

Jasper Therapeutics



BEACON & OLE Data Update
January 8, 2026

Safe Harbor Statements

Forward-Looking Statements

This investor presentation and any accompanying oral presentation (together, this “Presentation”) contain forward-looking statements. All statements other than statements of historical fact contained in this Presentation, including statements regarding the future opportunities and prospects of Jasper Therapeutics, Inc. (together with its subsidiary, "Jasper" or the "Company"), including milestones, potential regulatory filings and the anticipated timing thereof, patient enrollment, future timelines, business strategy, and plans and objectives for future operations, are forward-looking statements. Jasper has based these forward-looking statements on its estimates and assumptions and its current expectations and projections about future events. These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including those contained in the "Risk Factors" section of the Company's Annual Report on Form 10-K for the year ended December 31, 2024, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K that the Company has subsequently filed or may subsequently file with the SEC. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this Presentation are inherently uncertain and may not occur, and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements. Accordingly, you should not rely upon forward-looking statements as predictions of future events. Jasper undertakes no obligation to update publicly or revise any forward-looking statements for any reason after the date of this Presentation or to conform these statements to actual results or to changes in Jasper's expectations.

Industry and Market Data

Certain data in this Presentation was obtained from various external sources, and neither the Company nor its affiliates, advisers or representatives has verified such data with independent sources. Accordingly, neither the Company nor any of its affiliates, advisers or representatives makes any representations as to the accuracy or completeness of that data or undertakes any obligation to update such data after the date of this Presentation. Such data involves risks and uncertainties and is subject to change based on various factors.

Trademarks

The trademarks included herein are the property of the owners thereof and are used for reference purposes only. Such use should not be construed as an endorsement of the products or services of the Company.

Briquilimab continues to demonstrate differentiated efficacy & safety profile

New BEACON and OLE data support advancing into a Phase 2b CSU study in 2H 2026

Briquilimab's unique drug properties allow for rapid clinical efficacy while minimizing KIT related AEs

- Briquilimab's MOA (direct ligand/receptor blockade) and high C_{max} leads to rapid mast cell depletion with deep UAS7 reduction and disease control in first 2-4 weeks
- Drug clearance near end of 8 week dosing cycle allows for reduction of KIT related AEs and improved profile for patients

Briquilimab continues to demonstrate rapid and durable clinical responses

- 10 additional patients enrolled in the BEACON study
 - Eight (6 briquilimab + 2 placebo) in Cohort 9.1(240mg →180mg Q8W) and 2 in Cohort 8.1(240mg Q8W)
- New Cohort 9.1: 83% (5 of 6) of briquilimab patients achieved a CR by week 3, with 67% (4 of 6) CRs at 12 weeks

Briquilimab was well tolerated and demonstrates a favorable chronic safety profile

- OLE (n=63, 180mg Q8W median duration > 200 days) shows deepening efficacy with low incidence of KIT related AEs

Data support commencing a Phase 2b study as part of a CSU registrational program in 2H 2026

- Phase 2b study expected to be a 75-100 patient multi-site study evaluating two effective dose regimens vs. placebo



+

Open-Label
Extension Study

BEACON & OLE Data Update

Dr. Daniel Adelman, Acting CMO Jasper Therapeutics

January 2026 BEACON Study & OLE Study Data Update

Briquilimab continues to demonstrate rapid and durable clinical responses

- **BEACON Cohort 9.1 patients reaffirms strong efficacy and safety profile**
 - Mean reduction in UAS7 scores of 31 points at week 12
 - Rapid onset of effect with CR or well controlled disease reported in the majority of patients by week 2
 - 83% (5 of 6) of patients achieved a CR at week 3 after initial 240mg loading dose
 - 67% (4 of 6) of patients reported a CR at week 12 on the 180mg maintenance dose
- **CIndU OLE - Durable clinical response demonstrated in CIndU patients with repeat-dose briquilimab**
 - 65% (11 of 17) of CIndU patients achieved CR or PR at week 16 (8 weeks from last dose)
- **CSU OLE - Progressive UAS7 reductions over time supports potential for a maintenance dose in CSU**
 - 75% (27 of 36) of patients achieved CR or WC disease at 12 weeks

Briquilimab continues to demonstrate the potential for a differentiated safety profile

Data gathered to-date sufficient to enable final dose selection for CSU Phase 2b study

Phase 1b/2a BEACON Study in Chronic Spontaneous Urticaria

Randomized, Double-Blind, Placebo-Controlled, Multiple Ascending Dose Study



Screening/Eligibility

- CSU diagnosis \geq 6 mos.
- UAS7 \geq 16
- 18+ years
- H1-antihistamine-failed

Study Operations

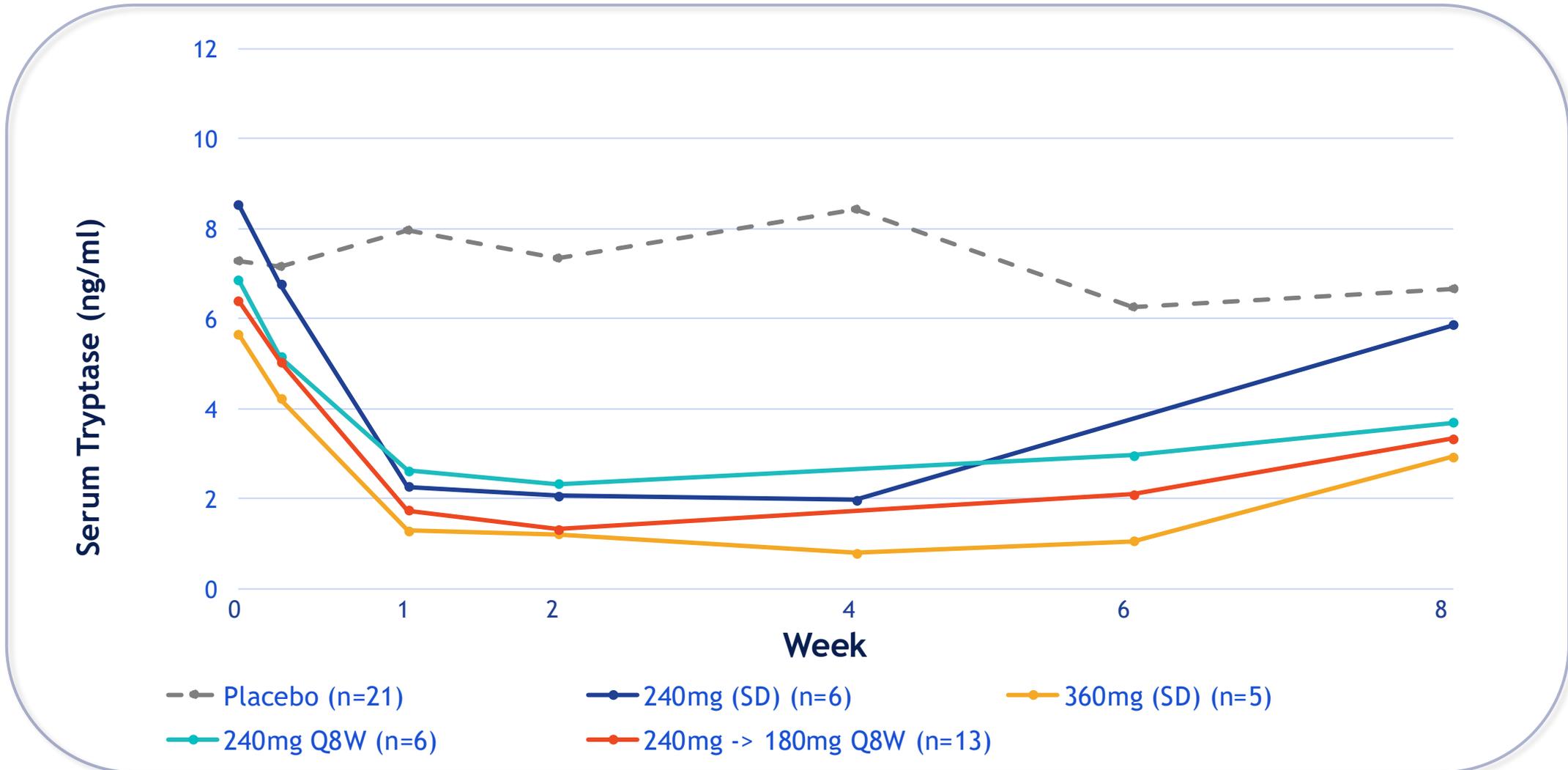
- US Lead: Tom Casale, MD
- EU Lead: Martin Metz, MD
- ~30 sites in the US & EU

Key Assessments

- Disease Scores: UAS7, UCT
- Safety: TEAEs, SAEs
- PK
- Mast Cell Depletion & Recovery: Serum Tryptase, Skin Biopsies

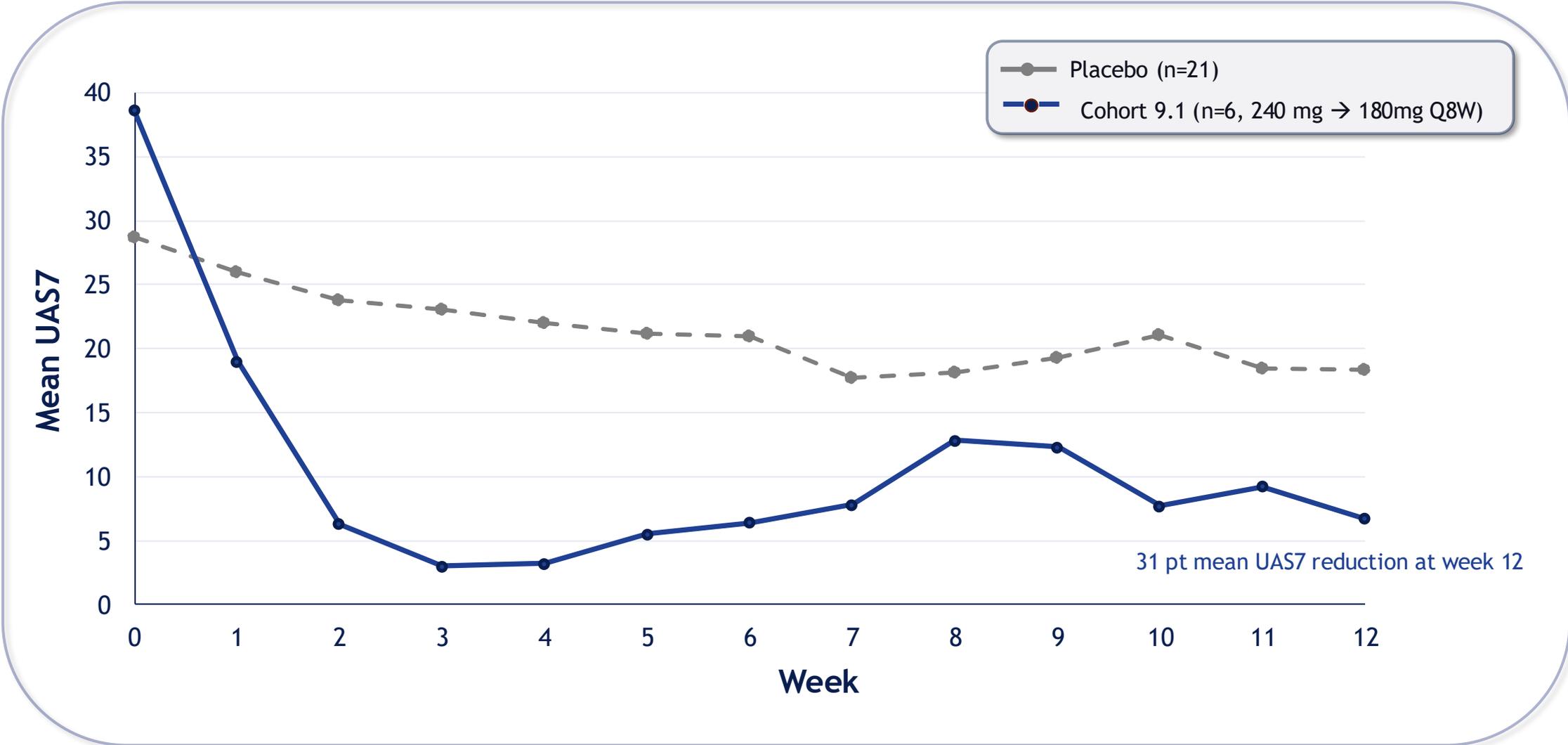
	Cohort #	Patients (Randomization)	Dose	Schedule
Open Label (n=6)	C1 & C2	n=3+3 per dose	10mg & 40mg	Weeks 0, 4, 12, 20
Double-Blind Placebo-Controlled (n=81)	C3	n=8 (3:1)	80mg	Q8W
	C4a	n=6 (2:1)	120mg	Q8W
	C4b	n=6 (2:1)		Q12W
	C5b	n=10 (3:1)	180mg	Q8W
	C5a	n=9 (3:1)		Q12W
	C6	n=8 (3:1)	240mg	Single Dose
	C7	n=6 (3:1)	360mg	Single Dose
	C8	n=9 (3:1)	240mg	Q8W
	C8.1	n=2(3:1)		Q8W
	C9	n=9 (3:1)	240mg \rightarrow 180mg	Single Dose
C9.1	n=8(3:1)	Q8W		

Rapid and deep reductions in tryptase with initial 240mg or higher dose



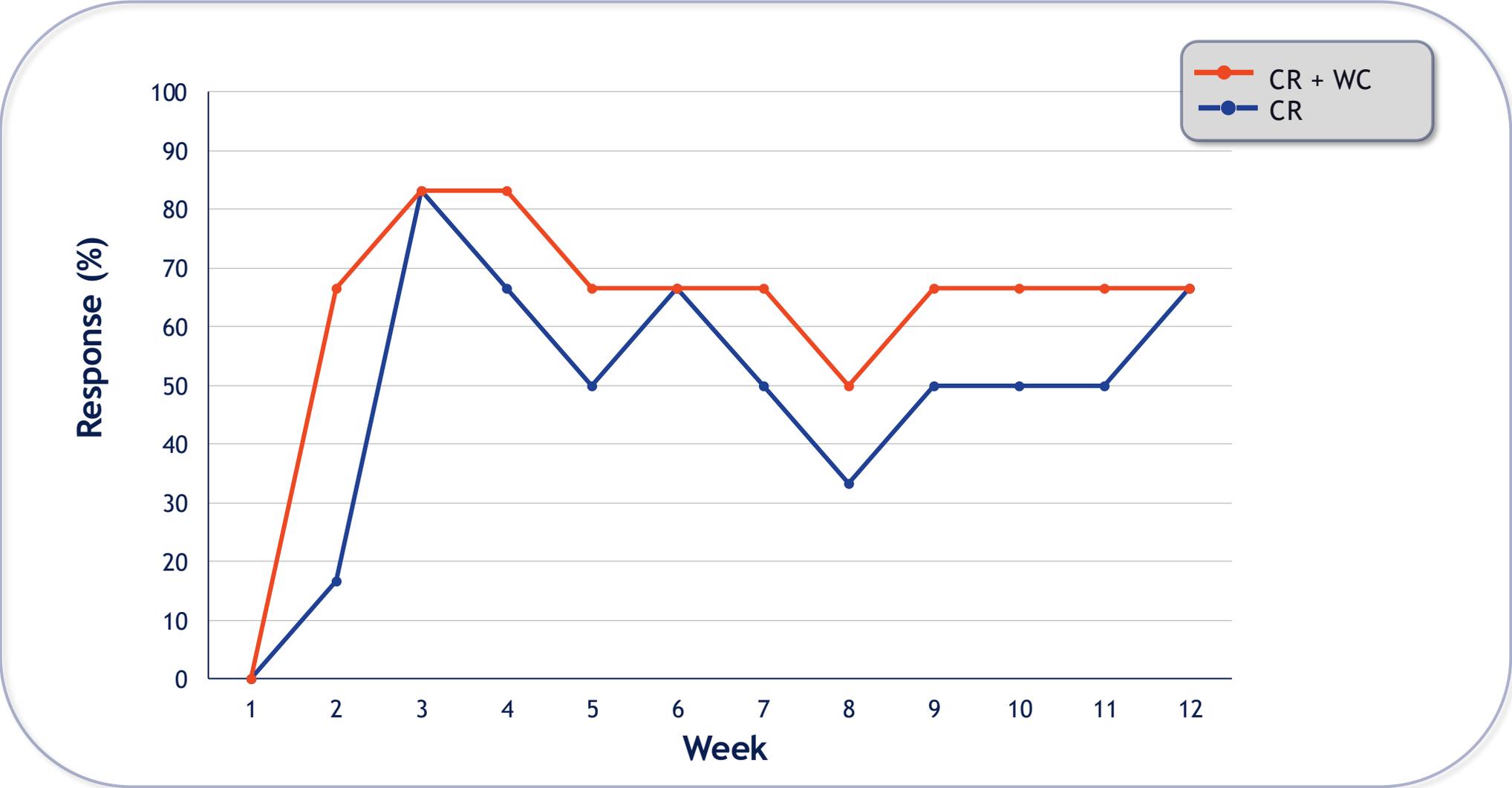
New 240mg/180mg Q8W data demonstrate rapid and sustained UAS7 response

31-point reduction in mean UAS7 score at week 12 with new 9.1 cohort



New 240mg/180mg Q8W patients demonstrate rapid and durable responses

83% of patients with complete response at week 3 (n=6)



Briquilimab well tolerated with favorable safety profile demonstrated



Number of Participants With:	Cohort 5 Pooled 180mg Briquilimab (N=14)	Cohort 6 240mg Briquilimab (N=6)	Cohort 7 360mg Briquilimab (N=5)	Cohort 8 240mg Q8W Briquilimab (N=6)	Cohort 9 240mg→180mg Q8W (N=7)	Cohort 9.1 240mg→180mg Q8W (N=6)	Total Pooled Briquilimab (N=64) ⁴	Total Pooled Placebo (N=21)
Any TEAE	10 (71.4)	6 (100)	4 (80)	3 (50)	5 (71.4)	6 (100)	48 (75)	12 (57.1)
Any Treatment-Related Serious TEAE	1 (7.1) ¹	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (1.6) ¹	0 (0)
Any TEAE Leading to Discontinuation of IP	1 (7.1) ¹	0 (0)	0 (0)	0 (0)	1 (14.3) ²	0 (0)	2 (3.1) ^{1,2}	0 (0)
Any Treatment-Related TEAE ≥ Grade 3	0 (0)	1 (16.7) ³	0 (0)	0 (0)	0 (0)	0 (0)	1 (1.6) ³	0 (0)

Median duration of follow-up: Cohort 8 - 256 days; Cohort 9 - 211 days; Cohort 9.1 - 95 days

Most commonly reported AEs (≥10 participants): nasopharyngitis, neutrophil count decreased, taste disorder, fatigue

¹Single participant, 180mg Q8W, CoFAR grade 2 hypersensitivity reaction

²Single participant, 240mg D1 180mg Q8W, CoFAR grade 2 hypersensitivity reaction

³Single participant with Grade 3 neutrophil count decreased, resolved in 14 days

⁴Total pooled briquilimab includes 10mg (n=3), 40mg (n=3), 80mg (n=6) and 120mg (n=8)

Safety/tolerability observations possibly related to KIT blockade were generally limited to low grade events

Majority resolved during repeat dosing and none resulted in discontinuations or dose delays

Adverse Event as reported term	Cohort 5 Pooled 180mg Briquilimab (N=14)	Cohort 6 240mg Briquilimab (N=6)	Cohort 7 360mg Briquilimab (N=5)	Cohort 8 240mg Q8W Briquilimab (N=6)	Cohort 9 240mg→180mg Q8W (N=7)	Cohort 9.1 240mg→180mg Q8W (N=6)	Total Pooled Briquilimab (N=64) ⁴	Pooled Placebo (N=21)
Hair color changes	2 (14.3%)	0 (0%)	0 (0%)	1 (16.7%)	0 (0)	0 (0)	5 (8.8%)	1 (4.8%)
Skin discoloration	0 (0)	0 (0)	0 (0)	1 (16.7) ³	0 (0)	0 (0)	1 (1.6) ³	1 (4.8)
Taste change ⁵	1 (7.1)	3 (50)	2 (40)	0 (0)	2 (28.6)	1 (16.7)	11 (17.2) ¹	1 (4.8)
Neutrophil count decreased	3 (21.4)	5 (83.3)	2 (40)	0 (0)	2 (28.6)	1 (16.7)	15 (23.4) ²	2 (9.5)

Median duration of follow-up: Cohort 8 - 256 days; Cohort 9 - 211 days; Cohort 9.1 - 95 days

¹ Median time to resolution of taste change in briquilimab-treated participants was 54 days
² Median time to resolution of Neutrophil count decreases in briquilimab-treated participants was 15 days
³ Single participant with skin discoloration described as hyperpigmentation
⁴ Total pooled briquilimab includes 10mg (n=3), 40mg (n=3), 80mg (n=6) and 120mg (n=8)
⁵ Includes reported terms of taste disorder, hypogeusia, and dysgeusia.

Jasper Chronic Urticaria Open Label Extension Study (JSP-CP-014)

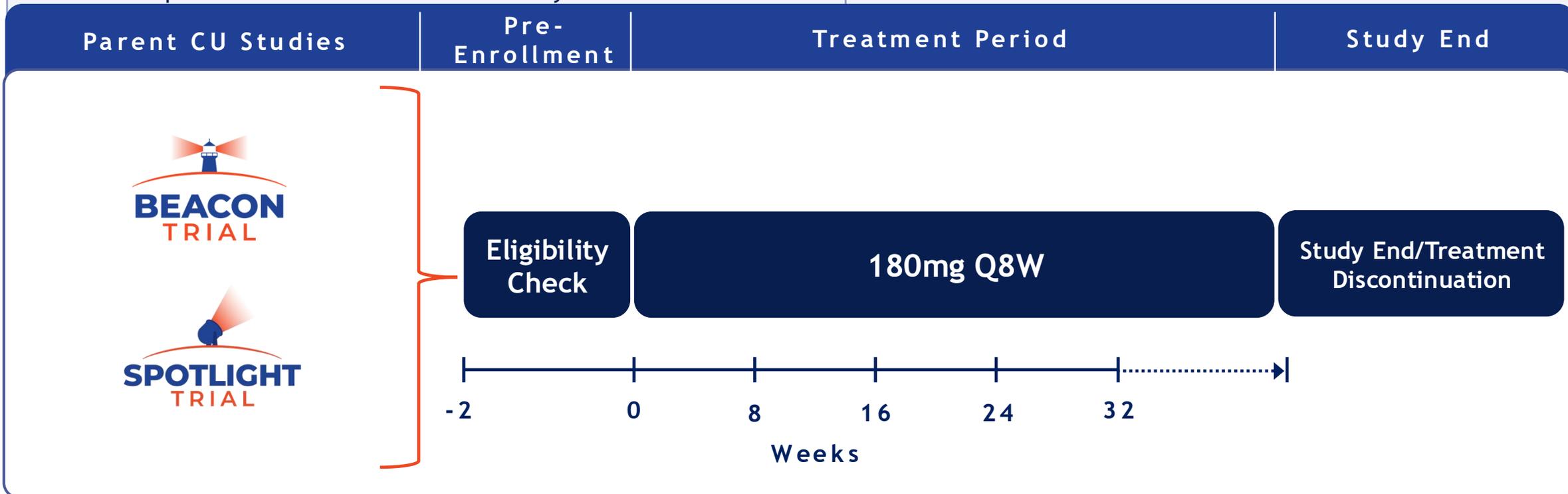
Enrolling patients from the BEACON and SPOTLIGHT studies

Screening/Eligibility

- To enroll, patients from BEACON/SPOTLIGHT must either:
 - Wait for symptoms to return following dosing (defined as UAS7 \geq 16 for CSU, UCT \leq 12 for CIndU)
 - OR complete the BEACON/SPOTLIGHT study

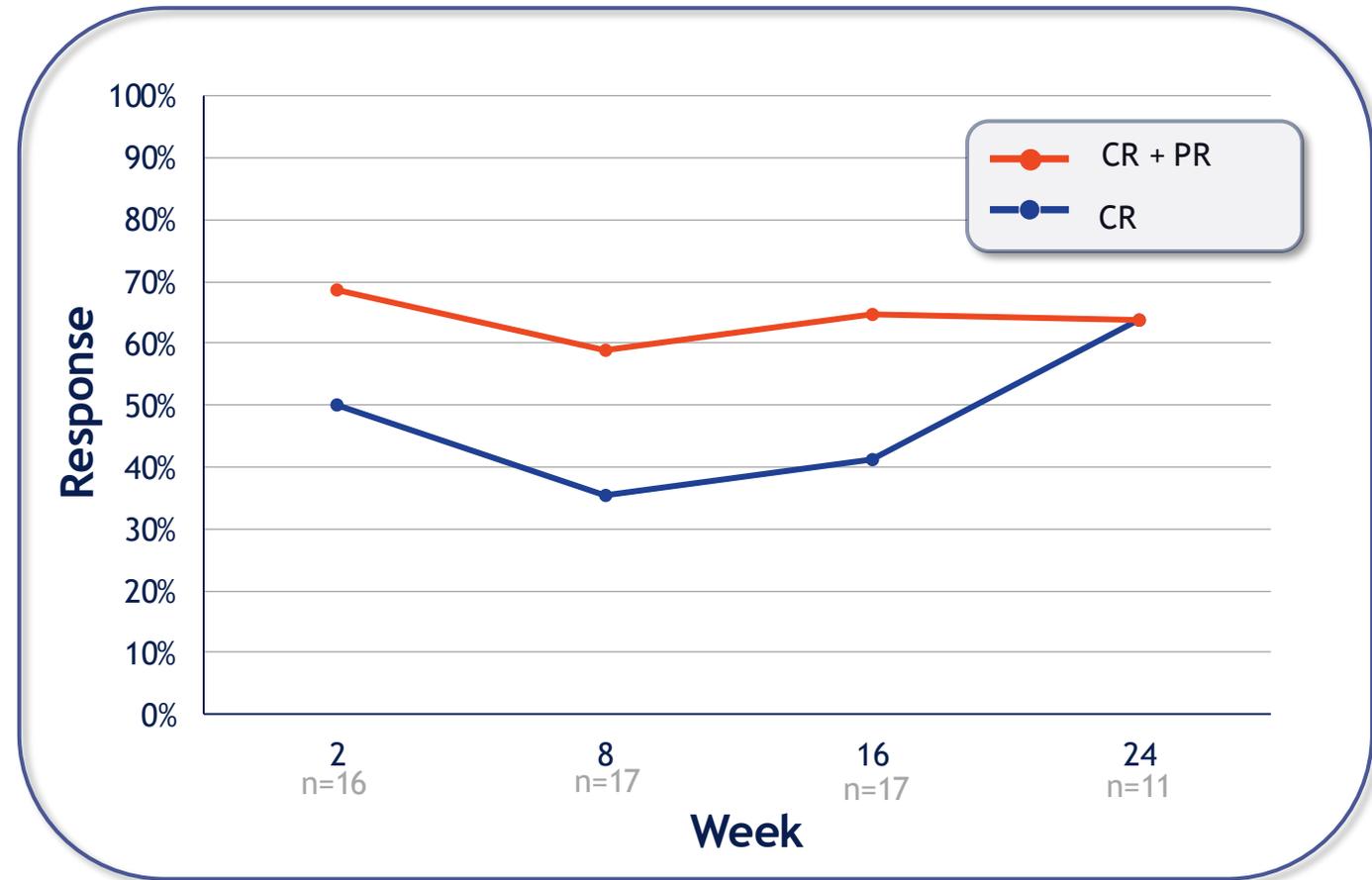
Key Objectives/Enrollment Target

- Generate additional safety, efficacy and durability at 180mg Q8W dose schedule for both CSU and CIndU programs



CIndU OLE: Clinical responses maintained at 24 weeks with 180mg Q8W

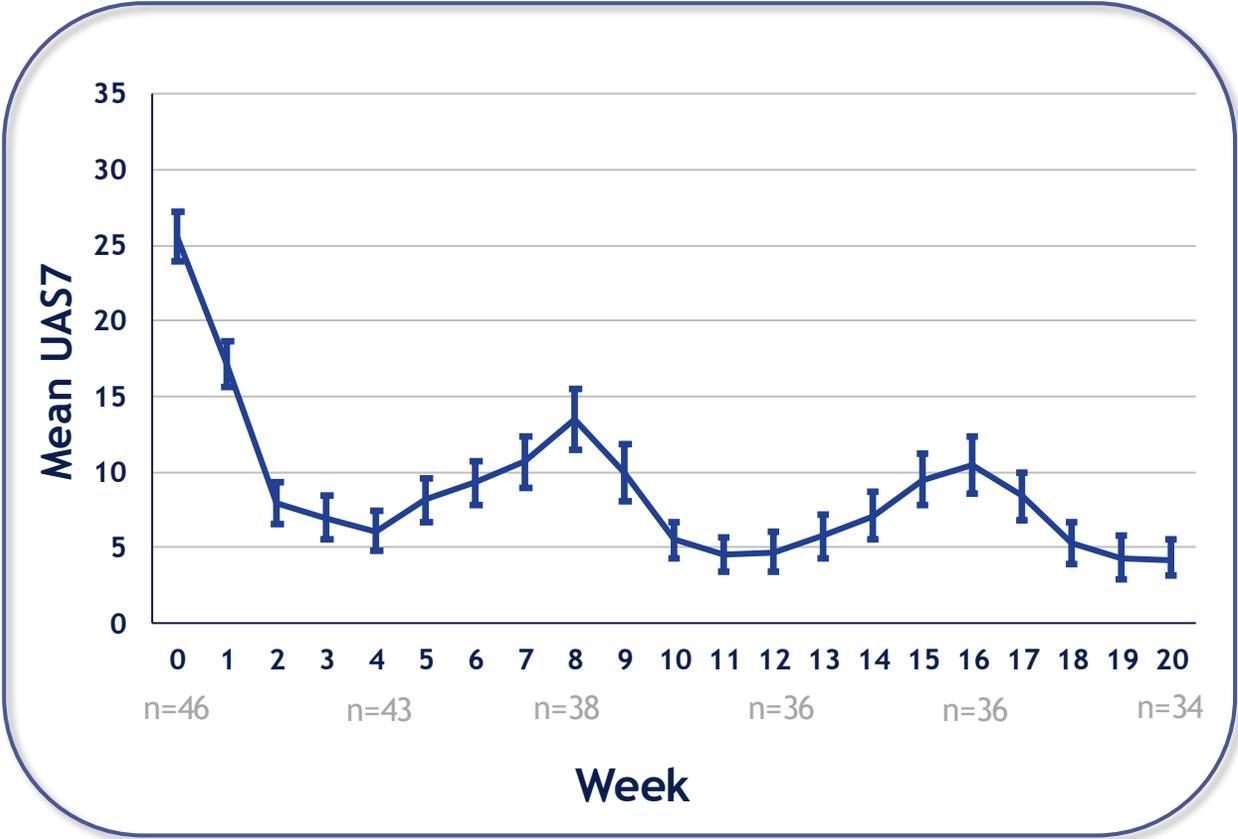
- 17 CIndU patients rolled over from SPOTLIGHT
- Continued to observe a rapid onset of effect:
 - 11 of 16 patients (69%) achieved either CR or PR by week 2
- Durable effect even at 8 weeks post-dose
 - 11 of 17 patients (65%) maintained clinical response even at week 16
 - Challenge preformed prior to next dose



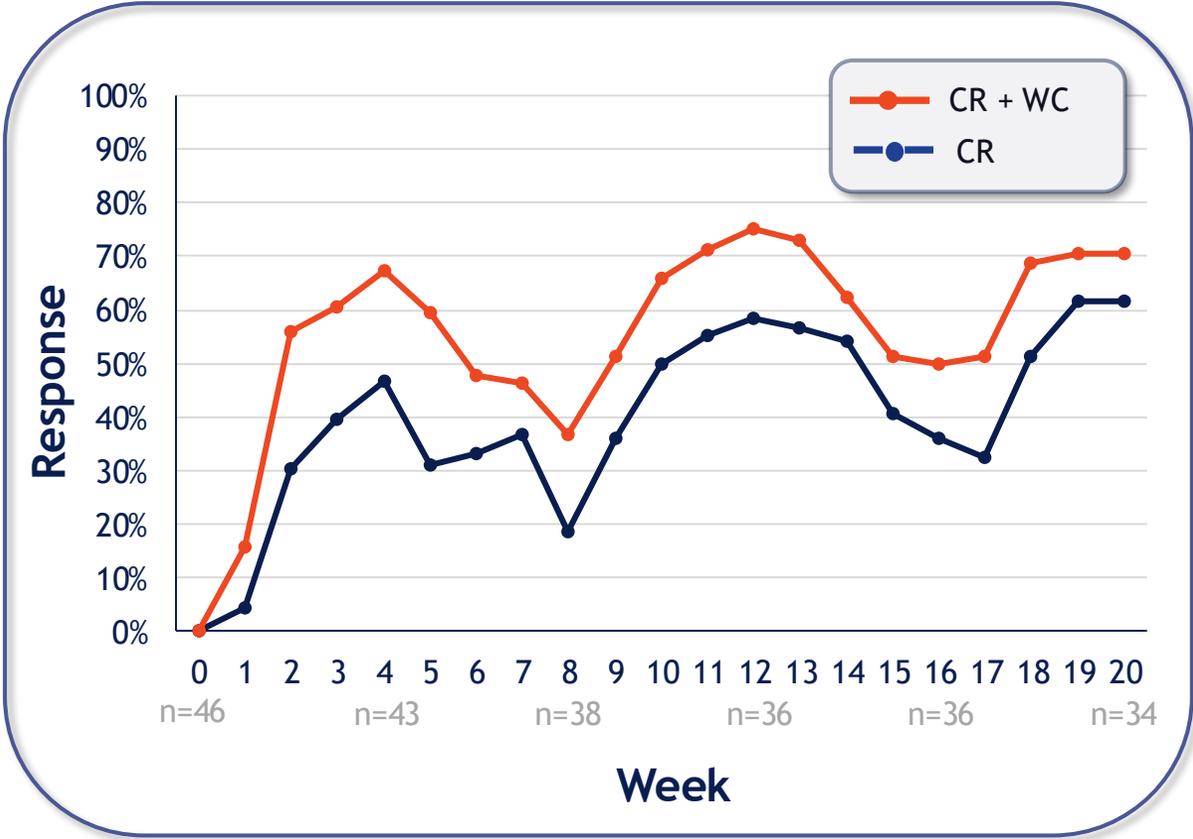
CR: TFS (Total Fric Score)=0 or CTT (Critical Temperature Threshold) \leq 4^oC
PR: TFS reduction of 2 or more from baseline or reduction of 4^oC or more in CTT

CSU OLE: Continues to show increasing efficacy over time at 180mg Q8W

22.4 pt reduction in UAS7 at week 12 and 62% Complete Response rate observed at week 20



UAS7 data are presented as mean ± SEM



Briquilimab well tolerated with favorable safety profile in the OLE study

Low rate of safety/tolerability observations possibly related to KIT blockade in OLE

	Briquilimab 180mg Q8W (n=63)		Briquilimab 180mg Q8W (n=63)
Any Adverse Event*	39 (61.9%)	Hair color change	1 (1.6%)
Any Serious Adverse Event	2 (3.2) ¹	Skin discoloration	2 (3.2) ³
Any adverse event leading to discontinuation	1 (1.6) ²	Taste disorder/hypogeusia	8 (12.7)
Adverse event leading to death	0 (0)	Neutrophil count decreased	2 (3.2) ⁴
Any Treatment-Related TEAE ≥ Grade 3	0 (0)	WBC count decreased	1 (1.6) ⁵

Median duration of follow up: 205 days

*AEs occurring in ≥3 participants: nasopharyngitis, taste disorder, CoVID 19, fatigue

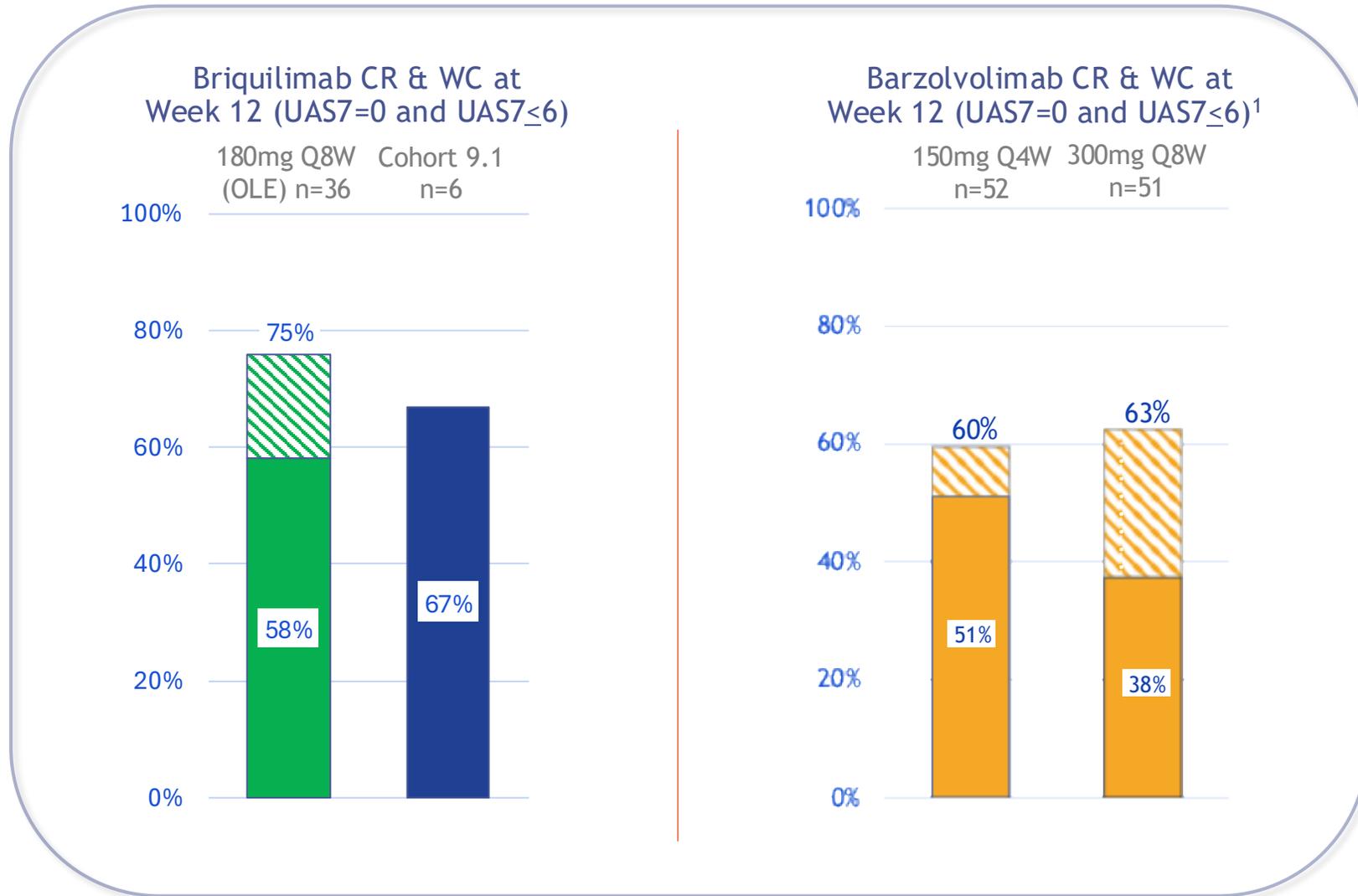
1. One case of large bowel obstruction, one case of breast injury, both unrelated
2. Grade 1 hypogeusia, related
3. Both reported as skin hyperpigmentation
4. One case related, one case unrelated to treatment. Both cases resolved while on treatment.
5. One case related, resolved while on treatment

The background features a stylized globe with a grid of latitude and longitude lines. The globe is rendered in shades of light blue and white, with a soft, ethereal glow. The text is centered over the globe.

Conclusion and Next Steps

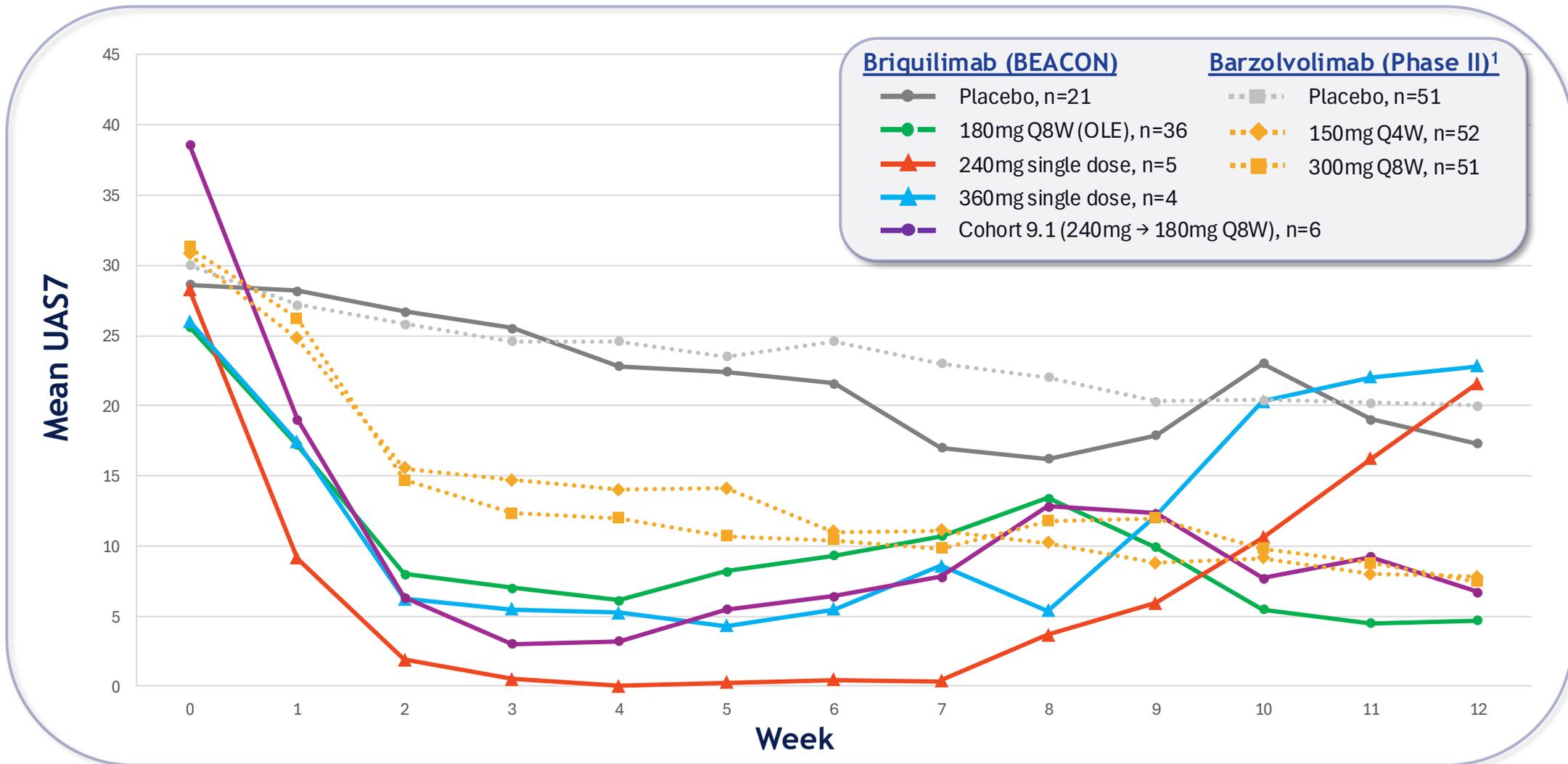
Jeet Mahal, CEO

Briquilimab complete response and well controlled disease at 12 weeks



Note: These observations are derived from separate clinical settings; comparisons across trials are not based on head-to-head studies.

Briquilimab demonstrated rapid and deep onset of disease control



Note: At Week 6 in the BEACON study, patients in the placebo arm were allowed rescue medications.

Note: These observations are derived from separate clinical settings; comparisons across trials are not based on head-to-head studies.

January 2026 Chronic Urticaria Data Update

Briquilimab demonstrates rapid efficacy and a favorable chronic safety profile

- Rapid and durable clinical responses
- Repeat dose safety data now available for more than 50 patients across BEACON and OLE studies
- KIT related AEs continue to be predominantly low frequency, transient, low-grade events that resolved while on study

Data gathered to-date sufficient to enable dose selection for CSU Phase 2b study

- Targeting commencement of Phase 2b CSU study 2H 2026

Totality of data from BEACON, SPOTLIGHT and OLE support a compelling profile for briquilimab in chronic urticarias

- Briquilimab's unique drug properties allow for rapid disease control while minimizing KIT-related AEs

Jasper Therapeutics



NASDAQ: JSPR *January 2026*

