**IN THE UNITED STATES DISTRICT COURT**
**NORTHERN DISTRICT OF ILLINOIS**
**EASTERN DIVISION**

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| THE MEDICINES COMPANY, | ) | |
| | ) | |
| Plaintiff, | ) | |
| | ) | |
| v. | ) | No. 11-cv-1285 |
| | ) | |
| MYLAN INC., MYLAN PHARMACEUTICALS INC., and BIONICHE PHARMA USA, LLC, | ) | |
| | ) | |
| Defendants. | ) | |

**MEMORANDUM OPINION AND ORDER**

AMY J. ST. EVE, District Court Judge:

Defendants Mylan Inc., Mylan Pharmaceuticals Inc., and Bioniche Pharma USA, LLC (collectively, "Mylan") move *in limine* to preclude Plaintiff The Medicines Company ("TMC") from presenting evidence or argument at trial relating to Mylan's alleged copying of TMC's Improved Angiomax® product. (*See* R. 417, Mylan Mot.) For the following reasons, the Court denies Mylan's motion.

**BACKGROUND**

This action arises out of a patent infringement case involving U.S. Patent No. 7,582,727 (the "'727 Patent"), which "relates to a compounding process for preparing a pharmaceutical batch(es) of a drug product or a pharmaceutical formulation(s) comprising bivalirudin as an active ingredient." ('727 patent at col. 2 ll. 29-32.) Bivalirudin is the active ingredient in TMC's Angiomax® drug product, an injectable anticoagulant used to prevent blood clotting during coronary procedures. TMC has sold Angiomax® since 2001.

Before expiration of the '727 patent, Mylan submitted Abbreviated New Drug Application ("ANDA") No. 202471 to the U.S. Food and Drug Administration ("FDA"), seeking approval to engage in the commercial manufacture, use, sale, offer for sale, and/or importation of a generic equivalent to Improved Angiomax®. TMC claims that Mylan's proposed bivalirudin drug product infringes several claims of the '727 patent.[1] Mylan disputes that its bivalirudin drug product infringes the asserted claims and contends, moreover, that the '727 patent is invalid for obviousness, among other reasons.

To rebut Mylan's obviousness argument, TMC intends to offer evidence that Mylan and several other generic pharmaceutical companies copied its Improved Angiomax® drug. TMC states that its evidence will show that Mylan purchased, tested, and analyzed TMC's Improved Angiomax® lot number 916438, among others, to determine its impurity profile. According to TMC, Mylan then reverse engineered Improved Angiomax® to create its own generic bivalirudin product with the same active and inactive ingredients as Improved Angiomax® and an $Asp^9$ impurity level below about 0.6%. Mylan seeks to exclude this evidence from trial, relying on recent Federal Circuit precedent holding that evidence of copying is not probative of nonobviousness in Hatch-Waxman cases because the FDA requires generic drug manufacturers to demonstrate that their drug is bioequivalent to an approved drug in order to receive approval of their ANDA. (*See* R. 419, Mylan Mem. at 5-7.)

**LEGAL STANDARD**

Although the Federal Rules of Evidence do not explicitly authorize *in limine* rulings, the practice has developed pursuant to the district court's inherent authority to manage the course of trials. *See Luce v. United States*, 469 U.S. 38, 41 n.4, 105 S. Ct. 460, 83 L. Ed. 2d 443 (1984).

[1] The Court granted Mylan's motion for summary judgment of non-infringement with respect to the other patent-in-suit, U.S. Patent No. 7,598,343. (*See* R. 309, Summ. Jdgmt. Op.)

*In limine* rulings avoid delay and allow the parties the opportunity to prepare themselves and witnesses for the introduction or exclusion of the applicable evidence. *See Wilson v. Williams,* 182 F.3d 562, 566 (7th Cir. 1999); *United States v. Connelly,* 874 F.2d 412, 416 (7th Cir. 1989). The Court will grant a motion *in limine* only when the evidence is clearly inadmissible for any purpose. *See Jonasson v. Lutheran Child & Family Servs.,* 115 F.3d 436, 440 (7th Cir. 1997); *Betts v. City of Chicago,*784 F. Supp. 2d 1020, 1023 (N. D. Ill. 2011).

The Court has broad discretion in ruling on evidentiary issues before trial. *See Christmas v. City of Chicago,* 682 F.3d 632, 640 (7th Cir. 2012). If the *in limine* procedural environment makes it too difficult to evaluate an evidentiary issue, the Court may defer ruling on the motion until trial. *See Jonasson,* 115 F.3d at 440. Additionally, regardless of the Court's initial ruling on a motion *in limine,* the Court may alter its ruling during the course of trial if warranted. *See Empire Bucket, Inc. v. Contractors Cargo Co.*, 739 F.3d 1068, 1071 n.3 (7th Cir. 2014); *Farfaras v. Citizens Bank & Tr. of Chicago,* 433 F.3d 558, 565 (7th Cir. 2006). These principals apply with even greater force in a bench trial where "the trial judge has flexibility to provisionally admit testimony or evidence and then discount or disregard it if upon further reflection it is entitled to little weight or should not have been admitted at all." *Bone Care Int'l, LLC v. Pentech Pharma., Inc.,* No. 08-cv-1083, 2010 WL 3894444, at *1 (N.D. Ill. Sept. 30, 2010); *see also SmithKlineBeecham Corp. v. Apotex, Corp.,* 247 F. Supp. 2d 1011, 1042 (N.D. Ill. 2003) (Posner, J.) ("In a bench trial it is an acceptable alternative to admit evidence of borderline admissibility and give it the (slight) weight to which it is entitled."), *vacated upon rehearing en banc and aff'd on other grounds,* 403 F.3d 1331 (Fed. Cir. 2005).

## ANALYSIS

A patent may not issue "if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains." *See* 35 U.S.C. § 103; *see also In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.*, 676 F.3d 1063, 1068 (Fed. Cir. 2012). Obviousness is a question of law based on the following factual findings: "(1) the scope and content of the prior art; (2) the differences between the claims and the prior art; (3) the level of ordinary skill in the art; and (4) objective indicia of nonobviousness." *InTouch Techs., Inc. v. CGO Comm'cns, Inc.*, --- F.3d ---, 2014 WL 1855416, at *16 (Fed. Cir. May 9, 2014) (citing *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17-18, 86 S. Ct. 684, 15 L. Ed. 2d 545 (1966)). Courts must consider all four factors before reaching a conclusion regarding obviousness. *Id.*

The fourth factor, objective indicia of nonobviousness, "play[s] a critical role in the obviousness analysis." *Leo Pharma. Prods., Ltd. v. Rea*, 726 F.3d 1346, 1358 (Fed. Cir. 2013). The Federal Circuit has repeatedly emphasized that objective indicia "may often be the most probative and cogent evidence of nonobviousness in the record." *See Mintz v. Dietz & Watson, Inc.*, 679 F.3d 1372, 1378 (Fed. Cir. 2012) (quoting *Ortho-McNeil Pharma. v. Mylan Labs., Inc.*, 520 F.3d 1358, 1365 (Fed. Cir. 2008)). These indicia "provide objective evidence of how the patented device is viewed in the marketplace, by those directly interested in the product" at the time of the invention. *See id.* (quoting *Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 1391 (Fed. Cir. 1988)). In doing so, they help "inoculate the obviousness analysis against hindsight." *Id.*; *see also Graham*, 383 U.S. at 36, 86 S. Ct. 684, 15 L. Ed. 2d 545 (recognizing that the objective indicia of obviousness "guard against slipping into use of

hindsight" and help "resist the temptation to read into the prior art the teachings of the invention in issue").

In some cases, evidence that the defendant or other competitors have copied a product embodying the claimed invention can provide objective evidence of nonobviousness.[2] *See Wm. Wrigley Jr. Co. v. Cadbury Adams USA LLC*, 683 F.3d 1356, 1364 (Fed. Cir. 2012). Courts, however, have questioned whether copying can serve as evidence of nonobviousness in the ANDA context. *See Bayer Healthcare Pharmas., Inc. v. Watson Pharmas., Inc.*, 713 F.3d 1369, 1377 (Fed. Cir. 2013); *Purdue Pharma Products L.P. v. Par Pharmaceuticals, Inc.*, 377 Fed. App'x 978, 983 (Fed. Cir. 2010). The Hatch-Waxman Act requires a generic drug manufacturer to demonstrate that its generic formulation has the same active ingredients, route of administration, dosage form, strength, and bioequivalency[3] as an already approved drug. *See* 35 U.S.C. § 355(j)(2)(A)(ii)-(iv). In *Eli Lilly & Co. v. Zenith Goldline Pharmaceuticals, Inc.*, the District Court for the Southern District of Indiana found that, as a result of these requirements, evidence of copying carries little weight in the ANDA context, explaining that

> [w]hen the invention in question is a drug that has won FDA approval as safe and effective, the incentive to copy is strong. In fact, the ANDA procedures established by the Hatch-Waxman Act require generic drug manufacturers to copy the approved drug. Variations undermine the FDA's ability to assume that if the patented drug is safe and effective, the generic competitor will also be safe and effective. . . .

[2] As Mylan points out in its opening brief, evidence of copying may be relevant to allegations of willful infringement and infringement under the doctrine of equivalents as well as to nonobviousness. (*See* Mylan Mem. at 1.) Willful infringement and infringement under the doctrine of equivalents, however, are no longer live issues in this case. (*See* Summ. Jdgmt. Op. at 22-24, 45-46.) TMC, moreover, represents that it does not intend to offer copying evidence to show willful infringement or infringement under the doctrine of equivalents. (*See* R. 445, TMC Resp. Br. at 6.) Accordingly, in this Opinion, the Court addresses only whether the evidence of Mylan's alleged copying is relevant to the nonobviousness inquiry.

[3] Bioequivalence is "the absence of a significant difference in the rate and extent to which the active ingredient or active moiety in pharmaceutical equivalents or pharmaceutical alternatives becomes available at the site of drug action when administered at the same molar dose under similar conditions in an appropriately designed study." 21 C.F.R. § 320.1(e).

> [I]n this field of new drug design, the very need for copying results from and emphasizes the unpredictability of medicinal chemistry. . . . To gain FDA approval, therefore, a company in [the defendant's] position must copy the patented invention as closely as possible. Small changes in chemical structure may have dramatic and unpredictable biological effects.

No. IP 99-38-C H/K, 2001 WL 1397304, at *14 (S.D. Ind. Oct. 29, 2001) (Hamilton, J.).

In *Purdue Pharma Products L.P. v. Par Pharmaceutical, Inc.*, the District Court for the District of Delaware, citing to *Eli Lilly*, also found that copying is not compelling evidence of nonobviousness in the ANDA context. *See* 642 F. Supp.2d 329, 373-74 (D. Del. 2009). The Federal Circuit agreed on appeal, stating in its nonprecedential decision that "we do not find compelling [the plaintiff's] evidence of copying in the ANDA context where a showing of bioequivalency is required for FDA approval." *Purdue Pharma Products L.P. v. Par Pharmaceutical, Inc.*, 377 Fed. App'x 978, 983 (Fed. Cir. 2010). More recently, the Federal Circuit, building on *Purdue Pharma Products*, found that because the FDA requires a showing of bioequivalence for approval of generic drugs, evidence of copying in the ANDA context is not even probative—let alone compelling evidence—of nonobviousness. *See Bayer Healthcare Pharmaceuticals, Inc. v. Watson Pharmas., Inc.*, 713 F.3d 1369, 1377 (Fed. Cir. 2013) ("[W]e reject Bayer's contention that copying of its [drug] preparations by the Defendants and other generic manufacturers supports its validity position. Such evidence of copying in the ANDA context is not probative of nonobviousness because a showing of bioequivalence is required for FDA approval." (citing *Purdue Pharma Prods.*, 377 Fed. App'x at 983)).

It is unclear whether the rule espoused in *Bayer* applies to *all* evidence of copying or only to evidence of copying that is necessary for an ANDA applicant to show under the Hatch-Waxman Act (*i.e.*, copying of the approved drug's active ingredients, route of administration, dosage form, strength, and bioequivalency). TMC argues for the latter interpretation. According

to TMC, because the Hatch-Waxman Act does not require Mylan to copy Improved Angiomax®'s inactive ingredients and impurity profile, *Bayer* does not foreclose TMC from offering evidence at trial showing that Mylan copied those aspects of Improved Angiomax®. (*See* TMC Resp. Br. at 7.)

TMC's argument has some appeal. In both *Bayer* and *Purdue Pharma Products*, the Federal Circuit relied on the Hatch-Waxman Act's requirement that the generic drug must be bioequivalent to the approved drug in determining that evidence of copying was not relevant or compelling evidence of nonobviousness in the ANDA context. It makes sense then that copying aspects of an approved drug unrelated to demonstrating bioequivalency (or that the generic drug meets other requirements under the Hatch-Waxman Act) may still have some relevance to the nonobviousness inquiry. District courts that have considered the issue of the relevance of coping in the ANDA's context since *Bayer* have not addressed the question of copying active versus inactive ingredients or a drug's impurity profile before disregarding or discounting the evidence. *See Cephalon Inc. v. Mylan Pharmas. Inc.*, 962 F. Supp. 2d 688, 721 (D. Del. 2013); *Par Pharmas., Inc. v. TWi Pharmas., Inc.*, No. CCB-11-2466, 2014 WL 694976, at *20 & n.23 (D. Md. Feb. 21, 2014) (rejecting the plaintiff's argument that the "ANDA exception" to evidence of copying only applies when the FDA required the filer to copy the invention as a misinterpretation of *Bayer*).

Because the Court is the trier of fact in this case, it has flexibility to provisionally admit evidence of Mylan's alleged copying and then discount or disregard it if, after hearing all the evidence, the Court determines that it is entitled to little weight or should not have been admitted at all. *See Bone Care Int'l*, 2010 WL 3894444, at *1; *see also SmithKlineBeecham Corp.*, 247 F. Supp. 2d at 1042. In light of the uncertain scope of the rule espoused in *Bayer*, the Court finds

that this is the prudent course here. The Court, therefore, will provisionally admit the evidence of copying at trial and allow TMC to attempt to show that Mylan's alleged copying was unrelated to demonstrating that Mylan's generic bivalirudin drug met FDA requirements for approval of an ANDA.

Mylan makes two additional arguments as to why the Court should exclude evidence of copying from trial. First, Mylan argues that even if copying is a relevant consideration in the ANDA context, TMC has adduced no evidence that Mylan copied the invention claimed in the '727 patent. (*See* Mylan Mem. at 6; R. 454, Mylan Reply Br. at 4-7.) Copying involves the replication of a specific *product*, however, not of a claimed invention. *See Iron Grip Barbell Co., Inc. v. USA Sports, Inc.*, 392 F.3d 1317, 1325 (Fed. Cir. 2004). Although, as Mylan points out, "a nexus between the copying and the novel aspects of the claimed invention must exist for evidence of copying to be given significant weight in an obvious analysis," *Wm. Wrigley Jr. Co.*, 683 F.3d at 1364, this nexus (or lack thereof) goes to the weight of the evidence, not its relevance. *See id.* (finding that the evidence of copying was not a "strong indicator of nonobviousness" because of the absence of evidence of a nexus between the defendant's copying and the claimed invention). Furthermore, some of the evidence at issue relates to whether Mylan copied Improved Angiomax®'s impurity profile, which is the subject of the claimed invention.[4] Therefore, the Court will not exclude evidence of Mylan's alleged copying on the ground that it does not relate to copying of the claimed invention.

Second, Mylan argues that even if the Court finds that TMC's evidence of copying is relevant to the obviousness inquiry, the Court should exclude it under Rule 403 because the

[4] In its reply brief, Mylan cites evidence showing that it did not copy the impurity profile of Improved Angiomax®. (*See* Mylan Reply Br. at 6.) Mylan may offer this evidence at trial to rebut TMC's copying argument, but it does not render TMC's evidence of copying irrelevant.

voluminous testimony and exhibits TMC has designated on this issue outweigh the slight probative value that TMC's copying evidence may have. (*See* Mylan Reply Br. at 8.) Based on the deposition designations and exhibits that Mylan specifically identified in its motion (*see* Mylan Mem. at Ex. A), however, the Court does not believe that the burden of allowing TMC to present this evidence substantially outweighs its probative value. *See* Fed. R. Civ. P. 403. Additionally, the risk of unfair prejudice or confusion of the issues is minimal here because the Court will serve as the trier of fact. *See City of Joliet v. Mid-City Nat. Bank of Chicago*, No. 05 C 6746, 2012 WL 5463792, at *11 (N.D. Ill. Nov. 5, 2012); *see also Bone Care Int'l, Inc.*, 2010 WL 3894444, at *1; *SmithKlineBeecham Corp.*, 247 F. Supp. 2d at 1042. The Court, therefore, rejects Mylan's Rule 403 argument.

**CONCLUSION**

For the foregoing reasons, the Court denies Mylan's motion in *limine* to preclude TMC from presenting evidence or argument at trial relating to Mylan's alleged copying of TMC's Improved Angiomax® product. TMC may present evidence of copying at trial, and the Court will determine the relevance and weight of this evidence in light of all the evidence adduced at trial and the Federal Circuit's rulings in *Bayer Healthcare Pharmaceuticals, Inc. v. Watson Pharmaceuticals, Inc.*, 713 F.3d 1369, 1377 (Fed. Cir. 2013), and *Purdue Pharma Prods. L.P. v. Par Pharmaceutical, Inc.*, 377 Fed. App'x 978, 983 (Fed. Cir. 2010).

Dated: June 2, 2014

ENTERED

AMY J. ST. EVE
U.S. District Court Judge