IN THE UNITED STATES DISTRICT COURT

FOR THE NORTHERN DISTRICT OF CALIFORNIA

SAN FRANCISCO DIVISION

SHIRE LLC; SUPERNUS PHARMACEUTICALS, INC.; AMY F.T. ARNSTEN, PH.D.; PASKO RAKIC, M.D.; and ROBERT D. HUNT, M.D.,

Plaintiffs,

v.

IMPAX LABORATORIES, INC.; WATSON PHARMACEUTICALS, INC.; WATSON LABORATORIES, INC.−FLORIDA; WATSON PHARMA, INC.; and ANDA, INC.,

Defendants.
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No. C 10-5467 RS

CLAIM CONSTRUCTION ORDER

I. INTRODUCTION

Plaintiffs (collectively "Shire") allege infringement of U.S. Patent Nos. 6,287,599 ("the '599 patent") and 6,811,794 ("the '794 patent").[1] Shire holds an exclusive license to those two patents, which are listed in the United States Food and Drug Administration's (FDA) Approved Drug Products with Therapeutic Equivalent Evaluations as covering the drug Intuniv. Intuniv is used to treat pediatric Attention Deficit Disorder (ADD). A Shire subsidiary also holds a New Drug Application from the FDA, which affords Shire the exclusive right to market Intuniv in the domestic market. Defendants Impax and Watson Laboratories filed Abbreviated New Drug Applications seeking authorization from the FDA to market generic versions of Intuniv before Shire's patents expire, and this litigation followed. Pursuant to *Markman v. Westview Instruments, Inc.*, 52 F.3d

[1] A third patent, U.S. Patent No. 5,854,290 ("the '290 patent"), was originally asserted as well, but was recently dedicated to the public.

967, 979 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996), and the Patent Local Rules, the parties have presented nine terms found in the claims of the patents for construction by the Court, including five terms the parties agree are "most significant." Upon consideration of the parties' briefing, the arguments presented at the *Markman* hearing, the disputed terms are construed as set out below.

II. BACKGROUND

The '599 and '794 patents are both entitled "Sustained Release Pharmaceutical Dosage Forms with Minimized pH Dependent Dissolution Profiles." The asserted claims of the '599 patent purport to cover the particular formulations of guanfacine at issue, while the claims of the '794 patent are directed to a method for treating ADHD, or reducing the probability of side effects, using a sustained release guanfacine formulation.

Intuniv is an orally-administered, sustained release tablet formulation of the Active Pharmaceutical Ingredient (API) guanfacine. As the tablet moves down a patient's gastrointestinal (GI) tract, guanfacine is gradually absorbed into the bloodstream. The solubility of guanfacine is pH dependent, which is to say it depends on the relative acidity or alkalinity of the medium, measured on a scale from 1 (most acidic) to 14 (most alkaline). Specifically, guanfacine tends to dissolve faster in more acidic environments. The pH of the GI tract also varies: the stomach is highly acidic (~ 1.0), whereas the small intestine ranges from mildly acidic (~5.5) to mildly alkaline (~7.4). As a result, when a pharmaceutical formulation of guanfacine is ingested, it tends to dissolve relatively quickly in the acidic environment of the stomach, leaving what is left to dissolve at a slower rate in the more basic environs of the lower intestine. According to Shire, the claimed formulation with guanfacine is designed to minimize the effect of its pH dependent solubility on delivery of the drug, or in other words, ensure a relatively constant concentration of the active agent in the body, which allegedly suppresses side effects such as headaches, drowsiness, dizziness, and nausea, among others.

Shire is actively litigating the '599 and '794 patents in several fora and has briefed claim construction in a suit proceeding in Colorado and in a consolidated action venued in Delaware. *See Shire LL, et al. v. Teva Pharms. USA, Inc., et al.*, No. C 10-00329 (D. Del.); *Shire LLC, et al. v.*

Actavis Elizabeth LLC, et al., No C 10-00397 (D. Del); *Shire LLC, et al. v. Anchem Pharms., Inc., et al.*, No. C 10-00484 (D. Del.); *Shire LLC, et al. v. Sandoz Inc.*, No C. 11-1110 (D. Col). The district court in Delaware recently issued its claim construction order, addressing several of the terms the parties request this Court to construe.

III. LEGAL STANDARD

Claim construction is a question of law to be determined by the Court. *Markman*, 52 F.3d at 979. "Ultimately, the interpretation to be given a term can only be determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim." *Phillips v. AWH Corp*., 415 F.3d 1303, 1316 (Fed. Cir. 2005) (quoting *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998)). Accordingly, a claim should be construed in a manner that "most naturally aligns with the patent's description of the invention." *Id*.

The first step in claim construction is to look to the language of the claims themselves. "It is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude.'" *Phillips*, 415 F.3d at 1312 (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). A disputed claim term should be construed in a manner consistent with its "ordinary and customary meaning," which is "the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Phillips*, 415 F.3d at 1312-13. The ordinary and customary meaning of a claim term may be determined solely by viewing the term within the context of the claim's overall language. *See id*. at 1314 ("[T]he use of a term within the claim provides a firm basis for construing the term."). Additionally, the use of the term in other claims may provide guidance regarding its proper construction. *Id*. ("Other claims of the patent in question, both asserted and unasserted, can also be valuable sources of enlightenment as to the meaning of a claim term.").

A claim should also be construed in a manner that is consistent with the patent's specification. *See Markman*, 52 F.3d at 979 ("Claims must be read in view of the specification, of which they are a part."). Typically the specification is the best guide for construing the claims. *See Phillips*, 415 F.3d at 1315 ("The specification is . . . the primary basis for construing the claims.");

see also Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996) ("[T]he specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term."). In limited circumstances, the specification may be used to narrow the meaning of a claim term that otherwise would appear to be susceptible to a broader reading. *See SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc*., 242 F.3d 1337, 1341 (Fed. Cir. 2001); *Phillips*, 415 F.3d at 1316. Precedent forbids, however, a construction of claim terms that imposes limitations not found in the claims or supported by an unambiguous restriction in the specification or prosecution history. *Laitram Corp. v. NEC Corp.*, 163 F.3d 1342, 1347 (Fed. Cir. 1998) ("[A] court may not import limitations from the written description into the claims."); *Comark Commc'ns., Inc. v. Harris Corp.*, 156 F.3d 1182, 1186 (Fed. Cir. 1998) ("[W]hile . . . claims are to be interpreted in light of the specification, it does not follow that limitations from the specification may be read into the claims."); *SRI Int'l v. Matsushita Elec. Corp. of Am.*, 775 F.2d 1107, 1121 (Fed. Cir. 1985) (en banc) ("It is the *claims* that measure the invention.") (emphasis in original). A final source of intrinsic evidence is the prosecution record and any statements made by the patentee to the United States Patent and Trademark Office (PTO) regarding the scope of the invention. *See Markman*, 52 F.3d at 980. Here, however, none of the parties rely on the file wrapper.

The court also may consider extrinsic evidence, such as dictionaries or technical treatises, especially if such sources are "helpful in determining 'the true meaning of language used in the patent claims.'" *Phillips*, 415 F.3d at 1318 (quoting *Markman*, 52 F.3d at 980). Ultimately, while extrinsic evidence may aid the claim construction analysis, it cannot be used to contradict the plain and ordinary meaning of a claim term as defined within the intrinsic record. *Phillips*, 415 F.3d at 1322-23.

Once the proper meaning of a term used in a claim has been determined, that term must have the same meaning for all claims in which it appears. *Inverness Med. Switzerland GmbH v. Princeton Biomeditech Corp.*, 309 F.3d 1365, 1371 (Fed. Cir. 2002). Additionally, here, the parties have agreed that any claim term that appears in the claims of both the '599 and the '794 patents should have the same meaning in each patent.

IV. DISCUSSION

1. "non-pH dependent sustained release agent"

The first term to be construed, "non-pH dependent sustained release agent," appears in many of the '599 patent's claims. Most prominently, in the '599 patent's first claim, it constitutes the second of three components of the claimed composition. Plaintiff urges that term be construed to mean, "substance that, in the claimed composition as formulated (*i.e.,* in the formulation), slows release of the active agent (*i.e.*, the drug) from the composition over an extended period of time regardless of gastrointestinal pH." Watson proposes the term be interpreted as meaning, "substance, which does not function as a pH-dependent agent in the formulation, that slows the rate of release of the drug from the composition regardless of the pH." Impax proposes, "substance that slows the rate of release of the drug from the composition regardless of pH, which includes but is not necessarily limited to" a list of ingredients found in the specification. Accordingly, there are several areas of disagreement.

As an initial matter, the parties all agree that this particular term is satisfied by the non-exhaustive list of suitable agents included in the specification, which Impax alone proposes to add to the construed term (Watson does not object to its inclusion). Impax argues that omission of the list will permit Shire to argue "improperly" that a listed ingredient satisfies the claim limitation to the extent it is present in Impax's allegedly infringing formulation, but not in the prior art. Putting aside whether such an argument would be "improper" in the first instance, inclusion of the list is simply not justified because the specification does not so limit the claims.[2] *Phillips*, 415 F.3d at 1323.

Second, there is disagreement as to the propriety of plaintiff's inclusion of the phrase, "when the claimed composition is formulated." Plaintiff urges inclusion, arguing that the patent is directed to the field of pharmaceutical science of drug formulation, and claims pharmaceutical formulations, not isolated components. It insists that the properties and/or effects of the claimed agent may change as the amount, environment, or presence of other components vary. In support of its position, Shire notes that some components are listed in the specification of the '599 patent as

[2] Impax also urges the Court to incorporate similar non-exhaustive lists of suitable agents into other claims. Those requests are all rejected for the reasons stated above.

suitable non-pH dependent sustained release agents *and* as suitable pH dependent agents. Shire therefore submits that the properties of the sustained release agent are properly evaluated and understood only "when the claimed composition is formulated."

Defendants argue that nothing in the claim identifies how the composition itself influences the claimed property of the sustained release agent. The urged limitation, defendants submit, is not properly imported into the claims simply because the alleged invention arises out of the pharmaceutical sciences, or because some exemplary agents are suitable in some formulations but not others, defendants submit. The plain language of the claim, defendants correctly observe, does not necessarily require the sustained release agent's properties to be evaluated "when the claimed composition is formulated." Moreover, even accepting Shire's view that the sustained release agent's properties depend on the composition, claim 1 of the '599 patent begins: "A pharmaceutical *composition, comprising* …" (emphasis added). Given that language, it would be redundant to add that the sustained release agent so functions, "in the claimed composition as formulated (*i.e.*, in the formulation)."[3] At best, that compounds, rather than clarifies, the claim term. Consequently, Shire's proposed construction will not be adopted.

Third, the parties cannot agree whether the claimed agent "slows release," or "slows the rate of release," of the active ingredient. The parties have been unable to articulate any meaningful difference between these two phrases. Consistent with other claim terms, the phrase "rate of release" will be adopted. Additionally, Impax does not agree to plaintiff's addition of the phrase "over an extended period of time."[4] Relying on the testimony of one of the named inventors, it maintains that "sustained release" means any retardation of the rate of release whatsoever. Impax also suggests that the phrase, "an extended period of time," is itself indefinite, and would require

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[3] The parties use the terms "composition" and "formulation" (and variants thereof) interchangeably.

[4] Watson's proposed definition also does not include any reference to duration, though it has not specifically commented on this issue. Both defendants, however, dispute plaintiff's assertion that dissolution data set forth in the '599 patent supports Shire's proposed construction, apparently anticipating future litigation on that issue, likely going to validity. The data to which the parties refer shows that certain control formulations (not covered by the '599 patent's claims) released roughly 100% of the active agent after 12 hours at pH 1.2, but only 61% after 12 hours at pH 6.8. By contrast, the claimed invention delivered approximately 100% of the active agent after 12 hours at both pH 1.2 and 6.8. Plaintiff therefore argues these controls cannot be considered as delivering "sustained release." Defendants point out that the controls are referred to as "sustained release tablets" in the patent itself.

some further definition if included. Specifically, it suggests 12 hours is the appropriate duration, relying on dissolution data cited in the '599 patent. '599 Patent, Table 2. Plaintiff disagrees. Shire points out that medical dictionaries define "sustained release" to mean "slow release of drug over an extended period of time." REMINGTON'S PHARMACEUTICAL SCIENCES 1677 (Gennaro Ed., Mack Publishing Co. 1990). *Accord* MERRIAM-WEBSTER'S MEDICAL DESK DICTIONARY 790 (Merriam-Webster, Inc. 1996).

Impax's alternative construction is untenable. The term must be given its "ordinary and customary meaning," which is "the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention." *Phillips*, 415 F.3d at 1312-13. Here, that means "slow release over an extended period of time." To the extent defendant suggests "an extended period of time" is itself indefinite, the natural process of ingestion adequately limits the relevant duration. Impax's further suggestion that the claim should be construed as meaning, specifically, "substance that slows the release of *about 100%* of the active ingredient (e.g., the drug) from the composition over a period of 12 hours at both pH 1.2 and pH 6.8 [or over the range of gastrointestinal pH]," is an impermissible narrowing of the claims based on the specification. *Comark Commc'ns.*, 156 F.3d at 1186 ("while . . . claims are to be interpreted in light of the specification, it does not follow that limitations from the specification may be read into the claims."). Consequently, it must be rejected.

Fourth, the parties debate whether the construction of "non-pH dependent" means "regardless of gastrointestinal pH," or more broadly, "regardless of the pH."[5] Plaintiff points out that the claimed drug formulation is to be ingested, and specifically designed to improve upon prior formulations that give "a faster dissolution profile in simulated gastric fluid, having a pH of about 1.0, than in simulated intestinal fluid (pH 6.8 to 7.4)." *See* '599 Patent, col. 1, ll. 24-27. Watson protests that the term "gastrointestinal" appears nowhere in the patents, and argues that the reference to simulated gastric and intestinal fluids merely identifies a potential problem in the art, but does not rise to the level of expressly limiting the scope of the claims. Watson also submits that inclusion of

[5] At the hearing, defendants withdrew their original suggestion, which was, "regardless of the pH of the surrounding media."

the term "gastrointestinal pH" does not appropriately clarify the '599 patent's claims, given that the patent refers repeatedly, and specifically, to particular pH levels or ranges, rather than a specific anatomical medium. Watson's urged construction is unrealistic, and artificially ignores the nature of the alleged invention. The purpose of construction is to define the parameters of the claims with greater clarity, against the backdrop of the claimed invention, and the specification. Here, the claimed invention is an orally-delivered tablet that delivers guanfacine over an extended period of time. The drug is delivered via the GI tract. The functionality of the sustained release agent at pH levels beyond those found in the GI tract is not contemplated by the patent and therefore does not warrant reference in the construction of the term.

Fifth and finally, Watson argues the Court's construction should clarify that the sustained release agent cannot also serve as the third component – the pH dependent agent that increases the rate of release of the drug from the tablet at a pH in excess of 5.5 – in a given formulation. As Watson notes, this issue was previously litigated before the district court in Delaware, resulting, at least for the time being, in the inclusion of the limitation that the sustained release agent "is not the pH-dependent agent."[6] While not necessarily binding on this Court, that decision at least constitutes persuasive authority. *See Shire LLC v. Sandoz Inc.*, No. C 07-00197, 2008 WL 5120728, at * (D. Colo. Dec. 5, 2008) (noting split among district courts concerning the "application of issue preclusion to another district court's unappealed claim construction"). Substantively, Watson argues that the repeated use of the phrase "at least one," and the conjunction "and" between the elements of the claimed formulation, together suggest that the inventors sought to describe three distinct elements performing separate functions. It also reasons that an ingredient cannot be both "non-pH dependent," as the sustained release agent is required to be, and "pH dependent" at the same time.

Shire disagrees. It asserts that a given agent may indeed meet both criteria, and serve different functions, depending on the relative amount and location of it within the composition. It again notes that certain agents (including carregeenan, sodium caboxymethyl cellulose, and alginic acid) are listed in the '599 patent specification as suitable for both functions. Shire thus reiterates its

[6] Shire has moved for reconsideration of the Delaware's claim construction order on that issue.

position that the properties of each agent must be evaluated once the composition is formulated. That somewhat attenuated explanation lacks intrinsic support. While some specified agents may be suitable for both roles in theory, there is no suggestion in the patent itself that a given agent may play both roles within a single iteration of the claimed composition. Furthermore, the plain language of the claim, requiring the second component to be "non-pH dependent" and the third to be "pH dependent," strongly suggests the patent claims two distinct agents, rather than one agent serving two roles. This conclusion is further buttressed by the overall structure and syntax of claim 1. Accordingly, consistent with the Delaware district court's determination of this issue, defendants' urged limitation will be adopted. In light of the foregoing discussion, the term "non-pH dependent sustained release agent" is therefore construed to mean: "Substance that slows the rate of release of the drug from the composition over an extended period of time regardless of gastrointestinal pH, and that does not function as a pH-dependent agent."

2. "pH dependent agent that increases the rate of release of said at least one pharmaceutically active agent from the tablet at a pH in excess of 5.5"

This term from the '599 patent comprises the third component of the claimed pharmaceutical composition. Plaintiff suggests the following construction: "Substance that, in the claimed composition as formulated, increases the rate of release of the active agent (*i.e.*, drug) from the composition in an environment having a pH above 5.5 over (*i.e.*, as compared to) when the composition is either (i) in an environment having a pH of 5.5 or less, or (ii) when the composition is formulated without the pH dependent agent." Watson proposes, alternatively: "Substance, which does not function as a non-pH dependent agent in the formulation, that increases the rate of release of the drug from the composition at a pH above 5.5." Impax maintains this term is fatally indefinite under 35 U.S.C. § 112 and, as a result, offers no proposed construction. While offering its alternative construction, Watson joins in Impax's assertion of indefiniteness.

Because such a finding would obviate the need for any further construction, it presents a threshold question. A patent may be determined indefinite as a matter of law if it is "insolubly ambiguous and no narrowing construction can properly be adopted." *Exxon Res. & Eng'g Co. v. United states*, 265 F.3d 1371, 1375 (Fed. Cir. 2001). Impax's first argument is that the word

"increases" necessarily implies a comparison, but the comparator "is not stated in the claim." Pl.'s Br. At 12:23. That alone is not fatal, however; otherwise any use of the word "increase," without an expressly stated accompanying point of reference in the claims language, would render a claim indefinite as a matter of law. That result is unsupportable.

Honeywell, relied upon by Impax, is inapposite. There, the Federal Circuit upheld the International Trade Commission's finding of indefiniteness because there was no way to determine from the claims, the specification, or the prosecution history, which of four alternative methods for measuring melting point was claimed. *Honeywell Intern., Inc. v. Int'l Trade Com'n*, 341 F.3d 1332, 1339-40 (Fed. Cir. 2003). Here, by contrast, the relevant point of comparison may be gleaned from the specification. Specifically, Shire argues that the exemplification data indicates that the claim limitation is satisfied, first, if the rate of release is increased as compared to when the formulation is in an environment having a pH of 5.5 or less. For support, it cites Table 2 of the '599 patent, which compares controls (specifically, PD0052-22A and PD0052-25B) against compositions purportedly covered by the claims above and below pH 5.5. Table 2 shows an increase in dissolution in a medium of pH 6.8, when compared with dissolution at pH 1.2. Impax, relying on deposition testimony, maintains that it cannot be determined from Table 2 whether the pH dependent agent specifically is operating to increase the rate of release; only that overall the named inventors maintain that the formulations are operating in such a manner. *See* Exh. E (Burnside Depo. 220:21-221:4) to Cassidy Decl. in Supp. of Impax's Opp'n. Impax contends that the disclosure is thus inadequate. That question is best reserved for another day. On the narrow claim construction question presented by the term at issue, even assuming the patent is poorly disclosed, there is at least some intrinsic evidence to support the comparator plaintiff urges – that is, above pH 5.5, as compared to at or below that level of acidity.

Second, relying on Table 1 from the '599 patent, Shire maintains that comparative data for the control formulations also indicates the rate of release limitation is met if the pH dependent agent is present, as compared to when it is absent from the formulation. Impax maintains the patent supports no such conclusion, and, moreover, that Shire's position is inconsistent with its arguments in the Delaware and Colorado actions. The latter argument need not be considered as the former

resolves the question.[7] Table 1 contains no information about the drug dissolution profiles of the various formulations. Rather, it simply shows the particular ingredients included in each. Consequently, it provides no support whatsoever for the comparator Shire advocates. This result is consistent with the intrinsic evidence, including the plain language of the claim, and the data set forth in the patent. The ordinary, supported, and sufficiently definite meaning of the term is that the agent increases the rate of release of the drug in an environment having a pH in excess of 5.5, as compared to an environment of pH 5.5 or below.

For the reasons explained above, Shire's renewed suggestion that the evaluation of the agent's properties is to be made "when the composition is formulated" need not be included. To the extent the claims language generally supports that concept, it is already sufficiently implied by the words, "*from the composition* in an environment…" (emphasis added). Finally, and again for the reasons discussed in connection with the first disputed claim term, Watson's urged limitation, "which does not function as a non-pH dependent agent," shall be incorporated into the construction in a slightly modified, but materially indistinguishable form. Accordingly, the term shall finally be construed to mean: "Substance that is not the non-pH dependent sustained release agent, and that increases the rate of release of the drug from the composition in an environment having a pH above 5.5, as compared to when the composition is in an environment of pH 5.5 or below."

3. "polymer that swells at a pH in excess of 5.5"

The next term first appears in the '599 patent's second claim, which reads in full: "2. The composition of claim 1 wherein said at least one pH dependent agent is at least one *polymer that swells at a pH in excess of 5.5*" (emphasis added). '599 Patent, col. 7, ll. 42-44. The parties agree that the first part of claim 2 should be construed to mean, "A molecule with many units joined to each other through chemical bonds, often in a repeating manner, which," – and disagree as to what follows. Shire proposes, "when the claimed composition is formulated, expands at a pH above 5.5." Watson and Impax propose simply, "expands at a pH above 5.5."

[7] Impax insists Shire's view that either (i) or (ii) is sufficient to meet the claim language represents a departure from its position, asserted in the Delaware litigation, that both conditions (i) and (ii) must be met, and from the position it took in the Colorado case, requiring only condition (i). *See* Exhs. A & B (Shire's briefs) to Cassidy Decl. in Supp. of Impax's Opp'n.

Shire's limitation, "when the claimed composition is formulated," was rejected in construing the first disputed term above. Here, as plaintiff emphasizes, the claim makes express reference to "the composition of claim 1 wherein…," suggesting that the appropriate frame of reference is "the composition," not the polymer in isolation. By the same token, with that language already in the claim, there is no need to add a further express limitation to that effect by way of claim construction. Consequently, "A molecule with many units joined to each other through chemical bonds, often in a repeating manner, which expands at a pH above 5.5," will be adopted.

4. "agent that increases the solubility of said at least one pharmaceutically active agent at a pH of greater than 5.5"

This claim term appears first in the '599 patent's fourth claim, which reads: "4. The composition of claim 1 wherein said at least one pH dependent agent is at least one *agent that increases the solubility of said at least one pharmaceutically active agent at a pH of greater than 5.5*" (emphasis added). In parallel to its proposal for the second term, above, Shire proposes the following: "Substance that, when the claimed composition is formulated, increases the amount of the active agent (*i.e.*, drug) that dissolves in another substance in an environment having a pH above 5.5 over when the composition is either (i) in an environment having a pH of 5.5 or less, or (ii) when the composition is formulated without the agent that increases the amount of the active agent (*i.e.*, drug) that dissolves in another substance." Watson recommends: "Substance that increases the amount of the drug that will dissolve at a pH above 5.5." Impax concurs, but also urges that the claim is indefinite, to the extent it is dependent on the '599 patent's first claim, and additionally indefinite and unsupported by the patent for the reasons discussed above in connection with the second construed claim term.

Contrary to Impax's position, and consistent with the construction of the second term, above, the appropriate comparator is an environment having pH of 5.5 or less. Watson argues this interpretation would be self-defeating to the alleged invention's supposed purpose – that is, to create a pH independent or minimally dependent dissolution profile. That is the purpose of the overall claimed composition, however, to achieve that overall effect, the agent at issue must have a converse, corrective effect. As a consequence, there is no incongruity.

Furthermore, for the reasons already stated in connection with the parallel language to be found in the second term construed above, Shire's inclusion of the clause, "when the claimed composition is formulated," is unnecessary, and the plain language of the claims does not appear to contemplate condition (ii). Accordingly, those portions of Shire's proffered construction will not be adopted. Invoking a lay dictionary definition, Shire also argues for a slightly different elaboration of the term "solubility" than do defendants, which includes a reference to the substance into which the drug dissolves. *See* MERRIAM WEBSTER'S COLLEGIATE DICTIONARY 1119 (10th ed. 1994) ("solubility" means "the amount of a substance that will dissolve *in a given amount of another substance*" (emphasis added)). Defendants do not appear to disagree with that understanding of solubility, though their proposed wording differs slightly. Consequently, the term will be construed as follows: "Substance that increases the amount of the drug that dissolves in another substance in an environment having a pH above 5.5, as compared to when the composition is in an environment having a pH of 5.5 or less."

5. "reducing the likelihood of side effects"

The preamble of claim 8 of the '794 patent describes a method of "reducing the likelihood of side effects" associated with administering guanfacine by specific use of the '599 patent's claimed formulation. Shire argues this particular claim term should be construed to mean "reducing the probability of side effects resulting from guanfacine administration." Pl.'s Br. at 18:3-5. Watson proposes: "decreasing the incidence of side effects compared to administering the same amount of guanfacine as an immediate-release composition." Impax argues that this claim term is indefinite as a substantive limitation, and instead must be construed as a statement of intended purpose that describes the result of performing the claims.

As an initial matter, Impax's contention is unpersuasive. First, it reiterates the argument that "reducing," like "increases," is inherently indeterminate as a substantive limitation. That position fails, as discussed above. Alternatively, Impax maintains that the term, if construed as a substantive limitation, would be invalid as directed towards non-statutory subject matter under 35 U.S.C. § 101, pursuant to *Mayo Collaborative Serv. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1296-98 (2012).

That issue, like some of Impax's other arguments, is better addressed at a later stage, as it requires much broader consideration of all the evidence at bar.

Shire goes on to argue that the common meaning of "likelihood" is "probability," relying on the definition adopted by a lay dictionary. *See* MERRIAM WEBSTER'S COLLEGIATE DICTIONARY 673. It submits the following language from the patent supports its position: "When guanfacine hydrochloride is administered as part of a composition in accordance with the present invention, there is a reduction in the number of side effects associated with the administration of guanfacine hydrochloride, or a reduction in the likelihood of side effects associated with the administration of guanfacine hydrochloride." '794 Patent, col. 3, ll. 50-55. The distinction drawn lends weak support, at best, to Shire's view, as it merely reiterates a variant of the disputed term, "reduction in the number of side effects."

Watson suggests construing "likelihood" to mean "incidence rate," rather than "probability." It contends that the "the number of side effects" refers to the number of distinct side effects, whereas an incidence rate refers to "count" information, or the number of instances when a patient suffered an "adverse event" (*e.g.*, side effect). *See* '794 Patent, Table 10 (reporting separately "number of side effects" and "No. [number of] AEs [adverse events] Reported"). The parties have failed to explain the significance of the urged distinction: other than a slight difference in the units, it is unclear how "probability" varies meaningfully from "incidence," given the same underlying comparator. In addition, neither party offers any evidence of a particular understanding among those skilled in the pharmaceutical arts. Finally, there does not appear to be any fundamental disagreement that the claim term refers to the relative frequency of all side effects. Consequently, there is no apparent need to define "likelihood" further.

Finally, Watson also proposes a comparator of immediate release guanfacine. There is no support for such a limitation to be found in the patent itself. Watson argues, instead, that Shire has conceded, by implication, that comparator by virtue of its observation (in its opening brief) that the alleged invention represents an improvement over the immediate release guanfacine drug Tenex. A fair reading of Shire's brief does not reflect such a concession, and as neither party has furnished

any intrinsic of extrinsic evidence to suggest a relevant comparator, none need be supplied. In sum, the term "reducing the likelihood of side effects" does not require construction.

6. "agent that maintains an acidic microenvironment in the composition"

This term arises in the '599 patent's thirteenth claim. Shire proposes to construe the term as: "substance that keeps acidic, over a period of time, *the environment* immediately around or in close proximity to the drug" (emphasis added). Watson would change "the environment" to "a region." Watson argues that "environment" does not add clarity and could refer to a "spatial area, the medium in which the tablet is located, or some other unknown space," whereas "region" properly specifies the "spatial area around the drug." Watson's Opp'n at 19: 15-16. There is no meaningful difference between the parties' positions. Shire's use of "environment immediately around or in close proximity to the drug" at least preserves the root of the claims term "microenvironment," and for that reason, it will be adopted. This term is construed to mean: "substance that keeps acidic, over a period of time, *the environment* immediately around or in close proximity to the drug."

7. "binding agent"

Plaintiff and Watson agree on a construction: "substance that aids in the binding of ingredients in a tablet." Impax appears to agree, but requests inclusion of the non-exhaustive list of suitable agents. As noted above, that suggestion is not warranted. *See supra* note 2.

8. "amount effective to treat said attention deficit disorder or attention deficit with hyperactivity disorder in said patient"

This term arises in claim 3 of the '794 patent. The parties generally agree that it should be construed to mean, "an amount of the composition sufficient to eliminate or reduce one or more symptoms of attention deficit disorder or attention deficit with hyperactivity disorder." Shire submits a final modifier should be attached: "whether during a single application of the amount or repeated applications." Defendants object, arguing that the plaintiff's proposal is not supported by the patent. Absent supporting evidence, the construction tracking closer to the claims language is appropriate. The term shall therefore be construed to mean, "an amount of the composition sufficient to eliminate or reduce one or more symptoms of attention deficit disorder or attention deficit with hyperactivity disorder."

9. "a therapeutically effective amount of [the composition] comprising"

At the hearing, the parties indicated they had come to agreement on the construction of the last term, which arises in claim 8 of the '794 patent. Accordingly, per their stipulation, it will be construed to mean: "An amount of the composition sufficient to eliminate or reduce one or more symptoms of one or more disease."

V. CONCLUSION

The disputed claim terms of the patents-in-suit are hereby construed as set forth above. Where the order has identified terms that may require further construction, such matters shall be presented, if it becomes necessary, in the context of any dispositive motions or at the time of formulating jury instructions.

IT IS SO ORDERED.

Dated: 6/1/12

RICHARD SEEBORG
UNITED STATES DISTRICT JUDGE