Batoclimab Phase 2 Study for the Treatment of Generalized Myasthenia Gravis

Summary of Phase II Data Readout

7 July 2021



HBM HOLDINGS-B 02142.HK

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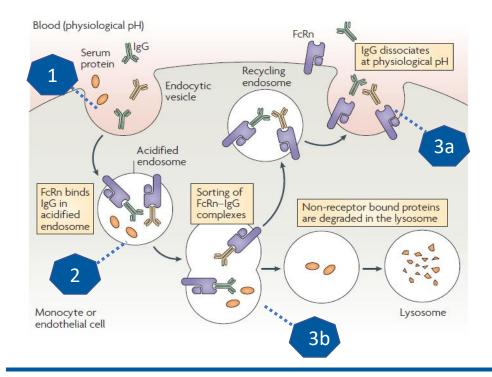




Batoclimab - A Novel Effective Treatment for Autoantibody-Mediated Autoimmune Diseases

Mechanisms of IgG recycling, including pathogenic IgG

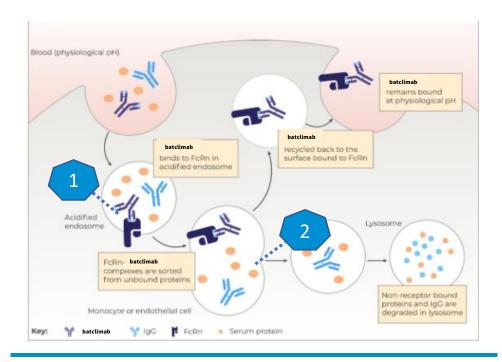
FcRn/Fc binding is pH dependent: IgG binds tightly to FcRn in the nucleosome (pH 6.0), but disassociated in blood (pH 7.0)



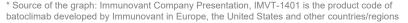
- 1. IgG is regularly cleared via cellular uptake
- 2. FcRn can bind to IgG as a recycling receptor in the nucleosome (acidic environment)
 3a. IgG bound to FcRn through the Fc segment will be protected and then return to blood
 3b. IgG not bound to FcRn will enter lysosomes and degraded

Mechanism of action of batoclimab in removing IgG (including pathogenic IgG) from the body *

Batoclimab is a fully humanized recombinant IgG1 monoclonal antibody with Fc segment engineered that binds to FcRn with high affinity, making it unable to participate in IgG recycling, including pathogenic IgG



- 1. IgG cannot bind to FcRn effectively
- 2. IgG is degraded in lysosomes





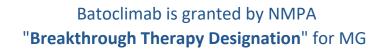
Significant Unmet Medical Needs for Myasthenia Gravis

~200,000 people in China affected

85% MG patients progress to generalized MG

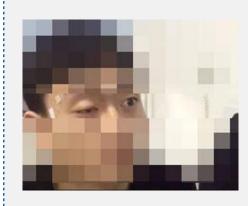
20% MG patients may experience a life-threatening crisis

Limited efficacy with available treatments huge unmet medical needs



- 1. Gilhus NE, Tzartos S, Evoli A, Palace J, Burns TM, Verschuuren JJGM. Myasthenia gravis. Nat Rev Dis Primer. 2019;5(1):30.
- 2. Fang W, Li Y, Mo R, et al. Neurol Sci. 2020 May;41(5):1211-1223.
- 3. Gilhus NE. Myasthenia Gravis. Longo DL, ed. N Engl J Med. 2016;375(26):2570-2581.
- 4. Gilhus NE, Verschuuren JJ. Myasthenia gravis: subgroup classification and therapeutic strategies. Lancet Neurol. 2015;14(10):1023-1036.





Pathogenic IgG plays a key role in the pathogenesis of MG, leading to clinical symptoms, including blepharopotosis, limb weakness, dyspnea, etc.

Batoclimab Phase 2 Study for the Treatment of gMG: Study Design

Screening

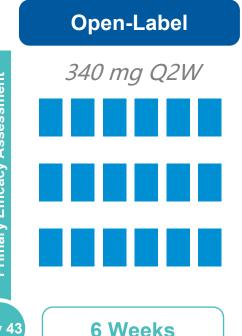
Key I/E criteria:

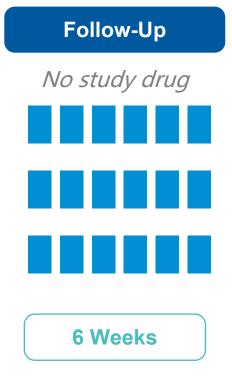
- MGFA grade II-IVa
- MG-ADL≥6
- AChR-Ab or MUSK-Ab positive

Target population:

Patients on stable treatment who fail to achieve full control of MG

Double-Blind Treatment QW Batoclimab 680 mg Batoclimab 340 mg Placebo Day 1 Day 43





Efficacy endpoints:

- MG-ADL, QMG score improvement compared with baseline
- Primary time point: Day 43

Safety endpoint:

Safety and tolerability

Clinical pharmacological endpoints:

- Change of anti-AChR IgG, total IgG and IgG subtypes compared with baseline
- Batoclimab PK
- Biomarkers (gene expression, serum inflammatory markers)
- ❖ Two interim data reviews are pre-specified when ~15 and all subjects completed efficacy endpoint assessment at the primary time point (Day 43), respectively.
- * Because a few subjects are still in the open-label or follow-up period, this data release only includes data in the double-blind treatment period (up to Day 43).
- ❖ Unblinded team has been set up to review and evaluate unblinded data, including albumin, ALP, IA package.



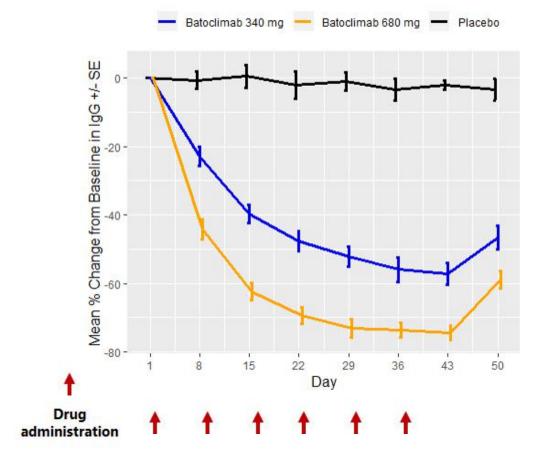
Batoclimab Phase 2 Study for the Treatment of gMG: Baseline Characteristics

| | Placebo (N=9) | Batoclimab 340 mg (N=10) | Batoclimab 680 mg (N=11) | Batoclimab Combined (N=21) |
|--|-------------------------------------|---------------------------------------|--|--|
| Age (years), Mean±SD | 40.2±9.3 | 36.4±9.8 | 40.6±16.8 | 38.6±13.7 |
| Sex, % Male/% Female | 22.2% / 77.8% | 20.0% / 80.0% | 18.2%/81.8% | 19.0% / 81.0% |
| Duration of Disease (years) , Mean±SD | 6.0±6.8 | 9.8±10.8 | 6.4±5.7 | 8.0±8.5 |
| MGFA Classification, n (%) II III IVa | 4 (44.4%) 3 (33.3%) 2 (22.2%) | 3 (30.0%) 6 (60.0%) 1 (10.0%) | 4 (36.4%) 6 (54.5%) 1 (9.1%) | 7 (33.3%) 12 (57.1%) 2 (9.5%) |
| MG-ADL, Mean±SD | 8.2±1.4 | 7.4±1.6 | 9.2±2.3 | 8.3±2.2 |
| QMG, Mean±SD | 14.9±5.0 | 17.4±3.5 | 18.8±6.1 | 18.1±5.0 |
| MGC, Mean±SD | 17.7±4.0 | 17.9±3.5 | 18.2±5.3 | 18.0±4.5 |
| MG-QoL 15r, Mean±SD | 18.8±4.6 | 15.1±2.8 | 19.8±5.9 | 17.6±5.2 |
| Background therapy, n (%) Acetylcholinesterase Inhibitors Corticosteroids Immunosuppressants | 7 (77.8%) 6 (66.7%) 3 (33.3%) | 10 (100.0%) 6 (60.0%) 8 (80.0%) | 10 (90.9%) 11 (100.0%) 8 (72.7%) | 20 (95.2%) 17 (81.0%) 16 (76.2%) |

Rapid and Robust IgG Reduction

Available Evidence Suggests that Reduced Levels of Pathogenic IgG in Patients with MG are Associated with Clinical Benefit

On 43 days post first dose, IgG decreased 57% and 74% from baseline after SC administration of batoclimab at 340 mg and 680 mg QW for 6 weeks, respectively

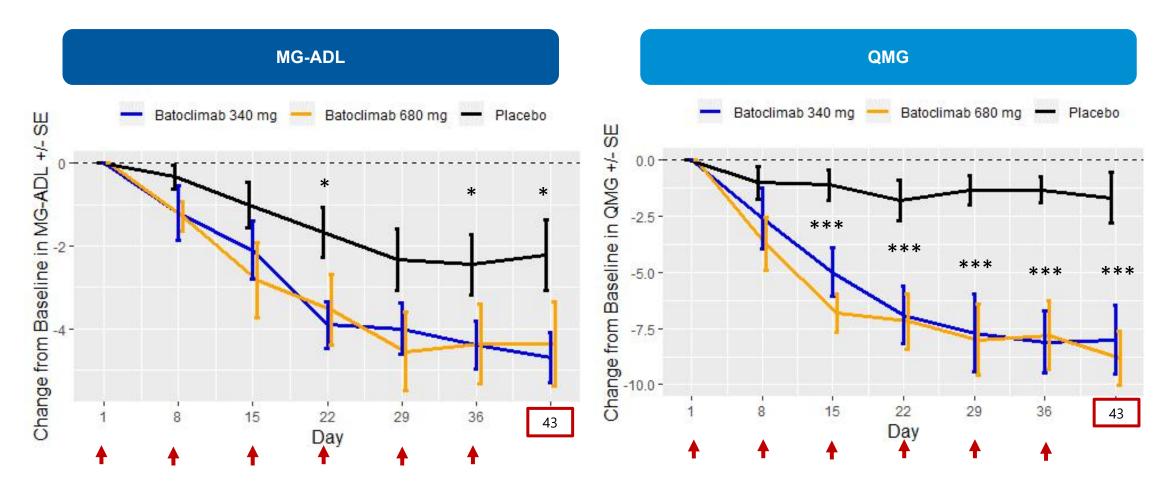


| Generic Name | Dose | Route | IgG E _{max} |
|--------------------------|--|---------|----------------------|
| Efgartigimod¹ | 10 mg/kg QW*4 | IV | 70.7% |
| Batoclimab | 680 mg QW*6 | SC Inj | 74% |
| Nipocalimab ² | 60 mg/kg Q2W*5 | IV | 82% |
| Rozanolixizumab³ | 7 mg/kg QW*3 +2-wk washout+ 7 mg/kg QW*3 | SC Inf. | 68% |

- 1. Howard JF et al, Neurology, 2019
- 2. Topline results from Momenta, 2020
- 3. Bril V et al, Neurology, 2020



Fast, Substantial and Persistent Clinical Improvements

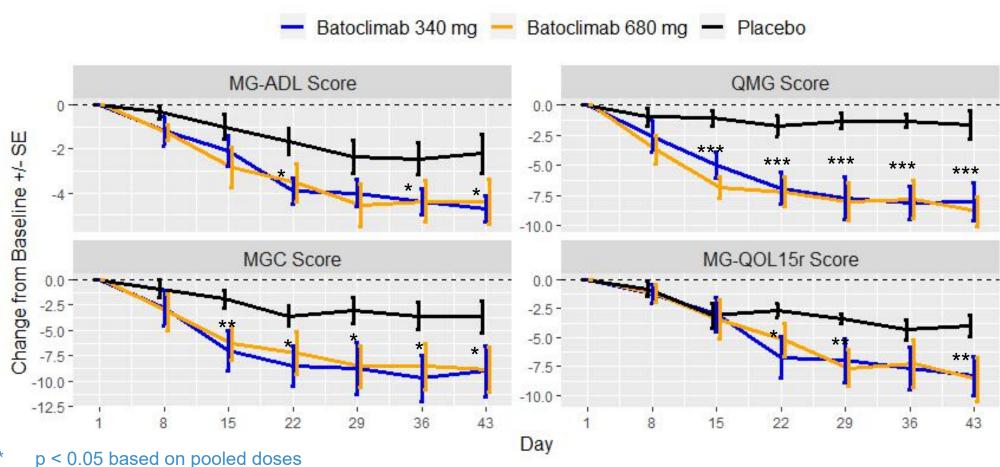




^{*} p < 0.05 based on pooled doses

^{***} p < 0.001 based on pooled doses

Consistent Clinical Improvement across All Four Predefined Clinical Efficacy Scales



p < 0.05 based on pooled doses

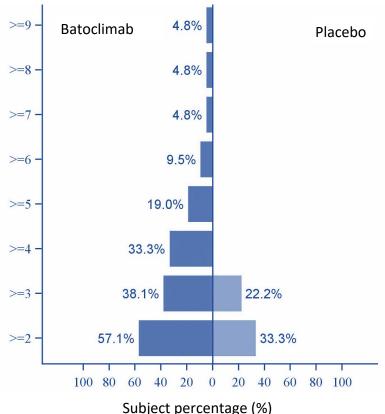
p < 0.01

p < 0.001 based on pooled doses

Durable Clinical Improvements vs Placebo

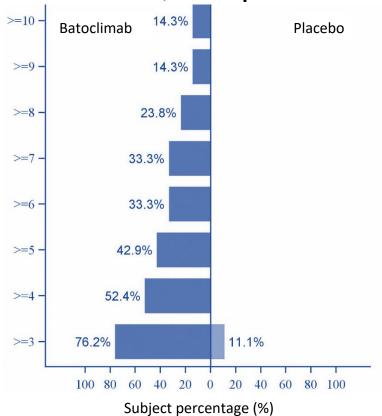
Response Lasting for at Least 6 Weeks

Durable MG-ADL Response*



Subject percentage (%

Durable QMG Response**



** QMG improvement from baseline with a magnitude as indicated in y-axis for 6 or more weeks during the double blind treatment period.



^{*} MG-ADL improvement from baseline with a magnitude as indicated in y-axis for 6 or more weeks during the double blind treatment period.



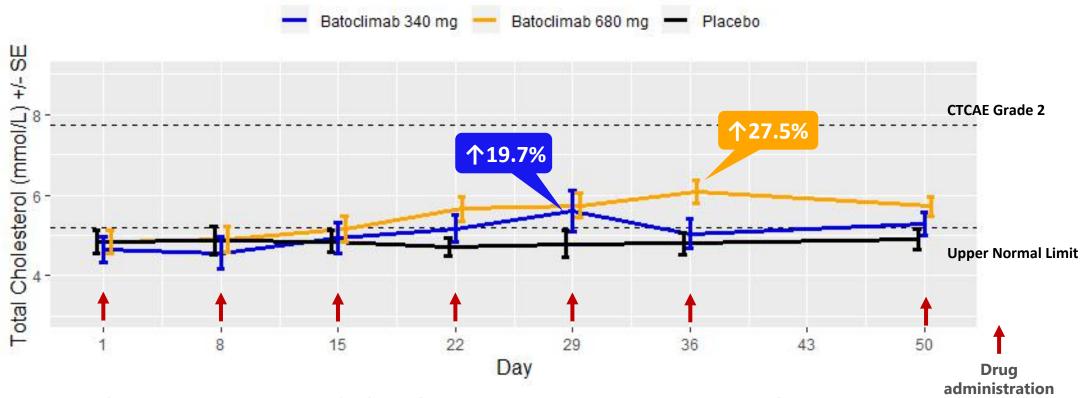
Favorable Safety and Tolerability Profile

| TEAEs¹ during double-blind treatment period (reported in ≥ 5 patients) | Placebo (N=9) | Batoclimab 340 mg (N=10) | Batoclimab 680 mg (N=11) |
|--|------------------|--------------------------------|--------------------------------|
| Hypercholesteremia ² | 3(33.3%) | 3(30.0%) | 4(36.4%) |
| Hyponatraemia | 4(44.4%) | 4(40.0%) | 1(9.1%) |
| Urinary tract infection | 3(33.3%) | 3(30.0%) | 2(18.2%) |
| Injection site reaction ³ | 1(11.1%) | 3(30.0%) | 3(27.3%) |
| Peripheral edema | 1(11.1%) | 2(20.0%) | 4(36.4%) |
| Hypomagnesemia | 3(33.3%) | 2(20.0%) | 1(9.1%) |
| Abdominal pain ⁴ | 2(22.2%) | 2(20.0%) | 2(18.2%) |

- 1. TEAE: treatment emergent adverse event
- 2. Includes: Hypercholesteremia, Blood cholesterol increased
- 3. Includes: Injection site hemorrhage, Injection site pruritus, Injection site hematoma, Injection site pain, Injection site nodule
- 4. Includes: Abdominal pain, Abdominal pain upper, Abdominal pain lower

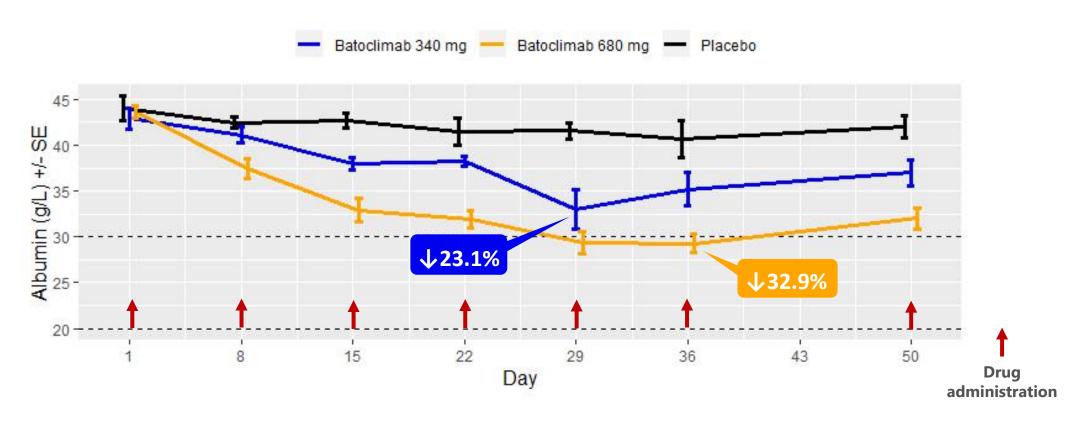
- Batoclimab was welltolerated in MG patients
- TEAEs balanced among three groups
- Most TEAEs were mild, and no severe TEAE
- No SAE, and no AE leading to discontinuation

Manageable and Reversible Mild Total Cholesterol Elevation During Treatment with No Clinical Intervention Required



- Most TC elevation were up to CTCAE Grade 1, except 2 patients reached Grade 2 (both were Grade 1 at baseline)
- No clinical intervention required
- No discontinuation due to cholesterol elevation

Manageable and Reversible Mild Albumin Reduction During Treatment with No Clinical Intervention Required



- The albumin reduction is reversible after treatment discontinuation or dose reduction
- Trend of dose-dependence
- No clinical intervention required
- No discontinuation due to albumin reduction

Batoclimab Phase 2 Study for the Treatment of gMG Shows Compelling
 Overall Efficacy and Safety Profile

Compelling overall efficacy and safety profile



Robust, dose-dependent IgG reduction consistent with previous reports



Fast, substantial and persistent clinical improvements



Well-tolerated, mild changes in albumin and total cholesterol are manageable and reversible

Batoclimab Phase 2 Study for the Treatment of gMG Provides First Clinical Study Evidence of Anti-FcRn Therapies in Chinese Patients

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