Priovant Overview

February 2025

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Priovant Is Well Positioned to Become a Leader in Specialty I&I

Commercially validated MOA with first-in-class drug profile

Upcoming Phase 3 data in blockbuster indication (dermatomyositis)

- Clear path to first-to-market position
- Potential for rapid early revenue growth consistent with recent orphan I&I launches

Phase 3 in second blockbuster indication (NIU) actively enrolling

- 52-week Phase 2 data confirm potential best-in-indication product profile

Studies in additional orphan/specialty I&I indications to be initiated in 2025

- Newest indication: cutaneous sarcoidosis

Brepocitinib Is a Potential First-In-Class Dual Selective TYK2/JAK1 Inhibitor, Representing Next Generation of JAK Inhibition

Evolution of JAK inhibitor field highlights market demand for efficacy in treating patients with the most debilitating conditions

Nonspecific/pan-JAK inhibitors

XELJANZ® [tofacitinib]

olumiant® (baricitinib) tablets

First targeted oral agents for inflammatory diseases

Non-specificity limited ability to dose to maximal efficacy and led to class-wide black box warning

Modest commercial success, but uptake impaired by less-than-biologic efficacy

Single JAK Isoform Inhibitors

RINVOQ® upadacitinib

SOTYKTU™ (deucravacitinib) 6 mg tablets

Rinvoq (JAK1) has generated often best-in-indication efficacy and is a multi-blockbuster drug despite black box warnings

Sotyktu (TYK2), which avoided black box liability, has underperformed commercially due to less-than-biologic efficacy

Selective, Dual Inhibitor of TYK2 and JAK1

Brepocitinib

Brepocitinib combines the best attributes of selective TYK2 and JAK1 inhibition with the potential **to provide maximum efficacy** for patients with highly morbid, heterogeneous autoimmune diseases

Distinctive Potential Benefits of Dual TYK2/JAK1 Inhibition in Inflammatory Skin Diseases Supported By Clinical Data To-Date

Predominant Effector T-Cell Polarization

Th17 Dominant

Th1 Dominant

Observed Clinical Results in Cutaneous Diseases

Alopecia Areata

Placebo-Adjusted
SALT ≤ 20 Response Rate

45%

Brepocitinib
60→30 mg QD[1]
Week 24
N = 94

30%

OLUMIANT
4 mg QD[2]
Week 36
N = 470

Hidradenitis Suppurativa

Placebo-Adjusted
HiSCR50 Response Rate

19%

Brepocitinib
45 mg QD[5]
Week 16
N = 100

13%

Upadacitinib
30 mg QD[6]
Week 12
N = 47

Plaque Psoriasis

Placebo-Adjusted
PASI75 Response Rate

73%

Brepocitinib
30 mg QD[3]
Week 12
N = 52

40%

SOTYKTU
6 mg QD[4]
Week 12
N = 511

<u>Disclaimer:</u> Figures reflect cross-trial comparison and not results from a head-to-head study. Differences exist between trial designs and subject characteristics, and caution should be exercised when comparing data across studies.

Note: for agents with more than one pivotal study, the data from the study showing the higher placebo-adjusted response rate is shown.

1) Brepocitinib Alopecia: Priovant data on file
2) Baricitinib Alopecia: Olumiant Prescribing Information
3) Brepocitinib PsO: Priovant data on file
4) Deucravacitinib PsO: Armstrong et al, SDDS 2021 Poster 1042
5) Brepocitinib Hidradenitis Suppurativa: Priovant data on file
6) Upadacitinib Hidradenitis Suppurativa: Kimball et al, Poster 43799 AAD 2023

Clinically Meaningful Results in Seven Completed Phase 2 Studies

Study Population	N[1]	Brepocitinib Dose	Primary Endpoint Result	
Psoriatic Arthritis Patients with active PsA	218	30 mg once daily	23.4% placebo-adjusted ACR20 RR at week 16	**P = 0.0197**
Plaque Psoriasis Patients with moderate-to-severe PsO	212	30 mg once daily	-10.1 placebo-adjusted CFB in PASI Score at week 12	**P < 0.0001**
Ulcerative Colitis Patients with moderate-to-severe UC	167	30 mg once daily	-2.28 placebo-adjusted CFB in Mayo Score at week 8	**P = 0.0005**
Alopecia Areata Patients with moderate-to-severe AA	94[2]	30 mg once daily[3]	49.18 placebo-adjusted CFB in SALT Score at week 24	**P < 0.0001[4]**
Hidradenitis Suppurativa Patients with moderate-to-severe HS	100	45 mg once daily[5]	18.7% placebo-adjusted HiSCR Rate at week 16	**P = 0.0298[4]**
Crohn's Disease Patients with moderate-to-severe CD	151	60 mg once daily[6]	21.4% placebo-adjusted SES-CD 50 Rate at week 12	**P = 0.0012[4]**
Non-Infectious Uveitis Patients with active, non-anterior NIU	26	45 mg once daily	29.4% Treatment Failure Rate at week 24[7]	

1) Overall study N represents patients randomized to all brepocitinib dose levels or placebo and excludes patients randomized to other agents
2) Includes patients from initial 24-week study period only
3) 60 mg QD for 4 weeks followed by 30 mg QD for 20 weeks
4) One-sided p-value (pre-specified statistical analysis)
5) Brepocitinib 45 mg once daily was the only brepocitinib dose evaluated in this study
6) Brepocitinib 60 mg once daily was the only brepocitinib dose evaluated in this study
7) Study did not include a placebo arm

CFB: change from baseline; RR: response rate; NC: not calculated

Dermatomyositis

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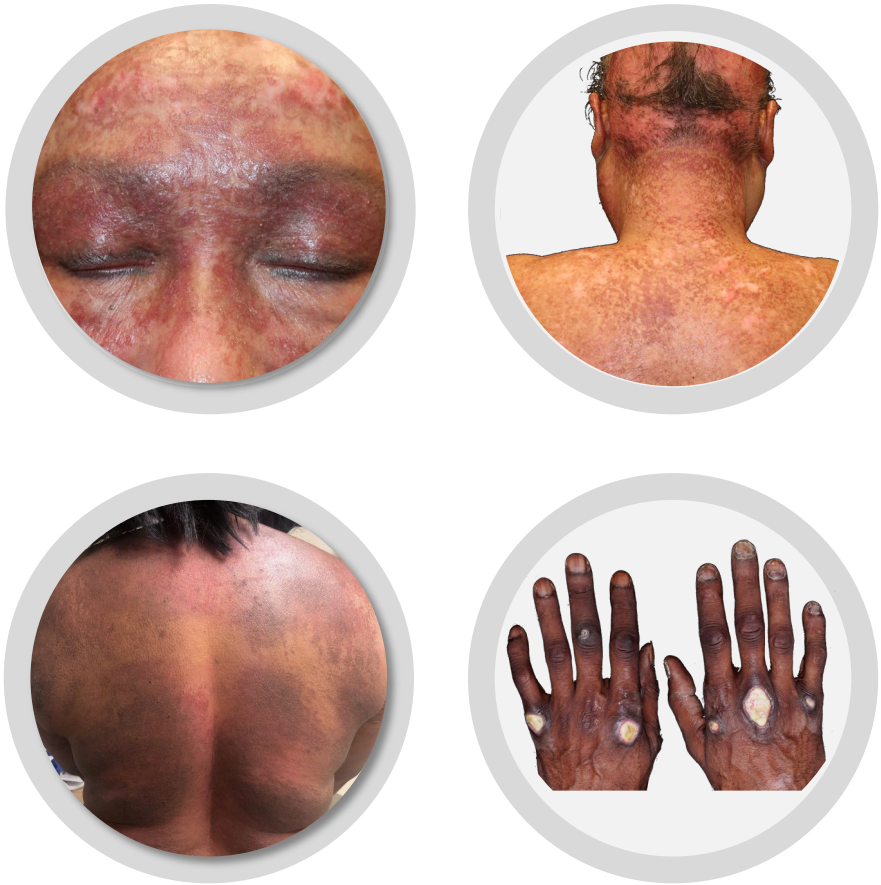
Dermatomyositis: Key Features in Common with Recent Orphan I&I Launches that Rapidly Achieved Blockbuster Revenue



Mid-tens-of-thousands prevalence

Prevalence of approximately 40,000 adults in US[1] with approximately 35,000 patients receiving advanced chronic therapy[2]

High morbidity with poor/no modern treatment options

Skin and muscle disease lead to pain, disfigurement, highly impaired mobility, and extensive comorbidities (e.g., cardiometabolic, GI, depression)

Orphan price point and concentrated prescriber base

Approximately half of treated DM patients at ~200 tertiary centers of excellence[2]

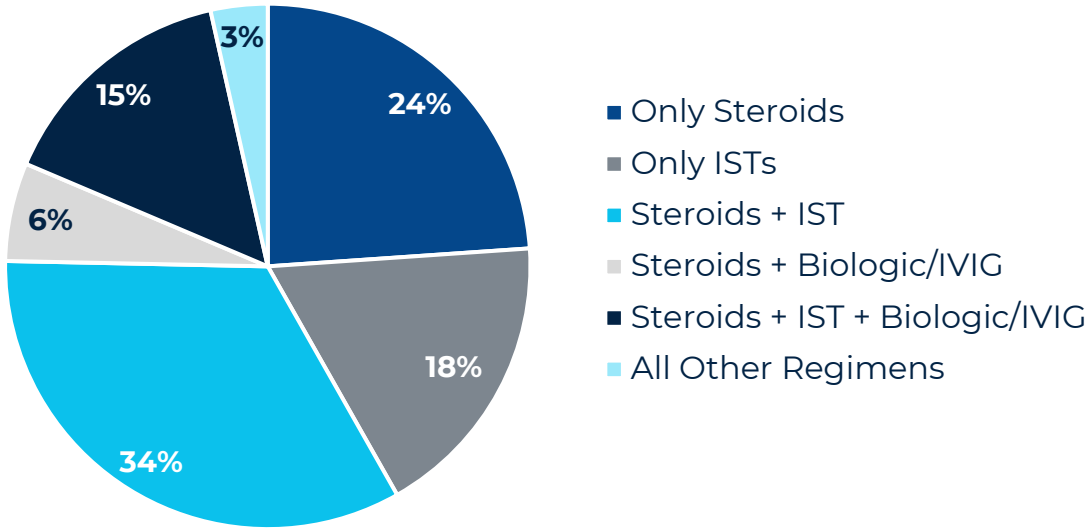
All disease photos courtesy of Priovant.

1) PriovantTx estimates based on Reeder 2010, Smoyer-Tomic 2012, and claims analysis
2) PriovantTX claims analysis

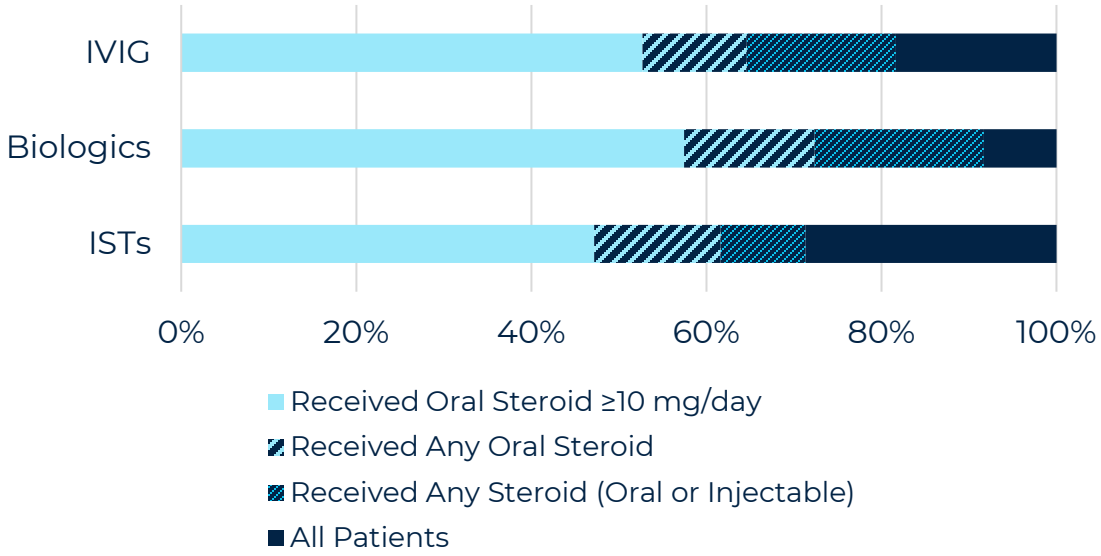
Dermatomyositis Pharmacy Claims Highlight Widespread Polypharmacy Use and Large Steroid Burden Among DM Patients

Given limitations of current therapies, all DM patients in active treatment funnel would be potential candidates for treatment with brepocitinib if approved

Therapies Received by ~34K Treated Dermatomyositis Patients in 2022



Steroid Use Among Patients Receiving Steroid-Sparing Therapy

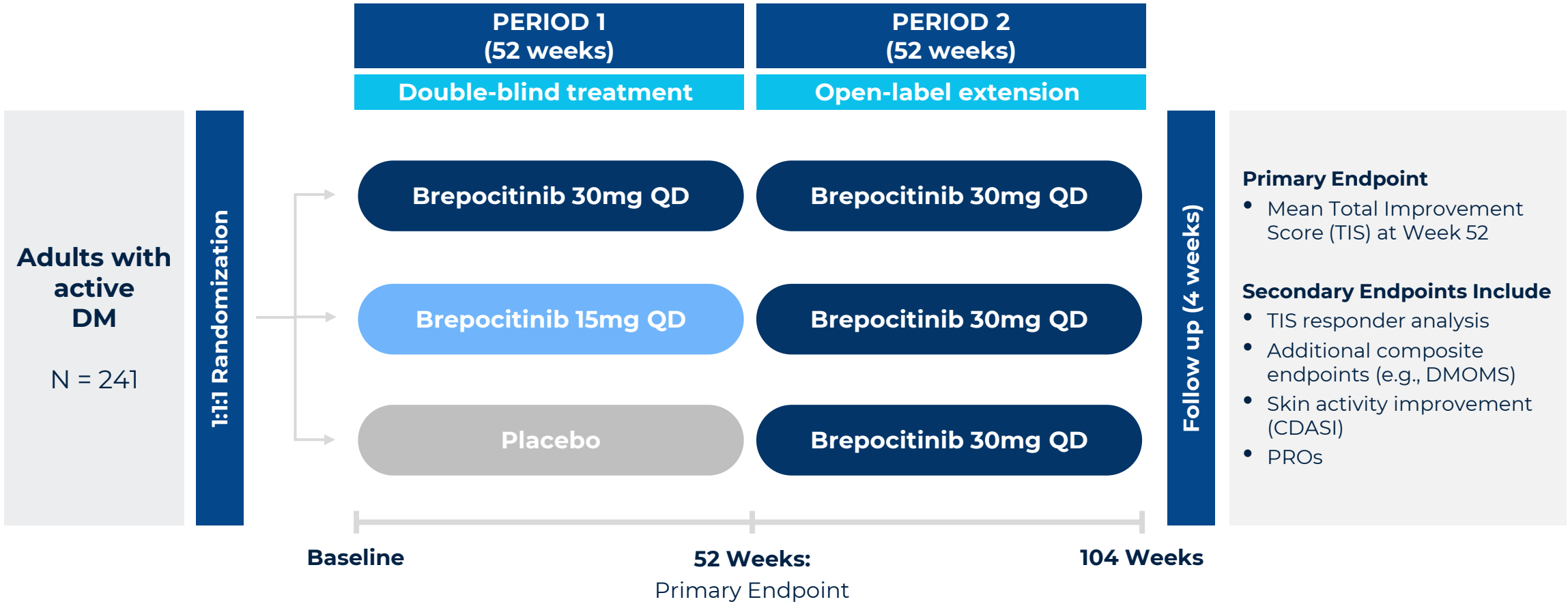


Despite widespread use of multi-drug steroid-sparing therapy combinations, 62-72% of patients receiving steroid-sparing therapy still use oral corticosteroids, with most requiring doses ≥10 mg/day for ≥100 days/year

Analysis by Roivant/Priovant using closed claims data from Inovalon. Analysis includes patients with continuous enrollment from 2020-2022.

VALOR: A Single Registrational Phase 3 Study of Brepocitinib in Adults with Dermatomyositis

Pivotal study fully enrolled and topline data expected 2H 2025 → potentially next approved drug for dermatomyositis



Primary Endpoint

- Mean Total Improvement Score (TIS) at Week 52

Secondary Endpoints Include

- TIS responder analysis
- Additional composite endpoints (e.g., DMOMS)
- Skin activity improvement (CDASI)
- PROs

Non-Infectious Uveitis

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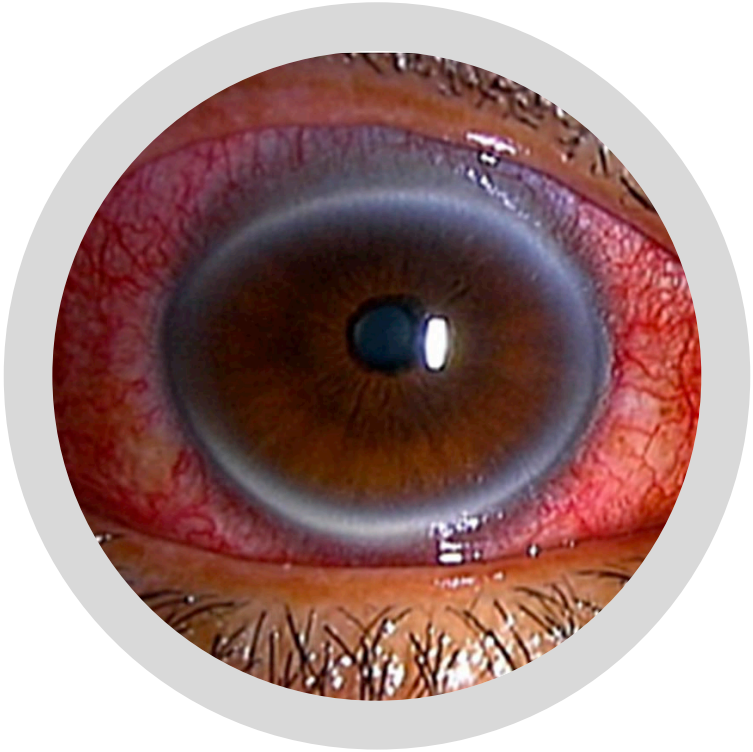
Non-Infectious Uveitis: Key Features in Common with Recent Orphan I&I Launches that Rapidly Achieved Blockbuster Revenue



High tens-of-thousands prevalence

Approximately 70,000-100,000 prevalent patients in the US, with >40,000 patients receiving biologic therapy[1]

High morbidity and few treatment options

Fourth-leading cause of blindness among working-age population in developed world[2]

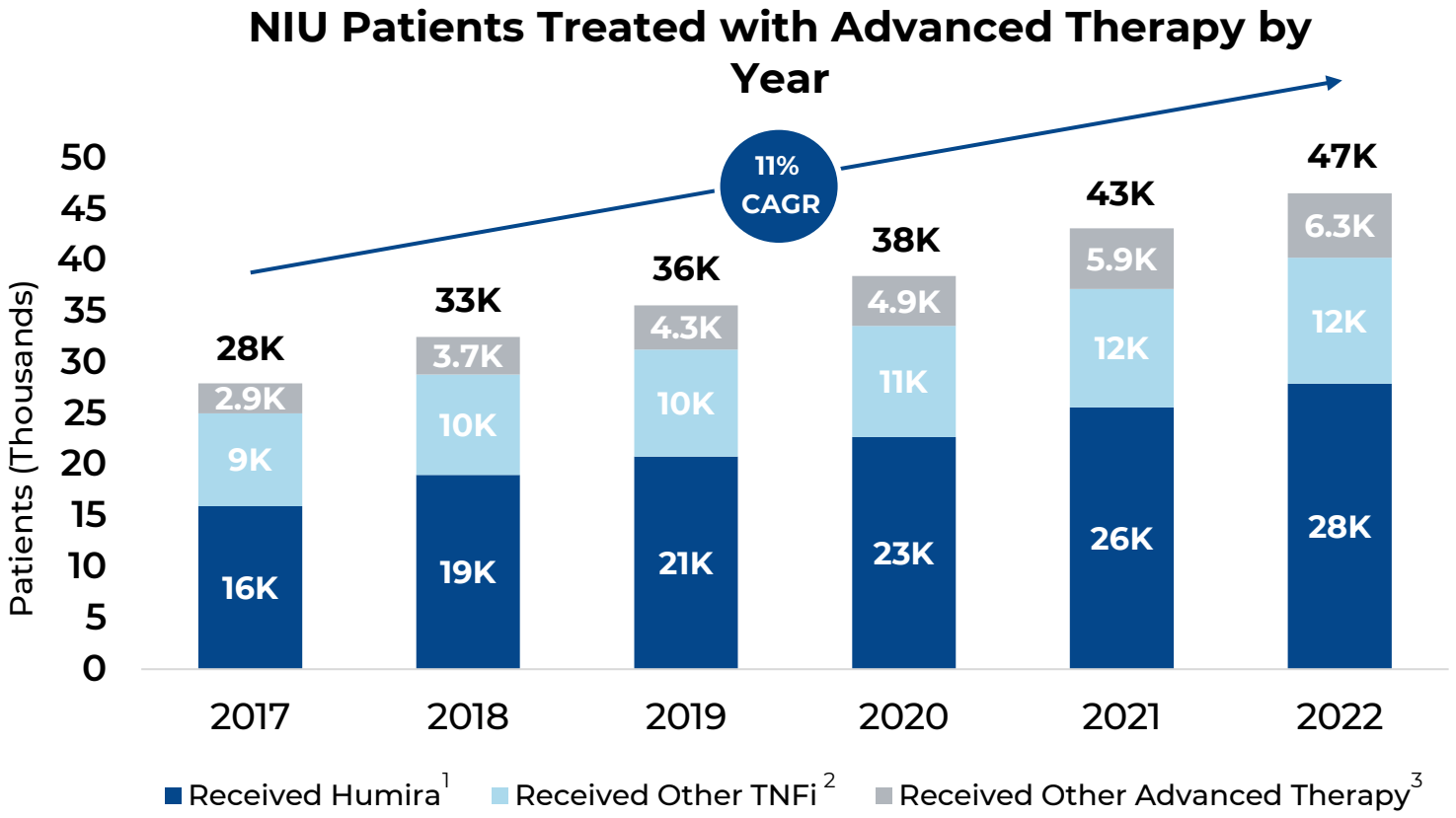
Only approved modern therapy (Humira) has limited efficacy, with >50% ultimately experiencing treatment failure[3]

Orphan price point and concentrated prescriber base

High concentration of patients treated at dedicated uveitis specialty centers; most of remainder treated by retina specialists

1) Thorne et al, JAMA Ophthalmol. (2016) and IQVIA analysis of pharmacy claims of patients with NIU
2) Barisani-Asenbauer, T., Maca, S.M., Mejdoubi, L. et al. Orphanet J Rare Dis 7, 57 (2012)
3) Jaffe et al, NEJM (2016)
4) Photo sourced from Masuda et al, Am J Ophthalmol Case Rep (2018)

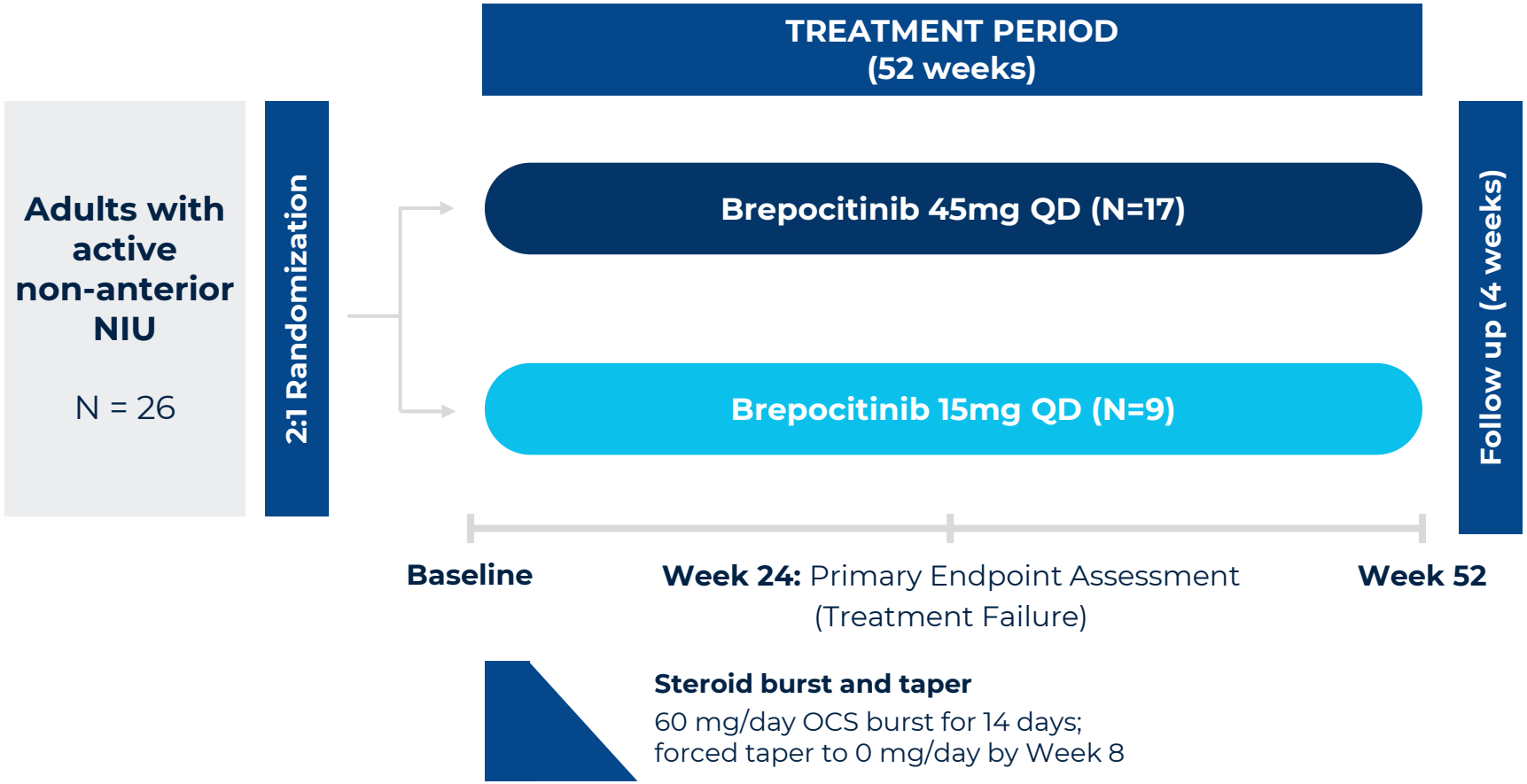
IQVIA Analysis of the NIU Market Confirms >40,000 Patients Receiving TNFi for NIU, with >10% CAGR for Advanced Therapies



- Widespread use of advanced systemic medication for NIU treatment
- Large commercial opportunity in TNF-refractory population alone, given high TNFi failure rate (>50% in clinical studies)
- Additional potential blockbuster opportunity in broader non-anterior NIU population

1) Analysis includes patients with at least 2 NIU Dx claims at least 30 days in or before 2022 (patients had to have continuous pharmacy and medical benefit enrollment in 2021 - 2023) and medication utilization within one year of index NIU diagnosis in 2022. Includes NIU of any etiology or anatomic area.
2) Includes any patient who received Humira during calendar year, whether or not they received any additional advanced therapy (including other TNFi)
3) Includes any patient who did not receive Humira during calendar year, but did receive a different TNFi. Includes originator molecules (e.g., Remicade, Enbrel) and biosimilars (e.g., Inflectra, Renflexis, Avsola) targeting TNF-α
4) Other advanced therapies used include JAK inhibitors and biologic agents/monoclonal antibodies targeting IL-6, IL-12/23, IL-17, IL-1β, IL-1Ra, CD-20, and CD-28
5) The statements, findings, conclusions, views, and opinions contained and expressed on this page are based in part on data obtained under license from IQVIA PharMetrics Plus, January 2018 – December 2023, Iqvia, Inc. All Rights Reserved. The statements, findings, conclusions, views, and opinions contained and expressed herein are not those of IQVIA Inc. or any of its affiliated or subsidiary entities.

Design Of Phase 2 NEPTUNE Study of Brepocitinib in Non-Infectious Uveitis

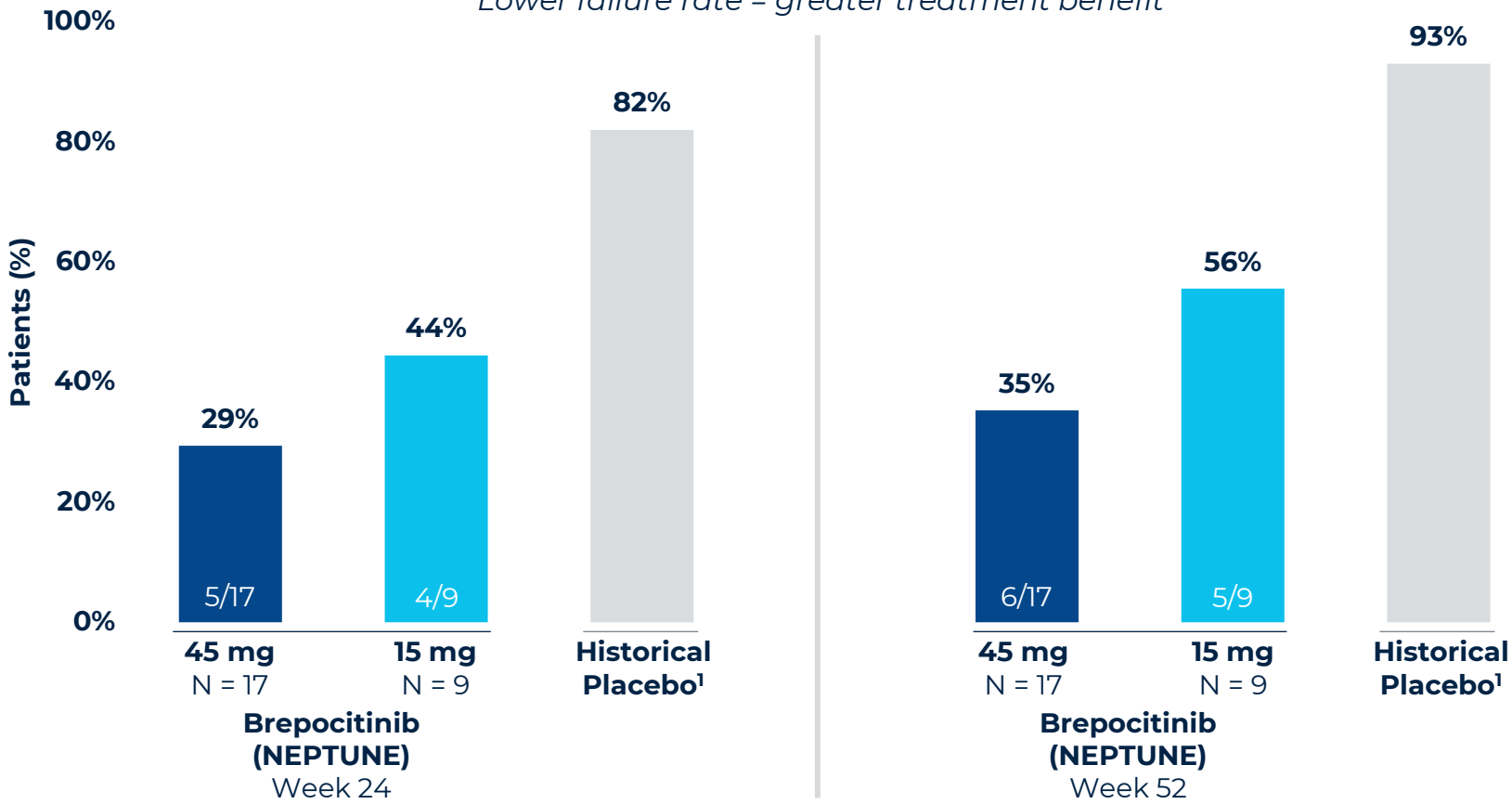


ACC: anterior chamber cell; BCVA: best-corrected visual acuity; IST: immunosuppressive therapy; VH: vitreous haze

52-Week Data from the Phase 2 NEPTUNE Study of Brepocitinib in NIU Showed Potential Best-in-Indication Efficacy Sustained to One Year

Treatment Failure at Week 24 and 52, compared to historical placebo*

Lower failure rate = greater treatment benefit



Reminder:

Better Treatment Failure results for brepocitinib in NEPTUNE achieved despite 6-week steroid taper in NEPTUNE compared to 13-week taper in precedent studies, in both cases following two-week steroid burst

- Requires that brepocitinib act more quickly
- Increases difficulty of maintaining best state achieved
- Reduces steroid burden

Disclaimer: Figure reflects cross-trial comparison and not results from a head-to-head study. Differences exist between trial designs and subject characteristics, and caution should be exercised when comparing data across studies.

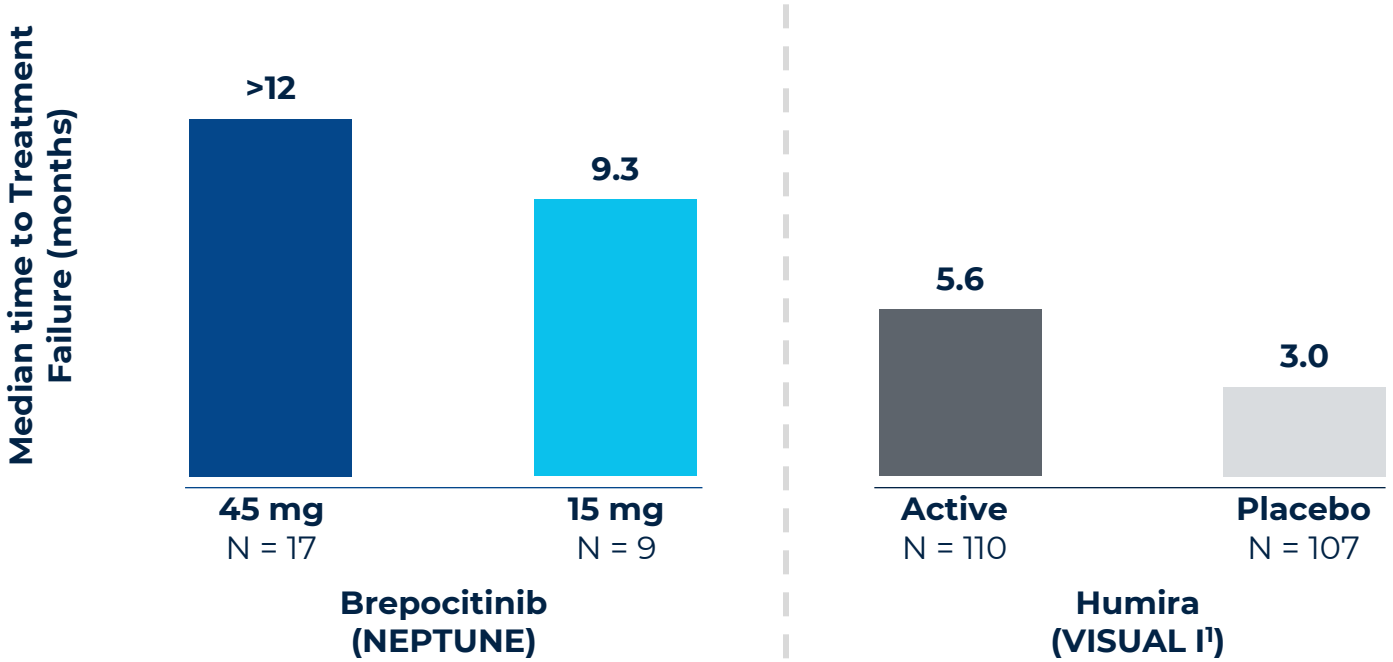
*Treatment Failure calculations include all discontinuations as failures, per pre-specified endpoint definition in NEPTUNE study

1) Historical placebo data from Humira VISUAL 1 study - Jaffe et al, NEJM, 2016. Placebo failure rate was calculated by subtracting the reported No. of patients remaining over the total initial placebo population from 1 at weeks 25 and 55 (N=107)

Brepocitinib Potential Best-in-Indication Efficacy Profile Also Seen on Median Time-to-Treatment Failure

Time To Treatment Failure, compared to VISUAL I Study*

Higher time-to-treatment failure = greater treatment benefit



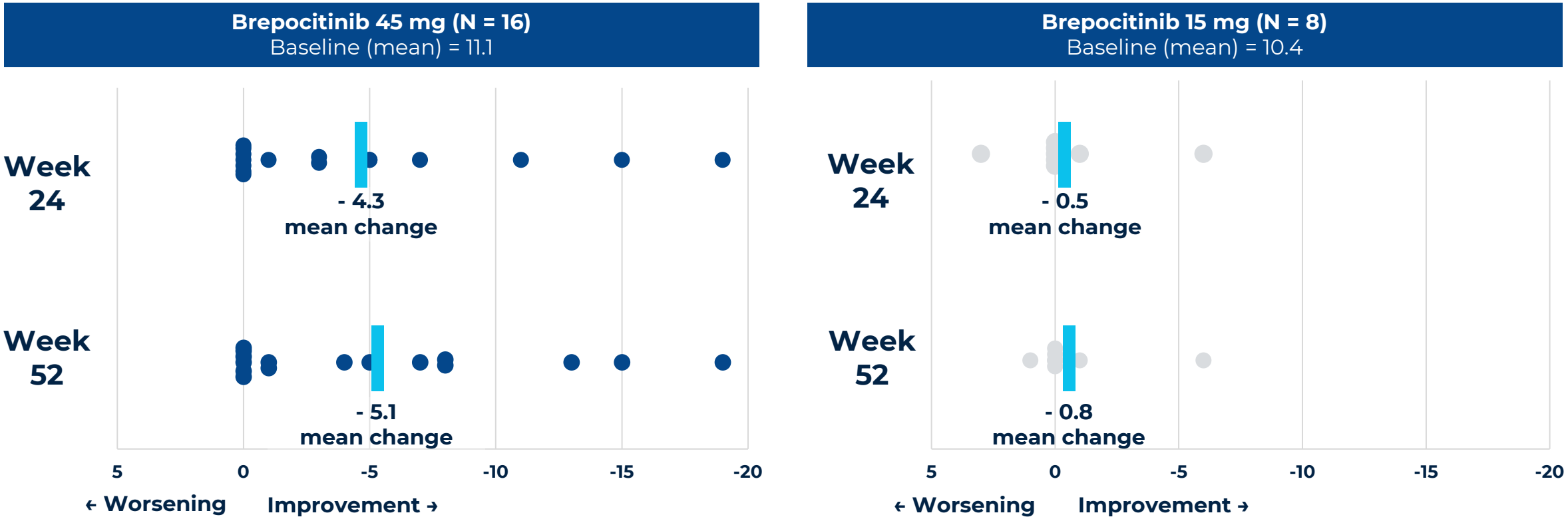
Disclaimer: Figures reflect cross-trial comparison and not results from a head-to-head study. Differences exist between trial designs and subject characteristics, and caution should be exercised when comparing data across studies.

*Time-To-Treatment Failure was primary endpoint in VISUAL I study. VISUAL I calculations do not include discontinuations as treatment failures, per pre-specified definition in VISUAL I. NEPTUNE calculations include discontinuations as treatment failures.

1) As reported at https://www.humirapro.com/uveitis

Dose Dependent Benefit on Posterior Segment Inflammation Seen, with Sustained Improvement at 52 Weeks

Measurement of retinal vascular leakage by wide-field fluorescein angiography (FA) score change from baseline at Week 24 and Week 52; centrally assessed using ASUWOG, a multi-domain, semi-quantitative scoring system[1]



No patients on brepocitinib 45 mg worsened from baseline

Last observation carried forward used for participants with treatment failure or intercurrent event.

1) Tugal-Tutkun et al., Int Ophthalmol (2010)

Potential Brepocitinib Benefit on Prevention and Treatment of Macular Edema Also Sustained to 52 Weeks

45 mg at Baseline	45 mg at Week 24	45 mg at Week 52
10 patients did *not* have macular edema (CST < 300 µm[1])	**0 patients** *developed* macular edema **(0% occurrence rate)**	**0 patients** *developed* macular edema **(0% occurrence rate)**
7 patients had macular edema (CST ≥ 300 µm)	**3 of 7 patients** had *resolution* of macular edema **(43% resolution rate)**	**3 of 7 patients** had *resolution* of macular edema **(43% resolution rate)**

By comparison:

In the Humira VISUAL I study, among patients who did not have macular edema at baseline, **50% of placebo patients developed macular edema after 6.2 months**[1]

- 50% of Humira patients developed macular edema after 11.1 months[2]

In a different study of patients with uveitic macular edema at baseline, **Humira resolution rates at Month 6 were 22%**[3]

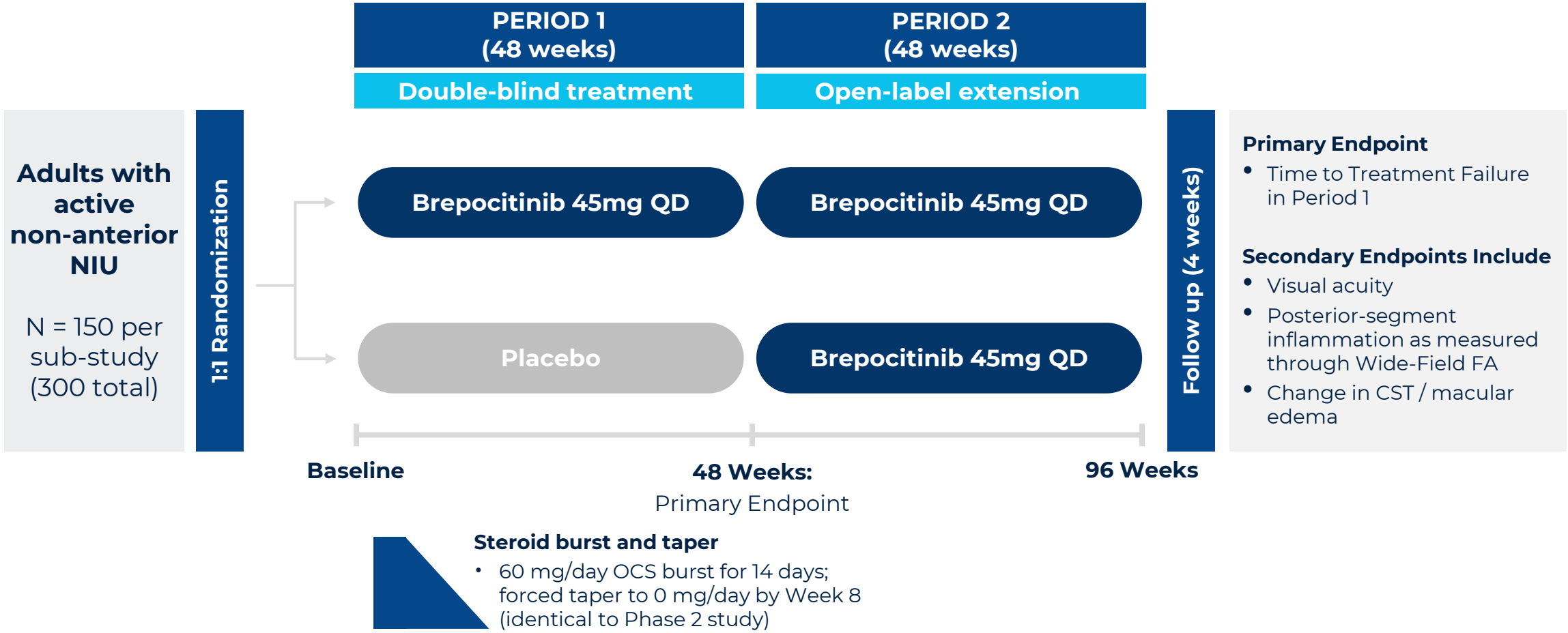
Disclaimer: Figures reflect cross-trial comparison and not results from a head-to-head study. Differences exist between trial designs and subject characteristics, and caution should be exercised when comparing data across studies.

CST: central subfield thickness

1) Definition of macular edema in NEPTUNE was CST ≥ 300 µm, normalized by central reader across instrument types
2) Jaffe et al, NEJM 2016
3) Leclerq et al, Ophthalmology 2021

CLARITY: A Phase 3 Study of Brepocitinib in Adults with Active, Non-Infectious, Non-Anterior Uveitis

Two identical sub-studies, CLARITY-1 and CLARITY-2, actively enrolling under a single protocol; topline results expected in 1H 2027



Cutaneous Sarcoidosis

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Cutaneous Sarcoidosis: Next Proof-of-Concept Indication for Brepocitinib

Mid tens-of-thousands prevalence

30,000-50,000 affected US cutaneous sarcoidosis patients[1] with no approved therapies; uncontrolled disease can result in severe disfigurement[2]

Proof-of-concept data from ~20 JAK-treated patients

Dual TYK2/JAK1 inhibition well-suited to Th1 immunophenotype of sarcoidosis; case reports and investigator-initiated trial with JAKi agents have shown clinically meaningful responses

Alignment with DM and NIU

Orphan price point; concentrated prescriber base overlapping with DM

1) Grunewald et al, Nat Rev Dis Primers 2019
2) Culver, Curr Clin Med 2010
Image adapted from Patel et al, 2011

Yale IIT Provides Proof-of-Concept for JAK Inhibition in Cutaneous Sarcoidosis

Open label study of tofacitinib in 10 patients with longstanding cutaneous sarcoidosis[1]

Cutaneous Sarcoidosis Activity and Morphology Instrument (CSAMI) is an established, reproducible endpoint to assess sarcoidosis skin disease symptoms[2]

Baseline Characteristics

10 Patients with cutaneous sarcoidosis

37 Mean CSAMI score at baseline, indicating severe disease

Tofacitinib 5 mg BID for 6 months

Results

10 (100%) Patients achieved clinically meaningful reduction in CSAMI from baseline (>5 point improvement)[3]

6 (60%) Patients achieved complete resolution of disease (CSAMI = 0)

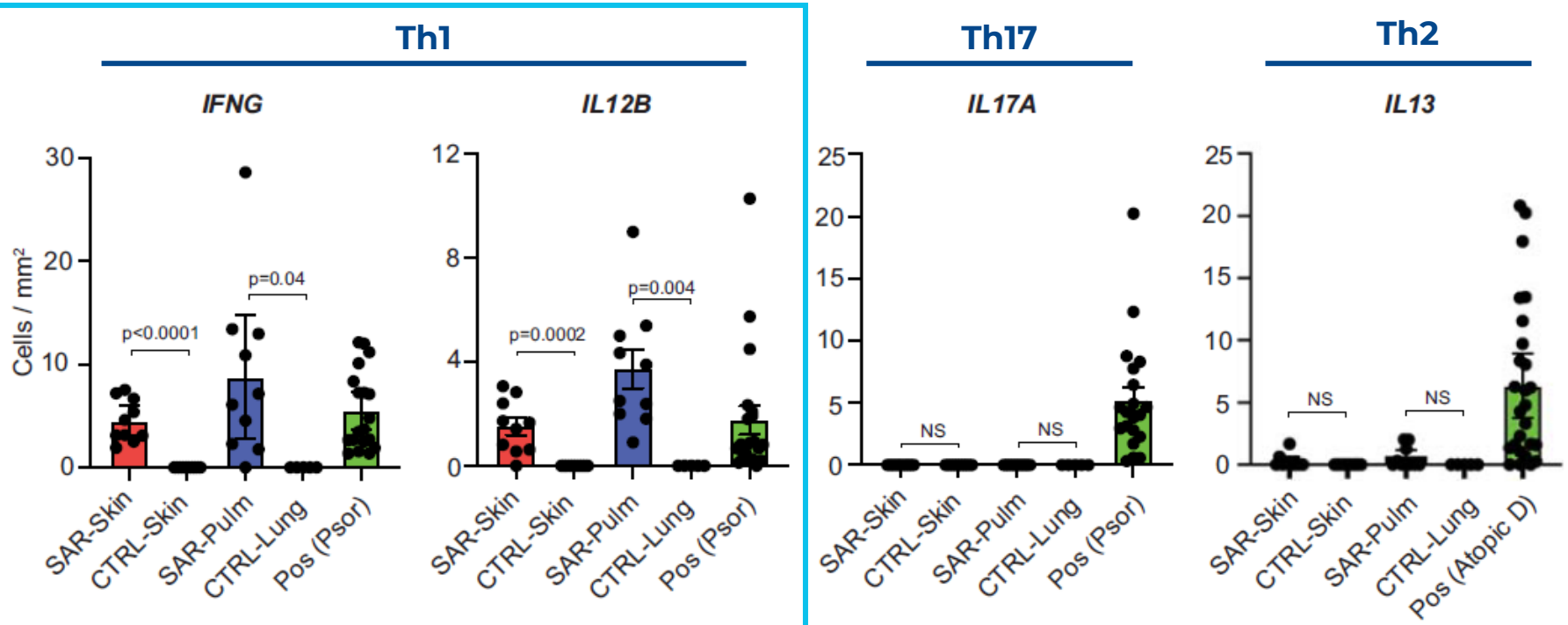
Results supported by multiple case reports indicating complete or near-complete resolution of longstanding, recalcitrant disease in JAK-treated patients[4,5,6,7,8,9]

1) Damsky et al, Nat Comm 2022
2) Noe et al, JAMA Dermtol 2019
3) MCID = 5 point reduction from baseline
4) Damsky et al, N Engl J Med. (2018)
5) Damsky et al, J Am Acad Dermatol. (2020)
6) Damsky et al, ACR Open Rheumatol. (2020)
7) Kerkemeyer et al, J Am Acad Dermatol. (2021)
8) Rotenberg et al, Eur Respir J. (2018)
9) Wei et al, JAAD Case Rep. (2019)

Pronounced Th1-type Immunity Is the Predominant Polarization in Sarcoidosis Skin and Lung Tissue

Marked upregulation of key Th1 cytokines, including Type II IFN and IL-12, suggests potential best-in-indication selectivity profile for brepocitinib's dual inhibition of TYK2 and JAK1

Quantitation of RNA In-Situ Hybridization for Key Immunoregulatory Cytokines



JAK Signaling Pairs:

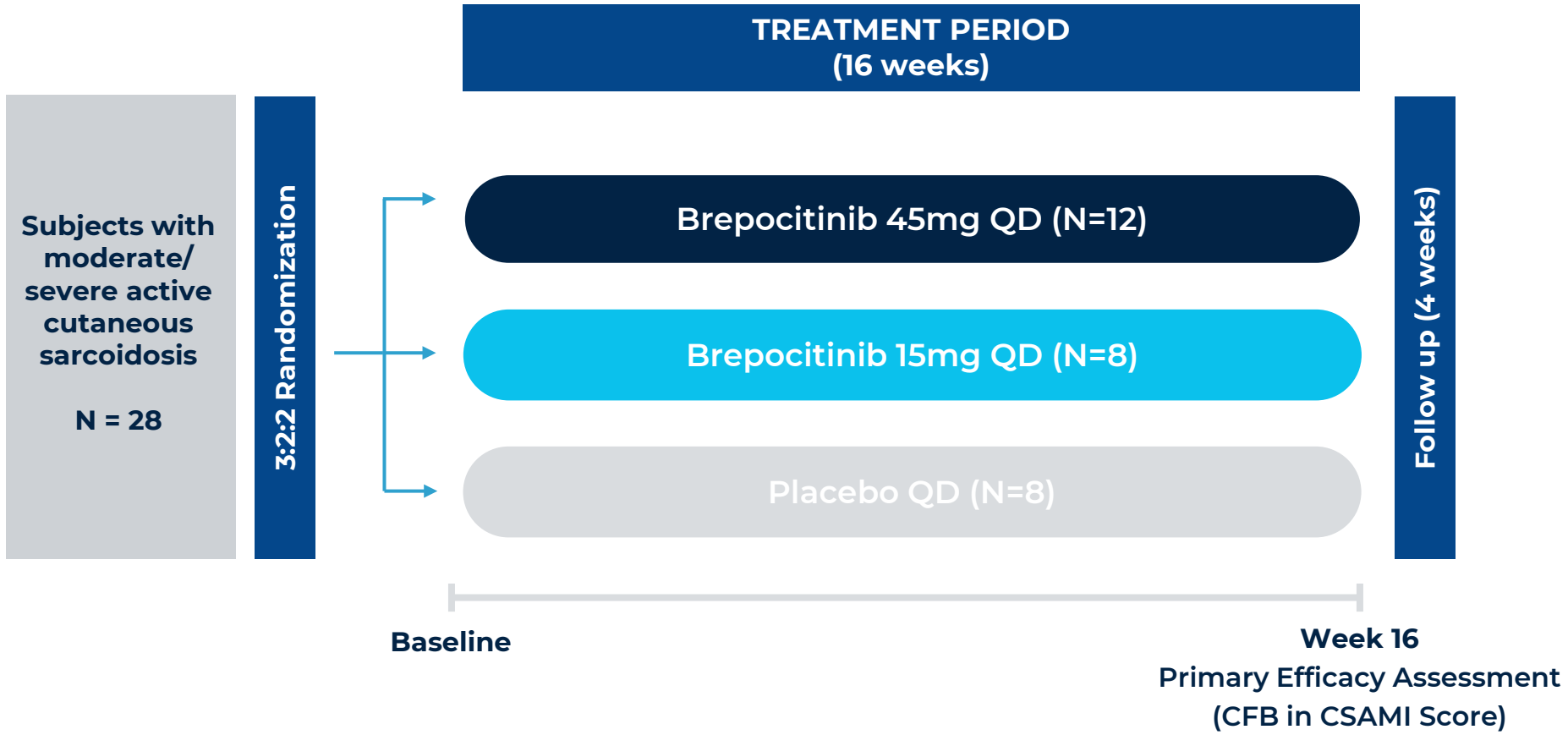
JAK1/JAK2

JAK2/**TYK2**

Adapted from Damsky et al, Nat Comm 2022. RNA in situ hybridization quantitation in control skin (n = 10), control lung (n = 5), cutaneous sarcoidosis (n = 10), and pulmonary sarcoidosis (n = 10). Data presented as means ± 95% CI.

BEACON: A Phase 2 Study of the Safety and Efficacy of Brepocitinib in Adults with Cutaneous Sarcoidosis

Start of enrollment expected in 2Q 2025; topline results expected in 2H 2026



CFB: Change from baseline
CSAMI: Cutaneous sarcoidosis activity and morphology instrument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