Rapid and Sustained Improvements with CBP-201 Across All Body Regions: Treatment of Atopic Dermatitis in a Phase 2b, Randomized, Double-blind, Placebo-controlled Trial (CBP-201-WW001)

Jonathan I Silverberg[1], Malinda Longphre[2], Jang Yun[2], Zheng Wei[2], Chin Lee[2], Raúl Collazo[2]

[1]The George Washington University, Washington DC; [2]Connect Biopharma, San Diego, CA, and Suzhou, China.

Background

- CBP-201 is a next-generation mAb targeting IL-4Rα, inhibiting the actions of both IL-4 and IL-13
- In the WW001 Phase 2b AD trial, adults with moderate-to-severe AD were randomized to SC CBP-201 (300 mg Q2W, N=57; 300 mg Q4W, N=56) or placebo (N=56) for 16 weeks
- In the primary analysis, CBP-201 demonstrated rapid and sustained reductions in AD severity and extent, without plateauing, based on EASI total scores and other rating scales[1,2]
- In real-world studies of adults with AD:
  - High pain scores were reported in plantar, chest, and palmar areas[3]
  - QoL was most affected in patients with lesions in visible areas, including head/neck, hands, and upper limbs[4]
  - Symptoms on the head/neck and lower limbs were associated with inadequate control[5]

Objective

Here we investigated the efficacy of CBP-201 by body region in *post hoc* analyses of the WW001 Phase 2b trial of adults with moderate-to-severe AD (NCT04444752)

Methods

- We conducted *post hoc* analyses on predetermined body regions
- Endpoints:
  - change from baseline in EASI total score at Week 2 and 16
  - change from baseline in EASI subscores at Week 16
  - EASI response rates at Week 16

1. Head and neck
2. Trunk
3. Upper limbs
4. Lower limbs

References: 1. Strober et al. 18th Maui Derm 2022, Maui, HI, USA. 2. Strober et al. Poster 470, 31st EADV 2022, Milan, Italy. 3. Thyssen et al. Br J Dermatol. 2020;182(6):1430-6. 4. Lio et al. J Drugs Dermatol. 2020;19(10):943–8. 5. Wei et al. J Dermatol. 2018;45(2):150–7. Abbreviations: AD, atopic dermatitis; ANCOVA, analysis of covariance; EASI, Eczema Area and Severity Index; LOCF, last observation carried forward; LS, least squares; mAb, monoclonal antibody; Q2/4W, every 2/4 weeks; QoL, quality of life; SE, standard error.

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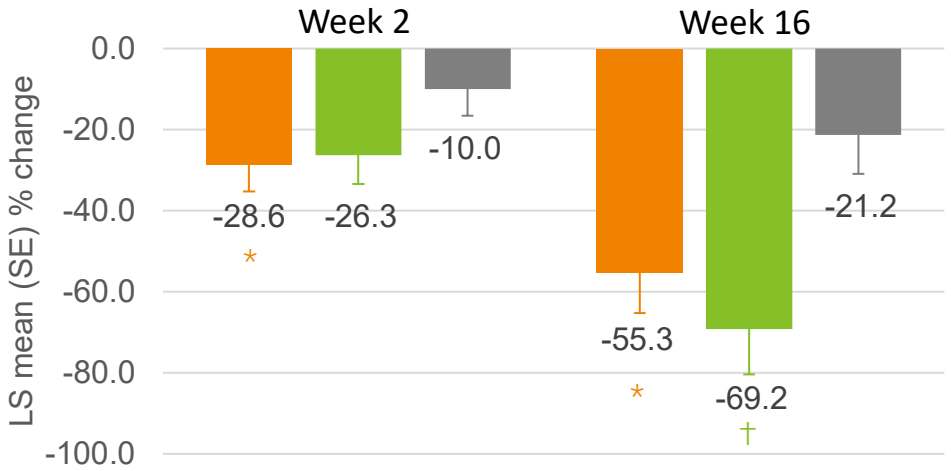
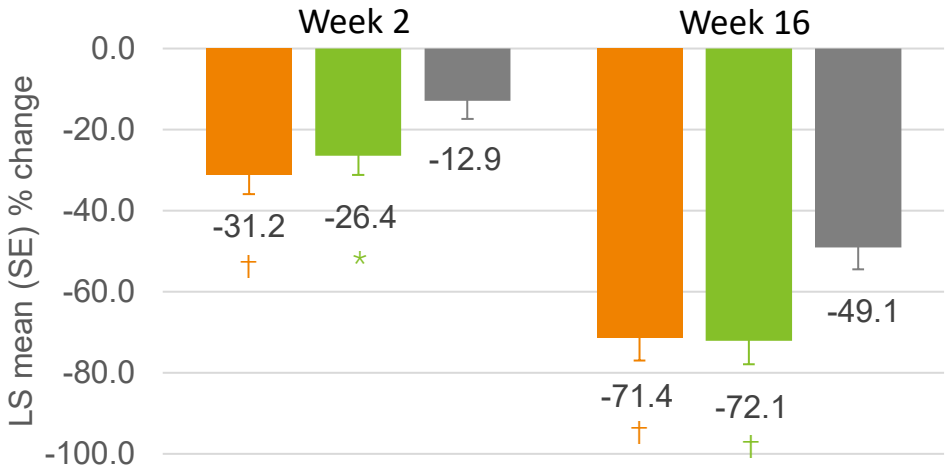
Change from baseline in EASI total scores at Weeks 2 and 16

Rapid and sustained improvements were observed in AD signs by body region

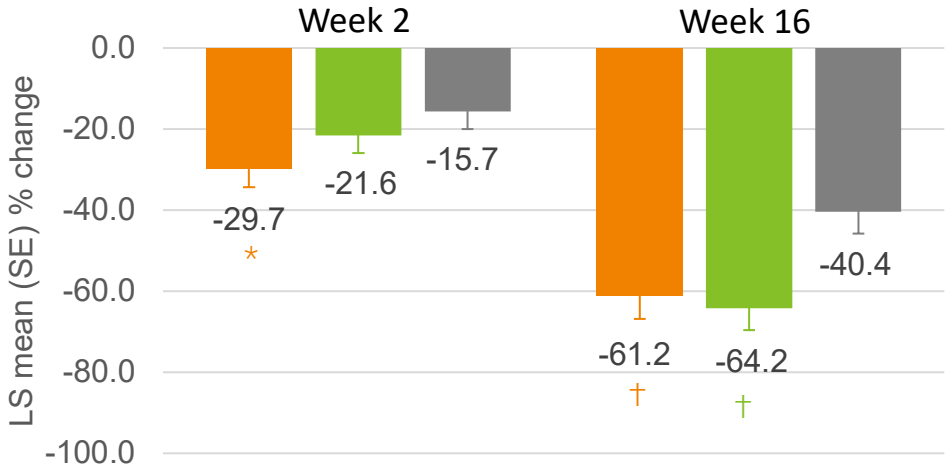
Head and neck



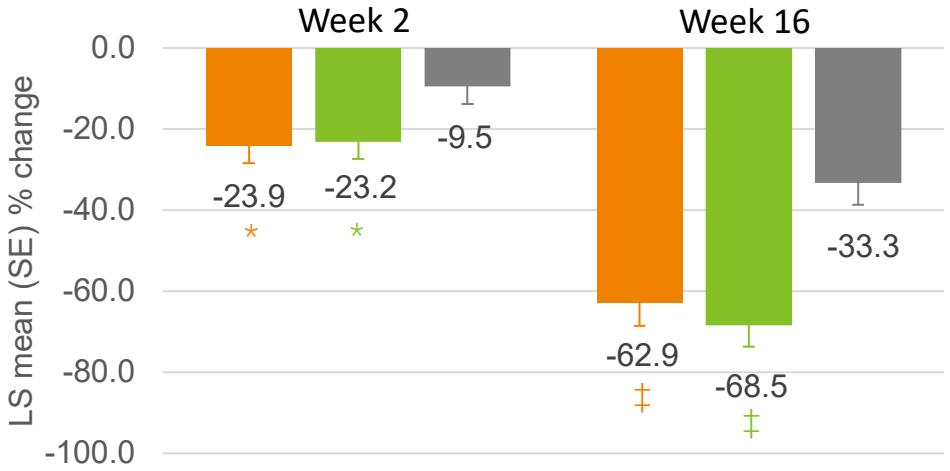
Trunk



Upper limbs



Lower limbs



EASI total scores were weighted for percent BSA per body region

300 mg Q2W (N=57)

300 mg Q4W (N=56)

Placebo (N=56)

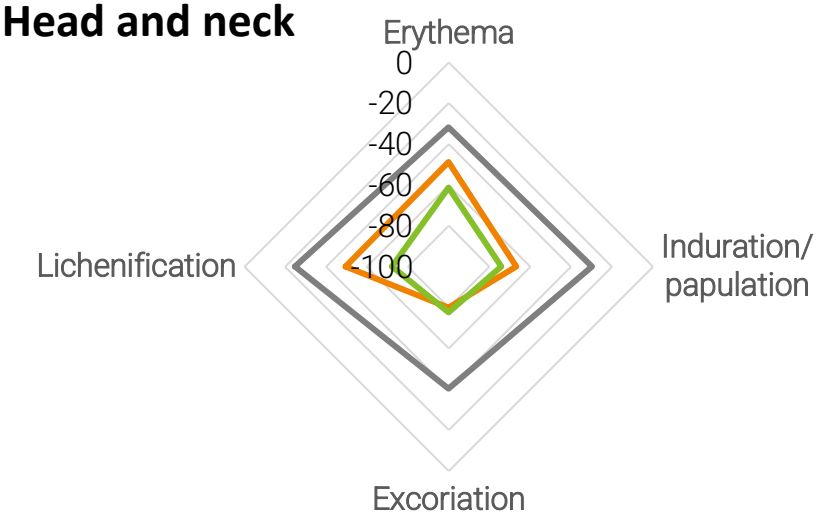
*p<0.05, †p<0.01, ‡p<0.001 vs placebo, ANCOVA (LOCF)

Footnote: Data was analyzed using the ANCOVA model, with treatment, baseline IGA (moderate, severe) and baseline EASI as covariates. Abbreviations: AD, atopic dermatitis; ANCOVA, analysis of covariance; BSA, body surface area of AD involvement; EASI, Eczema Area and Severity Index; IGA, Investigator Global Assessment; LOCF, last observation carried forward; LS, least squares; Q2W, every 2 weeks; Q4W, every 4 weeks; SE, standard error.

Change from baseline in EASI subscores at Week 16

Improvements were observed in individual AD signs by body region

Head and neck



Trunk

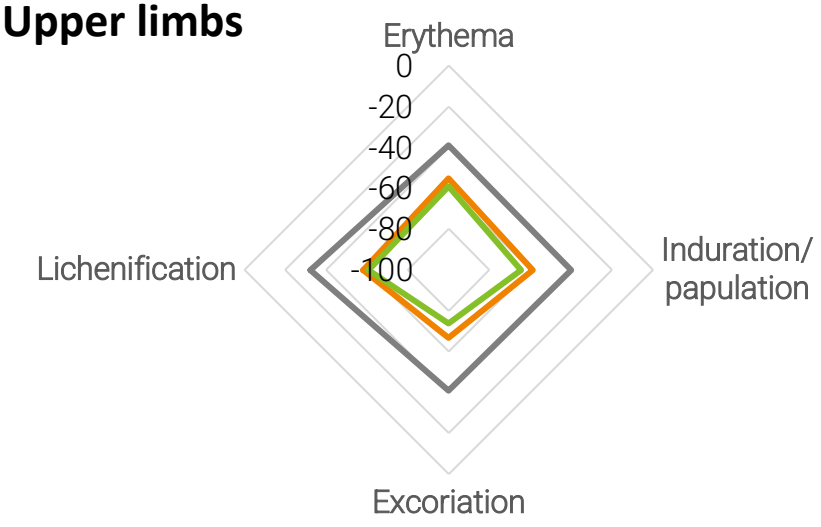
In these spider diagrams, a corner closer to the center indicates greater LS mean % reduction in EASI subscore

300 mg Q2W (N=57)

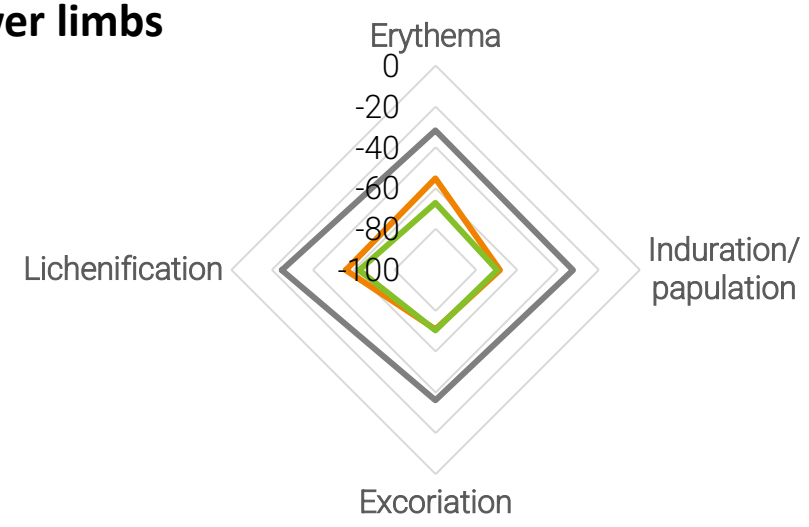
300 mg Q4W (N=56)

Placebo (N=56)

Upper limbs



Lower limbs



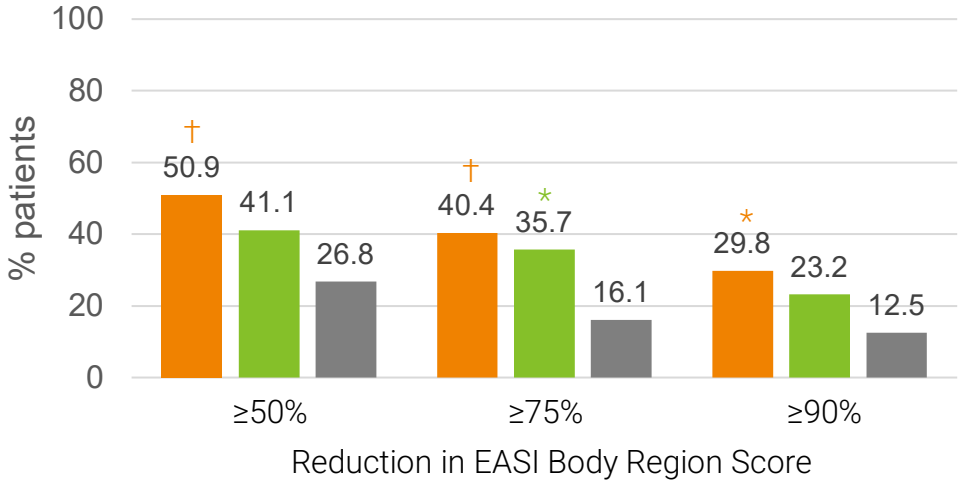
Most EASI subscore reductions were statistically significant vs placebo when analyzed by ANCOVA (LOCF)

Footnote: Data was analyzed using the ANCOVA model, with treatment, baseline IGA (moderate, severe) and baseline EASI as covariates. Abbreviations: AD, atopic dermatitis; ANCOVA, analysis of covariance; EASI, Eczema Area and Severity Index; IGA, Investigator Global Assessment; LOCF, last observation carried forward; LS, least squares; Q2W, every 2 weeks; Q4W, every 4 weeks.

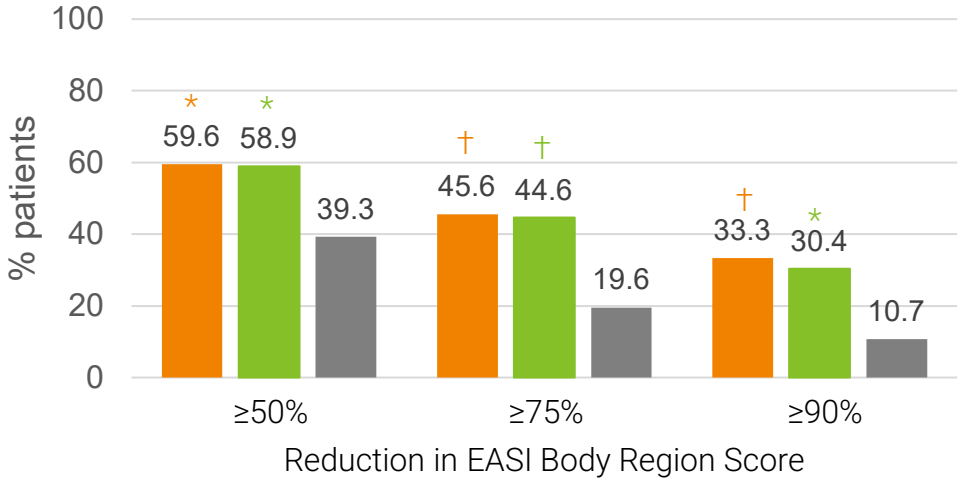
Patients with ≥50%/75%/90% reductions in EASI total scores at Week 16

Improvements were observed in EASI response rates by body region

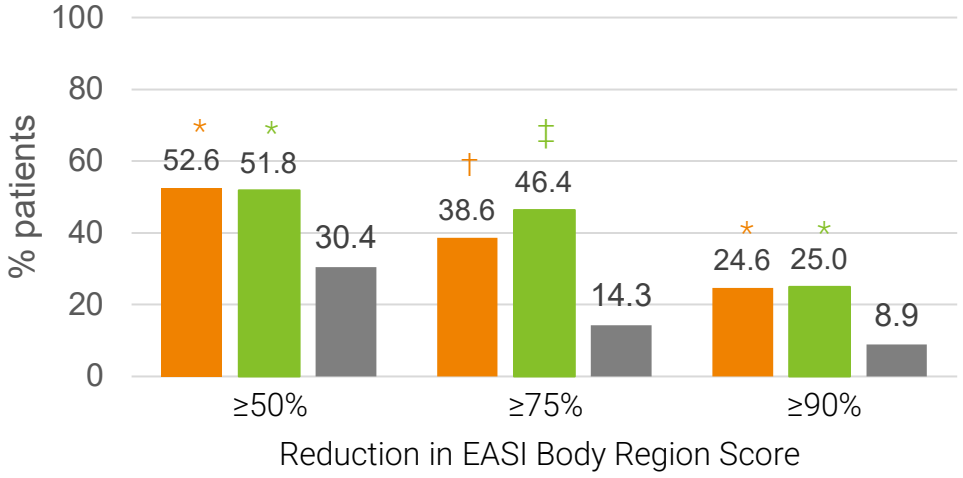
Head and neck



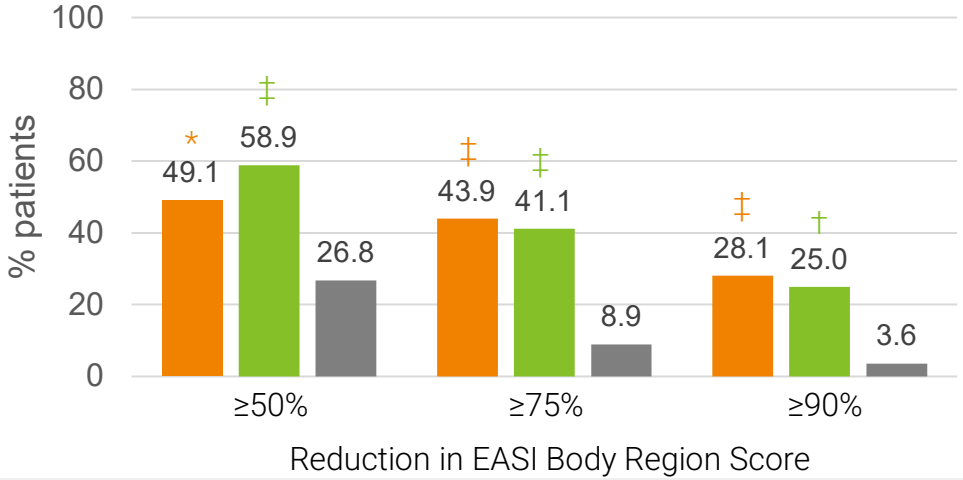
Trunk



Upper limbs



Lower limbs



300 mg Q2W (N=57)

300 mg Q4W (N=56)

Placebo (N=56)

*p<0.05, †p<0.01, ‡p<0.001 vs placebo, Pearson Chi-Square test (NRI)

Abbreviations: EASI, Eczema Area and Severity Index; NRI, non-responder imputation; Q2W, every 2 weeks; Q4W, every 4 weeks.

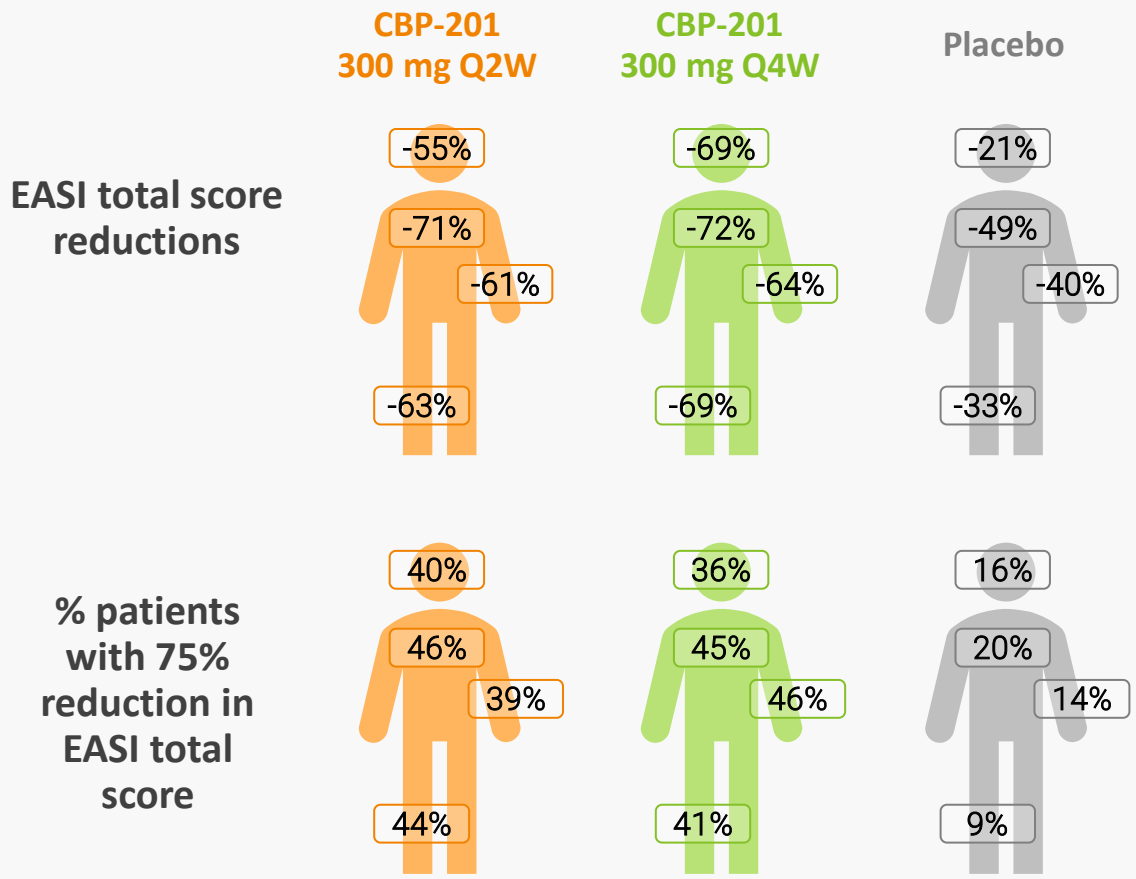
Summary

- In the primary analysis, CBP-201 was associated with rapid and sustained reductions in EASI total scores through to Week 16, without plateauing[1,2]
- In these *post hoc* analyses, comparable improvements per body region were observed in:
  - Overall AD signs (EASI total scores)
  - Individual AD signs (EASI subscores)
  - EASI response rates
- AD symptoms on the head/neck are associated with particularly poor QoL and inadequate control[3,4]
- EASI score reductions at Week 16 in the head and neck were numerically greater during treatment with CBP-201 than in other *post hoc* analyses with abrocitinib and dupilumab, when adjusted for placebo responses[5]

Disclosures

Prof Silverberg: Advisor, speaker, or consultant for AbbVie Inc., AFYX, Arena, Asana, BiomX, Bluefin, Bodewell, Boehringer Ingelheim, Celgene Corporation, Dermavant, Dermira, Eli Lilly, Galderma, GlaxoSmithKline, Hoth, Incyte, Kiniksa, Leo Pharma, Luna, Menlo Therapeutics, Novartis, Pfizer, RAPT, Regeneron Pharmaceuticals, and Sanofi. Researcher for Galderma.All other authors are current or former employees of the study sponsor, Connect Biopharma. Writing support was provided by Michael Jonathan Riley, PhD, Fortis Pharma Consulting, with financial support by Connect Biopharma.

Summary of LS mean percent reduction in EASI total scores, and EASI response rates, at Week 16, by body region



References: 1. Strober et al. 18th Maui Derm 2022, Maui, HI, USA. 2. Strober et al. Poster 470, 31st EADV 2022, Milan, Italy. 3. Lio et al. J Drugs Dermatol. 2020;19(10):943–8. 4. Wei et al. J Dermatol. 2018;45(2):150–7. 5. Alexis et al. Dermatol Ther (Heidelb). 2022;12(3):771–85. Abbreviations: AD, atopic dermatitis; EASI, Eczema Area and Severity Index; LS, least squares; Q2W, every 2 weeks; Q4W, every 4 weeks.