Guselkumab maintenance treatment improves health-related quality of life in patients with moderately to severely active ulcerative colitis: phase 3 QUASAR maintenance study

B. Bressler,[1] L. Peyrin-Biroulet,[2] W. Afif,[3] M.A. Samaan,[4] S-C. Wei,[5] S. Yarandi,[6] M. Germinaro,[6] P. Mistry,[6] C. Han,[7] J.R. Allegretti,[8] G.R. Lichtenstein[9]

[1]University of British Columbia, Vancouver, BC, Canada; [2]University of Lorraine, Inserm, NGERE, F-54000 Nancy, France and Groupe Hospitalier privé Ambroise Paré-Hartmann, Paris IBD Centre, 92200 Neuilly sur Seine, France; [3]Division of Gastroenterology, McGill University Health Care, Montréal, Québec, CA; [4]Inflammatory Bowel Disease Unit, Guy's and St Thomas' NHS Foundation Trust, London, UK; [5]Department of Internal Medicine, National Taiwan University Hospital, Taipei, Taiwan; [6]Johnson & Johnson, Spring House, PA, USA; [7]Johnson & Johnson, Malvern, PA, USA; [8]Division of Gastroenterology, Hepatology and Endoscopy, Brigham and Women's Hospital, Harvard Medical School, Boston, MA, USA; [9]University of Pennsylvania, Philadelphia, PA, USA

P1169

Key Takeaways

Among patients with moderately to severely active UC who responded to GUS IV induction, GUS SC maintenance therapy sustained clinically meaningful improvements in HRQoL at Week 44 of the Maintenance Study as measured by the PROMIS-29, which included assessments of:

- Anxiety
- Depression
- Fatigue
- Pain interference
- Sleep disturbance
- Physical function
- Social participation
- Pain intensity

Background

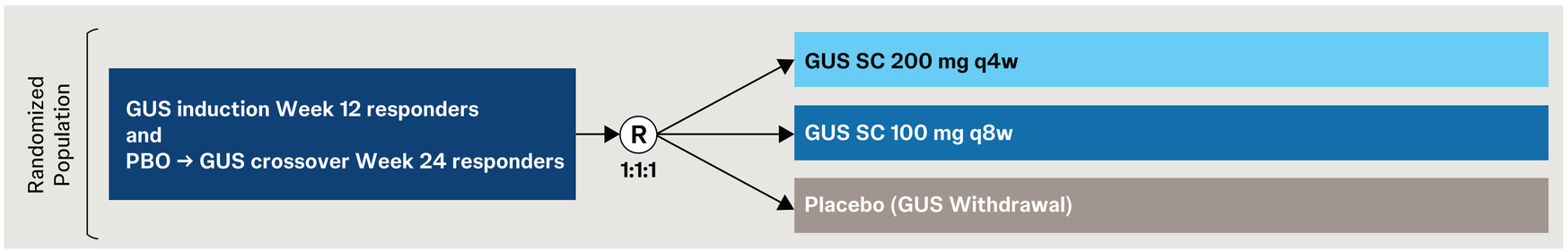
- Ulcerative colitis (UC) is associated with impaired health-related quality of life (HRQoL)
- Guselkumab (GUS) is a selective dual-acting interleukin (IL)-23p19 subunit inhibitor that potently blocks IL-23 and binds to CD64, a receptor on cells that produce IL-23[1]
- GUS intravenous (IV) induction and subcutaneous (SC) maintenance was efficacious in patients with moderately to severely active UC[2]
- GUS IV induction treatment resulted in clinically meaningful improvements in HRQoL as measured by the 29-item Patient-Reported Outcomes Measurement Information System (PROMIS-29)[3]

Objective

Here, we report the effect of GUS SC maintenance therapy on HRQoL in patients who demonstrated a clinical response to GUS IV induction treatment and were randomized in the QUASAR maintenance study (NCT04033445)

Methods

Phase 3 QUASAR Maintenance Study Design Through Week 44



Target Patient Population:

- 18 years of age or older
- Moderately to severely active UC, defined as baseline modified Mayo score of 5 to 9 with a Mayo rectal bleeding subscore ≥1 and a Mayo endoscopic subscore ≥2 based on central review

*LTE=Long-term extension; **PBO**=Placebo; **q4w**=Every 4 weeks; **q8w**=Every 8 weeks; **R**=Randomization.*

PROMIS-29

- The PROMIS-29 is a self-report questionnaire consisting of 7 domains (anxiety, depression, fatigue, pain interference, sleep disturbance, physical function, and social participation) and a pain intensity numeric rating scale (NRS; range 0-10)
- The raw score of each domain is converted into a standardized T-score with a general population mean of 50 and standard deviation of 10
- Physical component summary (PCS) and mental component summary (MCS) scores are derived from physical and mental domain T-scores, respectively
- Depending on the domain/score, improvement of ≥3 to ≥9 points from induction baseline was identified as clinically meaningful[4]

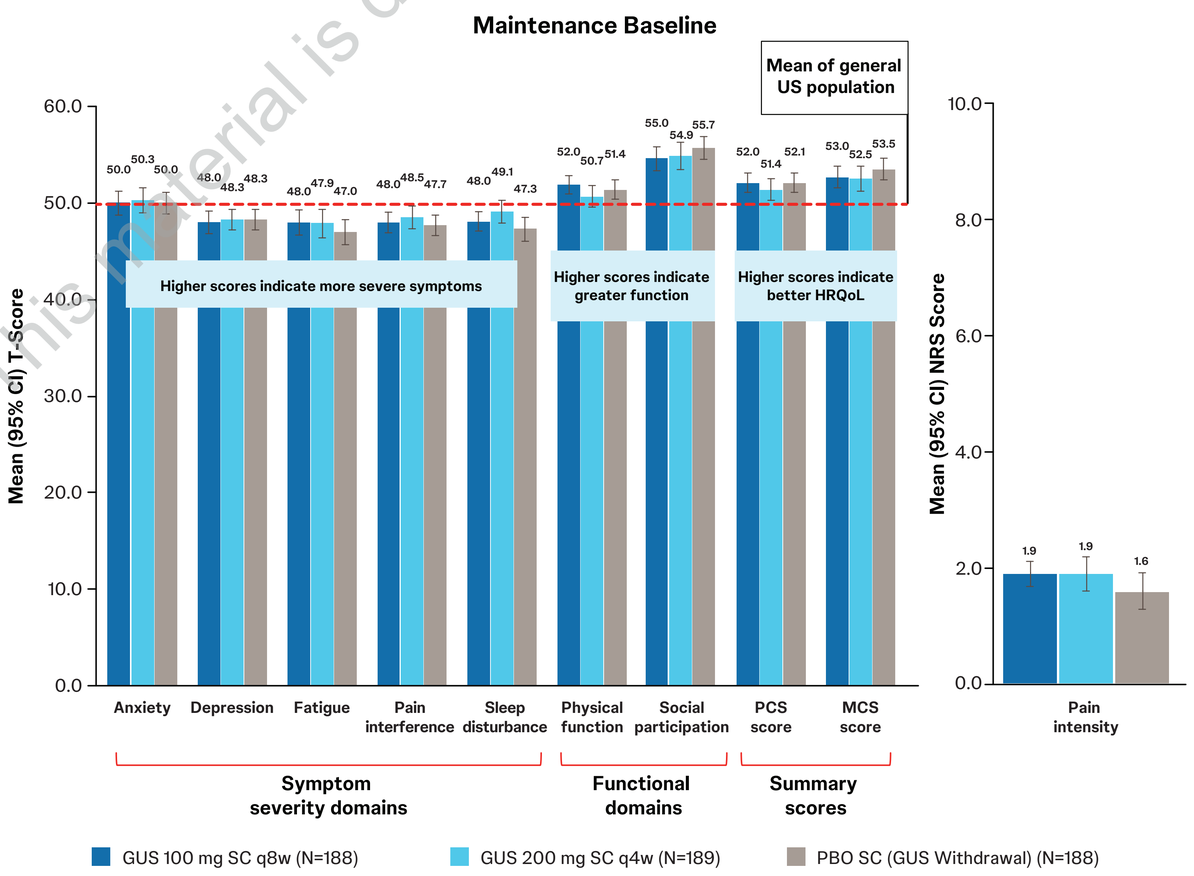
Results

Disease characteristics at induction baseline were balanced among treatment groups

	PBO SC (GUS Withdrawal) (N=190)	GUS 100 mg SC q8w (N=188)	GUS 200 mg SC q4w (N=190)
Demographics			
Age, yrs	41.2 (13.6)	40.3 (13.0)	40.6 (14.7)
Male, n (%)	109 (57%)	102 (54%)	100 (53%)
Disease Characteristics			
UC disease duration, years	7.3 (6.3)	7.8 (8.5)	8.3 (8.4)
Modified Mayo score (0-9)	7.0 (1.1)	6.8 (1.2)	6.9 (1.1)
Modified Mayo score 7-9 (severe), n (%)	125 (66%)	114 (61%)	124 (65%)
Mayo endoscopic subscore of 3 (severe), n (%)	129 (68%)	125 (66%)	123 (65%)
Extensive UC, n (%)	95 (50%)	79 (42%)	83 (44%)
CRP, median in mg/L (IQR)[a]	4.2 (1.6; 8.4)	3.9 (1.4; 10.4)	3.6 (1.4; 9.1)
Fecal calprotectin, median in mg/kg (IQR)[b]	1642 (663.0; 3498.0)	1675 (806.0; 3543.5)	1487 (603.0; 3019.0)
Oral corticosteroid use at baseline, n (%)	77 (41%)	74 (39%)	76 (40%)
Immunosuppressant use at baseline, n (%)	43 (23%)	41 (22%)	42 (22%)
History of inadequate response or intolerance to biologic and/or JAK inhibitor therapy, n (%)[c]	75 (39%)	77 (41%)	88 (46%)
One biologic or JAK inhibitor, n (%)	36 (48%)	36 (47%)	52 (59%)
Two or more biologics and/or JAK inhibitors, n (%)	39 (52%)	41 (53%)	36 (41%)

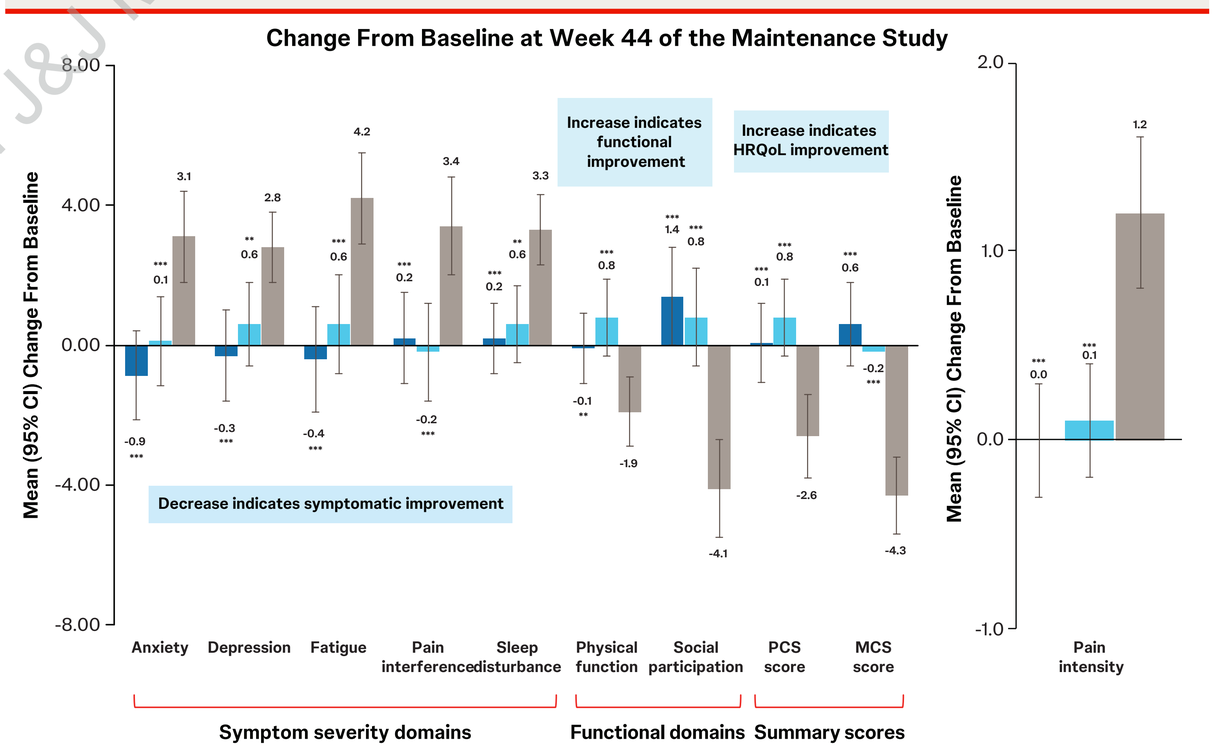
*Data shown are mean (standard deviation) unless otherwise noted. [a]Based on N=190 for PBO, N=185 for GUS SC 100 mg q8w, and N=187 for GUS SC 200 mg q4w. [b]Based on N=175 for PBO, N=160 for GUS SC 100 mg q8w, and N=171 for GUS SC 200 mg q4w. [c]Tumor necrosis factor α antagonists, vedolizumab, and/or tofacitinib. **CRP**=C-reactive protein; **IBDQ**=Inflammatory Bowel Disease Questionnaire; **IQR**=interquartile range; **JAK**=Janus kinase.*

At maintenance baseline, mean PROMIS-29 scores reflected values in line with the general population, as expected for clinical responders to GUS IV induction



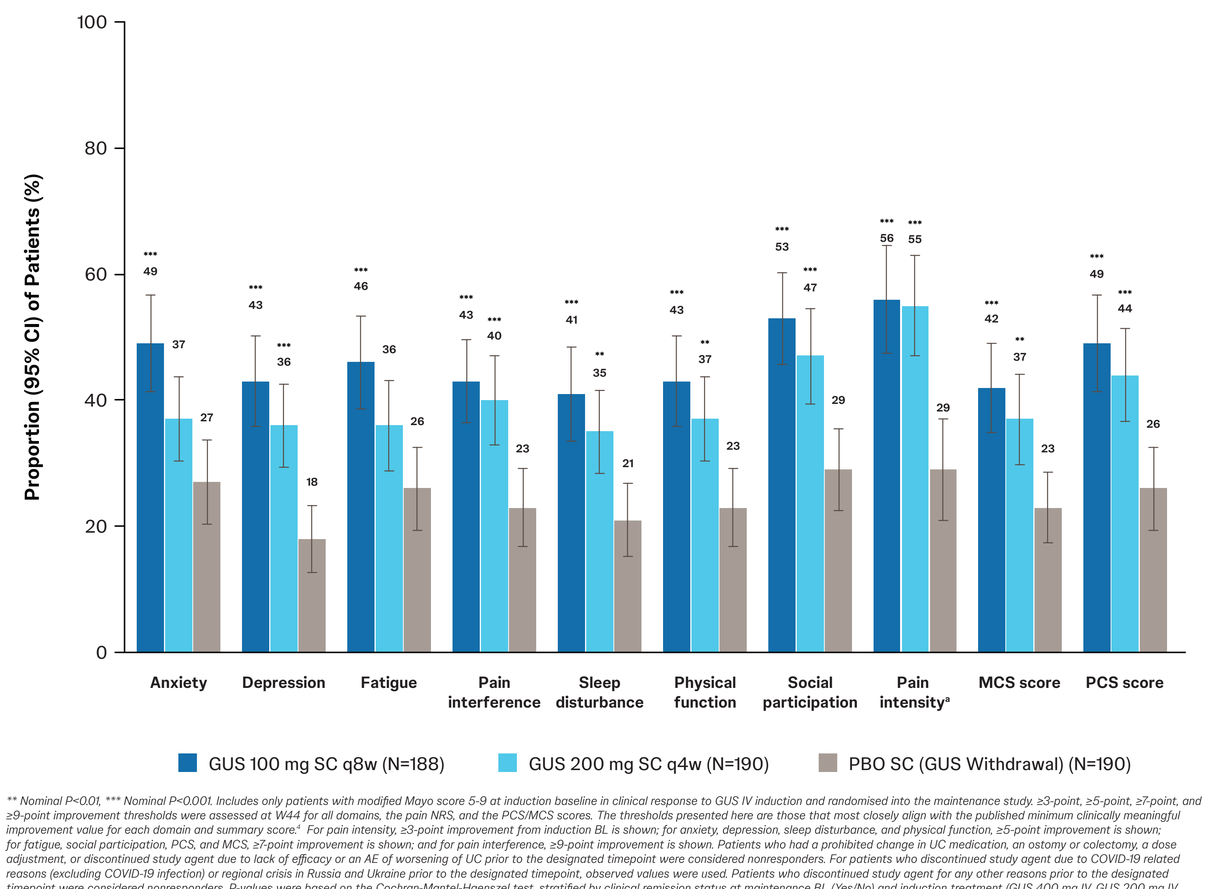
*Includes only patients with modified Mayo score 5-9 at induction baseline in clinical response to GUS IV induction and randomised into the maintenance study. **CI**=confidence interval; **US**=United States.*

At Week 44 of the Maintenance Study, the PROMIS-29 scores observed at maintenance baseline were sustained in both GUS maintenance groups but had worsened in the PBO group



***P<0.01, ***P<0.001. All p-values are nominal and are based on mixed-effect model repeated measures. Patients who had a prohibited change in UC medication, an ostomy or colectomy, a dose adjustment, or discontinued study agent due to lack of efficacy, an AE of worsening of UC, or other reason prior to the designated timepoint had their induction baseline value carried forward from time of event onward. For patients who discontinued study agent due to COVID-19-related reasons (excluding COVID-19 infection) or regional crisis in Russia and Ukraine prior to the designated timepoint, observed values were used. **AE**=adverse event.*

The proportion of patients who achieved clinically meaningful improvement from induction baseline at Week 44 of the Maintenance Study was greater with GUS vs PBO for each PROMIS-29 domain T-score, pain intensity NRS score, and PCS/MCS scores



*** Nominal P<0.01, *** Nominal P<0.001. Includes only patients with modified Mayo score 5-9 at induction baseline in clinical response to GUS IV induction and randomised into the maintenance study. ≥3-point, ≥5-point, ≥7-point, and ≥9-point improvement thresholds were assessed at W44 for all domains, the pain NRS, and the PCS/MCS scores. The thresholds presented here are those that most closely align with the published minimum clinically meaningful improvement value for each domain and summary score.[4] For pain intensity, ≥3-point improvement from induction BL is shown; for anxiety, depression, sleep disturbance, and physical function, ≥5-point improvement is shown; for fatigue, social participation, PCS, and MCS, ≥7-point improvement is shown; and for pain interference, ≥9-point improvement is shown. Patients who had a prohibited change in UC medication, an ostomy or colectomy, a dose adjustment, or discontinued study agent due to lack of efficacy or an AE of worsening of UC prior to the designated timepoint were considered nonresponders. For patients who discontinued study agent due to COVID-19 related reasons (excluding COVID-19 infection) or regional crisis in Russia and Ukraine prior to the designated timepoint, observed values were used. Patients who discontinued study agent for any other reasons prior to the designated timepoint were considered nonresponders. P-values were based on the Cochran-Mantel-Haenszel test, stratified by clinical remission status at maintenance BL (Yes/No) and induction treatment (GUS 400 mg IV, GUS 200 mg IV, PBO→GUS 200 mg IV). [a]Pain intensity was among patients with pain intensity NRS ≥3 at induction baseline.*

This material is distributed for scientific purposes on J&J Medical Connect, and is not for promotional use

PRESENTED BY: B. Bressler at the 20th Congress of European Crohn's and Colitis Organization (ECCO), February 19–22, 2025, Berlin, Germany. **REFERENCES: 1.** Atreya R. *J Crohns Colitis.* 2024;18(suppl):S470. **2.** Rubin DT. *Lancet.* 2025;405:33–49. **3.** Panés J. *J Crohns Colitis.* 2024;18(S1):i160-1. **4.** Sands BE. *Value Health.* 2024;27:1225-34. **ACKNOWLEDGMENTS:** Medical writing support was provided by Holly Capasso-Harris of Certara under the direction of the authors in accordance with Good Publication Practice guidelines (*Ann Intern Med.* 2022;175:1298-1304) and was funded by Johnson & Johnson. Sponsored by Johnson & Johnson. **DISCLOSURES: BB:** reports consulting and/or speaker fees from AbbVie, Alimentiv, Amgen, Bausch Health, BioJamp Pharma, Bristol Myers Squibb, Celgene, Celltrion, Eupraxia, Ferring, Fresenius Kabi, Gilead, Iterative Health, Janssen, Lifelabs, Lilly, Merck, Mylan, Novartis, Organon, Pendopharm, Pfizer, Sandoz, Takeda, and Viatris; serves on a data safety monitoring board or advisory board for Eupraxia; and owns Qu Biologic stock. **LPB:** reports grants or contracts from Celltrion, Fresenius Kabi, Medac, MSD, and Takeda; consulting and/or payment or honoraria and/or data safety monitoring board or advisory board participation for AbbVie, Abivax, Adacyte, Alfasigma, Alimentiv, Amgen, Applied Molecular Transport, Arena, Banook, Biogen, Bristol Myers Squibb, Celltrion, Connect Biopharm, Cytoki Pharma, Enthera, Ferring, Fresenius Kabi, Galapagos, Genentech, Gilead, Gossamer Bio, GlaxoSmithKline, IAG Image Analysis, Index Pharmaceuticals, Inotrem, Janssen, Kern Pharma, Lilly, Medac, Mopac, Morphic, MSD, Nordic Pharma, Novartis, Oncodesign Precision Medicine, ONO Pharma, OSE Immunotherapeutics, Pandion Therapeutics, Par' Immune, Pfizer, Prometheus, Protagonist, Roche, Samsung, Sandoz, Sanofi, Satisfay, Takeda, Telavant, Theravance, Thermo Fischer, Tigenix, Tillots, Viatris, Vectivbio, Ventyx, and Ysopia; and meeting attendance/travel support from AbbVie, Alfasigma, Amgen, Celltrion, Connect Biopharm, Ferring, Galapagos, Genentech, Gilead, Gossamer Bio, Janssen, Lilly, Medac, Morphic, MSD, Pfizer, Sandoz, Takeda, Thermo Fischer, and Tillotts. **WA:** reports advisory and/or speaker fees from AbbVie, Amgen, Bristol Myers Squibb, Janssen, Lilly, Merck, Novartis, Pfizer, Sandoz, Sanofi, and Takeda, and is a clinical investigator for AbbVie, Janssen, Pfizer, Sanofi, and Takeda. **MAS:** reports advisory and/or speaker fees from AbbVie, Bristol Myers Squibb, Galapagos, Janssen, Lilly, MSD, Pfizer, Samsung Bioepis, Sandoz, Sanofi, STADA, Takeda, and Tillotts. **SCW:** reports consulting and/or payment or honoraria and/or advisory board participation for from AbbVie, Bristol Myers Squibb, Celltrion, Everest Medicine, Ferring Pharmaceuticals Inc, Janssen, MSD, Pfizer, Sanofi, and Takeda; and speaker fees from AbbVie, Bristol Myers Squibb, Celltrion, CornerStones, Excelsior, Ferring Pharmaceuticals Inc, Janssen, Pfizer, Takeda, Tanabe, and ThermoFisher. **SY, MG, MP,** and **CH:** are employees and stockholders of Johnson & Johnson. **JRA:** reports research support from Merck and Pfizer; consulting and/or speaker fees from AbbVie, Artugen Therapeutics, Bristol Myers Squibb, Ferring, Finch Therapeutics, Iterative Scopes, Janssen, Merck, Pfizer, and Seres Therapeutics; and is a steering committee member and investigator for Janssen. **GRL:** reports consulting and/or speaker fees and/or meeting attendance or travel support from AbbVie, Allergan, American Gastroenterological Association, American Regent (Creative Educational Concepts), Amgen (continuing medical education [CME] supporter), Boehringer Ingelheim (CME sponsor), Bristol Meyers Squibb, Celgene, Exact Sciences (CME sponsor), Ferring, Focus Medical Communications, Gilead, IBD Horizon, Ironwood, Janssen (CME sponsor), Janssen Biotech (CME supporter), Janssen Orthobiotech, Janssen Scientific (CME supporter), Lilly, MedEd Consultants, Pennsylvania Society of Gastroenterology, Pfizer, Pharmacosmos, Physician Education Resource, Prometheus Laboratories, Salix (CME sponsor), Sandoz, Sanofi (CME sponsor), Seres Pharmaceuticals (CME sponsor), Takeda, UCB, and Vindico; research support from Bristol Meyers Squibb, Celgene, Janssen Orthobiotech, Pfizer, Takeda, and UCB; data safety monitoring board participation with Lilly; honoraria from Gastroenterology and Hepatology (Gastro-Hep Communications) (Editor), Springer Science and Business Media (Editor), and Up-To-Date-Walters Kluwer (Author); royalties from SLACK Inc (book royalty), and Professional Communications Inc (textbook royalty); and being the Chair of the Professional Education Committee and Member of the National Scientific Advisory Committee for Crohn's Colitis Foundation.