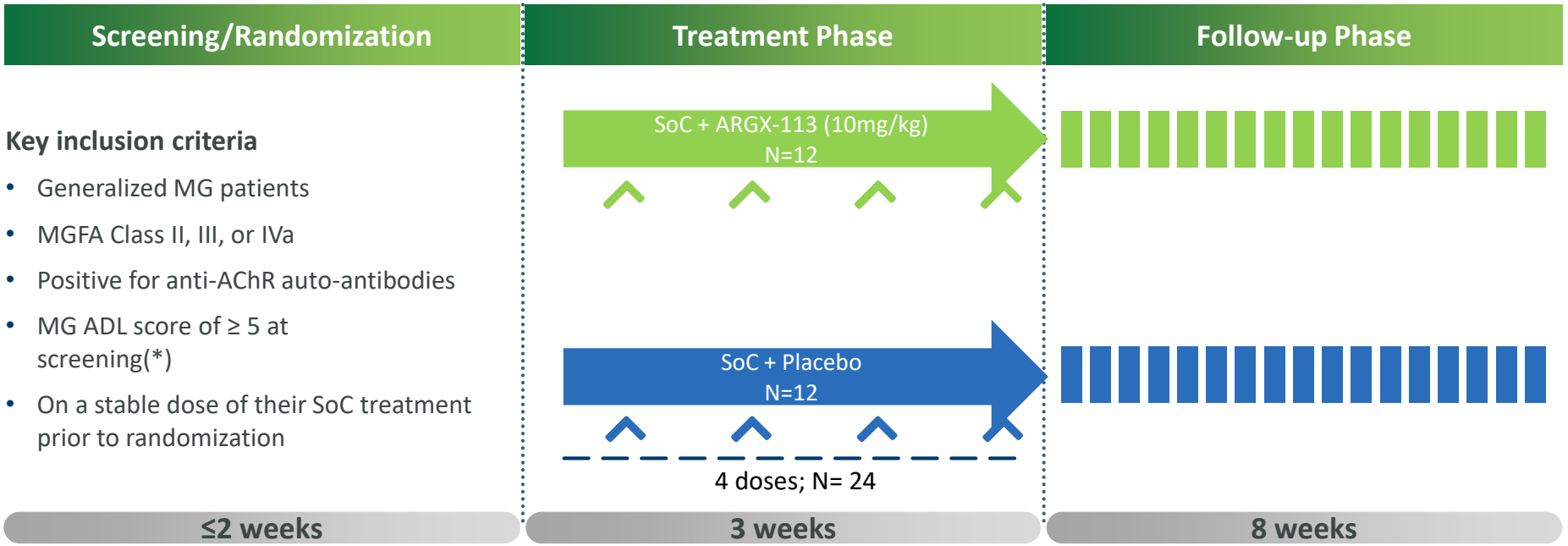


- Potent IgG reduction accross isotypes (AChR autoantibodies are IgG1/3; MuSK autoantibodies are IgG4)
- Up to 85% total IgG reduction; single dose delivers 50% total IgG reduction
- After last dose, IgG levels remain reduced by 50% or more for ~3 weeks, return to baseline after > 1 month
- Comparable data for 25 mg/kg, every 7 days (data not shown)

Myasthenia Gravis Phase 2 Trial Design

Study start-to-finish in 11 months

argenx



Primary endpoint

Secondary endpoints

Safety & tolerability	Efficacy (MG-ADL; QMG; MGC; MG-QoL)	PK	PD total IgG; pathogenic IgG	Immuno-genicity

(*) >50% of the score attributed to non ocular items

Clinicaltrials.gov: NCT02965573, argenx data

MG Phase 2 Baseline Population And Disease Characteristics

	Placebo (N = 12)	ARGX-113 (N = 12)
Age (mean ± SD)	43.5 ± 19.3	55.3 ± 13.6
Sex (Number, %)		
• Male	4 (33.3%)	5 (41.7%)
• Female	8 (66.7%)	7 (58.3%)
Race		
• Asian	-	8.3%
• Black / African American	8.3%	-
• White	91.7%	91.7%
• Mixed / other	-	-
MGFA classification at screening*		
• Class I	-	-
• Class II	7 (58.4%)	6 (50.0%)
• Class III	4 (33.3%)	6 (50.0%)
• Class IV	1 (8.3%)	-
• Class V	-	-
Baseline QMG score (mean ± SD)	11.8 ± 5.4	14.5 ± 6.3
Baseline MG-ADL score (mean ± SD)	8.0 ± 2.2	8.0 ± 3.0
Baseline MGC score (mean ± SD)	14.5 ± 4.5	16.7 ± 8.7
Baseline MGQoL score (mean ± SD)	14.5 ± 6.1	19.7 ± 5.7
SoC		
• Acetylcholinesterase inhib. N (%)	11 (91.7%)	12 (100.0%)
• Corticosteriods N (%)	5 (41.7%)	8 (66.7%)
• Immunsuppressants N (%)	2 (16.7%)	9 (75.0%)

argenx data

(*) Class I: ocular items only; class V: intubation required

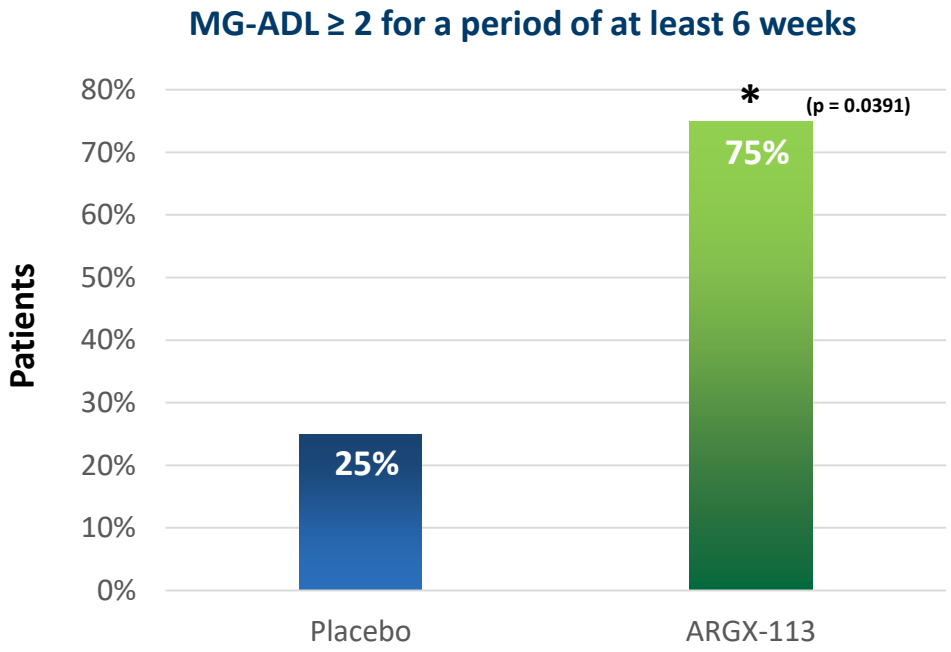
Favorable Safety And Tolerability Profile

Convenient 2h infusion enabling out-patient treatment

Treatment Emergent Adverse Events (TEAEs) Reported in ≥ 2 patients	Placebo (N = 12)	ARGX-113 (N = 12)
TEAEs (Total)	**10 (83.3%)**	**10 (83.3%)**
• Headache	3 (25.0%)	4 (33.3%)
• Nausea	1 (8.3%)	1 (8.3%)
• Diarrhea	1 (8.3%)	1 (8.3%)
• Abdominal pain upper	1 (8.3%)	1 (8.3%)
• Arthralgia	2 (16.7%)	-
• B-lymphocyte decrease	-	2 (16.7%)
• Lymphocyte count decrease	-	2 (16.7%)
• Monocyte count decrease	-	2 (16.7%)
• Neutrophil count increase	-	2 (16.7%)
• Myalgia	-	2 (16.7%)
• Pruritus	2 (16.7%)	1 (8.3%)
• Rhinorrhea	1 (8.3%)	1 (8.3%)
• Tooth abscess	2 (16.7%)	-
• Toothache	2 (16.7%)	-
ARGX-113 deemed related TEAEs	**3 (25.0%)**	**8 (66.7%)**
• Headache	1 (8.3%)	3 (25.0%)
• Monocyte count decrease	0 (0.0%)	2 (16.7%)
• Rhinorrhea	1 (8.3%)	1 (8.3%)

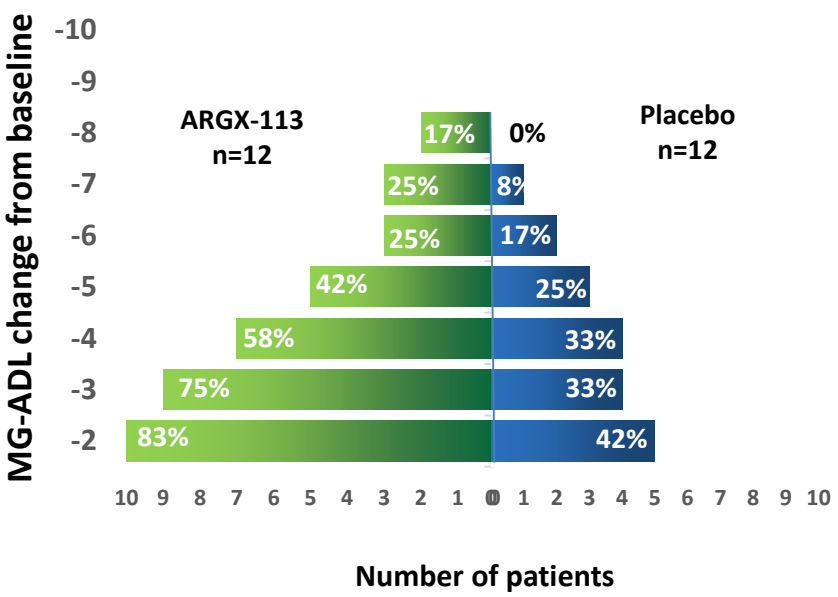
- ARGX-113 was well-tolerated in patients and confirmed findings from Phase 1 healthy volunteer trial
- The TEAEs profile was balanced between ARGX-113 and placebo
- TEAEs were mostly mild (grade 1) in severity. No severe AEs reported
- No deaths, Serious AEs or TEAEs leading to discontinuation of treatment were reported during the trial

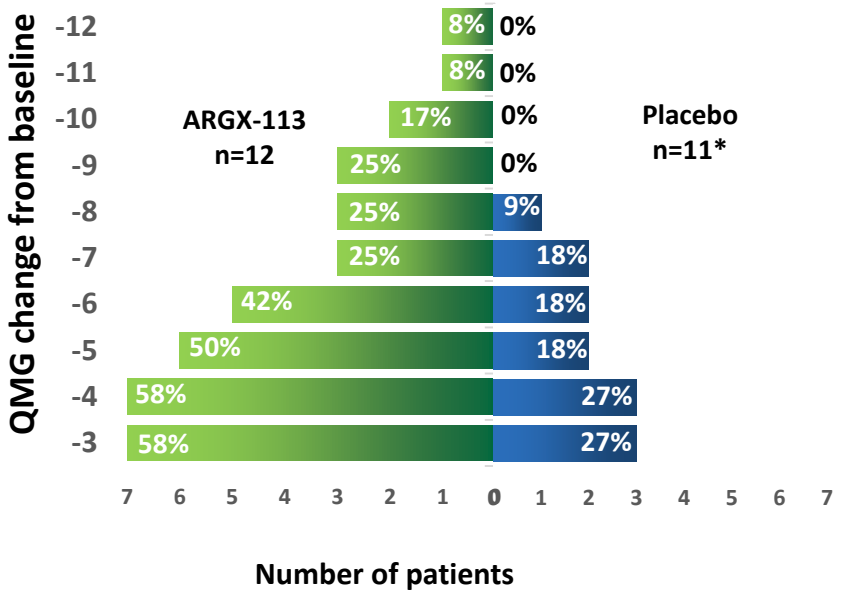
75% Of ARGX-113 Treated Patients Achieved Lasting Response



- **83% of patients treated with ARGX-113** achieved a clinically meaningful response (MG-ADL ≥2)
- **75% of patients treated with ARGX-113** had a clinically meaningful and statistically significant improvement in MG-ADL score for a period of at least 6 consecutive weeks versus 25% of patients on placebo

ARGX-113 Group Showed Strong Clinical Improvement Over Placebo Group – Day 29 data (1 week post last dosing)





- Increasing differentiation observed between the ARGX-113 and placebo treatment group with increasing MG-ADL thresholds
- ARGX-113 treated patients showed rapid onset of disease improvement, with clear separation from placebo 1 week after the first infusion (data not shown)
- Disease improvement was found to correlate with reduction in pathogenic IgG levels
- ARGX-113 treatment resulted in a strong clinical improvement over placebo during the entire duration of the study as measured by all four predefined clinical efficacy scales

argenx data

* Missing data point in 1 patient

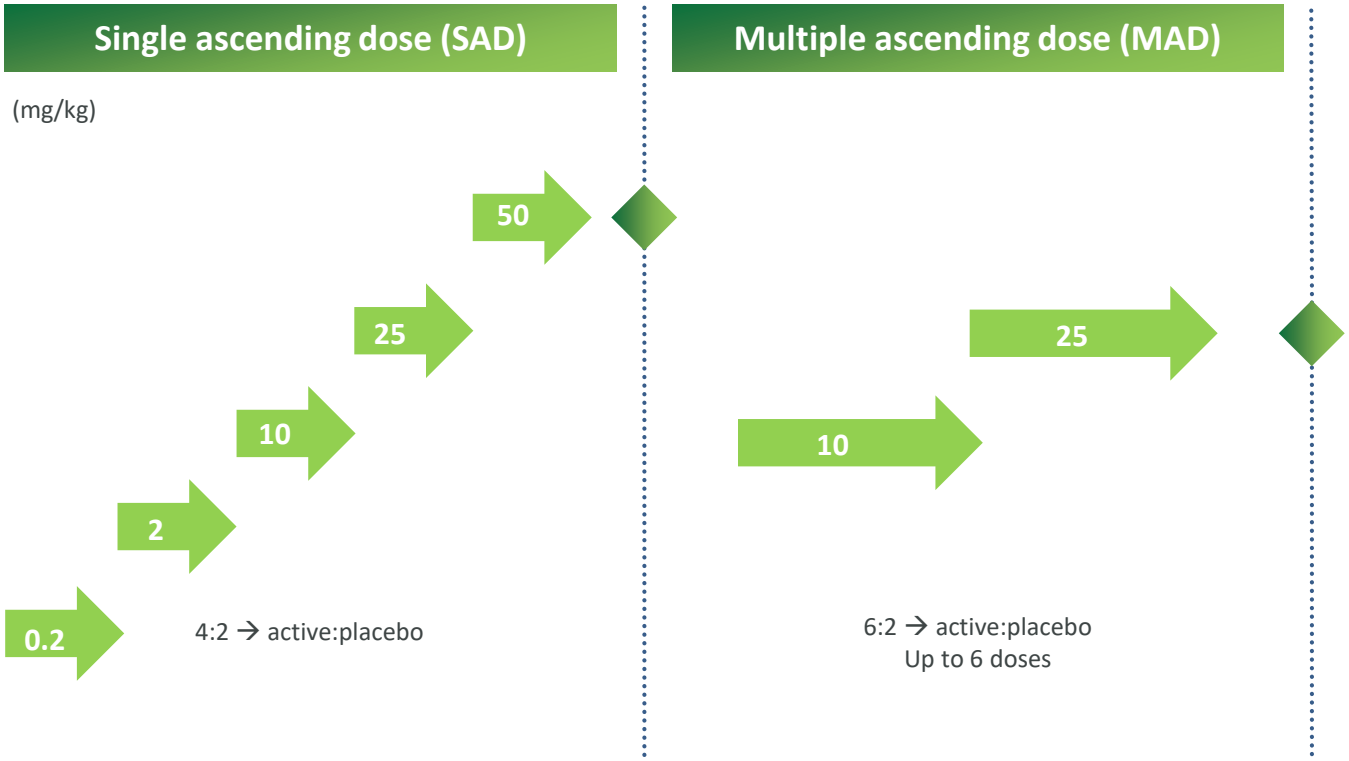
Transformational Data Set

- Consistent and compelling safety & tolerability profile is a key differentiator in FcRn antagonist space
- Fast, strong and sustained benefit; clinically meaningful and statistically significant
- Strong correlation between IgG level reduction and disease improvement; validating focus on IgG-mediated diseases
- Phase 2 execution catapults ARGX-113 towards Phase 3

APPENDIX

ARGX-113: Favorable Safety & Tolerability Profile

Phase 1 design: Double-blind, placebo-controlled trial in healthy volunteers



- SAD & MAD studies completed according to plan (62 healthy volunteers in total)
- Reported to be well-tolerated in single and multiple doses of up to 25 mg/kg

argenx data

ARGX-113: favorable safety and tolerability profile

Phase 1 trial in healthy volunteers

	Placebo	SAD					MAD		
ARGX-113 (mg/kg)		**0.2**	**2**	**10**	**25**	**50**	**10 (q4d)**	**10 (q7d)**	**25 (q7d)**
N (total number of subjects)	18*	4	4	4	4	4	6	6	12**
INVESTIGATIONS									
Diff. WBC count abnormal					3	4			
C-Reactive protein increased					2	4			1
NERVOUS SYSTEM DISORDERS									
Headache	4				1	3	1		3
Dizziness	1					2			
Somnolence									1
MUSCULOSKELETAL AND CONNECTIVE TISSUE DISORDERS									
Back pain	2					1			
Myalgia						1			
Pain in extremity						1			
GASTROINTESTINAL DISORDERS									
Nausea						1			
Abnormal discomfort	1								1
GENERAL DISORDERS AND ADMINISTRATION SITE CONDITIONS									
Chills						1+ 1			2
Fatigue	2								2
Feeling cold	2								1
Malaise									1
Pyrexia									1
EYE DISORDERS									
Photophobia						1			
Eye paresthesia								1	
SKIN AND SUBCUTANEOUS TISSUE DISORDERS									
Hyperhidrosis	1					1			
Rash macular								1	
Rash maculo-papular									1
BLOOD AND LYMPHATIC SYSTEM DISORDERS									
Lymphadenopathy								1	

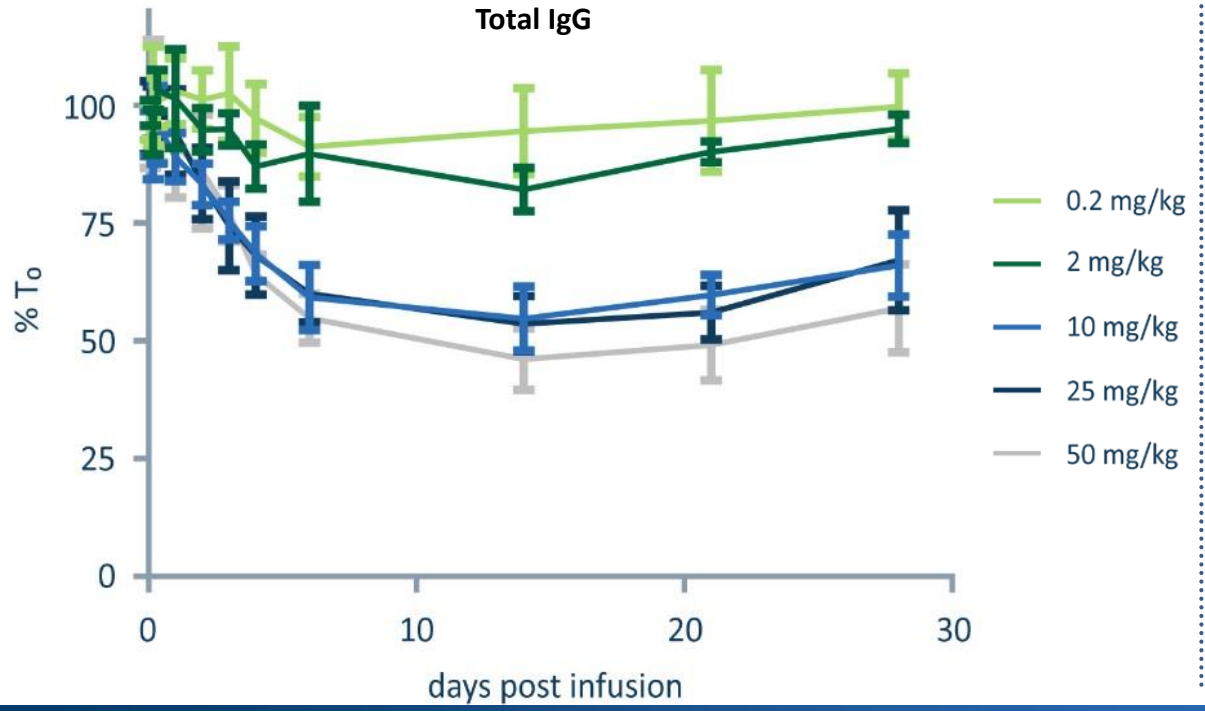
Moderate AE

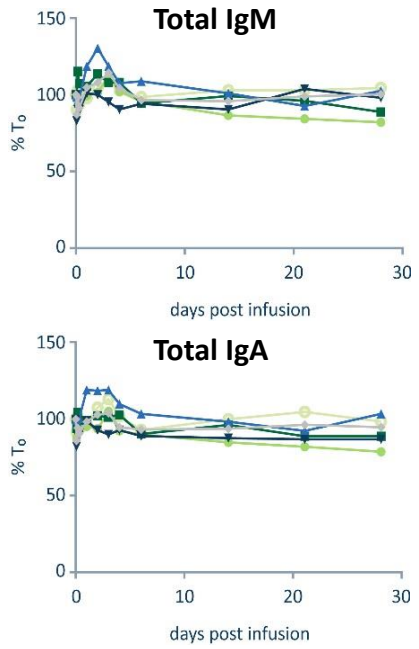
Other= Mild AE

AEs that were considered possibly, probably, or likely-related to treatment (ARGX-113 vs. placebo)

ARGX-113: Selective and Lasting IgG Reduction Seen In Phase 1

Single ascending dose-escalation trial (SAD) in healthy volunteers (single 2hr infusion)





- ~50% IgG reduction (maximal PD effect) as of 6 days after infusion
- Selective IgG reduction, no significant reductions in IgM/IgA and albumin levels
- Low IgG levels maintained for more than four weeks after the last dose
- Saturation of PD effect observed at 10 mg/kg dose

Quantitative MG Score Efficacy Explained

TEST ITEMS WEAKNESS	NONE	MILD	MODERATE	SEVERE	SCORE
GRADE	0	1	2	3	
Double vision (lateral gaze) Sec.	60	11-59	1-10	Spontaneous	
Ptosis (upward gaze) Sec.	60	11-59	1-10	Spontaneous	
Facial Muscles	Normal lid closure	Complete, weak, some resistance	Complete, without resistance	Incomplete	
Swallowing 4 oz. Water (1/2 cup)	Normal	Minimal coughing or throat clearing	Severe coughing Choking or nasal regurgitation	Cannot swallow (test not attempted)	
Speech following counting aloud from 1-50 (onset of dysarthria)	None at #50	Dysarthria at #30-49	Dysarthria at #10-29	Dysarthria at #9	
Right arm outstretched (90°, sitting) Sec.	240	90-239	10-89	0-9	
Left arm outstretched (90°, sitting) Sec.	240	90-239	10-89	0-9	
Forced vital capacity	≥80%	65-79%	50-64%	<50%	
Rt hand grip: male (Kg) : female	≥45 ≥30	15-44 10-29	5-14 5-9	0-4 0-4	
Left hand grip: male (Kg) : female	≥35 ≥25	15-34 10-24	5-14 5-9	0-4 0-4	
Head, lifted (45%, supine) Sec.	120	30-119	1-29	0	
Right leg outstretched (45-50%,supine) Sec.	100	31-99	1-30	0	
Left leg outstretched (45-50%,supine) Sec.	100	31-99	1-30	0	

MG-Activity of Daily Living Efficacy Score Explained

Grade	0	1	2	3	Score
Talking	Normal	Intermittent slurring or nasal speech	Constant slurring or nasal, but can be understood	Difficult to understand speech	
Chewing	Normal	Fatigue with solid food	Fatigue with soft food	Gastric tube	
Swallowing	Normal	Rare episode of choking	Frequent choking necessitating changes in diet	Gastric tube	
Breathing	Normal	Shortness of breath with exertion	Shortness of breath at rest	Ventilator dependence	
Impairment of ability to brush teeth or comb hair	None	Extra effort, but no rest periods needed	Rest periods needed	Cannot do one of these functions	
Impairment of ability to arise from a chair	None	Mild, sometimes uses arms	Moderate, always uses arms	Severe, requires assistance	
Double vision	None	Occurs, but not daily	Daily, but not constant	Constant	
Eyelid droop	None	Occurs, but not daily	Daily, but not constant	Constant	

Total score _____

MG-Composite Efficacy Score Explained

Table 1 The Myasthenia Gravis Composite scale

Ptosis, upward gaze (physician examination)	>45 seconds = 0	11–45 seconds = 1	1–10 seconds = 2	Immediate = 3
Double vision on lateral gaze, left or right (physician examination)	> 45 seconds = 0	11–45 seconds = 1	1–10 seconds = 3	Immediate = 4
Eye closure (physician examination)	Normal = 0	Mild weakness (can be forced open with effort) = 0	Moderate weakness (can be forced open easily) = 1	Severe weakness (unable to keep eyes closed) = 2
Talking (patient history)	Normal = 0	Intermittent slurring or nasal speech = 2	Constant slurring or nasal but can be understood = 4	Difficult to understand speech = 6
Chewing (patient history)	Normal = 0	Fatigue with solid food = 2	Fatigue with soft food = 4	Gastric tube = 6
Swallowing (patient history)	Normal = 0	Rare episode of choking or trouble swallowing = 2	Frequent trouble swallowing, e.g. necessitating changes in diet = 5	Gastric tube = 6
Breathing (thought to be caused by MG)	Normal = 0	Shortness of breath with exertion = 2	Shortness of breath at rest = 4	Ventilator dependence = 9
Neck flexion or extension (weakest) (physician examination)	Normal = 0	Mild weakness = 1	Moderate weakness (i.e., ~50% weak, ±15%) = 3[a]	Severe weakness = 4
Shoulder abduction (physician examination)	Normal = 0	Mild weakness = 2	Moderate weakness (i.e., ~50% weak, ±15%) = 4[a]	Severe weakness = 5
Hip flexion (physician examination)	Normal = 0	Mild weakness = 2	Moderate weakness (i.e., ~50% weak, ±15%) = 4[a]	Severe weakness = 5

[a]Moderate weakness for neck and limb items should be construed as weakness that equals roughly 50% ±15% of expected normal strength. Any weakness milder than that would be mild and any weakness more severe than that would be classified as severe.

MG-Quality of Life 15 Score Explained

Please indicate how true each statement has been (over the past few weeks).

	Not at all	A little bit	Some-what	Quite a bit	Very much
	0	1	2	3	4
1. I am frustrated by my MG					
2. I have trouble using my eyes					
3. I have trouble eating because of MG					
4. I have limited my social activity because of my MG					
5. My MG limits my ability to enjoy hobbies and fun activities					
6. I have trouble meeting the needs of my family because of my MG					
7. I have to make plans around my MG					
8. My occupational skills and job status have been negatively affected by MG					
9. I have difficulty speaking due to MG					
10. I have trouble driving due to MG					
11. I am depressed about my MG					
12. I have trouble walking due to MG					
13. I have trouble getting around public places because of my MG					
14. I feel overwhelmed by my MG					
15. I have trouble performing my personal grooming needs					

MG-QOL15r

Muscle and Nerve 2008;38:957-963.
Muscle and Nerve;2010;41:219-226.
Muscle and Nerve;2011;43:14-18

Total MG-QOL15rscore