GB-0895, a High-Affinity Anti-TSLP Antibody, Demonstrates Potent and Sustained Pharmacological Activity in Adults with COPD

Generate:Biomedicines℠

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Background & Objectives

- TSLP, an alarmin, drives airway inflammation and is a validated therapeutic target in severe respiratory disease.
- **Generate:Biomedicines developed GB-0895**, a next-generation human monoclonal antibody (mAb) against TSLP, with the following properties to achieve a dosing regimen of a single subcutaneous (SC) injection every 6 months:
  - ~20-fold higher affinity for TSLP compared with tezepelumab
  - YTE Fc modifications for an extended half-life
- GB-0895-101 is an ongoing Phase 1, randomized, placebo-controlled study investigating single ascending doses (SAD-Part A) or multiple ascending doses (MAD-Part B) of GB-0895 or placebo administered SC in participants with mild-to-moderate asthma or a single dose in participants with chronic obstructive pulmonary disease (COPD-Part C). Blinded data from COPD participants are presented here.

Objectives

- Safety, tolerability, and immunogenicity
- Pharmacokinetics (PK)
- Pharmacodynamic (PD) biomarkers consistent with TSLP inhibition

Study Design & Participants

Population

- Physician-diagnosed COPD ≥12 months on ≥1 maintenance inhaler with at least 1 maintenance inhaler (e.g., LABA and/or LAMA ± ICS) for ≥3 months before enrollment
- Post-BD FEV_1/FVC <0.70 and FEV_1 40–85% predicted
- BEC ≥200 cells/μL
- CAT ≥10
- ≥10 pack-year current/former smokers

Participant Dosing

(3:1 randomization), (N=40)

GB-0895 doses 300 mg (n=15), 600 mg (n=15), Placebo (n=10)

Participant Disposition

39 remain on study, 1 discontinued (lost to follow-up)

- All COPD participants completed ≥ 10 months follow-up post dose.

Results

Baseline disease characteristics.

Characteristic	300 mg (N=20)	600 mg (N=20)	Total (N=40)
Age, mean yrs	66.1	66.0	66.1
Male, n (%)	14 (70.0)	13 (65.0)	27 (67.5)
FEV_1 % pred (Pre-BD dose)*	58.0 (14.68)	57.4 (14.57)	57.7 (14.44)
Current smoker, n (%)	8 (40)	13 (65)	21 (53)
BEC (cells/μL)*	421.0 (368.99)	325.0 (153.74)	373.0 (283.22)
FeNO (PPB)*	32.4 (41.42)	16.2 (13.33)	24.3 (31.45)
CAT Total Score*	21.1 (7.61)	21.5 (7.56)	21.3 (7.49)

Abbreviations: BD = bronchodilator; BEC = blood eosinophil count; COPD = chronic obstructive pulmonary disease; FeNO = fractional exhaled nitric oxide; FEV1 = forced expiratory volume in 1 second; PPB = parts per billion. Notes: *mean(SD). Data cutoff: 27Jul2026

GB-0895 is well-tolerated in COPD participants with no treatment-related SAEs.

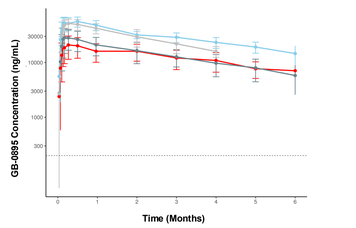
Participant Incidence of:	GB-0895 300mg/placebo (N=20)	GB-0895 600mg/placebo (N=20)	Total GB-0895/placebo (N=40)
Any TEAE	17 (85.0%)	12 (60.0%)	29 (72.5%)
Any serious TEAE	2 (10.0%)	3 (15.0%)	5 (12.5%)
Any ISR*	2 (10.0%)	1 (5.0%)	3 (7.5%)

Abbreviations: COPD = chronic obstructive pulmonary disease; TEAE = Treatment emergent adverse event; ISR = Injection Site Reaction; SAE = Serious adverse event.
Notes:*ISRs include AEs reported under the MedDRA High Level Term 'Injection Site Reactions'. Data cutoff: 27Jul2026

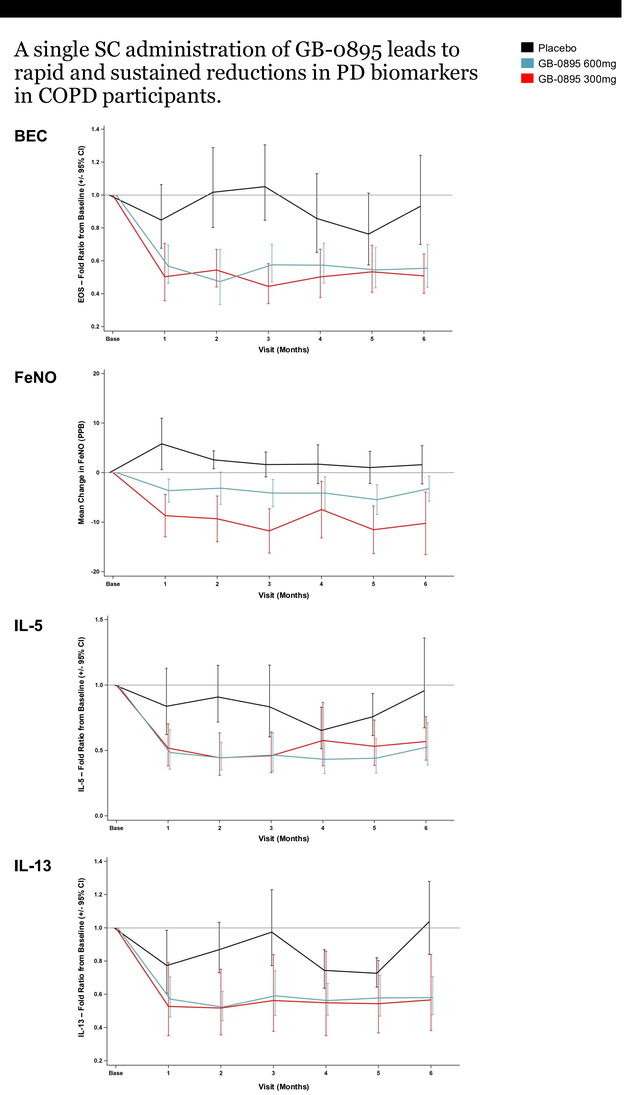
- Blinded results by cohort; GB-0895 and placebo safety data were pooled within each cohort.
- Most common TEAEs (>5% incidence in Total group; > 2 participants]): COPD (17.5%), nasopharyngitis (17.5%), URTI (15.0%), oropharyngeal pain (7.5%), lower respiratory tract infection (7.5%), back pain (7.5%), ISR (7.5%), headache (7.5%), urinary tract infection (7.5%).
- 6 SAEs were reported (in 5 participants), none Grade >3, all not related to GB-0895/placebo.
- Majority of TEAEs were mild-moderate in severity (Grade 1-2); ISRs all Grade 1.

GB-0895 shows a comparable PK profile between asthma and COPD.

- GB-0895's half-life is ~98 days at 300 mg based on asthma data.
- No evidence of target-mediated GB-0895 disposition.
- No evidence of anti-drug antibodies (ADA) impacting GB-0895 half-life.



A single SC administration of GB-0895 leads to rapid and sustained reductions in PD biomarkers in COPD participants.



Fold ratio of geometric means from baseline by dose ±95% CI are presented; for FeNO: mean change from baseline is presented. One participant was excluded from the PD data presented because baseline biomarker values were statistically identified as outliers based on the pooled baseline distribution across all groups. Analyses including this participant do not alter the conclusions regarding the PD results. The complete data, including analyses with and without this participant, were previously provided to regulatory authorities. Data cutoff: 27Jul2026

Conclusions

- GB-0895 is well-tolerated in COPD participants with the majority of TEAEs mild or moderate in severity.
- GB-0895 demonstrates a sustained dose-proportional PK with a half life of~ 98 days.
- As early as Month 1, reductions from baseline in BEC, FeNO, IL-5, and IL-13 were observed which were sustained for at least 6 months.
- GB-0895 300 mg provides comparable PD biomarker suppression with the 600 mg dose.
- A single SC dose of GB-0895 exhibits broad and durable anti-inflammatory activity, associated with TSLP inhibition, in COPD participants with an elevated blood eosinophil count that is sustained for at least 6 months.

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