UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

POST-FINASTERIDE SYNDROME FOUNDATION, 27 World's Fair Drive Somerset, NJ 08873, Plaintiff, v. FOOD AND DRUG ADMINISTRATION, 10903 New Hampshire Avenue Silver Spring, MD 20993, Defendant.	)	Civil Action No. 21-2374

COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF

INTRODUCTION

1. Plaintiff Post-Finasteride Syndrome Foundation (PFSF) brings this action pursuant to the Food, Drug, and Cosmetic Act (FDCA), 21 U.S.C. § 301 *et seq.*, and the Administrative Procedure Act (APA), 5 U.S.C. §§ 702 and 706, to compel the United States Food and Drug Administration (FDA) to act on a citizen petition filed by PFSF on September 18, 2017. In its petition, PFSF requested that FDA withdraw its approval for use of 1 mg finasteride, marketed under the brand-name Propecia, for treatment of male pattern hair loss because the risks of serious injury from the drug outweigh its benefits. In the alternative, PFSF requested that FDA require drug manufacturers to amend misleading safety information and add boxed warnings that disclose the potential side effects and contraindications of finasteride. PFSF also requested that FDA require the issuance of a "Dear Health Care Provider Letter" that would inform those who prescribe 1 mg finasteride for hair loss of the serious risks, including depression and suicidal ideation, associated with the drug.

2. Nearly four years have passed since PFSF filed its petition, and FDA has neither granted nor denied it. In this action, PFSF seeks a declaration that FDA has acted unlawfully by withholding action on PFSF's petition and an order requiring FDA to act on the petition.

PARTIES

3. Plaintiff PFSF is a non-profit advocacy organization based in New Jersey. Since its founding in 2012, PFSF has supported scientific and clinical research into the exact mechanisms of Post-Finasteride Syndrome (PFS) and into potential treatments and cures. The organization also aims to raise awareness among scientists, clinicians, and the public about the long-term and life-altering impacts that PFS can have on the sexual, physical, and psychological health of men who develop this condition. PFSF submitted the citizen petition at issue in this suit.

4. Defendant FDA is a component of the Department of Health and Human Services, an agency of the federal government. FDA is responsible for deciding whether to approve new drug applications, for withdrawing approval of unsafe indications previously approved, and for regulating the content and format of prescription drug labeling.

JURISDICTION

5. This Court has jurisdiction pursuant to 28 U.S.C. § 1331.

FACTS

6. One milligram finasteride, marketed by Merck Research Laboratories under the brand name Propecia, is a medication used to treat androgenic alopecia in men—a condition commonly known as male pattern hair loss. Finasteride was invented to mimic the genetic mutation that causes male pseudohermaphroditism. Merck developed Propecia for hair loss because these pseudohermaphrodites never go bald.

7. On December 19, 1997, FDA approved the use of 1 mg finasteride to prevent and treat male pattern hair loss.

8. Merck estimates that more than 4.5 million men took Propecia from product launch in 1998 through September 30, 2008, and that more than a half million men were taking Propecia at the end of 2007.

9. U.S. prescriptions of 1 mg finasteride for hair loss more than doubled from 2015 to 2020. The most likely explanation for this dramatic increase is the emergence of telemedicine companies, such as Hims, Roman, and Keeps, that aggressively market and sell generic finasteride for hair loss.

10. Peer-reviewed studies demonstrate that some men who take 1 mg finasteride for male pattern hair loss develop PFS, a syndrome characterized by sexual dysfunction and psycho-neurocognitive symptoms. Men who experience PFS may continue to suffer from these symptoms years after they have stopped taking finasteride.

11. As explained in PFSF's petition to FDA, the most serious risk of 1 mg finasteride is suicide. PFSF's petition contained information from VigiBase, a database of the Uppsala Monitoring Centre and the World Health Organization's Programme for International Drug Monitoring that tracks adverse effects reports from global pharmacovigilance agencies. As of 2017, the database listed 212 cases of suicidal ideation, 31 cases of suicide attempt, and 46 cases of completed suicides associated with finasteride use. A 2020 study concluded that patients under age 45 who used finasteride for hair loss are vulnerable to depression, anxiety, and suicidal ideation. Currently, the VigiBase database lists 378 cases of suicidal ideation, 39 cases of suicide attempt, and 88 cases of completed suicide associated with finasteride use.

12. A study by researchers at Northwestern University found that 0.8% men taking finasteride for hair loss developed erectile dysfunction lasting more than 90 days after drug discontinuation. One-third of the men who developed new erectile dysfunction while taking finasteride continued to have erectile dysfunction more than 90 days after drug discontinuation. Based on prescription and use data, PSFS estimates that more than 100,000 men suffer from PSF.

13. Propecia's product labeling states that "resolution [of sexual adverse reactions] occurs in men who discontinued therapy with PROPECIA due to these side effects," but in fact persistent sexual dysfunction associated with Propecia does not resolve for all men after discontinuing use of the drug.

14. The labeling of 1 mg finasteride claims that the drug has "no antiandrogenic effects." Androgens are male sex hormones. An antiandrogen is a substance that inhibits the production, biological activity, or effects of testosterone and other male sex hormones. In contrast to the labeling, Merck's finasteride composition-of-matter patent states that finasteride is a "potent antiandrogen." And publications in 1990 and 1992 by Elizabeth Stoner, the then-head of Merck's finasteride clinical development program, compared the effects of 1 mg and 5 mg finasteride to castration.

15. The product labeling does not disclose important information about finasteride's mechanism of action. In particular, the drug inhibits multiple steroid hormone pathways that are responsible for the formation of brain neurosteroids that regulate many critical functions in the central nervous system, like sexual function, mood, sleep, cognitive function, the stress response, and motivation.

16. Despite ample evidence demonstrating that Propecia and its generic equivalents are associated with the severe adverse effects of PFS, current product labeling for 1 mg finasteride does not include adequate warnings about these adverse effects.

17. On September 18, 2017, PFSF submitted to FDA a citizen petition concerning 1 mg finasteride. The petition requested that FDA withdraw its approval of 1 mg finasteride for treatment of male pattern hair loss because the risks of serious injury from the drug outweigh its benefits. In the alternative, PFSF requested that FDA require drug manufacturers to amend misleading safety information and add boxed warnings that disclose the potential side effects and contraindications of finasteride. PFSF also requested that FDA require the issuance of a "Dear Health Care Provider Letter" that would inform those who prescribe 1 mg finasteride for hair loss of the serious risks, including depression and suicidal ideation, associated with the drug. The petition detailed numerous scientific and clinical studies that demonstrate the ways in which the mechanisms of action of finasteride result in serious adverse effects like erectile dysfunction, loss of libido, depression, suicidal ideation, anxiety, panic attacks, insomnia, and cognitive dysfunction.

18. On the same day that PFSF submitted the petition, FDA's docket management division acknowledged receipt and assigned the petition docket number FDA-2017-P-5787.

19. On December 2, 2020, PFSF submitted supplemental information in support of its citizen petition.

20. The first of the supplements included new scientific and clinical studies along with information about regulations on marketing and prescribing finasteride in other countries. Two animal studies, published in 2019, demonstrated that finasteride resulted in brain cell abnormalities

and altered brain function in rats, and multiple clinical studies found links between patients taking 1 mg finasteride and penile vascular abnormalities and adverse psycho-neurocognitive effects.

21. The second supplement shared information uncovered by *Reuters* from one of 1,100 civil lawsuits against Merck in the Eastern District of New York. In a deposition, Keith Kaufman, head of the Propecia clinical development program, testified that Merck did not follow up with men with unresolved sexual side effects at the completion of the phase 3 clinical trials to determine whether the adverse sexual effects they experienced had abated. At least one participant who had experienced sexual side effects did not see resolution of symptoms more than 6 months after quitting the study. In addition, a 2006 Propecia Periodic Safety Update Report indicates that 16 men did not have resolution of their sexual side effects at the end of the clinical trials.

22. Based on these cases of persistent sexual dysfunction, Charlotte Merritt, Merck's regulatory executive for Propecia, has testified that the product label statement "resolution [of sexual adverse reactions] occurs in *all* men who discontinued therapy with PROPECIA due to these side effects" was no longer true and needed to be revised. A draft revision of the product label accurately stated that "resolution [of sexual adverse reactions] occurs in *many* men who discontinued therapy with PROPECIA," but the final label revision submitted to FDA by Merritt merely deleted the word "all" from the product label statement.

23. *Reuters* has reported that, in 2011, FDA analysts disagreed about whether to add a warning related to suicidal thoughts and behavior, but ultimately granted Merck's request to include a warning for the risk of depression without including the risk of suicidal ideation. Since 2011, FDA has received more than 700 reports of suicide and suicidal thoughts in patients taking 1 mg finasteride.

24. Drug regulatory agencies in Canada and in Europe have added warnings about suicidal ideation and anxiety to 1 mg finasteride, recommended that finasteride be discontinued in patients who develop depression, and mandated that Merck instruct doctors to inform their patients about these risks. The European Medicines Agency requires that anxiety be listed as a potential side effect, and the label for Propecia in the United Kingdom includes a precaution about mood alterations, depression, and suicidal ideation. Health Canada has required Merck to update the product label information to include the risk of suicidal ideation. Drug regulatory agencies in France and Germany have issued letters instructing doctors to inform patients of the risk of suicidal thoughts and anxiety.

25. A recent Baylor College of Medicine study showed significantly increased or decreased expression of more than 3,700 genes in men with PFS. Abnormal expression of genes can result in the production of too much or too little of the proteins encoded by the genes, with adverse biological consequences. The gene expression patterns in men with PFS suggest chronic androgen deficiency, negative impacts on neurosteroid production and nerve cell health, chronically elevated stress states, and abnormalities of the penile vasculature.

26. To date, FDA has not issued a decision on PFSF's September 2017 citizen petition or taken any of the actions requested in it.

27. FDA's decisional process is lagging unreasonably in light of the nature and extent of the public health interests addressed in the petition and its supplements.

CLAIMS FOR RELIEF

28. FDA's failure to act on PFSF's petition constitutes agency action unlawfully withheld or unreasonably delayed. 5 U.S.C. § 706(1).

29. FDA's failure to act on PFSF's petition is not in accordance with law. 5 U.S.C. § 706(2)(A).

WHEREFORE, Plaintiff requests that this Court:

A. Declare unlawful FDA's failure to act on PFSF's petition;

B. Order FDA to issue a decision on PFSF's petition within 30 days of the Court's order;

C. Award PFSF its reasonable costs and attorney's fees under 28 U.S.C. § 2412; and

D. Grant all other appropriate relief.

Respectfully submitted,

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