UNITEDD STATES DISTRICT COURT
FOR THE DISTRICT OF NEW JERSEY

MERCK SHARP & DOHME CORP. *Plaintiff*, v. ACTAVIS LABORATORIES FL, INC., et al. *Defendants*.	)	Civil Action No: 15-cv-6075 (PGS)(DEA) **MEMORANDUM** **&** **ORDER**

SHERIDAN, U.S.D.J.

This matter comes before the Court on plaintiff Merck Sharp & Dohme Corp.'s ("Merck") motion for partial summary judgment on defendant Actavis Laboratories FL, Inc., Andrx Corp., and Actavis Pharma, Inc.'s (collectively "Actavis") inherent anticipation defense to claim 12 of U.S. Pat. 5,661,151 (the "'151 patent") (*see* Dkt. No. 89). The '151 patent is directed to synthesis and clinical use of an antifungal compound, posaconazole, which is used for treating and/or preventing fungal infections.

Merck argues that because claim 12 is directed to a "pharmaceutical composition," instead of a "compound," the aforementioned claim cannot be *inherently* anticipated by the prior art reference, European Patent Application 0539938 A1 ("EP '938"), as a matter of law. In response, Actavis asserts that—(i) the compound (compound IIc) disclosed in the EP '938 reference is "extremely close" to the posaconazole compound in the '151 patent; and (ii) the Court should not undertake an inherent anticipation analysis until the claim terms "pharmaceutically acceptable carrier" and "pharmaceutical composition" are construed in a *Markman* hearing.

Based on the arguments presented on the record, intrinsic and extrinsic evidence submitted before the Court, the Court denies Merck's partial summary judgment motion as being premature.

BACKGROUND

I. *The '151 Patent*

The '151 patent, entitled "Tetrahydrofuran Antifungals," issued on August 26, 1997, to Saksena, et al., and assigned to Schering Corporation, has a potential earliest priority date of December 21, 1993.[1] The '151 patent is generally directed to the synthesis and clinical use of the antifungal compound, posaconazole, which is used to treat fungal infections. (*see* abstract of the '151 patent). In its background section, the '151 patent cites to prior art reference EP '938 as disclosing a group of antifungal compounds which have a "C_1-C_{10} alkyl" side chain groups. (*see* Actavis' Invalidity Contentions, p. 5, *citing* the '151 patent, col. 2:10-17; Dkt. No. 89-4).

The '151 patent discloses that compounds represented by formula I exhibit broad spectrum antifungal activity against human and animal pathogens. The antifungal compounds of formula I and pharmaceutical compositions are expected to exhibit anti-allergic, anti-inflammatory and immunomodulating activities. The pharmaceutical composition also contains a fungicidally effective amount of other antifungal compounds such as cell wall active compound. (*Id.* at col. 56, ll. 40-55).

Further, the pharmaceutical compositions disclosed may be adapted for any mode of administration e.g., for oral, parenteral, e.g., SC, IM. IV and IP, topical or vaginal administration or by inhalation (orally or intranasally). Such compositions are formulated by combining the compound of formula I or an equivalent amount of a pharmaceutically acceptable salt of compound I with a suitable, inert, pharmaceutically acceptable carrier or diluent. Examples of suitable compositions include solid or liquid compositions for oral administration such as tablets, capsules,

[1] The '151 patent is a continuation-in-part of PCT/US94/14236, Dec. 20, 1994, which is a continuation-in-part of Ser. No. 171,083, Dec. 21, 1993. (*see* Manual of Patent Examining Procedure ("MPEP") 1895.01; 35 U.S.C. § 365(c) ("Pursuant to 35 U.S.C. 365(c), a regular national application filed under 35 U.S.C. 111(a) and 37 CFR 1.53(b) [] may claim benefit of the filing date of an international application which designates the United States."))

pills, powders, granules, solutions, suppositories, troches, lozenges, suspensions or emulsions. (*Id.* at col. 57, ll. 40-50).

With regards to "pharmaceutically acceptable carrier," the '151 patent discloses that a solid carrier can be one or more substances that may act as, for example, diluents, flavoring agents, solubilizers, or encapsulating material. Whereas, the carrier can also be a finely divided solid which is in admixture with the finely divided active compound. (*Id.* at col. 57, ll. 45-55).

Lastly, the '151 patent includes a total of 13 claims, wherein claims 1 and 11 are in independent form. Claim 11 recites a compound which is represented by a chemical formula, and claim 12 is directed to a pharmaceutical composition that depends from claim 11.

II. *The EP '938 Reference*

The EP '938 reference, which was published on May 5, 1993, is a prior art reference to the '151 patent under pre-AIA (America Invents Act) 35 U.S.C. § 102(a).[2] The EP '938 reference discloses the synthesis, formulation and use of several azole class antifungal agents, which are used to treat systematic fungal infections, especially Aspergillus and Candida infections. (*see* EP '938 at p. 3, ll. 1-25).

EP '938 discloses that preferred antifungal compounds represented by formulas IIa, IIb and IIc are more active orally against Aspergillus flavus pulmonary infections in an in vivo mouse model than itraconzale, fluconzale and saperconazole. (*Id.* at p. 8, ll. 10-15). The antifungal compounds of formula I and pharmaceutical compositions of this invention are expected to exhibit anti-allergic, anti-inflammatory and immunomodulating activities, broad spectrum anti-infective activity, e.g., antibacterial, anti-protozoal and anti-helminthic activities. The present invention

[2] *See* MPEP 2132.01(I) ("A *prima facie* case is made out under pre-AIA 35 U.S.C. 102(a) if, within 1 year of the filing date, the invention, or an obvious variant thereof, is described in a "printed publication" whose authorship differs in any way from the inventive entity unless it is stated within the publication itself that the publication is describing the applicant's work." (internal citations omitted))

also provides a composition for treating or preventing fungal infections comprising an antifungal effective amount of a compound represented by formula I or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier or diluent. (*Id.* at p. 15, ll. 5-10). Further, EP '938 discloses that the pharmaceutical compositions may be adapted for oral, parenteral, topical or vaginal administration. They are formulated by combining the compound of formula I, or an equivalent amount of a pharmaceutically acceptable salt of compound I, with a suitable, inert, pharmaceutically acceptable carrier or diluent. Examples of suitable compositions include solid or liquid compositions for oral administration such as, for example, tablets, capsules or pills. (*Id.* at p. 16, ll. 20-25).

To prepare a pharmaceutical composition, a pharmaceutically acceptable carrier, e.g., hydroxypropyl-β-cyclodextrin, may be admixed in water together with an antifungal effective amount of a drug. (*Id.* at p. 16, ll. 50-55).

III. ***Actavis's Expert Reports***

Dr. Gary D. Glick, PH.D., expert for Actavis, asserts in his report that claim 12 of the '151 patent, under the plain and ordinary meaning of "pharmaceutically acceptable carrier," is inherently anticipated by the disclosure of EP '938 reference because the formation of posaconazole in mice occurs in the presence of a pharmaceutically acceptable carrier. ("Glick's Report" at ¶ 1; *see* Dkt. No. 104). Dr. Glick states that EP '938 discloses several experiments in which compound IIc was administered to mice and hamsters in order to treat fungal infections. And, even though EP '938 does not provide quantitative results for compound IIc, it states that compound IIc was used in the same animal models and gives qualitative results for those experiments. (*Id.* at ¶ 90). In relying on a secondary reference ('Nomeir 2008'), Dr. Glick contends that the amount of posaconazole present in the blood would be considered an antifungal effective

amount due to (i) posaconazole's known antifungal activity; and (ii) the disclosure of this secondary reference (Nomier 2008), which states that the formation of secondary alcohol metabolites *in vivo* resulted in a prolongation of the antifungal activity. (*Id.* at ¶ 99).

Further, Dr. Glick states in his opinion a person of ordinary skill in the art would have understood as of 1993 that blood, and components of blood, e.g., water or sale, are 'pharmaceutically acceptable carrier[s].' (*Id.* at ¶ 101). Lastly, in his reply, Dr. Glick states that because posaconazole was formed within the mice together with at least one pharmaceutically acceptable carrier, claim 12 is inherently anticipated by EP '938.

Next, in Dr. Paul R. Ortiz De Montellano, PH.D, also an expert for Actavis, contends that when a certain compound disclosed by EP '938, e.g., Compound IIc or SCH-51048, is dosed to male CF-1 mice, according to the method described therein, posaconazole is *inevitably* formed via metabolism. ("Monetllano's Report" at ¶ 3-4; *see* Dkt. No. 104). In his report, Dr. Monetllano provides the findings of his experiment conducted on parent drug compound (SCH-51048), which is incubated with liver microsomes prepared from a target male (a male CF-1 mice). (*Id.* at ¶ 21). Based on his laboratory experiments, which were conducted at the University of California at San Francisco, Dr. Monetlano concluded that data collected demonstrated that posaconazole was formed when SCH-51048 is incubated *in vitro* with liver microsomes prepared from male CF-1 mice. (*Id.* at ¶ 42).

IV. *Claim Construction*

Pursuant to L. Pat. R. 4.3, the parties submitted a Joint Claim Construction and Prehearing Statement to the Court on July 27, 2016. In their joint claim construction brief, the parties disputed the meaning of the claim terms "pharmaceutically acceptable carrier" and "pharmaceutical

composition," as recited in claim 12. In particular, the parties asserted that the aforementioned claim terms should be construed as follows:

Disputed Claim Term	Actavis's Proposed Construction	Merck's Proposed Construction
"pharmaceutical composition"	Plain meaning	"a formulation of a pharmacologically active ingredient prepared outside an organism and adapted for any mode of administration to that organism"
"pharmaceutically acceptable carrier"	Plain meaning	"an inert, non-cellular, non-toxic substance or collection of substances that serve(s) as a vehicle for delivery of a pharmacologically active ingredient"

(*See* First Amended Joint Claim Construction and Prehearing Statement; Dkt. No. 53-1).

However, in Merck's response to statement of material facts not in dispute pursuant to local rule 56.1, Merck stipulates Actavis's position that the claim terms "pharmaceutically acceptable carrier" and "pharmaceutical composition," as recited in claim 12, can be understood in accord with its plain meaning and, accordingly "requires no construction." (*See* Merck's Response to Material Facts, "Fact No. 1" and "Fact No. 3;" Dkt. No. 109-1). As such, for purposes of this motion, Merck concedes and adopts Actavis's interpretation of the aforementioned claim terms. (*See* Merck's Reply Br. at 7).

LEGAL STANDARD

Fed. R. Civ. P. 56

Summary judgment is appropriate under Fed. R. Civ. P. 56(c) when the moving party demonstrates that there is no genuine issue of material fact and the evidence establishes the moving party's entitlement to judgment as a matter of law. *Celotex Corp. v. Catrett*, 477 U.S. 317, 322-23 (1986). A factual dispute is genuine if a reasonable jury could return a verdict for the non-

movant, and it is material if, under the substantive law, it would affect the outcome of the suit. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986).

In considering a motion for summary judgment, a district court may not make credibility determinations or engage in any weighing of the evidence; instead, the non-moving party's evidence "is to be believed and all justifiable inferences are to be drawn in his favor." *Marino v. Indus. Crating Co.*, 358 F.3d 241, 247 (3d Cir. 2004) (quoting *Anderson*, 477 U.S. at 255).

Once the moving party has satisfied its initial burden, the party opposing the motion must establish that a genuine issue as to a material fact exists. *Jersey Cent. Power & Light Co. v. Lacey Twp.*, 772 F.2d 1103, 1109 (3d Cir. 1985). The party opposing the motion for summary judgment cannot rest on mere allegations and instead must present actual evidence that creates a genuine issue as to a material fact for trial. *Anderson*, 477 U.S. at 248; *Siegel Transfer, Inc. v. Carrier Express, Inc.*, 54 F.3d 1125, 1130-31 (3d Cir. 1995). "[U]nsupported allegations . . . and pleadings are insufficient to repel summary judgment." *Schoch v. First Fidelity Bancorp.*, 912 F.2d 654, 657 (3d Cir. 1990); *see also* Fed. R. Civ. P. 56(e) (requiring nonmoving party to Aset forth specific facts showing that there is a genuine issue for trial").

Moreover, only disputes over facts that might affect the outcome of the lawsuit under governing law will preclude the entry of summary judgment. *Anderson*, 477 U.S. at 247-48. If a court determines, Aafter drawing all inferences in favor of [the non-moving party], and making all credibility determinations in his favor "that no reasonable jury could find for him, summary judgment is appropriate." *Alevras v. Tacopina*, 226 Fed. App'x. 222, 227 (3d Cir. 2007).

ANALYSIS

I.

A patent is anticipated, and hence invalid, if a single prior art reference discloses each limitation of a claimed invention. *See* 35 U.S.C. § 102; *Lewmar Marine, Inc. v. Barient, Inc.*, 827 F.2d 744, 747 (Fed. Cir. 1987). More specifically, "invalidity by anticipation requires that the four corners of a single, prior art document describe every element of the claimed invention, either expressly or *inherently*, such that a person of ordinary skill in the art could practice the invention without undue experimentation." *Advanced Display Sys., Inc. v. Kent State Univ.*, 212 F.3d 1272, 1282 (Fed.Cir.2000) (emphasis added).

"[A] prior art reference may anticipate without disclosing a feature of the claimed invention if that missing characteristic is necessarily present, or inherent, in the single anticipating reference." *Schering Corp. v. Geneva Pharms., Inc.*, 339 F.3d 1373, 1377 (Fed. Cir. 2003). Inherent anticipation does not require recognition of the missing characteristic by the inventor or persons of ordinary skill in the art; the characteristic need only be a "necessary consequence" of practicing the invention claimed in the prior art. *Id.* (quoting *Mehl/Biophile Int'l Corp. v. Milgraum*, 192 F.3d 1362, 1366 (Fed. Cir. 1999)).

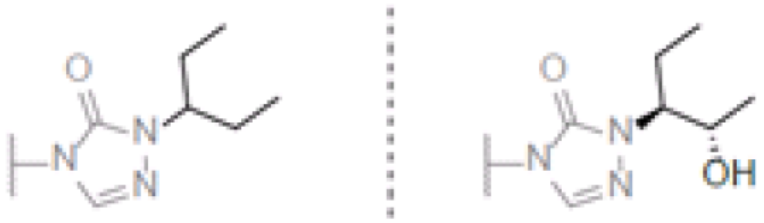
"[A]nticipation by inherent disclosure is appropriate only when the reference discloses prior art that must *necessarily* include the unstated limitation....". *Transclean Corp. v. Bridgewood Servs., Inc.*, 290 F.3d 1364, 1373 (Fed. Cir. 2002). "Inherency, however, *may* not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." *Cont'l Can Co. USA v. Monsanto Co.*, 948 F.2d 1264, 1269 (Fed. Cir. 1991) (internal quotation marks and citations omitted).

To prove inherent anticipation, a party must show that, though a feature of the invention is not explicitly disclosed in the prior art, it "necessarily and inevitably" flows from practice of the prior art. *See Schering Corp.*, 339 F.3d at 1379. "Inherent anticipation requires that the missing descriptive material is 'necessarily present,' not merely probably or possibly present, in the prior art." *Trintec Indus., Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 1295 (Fed. Cir. 2002). Therefore, if the teachings of the prior art can be practiced in a way that yields a product lacking the allegedly inherent property, the prior art in question does not inherently anticipate. *Glaxo Inc. v. Novopharm Ltd.*, 52 F.3d 1043, 1047-48 (Fed. Cir. 1995) (finding no inherent anticipation where testing evidence demonstrated that the prior art example could yield crystals of either the claimed polymorph or a different polymorph).

II.

In the instant matter, in support of its motion, Merck relies upon the Federal Circuit case, *Schering Corp. v. Geneva Pharmaceuticals*, 339 F.3d 1373 (Fed. Cir. 2003), and argues that EP '938 does not inherently anticipate the pharmaceutical composition claim 12 because the Federal Circuit in *Schering Corp.* carved out a "safe harbor" provision for claims directed to pharmaceutical compositions, as opposed to compounds. (Merck's Br. at 6-7, Dkt. No. 89-1; Merck's Reply Br. at 2-4, Dkt. No. 109). In response, Actavis argues that claim 12 is inherently anticipated by EP '938 because the compound disclosed in this reference forms into the compound of posaconazole upon metabolizing, which is the compound recited in claim 12.

In particular, Actavis argues that Compound IIc of EP '938 (i.e., the compound) is "extremely close" to posaconazole (i.e., the metabolite) of claim 12 (or the chemical formula shown in claim 11). Actavis notes that the only chemical difference is the "presence of a hydroxyl group at the C-2 position of the alykyl side chain of compound IIc."



Compound IIc **Posaconazole**

(Actavis's Opp. at 3; *see* Dkt. No. 104; footnote 4 notes that "Merck acknowledges that compound IIc is the same as Schering's SCH-51048; *also see* Actavis's Invalidity Contentions, Dkt. No. 89-4; *also see* Montellano's Report). As such, Actavis maintains the position that claim 12 is inherently anticipated by EP '938.

Claim 12 recites as follows:

> 12. A pharmaceutically composition for treating or preventing a fungal infection comprising an antifungally effective amount of the compound of claim 11 together with a pharmaceutically acceptable carrier therefor.

The Court notes that claim 12 is dependent of claim 11 because it relates back to another claim from which it depends. And, claim 12 comprises of the following elements—(i) pharmaceutical composition; (ii) an antifungal effective amount; (iii) of the compound of claim 11; and (iv) with a pharmaceutically acceptable carrier. The Court recognizes and notes that the EP '938 reference discloses compounds of formula I and pharmaceutical compositions, which exhibit anti-allergic, anti-inflammatory and immunomodulating activities. And, these compositions comprise an antifungal effective amount of a compound represented by formula I or a pharmaceutically acceptable salt and a pharmaceutically acceptable carrier or diluent. (*see* EP '938, p. 8, ll. 10-15 and p. 15, ll. 5-10). However, the key inquiry lies on whether formula I of EP '938 (i.e., the compound) is the same as the compound of claim 11 when metabolized.

In *Schering Corp. v. Geneva Pharmaceuticals*, the Federal Circuit noted that use of loratadine, a compound, of U.S. Pat. 4,282,233 (the "' 233 patent") infringed claims 1 and 3 of the 4,659,716 (the "'716 patent"), which covered a metabolite DCL, if the compound (i.e., loratadine) is metabolized to form the metabolite (i.e., DCL) upon ingestion by a person. *Schering Corp.*, 339 F.3d at 1380. The record showed that the metabolite of the prior art, loratadine, is the same compound as the claimed invention. *Id.* As such, the Federal Circuit held that DCL, as recited in claims 1 and 3 of the '716 patent, was inherently anticipated by the compound disclosed in the '233 patent. *Id.*

However, the Court in *Schering Corp.* further noted that a "skilled patent drafter [] might fashion a claim to cover the metabolite in a way that *avoids* anticipation." For example, the Court noted that the metabolite may be claimed as a pharmaceutical composition (e.g., with a pharmaceutically acceptable carrier). *Id.* at 1381. The Court reasoned that claiming the metabolite in such a fashion would avoid inherent anticipation by a prior art reference because the prior art would not "provide an enabling disclosure to anticipate such claims […] [as] the '233 patent does not disclose isolation of DCL." *Id.* at 1381.

The Court recognizes and appreciates the distinction between "pharmaceutical composition," recited in claim 12, and "compound," recited in claim 11. The Court notes that Federal Circuit in *Schering Corp.* indicated that a prior art reference may inherently anticipate a compound but not necessarily anticipate a pharmaceutical composition because the prior art reference may not provide an "enabling disclosure to anticipate such [pharmaceutical composition] claims because […] the [reference] does not disclose isolation of [the compound]." *Id.* at 1381. As such, based on this "safe harbor" provision set forth in *Schering Corp.*, claim 12 of the '151 patent may not be inherently anticipated by the EP '938 reference.

However, the current dispositive motion for partial summary judgment is made by Merck prior to construing the claim terms "pharmaceutically acceptable carrier" and "pharmaceutical composition," recited in claim 12. Although local patent rules do not prevent a party from bringing dispositive motions prior to the *Markman* hearing, it has generally been the practice that claims of a patent are construed prior to delving into, for example, anticipation, obviousness, or infringement analysis. *Ricoh Co., Ltd. v. Katun Corp.*, 486 F. Supp. 2d 395, 406 (D.N.J. 2007) ("Claim construction is distinct from, and a prerequisite to, an anticipation analysis."). In the instant matter, the Court does not have the benefit of a technical tutorial generally presented during a *Markman* hearing to construe the aforementioned claim terms to determine whether the EP '938 reference anticipates claim 12 of the '156 patent.

The Court notes that Merck has stipulated to Actavis's position that the aforementioned claim terms are to be understood in accord with its plain meaning and, accordingly "requires no construction." (*see* Merck's Response to Material Facts, "Fact No. 1" and "Fact No. 3;" Dkt. No. 109-1). However, the parties have not agreed upon the claim construction of what constitutes "plain meaning" with regards to the aforementioned terms. As such, it is best to complete the claim construction of the aforementioned claim terms before performing an anticipation analysis.

Accordingly, the Court finds Merck's dispositive motion for partial summary judgment against Actavis's inherently anticipated defense to claim 12 of the '151 patent is premature.

ORDER

IT IS on this 6th day of March, 2017,

ORDERED that Plaintiff's motion for partial summary judgment motion (*see* Dkt. No. 89) pursuant to Fed. R. Civ. P. 56(c) is DENIED without prejudice.

s/Peter G. Sheridan
PETER G. SHERIDAN, U.S.D.J.