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Paper 85
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MYLAN PHARMACEUTICALS, INC. and AMNEAL PHARMCEUTICALS LLC,
Petitioners,

v.

YEDA RESEARCH AND DEVELOPMENT CO. LTD.,
Patent Owner.

Case IPR2015-00830
Patent 8,969,302 B2[1]

Before SHERIDAN K. SNEDDEN, ZHENYU YANG, and TINA E. HULSE, *Administrative Patent Judges*.

SNEDDEN, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

[1] Case IPR2015-01981 has been joined with Case IPR2015-00830.

I. INTRODUCTION

Mylan Pharmaceuticals Inc. ("Petitioner") filed a Petition (Paper 2; "Pet.") to institute an *inter partes* review of claims 1–12 of US 8,969,302 B2 (Ex. 1001; "the '302 patent"). Yeda Research and Development Co. Ltd. ("Patent Owner") filed a Patent Owner Preliminary Response. Paper 6 ("Prelim. Resp.").

Based on these submissions, we instituted trial on the following ground of unpatentability asserted by Petitioner:

Reference[s]	Basis	Claims challenged
Pinchasi[2] and 1996 FDA SBOA[3]	§ 103(a)	1–12
Pinchasi and Flechter[4]	§ 103(a)	1–12

Decision to Institute (Paper 8, "Dec.").

After institution of trial, Patent Owner filed a Patent Owner Response (Paper 22, "PO Resp."), to which Petitioner filed a Reply (Paper 53, "Pet. Reply").

On September 25, 2015, Amneal Pharmaceuticals LLC ("Amneal") also filed a Petition requesting an *inter partes* review of claims 1–12 of the '302 patent in case IPR2015-01981 ("the -1981 case"). IPR2015-01981,

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[2] Irit Pinchasi, WO 2007/081975 A2, published July 19, 2007 (Ex. 1005).

[3] Summary Basis of Approval ("SBOA") for the New Drug Application for 20 mg daily Copaxone® (NDA #20-622) (Ex. 1007).

[4] S. Flechter et al., *Copolymer 1 (Glatiramer Acetate) in Relapsing Forms of Multiple Sclerosis: Open Multicenter Study of Alternate-Day Administration*, 25 CLINICAL NEUROPHARM. 11–15 (2002) (Ex. 1008).

Paper 1. Amneal filed a motion to join the -1981 case with this case. *Id.*, Paper 3. On December 28, 2015, we granted Amneal's Petition and its motion for joinder. *Id.*, Paper 9. Accordingly, we terminated the -1981 case and joined the -1981 case with this case.

Petitioners relies on the Declaration of Stephen J. Peroutka, M.D., Ph.D. (Ex. 1003); Ari Green, M.D. (Ex. 1004); and Joel W. Hay, Ph.D. (Ex. 1099).

Patent Owner relies on the Declarations of Drs. Edward J. Fox (Ex. 2129), Henry G. Grabowski (Ex. 2133), Robert William Gristwood (Ex. 2134), and Tjalf Ziemssen (Ex. 2135).

Petitioners filed a motion to exclude certain of Patent Owner's evidence. Paper 62. Patent Owner filed an opposition (Paper 67), and Petitioners filed a reply (Paper 75).

Patent Owner filed a motion to exclude certain of Petitioners' evidence. Paper 64. Petitioners filed an opposition (Paper 70), and Patent Owner filed a reply (Paper 74).

Oral argument was conducted on May 11, 2016. A transcript is entered as Paper 79 ("Tr.").

On September 1, 2016, we entered a Final Written Decision pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. Patent Owner filed a request for rehearing of our decision. Paper 81. In a concurrently issued Order, we grant-in-part Patent Owner's request and vacate our original decision. We hereby issue this modified Final Written Decision.

This Final Written Decision is entered pursuant to 35 U.S.C. § 318(a). We conclude for the reasons that follow that Petitioners have shown by a preponderance of the evidence that claims 1–12 of the '302 patent are

unpatentable.

A. Related Proceedings

The parties inform us of no related litigations between them involving the ’302 patent. Pet. 1; Paper 5.

Concurrent with the present *inter partes* review, we instituted *inter partes* review of related patents U.S. Patent No. 8,232,250 (“the ’250 patent”) (Case IPR2015-00643) and U.S. Patent No. 8,399,413 (“the ’413 patent”) (Case IPR2015-00644). *Id.*

B. The ’302 patent (Ex. 1001)

Multiple Sclerosis (“MS”) is a chronic, autoimmune disease of the central nervous system. Ex. 1001, 1:17–19. There are five main forms of MS, including Relapsing-Remitting Multiple Sclerosis (“RRMS”). *Id.* at 1:24–59. Patients suffering from RRMS experience sporadic exacerbations or relapses, as well as periods of remission. *Id.* at 1:31–35.

Glatiramer acetate (“GA” or “copolymer-1”) is a mixture of polypeptides that do not all have the same amino acid sequence, and is marketed as Copaxone®. *Id.* at 1:65–67. Administering 20 mg per day of Copaxone is an FDA-approved therapy for patients with RRMS. *Id.* at 2:13–16. The ’302 patent discloses “an effective low frequency dosage regimen of GA administration to patients suffering from a relapsing form of [MS], including patients who have experienced a first clinical episode and have MRI features consistent with [MS].” *Id.* at 2:43–47. The disclosed method comprises administering to a patient suffering from RRMS three subcutaneous injections of a therapeutically effective dose of GA over a period of seven days with at least one day between every subcutaneous

injection so as to thereby alleviate a symptom of the patient. *Id.* at 2:51–60

C. Challenged Claims

Claims 1 and 10 are the independent claims among the challenged claims, and are reproduced below:

> 1. A method of treatment of a human patient suffering from a relapsing form of multiple sclerosis comprising administration to the human patient of three subcutaneous injections of a 40 mg/ml dose of glatiramer acetate per week so as to treat the human patient.
>
> 10. A method of treatment of a human patient suffering from a relapsing form of multiple sclerosis comprising subcutaneous injection by the human patient of a 40 mg/ml dose of glatiramer acetate three times per week with at least one day between every subcutaneous injection, wherein the glatiramer acetate is present in 1 ml of a pharmaceutical composition in a prefilled syringe for self injection by the human patient, and wherein the pharmaceutical composition further comprises mannitol and has a pH in the range of 5.5 to 7.0.

Claims 2–9 depend from claim 1, either directly or indirectly. Claims 11 and 12 depend from claim 10.

II. ANALYSIS

A. Person of Ordinary Skill in the Art

The parties dispute the proper definition of a person of ordinary skill in the art. Petitioners contend that a person of ordinary skill in the art would have had (1) several years of experience in the pharmaceutical industry or in practicing medicine; (2) experience with the administration or formulation of therapeutic agents, dosing schedules and frequencies, and drug developmental study and design; and (3) a Ph.D. in pharmacology or be a

physician with experience in clinical pharmacology. Pet. 11. In its Preliminary Response, Patent Owner disagreed with Petitioners' definition because it does not include experience with MS or GA, which, according to Patent Owner, are both requirements for a person of ordinary skill in the art. Prelim. Resp. 34.

In our Decision to Institute, we agreed with Patent Owner that a person of ordinary skill in the art should have experience with MS and GA. Dec. Inst. 5. We noted that one of Petitioners' declarants, Dr. Ari Green, states that a person of ordinary skill in the art would have "direct experience administering therapeutic agents for the treatment of MS, as well as familiarity with the dosing schedules and frequencies of the different therapeutic agents available for MS treatment." Ex. 1004 ¶ 28.

During trial, neither Petitioners nor Patent Owner party contested our definition of the level of a person of ordinary skill in the art. Upon considering the full record, we see no reason to deviate from our prior determination, and we adopt Petitioners' definition of a person of ordinary skill in the art, with the addition that that person would also have experience treating MS with GA.

B. Claim Interpretation

In an *inter partes* review, the Board interprets claim terms in an unexpired patent according to the broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 100(b); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144–46 (2016). Under that standard, and absent any special definitions, we give claim terms their ordinary and customary meaning, as would be understood by one of ordinary

skill in the art at the time of the invention. *See In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). Any special definitions for claim terms must be set forth with reasonable clarity, deliberateness, and precision. *See In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994).

In our Decision to Institute, we determined that the broadest reasonable interpretation of the claims does not encompass a dosage regimen that alternates days over a period of seven days (i.e., one that administers the drug three times in one week and four times the next). Dec. Inst. 6–9. Neither Petitioners nor Patent Owner challenged this construction during trial. *See generally* Pet. Reply; *see* PO Resp. 6–7 (stating the Board correctly construed the claims). Accordingly, because nothing in the full record developed during trial persuades us to deviate from our prior construction, we adopt the construction for purposes of this Decision.[5]

C. Patentability Discussion

1. Principles of Law

To prevail in this *inter partes* review of the challenged claims, petitioner must prove unpatentability by a preponderance of the evidence. 35 U.S.C. § 316(e); 37 C.F.R. § 42.1(d).

A patent claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the

[5] We note that Patent Owner states that the Board correctly found that claim 3 "merely contains a typographical error and properly depends from claim 2." PO Resp. 6–7. It appears, however, that Patent Owner was referring to case IPR2015-00643 and claim 3 of the '250 patent, not the '302 patent.

invention was made to a person having ordinary skill in the art to which said subject matter pertains. *KSR Int'l Co. v. Teleflex Inc*., 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) objective evidence of nonobviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). The strength of each of the *Graham* factors must be weighed in every case and must be weighted en route to the final obviousness determination. *See, e.g.*, *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1538–39 (Fed. Cir. 1983) (instructing that evidence of secondary considerations, when present, must always be considered in determining obviousness).

"[A] patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art." *KSR*, 550 U.S. at 418. "[I]t can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does." *Id.* Moreover, a person of ordinary skill in the art must have had a reasonable expectation of success of doing so. *PAR Pharm., Inc. v. TWI Pharms., Inc.*, 773 F.3d 1186, 1193 (Fed. Cir. 2014).

We analyze the instituted grounds of unpatentability in accordance with the above-stated principles.

2. Scope and Content of the Prior Art

a. Summary of Pinchasi (Ex. 1005)

Pinchasi is a published PCT application that relates to a method of

alleviating a symptom of a patient suffering from a relapsing form of MS. Ex. 1005, 9:1–25.[6] The method comprises periodically administering by subcutaneous injection a 40 mg dose of GA. *Id.* Pinchasi discloses that the GA can be administered daily or every other day. *Id.* Pinchasi also discloses that the alleviated symptom can be the frequency of relapses. *Id.*

b. Summary of 1996 FDA SBOA (Ex. 1007)

The 1996 SBOA is a compilation of documents relating to the Summary Basis of Approval for the New Drug Application ("NDA") for 20 mg Copaxone® daily administered by subcutaneous ("SC") injection. The compilation includes a review and evaluation of clinical data submitted by the sponsor of the NDA, Teva Pharmaceuticals, USA ("Teva"). Ex. 1007, 24–124. It also includes a review of the pharmacology and toxicology studies submitted by Teva. *Id.* at 125–292. A reviewer provided the following recommendation: "I would recommend that the Sponsor evaluate the necessity of daily s.c. injections as opposed to more infrequent intermittent administration of the drug," due to the "excessive amount of discomfort" experienced with daily dosing. *Id.* at 252.

The 1996 SBOA also includes a review of the pharmacology and toxicology studies submitted by Teva. *Id.* at 125–292. The NDA was approved on December 20, 1996. *Id.* at 4.

c. Summary of Flechter (Ex. 1008)

Flechter discloses the results of a multicenter study treating patients with relapsing MS with 20 mg doses of copolymer-1 on alternate days.

[6] Unless stated otherwise, we cite to the unique page numbers provided by the parties in the lower right hand corner of the exhibits, pursuant to 37 C.F.R. 42.63(d)(2).

Ex. 1008, 1. Flechter states that the results of the trial "suggest that alternate-day treatment with Copolymer 1 is safe, well tolerated, and probably as effective as daily Copolymer 1 in reducing relapse rate and slowing neurologic deterioration." *Id.* at 5. Flechter concedes, however, that its study "was uncontrolled," that its conclusions "cannot be used to prove efficacy," and that "these preliminary observations will have to be examined in larger studies." *Id.*

3. Whether the 1996 SBOA Is a Printed Publication

As an initial matter, we note that Patent Owner argued in its Preliminary Response that Petitioners failed to establish that the 1996 SBOA is a printed publication under 35 U.S.C. § 102(b). Prelim. Resp. 48–50. Patent Owner does not, however, challenge the reference in its Patent Owner Response.

Nevertheless, on this record, we determine that Petitioners have shown sufficiently that the 1996 SBOA constitutes prior art to the '302 patent. As support, Petitioners offer a Declaration from Marlene S. Bobka, the president of FOI Services, Inc., which provided the 1996 SBOA to Petitioner. Ex. 1007, 1. Ms. Bobka states that FOI Services specializes in U.S. Food & Drug Administration ("FDA") information and "maintains a private library of over 150,000 FDA documents obtained under the Freedom of Information Act." *Id.* Ms. Bobka further states that FOI Services sells the documents and provided the 1996 SBOA to Petitioners on July 17, 2007. *Id.* Because the uncontroverted evidence shows Petitioners were able to obtain the 1996 SBOA from FOI Services on July 17, 2007, we determine that the 1996 SBOA was publicly available at least as of that date, which is

before the earliest possible critical date of the '302 patent (i.e., August 20, 2009). *See* Ex. 1001, [60]; *see also Voter Verified, Inc. v. Premier Election Solutions Inc.*, 698 F.3d 1374, 1380 (Fed. Cir. 2012) ("[T]he key inquiry is whether the reference was made 'sufficiently accessible to the public interested in the art' before the critical date.'") (quoting *In re Cronyn*, 890 F.2d 1158, 1160 (Fed. Cir. 1989)).

4. Obviousness over Pinchasi and the 1996 SBOA

We have reviewed the arguments and evidence presented by both parties, and we are persuaded that Petitioners have shown by a preponderance of the evidence that the challenged claims are unpatentable as obvious over Pinchasi and the 1996 SBOA.

a. Independent Claims 1 and 10

We consider whether claims 1–12 are unpatentable as obvious over Pinchasi and the 1996 SBOA. Regarding independent claims 1 and 10, we are persuaded by Petitioners and the testimony of its declarant, Dr. Ari Green, that Pinchasi discloses each limitation of the claims, except for the dosing regimen of three doses per seven day period. *See* Ex. 1004 ¶¶ 79–81. Specifically, Petitioners argue that Pinchasi teaches the preamble of the claims by disclosing that the invention provides a method of alleviating a symptom of a patient suffering from a relapsing form of MS, where the symptom is the "frequency of relapses." Pet. 19–20 (citing Ex. 1005, 8:2–4, 14–15).[7] Regarding the dosage amount of 1 mL of a pharmaceutical composition comprising 40 mg of GA, Petitioners assert that Pinchasi

[7] We note that the Petition cites the page numbers of Pinchasi rather than the page numbers provided pursuant to 37 C.F.R. § 42.63(d)(2).

teaches administering a subcutaneous injection of a pharmaceutical composition comprising 40 mg of GA and 40 mg of Mannitol USP in 1 mL sterilized water. *Id.* at 22–23 (citing Ex. 1005, 5:2–8, 13:21–24, Example 1; Ex. 1004 ¶ 88; Ex. 1003 ¶ 84).

Patent Owner does not contest that Pinchasi teaches these claim limitations. Accordingly, based on the full record developed at trial, we determine for the reasons stated in the Petition that Pinchasi teaches each limitation of claims 1 and 10, with the exception of the dosing frequency of three times per week. *See id.* at 21–23.

Petitioners argue that the dosing frequency would have been obvious because an ordinary artisan would have considered six doses over two seven-day periods to be therapeutically equivalent to and have substantially the same pharmacological effect as seven doses over the same period. *Id.* at 41 (citing Ex. 1004 ¶¶ 89–94, 104–106; Ex. 1003 ¶¶ 122–25). Petitioners further argue that an ordinary artisan would have been motivated to modify the dosing regimen of Pinchasi to exactly three injections per seven-day period to reduce the frequency of injections, which would reduce the frequency of side effects. *Id.* at 41–42 (citing Ex. 1004 ¶¶ 52–57, 98–100, 109; Ex. 1003 ¶¶ 107, 115). Three injections per week would also allow for a more convenient dosing schedule, which would improve patient compliance with the dosing regimen. *Id.* at 42 (citing Ex. 1004 ¶¶ 52, 85, 102; Ex. 1003 ¶¶ 98–101). Petitioners also contend that the 1996 SBOA teaches that the half-life for Copaxone® is approximately 80 hours in a Cynomolgus monkey, and that pharmacokinetic data from such a monkey was a reliable model for predicting human pharmacokinetic parameters and creating dosing schedules. Pet. 47 (citing Ex. 1007A, 66; Ex. 1003 ¶¶ 129,

138). Accordingly, Petitioners argue that a person of ordinary skill in the art would have understood that injection frequencies could be reduced as far as approximately once every 80 hours while maintaining the same safety and tolerability profiles. *Id.* at 48 (citing Ex. 1003 ¶¶ 129, 140–143).

In response, Patent Owner urges that a person of ordinary skill in the art would not have found the claimed dosing regimen obvious. Patent Owner argues that an ordinary artisan would not have used 40 mg of GA on any dosing schedule, and would not have used a three times per week regimen. PO Resp. 16–32. Patent Owner also argues that there was no motivation to combine Pinchasi with the 1996 SBOA. *Id.* at 32–35. Finally, Patent Owner argues that an ordinary artisan would not have had a reasonable expectation of success that a 40 mg dose of GA three times a week would be therapeutically effective. *Id.* at 36–50.

Upon reviewing the entire trial record, we determine that Pinchasi teaches each limitation of claim 1, with the exception of the claimed dosing limitation. Moreover, for the reasons explained in the Petition and by Petitioners' experts, Drs. Peroutka and Green, we determine that a person of ordinary skill in the art would have had a reason to modify Pinchasi to administer 40 mg of GA three times a week. In particular, we credit the testimony of Dr. Green, who notes that Pinchasi demonstrates increased efficacy with 40 mg GA when compared to 20 mg GA with no significant difference in side effects. Ex. 1004 ¶¶ 98–99. Indeed, Pinchasi concludes:

> The increased efficacy observed with 40 mg/day GA in reducing MRI-measured disease activity and relapse rate indicates that it is well tolerated and can improve the treatment of RRMS patients. The improvement in efficacy, however, is not accompanied by a corresponding increase of adverse reactions

> which would be expected upon a doubling of the administered dose.
>
> Also observed was the accelerated rate at which the 40 mg/day dose became effective as compared to the 20 mg/day dose. This was unexpected. Specifically, the 40 mg/day dose showed efficacy, as measured by MRI, by the third month, whereas the 20 mg/day dose did not show efficacy until the sixth month.

Ex. 1005, 20:8–21:6. We are, therefore, persuaded by Dr. Green's testimony that Pinchasi would have strongly suggested to an ordinary artisan to use 40 mg GA for RMSS patients. *See* Ex. 1004 ¶ 99.

Patent Owner argues that a person of ordinary skill in the art would not have used 40 mg of GA because a later phase III clinical trial (the "FORTE trial") demonstrated that 40 mg of GA was not more effective than 20 mg of GA, and 40 mg of GA was associated with more frequent adverse events. PO Resp. 17–20. Upon considering the evidence as a whole, we are not persuaded. That the FORTE trial found that "the 40 mg dose did not demonstrate *increased* efficacy in reducing the relapse rate" does not amount to teaching away from the 40 mg dose. Ex. 2001, 1 (emphasis added). This is particularly true where the FORTE trial then states that "[t]he higher [40 mg] dose maintained the favorable safety and tolerability profile of COPAXONE® 20mg." *Id.* Thus, because nothing in FORTE criticizes, discredits, or discourages the use of 40 mg of GA, we determine that FORTE does not teach away from the use of 40 mg of GA. *See In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004) (finding "[t]he prior art's mere disclosure of more than one alternative does not constitute a teaching away from any of these alternatives because such disclosure does not criticize, discredit, or otherwise discourage the solution claimed").

We also determine that an ordinary artisan would have had a reason to modify Pinchasi's dosing regimen of 40 mg of GA every other day to 40 mg of GA three times a week. We are persuaded by Dr. Green's testimony that an ordinary artisan would have been motivated to adopt a three times per week dosing regimen to increase patient compliance. For example, Dr. Green testifies that it was a well-known principle that decreasing the frequency of injections would have a positive impact on patients to stay on course with treatment. Ex. 1004 ¶ 102. The desirability of less frequent injections is supported by the 1996 SBOA, which "recommend[ed] that [Teva] evaluate the necessity of daily s.c. injections as opposed to more infrequent intermittent administration of the drug." Ex. 1004 ¶¶ 109–10; Ex. 1085 ¶ 17 (quoting Ex. 1007, 252).

As support for the well-known desirability of less frequent injections of GA, Dr. Green also cites Khan 2008[8] and Caon 2009,[9] which both disclose a pilot trial comparing the effect of 20 mg of GA daily versus every other day.[10] Ex. 1085 ¶ 18. The study suggests that 20 mg of GA daily or every other day may be equally effective in treating RRMS. Ex. 1010; Ex.

[8] Khan et al., *Randomized, prospective, rater-blinded, four-year, pilot study to compare the effect of daily versus every-other-day glatiramer acetate 20 mg subcutaneous injections in relapsing-remitting multiple sclerosis*, 14 MULTIPLE SCLEROSIS S296 (2008) (Ex. 1010) ("Khan 2008").

[9] Caon et al., *Randomized, Prospective, Rater-Blinded, Four-Year, Pilot Study to Compare the Effect of Daily Versus Every Other Day Glatiramer Acetate 20 mg Subcutaneous Injections in RRMS*, 72 NEUROLOGY A317 (Mar. 17, 2009) (Ex. 1011) ("Caon 2009").

[10] The parties' declarants agree that Khan 2008 and Caon 2009 describe the same pilot study. Ex. 1085 ¶ 18; Ex. 2135, 73 n.2.

1011. Moreover, after two years, "all patients in the [daily] group opted to switch to [every other day]." Ex. 1010; Ex. 1011.

Dr. Green also cites Khan 2009,[11] which discloses another pilot study comparing 20 mg of GA daily or twice a week.[12] Ex. 1085 ¶ 32. Although Khan 2009 was published three weeks after the priority date of the '302 patent, Khan 2009 reports results of a two-year study. Ex. 1089, 2. Upon finding similar results between the two dosing regimens after two years, Khan 2009 states: "This study provides further evidence that GA administered less frequently than daily may be as efficacious and better tolerated than GA administered daily. This may have a significant impact on improving compliance and tolerability while maintaining the desired immunomodulating effect of GA." *Id.* We, therefore, agree with Dr. Green that Khan 2009 suggests that those skilled in the art at the time of the invention were motivated to investigate dosing regimens of GA with fewer injections to improve patient compliance.

Moreover, Pinchasi discloses administration of the 40 mg dose every other day. Ex. 1005, 9:1–11. Thus, the difference between the challenged claims and the prior art is a dosing schedule that is decreased by one day every two weeks—i.e., the difference between every other day disclosed in the prior art and the requirement of three doses per week recited in the

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[11] Khan et al., *Glatiramer Acetate 20 mg Subcutaneous Twice-Weekly Versus Daily Injections: Results of a Pilot, Prospective, Randomized, and Rater-Blinded Clinical and MRI 2-Year Study in Relapsing Remitting Multiple Sclerosis*, 15 MULTIPLE SCLEROSIS S249 (2009) (Ex. 1089) ("Khan 2009").

[12] We understand Patent Owner has moved to exclude Khan 2009. We deny Patent Owner's motion for the reasons stated in more detail below.

claims. Ex. 1004 ¶¶ 81–82. In this regard, Dr. Green testifies that setting a course of treatment for the same day each week, for example on Monday, Wednesday, and Friday, is an easier dosing schedule to follow than every other day, which would occur on different days of the week throughout the month. *Id.* ¶ 85. In light of the evidence as a whole, we are persuaded that an ordinary artisan would have understood the benefits of less frequent injections and, therefore, would have had a reason to reduce Pinchasi's dosing regimen to three times per week.

We are also persuaded by Dr. Green's testimony and supporting evidence that a person of ordinary skill in the art would have had a reasonable expectation of success in administering 40 mg of GA three times a week. We credit Dr. Green's testimony that the wide range of likely efficacious doses suggests the forgiving nature of GA. Ex. 1085 ¶¶ 20–21. Dr. Green testifies that "as of 2009 a POSA had amassed compelling learning from a variety of sources and studies all pointing to less frequent administration of GA," citing Flechter, Khan 2008/Caon 2009, and Pinchasi. *Id.* at ¶ 21. Flechter and Khan 2008/Caon 2009 disclose 20 mg of GA every other day (i.e., 70 mg per week), whereas Pinchasi discloses 40 mg of GA daily (i.e., 280 mg. per week). Ex. 1008; Ex. 1010; Ex. 1011; Ex. 1005, 9:2–11. Because 40 mg three times a week (i.e., 120 mg per week) is in the middle of the range of known effective weekly doses and is close to the FDA-approved 20 mg daily regimen (i.e., 140 mg per week), we are persuaded by Dr. Green's testimony that a person of ordinary skill in the art would have reasonably expected 40 mg of GA three times a week to be successful. Ex. 1085 ¶ 21.

Patent Owner contends that a person of ordinary skill in the art would

not have found the claimed dosing regimen obvious because the mechanism of action of GA was still unknown, which would have taught away from three times weekly dosing. PO Resp. 22–28. According to Patent Owner and its declarant, Dr. Tjalf Ziemssen, based on the prevalent theories on GA's mechanism of action, an ordinary artisan would have believed that administering the drug more frequently than once daily would be the best way to enhance efficacy. *Id.* at 26–25; Ex. 2135 ¶¶ 44– 50. We do not, however, find Dr. Ziemssen's testimony persuasive, given the various prior art references that teach less frequent dosing of GA, thereby contradicting Dr. Ziemssen's opinion. *See, e.g.*, Ex. 1005 (Pinchasi dosing every other day); Ex. 1008 (Flechter dosing every other day); Ex. 1010 (Khan 2008 dosing every other day), Ex. 1089 (Khan 2009 dosing twice a week). We also credit the testimony of Dr. Green, who explains that, given the uncertainty regarding GA's mechanism of action, a person of ordinary skill in the art would not rely on any single theory in deciding which dosage regimen to pursue. Ex. 1085 ¶ 44. Dr. Green continues, stating that "[i]f anything, the uncertainty surrounding GA's mechanism of action would motivate a POSA to investigate dosing regimens with existing and even preliminary clinical support." *Id.*

Patent Owner also argues that a person of ordinary skill in the art would not have combined Pinchasi with the 1996 SBOA to arrive at the claimed dosing regimen. PO Resp. 32–35. Patent Owner asserts that, although Pinchasi discloses the use of 40 mg of GA, the later FORTE results would have caused an ordinary artisan to discard the 40 mg dose altogether. *Id.* at 32. Patent Owner also notes that Pinchasi does not suggest dosing three times weekly, and that the 1996 SBOA does not cure either deficiency

of Pinchasi. *Id.* at 33.

As explained above, we reject Patent Owner's argument that Pinchasi teaches away from the use of 40 mg of GA. As for the three times weekly dosing regimen, Patent Owner asserts that an ordinary artisan would have ignored the suggestion for less frequent dosing in the 1996 SBOA because the suggestion was based on the erroneous belief that GA was acting as a "peptide vaccine." *Id.* at 34. We are not persuaded, particularly in light of Dr. Green's testimony that it did not matter to an ordinary artisan in 2009 that GA was not a peptide vaccine because the ultimate conclusion still holds in light of the prior art clinical observations that made it clear that daily injections were unnecessary. Ex. 1065, 151:24–155:5. In other words, even if an ordinary artisan knew GA was not a peptide vaccine in 2009, the 1996 SBOA must still be read in the context of the prior art as a whole, which suggested less frequent dosing of GA was desirable. *See In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986) (stating prior art "must be read, not in isolation, but for what it fairly teaches in combination with the prior art as a whole"); *see also In re Young*, 927 F.2d 588, 591 (Fed. Cir. 1991) ("[A] reference which disclosed obsolete technology remained in the prior art. This court considered the reference for what it disclosed in relation to the claimed invention.").

Finally, Patent Owner asserts that a person of ordinary skill in the art would not have had a reasonable expectation of success that the claimed dosing regimen would be effective. PO Resp. 36–50. Patent Owner argues that because there was no data establishing the successful use of 40 mg of GA on alternate days, "the question is not whether there would have been an expectation of success when moving from alternate day administration of 40

mg of GA . . ., but the expectation when moving from 20 mg daily to 40 mg three times weekly." *Id.* at 37. Even if an ordinary artisan came upon the idea of using 40 mg GA three times weekly, argues Patent Owner, there is nothing in the prior art to support a reasonable expectation of success.

Having considered Petitioners and Patent Owner's arguments, we find Petitioners have the better position. As Dr. Green explains, a person of ordinary skill in the art reading Pinchasi and Cohen would conclude that 40 mg daily is not inferior to 20 mg daily. Ex. 1085 ¶ 76. And based on Flechter, Khan 2008, and Caon 2009, an ordinary artisan would reasonably expect 20 mg every other day to be efficacious. *Id.* ¶ 77. Thus, we are persuaded by Dr. Green's testimony that, after the FORTE phase III clinical trial found no measured difference between 20 mg daily and 40 mg daily, a person of ordinary skill in the art would reasonably expect 40 mg administered every other day to be efficacious. *Id.* Moreover, because the prior art encouraged investigating dosing regimens with fewer injections, we are further persuaded by Dr. Green's testimony that "40 mg was a logical dosage choice for investigating three-times-weekly administration because it kept the total weekly dose (120 mg) similar to the FDA-approved weekly dose (140 mg)." *Id.* Dr. Green explains that Flechter and Pinchasi disclose a therapeutically effective range of dosing for GA of 70 mg per week (i.e., 20 mg every other day disclosed in Flechter) to 280 mg per week (i.e., 40 mg daily disclosed in Pinchasi). Ex. 1085 ¶ 16.

Patent Owner argues that Petitioners' argument is "simplistic" and that "the prior art does not *establish* that GA's efficacy could be maintained by increasing the dose to 40 mg and reducing the frequency of dosing to three times per week." PO Resp. 47 (emphasis added); *see also id.* ("[A]

POSA would not *know* whether the altered regimen would work.") (emphasis added). Conclusive proof of efficacy, however, is not required to show obviousness. *See Hoffmann-La Roche Inc. v. Apotex Inc.*, 748 F.3d 1326, 1331 (Fed. Cir. 2014) ("Conclusive proof of efficacy is not necessary to show obviousness. All that is required is a reasonable expectation of success."). Thus, we are persuaded by Dr. Green's conclusion that an ordinary artisan would have had a reasonable expectation of success because the claimed regimen of 120 mg per week is within the dosing range known to be therapeutically effective and is nearly identical to the FDA-approved 20 mg daily dosing regimen of 140 mg per week. Ex. 1085 ¶ 16.[13]

Accordingly, we have considered the evidence as a whole and we determine that the combination of Pinchasi and the 1996 SBOA teaches or suggests each limitation of claims 1 and 10, and that a person of ordinary skill in the art would have had a reason to combine Pinchasi and the 1996 SBOA to reach the claimed invention with a reasonable expectation of success.

b. Dependent Claims

For the reasons stated in the Petition and by Dr. Green, we are persuaded that the combination of Pinchasi and the 1996 SBOA teaches or suggests each limitation of dependent claims 2–9, 11, and 12, and that a person of ordinary skill in the art would have had a reason to combine the cited art to reach the claimed invention with a reasonable expectation of

[13] We acknowledge Patent Owner's argument that the monkey pharmacokinetic data are irrelevant and cannot be extrapolated to humans. PO Resp. 39–45. Because we do not rely on that data for purposes of our Decision, we take no position on the relevance of the data to this proceeding.

success. *See* Pet. 26–34; Ex. 1004 ¶¶ 107–14. In response, Patent Owner argues that Petitioners have failed to meet its burden of proving that claims 4, 5, and 11 are unpatentable. PO Resp. 50–53. We disagree.

Patent Owner argues that Pinchasi does not disclose that 40 mg of GA three times weekly would meet the additional limitations of claims 4, 5, and 11. *Id.* We do not find Patent Owner's argument persuasive, however, because "[n]on-obviousness cannot be established by attacking references individually where the rejection is based upon the teachings of a combination of references." *In re Merck*, 800 F.2d at 1097. Here, the question is not whether Pinchasi discloses administering 40 mg of GA three times weekly to meet the further limitations of claims 4, 5, and 11. Rather, we must look at what the prior art teaches as a whole. *Id.* Considering Pinchasi in view of the prior art, we determine that Pinchasi teaches or suggests the additional limitations of claims 4, 5, and 11 for the reasons stated by Petitioners and Dr. Green. *See* Pet. 45–46; Ex. 1004 ¶ 107.

c. Secondary Considerations of Nonobviousness

"For objective evidence of secondary considerations to be accorded substantial weight, its proponent must establish a nexus between the evidence and the merits of the *claimed invention*." *In re Huai-Hung Kao*, 639 F.3d 1057, 1068 (Fed. Cir. 2011) (*quoting Wyers v. Master Lock Co.*, 616 F.3d 1231, 1246 (Fed. Cir. 2010)). Where objective indicia "result[ ] from something other than what is both claimed and *novel* in the claim, there is no nexus to the merits of the claimed invention." *Id.* "To the extent that the patentee demonstrates the required nexus, his objective evidence of nonobviousness will be accorded more or less weight." *In re GPAC Inc.*, 57 F.3d 1573, 1580 (Fed. Cir. 1995).

Patent Owner argues that the nonobviousness of the claims is supported by objective evidence of unexpected results, commercial success, and the satisfaction of a long-felt need. PO Resp. 53–60. As explained further below, we are not persuaded by Patent Owner's argument and evidence.

(1) Unexpected Results

Patent Owner's evidence of unexpected results relates to the effectiveness and tolerability of a 40 mg, three times per week dosing regimen of GA as compared to a daily 20 mg dose of GA. *Id.* at 53–55. Patent Owner first directs our attention to Table 5 of Flechter, showing that the mean relapse rate of the alternate-day administration of 20 mg of GA (0.56 ± 1.02) was twice as high as that of the daily administration of 20 mg of GA (0.3 (± 0.5). PO Resp. 54 (citing Ex. 1008, 4 (Table 5)). Patent Owner argues that, in view of Fletcher showing that "decreasing the frequency of administration of GA would decrease the efficacy of the drug," it was unexpected that a 40 mg three injections weekly regimen was as effective as the 20 mg daily product. *Id.* (citing Ex. 2022, 1; Ex. 2129 ¶¶ 36, 40, 45). Similarly, Patent Owner next argues that "[i]t was . . . surprising and unexpected that the 40 mg three injections weekly regimen was shown to be associated with fewer and less severe injection site reactions than 20 mg daily." *Id.* at 55–56 (citing Ex. 2129 ¶¶ 20, 36, 38, 45–46, 54–58; Ex. 2029, 3; Ex. 2025, 5).

First, we agree with Petitioners and Dr. Green that Patent Owner has misinterpreted the data set forth in Table 5 of Flechter, which compares the two-year relapse rate of Flechter's alternate-day treatment with the one-year

relapse rate of Meiner's daily treatment. Pet. 11–12; Ex. 1085 ¶ 79. When viewed correctly, we agree that Flechter teaches a slightly lower relapse rate in patients treated with 20 mg every other day than patients treated with 20 mg every day. Ex. 1085 ¶ 79. We also agree that this is consistent with the authors' conclusion that the "results of the present alternate-day treatment were slightly better than those of the previous study with daily treatment." Ex. 1008, 4. Thus, we are not persuaded by Patent Owner's argument that a person of ordinary skill in the art would interpret Flechter as showing that decreasing the dosing frequency would decrease the efficacy of the drug.

Furthermore, we note that Pinchasi, the closest prior art, discloses administration of 40 mg GA every other day. *Id.* Thus, the difference between the claimed subject matter and the closest prior art is the frequency of dosing. As to such claimed subject matter, "when unexpected results are used as evidence of nonobviousness, the results must be shown to be unexpected compared with the closest prior art." *Kao Corp. v. Unilever United States, Inc.*, 441 F.3d 963, 970 (Fed. Cir. 2006) (*quoting In re Baxter Travenol Labs.*, 952 F.2d 388, 392 (Fed. Cir. 1991)). Here, however, there is insufficient evidence of record showing any unexpected results between the claimed requirement of three doses per week compared to dosing every other day. Accordingly, we are not persuaded that Patent Owner's evidence of unexpected results supports the nonobviousness of the challenged claims.

(2) Commercial Success

Patent Owner also offers evidence of commercial success of its marketed 40 mg, three times weekly GA product ("Copaxone® 40 mg Product") to support the nonobviousness of the claims. PO Resp. 57–58.

"When a patentee can demonstrate commercial success, usually shown by significant sales in a relevant market, and that the successful product is the invention disclosed and claimed in the patent, it is presumed that the commercial success is due to the patented invention." *J.T. Eaton & Co., Inc. v. Atlantic Paste & Glue Co.*, 106 F.3d 1563, 1571 (Fed. Cir. 1997); *see also Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1130 (Fed. Cir. 2000) (stating the presumption that commercial success is due to the patented invention applies "if the marketed product embodies the claimed features, and is coextensive with them").

Patent Owner contends that the Copaxone® 40 mg Product "has been an enormous commercial success . . . , capturing approximately 66% of the Copaxone® market." *Id.* at 57 (citing Ex. 2024, 9). Patent Owner further presents evidence related to the amount of sales and number of new prescriptions generated by the Copaxone® 40 mg Product. *Id.* (citing Ex. 2133 ¶¶ 13–14, 31–32, 26, 28). For example, Patent Owner contends that "[a]lthough the product has only been on the market for a mere 20 months, it has generated over $3.5 billion in wholesale sales." *Id.* (citing Ex. 2133 ¶¶ 13, 26).

Patent Owner argues that the commercial success of the Copaxone® 40 mg Product is tied to the three-times-per-week dosing regimen required by the challenged claims, which was acknowledged by Petitioners' expert, Dr. Green, as the "selling point" of the Copaxone® 40 mg Product. *Id.* at 58 (citing Ex. 1065, 94:25–95:3). In view of the above, we determine that a nexus should be presumed because the Copaxone® 40 mg Product encompasses the claimed features and is coextensive with them. Ex. 2133 ¶ 21.

A party asserting obviousness, however, may rebut the presumed nexus. *Brown & Williamson Tobacco*, 229 F.3d at 1130. To that end, Petitioners argue that the commercial success of the Copaxone® 40 mg Product can be accounted for by the steep price discounts rather than the claimed subject matter. Pet. Reply 20–21. Specifically, Petitioners assert:

> To entice Copaxone 20 mg users to switch to Copaxone 40 mg prior to entry of a generic 20 mg product, [Patent Owner] offered its 40 mg product at lower prices than 20 mg daily. [Patent Owner] offered patients a more favorable copay and ensured that 40 mg was the lowest cost GA product on the market—cheaper than even generic Glatopa—through rebates and discounts. Ex. 1099 ¶¶ 25, 27, 29, 53–62. As a result, and as Dr. Grabowski's graphs show, Copaxone 40 mg's sales derive from cannibalization of the 20 mg market. *Id*. ¶¶ 30, 63–65.

Id. Petitioners correctly note that factors such as pricing and competing products are not accounted for by Patent Owner in its efforts to establish commercial success of the Copaxone® 40 mg Product. *Id.* Consequently, we cannot conclude from the evidence before us whether the sales are due to the merits of the invention or due to pricing and marketing initiatives. Thus, we determine that Petitioners have rebutted the presumption of nexus between the commercial success of Copaxone® 40 mg Product and the claimed invention.

We further note that the asserted commercial success is based on a comparison between the success of Copaxone 20 mg, a daily administered product, and the Copaxone® 40 mg Product. However, "the asserted commercial success of the product must be due to the merits of the claimed invention beyond what was readily available in the prior art." *J.T. Eaton*, 106 F.3d at 1571 (citing *Richdel, Inc. v. Sunspool Corp*., 714 F.2d 1573,

1580 (Fed. Cir. 1983) (stating patentee failed to show that "such commercial success as its marketed system enjoyed was due to anything disclosed in the patent in suit which was not readily available in the prior art")). Pinchasi discloses a 40 mg dose of GA, administered every other day, but the evidence does not show such a product was readily available on the market. Petitioners argue, however, that the absence of a competing product is due to the fact that GA is a compound covered by other patents and that no entity other than Patent Owner could have successfully brought the claimed methods to market. Pet. Reply 21–22 (citing *Teva Pharms. USA, Inc. v. Sandoz, Inc*., 789 F.3d 1335, 1338 (Fed. Cir. 2015)). In this regard, we find that where "market entry by others was precluded [due to blocking patents], the inference of non-obviousness of [the asserted claims], from evidence of commercial success, is weak." *Merck & Co., Inc. v. Teva Pharm. USA, Inc*., 395 F.3d 1364, 1377 (Fed. Cir. 2005).

Accordingly, we are not persuaded that Patent Owner's evidence of commercial success supports the nonobviousness of the challenged claims.

(3) Long-Felt Need

Patent Owner contends that there was a long-felt, but unmet need for a treatment option that improved convenience and tolerability, while offering equivalent safety and efficacy as 20 mg daily GA. PO Resp. 59. Aside from lacking a nexus between the evidence for "improved convenience and tolerability" and the merits of the claimed invention as discussed above, Patent Owner's reliance on "improved convenience and tolerability" as a basis for resolving a long-felt need fails to show that the need was a persistent one that was recognized by those of ordinary skill in the art, for

which a solution was not known. *See In re Gershon*, 372 F.2d 535, 538 (CCPA 1967); *see also In re Piasecki*, 745 F.2d 1468, 1475 (Fed. Cir. 1984) (finding patent owner must present affidavits or other factual evidence of "a failure of others to provide a feasible solution to [a] long-standing problem" and evidence "that experts did not foresee" the solution claimed).

As discussed above, the prior art teaches a 40 mg dose of GA, administered every other day. Patent Owner does not present sufficient evidence of long-felt need related to the need for less frequent dosing over what was already disclosed in the prior art. As such, we are not persuaded that Patent Owner's evidence of long-felt need supports the nonobviousness of the challenged claims.

d. Conclusion as to Obviousness

Having considered the parties' arguments and evidence, we evaluate all of the evidence together to make a final determination of obviousness. *In re Eli Lilly & Co.*, 902 F.2d 943, 945 (Fed. Cir. 1990) ("After a prima facie case of obviousness has been made and rebuttal evidence submitted, all the evidence must be considered anew."). In doing so, we conclude that Petitioners have shown by a preponderance of the evidence that each of the challenged claims is unpatentable as obvious over Pinchasi and the 1996 SBOA.

5. Obviousness over Pinchasi and Flechter

Petitioners argue that claims 1–12 of the '302 patent are obvious over Pinchasi and Flechter. Pet. 50–51. Based on the full trial record, we determine that Petitioners have established by a preponderance of the evidence that claims 1–12 are unpatentable as obvious over Pinchasi and

Flechter.

We incorporate our findings with respect to Pinchasi here. For the same reasons stated above, we determine that Pinchasi teaches each limitation of the claims, with the exception of the claimed dosing regimen. As above, we further determine for the reasons stated by Petitioners that a person of ordinary skill in the art reading Pinchasi and Flechter would have been motivated to modify Pinchasi's dosing regimen of 40 mg of GA every other day to 40 mg of GA three times a week with a reasonable expectation of success. Pet. 50–51; Ex. 1004 ¶¶ 113–118; Ex. 1003 ¶¶ 148–154. In particular, as explained above, we credit the testimony of Dr. Green, who states that based on Flechter, a person of ordinary skill in the art would reasonably expect that 20 mg of GA administered every other day would be efficacious and would be motivated to pursue less frequent dosing. Ex. 1085 ¶ 77.

In addition to the arguments set forth above with respect to Pinchasi and the 1996 SBOA, Patent Owner argues that a person of ordinary skill in the art would not have had a reason to combine Pinchasi and Flechter. PO Resp. 35–36. In particular, Patent Owner asserts that, because Flechter only discloses the use of 20 mg GA, an ordinary artisan would not have considered Flechter to be applicable to the 40 mg dose disclosed in Pinchasi, or that it would overcome the teaching of FORTE allegedly discouraging further use of a 40 mg dose. Moreover, Patent Owner and its declarant Dr. Ziemssen assert that Flechter indicates that less frequent injections were less tolerable than daily injections reported in Meiner. *Id.*; Ex. 2135 ¶¶ 86–91.

We are not persuaded. For the same reasons explained above, we determine that a person of ordinary skill in the art reading Pinchasi would

have had a reason to use 40 mg GA for RMSS patients and would not have been discouraged from using it based on the FORTE trial results. *See supra*. Nor do we find persuasive Patent Owner's assertion that a person of ordinary skill in the art would not have considered Flechter in combination with Pinchasi because Flechter discloses doses of 20 mg GA. Rather, we credit the testimony of Dr. Green and are persuaded that Pinchasi's teaching that 40 mg GA was more efficacious than 20 mg GA (Ex. 1005, 19:8–14) combined with Flechter's teaching that alternate day dosing of 20 mg GA is "safe, well tolerated, and probably as effective as daily" dosing (Ex. 1008, 5) would have given a person of ordinary skill in the art a reason to combine the two references. *See* Ex. 1004 ¶¶ 115–119.

We are also not persuaded by Patent Owner's contention that Flechter suggests that less frequent injections were less tolerable. Patent Owner and its declarant, Dr. Tjalf Ziemssen, M.D., Ph.D., compare Flechter's data reporting adverse events in its patients with Meiner's data reporting adverse events in a different cohort of patients. PO Resp. 35–36; Ex. 2135 ¶ 89. From that comparison, Patent Owner argues that Flechter's data allegedly teaches that alternate-day administration is less tolerable than daily administration. PO Resp. 35–36.

We note—and agree with—Dr. Ziemssen's testimony that a person of ordinary skill in the art "generally would not view this type of cross-study comparison between different study populations as a basis for drawing any comparative conclusions." Ex. 2135 ¶ 87. We are therefore unpersuaded by his ad hoc comparison of Flechter's data with that of Meiner. *Id.* ¶ 89. Instead, we find more credible Flechter's conclusion that alternate-day administration of glatiramer acetate was "well tolerated, comparing

favorably with the effects of daily injections of Copolymer 1 in patients with relapsing MS." Ex. 1008, 1; *see also id.* at 5 ("The results of this trial suggest that alternate-day treatment with Copolymer 1 is safe, well tolerated, and probably as effective as daily Copolymer 1 in reducing relapse rate and slowing neurologic deterioration.").

Accordingly, we are not persuaded that a person of ordinary skill in the art considering combining a higher dose of GA with Flechter's alternate day dosing schedule would conclude that such a regimen would likely exacerbate the frequency of injection site reactions, as Patent Owner asserts. *See* PO Resp. 36.

Patent Owner makes no other specific arguments with respect to any other claims and the combination of Pinchasi and Flechter. Accordingly, we have considered the record as a whole—including the evidence of secondary considerations of nonobviousness, as explained above—and we conclude that Petitioners have established by a preponderance of the evidence that claims 1–12 are unpatentable as obvious over Pinchasi and Flechter.

III. MOTIONS TO EXCLUDE EVIDENCE

A. Patent Owner's Motion to Exclude

Patent Owner filed a Motion to Exclude Exhibits 1068/1089,[14] 1086, 1098, and 1140. Paper 64. Because we do not rely on Exhibits 1086, 1098, and 1140 in rendering this Decision, we dismiss Patent Owner's Motion to Exclude these exhibits as moot. For the following reasons, we deny Patent Owner's Motion to Exclude Exhibits 1068/1089.

[14] Exhibits 1068 and 1089 are both Khan 2009.

Exhibits 1068/1089 (Khan 2009) report the results of a two-year pilot study comparing 20 mg of GA dosed daily or twice a week. Ex. 1089, 1–2. Exhibit 1086 is a printout from Teva's "Shared Solutions" website, which provides online resources and assistance for Copaxone® users. Paper 64, 7 (describing Ex. 1086). According to Patent Owner, Petitioners rely on these exhibits "to establish a purported teaching prior to August 20, 2009," the apparent priority date of the '302 patent. *Id.* at 7–8. Because Exhibits 1068/1089 and 1086 were published after August 20, 2009, Patent Owner argues, they are not prior art, and should be excluded as irrelevant. *Id*. Patent Owner also contends that any possible probative value of these exhibits is outweighed by "a danger of confusing the issues and wasting time." *Id.* We disagree.

A post-filing date publication is not automatically excluded from consideration as irrelevant. *See, e.g., Plant Genetic Sys., N.V. v. DeKalb Genetics Corp.*, 315 F.3d 1335, 1344 (Fed. Cir. 2003) (approving use of later publications as evidence of the state of the art as of the filing date of an application). Here, although Exhibit 1089 was published three weeks after the priority date of the '302 patent, the reported study began two years before. *See* Ex. 1089, 1 (reporting "results of a pilot, prospective, randomi[z]ed, and rater-blinded clinical and MRI 2-year study in relapsing-remitting multiple sclerosis"). In other words, Exhibit 1089 reflects that, before the '302 patent invention, those skilled in the art were motivated to investigate dosing regimens with less frequent than daily or even every other day injections.

In addition, similar to a district court in a bench trial, the Board, sitting as a non-jury tribunal with administrative expertise, is well positioned

to determine and assign appropriate weight to evidence presented. In this *inter partes* review, the better course is to have a complete record of the evidence to facilitate public access as well as appellate review. Thus, we deny Patent Owner's Motion to Exclude as to Exhibits 1068/1089.

B. Petitioners' Motion to Exclude

Petitioners filed a Motion to Exclude Exhibits 2108–2122, and certain paragraphs in the Grabowski Declaration (Ex. 2133) relying on those exhibits. Paper 62. Patent Owner cites those exhibits and paragraphs in relation to assertions regarding secondary considerations. For the following reasons, we deny Petitioners' Motion to Exclude.

According to Petitioner, Exhibits 2108–2114 and 2120–2122 summarize data compiled from a third party vendor, IMS, into tables and graphs to illustrate purported sales and prescription trends for Copaxone® and a subset of other MS treatments. *Id.* at 2. Because the underlying evidence used to create a summary exhibit must be made available and produced to the other party (*id.* (citing Fed. R. Evid. § 1006)), and because the underlying IMS data are not of record in this case (*id.*), Petitioners contend that Exhibits 2108–2114 and 2120–2122 must be excluded (*id.* at 2–4). We are not persuaded.

For a chart to be admissible under Federal Rule of Evidence 1006, courts generally require that (1) the underlying documents are so voluminous as to make comprehension difficult and inconvenient, although not necessarily literally impossible; (2) the underlying document itself must be admissible, although the offering party need not actually enter them; (3) the party introducing the chart must make the underlying documents

reasonably available for inspection and copying; and (4) the chart must be accurate and nonprejudicial. *See, e.g.*, *United States v. Hemphill*, 514 F.3d 1350, 1359 (D.C. Cir. 2008).

Patent Owner argues that Exhibits 2108–2114 and 2120–2122 condense a large amount of data. Paper 67, 6. In addition, Patent Owner represents, and Petitioners do not dispute, that Patent Owner has made the underlying IMS data available to Petitioners for inspection and copying. *Id.* at 3. The fact that the underlying IMS data are not of record in this case does not justify the exclusion of these exhibits. Indeed, Federal Rule of Evidence 1006 mandates not that the underlying document be admitted, but only that it be admissible. Here, Petitioners do not contend that the underlying IMS data are inadmissible.

Petitioners argue that "because the IMS data is not of record in this proceeding, neither the Petitioners nor the Board can test the accuracy of the summaries prepared by Dr. Grabowski." Paper 62, 4. But, when federal courts admitted compiled evidence without also admitting the underlying document, they similarly could not have verified the accuracy of the summaries. In addition, because Patent Owner has made the IMS data available to Petitioners, Petitioners were able, if it so chose, to ascertain the accuracy of the summaries.

Because Patent Owner has satisfied the requirements for admitting summaries compiled under Federal Rule of Evidence 1006, we deny Petitioners' Motion to Exclude as to Exhibits 2108–2114 and 2120–2122.

Petitioners argue that in paragraphs 13, 14, 16, 17, 19, 26–32, 39, and 41–45 of his Declaration, Dr. Grabowski relies on Exhibits 2108–2114 and 2120–2122. *Id.* at 4–6. Because those exhibits should be excluded,

Petitioners assert, the expert testimony based thereon should also be excluded. *Id.* As explained above, we decline to exclude Exhibits 2108–2114 and 2120–2122. Thus, we also decline to exclude Dr. Grabowski's testimony based on those exhibits.[15]

According to Petitioners, Exhibits 2115–2119 each represent a single page of a document titled "Mid-Year Tracker." Paper 62, 6. Petitioners point out that the Mid-Year Tracker is at least 134 pages long, and Patent Owner only produced five pages in this case. *Id.* at 6–7. Petitioners assert that under Federal Rule of Evidence 106, selective citation and reliance on excerpts from the Mid-Year Tracker is unfair and prejudicial. *Id.* at 7. We, again, are not persuaded.

Federal Rule of Evidence 106 provides that "[i]f a party introduces all or part of a writing or recorded statement, an adverse party may require the introduction, at that time, of any other part — or any other writing or recorded statement — that in fairness ought to be considered at the same time." As Patent Owner correctly points out, "Rule 106 does not prohibit admission of an incomplete document. Instead, it allows the party against whom the document is introduced to place the remainder in evidence." Paper 67, 12 (quoting 1 *Weinstein on Evidence* § 106.02[1]).

Patent Owner represents, and Petitioners do not dispute, that Patent Owner has made the Mid-Year Tracker available to Petitioners and stated that Petitioners may use the document in this proceeding. *Id.* at 3–4. Thus,

[15] Even if we were to exclude Exhibits 2108–2114 and 2120–2122, we would still decline to exclude Dr. Grabowski's testimony based on those exhibits because an expert witness may rely on otherwise inadmissible evidence in forming his opinions. *See* Fed. R. Evid. § 703.

Petitioners were able, if it so chose, to ascertain the pages Patent Owner relies on are accurate. As a result, we agree with Patent Owner that neither Federal Rule of Evidence 106 nor the interest of justice requires us to exclude Exhibits 2115–2119. We deny Petitioners' Motion to Exclude in this regard.

Petitioners argue that in paragraphs 38 and 40–44 of his Declaration, Dr. Grabowski relies on Exhibits 2115–2119. Paper 62, 8–9. Because those exhibits should be excluded, Petitioners assert, the expert testimony based thereon should also be excluded. *Id.* As explained above, we decline to exclude Exhibits 2115–2119. Thus, we also decline to exclude Dr. Grabowski's testimony based on those exhibits.[16]

Petitioners further request that we exclude paragraphs 15, 19–23, 37, and 50–56 of Grabowski Declaration because the documents cited in support thereof are not of record. *Id.* at 9–10. We find Petitioners' argument unpersuasive, again. Here, Dr. Grabowski appears to have relied on documents publicly available on the internet, and have provided the URLs for those documents. In addition, under Federal Rule of Evidence 703, an expert witness may rely on otherwise inadmissible evidence in forming his opinions. Thus, even though Petitioners are correct that Patent Owner did not produce the documents cited in these paragraphs of Grabowski Declaration, we decline to exclude Dr. Grabowski's testimony based on those documents.

[16] Even if we were to exclude Exhibits 2115–2119, we would still decline to exclude Dr. Grabowski's testimony based on those exhibits because an expert witness may rely on otherwise inadmissible evidence in forming his opinions. *See* Fed. R. Evid. § 703.

IV. CONCLUSION

We conclude that Petitioners have shown by a preponderance of the evidence that claims 1–12 of the ’302 patent are unpatentable.

V. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that claims 1–12 of the ’302 patent are held unpatentable;

FURTHER ORDERED that Patent Owner’s Motion to Exclude Evidence is *denied-in-part and dismissed-in-part as moot*;

FURTHER ORDERED that Petitioners’ Motion to Exclude Evidence is *denied*; and

FURTHER ORDERED that, because this is a Final Written Decision, the parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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