UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MYLAN PHARMACEUTICALS INC. and MYLAN LABORATORIES LIMITED, Petitioner,

v.

UCB PHARMA GMBH, Patent Owner.

Case IPR2016-00512 Patent 7,384,980 B2

Before KRISTINA M. KALAN, ROBERT A. POLLOCK, and MICHELLE N. ANKENBRAND, *Administrative Patent Judges*.

KALAN, Administrative Patent Judge.

DOCKET

DECISION Institution of *Inter Partes* Review 37 C.F.R. § 42.108

I. INTRODUCTION

Mylan Pharmaceuticals Inc. and Mylan Laboratories Limited, ("Mylan" or "Petitioner") filed a Corrected Petition requesting an *inter partes* review of claims 1–16 of U.S. Patent No. 7,384,980 B2 (Ex. 1001, "the '980 patent"). Paper 5 ("Pet."). UCB Pharma GmbH, ("UCB" or "Patent Owner") filed a Preliminary Response to the Petition. Paper 9 ("Prelim. Resp.").

We have jurisdiction under 35 U.S.C. § 314, which provides that an *inter partes* review may not be instituted "unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." Upon considering the Petition and the Preliminary Response, we determine that Petitioner has shown a reasonable likelihood that it would prevail in showing the unpatentability of claims 1–

16. Accordingly, we institute an *inter partes* review of those claims.

A. Related Proceedings

Patent Owner asserts that

UCB and Pfizer Inc. ("Pfizer"), the exclusive licensee of the '980 patent, have sued Mylan Pharmaceuticals Inc. for infringement of the '980 patent in the following actions: *Pfizer, Inc. and UCB Pharma GMBH v. Mylan Pharmaceuticals, Inc.*, No. 1:15-cv-00079-GMS (D. Del.) and *Pfizer Inc. and UCB Pharma GMBH v. Mylan Pharmaceuticals Inc.*, Case No. 1:15-cv-00013-IMK (N.D.W.Va.).

Paper 8, 2; see Pet. 1–2 (noting that Pfizer is the NDA holder).

The '980 patent is also at issue in Pfizer, Inc. v. Sandoz, Inc., No.

1:13-cv-01110-GMS (D. Del.),¹ and in the now-dismissed action, *Pfizer, Inc.*

¹ Patent Owner provides, as Exhibit 2001, the District Court's Memorandum finding that the defendants in that proceeding "failed to present a prima facie case that the asserted claims of the patents-in-suit are invalid as obvious."

v. Dr. Reddy's Laboratories, Ltd., No. 1:15-cv-01067 (GMS) (D. Del.).

Paper 8, 2; Prelim. Resp. 1–2.

In addition to the case before us, Petitioner requested institution of *inter partes* review in the following matters involving patents with substantially the same specification as the '980 patent at issue here:

Case No. IPR2016-00514 (U.S. Patent No. 7,855,230 B2);

Case No. IPR2016-00516 (U.S. Patent No. 8,338,478 B2); and

Case No. IPR2016-00517 (U.S. Patent No. 7,985,772 B2).

Petitioner also requested institution of *inter partes* review in IPR2016-00510 (U.S. Patent No. 6,858,650 B1), a matter involving another UCB patent generally directed, as are the above patents, to 3,3-diphenylpropylamine compounds.

B. The '980 Patent

The '980 patent, entitled "Derivatives of 3,3-Diphenylpropylamines," issued on June 10, 2008, with Claus Meese and Bengt Sparf as the listed coinventors. Ex. 1001. The '980 patent is generally directed to "derivatives of 3,3-diphenylpropylamines, methods for their preparation, pharmaceutical compositions containing the novel compounds, and the use of the compounds for preparing drugs." *Id.* at Abstract.

The Specification discloses that "normal urinary bladder contractions are mediated mainly through cholinergic muscarinic receptor stimulation." *Id.* at 1:16–17. Because the same muscarinic receptors appear to also

Ex. 2001, 19; *see* Prelim. Resp. 6–8. Although the district court reached this determination on a different record and applying different standards, the arguments and references applied overlap with those before us. *See* Ex. 2001; Prelim. Resp. *passim*. Accordingly, while we are not bound to these findings, we find the court's analysis informative.

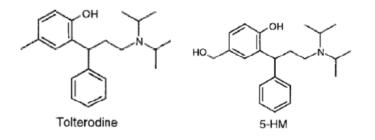
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mediate contractions of the overactive bladder and associated symptoms of urinary frequency, frequency urge, and urge incontinence, antimuscarinic drugs have been proposed for the treatment of bladder overactivity. *Id.* at 1:20–23. "Among the antimuscarinic drugs available on the market, oxybutynin is currently regarded as the gold standard for pharmacological treatment of urge incontinence and other symptoms related to bladder overactivity" but its usefulness is limited by antimuscarinic side effects, most particularly, dry mouth. *Id.* at 1:24–27.

"Tolterodine is a new, potent and competitive, muscarinic receptor antagonist intended for the treatment of urinary urge incontinence and [bladder wall muscle] hyperactivity. Preclinical pharmacological data show that tolterodine exhibits a favourable tissue selectivity in vivo for the urinary bladder over the effect on the salivation" as compared to oxybutynin. *Id.* at 1:35–40.

A major metabolite of tolterodine, the 5-hydroxymethyl derivative 5-HMT ("5-HMT"), shows in vitro and in vivo pharmacological profiles almost identical to those of tolterodine. *Id.* at 1:55–59 (citing Nilvebrant et al., 1997, Eur. J. Pharmacol. 327 (1997), 195–207). "WO 94/1 1337 proposes [5-HMT] as a new drug for urge incontinence." *Id.* at 1:56–57.

The chemical structures of tolterodine and its active metabolite, 5-HMT (indicated below by "5-HM"), are shown below:



See, e.g., Pet. 8; Ex. 1010, 289; Ex. 1011, 530. As illustrated above, tolterodine has a single hydroxyl group at the 2-position of the methylated phenolic ring, whereas 5-HMT bears a second hydroxyl moiety on the 5-position methyl group of that ring.

C. Challenged Claims

Claim 1 recites:

1. R-(+)-isobutyric acid 2-(3-diisopropylamino-1phenylpropyl)-4-hydroxymethylphenyl ester.

Independent claims 1, 2, 3, 8, and 10 are drawn to a composition, while independent claims and 4, 5, and 12 are drawn to a method.

The composition claims encompass fesoterodine fumarate (R-(+)-2-(3-(diisopropylamino-1-phenylpropyl)-4-hydroxymethl-phenylisobutyrate ester hydrogen fumarate) distributed by Pfizer Labs under the tradename TOVIAZ. *See* Pet. 6; Prelim. Resp. 1–2, 7; Ex. 1024, 8, 19.

D. The Asserted Grounds of Unpatentability

Petitioner challenges claims 1–16 of the '980 patent on two grounds (Pet. 3, 20–54):

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