Johnson&Johnson

NEWS RELEASE

TREMFYA® (guselkumab) receives U.S. FDA approval for adults with moderately to severely active ulcerative colitis, strengthening Johnson & Johnson's leadership in inflammatory bowel disease

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The first and only dual-acting interleukin-23 inhibitor approved in active ulcerative colitis, TREMFYA® showed highly statistically significant rates of endoscopic remission at one year in the pivotal QUASAR program[1,2,3,4,5]

TREMFYA® is now approved for the treatment of plaque psoriasis, active psoriatic arthritis and ulcerative colitis

HORSHAM, Pa., Sept. 11, 2024 /PRNewswire/ -- Johnson & Johnson (NYSE: JNJ) today announced that the U.S. Food and Drug Administration (FDA) has approved TREMFYA® (guselkumab) for the treatment of adults with moderately to severely active ulcerative colitis (UC), a chronic disease of the large intestine in which the lining of the colon becomes inflamed. TREMFYA® is the first and only approved fully-human, dual-acting monoclonal antibody that blocks IL-23 while also binding to CD64, a receptor on cells that produce IL-23. IL-23 is a cytokine secreted by activated monocyte/macrophages and dendritic cells that is known to be a driver of immune-mediated diseases including UC.[1,2,3,4,5]

"Treatment with TREMFYA resulted in significant improvement in the chronic symptoms of ulcerative colitis, and importantly, normalization in the endoscopic appearance of the intestinal lining," said David T. Rubin, MD, Director, Inflammatory Bowel Disease Center, University of Chicago Medicine, and lead investigator for the QUASAR program. "Today's approval of TREMFYA builds on the clinical and well-established safety profile of this IL-23 inhibitor and marks a significant step forward in the treatment of this chronic inflammatory disease."

The UC approval is supported by data from the pivotal, ongoing Phase 2b/3 QUASAR study evaluating the efficacy

and safety of TREMFYA® in adult patients with moderately to severely active UC who experienced an inadequate response or who demonstrate intolerance to conventional therapy, other biologics and/or JAK inhibitors.[6] Highlights from QUASAR showed:

- 50% of patients receiving TREMFYA® 200 mg subcutaneous (SC) maintenance every four weeks (q4w) and 45% of patients receiving TREMFYA® 100 mg SC every eight weeks (q8w) achieved primary endpoint of clinical remission at week 44 compared to 19% placebo-treated patients ($p<0.001$).
- 34% (200 mg) and 35% (100 mg) of patients achieved endoscopic remission at one year with TREMFYA® SC maintenance therapy compared to 15% placebo-treated patients ($p<0.001$).

"There is a significant need for new UC therapies that offer meaningful improvements in symptoms and the promise of remission, both overall clinical remission as well as delivering visible healing of the colon through endoscopic remission," said Christopher Gasink, MD, Vice President, Medical Affairs, Gastroenterology & Autoantibody, Johnson & Johnson Innovative Medicine. "In the QUASAR clinical program, TREMFYA demonstrated high reported rates of endoscopic remission at one year of treatment, continuing to raise the bar for efficacy in the treatment of this inflammatory bowel disease."

For the treatment of UC, TREMFYA® is administered as a 200 mg induction dose intravenously at weeks zero, four and eight by a healthcare professional. The recommended maintenance dosage is 100 mg administered by SC injection at week 16, and every 8 weeks thereafter, or 200 mg administered by SC injection at week 12, and every 4 weeks thereafter. The SC maintenance dose can be self-administered by the patient or administered by a caregiver using TREMFYA® after proper training. Use the lowest effective recommended dosage to maintain therapeutic response.

The QUASAR results reinforced the well-established safety profile of TREMFYA® including in the treatment of patients with UC. This FDA approval marks the third indication approved for TREMFYA®, which builds on Johnson & Johnson's nearly 30-year legacy of immunology innovation. TREMFYA® first received approval in the U.S. in July 2017 for the treatment of adult patients with moderate-to-severe plaque psoriasis and received subsequent approval for adults with active psoriatic arthritis in July 2020.[3] In June 2024, Johnson & Johnson **submitted** a supplemental Biologics License Application (sBLA) to the FDA seeking approval of TREMFYA® for the treatment of adult patients with moderately to severely active Crohn's disease.

Editor's Notes:

CD64+ cells are the predominant source of IL-23 in UC. Cells not expressing CD64 may also contribute to IL-23 production but to a lesser extent.[1,2]
"Only" based on approved selective IL-23 inhibitors for moderately to severely active UC as of September 2024.[3,4,5]

Based on in vitro studies in an inflammatory monocyte model.[1]
Clinical remission was defined as a Mayo stool frequency subscore of 0 or 1 and not increased from induction baseline, a Mayo rectal bleeding subscore of 0, and a Mayo endoscopy subscore of 0 or 1 with no friability present on the endoscopy.[6]
Endoscopic remission (normalization) was defined as a Mayo endoscopic subscore of 0.[6]
Dr. Rubin is a paid consultant for Johnson & Johnson. He has not been compensated for any media work.
TREMFYA® is not approved for the treatment of adults living with Crohn's disease in the U.S.

ABOUT THE QUASAR PROGRAM (**NCT04033445**)

QUASAR is a randomized, double-blind, placebo-controlled, parallel group, multicenter Phase 2b/3 program designed to evaluate the efficacy and safety of TREMFYA®, a selective IL-23 inhibitor, in adult patients with moderately to severely active ulcerative colitis who had an inadequate response or intolerance to conventional therapy (e.g., thiopurines or corticosteroids), prior biologics and/or JAK inhibitors (i.e., tumor necrosis factor-alpha antagonists, vedolizumab, or tofacitinib).[3] QUASAR included a Phase 2b dose-ranging induction study, a confirmatory Phase 3 induction study, and a Phase 3 maintenance study. Efficacy, safety, pharmacokinetics, immunogenicity, and biomarkers are assessed at specified time points.[6]

The most common adverse reactions (≥2%) in patients with UC who received TREMFYA® and at a higher rate of placebo in the induction study were respiratory tract infections. The most common adverse reactions (≥3%) in patients with UC who received TREMFYA® and at a higher rate of placebo in the maintenance study were injection site reactions, arthralgia, and upper respiratory tract infection.

ABOUT ULCERATIVE COLITIS

Ulcerative colitis (UC) is a form of inflammatory bowel disease (IBD) that causes inflammation in the digestive tract and can result in damage to the colon lining. It is the result of the immune system's overactive response. Patients can experience a range of unpredictable symptoms, which may include loose and more frequent bowel movements, rectal bleeding or bloody stool, persistent diarrhea, abdominal pain, loss of appetite, weight loss, and fatigue.[7] Patients with UC also have increased rates of depression.[8] More than one million people in the U.S. are living with UC, making it one of the largest populations globally affected by this disease, and the prevalence continues to rise.[9,10,11]

ABOUT TREMFYA® (guselkumab)

Developed by Johnson & Johnson, TREMFYA® is the first approved fully-human, dual-acting monoclonal antibody designed to neutralize inflammation at the cellular source by blocking IL-23 and binding to CD64 (a receptor on cell that produce IL-23). Findings for dual-acting are limited to in vitro studies that demonstrate guselkumab binds to CD64, which is expressed on the surface of IL-23 producing cells in an inflammatory monocyte model. The clinical

significance of this finding is not known.

TREMFYA® is approved in the U.S., Europe, Canada, Japan, and a number of other countries for the treatment of adults with moderate-to-severe plaque psoriasis and for the treatment of adult patients with active psoriatic arthritis.

Johnson & Johnson maintains exclusive worldwide marketing rights to TREMFYA®. For more information, visit: **www.tremfya.com**.

IMPORTANT SAFETY INFORMATION

What is the most important information I should know about TREMFYA®?
TREMFYA® is a prescription medicine that may cause serious side effects, including:

- Serious Allergic Reactions. Stop using TREMFYA® and get emergency medical help right away if you develop any of the following symptoms of a serious allergic reaction:

- o fainting, dizziness, feeling lightheaded (low blood pressure)
- o swelling of your face, eyelids, lips, mouth, tongue or throat
- o trouble breathing or throat tightness
- o chest tightness
- o skin rash, hives
- o itching

- Infections. TREMFYA® may lower the ability of your immune system to fight infections and may increase your risk of infections. Your healthcare provider should check you for infections and tuberculosis (TB) before starting treatment with TREMFYA® and may treat you for TB before you begin treatment with TREMFYA® if you have a history of TB or have active TB. Your healthcare provider should watch you closely for signs and symptoms of TB during and after treatment with TREMFYA®.

Tell your healthcare provider right away if you have an infection or have symptoms of an infection, including:

- o fever, sweats, or chills
- o muscle aches
- o weight loss
- o cough
- o warm, red, or painful skin or sores on your body different from your psoriasis
- o diarrhea or stomach pain
- o shortness of breath
- o blood in your phlegm (mucus)
- o burning when you urinate or urinating more often than normal

Do not take TREMFYA® if you have had a serious allergic reaction to guselkumab or any of the ingredients in TREMFYA®.

Before using TREMFYA®, tell your healthcare provider about all of your medical conditions, including if you:

- have any of the conditions or symptoms listed in the section "What is the most important information I should know about TREMFYA®?"
- have an infection that does not go away or that keeps coming back.
- have TB or have been in close contact with someone with TB.
- have recently received or are scheduled to receive an immunization (vaccine). You should avoid receiving live vaccines during treatment with TREMFYA®.
- are pregnant or plan to become pregnant. It is not known if TREMFYA® can harm your unborn baby. Pregnancy Registry: If you become pregnant during treatment with TREMFYA®, talk to your healthcare provider about registering in the pregnancy exposure registry for TREMFYA®. You can enroll by visiting **www.mothertobaby.org/ongoing-study/tremfya-guselkumab**, by calling 1-877-311-8972, or emailing **MotherToBaby@health.ucsd.edu**. The purpose of this registry is to collect information about the safety of TREMFYA® during pregnancy.
- are breastfeeding or plan to breastfeed. It is not known if TREMFYA® passes into your breast milk.

Tell your healthcare provider about all the medicines you take, including prescription and over-the-counter medicines, vitamins, and herbal supplements.

What are the possible side effects of TREMFYA®?
TREMFYA® may cause serious side effects. See "What is the most important information I should know about TREMFYA®?"

The most common side effects of TREMFYA® include: respiratory tract infections, headache, injection site reactions, joint pain (arthralgia), diarrhea, stomach flu (gastroenteritis), fungal skin infections, herpes simplex infections, and bronchitis.

These are not all the possible side effects of TREMFYA®. Call your doctor for medical advice about side effects.

Use TREMFYA® exactly as your healthcare provider tells you to use it.

Please read the full **Prescribing Information**, including **Medication Guide**, for TREMFYA® and discuss any questions that you have with your doctor.

You are encouraged to report negative side effects of prescription drugs to the FDA. Visit **www.fda.gov/medwatch** or call 1-800-FDA-1088.

Dosage Forms and Strengths: TREMFYA® is available in a 100 mg/mL prefilled syringe and One-Press patient-controlled injector for subcutaneous injection, a 200 mg/2 mL prefilled syringe and prefilled pen (TREMFYA® PEN) for subcutaneous injection, and a 200 mg/20 mL (10 mg/mL) single dose vial for intravenous infusion.

ABOUT JOHNSON & JOHNSON

At Johnson & Johnson, we believe health is everything. Our strength in healthcare innovation empowers us to build a world where complex diseases are prevented, treated, and cured, where treatments are smarter and less invasive, and solutions are personal. Through our expertise in Innovative Medicine and MedTech, we are uniquely positioned to innovate across the full spectrum of healthcare solutions today to deliver the breakthroughs of tomorrow, and profoundly impact health for humanity. Learn more at **https://www.jnj.com/** or at **www.janssen.com/johnson-johnson-innovative-medicine**. Follow us at **@JanssenUS** and **@JNJInnovMed**. Janssen Research & Development, LLC, Janssen Scientific Affairs, LLC. and Janssen Biotech, Inc. are all Johnson & Johnson companies.

Cautions Concerning Forward-Looking Statements

This press release contains "forward-looking statements" as defined in the Private Securities Litigation Reform Act of 1995 regarding TREMFYA®. The reader is cautioned not to rely on these forward-looking statements. These statements are based on current expectations of future events. If underlying assumptions prove inaccurate or known or unknown risks or uncertainties materialize, actual results could vary materially from the expectations and projections of Janssen Research & Development, LLC, Janssen Scientific Affairs, LLC. and Janssen Biotech, Inc. and/or Johnson & Johnson. Risks and uncertainties include, but are not limited to: challenges and uncertainties inherent in product research and development, including the uncertainty of clinical success and of obtaining regulatory approvals; uncertainty of commercial success; manufacturing difficulties and delays; competition, including technological advances, new products and patents attained by competitors; challenges to patents; product efficacy or safety concerns resulting in product recalls or regulatory action; changes in behavior and spending patterns of purchasers of health care products and services; changes to applicable laws and regulations, including global health care reforms; and trends toward health care cost containment. A further list and descriptions of these risks, uncertainties and other factors can be found in Johnson & Johnson's Annual Report on Form 10-K for the fiscal year ended December 31, 2023, including in the sections captioned "Cautionary Note Regarding Forward-Looking Statements" and "Item 1A. Risk Factors," and in Johnson & Johnson's subsequent Quarterly Reports on Form 10-Q and other filings with the Securities and Exchange Commission. Copies of these filings are available online at **www.sec.gov**, **www.jnj.com** or on request from Johnson & Johnson. None of Janssen

Research & Development, LLC, Janssen Scientific Affairs, LLC. and Janssen Biotech, Inc. nor Johnson & Johnson undertakes to update any forward-looking statement as a result of new information or future events or developments.

[1] Atreya R, Abreu MT, Krueger JG, et al. Guselkumab, an IL-23p19 subunit-specific monoclonal antibody, binds CD64+ myeloid cells and potentially neutralizes IL-23 produced from the same cells. Poster presented at: 18th Congress of the European Crohn's and Colitis Organization (ECCO); March 1-4, 2023; Copenhagen, Denmark. Poster P504.

[2] Kreuger JG, Eyerich K, Kuchroo VK. Il-23 past, present, and future: a roadmap to advancing IL-23 science and therapy. Front Immunol. 2024; 15:1331217. doi:10.3389/fimmu.2024.1331217

[3] TREMFYA® [Prescribing Information]. Horsham, PA: Janssen Biotech, Inc.

[4] Skyrizi® [Prescribing Information]. North Chicago, IL: AbbVie, Inc.

[5] OmvohTM [Prescribing Information]. Indianapolis, IN: Eli Lilly and Company.

[6] **Clinicaltrials.gov**. A Study of Guselkumab in Participants With Moderately to Severely Active Ulcerative Colitis (QUASAR). Identifier: NCT04033445. Accessed September 2024. **https://classic.clinicaltrials.gov/ct2/show/NCT04033445**

[7] Crohn's & Colitis Foundation. What is ulcerative colitis? Accessed September 2024. **https://www.crohnscolitisfoundation.org/what-is-ulcerative-colitis**

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[9] Lewis, JD, et al. Incidence, prevalence and racial and ethnic distribution of inflammatory bowel disease in the United States. Gastroenterology. 2023;165:1197-1205.

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[11] Le Berre C, Honap S, Peyrin-Biroulet L. Ulcerative colitis. Lancet. 2023;402(10401):571-584. doi: 10.1016/S0140-6736(23)00966-2

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