

Plasma, Colon Tissue, and Fecal Pharmacokinetics of Icotrokinra in ANTHEM-UC: Results Through Week 28
From a Phase 2b Dose-Ranging Study in Ulcerative Colitis

T. Baguet¹, L. Surace², J. Zhan², N. Erondü², M.E. Frustaci², C.W. Marano², V. Jairath³, M.T. Abreu⁴, B. Siegmund⁵, A. Vermeulen¹
¹Johnson & Johnson, Beerse, Belgium | ²Johnson & Johnson, Spring House, USA | ³Western University, London, Canada | ⁴Cedars-Sinai, Los Angeles, USA | ⁵Charité – Universitätsmedizin Berlin, Berlin, Germany



Scan the QR code
The QR code is intended to provide scientific information for individual reference, and the information should not be altered or reproduced in any way

Background

Icotrokinra is a first-in-class investigational targeted oral peptide that selectively binds the interleukin-23 (IL-23) receptor and precisely inhibits IL-23 proximal signaling

In ulcerative colitis, plasma pharmacokinetics may not fully reflect drug exposure at the site of inflammation within the colonic tissue.

Quantification of drug concentrations in colonic tissue and feces enhances understanding of target-site exposure and gastrointestinal stability of oral peptide therapies.

Objective

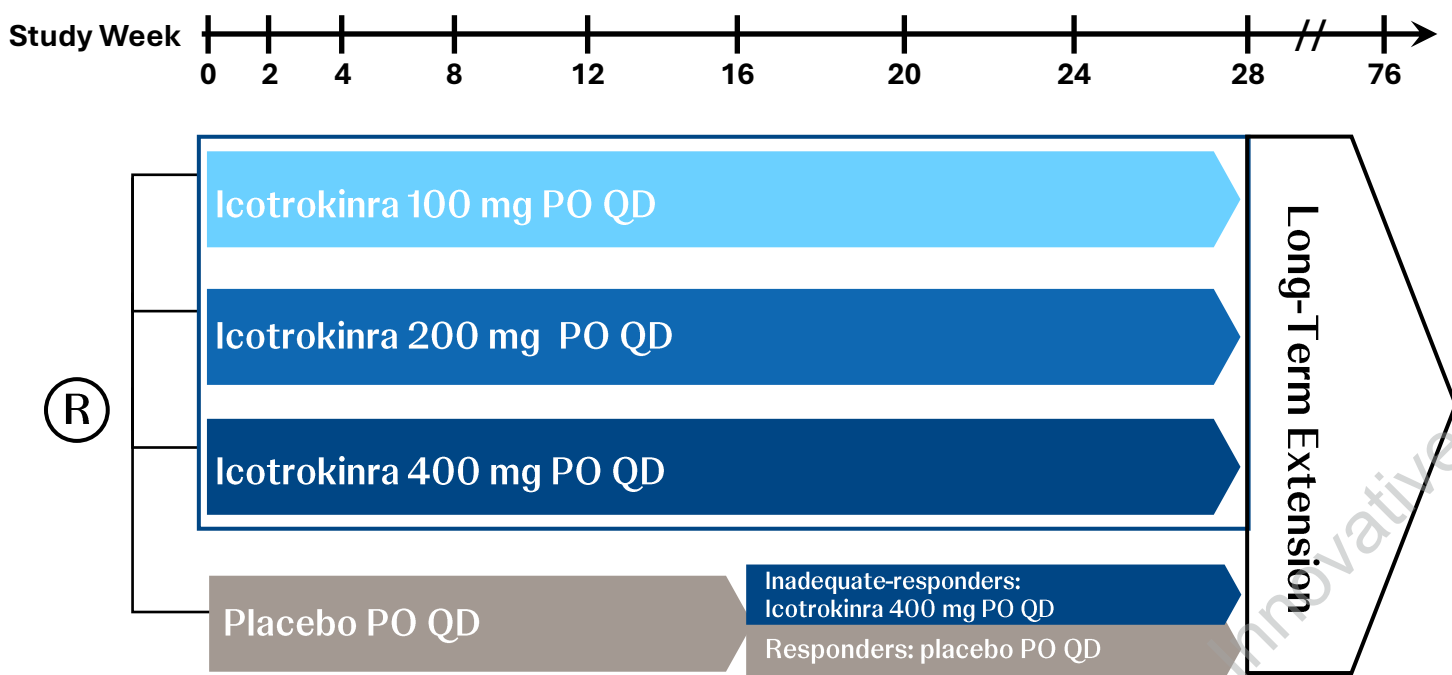
To characterize the plasma, colonic mucosal, and fecal pharmacokinetics of icotrokinra in adults with moderately to severely active ulcerative colitis enrolled in the Phase 2b ANTHEM-UC study.

Methods

ANTHEM-UC (NCT06049017): Randomized, double-blind, placebo-controlled, multicenter Phase 2b dose-ranging study.

Enrolled adults with moderately to severely active ulcerative colitis defined by a Modified Mayo score (mMS) of 5–9, inclusive with a Mayo endoscopic subscore (MES) ≥2 per central review of screening video endoscopy.

Randomized 1:1:1 to icotrokinra 100 mg, 200 mg, 400 mg, or placebo, each given once daily.



- Plasma samples were collected to evaluate PK from Week 2 through Week 28
- Colonic mucosal biopsy PK samples were collected at Week 12 and Week 28
- Fecal PK samples were collected at Week 12

- Concentrations were measured using validated (plasma) or qualified (colonic and fecal) LC-MS/MS assays.
- Plasma samples were collected 12 to <36 hours after the last dose
- PK assessments for tissue and fecal samples are reported irrespective of collection window.
- PK parameters are summarised descriptively.

Poster #3684

Key Takeaways

- Plasma, colonic, and fecal exposure increased with dose, with no apparent accumulation in plasma through Week 28.
- Icotrokinra achieved substantially higher exposure in colonic tissue than in plasma, supporting drug delivery to the site of inflammation and consistent with preclinical findings¹.
- Recovery of intact icotrokinra in feces confirms gastrointestinal stability, overcoming a key hurdle for oral peptides prone to GI degradation².

Results

Median (IQR) icotrokinra exposures in plasma, colonic tissue and feces at Week 12 and Week 28

Week	Matrix	100 mg	200 mg	400 mg
Wk 12	Plasma (ng/mL)	0.29 (0.19; 0.46)	0.75 (0.35; 1.58)	1.40 (0.80; 3.24)
Wk 12	Tissue (ng/g)	37 (0; 195)	190 (21; 992)	370 (41; 1480)
Wk 12	Fecal (µg/g)	311 (76; 470)	773 (450; 1140)	1600 (908; 2500)
Wk 28	Plasma (ng/mL)	0.33 (0.17; 0.59)	0.77 (0.42; 1.92)	1.58 (0.70; 2.75)
Wk 28	Tissue (ng/g)	35 (0; 350)	347 (26; 2320)	1080 (211; 4664)

Plasma

Trough concentrations increased with dose and were generally consistent between Weeks 2 and 28, indicating early steady state with no apparent accumulation. Median Week 12 troughs were 0.29, 0.75 and 1.40 ng/mL in the 100, 200 and 400 mg once-daily groups.

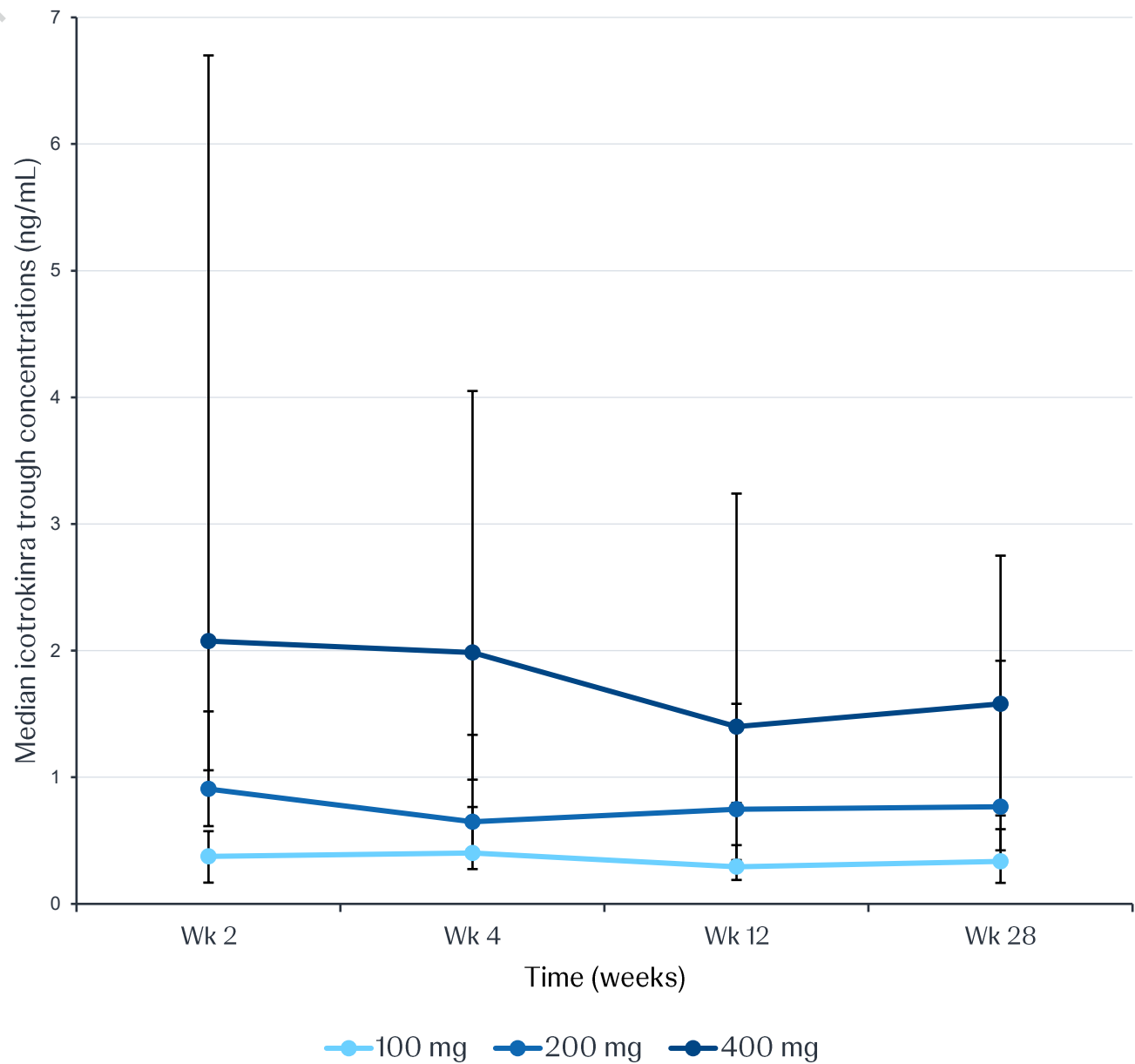
Colonic tissue

Tissue concentrations increased with dose and were consistent between Weeks 12 and 28. Exposure was substantially higher than plasma, with median Week 12 values of 37, 190 and 370 ng/g across the 100, 200 and 400 mg dose groups.

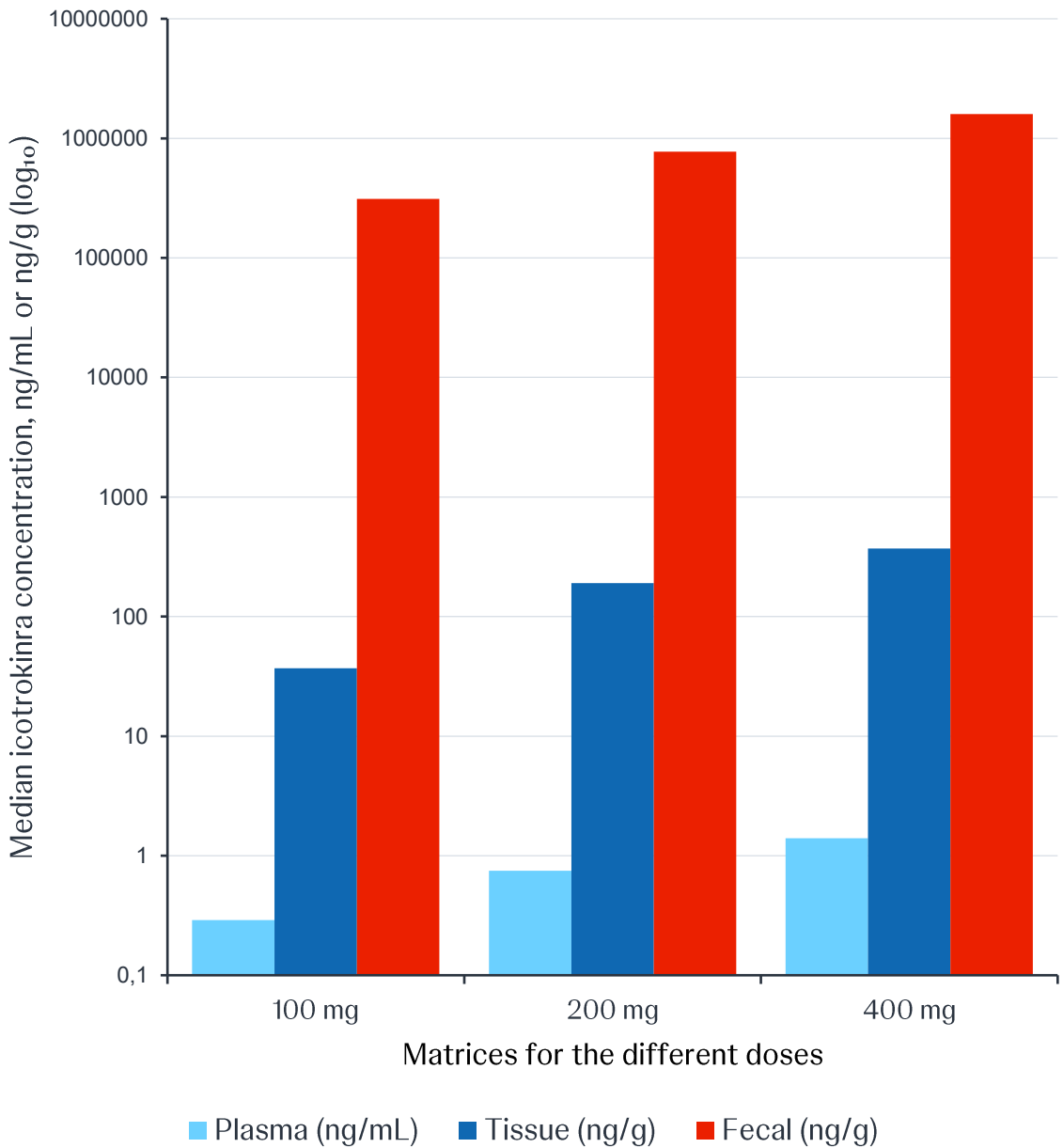
Fecal

Concentrations also increased with dose (median Week 12: 311, 773 and 1600 µg/g). Recovery of a significant amount of intact icotrokinra in feces indicates stability during gastrointestinal transit, a recognized challenge for orally administered peptides.

Icotrokinra Median (IQR) Plasma Trough Concentrations Over Time Through Week 28



Icotrokinra Concentrations by Matrix at Week 12 (log scale)



PRESENTED AT: United European Gastroenterology (UEG) Week; October 17–20, 2026; Barcelona, Spain. ACKNOWLEDGMENTS: The authors thank the participants, investigators, and study personnel who made the ANTHEM study possible. This work was supported by Johnson & Johnson. Under the direction of the authors and in accordance with Good Publication Practices. REFERENCES: 1. Knight, B., Tammara, B., Modi, N.B. et al. Translational Pharmacokinetics of Icotrokinra, a Targeted Oral Peptide that Selectively Blocks Interleukin-23 Receptor and Inhibits Signaling. Dermatol Ther (Heidelb) 15, 2495–2520 (2025). <https://doi.org/10.1007/s13555-025-01454-7>. 2. Baral, K.C., & Choi, K.Y. Barriers and Strategies for Oral Peptide and Protein Therapeutics Delivery: Update on Clinical Advances. Pharmaceutics. 2025;17(4):397. <https://doi.org/10.3390/pharmaceutics17040397>. DISCLOSURES: V.J. consulting fees from AbbVie, Alimentiv, Asieris, Astra Zeneca, Attovia, Biomebank, Boehringer Ingelheim, Caldera Therapeutics, Calluna, Celltrion, Domain Therapeutics, Eli Lilly, Enthera, Ensho, Exellom Biosciences, Ferring Ventures, Flagship Pioneering, Fresenius Kabi, Galapagos, GlaxoSmithKline, Genentech, Gilead, Granite Bio, Johnson & Johnson, Merck, Metacrine, Mountainfield, MRM Health, Nxera, Organon, OSE Immunotherapeutics, Pandion, Pendopharm, Pfizer, Prometheus Biosciences, Roche, Salvia, Sanofi, Shattuck Labs, Sorriso, Spyre, Synedgen, Takeda, Teva, Thabor Therapeutics, Union Therapeutics, Ventus, Ventyx, Vividion, Xencor, Zealand Pharma; speaker's fees from AbbVie, Ferring, Eli Lilly, Pfizer, Takeda; MTA: consultant/advisory board member for AbbVie, Arena Pharmaceuticals (now Pfizer), Bristol Myers Squibb, Celcius Therapeutics, Gilead, Johnson & Johnson, Lilly, Pfizer, Prometheus Biosciences, UCB; lecture fees from Alimentiv, Johnson & Johnson, Prime, WebMD Global LLC. BS: consultant for AbbVie, Abivax, AltruBio, Boehringer Ingelheim, Bristol Myers Squibb, Dr. Falk Pharma, Eli Lilly, Endpoint Health, Galapagos, Johnson & Johnson, Materia Prima, MSD, Pfizer, Takeda, Wedbush Securities; speaker fees from AbbVie, AlfaSigma, Bristol Myers Squibb, CED Service GmbH, Dr. Falk Pharma, Eli Lilly, MD Education, MSD, Galapagos, Johnson & Johnson, Pfizer, TrIX Bio; grant from Pfizer. TB, LS, JZ, NE, MEF, CWM, AV: employee and shareholder of Johnson & Johnson.