

EVERLAST-A: A Phase 2a Study Design of ORKA-001, a Novel Half-Life Extended IL-23p19 Monoclonal Antibody for Plaque Psoriasis

Andrew Blauvelt¹, Bruce Strober², Joseph Merola³, James Krueger⁴, Joel Gelfand⁵, Johann E. Gudjonsson⁶, Eugenia Levi⁷, Joana Goncalves⁷, Mark Lebwohl⁸

¹Blauvelt Consulting, Annapolis, MD, USA; ²Dermatology, Yale University and Central Connecticut Dermatology, Cromwell, CT, USA; ³Department of Dermatology and Department of Medicine, Division of Rheumatology, UT Southwestern Medical Center, Dallas, TX, USA; ⁴Rockefeller University, New York, NY, USA; ⁵University of Pennsylvania, Perelman School of Medicine, Philadelphia, PA, USA; ⁶University of Michigan, Ann Arbor, MI, USA; ⁷Oruka Therapeutics, Menlo Park, CA, USA; ⁸Icahn School of Medicine at Mount Sinai, New York, NY, USA

Introduction

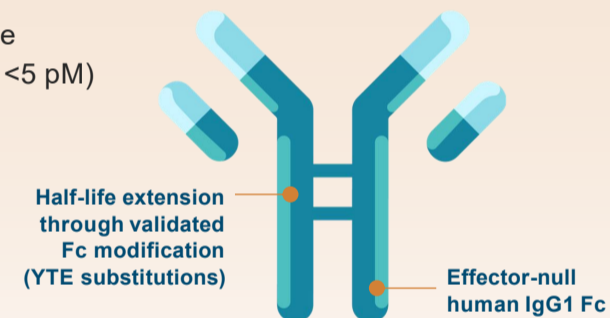
- Oruka Therapeutics is advancing a portfolio of potentially best-in-class antibodies that target the core mechanisms underlying plaque psoriasis and other dermatologic and inflammatory diseases
- ORKA-001 is a novel, highly specific, humanized IgG1 monoclonal antibody that selectively binds to the p19 subunit of human IL-23 cytokine and inhibits its interaction with the IL-23 receptor, with an Fc region designed to ablate effector function and extend half-life
- A Phase 1 first-in-human trial evaluating ORKA-001 in healthy participants (NCT06698939) showed favorable safety and tolerability across all dose levels, with PK and PD supporting the potential for once-yearly dosing and exposures that may enable higher rates of skin clearance than the current standard of care
- The Phase 2a EVERLAST-A study (NCT07090330) is a multicenter, randomized, double-blinded, placebo-controlled, proof-of-concept study in patients with moderate-to-severe plaque psoriasis and is **currently enrolling subjects** across sites in the United States and Canada

Disclosures:

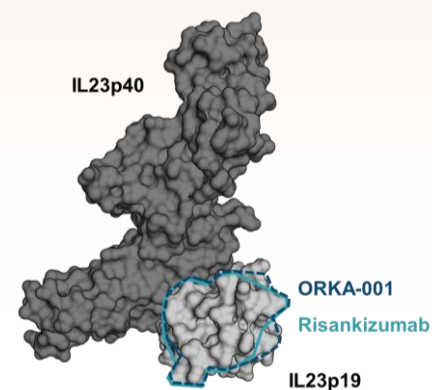
- Eugenia Levi and Joana Goncalves are employees of Oruka Therapeutics
- Andrew Blauvelt, Eugenia Levi and Joana Goncalves are stockholders of Oruka Therapeutics

Figure 1: ORKA-001 is a novel IL-23p19 inhibitor with binding similar to risankizumab

- ORKA-001 and risankizumab demonstrate comparable high affinity for IL-23p19 ($K_D < 5$ pM)
- Cryo-EM structural analysis demonstrates ORKA-001 has a nearly identical epitope as risankizumab
- ORKA-001 shows similar potency to risankizumab



ORKA-001 and risankizumab epitopes



Inhibition of IL-17 release in human PBMCs

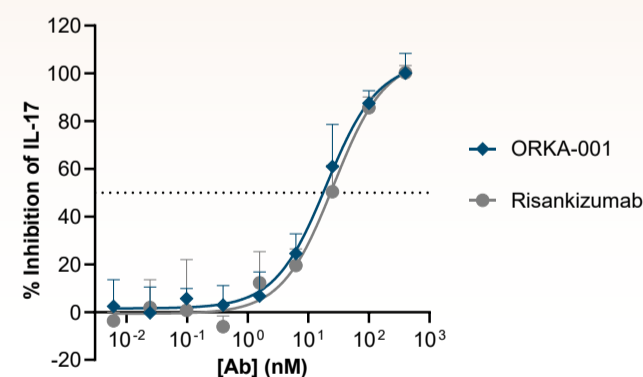


Figure 2: ORKA-001 demonstrated a half-life of ~100 days in humans

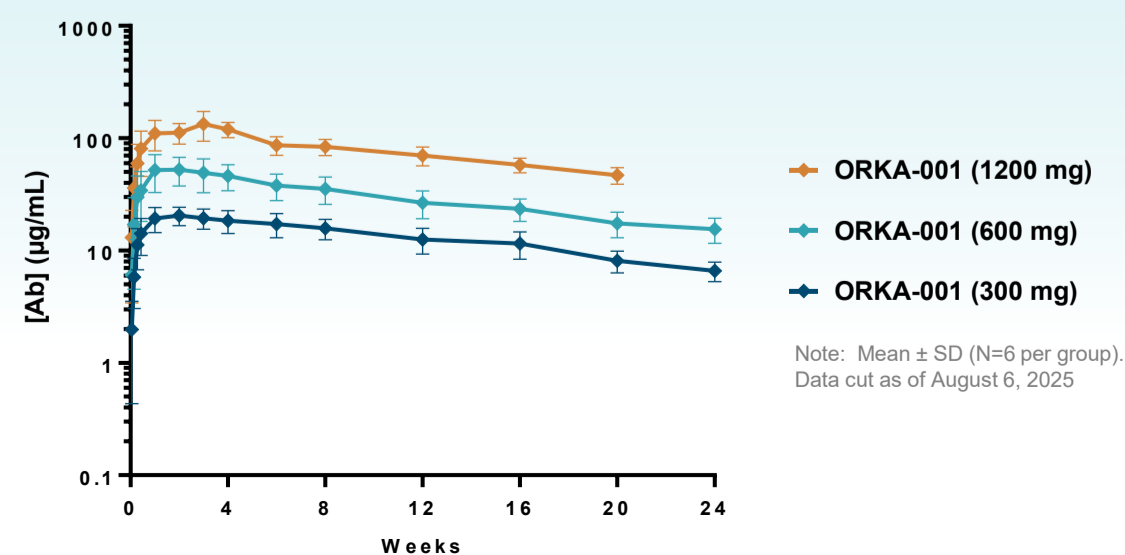


Figure 3: EVERLAST-A study design (NCT07090330)

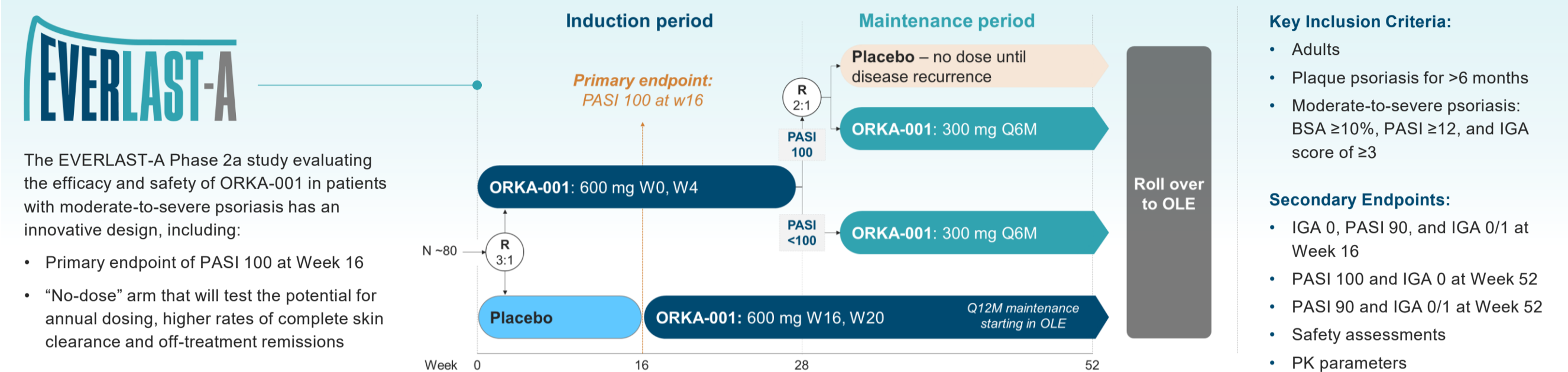
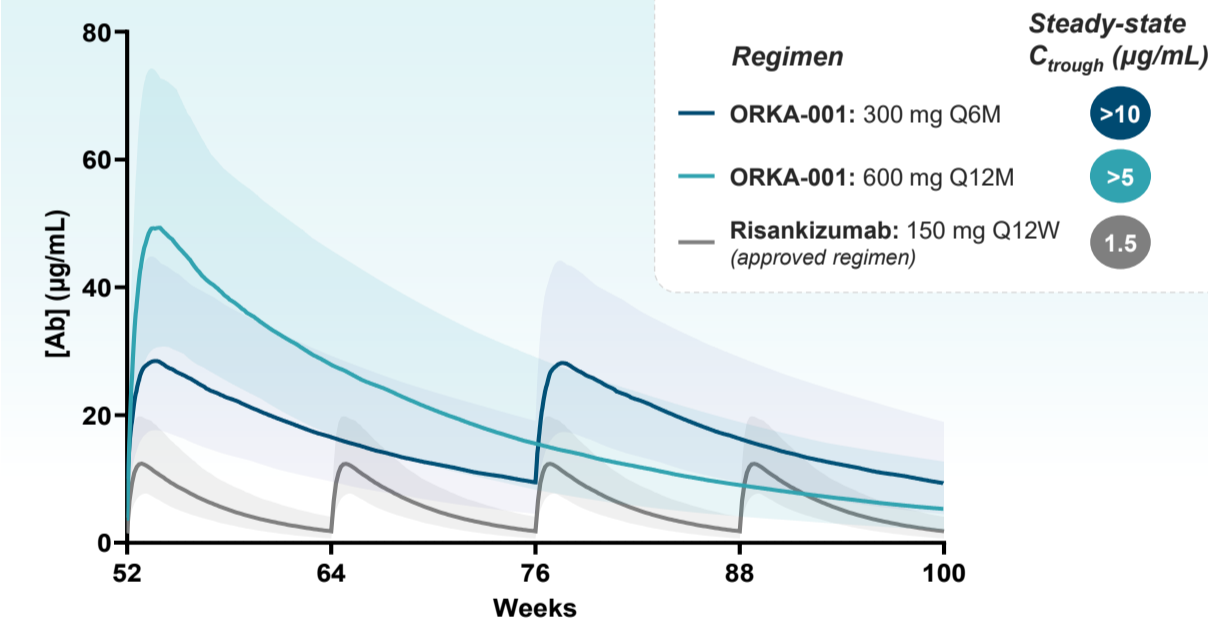


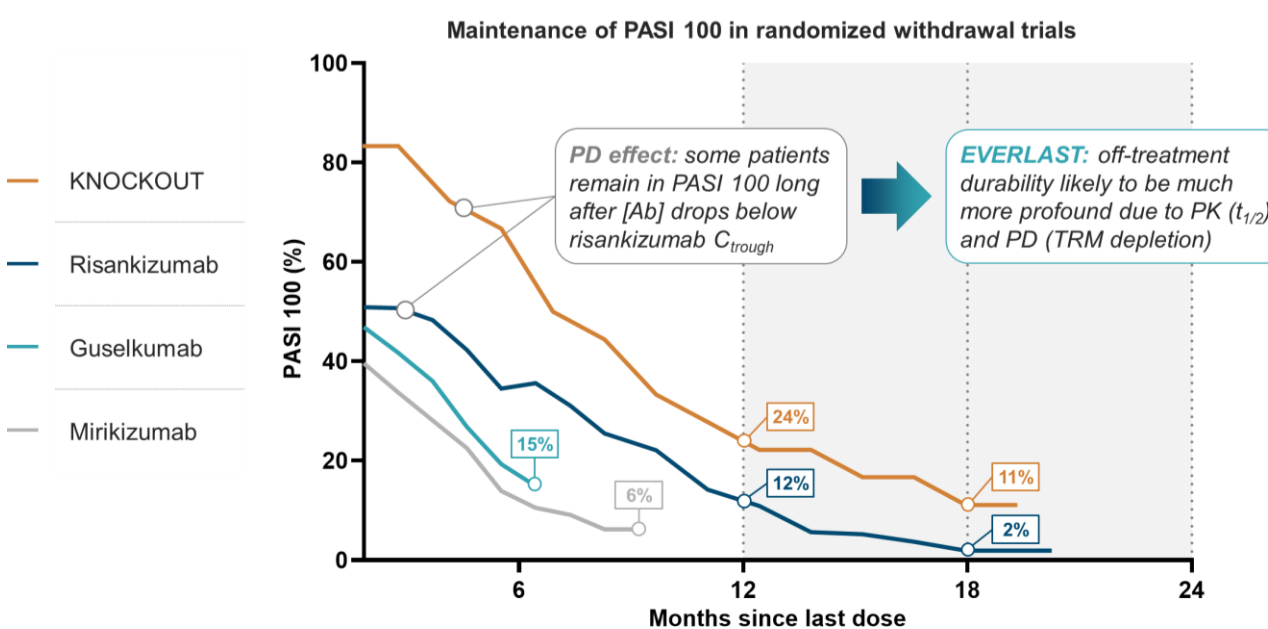
Figure 4: ORKA-001's 100-day half-life supports the potential for annual dosing



Risankizumab C_{max} in IBD (median 350 µg/mL) supports safety of high anti-IL-23 exposures

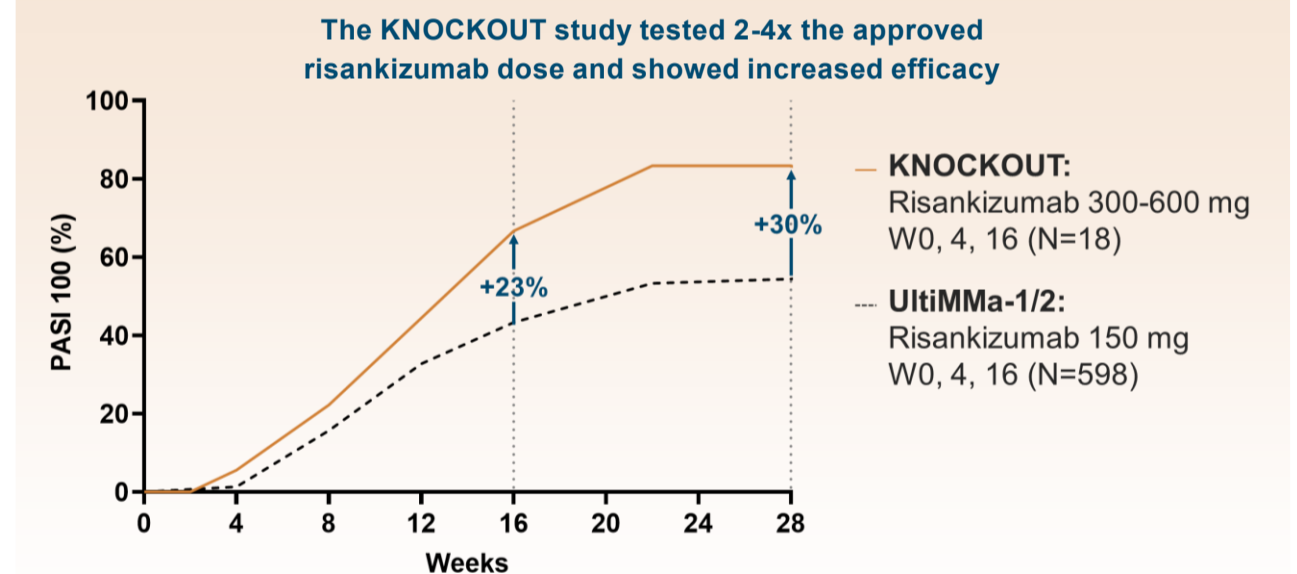
Note: modeling based on internal data and published population PK model for risankizumab; error bars reflect 5th and 95th percentiles; risankizumab exposures in ulcerative colitis from 2024 Thrake (Clin Pharmacol Ther.)

Figure 5: Greater IL-23 inhibition may enable off-treatment remission by depleting TRMs



Reference: Blauvelt et al., G2C (2024); Blauvelt et al., JAMA Dermatol (2020); Reich et al., JAAD (2017); Blauvelt et al., Br J Dermatol (2022); FDA Labels

Figure 6: Higher exposures with ORKA-001 may lead to higher efficacy



ORKA-001 exposures in EVERLAST-A are expected to match or exceed exposures in KNOCKOUT, testing whether higher exposures can lead to greater efficacy

Reference: Cross-trial comparison of pooled data from KNOCKOUT and UltiMMA-1/2 from Blauvelt et al., G2C (2024) and Gordon et al., Lancet (2018), respectively

Conclusions

- ORKA-001 is a novel IL-23p19 inhibitor with an extended half-life and has demonstrated PK and PD results that support the potential for:
 - Once-yearly dosing while maintaining trough antibody concentrations above approved IL-23 targeting antibodies like risankizumab
 - Sustained antibody exposures that may allow ORKA-001 to achieve higher rates of skin clearance than the current standard of care and extended off-treatment remission in some patients
- EVERLAST-A is an ongoing Phase 2a study evaluating ORKA-001 in patients with moderate-to-severe psoriasis. The study aims to determine whether ORKA-001 can lead to once or twice a year dosing intervals, higher rates of complete skin clearance, and extended off-treatment disease remission in some patients, while maintaining a favorable safety profile consistent with the IL-23i class

For further information please contact MedAffairs@orukatx.com

