

NOT FOR PUBLICATION

**UNITED STATES DISTRICT COURT
DISTRICT OF NEW JERSEY**

EISAI CO., LTD and EISAI, INC.,)
)
)
 Plaintiffs,)
)
 v.)
)
 TEVA PHARMACEUTICALS USA, INC.,)
 TEVA PHARMACEUTICAL INDUSTRIES,)
 LTD., and GATE PHARMACEUTICALS (a)
 division of Teva Pharmaceuticals USA, Inc.))
)
 Defendants.)

Civ. No. 05-5727 (HAA) (ES)
Civ. No. 07-5489 (HAA) (ES)

OPINION & ORDER

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ACKERMAN, Senior District Judge:

This matter comes before the Court on the motion (Doc. No. 141), by Eisai Co., Ltd. and Eisai, Inc. (hereinafter collectively “Plaintiffs” or “Eisai”) seeking a preliminary injunction against Teva Pharmaceuticals USA, Inc., Teva Pharmaceutical Industries, Ltd., and Gate Pharmaceuticals (hereinafter “Defendants” or “Teva”). Eisai seeks to enjoin Teva from marketing generic versions of Eisai’s product Aricept[®], a prescription drug medication covered by U.S. Patent No. 4,895,841 (“the ‘841 patent”). For the reasons stated below, Eisai’s motion for preliminary injunction is GRANTED.

I. INTRODUCTION

In the late 1980s, Eisai developed a new drug called donepezil hydrochloride that eventually marketed as Aricept[®], which is the drug claimed in Eisai’s ‘841 patent. Aricept[®] is used to treat Alzheimer’s disease, a progressive neurodegenerative disease characterized by a steady decline in a patient’s cognition, functioning, and behavior. Under the Hatch-Waxman Act, Eisai’s ‘841 patent expires in November 2010.

In October 2004, Teva filed an Abbreviated New Drug Application (“ANDA”) seeking approval to market its own generic version of Aricept[®]. Teva’s ANDA contained a Paragraph III certification, which simply was Teva’s way of saying that Eisai’s ‘841 patent will expire in November 2010, and thus the Food and Drug Administration (“FDA”) should wait to approve Teva’s generic drug until that expiration. However, one year later, in October 2005, Teva filed an amendment to its ANDA by including a Paragraph IV certification, which attacked the ‘841

patent as being invalid for obviousness. In December 2005, Eisai filed this patent infringement suit against Teva, which, under the Hatch-Waxman Act,¹ invoked a 30-month stay of the FDA's approval of Teva's amended ANDA. 21 U.S.C. § 355(j). That 30-month stay expires in April 2008,² after which time the FDA can approve Teva's ANDA, thereby allowing Teva to launch its generic version of Aricept®.

On April 16, 2007, Teva stipulated that its generic drug would constitute infringement of claims 8, 10, and 13 of the '841 patent, *unless Teva proves in this litigation that claims 8, 10, and 13 are invalid or unenforceable*. In December 2007, in a conference before Magistrate Judge Salas, Teva acknowledged that it is no longer asserting the affirmative defense of "obviousness," which essentially is a concession by Teva that the '841 patent is not invalid. Thus, the sole remaining defense is whether the '841 patent is enforceable.

Teva maintains that the '841 patent is unenforceable based upon a theory of inequitable conduct. As will be discussed in greater detail below, the inequitable conduct defense has two prongs: (1) materiality; and (2) intent to deceive. Teva essentially argues that the '841 patent is unenforceable because during the prosecution of that patent before the Patent and Trademark Office ("PTO"), Eisai failed to disclose a prior patent and an industry article. Thus, Teva's argument here is that if, during the prosecution of the '841 patent, Eisai had disclosed the prior

¹ Commonly referred to as the "Hatch-Waxman Act," this legislation is formally known as The Drug Price Competition and Patent Term Restoration Act of 1984, Pub. L. No. 98-417, 98 Stat. 1585 (1984) (codified at scattered sections of 21, 35, and 42 U.S.C.).

² The 30 months is calculated from the date of Eisai's receipt of notice regarding Teva's filing of a Paragraph IV certification, not the date on which Eisai filed this infringement suit. 21 U.S.C. § 355(j)(5)(B)(iii). Thus, the 30-month stay expires in April, rather than June.

patent and the journal article, the patent examiner at the PTO likely would have rejected the initial application for '841 based upon a theory known as obviousness-type double patenting. That is, Eisai would not have been approved for the '841 patent for its drug Aricept[®] because the PTO would have concluded, based upon the evidence it had and the evidence Eisai failed to disclose, that the '841 patent was simply an attempt to patent a chemical combination that would have been obvious to one of ordinary skill in the art. In other words, it would have been obvious from looking at the prior patent (that was undisclosed) and the article (also undisclosed) that one could make the chemical alteration from the drug claimed in the prior patent to the drug claimed in the '841 patent, and therefore Eisai would not be entitled to patent a chemical combination that was obvious to one of ordinary skill in the art.

II. DISCUSSION

A. Preliminary Injunction Standard

This Court may grant an injunction to “prevent the violation of any right secured by patent.” 35 U.S.C. § 283. By its terms, 35 U.S.C. § 283 makes the grant of an injunction discretionary. *See Intel Corp. v. ULSI Sys. Tech., Inc.*, 995 F.2d 1566, 1568 (Fed. Cir. 1993) (noting that a preliminary injunction is “a drastic and extraordinary remedy that is not to be routinely granted.”); *see also Bateman v. Ford Motor Co.*, 310 F.2d 805, 808 (3d Cir. 1962) (“It has been so well stated that upon an application for a preliminary injunction to doubt is to deny.”) (citations and internal quotation marks omitted). However, this Court’s “discretion is not absolute and must be measured against the standards governing the issuance of an injunction.” *Hybritech, Inc. v. Abbott Labs.*, 849 F.2d 1446, 1451 (Fed. Cir. 1988); *see also Purdue Pharm.*

L.P. v. Boehringer Ingelheim GMBH, 237 F.3d 1359, 1363 (Fed. Cir. 2001) (“An abuse of discretion may be shown if the district court made a clear error of judgment, or based its decision on an erroneous legal conclusion or clearly erroneous factual findings.”). Nevertheless, this Court is mindful—and implores the parties to remain fully cognizant—that “all findings of fact and conclusions of law at the preliminary injunction stage are subject to change upon the ultimate trial on the merits.” *Purdue Pharm.*, 237 F.3d at 1363.

To obtain a preliminary injunction, a movant must demonstrate: “(1) a reasonable likelihood of success on the merits; (2) irreparable harm if an injunction is not granted; (3) a balance of hardships tipping in its favor; and (4) the injunction’s favorable impact on the public interest.” *Amazon.com, Inc. v. Barnesandnoble.com, Inc.*, 239 F.3d 1343, 1350 (Fed. Cir. 2001); *see also Reebok Int’l Ltd. v. J. Baker, Inc.*, 32 F.3d 1552, 1555 (Fed. Cir. 1994) (“The burden is always on the movant to show entitlement to a preliminary injunction.”) “These factors, taken individually, are not dispositive.” *Hybritech*, 849 F.2d at 1451. Accordingly, the Federal Circuit has counseled district courts to “weigh and measure each factor against the other factors and against the form and magnitude of the relief requested.” *Id.*; *see also Sofamor Danek Group, Inc. v. DePuy-Motech, Inc.*, 74 F.3d 1216, 1219 (Fed. Cir. 1996).

However, irrespective of how the court resolves the third and fourth factors, the movant must demonstrate the existence of the first two before the court can grant a motion for a preliminary injunction. *See Reebok Int’l*, 32 F.3d at 1555-56; *see also Amazon.com*, 239 F.3d at 1350 (“Our case law and logic both require that a movant cannot be granted a preliminary injunction unless it establishes both of the first two factors, i.e., likelihood of success on the merits and irreparable harm.”). Although, from the perspective of appellate review, “it is always

preferable that a district court make findings regarding each of the four factors,” this Court may deny the motion without articulating findings respecting the other factors if Eisai fails to establish either of the first two factors. *Reebok Int’l*, 32 F.3d at 1555.

B. Reasonable Likelihood of Success on the Merits

As previously noted, the only dispute at issue in this motion for a preliminary injunction centers on Teva’s defense to patent enforceability, which is premised on inequitable conduct by Eisai during its prosecution of the ‘841 patent. “The presumption of validity of a patent is a procedural device that places the burden of going forward and the ultimate burden of persuasion at trial on one attacking the validity of a patent.” *Nutrition 21 v. United States*, 930 F.2d 867, 869 (Fed. Cir. 1991) (citing 35 U.S.C. § 282 (1988)). “However, at the preliminary injunction stage, because of the extraordinary nature of the relief, the *patentee* carries the burden of showing likelihood of success on the merits with respect to the patent’s validity, enforceability, and infringement.” *Id.* Thus, while Teva will have the burden at trial of demonstrating unenforceability due to inequitable conduct, at this stage, Eisai must carry the burden by demonstrating likelihood of success at trial.

To demonstrate likelihood of success in a case like this where the only issue is the defense of inequitable conduct, Eisai must show that Teva’s defense “lacks substantial merit.” *Amazon.com*, 239 F.3d at 1350-51; *see also Sanofi-Synthelabo v. Apotex, Inc.*, 470 F.3d 1368, 1374 (Fed. Cir. 2006). The defense of inequitable conduct stems from a patent applicant’s “duty to prosecute patents in the PTO with candor and good faith, including a duty to disclose information known to the applicants to be material to patentability.” *Purdue*

Pharma L.P. v. Endo Pharms Inc., 438 F.3d 1123, 1128 (Fed. Cir. 2006) (citing 37 C.F.R. § 1.56(a) (2004)). “A breach of this duty may constitute inequitable conduct, which can arise from an affirmative misrepresentation of a material fact, failure to disclose material information, or submission of false material information, coupled with an intent to deceive or mislead the PTO.” *Id.* In other words, the defense of inequitable conduct essentially comprises two elements: (1) materiality; and (2) intent.

(1) Materiality

As to the first element, “[i]nformation is ‘material’ when there is a substantial likelihood that a reasonable examiner would have considered the information important in deciding whether to allow the application to issue as a patent.” *Pro-Mold and Tool Co., Inc. v. Great Lakes Plastics, Inc.*, 75 F.3d 1568, 1575 (Fed. Cir. 1996); *see also Digital Control, Inc. v. Charles Mach. Works*, 437 F.3d 1309, 1314-16 (Fed. Cir. 2006) (discussing evolution of materiality standard and concluding that new PTO Rule 56 is the same as the prior “reasonable examiner” rule).

Teva contends that there are two pieces of information that would qualify as material: (1) the existence of a co-pending application now known as the ‘431 patent; and (2) the existence of an article in the Journal of Medicinal Chemistry in 1984 by Richard A. Kenley (hereinafter the “Kenley article” or “Kenley reference”). The Court must examine these two pieces of information to determine whether, independently or in combination, the disclosure of their existence would have led a reasonable patent examiner to conclude that a patent should not issue for the ‘841 patent based upon an obviousness-type double patenting rejection theory.

“Obviousness-type double patenting is a judge-made doctrine that prevents an extension of the patent right beyond the statutory time limit. It requires rejection of an application claim when the claimed subject matter is not patentably distinct from the subject matter claimed in a commonly owned patent.” *In re Berg*, 140 F.3d 1428, 1431 (Fed. Cir. 1998). In other words, an obviousness-type double patenting rejection is appropriate if the claimed invention is an obvious variant of the invention claimed in an earlier issued commonly owned patent. *Gen. Foods Corp. v. Studiengesellschaft Kohle mbH*, 972 F.2d 1272, 1279-80 (Fed. Cir. 1992).

(a) **Materiality of the ‘431 patent**

In 1988, Eisai filed two applications with the PTO. One application resulted in the issuance of U.S. Patent No. 4,849,431 (“the ‘431 patent”) in July 1989, the other resulted in the issuance of the ‘841 patent– the patent at issue in this case– in January 1990. Both patents were essentially aimed at treating Alzheimer’s disease, but neither application was disclosed to the patent examiner reviewing the other application. The ‘431 patent represented earlier research by Eisai in the treatment of Alzheimer’s inasmuch as it showed strong *in vitro* activity to inhibit acetylcholinesterase (“AChE”). AChE is an enzyme, identified by researchers in the 1980s, that degrades the neurotransmitter “acetylcholine.” Researchers had discovered that if you could increase the level of that neurotransmitter, then you could improve cognitive functions of patients suffering from Alzheimer’s. Thus, the goal of pharmaceutical companies was to develop an AChE-*inhibiting* drug, which would in turn prevent the degradation of the relevant neurotransmitter, which would thus help prevent Alzheimer’s patients from losing cognitive function. The compound covered by the ‘431 patent appeared to have promising

results in this regard, at least with respect to *in vitro* activity to inhibit AChE. However, when Eisai engaged in research in live animals, it discovered that the '431 compound was easily metabolized and eliminated by the liver before it had a chance to reach the brain.

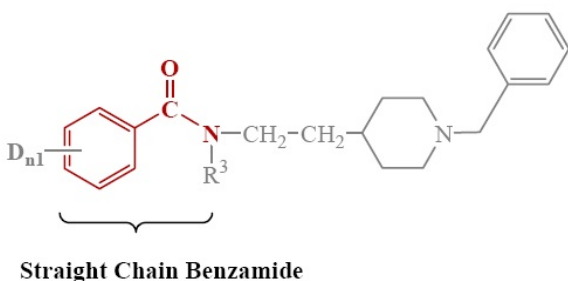
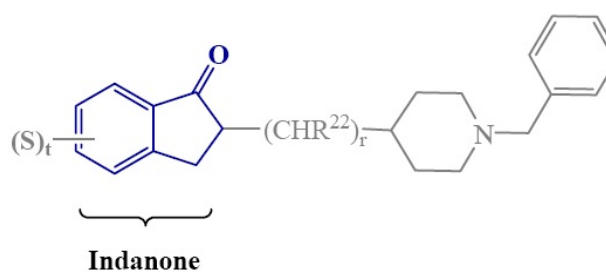
Eisai then engaged in considerably more research, producing and testing multiple compounds with varying chemical structures throughout the molecule. Eisai explains that its research, headed by Dr. Yoichi Iimura, met with numerous failures until, as Eisai characterizes it, "serendipity" resulted in the donepezil compound that is claimed by the '841 patent and ultimately marketed as Aricept[®]. As a result, Eisai contends that the '431 patent was completely immaterial to the prosecution of the '841 patent. Not surprisingly, Teva takes a somewhat jaundiced view of Eisai's tale of "serendipity," and further asserts that the '431 patent was not just material, but *highly* material to the '841 patent. As with most cases, the truth lies somewhere in between the extremes of the arguments advanced by Eisai and Teva.

Before this generalist federal district court delves into the technical complexity of medicinal chemistry, it is safe to conclude that Eisai's co-pending '431 patent was material enough that it should have been disclosed in its '841 patent application, and vice versa. *See Eisai v. Teva*, Civ. No. 03-9053, 2007 WL 1437834, at *23 (S.D.N.Y. May 14, 2007) ("Any reasonable patent examiner— indeed, any reasonable professional— would be interested to know that another application was pending, on behalf of the same applicant, that involved similar compounds with similar properties, and would wish to compare notes with the examiner in the other case."). In other words, "there is a substantial likelihood that a reasonable examiner would have considered the information important in deciding whether to allow the application to issue as a patent." *Pro-Mold*, 75 F.3d at 1575. Indeed, both patent applications were

largely aimed at treating the same disease, Alzheimer's, and both patent applications stemmed from research by at least nine common inventors at Eisai. (Steiner Decl. ¶58.) While this Court will address the critical differences below, it is undeniable at this juncture that the core chemical structures of each compound had substantial similarities. In addition, it would hardly have been an onerous burden for Eisai to simply disclose to the PTO the existence of the co-pending applications. *See Eisai*, 03-9053, 2007 WL 1437834, at *23 (“The burden on patent applicants of advising the examiner of a closely-related pending application is slight— no more than the burden on plaintiffs filing lawsuits in this Court of noting the existence of ‘related cases.’”)

The foregoing finding of materiality does not end the inquiry. Instead, the Court must next examine the degree of that materiality because the higher the materiality, the stronger the inference of intent to deceive that can be attributed to such failure to disclose material information. *See Cargill, Inc. v. Canbra Foods, Ltd.*, 476 F.3d 1359, 1367 (Fed. Cir. 2007); *GFI, Inc. v. Franklin Corp.*, 265 F.3d 1268, 1273 (Fed. Cir. 2001). In other words, the degree of materiality informs the analysis of circumstantial evidence of intent to deceive. At this point, it is important to examine the technical aspects of medicinal chemistry that factor into a carefully considered opinion on the matter. In that regard, the parties have provided, and this Court has digested, voluminous declarations by each side's experts. The Court found particularly helpful Dr. Pavia's tutorial on medicinal chemistry. In addition, the Court substantially relied upon the declarations of Dr. Lenz for Teva, and Dr. Kenley for Eisai.

In assessing the materiality of the undisclosed '431 patent, it is useful to examine the graphical depiction of the two compounds at issue. Below are the two compounds:

'431 Patent Claim 12'841 Patent Claim 4

Even in the erudite world of medicinal chemistry, both of these are considered highly complex organic chemical compounds. These graphical illustrations immediately convey to chemists the structure and composition of these particular compounds, even where particular atoms are not expressly depicted by letter. As Dr. Pavia explains, typical pictorial representations of organic structures omit most, if not all, of the hydrogen atoms from the structure, and indicate single, double, and triple chemical bonds of a particular atom by single, double, or triple lines. (Pavia Decl. ¶ 18.) For example, in the above depiction of the '841 patent, the compound can be divided into a right half and a left half. The right half consists of two hexagons linked by a bent line. The left side consists of a hexagon connected to a pentagon.

Starting with the right side of the '841 compound, the far right hexagon represents a structure containing six carbon atoms, with each bend in the hexagon representing one carbon atom. The three lines inside the hexagon indicate three double bonds. Not depicted, but commonly understood by chemists, is that each carbon atom is linked to a maximum of four hydrogen atoms, or fewer than four hydrogen atoms in the case of multiple bonds, or if the carbon is linked to a different atom, such as a nitrogen atom. This particular hexagon is

known to chemists as a “benzene,” i.e., a ring structure containing six carbon atoms. Note that this portion of the ‘841 compound is identical to that same portion of the ‘431 compound.

Moving left, the next hexagon is known as a “piperidine,” i.e., a ring structure containing five carbon atoms and one nitrogen atom. It differs from the benzene structure inasmuch as it contains one nitrogen atom in place of one carbon atom, and all the atoms— both carbon and nitrogen— are connected to each other or hydrogen atoms (again not depicted) by single bonds only (i.e., no double lines). This hexagon, or piperidine, is also identical in the ‘841 and the ‘431 compounds. Continuing the examination left, however, the changes between the ‘841 and ‘431 compounds begin to emerge.

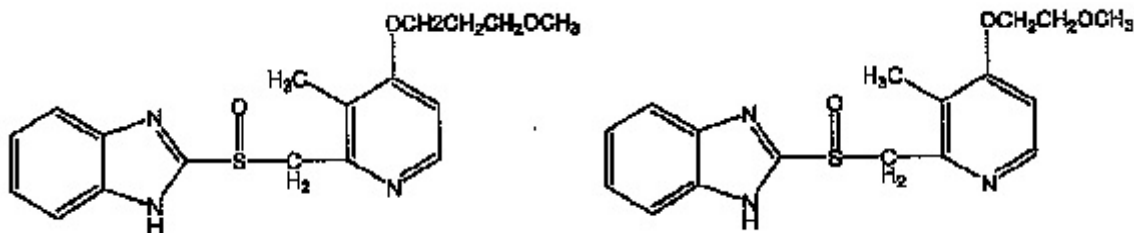
The first difference occurs in what is known as the “linker” between the left and right sides of the respective compounds, but this linker is not focused upon by either party. Moving into the left side of the compound claimed in the ‘841 patent, the far left hexagon is another benzene, just like the far right hexagon in the right side of the compound. Again, it is six carbon atoms with three double bonds. Also note that this hexagon, or benzene, is identical in the ‘841 and the ‘431 compounds. In the ‘841, however, this benzene is connected to the pentagon to its right, with an offshoot of an oxygen atom connected to one of the carbon atoms by a double bond. Together, this hexagon and pentagon, with the oxygen offshoot, is known to chemists as an indanone structure, a term of considerable importance, as will be discussed shortly.

This indanone structure in the ‘841 is contrasted with the corresponding structure in the ‘431 compound, which is known as a “straight chain benzamide.” Of notable difference between the two is the fact that the ‘431 left-side benzene (the hexagon with three double

bonds) is connected to another carbon atom, which is double-bonded to an oxygen atom, and single bonded to a nitrogen atom. Similarly, the '841 left-side benzene is connected to a carbon atom, which is also double bonded to an oxygen atom. But that same carbon atom, in the '841 compound, is not connected to a nitrogen atom, but instead connected to another carbon, which is connected to yet another carbon atom, which is connected back to the benzene at a different carbon atom.

The tedium of the foregoing grade school chemistry lesson is necessary to understand Teva's argument that a reasonable patent examiner likely would have issued an obviousness-type double patenting rejection on the '841 patent had that examiner known about the '431 patent. That is, Teva asserts that a reasonable patent examiner would have viewed the left side of the '431 compound and considered it an obvious variant to change the nitrogen atom to a carbon, and "close the loop" by adding another carbon atom and connecting it back to the benzene, thus creating an indanone structure as found in the '841 patent.

Patent cases typically do not serve as useful analogs in comparing one case to another. But Eisai has identified one case that is especially useful on this point. In *Eisai v. Teva*, a court in the Southern District of New York held a bench trial on a very similar inequitable conduct defense by Teva regarding Eisai's failure to disclose co-pending applications for very similar compounds aimed at suppressing ailments commonly referred to as acid reflux and heartburn. In that case, the two compounds were just as complex as the compounds at issue in this case. Below are the compounds from that case:



There, however, the only difference between the two compounds was that the undisclosed compound contained one fewer methylene (CH_2) unit. After a bench trial on the matter, the district court concluded that Teva “failed to establish [that these differences] would have been deemed by the PTO *prima facie* obvious over one another— and, thus, patentably indistinct.”

Id. at *22.

In the instant matter, Teva attempts to distinguish its loss in the Southern District of New York case with all the force of an oblique reference contained in a footnote: “The fact that a different Judge in another case involving Eisai and Teva found that there was no such path between a different drug, rabeprazole, and its ethyl homologue, is irrelevant to the highly fact specific analysis necessary here.” (Teva Br. in Opp. at 22 n.8.) No doubt Teva is correct that the analysis here is necessarily fact specific, but that does not render the other case *irrelevant*. On the contrary, the task of this Court is to reason towards a rough approximation of what a likely result would be after a full trial on the merits. In that endeavor, it hardly can be gainsaid that a similar pharmaceutical patent case, tried to the merits, between the same parties involving the identical defense of inequitable conduct is irrelevant to this Court’s task of peering into the future in this case. Nevertheless, the Court acknowledges that the other case is currently pending on appeal before the Federal Circuit. Indeed, in that regard, a reversal would likely result, a few months hence, in Teva considering that case highly relevant

to a future pharmaceutical patent case involving the defense of inequitable conduct.

In any event, here the differences between the '431 and '841 compounds are considerably greater and more complex than the Southern District of New York case. If Teva's argument were solely dependent upon the notion that a reasonable patent examiner would have considered such changes obvious to the degree that it warranted an obviousness-type double patenting rejection, this Court would categorically conclude that Eisai has succeeded in demonstrating that Teva's inequitable conduct defense lacks substantial merit and therefore Eisai would have satisfied the first element of the preliminary injunction standard. Teva, however, does not assert that a reasonable patent examiner would have conjured such changes out of whole cloth, but instead contends that a reasonable patent examiner would have reached this conclusion if he had *both* the '431 patent and the article by Kenley that was published in the Journal of Medicinal Chemistry in 1984. In other words, Teva's argument is dependent, premised on the notion that the examiner, had he been aware of Kenley *and* '431, would have known that the left side of the '431 compound could be modified to form the indanone structure found in the left side of the '841 compound. Further, the reasonable patent examiner would have recognized that such a modification would be made "with reasonable expectation of increasing hydrophobicity [the ability to dissolve in fats] of the molecule and, hence, increasing its effectiveness in treating dementias." (Lenz Decl. ¶ 58.)

(b) Materiality of Kenley reference

With Teva's dependent argument in mind, the Court now turns to the critical Kenley reference. In doing so, the Court endeavors to determine whether Teva's argument lacks

substantial merit with respect to whether Kenley teaches what is necessary for a reasonable patent examiner to take that new knowledge, observe the '431 compound, and conclude that an obvious variant of the '431 compound would be to create the compound claimed by the '841 patent with reasonable predictability that it would be effective.

Teva's argument in this regard faces a considerable obstacle inasmuch as Dr. Kenley has submitted a declaration supporting *Eisai's* position that his article does not teach what Teva asserts that it teaches. As previously explained, the goal of researchers at Eisai was to develop a chemical compound that would effectively inhibit the enzyme AChE, thereby preventing AChE from degrading the identified neurotransmitter related to cognitive function in Alzheimer's patients. Also recall that the '431 patent claimed a compound that showed strong AChE inhibitory activity *in vitro*, but when tested in *in vivo*, the compound was metabolized before it reached the brain in sufficient quantity. Thus, the problem was not finding a compound with higher activity, but one that could cross the "blood brain barrier" in sufficient quantity before being almost completely metabolized by the liver, and then attach to the AChE enzyme.

As Dr. Kenley explains, his 1984 article resulted from military-related research focused on finding compounds that "would restore activity to AChE" enzymes that were already inhibited by a nerve agent, such as Sarin. (Kenley Decl. 16.) "In other words, [the] ultimate goal was AChE activity, not inhibition." (*Id.*) Furthermore, the Kenley article does not describe *in vivo* use of the compounds, but only *in vitro*, and after the article was published, the *in vitro* tests proved to be ineffective at reactivating AChE. (*Id.* at 19.)

Nevertheless, Teva asserts that a reasonable patent examiner would have viewed the

'431 compound and recognized that changing the carbon atom to a nitrogen atom would increase the ability of the resulting compound to dissolve in lipids (hydrophobicity), e.g., fats and oils. Furthermore, Teva asserts that medicinal chemists routinely modify open chain structures, such as the left side of the '431 compound, into corresponding closed ring forms— e.g., indanone structures— “in order to create a more rigid, flatter structure that can be expected to bind to a surface more effectively.” (Teva Br. in Opp. at 21.) In addition, Teva contends that with the knowledge from Kenley about “the hydrophobic binding site on AChE,” a reasonable patent examiner would have recognized that making the above two modifications would result in a “more hydrophobic terminal fragment that was better shaped for effective binding.” (*Id.*)

But Dr. Kenley, after analyzing Teva's arguments, declares that his “article does not state or teach that changing the structure of a portion of the compound to a different structure with increased hydrophobicity will likely increase its effectiveness to bind to AChE.” (Kenley Decl. at 31.) Furthermore, Dr. Kenley explains that there would be no reason to limit potential modifications of the '431 compound to just the left side of the molecule. In other words, Dr. Kenley declares that “Teva's arguments ignore the countless possible ways to change the right-side of the molecule.” (Kenley Decl. at 34.) In addition, the change from the '431 straight chain structure to the '841 indanone structure is not reasonably extracted from the Kenley article because “indanone structures are not reflected in any of the molecules described in [the Kenley] article.” (Kenley Decl. at 37.) Moreover, “even if that change were made, a person of ordinary skill could not reasonably predict from [the Kenley] article whether that indanone-containing structure would have strong binding activity and

effectiveness in inhibiting AChE.” (Kenley Decl. at 37.) In other words, Eisai contends that Teva’s argument regarding the teachings of the ‘431 patent, in light of Kenley, yield the ‘841 *only through hindsight*.

The Court finds the declarations of Drs. Pavia and Kenley to be considerably more persuasive than the declarations produced by experts on Teva’s behalf. With respect to the Kenley article, the Court acknowledges, as Teva points out, that a senior Eisai researcher on the ‘431 and ‘841 projects was aware of the Kenley reference, as evidenced by the existence of a copy of one of the drawings from the Kenley article contained in the notes of the Eisai researcher. But it is not at all clear that the Kenley reference had any particular utility. Indeed, Teva’s argument about what a reasonable patent examiner would have concluded based upon the Kenley article requires the piling of inference on inference, a hermeneutical act specifically proscribed by the Federal Circuit. *See FMC Corp. v. Manitowoc Co., Inc.*, 835 F.2d 1411, 1417 (Fed. Cir. 1987) (“An inference can and often must be drawn from established facts . . . , but drawing an inference on an inference on an inference is not the role of the fact finder.”).

As previously found with regard to the materiality of the ‘431 patent, this Court concludes that the Kenley reference has little, if any, material value by itself. But even stepping back in time and into the shoes of the examiner of the ‘841 patent, this Court cannot conclude that the disclosure of the ‘431 patent by itself, or in combination with the disclosure of the Kenley article, would have resulted in an obviousness-type double patenting rejection in the first instance. In other words, there is not a substantial likelihood that a reasonable examiner would have considered the Kenley article important in deciding whether to allow the

application to issue as a patent. *See Pro-Mold*, 75 F.3d at 1575. Therefore, the Court finds, at this preliminary injunction stage, that Eisai would likely prevail at trial on the issue of whether the failure to disclose the '431 patent and the Kenley article satisfied the materiality prong of Teva's inequitable conduct defense.

(2) **Intent to deceive**

Having concluded that Teva would not likely prevail on the materiality prong of its inequitable conduct defense, this Court need not engage in an exegesis on intent to deceive. Nevertheless, the Court notes that the very low materiality of the '431 patent, and the almost non-existent materiality of the Kenley article, yield a conclusion that Eisai would likely prevail at trial in demonstrating it did not have the requisite intent to deceive the public or patent examiner during the prosecution of its '841 patent. Importantly, "materiality does not presume intent, which is a separate and essential component of inequitable conduct." *Sanofi-Synthelabo v. Apotex, Inc.*, 470 F.3d 1368, 1381 (Fed. Cir. 2006) (internal quotation marks and citations omitted). But the corollary is that a lack of materiality necessarily presumes a lack of intent. Indeed, there can be no punishable intent to deceive where there is no substantial likelihood that a reasonable patent examiner would have considered the undisclosed information important to deciding whether to allow the application to issue as a patent. Accordingly, this Court finds that Eisai has carried its burden of demonstrating that it will likely succeed at trial on the question of whether it had an intent to deceive by failing to disclose the minimally material '431 patent and non-material Kenley article. In other words, Teva's inequitable conduct defense lacks substantial merit inasmuch as Teva is not likely to succeed at trial in

demonstrating materiality or intent.

C. Irreparable Harm If the Injunction Is Not Granted

Turning now to the second factor in the preliminary injunction analysis, Eisai must demonstrate that it will suffer irreparable harm if an injunction is not granted. *Amazon.com*, 239 F.3d at 1350. Earlier cases held that irreparable harm is presumed when a patent owner makes a “strong showing” of patent validity and probable infringement. *See Pfizer, Inc. v. Teva Pharms. USA, Inc.*, 429 F.3d 1364, 1381 (Fed. Cir. 2005); *Roper Corp. v. Litton Sys., Inc.*, 757 F.2d 1266, 1271 (Fed. Cir. 1985). But Teva asserts that the Supreme Court’s decision in *eBay Inc. v. MercExchange, L.L.C.* completely eliminated the presumption of irreparable harm. 547 U.S. 388, 393-94 (2006).

In *eBay*, the Supreme Court held that the Federal Circuit improperly applied the *permanent* injunction factors by “articulat[ing] a ‘general rule,’ unique to patent disputes, that a permanent injunction will issue once infringement and validity have been adjudged.” *Id.* (internal quotation marks and citations omitted). The Supreme Court further admonished the Federal Circuit’s suggestion that “injunctions should be denied only in the ‘unusual’ case, under ‘exceptional circumstances’ and ‘in rare instances to protect the public interest.’” *Id.* at 394 (internal citations omitted).

Aside from the fact that this is a *preliminary* injunction, this Court observes that the standard rejected by the Supreme Court in *eBay* was one in which the Federal Circuit applied a presumption that the *injunction* should issue, not a presumption that one of the four prongs—irreparable harm—exists. Nevertheless, Teva contends that district courts have interpreted

eBay as meaning that “there is no presumption of irreparable harm at the preliminary injunction stage of patent cases.” (Teva Br. in Opp. at 34.) Specifically, in a decision from this District, the court found that “[i]n *eBay Inc. v. MercExchange, L.L.C.*, the Supreme Court held that, on an application for a permanent injunction, a finding of patent infringement does not give rise to a presumption of irreparable harm.” *Novartis Pharms Corp. v. Teva Pharms USA, Inc.*, No. 05-1887, 2007 WL 2669338, at *13 (D.N.J. Sept. 6, 2007) (Cavanaugh, J.) (citing *eBay*, 126 S. Ct. at 1841). Try as it might, this Court is unable to locate such a definitive and specific holding in the Supreme Court’s decision. Instead, as this Court previously explained, the Supreme Court’s decision rejected the Federal Circuit’s presumption that a permanent injunction *should issue* after a finding of infringement or validity. The Supreme Court’s *eBay* decision conceivably could be interpreted to have broader application as to the presumption of one prong in the preliminary injunction realm, but such a holding is not easily discerned from the *eBay* opinion.

On the contrary, the Federal Circuit has since referenced *eBay* in an appeal from the grant of a preliminary injunction to a pharmaceutical company that had established a likelihood of success on the merits and thereafter received a presumption of irreparable harm from the district court. *Abbott Laboratories v. Andrx Pharms, Inc.*, 452 F.3d 1331, 1347 (Fed. Cir. 2006). In *Abbott*, the Federal Circuit acknowledged *eBay* in a different part of the opinion, but then, after reversing the district court’s decision on likelihood of success, explained that because of that failure to demonstrate likelihood of success, the patentee was “no longer entitled to a presumption of irreparable harm.” *Id.* at 1348. Presumably, if the Federal Circuit had read *eBay* as broadly as Teva reads it, then the *Abbott* court would have noted at such a juncture that a presumption of irreparable harm no longer exists, period. Accordingly, this Court is loath to

expand the Supreme Court's *eBay* decision to apply in such a manner, especially where our specialist court of appeals in patent matters passed on reading *eBay* so broadly. Thus, Eisai is entitled to a presumption of irreparable harm because Teva has stipulated to infringement and validity, and Eisai has demonstrated a likelihood of success on the question of enforceability.

Regardless of the presumption, however, Eisai has independently demonstrated actual irreparable harm. Indeed, Eisai asserts, and Teva does not refute, that sales of Aricept[®] in the United States constitute 70% of Eisai's U.S. subsidiary's profits, and 25% of Eisai's revenues worldwide. Teva's primary counterargument centers on the fact that Eisai is a large multi-national company that could easily absorb a loss in the Aricept[®] market, as evidenced by a recent \$3.7 billion debt financing acquisition. But Teva's counterargument misses the mark inasmuch as the question of irreparable harm does not ask whether the patentee will go out of business, but instead asks whether the patentee will be harmed in such a manner that the damage cannot be undone.

In that regard, Eisai has organized its business plans in reliance on patent exclusivity through November 2010 when the '841 patent expires. Thus, research and development projects dependent on Aricept[®] profits for continued viability are at risk of being short circuited or shut down altogether if Teva is allowed to launch its generic version before the '841 patent's expiration. In that regard, Teva's argument that any damage is easily compensated with money is not accurate. Indeed, if there is a reasonable likelihood that research on future drugs—drugs that Teva no doubt will covet in the future and then argue that they are so important that a generic launch should not be prevented lest the poor be denied access to available remedies—will be eliminated, or even reduced or delayed, then the harm is irreparable.

Furthermore, unlike this Court's recent decision on another preliminary injunction motion in a different patent infringement case, there is no generic market for Aricept[®] already in existence. *See Novartis Corp. v. Teva Pharms USA, Inc.*, No. 04-4473, slip. op. at 51-53 (D.N.J. June 11, 2007) (Ackerman, J.) (denying preliminary injunction where likelihood of success not demonstrated and third-party competition already existed such that irreparable harm concerns were substantially diminished). Indeed, as Eisai is wont to highlight, many other generic drug manufacturers have filed Paragraph III certifications, indicating a contentedness to wait until the patent expires in 2010 before launching their own generic versions of Aricept[®]. Accordingly, the Court finds that Eisai has met its burden of demonstrating that it will suffer irreparable harm if an injunction does not issue.

D. Balance of Hardships

When evaluating the balance of hardships, a "court must balance the harm that will occur to the moving party from the denial of the preliminary injunction with the harm that the non-moving party will incur if the injunction is granted." *Hybritech*, 849 F.2d at 1457. Here, Teva contends that there can be no finding that the balance of hardship weighs in Eisai's favor where there is no likelihood of success or finding of irreparable harm. Of course, this Court now has held to the contrary of Teva's assertion on the first two prongs of the preliminary injunction analysis, and Teva does little to argue in the alternative. Instead, Teva simply argues that Eisai's future does not hinge on "its ability to retain monopoly profits on Aricept[®] for two more years." (Teva Br. in Opp. at 39.) But considering the stipulation of infringement and validity, the likelihood of success in defeating Teva's sole remaining defense of inequitable conduct, and the

finding of irreparable harm to Eisai, it takes no leap in logic to conclude that the hardship to Teva of waiting two more years, along with the numerous other generic manufacturers, is substantially less than the hardship Eisai would suffer in having its legal monopoly eviscerated by an unrestrained Teva that has clearly infringed Eisai's patent and offered a enforceability defense lacking substantial merit. *See Glaxo Group Ltd. v. Apotex, Inc.*, 64 F. App'x 751, 756 (Fed. Cir. 2003) (non-precedential opinion) ("The district court did not clearly err in finding that, without the preliminary injunction, [Brand] would lose the value of its patent while [Generic] would only lose the ability to go on to the market and begin earning profits earlier."); *see also Ortho-McNeil Pharm., Inc. v. Mylan Labs Inc.*, Nos. 04-1689, 06-757, 2006 WL 3019689, at *10 (D.N.J. Oct. 23, 2006) (citing *Glaxo* and similarly concluding that patentee "stands to lose the value of its patent, while [defendant] would only lose the ability to go on to the market and begin earning profits earlier") (internal quotation marks omitted).

E. Public Interest

This Court acknowledges that the public's interest in low-cost generic alternatives must be balanced by the public's interest in the protection of patent rights. *See Glaxo*, 64 F. App'x at 756 (non-precedential opinion) ("To the extent that the public interest favors generic competition, it is also the public's strong interest to protect patent rights, especially in view of [plaintiff's] likelihood of success with respect to infringement and validity of the patent."); *see also Smith Int'l, Inc. v. Hughes Tool Co.*, 718 F.2d 1573, 1578 (Fed. Cir. 1983) ("Without the right to obtain an injunction, the right to exclude granted to the patentee would have only a fraction of the value it was intended to have, and would no longer be as great an incentive to

engage in the toils of scientific and technological research.”).

Here, there is no doubt that Teva has infringed Eisai’s valid patent, and Eisai will likely prevail at trial in demonstrating the enforceability of that patent over Teva’s inequitable conduct defense. Thus, the public interest in encouraging the kind of scientific research Eisai completed in discovering Aricept® outweighs the public interest in obtaining that drug via low-cost generic alternatives. Indeed, without the benefit of patent, companies like Eisai would have considerably less incentive—by way of financial resources—to develop such drugs that companies like Teva could then replicate and distribute to the world via low-cost alternatives. In that regard, the public benefits most from the *protection* of patent rights because those who cannot afford the branded drug would not have eventual access to the generic drug if the brand manufacturer’s patent were not adequately protected to ensure recovery of development costs and sufficient profit incentives. Accordingly, the Court finds that the public interest factor weighs in favor of granting the preliminary injunction to Eisai.

III. CONCLUSION

Eisai has prevailed on each of the four factors to be considered in a preliminary injunction analysis. That is, Eisai has demonstrated a reasonable likelihood of success on the merits by showing Teva’s inequitable conduct defense to lack substantial merit. Eisai has also shown that it would suffer irreparable harm, that the balance of hardships weighs in its favor, and that the public interest is best served by protecting the ‘841 patent’s exclusivity. *Amazon.com*, 239 F.3d at 1350 (noting that a “district court must weigh and measure each factor against the other factors and against the form and magnitude of the relief requested”). Because Eisai has prevailed on all

four factors, the conclusion is inevitable that Eisai is entitled to a preliminary injunction in this matter. Accordingly, the Court will grant Eisai's motion. However, pursuant to Federal Rule of Civil Procedure 65(c), the Court will require Eisai to post security in an amount sufficient to compensate Teva should the injunction later be found to be unjustified. Therefore, per Teva's request, the parties shall submit evidence concerning the proper amount of bond.

IV. ORDER

For the foregoing reasons, it is hereby ORDERED that Eisai's motion for a preliminary injunction (Doc. No. 141) is GRANTED. Specifically, it is ORDERED that Teva Pharmaceuticals USA, Inc., Teva Pharmaceutical Industries, Ltd., and Gate Pharmaceuticals, their officers, agents, attorneys and employees, and those acting in privity or concert with them, and any successors in interest thereof, are restrained and enjoined from engaging in the commercial manufacture, use, offer to sell or sale within the United States, or importation into the United States, of any drug product containing donepezil or a pharmaceutical acceptable salt thereof, as claimed in United States Patent No. 4,895,841. Furthermore, Eisai and Teva shall, no later than **April 9, 2008**, submit evidence of the appropriate amount of bond to be posted by Eisai.

Newark, New Jersey
Dated: March 28, 2008.

/s/ Harold A. Ackerman
U.S.D.J.