2017 Supreme Court and

Precedential Patent Cases From the Federal Circuit, With Some Significant Cases from 2016

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Arbitration

Waymo v. Uber Technologies, 870 F.3d 1342 (Fed. Cir. 2017)

Waymo sued Uber and others for trade secret misappropriation and patent infringement. Uber contends that Waymo should be compelled to arbitrate the matter because of an arbitration agreement between Waymo and its former employee/inventor/intervenor Levandowski. The panel affirms the district court ruling that compulsory arbitration is not appropriate based in part on the representation by Waymo that it is not relying on its employment agreements with Levandowski to prove its claims.

The employment agreement with Levandowski provided that all employment-related disputes and disputes relating to the employment agreement are subject to binding arbitration. In the district court, defendants argued that equitable estoppel should compel arbitration here because Waymo contended that Levandowski was able to misappropriate Waymo's information by virtue of his job at Waymo, and that Levandowski downloaded 14,000 Waymo documents relating to self-driving cars, and used this information for the benefit of Uber. In response to this allegation, Waymo assured the court that it would not rely on the employment agreements and would forgo any claims against Levandowski similar to those asserted here, provided that Uber does not open the door by referencing those agreements.

The panel waffles on whether Ninth Circuit law requires the review to be de novo or abuse of discretion but under either standard, the panel rules that arbitration should not be compelled. First, the opinion points out that under contract law principles, non-parties to a contract are generally not bound by the contract, and Uber was not a party to the Levandowski employment agreements. Second, there has been no reliance by Waymo on the employment agreements; that is, it is not attempting to take advantage of the terms of the agreements as a basis for the action and then refusing to arbitrate with the non-signatory under that agreement.

Uber argued that Waymo should be compelled to arbitrate because Waymo's trade secret claims against the Defendants relate to actions by Levandowski in purported violation of his employment agreements with Waymo. The complaint does allege that Levandowski downloaded the Waymo files shortly before his resignation, and that Uber then misappropriated and infringed Waymo's technology using this information, but the complaint neither alleges breach of nor cites to any provision of the Waymo-Levandowski employment agreements. The complaint does reference the employment agreements but just to show that Waymo has taken reasonable measures to safeguard its trade secrets. Prior California cases require that plaintiffs' claims themselves must intimately rely on the existence of the pertinent agreements, not merely reference them.

The panel also rejects Uber's argument that the district court erred in relying upon Waymo's assurance that it would not rely on the employment agreements because this assurance was conditioned upon Uber not raising the agreements. Finally, the panel finds that Uber's contentions regarding collusion between Waymo and Levandowski are misplaced and do not change the result because the allegations of collusion are not inextricably bound up with the obligations imposed by the agreement containing the arbitration clause.

Evans v. Building Materials Corp. of Am., 858 F.3d 1377 (Fed. Cir. 2017)

Roof N Box ("RNB") and Building Materials Corp. d/b/a GAF-ELK ("GAF") entered into an agreement under which GAF would promote RNB's "Roof N Box" three-dimensional roofing model, designed to be used by roofers to display roofing components. The agreement contained a provision that required the parties to submit disputes "arising under" the agreement to arbitration. GAF terminated the agreement and RNB brought the present suit based on GAF's activities in marketing its own product that competes with the Roof N Box product. The complaint alleged design patent infringement as well as trade dress infringement and unfair competition. The district court denied GAF's motion to dismiss or stay, based on the agreement's arbitration provision, and the Circuit affirms.

The parties initially disagree as to the Fourth Circuit standard the district court should have applied in determining whether to decide the issue of arbitrability. The Circuit found it unnecessary to resolve this issue, as even under the lower standard, the panel agrees with the district court that GAF's assertion of arbitrability is wholly groundless.

The arbitration provision reaches only claims "arising under" the 2009 agreement. Such "arising under" language is narrower in scope than language, such as "relating to," under which a claim may be arbitrable if it has a "significant relationship" to the contract, regardless of whether it arises under the contract itself. The first three counts of the complaint present claims for patent infringement, trade dress infringement, and unfair competition related, not to GAF's carrying out of its obligations established by the 2009 agreement, but rather to GAF's making and selling of its own competing roofing products. According to the panel, those claims do not involve any issue "related to the performance or interpretation of the contract itself." Nor are the claims similar to those alleging tortious interference or other agreement-dependent wrongs, which courts have held to be covered by similarly worded arbitration provisions. Those counts of the complaint are so plainly outside the arbitration provision that a contrary argument is wholly groundless.

Other arguments made by GAF were either waived by being presented only in its reply brief and at oral argument, or were waived by not being presented to the district court.

Civil Procedure

Personal Jurisdiction

NexLearn v. Allen Interactions, 859 F.3d 1371 (Fed. Cir. 2017)

The Circuit affirms the dismissal of a patent infringement action for lack of personal jurisdiction despite NexLearn's allegations of specific jurisdiction based upon pre-patent issuance activities and provisions in an NDA and a software license agreement ("EULA") stating that forum (Kansas) law applies and that any dispute relating to the license agreement is to be litigated in Kansas. Nor is an interactive website sufficient in and of itself to support personal jurisdiction absent evidence that a website is specifically directed to customers in the forum, unless there is evidence that such customers actually used the website to transact business. While the panel disagrees with the district court in ruling that mass emails, including emails to Kansas residents about the accused software, and an offer of a free trial of the product, are irrelevant to the jurisdictional analyses, these contacts are found to be too attenuated to create the substantial connection necessary to support specific jurisdiction.

To determine whether specific jurisdiction exists, the Circuit applies a three-part test, asking if: (1) the defendant purposefully directed its activities to the forum State; (2) the claims arise out of or relate to those activities (collectively, the minimum contacts prong); and (3) the assertion of jurisdiction is reasonable and fair.

The Circuit determines that the afore-described contacts are insufficient to create specific jurisdiction. The panel also affirms the dismissal of NexLearn's supplemental claim for breach of contract because a district court cannot exercise supplemental jurisdiction over a claim where original subject matter jurisdiction, such as a patent infringement claim, does not exist.

New World Int'l v. Ford Global Technologies, 859 F.3d 1032 (Fed. Cir. 2017)

The Circuit affirms the dismissal of a declaratory judgment action against FGTL, a Michigan-based licensing affiliate of Ford, for lack of personal jurisdiction even though FGTL had entered into an exclusive

licensing arrangement that required FGTL to defend that licensee, perhaps even in Texas, under certain circumstances.

FGTL is a wholly owned subsidiary of Ford Motor Company that is incorporated in Delaware, headquartered in Michigan, and does no business in Texas. FGTL owns, manages, and licenses Ford's intellectual property, which includes two design patents to a vehicle hood exterior and a vehicle head lamp, the two patents challenged in a DJ action filed by New World. FGTL exclusively licenses these two patents to LKQ, a company that does business in all 50 states, including Texas. The licensing agreement states that LKQ is an independent contractor, that neither company has the right to act as an agent or to bind the other, and is not to represent itself as a licensee of Ford or FGTL. Of principal interest in the case is the relationship between FGTL and LKQ as to infringement claims against third parties. LKQ must notify FGTL if it learns of an infringement. FGTL can determine what action, if any, it takes to enforce the Ford design patents but FGTL is not to unreasonably refuse an enforcement request by LKQ. The license agreement also provides that FGTL will indemnify LKQ for any design patent suits against LKQ initiated by third parties.

FGTL sent New World two cease and desist letters in 2013, informing New World that LKQ was the exclusive licensee and that New World was infringing the patents. LKQ followed up with one letter, noting that it could review New World's inventory in order to determine the most prudent disposal method. In January of 2015, FELT sued New World for infringement of nine patents, including the two design patents at issue here. FGTL later amended the complaint to delete the two patents.

In April of 2015, New World filed the present action, asserting specific jurisdiction, and the district court granted FGTL's motion to dismiss. New World moved for reconsideration and to file an amended complaint. The court denied reconsideration and ruled that the request to amend the complaint was untimely.

Citing *International Shoe*, the Circuit first notes that for there to be personal jurisdiction, the nonresident defendant must have "certain minimum contacts with the forum such that the maintenance of the suit does not offend traditional notions of fair play and substantial justice." According to the Supreme Court's *Burger King* case, for minimum contacts in the context of specific jurisdiction, the plaintiff must show that the defendant "has purposefully directed his activities at residents of the forum, and that the litigation results from alleged injuries that arise out of or relate to those activities."

If those minimum contacts are sufficient, the defendant may point to other factors "to determine whether the assertion of personal jurisdiction would comport with fair play and substantial justice."

According to the panel, the Circuit has held that it is improper to predicate personal jurisdiction on the act of sending ordinary cease and desist letters into a forum, without more. However, other activities by the defendant, in conjunction with cease and desist letters, may be sufficient. One such activity that this court has recognized may meet the minimum contacts requirement is the grant of an exclusive license to a licensee that resides or regularly does business in the forum. However, the mere existence of an exclusive license does not support a finding of specific jurisdiction. For example, a license that establishes no relationship between a patent holder and a licensee beyond the payment and receipt of royalty income is not sufficient, because a declaratory judgment action does not typically "arise from or relate to" a patent holder's efforts to license or commercialize its patent. On the other hand, a license that obligates the patent holder to defend or enforce the patent may be sufficient to establish specific personal jurisdiction, because a declaratory judgment action typically arises from the patent holder's actions to enforce or defend its patent in the forum.

The panel quickly dismisses New World's arguments that the fact that it is an exclusive license with indemnification provisions meets the requirements of specific jurisdiction but then turns to New World's argument that the enforcement provisions subject FGTL to jurisdiction. The Circuit also rejects this latter argument because FGTL has not assumed a meaningful obligation to enforce or defend the Ford design patents under the license provisions regarding infringement suits brought against third parties. FGTL retains "the right to determine what action, if any, is to be taken in each such instance, but shall not

unreasonably refuse a request by LKQ to enforce the Ford Design Patents against allegedly-infringing use in conflict with LKQ's rights under the Agreement." There is no question that FGTL retains control over how to handle enforcement of the patent against infringing third parties. Nor has New World pointed to any additional activities in the forum beyond the license that would give rise to specific jurisdiction.

New World argues that the district court's denial of its motion to amend the complaint to add new allegations in support of personal jurisdiction was an abuse of discretion. However, the panel notes that New World's explanation for seeking leave to amend was not the discovery of new evidence or anything similar. Rather, it believed its initial complaint was sufficient to establish jurisdiction, but that following the dismissal it wanted an opportunity to buttress its jurisdictional presentation. That rationale does not provide a basis for concluding that the district court abused its discretion. The amendment was untimely, and New World offered no good reason for its untimeliness.

Comment: Although not mentioned in the opinion, this case can be distinguished from the February decision in *Xilinx v Papst*, 848 F.3d 1346 (Fed. Cir. 2017), where the Circuit reversed the dismissal of a DJ action based upon lack of personal jurisdiction over a German NPE because the German company had traveled into the forum in an attempt to negotiate a license with the DJ plaintiff and had filed seven other patent infringement cases in California. So even though cease and desist letters into the forum were not sufficient, in *Xilinx* there were "other activities" that justified the exercise of personal jurisdiction.

Xilinx, Inc. v. Papst Licensing GMBH & Co. KG, 848 F.3d 1346 (Fed. Cir. 2017)

In a ruling that will be welcomed by parties filing declaratory actions against non-practicing entities, particularly those based overseas, the Circuit reverses the dismissal of a DJ action based on lack of personal jurisdiction, ruling that specific jurisdiction exists over a German NPE. This holding was based on the fact that the forum is close to plaintiff's office, Papst personnel traveled into the forum in an unsuccessful attempt to negotiate a license with Xilinx, Papst litigated seven other patent infringement cases in California, and Papst would have to litigate the infringement somewhere in the U.S.

Immediately following the unsuccessful meeting in California, Xilinx filed a DJ action in the Northern District of California. On the same day, Papst filed an infringement suit in the District of Delaware. Papst successfully moved to dismiss the California DJ action for lack of personal jurisdiction, the court holding that specific jurisdiction did not exist as to Papst.

In prior cases the Circuit has summarized the Supreme Court's due process jurisprudence for specific jurisdiction in a three-factor test: (1) whether the defendant "purposefully directed" its activities at residents of the forum; (2) whether the claim "arises out of or relates to" the defendant's activities with the forum; and (3) whether assertion of personal jurisdiction complies with the Fourteenth Amendment's due process clause. The first two factors correspond with the "minimum contacts" prong of *International Shoe*, and the third factor corresponds with the "fair play and substantial justice" prong of the analysis.

Papst makes no argument that its activities directed to Xilinx do not satisfy the minimum contacts prong. Papst purposefully directed its activities to California when it sent multiple notice letters to Xilinx and traveled there to discuss Xilinx's alleged patent infringement and potential licensing arrangements. Xilinx's declaratory judgment action of noninfringement certainly relates to these contacts. Therefore, the minimum contacts prong is satisfied.

The Supreme Court has repeatedly said that the reasonableness prong is typically satisfied by a showing of minimum contacts. Where a defendant who purposefully has directed his activities at forum residents seeks to defeat jurisdiction, he must present a compelling case that the presence of some other considerations would render jurisdiction unreasonable. In its 1985 *Burger King* case, the Supreme Court identified five considerations relevant to the reasonableness analysis: (1) the burden on the defendant, (2) the forum State's interest in adjudicating the dispute, (3) the plaintiff's interest in obtaining convenient and effective relief, (4) the interstate judicial system's interest in obtaining the most efficient resolution of controversies, and (5) the shared interest of the several States in furthering fundamental substantive social policies.

Papst makes no argument that factors 2–5 weigh against a finding of personal jurisdiction, nor could it. Xilinx, which is headquartered in California, indisputably has an interest in protecting itself from patent infringement by obtaining relief "from a nearby federal court." Jurisdiction over Xilinx's DJ claims in California would also result in an efficient resolution of the controversy. Finally, there is no conflict between the interests of California and any other state, since the same body of federal patent law would govern the patent invalidity claim irrespective of the forum.

With respect to the burden on the defendant, Papst sent letters into the forum and its representatives traveled there to meet with Xilinx. Also, the burden on Papst is mitigated by Papst's status as an NPE residing outside of the U.S. By the very nature of its business, Papst must litigate its patents in the U.S., thus falling right into the fourth factor: the interstate judicial system's interest in obtaining the most efficient resolution of controversies. The lack of significant burden on Papst is also evidenced by Papst's prior seven patent litigations in California. Finally, Papst has not demonstrated that it would be unduly burdensome to litigate in California rather than elsewhere in the U.S.

In light of the totality of circumstances, the panel holds that this is not one of the rare situations in which sufficient minimum contacts exist but where the exercise of jurisdiction would be unreasonable. In other words, there is simply no compelling case here that personal jurisdiction over Papst is unreasonable.

Polar Electro Oy v. Suunto Oy, 829 F.3d 1343 (Fed. Cir. 2016)

The Circuit vacates and remands a decision dismissing Suunto, a Finnish company, based upon lack of personal jurisdiction. In examining whether Suunto had sufficient minimum contacts with Delaware, the forum state, the panel looks to see if specific jurisdiction exists. The panel disagrees with the district court and holds that Suunto purposefully availed itself of the Delaware market. The case is somewhat unusual in that ASWO, Suunto's U.S. distributor, took title to the goods in Finland and not in the U.S. The panel found it significant that under its distribution agreement with ASWO, Suunto provided outbound logistic services, including preparing export documents, packing the ordered goods and coordinating the freight to the destination specified by ASWO. Suunto shipped at least ninety-four accused products to Delaware retailers via that standard ordering process.

In addition to purposeful minimum contacts, due process requires that the assertion of personal jurisdiction be reasonable and fair. The district court did not decide the reasonableness prong because it dismissed the case against Suunto for lack of minimum contacts. Therefore, the Circuit remands for the district court to determine whether exercising jurisdiction over Suunto would be reasonable and fair.

The panel then looks to whether the district court correctly determined that exercising jurisdiction over Suunto would be proper under the Delaware long arm statute. The district court determined that personal jurisdiction exists over Suunto under a so-called dual jurisdiction theory expressed in a Delaware appellate court opinion in which two alternative sections of the Delaware long arm statute are at least partially satisfied. Because Suunto's activities demonstrate an intent to serve the U.S. market generally and the Delaware market specifically, the panel determines that the district court correctly determined that personal jurisdiction over Suunto is proper under the Delaware long arm statute.

Subject Matter Jurisdiction in Declaratory Judgment Cases

ArcelorMittal v. AK Steel Corporation, 856 F.3d 1365 (Fed. Cir. 2017)

In a split decision, the Circuit rejects Arcelor's appeal contending that the district court that invalidated its claims did not have subject matter jurisdiction because covenants not to sue submitted by Arcelor were not unconditional. Arcelor moved to dismiss AK's counterclaims for declaratory judgment. With its motion, Arcelor tendered a covenant not to sue as to the patent in suit. Arcelor argued that the tendered covenant rendered moot subject matter jurisdiction over AK's counterclaims for declaratory judgment, but its motion was denied.

This first covenant by Arcelor came in its brief in support of its motion to dismiss. Subsequently, an unsigned covenant was submitted as an exhibit. A facially unconditional, signed covenant was later submitted to AK with a cover letter stating that the covenant was "conditioned on resolution of Arcelor's motion" in another of the cases.

On appeal, the panel notes that based on the Supreme Court's *MedImmune* case, it should take a "consider all the circumstances" approach and look outside the terms of the covenant itself. As a result, the panel may consider Arcelor's cover letter, to give effect to Arcelor's intent to make conditional delivery of the unconditional covenant. Therefore, according to the majority, there was no error in the district court's retention of subject matter jurisdiction.

Another issue on appeal was whether there was subject matter jurisdiction over an additional two claims. Arcelor contended that the two claims were not part of the cases due to earlier pretrial elections. The panel held that Arcelor's statements to the court and Arcelor's tacit acceptance of AK's representations about the litigation status of the claims reflected Arcelor's continued attempt to assert the claims. Therefore, the majority found no error on the part of the district court.

In dissent, Judge Wallach argues that the majority's totality of the circumstances approach is inconsistent with the Supreme Court's 2103 *Already* case, which is more closely applicable than *MedImmune*. In any event, the majority's analysis of the totality of the circumstances is faulty.

First Data Corp. v. Inselberg, 870 F.3d 1367 (Fed. Cir. 2017)

The Circuit affirms the dismissal of a declaratory judgment for lack of subject matter jurisdiction because the claimant did not own the patents allegedly being asserted, and dismisses an appeal of a remand to state court, ruling that the Circuit has no jurisdiction to hear that appeal.

Eric Inselberg is the inventor of systems in which audiences interact with live events, such as concerts and football games. The ownership dispute regarding Inselberg's patent portfolio stems from a \$500,000 loan that Inselberg's company "Interactive" received from Bisignano in 2010. Inselberg and Interactive defaulted on the loan, and Inselberg and Interactive conveyed Interactive's patent portfolio to Bisignano. Shortly thereafter, Bisignano became the CEO of First Data, which took a royalty-free license under the patents.

Inselberg later took the position that the assignment agreement in which the patents were conveyed to Bisignano had severe problems that likely made it void. Inselberg then sent Bisignano and First Data a draft state court complaint, which asserted that Inselberg and Interactive were the true owners of the patents and were entitled to sue for infringement. In response, Bisignano and First Data filed a complaint in the District of New Jersey seeking declaratory judgment regarding the validity of the assignment agreement and Bisignano's ownership of the patent portfolio.

Inselberg and Interactive then filed a complaint in New Jersey Superior Court, asserting state law claims, including that the assignment agreement was invalid and that the patents were owned by them, not Bisignano. Bisignano and First Data filed an answer that included counterclaims requesting a declaratory judgment of noninfringement of the patents. After filing their answer and counterclaims, Bisignano and First Data removed the state court action to the District of New Jersey. However, the district court dismissed the federal claims and remanded the state law claims back to state court.

The panel affirms the dismissal of the federal declaratory judgment action filed by Bisignano and First Data, holding that the district court lacked subject matter jurisdiction, since Inselberg did not own the patents, and therefore could not sue for infringement.

As to the remand back to state court, the panel notes that, whether the Circuit can review the district court's remand depends on whether the district court remanded the claims under 28 U.S.C. § 1447. If it

did, the order remanding the case "is not reviewable on appeal or otherwise." If the district court remanded the case after declining to exercise supplemental jurisdiction under 28 U.S.C. § 1367(c), however, then "the remand order is not based on a lack of subject matter jurisdiction for purposes of §§ 1447(c) and (d). The panel finds that the district court's analysis was based on a lack of subject matter jurisdiction, so § 1447(d) precludes the Circuit from reviewing the district court's remand order.

Allied Mineral Products, Inc. v. OSMI, Inc., 870 F.3d 1337 (Fed. Cir. 2017)

The Circuit affirms the dismissal of a declaratory judgment action filed by Allied against OSMI and two Stellar companies based on lack of subject matter jurisdiction even though Stellar had sued Allied's Mexican distributors for infringement of a corresponding Mexican patent.

The dispute centered on a Mexican infringement suit between Stellar and two of Allied's Mexican distributors, Ferro and Pyrotek. Stellar sent notice letters to Ferro and Pyrotek accusing them of infringing Stellar's Mexican patent. Allied manufactures the products accused of infringement in the U.S., which are then sold in Mexico by Ferro and Pyrotek. Allied sells the same product in the U.S. Allied's U.S. counsel responded to Stellar's notice letters on behalf of Ferro and Pyrotek. Allied identified itself as the manufacturer of the accused products and argued that the products do not infringe the Mexican patent.

Stellar never responded to Allied's letter. Instead, Stellar filed infringement actions against Ferro and Pyrotek in Mexico, identifying a claim in its Mexican patent that is a Spanish translation of a claim in the corresponding U.S. '974 patent. Allied then filed the present declaratory judgment action against Stellar in the Southern District of Florida. The district court granted Stellar's motion to dismiss for lack of subject matter jurisdiction, and Allied appealed.

The panel begins its analysis by citing *MedImmune*'s phrasing of the issue: "[W]hether the facts alleged, under all the circumstances, show that there is a substantial controversy, between parties having adverse legal interests, of sufficient immediacy and reality to warrant the issuance of a declaratory judgment." Applying this test, the panel holds that the totality of the circumstances in this case does not rise to the level of a case of actual controversy. Declaratory judgment jurisdiction requires some affirmative act by the patentee. Stellar has not directed any actions towards Allied, nor has it litigated or threatened litigation in the U.S. or on its '974 patent. All of Stellar's conduct has been directed towards Allied's customers Ferro and Pyrotek, unrelated Mexican entities, and that contact was limited to Stellar's Mexican patent and potentially infringing acts in Mexico. Stellar sent notice letters to the customers alone, and although Allied responded on behalf of its customers, Stellar never responded to Allied's letter. Stellar then sued only the customers, not the manufacturer. It has not threatened or alleged infringement of the '974 patent, much less filed suit.

Asia Vital Components Co. v. Asetek Danmark A/S, 837 F.3d 1249 (Fed. Cir. 2016)

The Circuit reverses the dismissal of a declaratory judgment action even though the accused product had not yet been sold by the plaintiff AVC. According to the decision, although the Supreme Court's 2007 *MedIm Asia mune* decision relaxed the test for jurisdiction, it did not change the rule that a case or controversy must be based on a real and immediate injury or threat of future injury that is caused by the defendants. In several post-*MedImmune* decisions, the Circuit held that jurisdiction generally will not arise merely on the basis that a party learns of the existence of a patent owned by another or even perceives such a patent to pose a risk of infringement, without some affirmative act by the patentee. Instead, the Circuit requires conduct that can be reasonably inferred as demonstrating intent to enforce a patent.

In an initial letter, Asetek incorrectly accused AVC of manufacturing the Liqmax 120s. However, it was a demand letter that referenced a product that is similar to Asetek's K7 and K9 products. AVC then contacted Asetek, saying that it did not manufacture the Liqmax 120s. Instead of simply responding that it had made a mistake with respect to the Liqmax 120s, Asetek responded with a number of statements that indicate that an actual controversy between the parties existed. For example, Asetek (1) rehashed the volatile relationship between the parties; (2) stated that it would not license the patents to AVC due to the previous conflicts between the parties; (3) accused AVC of likely selling other infringing products; and (4)

warned AVC that it enforced its IP and noted its pending litigations against other infringers that sell products similar to the K7 and K9. According to the panel, such a response demonstrates intent to enforce a patent, and is thus sufficient to find a substantial controversy between the parties.

The panel holds that further interactions between the parties confirm its conclusion. For example, Asetek made threats to its customers regarding AVC's infringement of the asserted patents, telling customers that AVC has infringed Asetek's patents, and that if these customers used AVC's products, a lawsuit would follow.

Asetek relies heavily on the fact that it never referenced AVC's particular products as potentially infringing, and, in fact, did not even know of AVC's products at the time of the complaint. But the panel notes that the question of jurisdiction does not turn on Asetek's knowledge of the specific AVC products or whether Asetek specifically alleged that those products infringed; instead, the question is whether Asetek's actions can be inferred as demonstrating intent to enforce a patent. The panel concludes that Asetek's conduct demonstrates just that even though AVC had not yet introduced the accused product.

Venue and Motions to Transfer

TC Heartland LLC v. Kraft Foods Group Brands LLC, 137 S. Ct. 1514 (2017)

In an 8-0 opinion written by Justice Thomas (Justice Gorsuch did not participate), the Supreme Court rules that a defendant "resides" for purposes of the patent venue statute only where the defendant actually is incorporated or where the defendant has committed acts of infringement and has a regular and established place of business. This will prove devastating to Texas businesses that have taken advantage of the fact that 40% of all patent infringement actions over the past three years have been filed in the Eastern District of Texas. This could prove to be a boon to law firms in Delaware, which is a common state of incorporation, and to firms around the country based in technology-hot areas.

The Court rules that the 2011 amendments to the general venue statute, 28 U.S.C. § 1391, changed the law and effectively overruled *VE Holding*, which held that the definition of "corporate residence" in the general venue statute applies to the patent venue statute, 28 U.S.C. § 1400. The Court accepted Heartland's argument that the amendment to § 1391 that added "except as otherwise provided by law" meant that the patent venue statute was intended to control the definition of "corporate residence" in patent actions, instead of the general venue statute.

The patent venue statute, 28 U.S.C. §1400(b), provides that "any civil action for patent infringement may be brought in the judicial district where the defendant resides, or where the defendant has committed acts of infringement and has a regular and established place of business." In *Fourco Glass Co. v. Transmirra Products Corp.*, this Court concluded that for purposes of §1400(b) a domestic corporation "resides" only in its State of incorporation, rejecting the argument that §1400(b) incorporates the broader definition of corporate "residence" contained in the general venue statute, 28 U.S.C. §1391(c). Congress has not amended §1400(b) since *Fourco*, but it has twice amended §1391, which now provides that, "except as otherwise provided by law" and "for all venue purposes," a corporation "shall be deemed to reside, if a defendant, in any judicial district in which such defendant is subject to the court's personal jurisdiction with respect to the civil action in question." §§1391(a), (c).

Respondent filed a patent infringement suit in the District Court for the District of Delaware against petitioner, a competitor that is organized under Indiana law and headquartered in Indiana but ships the allegedly infringing products into Delaware. Petitioner moved to transfer venue to a District Court in Indiana, claiming that venue was improper in Delaware. Citing *Fourco*, petitioner argued that it did not "reside" in Delaware and had no "regular and established place of business" in Delaware under §1400(b). The District Court rejected these arguments. The Federal Circuit denied a petition for a writ of mandamus,

concluding that §1391(c) supplies the definition of "resides" in §1400(b). The Federal Circuit reasoned that because petitioner resided in Delaware under §1391(c), it also resided there under §1400(b).

Held: As applied to domestic corporations, "residence" in §1400(b) refers only to the State of incorporation. The amendments to §1391 did not modify the meaning of §1400(b) as interpreted by *Fourco*.

(a) The venue provision of the Judiciary Act of 1789 covered patent cases as well as other civil suits. *Stonite Products Co. v. Melvin Lloyd Co.* In 1897, Congress enacted a patent specific venue statute. This new statute (§1400(b)'s predecessor) permitted suit in the district of which the defendant was an "inhabitant" or in which the defendant both maintained a "regular and established place of business" and committed an act of infringement. A corporation at that time was understood to "inhabit" only the State of incorporation. This Court addressed the scope of §1400(b)'s predecessor in *Stonite*, concluding that it constituted "the exclusive provision controlling venue in patent infringement proceedings" and thus was not supplemented or modified by the general venue provisions. 315 U.S., at 563. In 1948, Congress recodified the patent venue statute as §1400(b). That provision, which remains unaltered today, uses "resides" instead of "inhabits." At the same time, Congress also enacted the general venue statute, §1391, which defined "residence" for corporate defendants. In *Fourco*, this Court reaffirmed *Stonite*'s holding, observing that Congress enacted §1400(b) as a standalone venue statute and that nothing in the 1948 recodification evidenced an intent to alter that status, even the fact that §1391(c) by "its terms" embraced "all actions," 353 U.S., at 228. The Court also concluded that "resides" in the recodified version bore the same meaning as "inhabits" in the pre-1948 version.

This landscape remained effectively unchanged until 1988, when Congress amended the general venue statute, §1391(c). The revised provision stated that it applied "[f]or purposes of venue under this chapter." In *VE Holding Corp. v. Johnson Gas Appliance Co.*, 917 F. 2d 1574, 1578, the Federal Circuit held that, in light of this amendment, §1391(c) established the definition for all other venue statutes under the same "chapter," including §1400(b). In 2011, Congress adopted the current version of §1391, which provides that its general definition applies "for all venue purposes." The Federal Circuit reaffirmed *VE Holding* in the case below.

(b) In Fourco, this Court definitively and unambiguously held that the word "residence" in §1400(b), as applied to domestic corporations, refers only to the State of incorporation. Because Congress has not amended §1400(b) since Fourco, and neither party asks the Court to reconsider that decision, the only question here is whether Congress changed §1400(b)'s meaning when it amended §1391. When Congress intends to effect a change of that kind, it ordinarily provides a relatively clear indication of its intent in the amended provision's text. No such indication appears in the current version of \$1391. Respondent points out that the current §1391(c) provides a default rule that, on its face, applies without exception "[flor all venue purposes." But the version at issue in Fourco similarly provided a default rule that applied "for venue purposes," and those phrasings are not materially different in this context. The addition of the word "all" to the already comprehensive provision does not suggest that Congress intended the Court to reconsider its decision in Fourco. Any argument based on this language is even weaker now than it was when the Court rejected it in Fourco, Fourco held that §1400(b) retained a meaning distinct from the default definition contained in §1391(c), even though the latter, by its terms, included no exceptions. The current version of §1391 includes a saving clause, which expressly states that the provision does not apply when "otherwise provided by law," thus making explicit the qualification that the Fourco Court found implicit in the statute. Finally, there is no indication that Congress in 2011 ratified the Federal Circuit's decision in VE Holding.

In Re: Cray Inc., 2017 U.S. App. LEXIS 18398 (Fed. Cir. 2017)

The panel rules that the district court misinterpreted the scope and effect of Circuit precedent in determining that Cray maintained "a regular and established place of business" in the Eastern District of Texas within the meaning of 28 U.S.C. § 1400(b). Accordingly, the court's refusal to transfer a case

pursuant to 28 U.S.C. § 1406(a) was an abuse of discretion, and the Circuit grants Cray's petition for a writ of mandamus and directs the case to be transferred to the Western District of Wisconsin.

This petition arises from a patent infringement action filed by Raytheon against Cray, which sells advanced supercomputers that Raytheon accuses of infringement. Cray is a Washington corporation with its principal place of business located there. It also maintains facilities in Chippewa Falls, Wisconsin and other locations. Although Cray does not rent or own an office or any property in the Eastern District of Texas, it allowed Mr. Douglas Harless to work remotely from his home in that district. Mr. Harless worked as a "sales executive" for approximately seven years with associated sales of Cray systems in excess of \$345 million. Mr. Harless's responsibilities also included new sales development in the Central U.S. and "management of key accounts within various industries. Mr. Harless provided price quotations to customers, listing himself as the account executive and the person who prepared the quotation. The communications also identified his home telephone number as his office telephone number with an Eastern District of Texas area code. Cray never paid Mr. Harless for the use of his home to operate its business, or publicly advertised or otherwise indicated that his home residence was a Cray place of business.

Cray moved to transfer this suit under 28 U.S.C. § 1406(a), which provides that "the district court of a district in which is filed a case laying venue in the wrong division or district shall dismiss, or if it be in the interest of justice, transfer such case to any district or division in which it could have been brought." Because Cray is incorporated in the State of Washington, there is no dispute that the residency requirement of that statute cannot be met here under the definition provided in *TC Heartland*. The district court agreed that Cray does not reside in the district. Cray further argued that venue was improper in the Eastern District of Texas because Cray had neither committed acts of infringement, nor maintained a regular and established place of business within that district. The district court, however, rejected that argument, ruling that Mr. Harless's activities were factually similar to the activities performed by the representatives in the Circuit's 1985 case of *In re Cordis*, in which this court rejected a mandamus request to reverse an order denying transfer for improper venue.

Although the district court found that *Cordis* resolved this case, the court then went on "for the benefit of" other litigants and counsel to set out four factors for inquiries into what constitutes a regular and established places of business "in the modern era," including physical presence, defendant's representations, benefits received, and targeted interactions with the district.

After setting forth the high level of proof required for the grant of a writ of mandamus, the panel turns to § 1400(b). The panel's analysis of the case law and the statute reveal three general requirements relevant to the inquiry: (1) there must be a physical place in the district; (2) it must be a regular and established place of business; and (3) it must be the place of the defendant. If any statutory requirement is not satisfied, venue is improper under § 1400(b). The panel notes that it needs to interpret the meaning of "where the defendant . . . has a regular and established place of business." 28 U.S.C. § 1400(b). Thus, § 1400(b) requires that "a defendant has" a "place of business" that is "regular" and "established." According to the panel, the district court's four-factor test is not sufficiently tethered to this statutory language and thus it fails to inform each of the necessary requirements of the statute.

The district court erred as a matter of law in holding that "a fixed physical location in the district is not a prerequisite to proper venue." This interpretation impermissibly expands the statute. The statute cannot be read to refer merely to a virtual space or to electronic communications from one person to another. But such "places" would seemingly be authorized under the district court's test. While the "place" need not be a "fixed physical presence in the sense of a formal office or store," *Cordis*, there must still be a physical, geographical location in the district from which the business of the defendant is carried out.

The second requirement for determining venue is that the place "must be a regular and established place of business." The district court's test fails to recognize that the place of business must be "regular." A business may be "regular," for example, if it operates in a steady, uniform, orderly, and methodical" manner. In other words, sporadic activity cannot create venue. The "established" limitation bolsters this

conclusion. Accordingly, while a business can certainly move its location, it must for a meaningful time period be stable, established.

The third requirement when determining venue is that "the regular and established place of business" must be "the place of the defendant." As the statute indicates, it must be a place of the defendant, not solely a place of the defendant's employee. Employees change jobs. Thus, the defendant must establish or ratify the place of business. It is not enough that the employee does so on his or her own. Relevant considerations include whether the defendant owns or leases the place, or exercises other attributes of possession or control over the place. One can also recognize that a small business might operate from a home; if that is a place of business of the defendant, that can be a place of business satisfying the requirement of the statute.

Another consideration might be whether the defendant conditioned employment on an employee's continued residence in the district or the storing of materials at a place in the district so that they can be distributed or sold from that place. Marketing or advertisements also may be relevant, but only to the extent they indicate that the defendant itself holds out a place for its business. The district court is correct that a defendant's representations that it has a place of business in the district are relevant to the inquiry. Potentially relevant inquiries include whether the defendant lists the alleged place of business on a website, or in a telephone or other directory; or places its name on a sign associated with or on the building itself. But the mere fact that a defendant has advertised that it has a place of business or has even set up an office is not sufficient; the defendant must actually engage in business from that location. In the final analysis, the court must identify a physical place, of business, of the defendant.

The panel then applies the foregoing test to the present case, and concludes that the facts cannot support a finding that Cray established a place of business in the Eastern District of Texas. Thus venue cannot exist there under § 1400(b). Cray seeks transfer to the Western District of Wisconsin, but Raytheon prefers transfer to the United States District Court for the Western District of Texas. Section 1406(a) provides that "the district court of a district in which is filed a case laying venue in the wrong division or district shall dismiss, or if it be in the interest of justice, transfer such case to any district or division in which it could have been brought." Section 1406(a) provides that "the district court of a district in which is filed a case laying venue in the wrong division or district shall dismiss, or if it be in the interest of justice, transfer such case to any district or division in which it could have been brought." Because the district court determined that venue was proper, it did not address the parties' arguments regarding where the case should be transferred. That determination is left for the district court on remand.

Adequacy of Patent Infringement Complaints

Lifetime Industries, Inc. v. Trim-Lok, Inc., 869 F.3d 1372 (Fed. Cir. 2017)

The Circuit reverses the grant of a motion to dismiss a patent infringement complaint for failing to adequately allege that Trim-Lok either directly or indirectly infringed a '590 patent directed to a two-part seal used for a slide-out room in recreational vehicles. In an action that was filed prior to the December 2015 effective date of the abrogation of Form 18, the panel does not rule as to whether the relaxed pleading requirements of Form 18 apply or the more stringent requirements of *Twombly* and *Iqbal*, holding that the complaint was adequate under either standard.

Lifetime sued Trim-Lok in 2013, alleging direct and indirect infringement. Trim-Lock moved to dismiss on the bases that Lifetime had not adequately identified the products that allegedly infringed. Rather than oppose the motion, Lifetime filed a First Amended Complaint (FAC) in an attempt to identify the accused products. Trim-Lok moved to dismiss the FAC, which was granted by the district court, but giving Lifetime leave to file a Second Amended Complaint (SAC). Lifetime filed its SAC alleging that in the months before it filed the original complaint, two of its engineers with knowledge of the '590 patent and the Lifetime product line left Lifetime to work for Trim-Lok. The SAC identified a Lifetime employee, who discovered a

two-part Trim-Lok seal installed in an RV with a slide-out room at a plant run by Forest River, an RV manufacturer; an agent of Trim-Lok visited the Forest River plant and installed Trim-Lok's two-part seal onto an RV having a slide-out room; and the Trim-Lok agent installed the seal to solicit sales of the seal to Forest River.

As for induced infringement, Lifetime alleged that Forest River's making, using, offering for sale and selling of an RV having the two-part seal constitutes infringement; that Trim-Lok influenced Forest River to include the two-part seal in their RVs, knowing that such combination would fulfill all elements of at least one claim of the '590 patent; and that employees or representatives or agents of Trim-Lok assisted in the installation, or directed the installation of the seals. Thus, Lifetime alleged that Trim-Lok induced Forest River to infringe.

Concerning contributory infringement, Lifetime alleged that the two-part seal sold by Trim-Lok had only one purpose—for use on RVs with slide-out rooms, that Trim-Lok assisted in or directed the installation of the seal on an RV, and that the seals were not staple articles of commerce suitable for noninfringing use.

Despite the foregoing details, the district court granted Trim-Lok's motion to dismiss the SAC. Although the court determined that Lifetime had adequately identified the accused product, the court concluded that Lifetime had not adequately pleaded direct or indirect infringement.

The first issue for the panel to decide was whether the pleading standards of Form 18 or *Twombly/Iqbal* apply. Form 18 provided a sample allegation of direct infringement, which required very little other than the barest of allegations. The Circuit had ruled that compliance with Form 18 immunized a claimant from attack regarding the sufficiency of the pleading. However, Form 18 was abrogated effective December 1, 2015, with the pertinent Supreme Court order stating that Form 18 will govern "insofar as just and practicable, all proceedings" pending on that date. Lifetime filed its SAC in 2014, but the district court did not issue its order dismissing the SAC until 2016. In its order, the court did not reference Form 18, but repeatedly referenced the *Iqbal/Twombly* standard. Lifetime argues that the district court erred because the court should have applied the requirements of Form 18. In the alternative, Lifetime argues that the SAC meets the *Iqbal/Twombly* standard.

The panel notes that the parties assume that there is a difference between the requirements of Form 18 and *Iqbal/Twombly*, but the Circuit has never recognized such a distinction. In any event, the panel sees no need to resolve that question or to decide which standard applies since the SAC met the *Iqbal/Twombly* standard for pleading direct infringement. The opinion discusses the detailed recitations of the SAC, and rules that, "drawing reasonable inferences in Lifetime's favor, these facts make it plausible that a Trim-Lok agent installed the seal onto the Forest River RV." Taken together, these allegations render Lifetime's pleadings sufficiently plausible to survive a motion to dismiss.

As to indirect infringement, Form 18 does not apply, so the *Iqbal/Twombly* standard is applicable. Under this standard, for an allegation of induced infringement to survive a motion to dismiss, a complaint must plead facts plausibly showing that the accused infringer specifically intended another party to infringe the patent and knew that the other party's acts constituted infringement. The panel agrees with Lifetime that it has plausibly alleged that Trim-Lok induced infringement of the '590 patent. Citing *Twombly* and the Circuit's 2012 *Bill of Lading* case, the panel rules that the plausibility requirement is not akin to a "probability" requirement at the pleading stage; it simply calls for enough facts to raise a reasonable expectation that discovery will reveal that the defendant is liable for the misconduct alleged.

The panel compares this case to *Bill of Lading*. In that case, it was unclear whether the claimed method had been performed at all, but the Circuit determined that the patent owner had adequately pleaded intent where it alleged knowledge of the patent and had plausibly pleaded that the defendants' customers performed the claimed method. Lifetime pleaded facts that are at least as strong, because Lifetime could rely on direct evidence (i.e., the two-part seal found installed on an RV at the Forest River plant) that tended to show infringement. This evidence, taken together with Trim-Lok's prior knowledge of the patent and viewed in Lifetime's favor, "gives rise to a reasonable inference that Trim-Lok intended to induce" Forest River to infringe.

Finally, Lifetime argues that the district court erred in dismissing its contributory infringement count because contributory infringement only requires knowledge of the patent and of infringement, not the intent to infringe. The panel agrees, and holds that it plausibly pleaded contributory infringement.

Comments: While this was a fairly easy case, it does provide some guidance as to what is required for allegations of direct and indirect infringement under *Iqbal/Twombly*. Another recent case, *Lyda v. CBS Corp.*, 838 F.3d 1331 (Fed. Cir. 2016), applied *Iqbal/Twombly* in a joint infringement case and found that the pleading was insufficient under the requirements of *Akamai*. District court decisions deciding cases filed after December 15, 2015, are all over the map in applying *Iqbal/Twombly*. They vary from requiring an application of the asserted claims to the accused designs, to requiring little more than Form 18 because local rules require claim charts to be provided early in the case. Undoubtedly the best practice, and that which appears to be required from a majority of the district courts, is to include claim charts applying the asserted claims to the accused products. Courts will need to be lenient in permitting amendment to such allegations as discovery proceeds and the courts render their *Markman* decisions.

Edwin Lyda v. CBS Corporation, 838 F.3d 1331 (Fed. Cir. 2016)

The panel affirms the dismissal of an infringement action, without leave to replead, because the Amended Complaint for joint infringement does not meet the pleading requirements of *Twombly* and *Iqbal*. Lyda sued CBS for infringement of the patents directed to systems for obtaining real time responses to TV programming by allowing persons viewing a broadcast to respond in real time. After CBS notified Lyda of deficiencies in the original complaint, Lyda filed an Amended Complaint, which Defendants moved to dismiss for failure to state a claim. The judge informed Lyda that Lyda could either amend the complaint a second time, or oppose the motion and forfeit his ability to further amend the complaint. Lyda elected to oppose the motion, which was granted by the district court.

The panel holds that the Amended Complaint sets forth allegations of joint infringement, which the panel then rules are measured by the pleading requirements of *Twombly* and *Iqbal* and not the minimal pleading requirements of Form 18. To survive such a motion, a complaint must allege sufficient facts, taken as true, to state a plausible claim for relief. Thus, under *Twombly*, *Iqbal* and *Akamai*, a claim of joint infringement requires pleading facts sufficient to allow a reasonable inference that all steps of the claimed method are performed and either (1) one party exercises the requisite "direction or control" over the others' performance or (2) the actors form a joint enterprise such that performance of every step is attributable to the controlling party.

The panel holds that the Amended Complaint fails to meet the pleading requirements of *IqballTwombly*. Moreover, because Lyda amended the complaint once, the panel holds that the district court did not abuse its discretion in denying Lyda leave to amend the complaint one more time.

Stay Pending IPR Proceedings

Murata Mach. USA v. Daifuku Co., Ltd., 830 F.3d 1357 (Fed. Cir. 2016)

This case presents an unusual evaluation of whether a case should be stayed pending an IPR. Because the decision to grant or deny a stay is not appealable, this issue has not yet come to the Circuit and is not likely to be decided by the court very often. The Circuit considered the issue in this case because it arose as part of an interlocutory appeal of a denial of a motion for preliminary injunction, which was decided at the same time as the stay issue. In this case, the panel deferred to the broad discretion of the district court in managing its cases and in deciding whether a stay was appropriate. However, because the court had summarily denied the motion for preliminary injunction without evaluating the appropriate considerations, the denial of the motion for preliminary injunction was vacated and remanded.

The district court granted the stay after defendant Daifuku had initiated IPRs as to the two patents in suit. Murata then added two more patents to the case and moved to lift the stay as to the patents that had been added. The district court applied the four part test used in deciding whether a stay should be granted in Covered Business Method reviews, and declined to lift the stay. Murata had also moved for preliminary injunction as to the two new patents and the district court denied the motion, with a cursory one paragraph ruling concluding with the statement: "Because the court has now declined to lift the stay, the Motion for Preliminary Injunction is denied without prejudice to renew at a later date, if appropriate."

As noted above, the panel affirms the denial of the motion to lift the stay but rules that the district court should have fully addressed the preliminary injunction motion, and not treated it as part of the motion to lift the stay. Rule 52(a) of the Federal Rules requires the district court to perform a complete analysis of the issues to be considered on a motion for injunction, and must issue findings of fact and conclusions of law that can be properly considered on appeal.

JMOL Motions

Apple Inc. v. Samsung Elecs. Co., 839 F.3d 1034 (Fed. Cir. 2016)

Apple alleged infringement of five of its smartphone patents, and Samsung countersued for infringement of two of its patents. After a jury trial, the district court entered a judgment awarding Apple \$119,625,000 in damages and ongoing royalties. In a February decision, a panel of the Circuit reversed the denial of Samsung's motion for JMOL of non-infringement as to the principal patent in suit, determining that Apple failed to prove that the accused Samsung products use a so-called "quick links" feature that permits users to quickly click on phone numbers and other links, rather than having to copy and paste. The Circuit also reversed the denial of JMOL of invalidity of two of Apple's patents, directed to the iPhone's "slide to unlock" and "autocorrect" features, rejecting Apple's arguments as to secondary considerations such as commercial success and praise from Apple users.

In an en banc decision, with one dissent, the Circuit reinstates the district court judgments as to the three patents in suit, holding that the jury verdict on each issue is supported by substantial evidence and the district court did not err when denying Samsung's JMOLs. The Circuit notes that it granted Apple's en banc petition to affirm its understanding of the appellate function as limited to deciding issues raised on appeal by the parties, "deciding these issues only on the basis of the record made below, and as requiring appropriate deference be applied to the review of factual findings." According to the majority, the Supreme Court made it clear in *Teva v. Sandoz* that findings of fact [there relating to claim construction] "are indisputably the province of the district court."

The majority notes that the panel reversed nearly a dozen jury fact findings including infringement, motivation to combine, the teachings of prior art references, commercial success, industry praise, copying, and long-felt need across three different patents. It did so despite the fact that some of these findings were not appealed and without ever mentioning the applicable substantial evidence standard of review. And with regard to objective indicia, it did so in ways that departed from existing law.

In dissent, Judge Dyk raises questions about how aspects of the obviousness doctrine ought to operate, but the majority notes that no party—at the panel or the petition for rehearing en banc stage—invited the Circuit to consider changing the existing law of obviousness. The case was taken en banc to affirm the Circuit's understanding of its appellate function, to apply the governing law, and to maintain its fidelity to the Supreme Court's *Teva* decision.

Given the length of the opinion, we have not attempted to edit it down to our normal two or three pages, but the full opinion does make for interesting reading.

Sanctions

Andre Walker v. Health Int'l. Corp., 845 F.3d 1148 (Fed. Cir. 2017)

The Circuit affirms over \$20,000 in sanctions awarded by the district court because the patentee continued to litigate after the parties settled all claims. The panel adds over \$50,000 in additional attorney fees and double costs as a result of Walker's frivolous appeal, groundless attacks on the conduct of opposing counsel, and repeated distortion of controlling case law.

Walker filed suit for patent infringement against Health International ("HSN"). Walker and HSN, both represented by counsel, engaged in mediation and, that same day, entered into a hand-written Mediated Settlement Agreement. The Agreement required that HSN pay \$200,000 to Walker within thirty days. Following payment of the \$200,000, Walker became obligated to deliver a release to HSN and by joint stipulation the parties were to dismiss all claims with prejudice.

HSN filed a motion to stay all deadlines but Walker opposed the motion, stating that HSN's allegation that the Agreement resolved all claims was incorrect, contending that there were significant issues yet to be resolved. Walker filed motions to amend the complaint and set a Markman hearing. HSN filed a motion to enforce the Agreement, appending correspondence from Walker's counsel acknowledging that the case was settled, and a motion for sanctions. The district court granted HSN's motions and awarded HSN attorneys' fees and costs amounting to over \$20,000 resulting from Walker's vexatious actions after settlement.

Walker first argues on appeal that the district court erred in awarding fees without findings of subjective bad faith, but the panel rules that Walker mischaracterizes clear authority. Federal courts may award damages under their equitable powers when litigants have acted in bad faith, vexatiously, wantonly, or for oppressive reasons. The district court's detailed findings provide ample support for its conclusion of vexatiousness.

Walker argues that HSN's counsel violated Colorado Rule of Professional Conduct 1.3 by failing to immediately notify him that HSN had tendered the settlement payment to its counsel. The panel holds that Walker's argument is contrary to the rule's explicit language and leads to illogical conclusions. As such, the positions taken by Walker on appeal in the briefs and at oral argument were frivolous.

The record lacks any support for Walker's attempts to frustrate the comprehensive settlement by prolonging litigation. Walker's numerous mischaracterizations of clear authority in arguing the appeal also makes this case frivolous as argued. Particularly troubling are Walker's baseless assertions of misconduct against his opposing counsel and continued misrepresentation of clear, binding Supreme Court precedent even after the distortion was pointed out by opposing counsel. The continued misrepresentation standing alone is a very serious matter that could warrant sanctions.

The panel rules: "In keeping with this court's longstanding policy of enforcing Rule 38 vigorously, we exercise our discretion to impose sanctions in the full amount of HSN's request." The panel also considers the attorney who wrote and signed the briefs to be equally responsible and therefore holds counsel jointly and severally liable for the assessed damages.

Appealability of Orders

Amgen Inc. v. Hospira, Inc., 866 F.3d 1355 (Fed. Cir. 2017)

The Circuit dismisses an appeal for lack of jurisdiction and denies a writ of mandamus as to the denial of a motion to compel discovery in a patent infringement action governed by the Biologics Price Competition and Innovation Act (BPCIA). Amgen attempted to obtain more information from Pfizer's Hospira unit

about its proposed biosimilar of the anemia drug Epogen®, but the Circuit determines that Amgen is not entitled to uncover the information in this fashion.

The panel first addresses whether it has jurisdiction over this appeal. Ordinarily, an appeal must be from a final judgment that ends the litigation on the merits and leaves nothing for the court to do but execute the judgment. The collateral order doctrine provides a narrow exception to this general rule. To come within the small class of decisions excepted from the final-judgment rule by the collateral order doctrine, the order must conclusively determine the disputed question, resolve an important issue completely separate from the merits of the action, and be effectively unreviewable on appeal from a final judgment.

Here, it appears that the district court's discovery order may satisfy the first two conditions of being an appealable collateral order. The issue is whether the district court's order is "effectively unreviewable" on appeal from a final judgment. The panel notes that Congress has not provided interlocutory review, but that simply means that immediate appeal is not available. However, the lack of immediate appeal does not render such orders "effectively unreviewable" or distinguish them from run-of-the-mill discovery disputes. The Circuit therefore lacks jurisdiction over Amgen's appeal under the collateral order doctrine.

Amgen has also pursued a writ of mandamus. According to the panel, mandamus is a drastic remedy reserved for the most extraordinary causes. A party seeking mandamus must have no other adequate means to attain the desired relief and must demonstrate that its right to the writ's issuance is clear and indisputable. Amgen is seeking information to determine if certain of its patents were infringed, arguing that it risked sanctions by filing suit without such information. The panel rules that there were other ways for Amgen to get the information, such as by putting Hospira on notice of the infringement, and thereby acquire information from Hospira as to any bases of noninfringement. The panel thus rules that Amgen has not established a clear and indisputable right to discovery of the information it seeks.

Halo Electronics, Inc. v. Pulse Electronics, Inc., 857 F.3d 1347 (Fed. Cir. 2017)

The Circuit rules that it does not have jurisdiction to hear an appeal under either 28 U.S.C. § 1295(a)(1) or 1292(c)(2) because a prior order that had not decided remaining issues as to prejudgment interest was not a "final decision."

An April 6, 2016 order required the parties to either file a stipulation as to the amount of interest due or, if they disagreed on the calculation of interest, to brief their respective positions. The issue before the panel is whether that order was a final order. Clearly, the district court never resolved the parties' dispute regarding the date from which to begin calculating prejudgment interest or set the amount of prejudgment interest to be awarded to Halo. As a result, the panel holds that there is no final decision and the Circuit thus lacks jurisdiction under § 1295(a)(1).

For similar reasons, the panel determines that it lacks jurisdiction pursuant to § 1292(c)(2). This statute provides an exception to the finality requirement over "an appeal from a judgment in a civil action for patent infringement which would otherwise be appealable to this court and is final except for an accounting." However, the panel notes that, as an exception, § 1292(c)(2) is to be interpreted narrowly. Regardless whether prejudgment interest is part of an accounting or not, the award of prejudgment interest itself in this case is not final. The Circuit has held that § 1292(c)(2) "does not go so far as to permit us to consider a non-final order" that is related to the accounting. Thus, because the order appealed from is itself non-final, the Circuit lacks jurisdiction under § 1292(c)(2).

Standing In Appeals to the Federal Circuit

Personal Audio, LLC v. Electronic Frontier Foundation, 867 F.3d 1246 (Fed. Cir. 2017)

The Circuit affirms an IPR determination of obviousness of Personal Audio's patent directed to podcast apparatus technology in which episodes are received and controlled. In doing so, the panel confirms the ability of a public interest organization to participate in an IPR appeal as the appellee.

The opinion first deals with the issue of whether, under the Circuit's 2014 *Consumer Watchdog v. Wisconsin Alumni Research Foundation* case, EFF has standing to participate in the appeal. In that case the Circuit ruled that, while anyone has the right to file an IPR, in order to have the right to appeal an adverse determination the appellant must have standing, and a non-profit organization described as representing the public interest does not have a sufficient stake in the outcome to have standing. However, in the present appeal the party invoking judicial review is Personal Audio, that patent owner. According to the opinion: "With Article III satisfied as to the appellant, EFF is not constitutionally excluded from appearing in court to defend the PTAB decision in its favor."

The panel affirms the Board's construction of "episode" as being "a program segment, represented by one or more media files, which is part of a series of related segments, e.g., a radio show or a newscast." Personal Audio argued on appeal that this construction improperly excludes the temporal limitation that episodes in the series issue over time. However, the panel rules that the Board's construction is consistent with the specification, pointing out that the specification describes an "episode" as a "program segment" and that the specification uses news stories as examples of "program segments." The panel also affirms that, based on this broad construction, the Board's findings that both Compton/CNN and Patrick/CBC disclose "episodes" are supported by substantial evidence.

Comment: The ruling granting appellee EFF standing will be welcomed not only by public interest organizations but also by investors in competitive companies whose investments might appreciate if a blocking patent is invalidated. The most recent Circuit decision went against such organizations. Specifically, in *Phigenix v. ImmunoGen*, 845 F. 3d 1168 (Fed. Cir. 2017), the Circuit rejected the argument of a research and licensing organization that the estoppel provision in 35 U.S.C. § 315(e)(1) provides sufficient injury to support appellant standing.

Phigenix, Inc. v. ImmunoGen, Inc., 845 F.3d 1168 (Fed. Cir. 2017)

The panel rules that Phigenix has no standing to appeal its unsuccessful IPR, challenging an ImmunoGen patent even though Phigenix contends it would have additional licensing opportunities if the patent is invalidated. Phigenix is a research and licensing entity that does not manufacture any products.

According to the Circuit's 2014 *Consumer Watchdog* case involving an appeal from a reexamination proceeding, although Article III standing is not necessary to appear before an administrative agency, an appellant must nevertheless have standing if it seeks review of the agency's action in federal court. Citing the Supreme Court's recent *Spokeo* decision, the panel states that the test to determine appellate standing is that an appellant must have (1) suffered an injury in fact, (2) that is fairly traceable to the challenged conduct of the appellee, and (3) that is likely to be redressed by a favorable judicial decision.

ImmunoGen exclusively licensed its '856 patent to Genentech, which markets the breast cancer drug Kadcyla. Phigenix owns the '534 patent, which, according to Phigenix, covers Kadcyla and, thus, the subject matter claimed in the '856 patent. Phigenix asserted that it has suffered an actual injury because at least a portion of the licensing revenue that ImmunoGen receives would inure to Phigenix if the '856 patent were invalidated. The panel rules that Phigenix's declarations are not adequate because there is no allegation that Phigenix ever licensed the '534 patent to anyone, much less to entities that have obtained licenses to the '856 patent. Moreover, Phigenix is not engaged in any activity that would give rise to a possible infringement suit.

The panel also rejects Phigenix's argument that 35 U.S.C. § 141(c) gives it the right to appeal a final Board decision since Congress cannot erase Article III's standing requirements. Finally, while 35 U.S.C. § 315(e)(1) does create an estoppel, in *Consumer Watchdog* the Circuit held that a similar estoppel provision in the patent reexamination statute does not constitute an injury in fact. The panel sees no reason to depart from the holding of that case here.

Comment: This case should give pause to a party considering filing an IPR unless it is arguably infringing the patent. This might not only concern public interest organizations like Consumer Watchdog, but also investors in competitive companies whose investments might appreciate if a blocking patent is invalidated. Even a company considering entering a field has to be concerned since it may not have the right to appeal an adverse ruling, even though it would be estopped from challenging the patent in the future.

Subject Matter Appellate Jurisdiction

Preston v. Nagel, 857 F.3d 1382 (Fed. Cir. 2017)

The Circuit dismisses for lack of subject matter jurisdiction an appeal of a district court decision remanding a removed case back to state court.

A fight between former business partners resulted in a state court lawsuit filed by Preston based on state law claims. Nagel counterclaimed for declaratory judgment of noninfringement of patents assigned to the company he had owned with Preston, and removed the case under the general removal statute 28 U.S.C. § 1441 and the patent removal statute 28 U.S.C. § 1454. The district court granted Preston's motion to remand, ruling that it lacked subject matter jurisdiction because the state law claims did not arise under federal law, and Nagel's patent counterclaims did not present a justiciable case or controversy.

Nagel appealed the district court's remand. The panel first points out that under 28 U.S.C. § 1447(d), "an order remanding a case to the State court from which it was removed is not reviewable on appeal or otherwise...." Recognizing that § 1447(d) would ordinarily bar reviewability here, Nagel asks the Circuit to hold that an exception exists where defendants invoked § 1454, the patent removal statute, to remove patent claims over which federal courts have exclusive jurisdiction. In support, Nagel relies on the 2007 Supreme Court case *Osborn v. Haley* to argue that the America Invents Act (AIA) overrides § 1447(d)'s bar.

Noting that because appellate review is "scarcely" permitted, *Osborn* held that courts should review remand orders ordinarily governed by § 1447(d) only "in the extraordinary case in which Congress has ordered the intercourt shuttle to travel just one way—from state to federal court." According to Nagel, the AIA makes this case similarly "extraordinary."

Congress included several provisions in the AIA to strengthen federal courts' jurisdiction over patent claims in response to the Supreme Court's 2002 decision in *Holmes Group v. Vornado*, which held that the Federal Circuit lacked jurisdiction to hear appeals from cases "in which the complaint does not allege a claim arising under federal patent law, but the answer contains a patent-law counterclaim." These AIA provisions included the following: (1) 28 U.S.C. § 1338(a) was strengthened to clarify that state courts had no jurisdiction over "any claim for relief arising under any Act of Congress relating to patents"; (2) the Federal Circuit's exclusive jurisdiction was extended to include cases with compulsory patent counterclaims, 28 U.S.C. § 1295(a)(1); and (3) a provision was added to permit a party to remove to federal court a case in which any party asserts a patent claim, 28 U.S.C. § 1454.

Nagel argues that the "Holmes Group fix" created the one-way "intercourt shuttle" that Osborn described. According to Nagel, by depriving the state court of jurisdiction to hear patent claims (including counterclaims) and by creating a removal provision targeted at patent claims (and counterclaims), Congress created a vehicle for patent counterclaims to be heard in federal court alongside a plaintiff's state-law claims. But the panel rules that nothing in the AIA operates like the situation that resulted in the ruling in Osborn. Rather, here the district court was still required to undertake a threshold inquiry of whether complete diversity exists or whether the complaint raises a federal question. Having done so, the district court concluded that it lacked subject-matter jurisdiction because Preston's claims arose under state law and Nagel did not establish that the counterclaims satisfied the Article III case-or-controversy

requirement. Since the district court's task was that of the "typical case," the narrow exception of *Osborn* does not permit the Circuit to review the district court's remand decision.

Nagel further argued that the Circuit must be able to review the district court's remand here to avoid a problem that the Supreme Court identified as potentially "serious: the death knell of a claim subject to exclusive federal jurisdiction without federal review." But Nagel's concern rings hollow here, where, unlike in *Osborn*, Nagel has an alternative way to present his patent claims on the merits in federal court: a separate federal declaratory judgment action.

Defenses

Collateral Estoppel

Phil-Insul Corp. v. Airlite Plastics Co., 854 F.3d 1344 (Fed. Cir. 2017)

The Circuit rules that collateral estoppel precludes IntegraSpec from relitigating claim construction previously litigated in a case with another defendant even though the previously-construed claim is not the one presently being litigated.

IntegraSpec's patent is directed to insulating concrete forms that are used in building construction. In a prior case against Reward Wall involving very similar concrete forms, the district court granted summary judgment of noninfringement, which was affirmed by the Circuit under Rule 36 (without a written opinion). In the present case, Airlite successfully moved for summary judgment of noninfringement based upon collateral estoppel and the narrow claim construction rendered by the district court in *Reward Wall*.

The opinion first lays out the test for collateral estoppel under Eighth Circuit law:

(1) the party sought to be precluded must have been a party, or in privity with a party, to the original lawsuit; (2) the issue sought to be precluded must be the same; (3) the issue sought to be precluded must have been actually litigated; (4) the issue sought to be precluded must have been determined by a valid and final judgment; and (5) the determination in the prior action must have been essential to the prior judgment.

IntegraSpec argued on appeal that there was no final judgment since the appeal was decided under Rule 36 and that the determination in the prior action was not essential to the prior judgment. Specifically, IntegraSpec argued that the Circuit's 2013 *TecSec* case created a rule that a Rule 36 affirmance cannot have preclusive effect because the court could have affirmed based on any number of grounds and not only claim construction. The Circuit rejects this argument and rules that the *TecSec* holding only applies where the appellate court affirmed, without explanation, the judgment of a trial court that determined two issues, either of which could independently support the result.

In the *Reward Wall* appeal, IntegraSpec raised issues as to the construction of two terms: "adjacent" and "substantially the same dimension." The Rule 36 affirmance in *Reward Wall* necessarily meant that the Circuit found no error in either of the district court's claim constructions. Therefore, the case is easily distinguished from *TecSec*.

The panel also dismisses IntegraSpec's argument that claim 1 and not claim 2 was construed in *Reward Wall*, noting that the same disputed claim terms in this case—"adjacent" and "substantially the same dimension"—were at issue in both claims. It is well-established that claim terms are to be construed consistently throughout a patent, so the fact that a different claim is now being asserted is not relevant, as both the district court and the Circuit previously considered and rejected IntegraSpec's arguments regarding the two terms.

Laches

SCA Hygiene Products Aktiebolag v. First Quality Baby Products, 137 S. Ct. 954 (2017)

In 2003, SCA notified respondents First Quality that their adult incontinence products infringed an SCA patent. First Quality responded that its own patent antedated SCA's patent and made it invalid. In 2004, SCA sought reexamination of its patent in light of First Quality's patent, and in 2007, the PTO confirmed the SCA patent's validity. SCA sued First Quality for patent infringement in 2010. The District Court granted summary judgment to First Quality on the grounds of equitable estoppel and laches. While SCA's appeal was pending, this Court held that laches could not preclude a claim for damages incurred within the Copyright Act's 3-year limitations period. Petrella v. Metro-Goldwyn-Mayer, Inc. A Federal Circuit panel nevertheless affirmed the District Court's laches holding based on Circuit precedent, which permitted laches to be asserted against a claim for damages incurred within the Patent Act's 6-year limitations period, 35 U.S.C. §286. The en banc court reheard the case in light of Petrella and reaffirmed the original panel's laches holding.

Held: Laches cannot be invoked as a defense against a claim for damages brought within §286's 6-year limitations period.

- (a) Petrella's holding rested on both separation-of-powers principles and the traditional role of laches in equity. A statute of limitations reflects a congressional decision that timeliness is better judged by a hard and fast rule instead of a case-specific judicial determination. Applying laches within a limitations period specified by Congress would give judges a "legislation-overriding" role that exceeds the Judiciary's power. Petrella. Moreover, applying laches within a limitations period would clash with the gap-filling purpose for which the defense developed in the equity courts.
- (b) Petrella's reasoning easily fits §286. There, the Court found in the Copyright Act's language a congressional judgment that a claim filed within three years of accrual cannot be dismissed on timeliness grounds. By that same logic, §286 of the Patent Act represents Congress's judgment that a patentee may recover damages for any infringement committed within six years of the filing of the claim.

First Quality contends that this case differs from Petrellabecause a true statute of limitations runs forward from the date a cause of action accrues, whereas §286's limitations period runs backward from the filing of the complaint. However, Petrella repeatedly characterized the Copyright Act's limitations period as running backward from the date the suit was filed. First Quality also contends that a true statute of limitations begins to run when the plaintiff discovers a cause of action, which is not the case with §286's limitations period, but ordinarily, a statute of limitations begins to run on the date that the claim accrues, not when the cause of action is discovered.

- (c) The Federal Circuit based its decision on the idea that §282 of the Patent Act, which provides for "defenses in any action involving the validity or infringement of a patent," creates an exception to §286 by codifying laches as such a defense, and First Quality argues that laches is a defense within §282(b)(1) based on "unenforceability." Even assuming that §282(b)(1) incorporates a laches defense of some dimension, it does not necessarily follow that the defense may be invoked to bar a claim for damages incurred within the period set out in §286. Indeed, it would be exceedingly unusual, if not unprecedented, if Congress chose to include in the Patent Act both a statute of limitations for damages and a laches provision applicable to a damages claim. Neither the Federal Circuit, nor any party, has identified a single federal statute that provides such dual protection against untimely claims.
- (d) The Federal Circuit and First Quality rely on lower court patent cases decided before the 1952 Patent Act to argue that §282 codified a pre-1952 practice of permitting laches to be asserted against damages claims. But the most prominent feature of the relevant legal landscape at that time was the well-established rule that laches cannot be invoked to bar a claim for damages incurred within a limitations

period specified by Congress. In light of this rule, which Petrellaconfirmed and restated, nothing less than a broad and unambiguous consensus of lower court decisions could support the inference that § 282(b)(1) codifies a very different patent-law-specific rule. The Federal Circuit and First Quality rely on three types of cases: (1) pre-1938 equity cases; (2) pre-1938 claims at law; and (3) cases decided after the merger of law and equity in 1938. None of these establishes a broad, unambiguous consensus in favor of applying laches to damages claims in the patent context.

Patent Exhaustion

Impression Products, Inc. v. Lexmark International, Inc., 137 S. Ct. 1523 (May 30, 2017)

The Supreme Court reverses an en banc Federal Circuit decision and rules that a "conditional sale" that transfers title to the patented item while specifying post-sale restrictions on the article's use or resale exhausts the patentee's right to patent infringement relief. Therefore, while the patentee may retain the right to sue for breach of contract, patent exhaustion prevents the enforcement of the post-sale restrictions through the patent law's infringement remedy. The Court cites a number of its older decisions and rules that sellers cannot limit how purchasers of patented products use those products and that patent rights are exhausted by any sale, regardless of where it takes place.

A United States patent entitles the patent holder to "exclude others from making, using, offering for sale, or selling [its] invention throughout the United States or importing the invention into the United States." 35 U. S. C. §154(a). Whoever engages in one of these acts "without authority" from the patentee may face liability for patent infringement. §271(a). When a patentee sells one of its products, however, the patentee can no longer control that item through the patent laws—its patent rights are said to "exhaust."

Respondent Lexmark designs, manufactures, and sells toner cartridges to consumers in the U.S. and abroad. It owns a number of patents that cover components of those cartridges and the manner in which they are used. When Lexmark sells toner cartridges, it gives consumers two options: One option is to buy a toner cartridge at full price, with no restrictions. The other option is to buy a cartridge at a discount through Lexmark's "Return Program." In exchange for the lower price, customers who buy through the Return Program must sign a contract agreeing to use the cartridge only once and to refrain from transferring the cartridge to anyone but Lexmark.

Companies known as remanufacturers acquire empty Lexmark toner cartridges—including Return Program cartridges—from purchasers in the U.S., refill them with toner, and then resell them. They do the same with Lexmark cartridges that they acquire from purchasers overseas and import into the U.S. Lexmark sued a number of these remanufacturers, including petitioner Impression Products, Inc., for patent infringement with respect to two groups of cartridges. The first group consists of Return Program cartridges that Lexmark had sold within the U.S. Lexmark argued that, because it expressly prohibited reuse and resale of these cartridges, Impression Products infringed the Lexmark patents when it refurbished and resold them. The second group consists of all toner cartridges that Lexmark had sold abroad and that Impression Products imported into the country. Lexmark claimed that it never gave anyone authority to import these cartridges, so Impression Products infringed its patent rights by doing just that.

Impression Products moved to dismiss on the grounds that Lexmark's sales, both in the U.S. and abroad, exhausted its patent rights in the cartridges, so Impression Products was free to refurbish and resell them, and to import them if acquired overseas. The District Court granted the motion to dismiss as to the domestic Return Program cartridges, but denied the motion as to the cartridges sold abroad. The Federal Circuit then ruled for Lexmark with respect to both groups of cartridges. Beginning with the Return Program cartridges that Lexmark sold domestically, the Federal Circuit held that a patentee may sell an item and retain the right to enforce, through patent infringement lawsuits, clearly communicated, lawful restrictions on post-sale use or resale. Because Impression Products knew about Lexmark's restrictions

and those restrictions did not violate any laws, Lexmark's sales did not exhaust its patent rights, and it could sue Impression Products for infringement. As for the cartridges that Lexmark sold abroad, the Federal Circuit held that, when a patentee sells a product overseas, it does not exhaust its patent rights over that item. Lexmark was therefore free to sue for infringement when Impression Products imported cartridges that Lexmark had sold abroad. Judge Dyk, joined by Judge Hughes, dissented.

- Held: 1. Lexmark exhausted its patent rights in the Return Program cartridges that it sold in the U.S. A patentee's decision to sell a product exhausts all of its patent rights in that item, regardless of any restrictions the patentee purports to impose. As a result, even if the restrictions in Lexmark's contracts with its customers were clear and enforceable under contract law, they do not entitle Lexmark to retain patent rights in an item that it has elected to sell.
- (a) The Patent Act grants patentees the "right to exclude others from making, using, offering for sale, or selling [their] invention[s]." 35 U. S. C. §154(a). For over 160 years, the doctrine of patent exhaustion has imposed a limit on that right to exclude: When a patentee sells an item, that product "is no longer within the limits of the [patent] monopoly" and instead becomes the "private, individual property" of the purchaser. If the patentee negotiates a contract restricting the purchaser's right to use or resell the item, it may be able to enforce that restriction as a matter of contract law, but may not do so through a patent infringement lawsuit.

The exhaustion rule marks the point where patent rights yield to the common law principle against restraints on alienation. The Patent Act promotes innovation by allowing inventors to secure the financial rewards for their inventions. Once a patentee sells an item, it has secured that reward, and the patent laws provide no basis for restraining the use and enjoyment of the product. Allowing further restrictions would run afoul of the "common law's refusal to permit restraints on the alienation of chattels." *Kirtsaeng v. John Wiley & Sons, Inc.*, 568 U. S. 519, 538. As Lord Coke put it in the 17th century, if an owner restricts the resale or use of an item after selling it, that restriction "is voide, because . . . it is against Trade and Traffique, and bargaining and contracting betweene man and man." Congress enacted and has repeatedly revised the Patent Act against the backdrop of this hostility toward restraints on alienation, which is reflected in the exhaustion doctrine.

This Court accordingly has long held that, even when a patentee sells an item under an express, otherwise lawful restriction, the patentee does not retain patent rights in that product. See, e.g., *Quanta Computer, Inc. v. LG Electronics, Inc.*, 553 U. S. 617. And that well-settled line of precedent allows for only one answer in this case: Lexmark cannot bring a patent infringement suit against Impression Products with respect to the Return Program cartridges sold in the U.S. because, once Lexmark sold those cartridges, it exhausted its right to control them through the patent laws.

(b) The Federal Circuit reached a different result because it started from the premise that the exhaustion doctrine is an interpretation of the patent infringement statute, which prohibits anyone from using or selling a patented article "without authority" from the patentee. According to the Federal Circuit, exhaustion reflects a default rule that selling an item "presumptively grants 'authority' for the purchaser to use it and resell it." But if a patentee withholds some authority by expressly limiting the purchaser's rights, the patentee may enforce that restriction through patent infringement lawsuits.

The problem with the Federal Circuit's logic is that the exhaustion doctrine is not a presumption about the authority that comes along with a sale; it is a limit on the scope of the patentee's rights. The Patent Act gives patentees a limited exclusionary power, and exhaustion extinguishes that power. A purchaser has the right to use, sell, or import an item because those are the rights that come along with ownership, not because it purchased authority to engage in those practices from the patentee.

2. Lexmark also sold toner cartridges abroad, which Impression Products acquired from purchasers and imported into the U.S. Lexmark cannot sue Impression Products for infringement with respect to these cartridges. An authorized sale outside the U,S., just as one within the U.S., exhausts all rights under the Patent Act.

The question about international exhaustion of intellectual property rights has arisen in the context of copyright law. Under the first sale doctrine, when a copyright owner sells a lawfully made copy of its work, it loses the power to restrict the purchaser's right "to sell or otherwise dispose of . . . that copy." 17 U. S. C. §109(a). In *Kirtsaeng v. John Wiley & Sons, Inc.*, 568 U. S. 519, this Court held that the first sale doctrine applies to copies of works made and sold abroad. Central to that decision was the fact that the first sale doctrine has its roots in the common law principle against restraints on alienation. Because that principle makes no geographical distinctions and the text of the Copyright Act did not provide such a distinction, a straightforward application of the first sale doctrine required concluding that it applies overseas.

Applying patent exhaustion to foreign sales is just as straightforward. Patent exhaustion, too, has its roots in the antipathy toward restraints on alienation, and nothing in the Patent Act shows that Congress intended to confine that principle to domestic sales. Differentiating between the patent exhaustion and copyright first sale doctrines would also make little theoretical or practical sense: The two share a "strong similarity . . . and identity of purpose," *Bauer & Cie v. O'Donnell*, 229 U. S. 1, 13, and many everyday products are subject to both patent and copyright protections.

Lexmark contends that a foreign sale does not exhaust patent rights because the Patent Act limits a patentee's power to exclude others from making, using, selling, or importing its products to acts that occur in the United States. Because those exclusionary powers do not apply abroad, the patentee may not be able to sell its products overseas for the same price as it could in the U.S., and therefore is not sure to receive the reward guaranteed by American patent laws. Without that reward, says Lexmark, there should be no exhaustion.

The territorial limit on patent rights is no basis for distinguishing copyright protections; those do not have extraterritorial effect either. Nor does the territorial limit support Lexmark's argument. Exhaustion is a distinct limit on the patent grant, which is triggered by the patentee's decision to give a patented item up for whatever fee it decides is appropriate. The patentee may not be able to command the same amount for its products abroad as it does in the U.S. But the Patent Act does not guarantee a particular price. Instead, the Patent Act just ensures that the patentee receives one reward—of whatever it deems to be satisfactory compensation—for every item that passes outside the scope of its patent monopoly.

This Court's decision in *Boesch v. Gräff*, 133 U. S. 697, is not to the contrary. That decision did not, as Lexmark contends, exempt all foreign sales from patent exhaustion. Instead, it held that a sale abroad does not exhaust a patentee's rights when the patentee had nothing to do with the transaction. That just reaffirms the basic premise that only the patentee can decide whether to make a sale that exhausts its patent rights in an item.

Finally, the U.S. advocates what it views as a middle-ground position: that a foreign sale exhausts patent rights unless the patentee expressly reserves those rights. This express-reservation rule is based on the idea that overseas buyers expect to be able to use and resell items freely, so exhaustion should be the presumption. But, at the same time, lower courts have long allowed patentees to expressly reserve their rights, so that option should remain open to patentees. The sparse and inconsistent decisions the Government cites, however, provide no basis for any expectation, let alone a settled one, that patentees can reserve rights when they sell abroad. The theory behind the express-reservation rule also wrongly focuses on the expectations of the patentee and purchaser during a sale. More is at stake when it comes to patent exhaustion than the dealings between the parties, which can be addressed through contracts. Instead, exhaustion occurs because allowing patent rights to stick to an already-sold item as it travels through the market would violate the principle against restraints on alienation. As a result, restrictions and location are irrelevant for patent exhaustion; what matters is the patentee's decision to make a sale.

Validity

Anticipation

Homeland Housewares, LLC v. Whirlpool Corp., 865 F.3d 1372 (Fed. Cir. 2017)

A divided panel reverses an IPR decision of patentability, holding that the Board failed to construe the key term of the claims at issue, which, broadly construed, renders the patent invalid as anticipated.

The patent at issue is directed to a feature in a household blender in which the motor automatically and repeatedly slows down to permit the contents to settle between the blender blades and then speeds back up to chop the settled materials. It was admittedly well known that one using a blender could manually pulse between a high speed and a low speed to achieve a pattern of movement that introduces the entire contents of the reservoir into contact with the rotating blades. A prior art patent to Wulf acknowledges the frustrations in manually performing this process, and teaches a blender that is programmed to automatically accomplish predetermined functions and routines.

At issue is a clause of the claim reciting: "a deceleration phase, where the speed of the cutter assembly is reduced from the operating speed to a *predetermined settling speed* indicative of the items in the container having settled around the cutter assembly, which is less than the operating speed and greater than zero." The Board declined to construe "settling speed" even though the parties disagreed on its construction, and concluded that the Whirlpool patent was not anticipated by Wulf because its disclosures did not meet the "settling speed" limitation.

The majority first rules that a construction of this term is necessary to a validity determination and then rejects the constructions proposed by both parties. Instead, the majority applies the broadest reasonable interpretation to conclude that "a predetermined settling speed" is a speed that is slower than the operating speed and permits settling of the blender contents. According to the majority, this is consistent with the ordinary and customary meaning of the words of the claim, and with the specification, and represents a midpoint between the two opposing constructions.

The Board also found that because Homeland left the testimony of Whirlpool's expert witness unrebutted, it was unwilling to discount the testimony that Wulf does not anticipate. However, the majority notes that "we must disregard the testimony of an expert that is plainly inconsistent with the record, or is based on an incorrect understanding of the claims. That is the situation here, where the expert makes several incorrect statements with respect to the record, and in one respect, adds an additional claim requirement."

In her dissent, Judge Newman is critical of the majority's dismissal of the admittedly unrebutted expert testimony supportive of validity, and states that the majority's rejection of the Board's finding is based on an incorrect understanding and an unduly broad construction of the claims, an unwarranted enlargement of the references, and oversteps the Circuit's appellate role.

Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co. Ltd., 851 F.3d 1270 (Fed. Cir. 2017)

The Circuit reverses an IPR determination of anticipation as to a patent directed to a system for controlling the torque of an electromagnetic motor, ruling that the Board's decision is not supported by substantial evidence.

Motor control values can be expressed in either a stationary frame of reference (relative to the stator) or a rotating frame of reference (relative to the rotor). The Board found that a Toyota patent (Kusaka) anticipates the claim at issue. However, the panel holds that Kusaka discloses three separate phase currents in the stationary frame of reference, while the claim requires that the signals be in the rotating frame of reference. Therefore, there is no substantial evidence to support the Board's anticipation ruling.

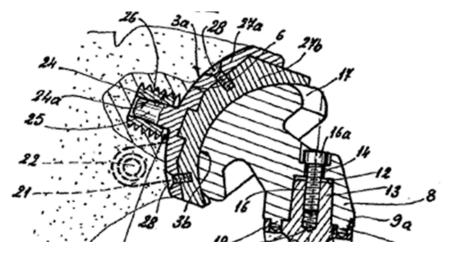
Citing the Circuit's 2015 Kennametal case, the Board held that anticipation can be found even when a prior art reference fails to disclose a claim element so long as a skilled artisan reading the reference would "at once envisage" the claimed arrangement. In Kennametal, the challenged claim required a ruthenium binding agent and a PVD coating to be used together. The prior art reference disclosed five binding agents (one of which was ruthenium) and three coating techniques (one of which was PVD). The reference never disclosed the specific combination of ruthenium and PVD, but it taught that any of the five binding agents could be used with any of the three coating techniques. The Circuit held that substantial evidence supported the Board's finding that the reference effectively taught fifteen combinations, one of which anticipated the challenged claim.

According to the panel, Kennametal does not stand for the proposition that a reference missing a limitation can anticipate a claim if a skilled artisan viewing the reference would "at once envisage" the missing limitation. Rather, Kennametal addresses whether the disclosure of a limited number of combination possibilities discloses one of the possible combinations. The relevant question was "whether the number of categories and components disclosed in the prior art reference is so large that the combination of ruthenium and PVD coatings would not be immediately apparent to one of ordinary skill in the art." Kennametal does not permit the Board to fill in missing limitations simply because a skilled artisan would immediately envision them.

In re Chudik, 851 F.3d 1365 (Fed. Cir. 2017)

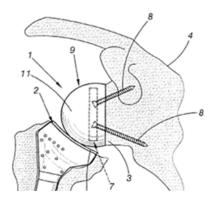
The Circuit rules that substantial evidence does not support the Board's determination that the claims at issue, directed to an implant used in rotator cuff surgery, are anticipated by two separate references. Specifically, the panel holds that prior art that must be distorted from its obvious design does not anticipate.

The surgery described in Chudik's application involves two main steps. First, the surgeon removes "a minimal amount of bone from the peripheral surface of the glenoid." Second, the surgeon places an implant in the formed cavity. The first reference (Rambert) discloses a glenoid implant with a so-called shell element 27b in contact with an anchoring element 27a, which in turn contacts the glenoid cavity 6.



Rambert's Fig. 2

The second reference (Bouttens) shows a protruding surface 11 facing away from the glenoid cavity and toward the humerus, with screws on the opposite side of the protruding surface attaching the implant to the glenoid region.



Bouttens's Fig. 1

According to the Board, claim 1 requires only that the recited surfaces be "arranged" for engagement, not that they actually do engage. As Rambert's surfaces can be arranged to engage the specified glenoid regions, claim 1 is anticipated. As for claim 40, Bouttens's surface 11 is structurally capable of engaging a glenoid cavity.

The panel disagrees, noting that the "arranged to engage" language could imply that the protruding surface on the flat side need not always actually engage the glenoid cavity surface. However, it must be at least capable of doing so. Here, Rambert's element 27b cannot be "arranged to engage" the glenoid cavity surface without "tearing the invention apart" by removing element 27a. Prior art that "must be distorted from its obvious design" does not anticipate a new invention. Therefore, substantial evidence does not support the Board's finding of anticipation of claim 1 based on Rambert.

Claim 40 requires "a protruding surface on a first side arranged to engage the surface of a cavity formed in a glenoid extending between peripheral glenoid surfaces." Mr. Chudik asks: "If the Bouttens implant's 'protruding surface' is faced about, turned 180 degrees, where does the Board propose to fasten it in a person's shoulder?" The Board's reasoning only makes sense if the user rotates Bouttens 180 degrees, thereby rendering the protruding surface 11 capable of engaging the glenoid cavity. Rotating Bouttens so that the protruding surface faces the glenoid cavity would require relocating the screws for Bouttens to remain operable. This endeavor would constitute a significant and impermissible modification.

This ruling, in combination with its ruling two weeks ago in *Nidec Motor v. Zhongshan Broad Ocean Motor*, shows that the Circuit is not reluctant to reverse Board determinations of anticipation, even under the deferential "substantial evidence to support" standard of review.

On-Sale Bar

Helsinn Healthcare v. Teva, 855 F.3d 1356 (Fed. Cir. 2017)

The Circuit reverses the district court and finds that four patents directed to a drug for reducing chemotherapy-induced nausea and vomiting are invalid as being on sale prior to the critical date, thus permitting Teva to introduce a generic substitute for Helsinn's popular Aloxi® product. In doing so, the Circuit refuses to accept the argument that the AIA changed on-sale law to require that the details of an invention be made public prior to the critical date by the addition of the language "or otherwise available to the public."

The panel first addresses whether the invention of the '724, '725, and '424 patents was subject to a sale or offer for sale prior to the critical date. Helsinn admits that the Supply and Purchase Agreement was binding as of its effective date, April 6, 2001, and that, if the FDA approved the 0.25 mg dose and/or

the 0.75 mg dose of palonosetron, the agreement obligated Helsinn to sell and MGI to purchase those products. The fact that an agreement covered one party's requirements as opposed to a specified quantity does not prevent application of the on-sale bar.

The panel also rejects Helsinn's argument that at the critical date it was uncertain whether the FDA would approve the 0.25 mg dose, pointing out that absence of FDA approval before the critical date does not prevent a sale or offer for sale from triggering the on-sale bar.

Helsinn also argues that, even if the agreement of sale for the 0.25 mg dose could be an invalidating sale, the agreement was uncertain because it covered the 0.25 mg dose, the 0.75 mg dose, and both doses. However, the panel rules that even if the agreement had given the purchaser the option of choosing between the two doses, there would still be a binding agreement.

The panel next turns to the issue of whether the AIA changed the meaning of the on-sale bar under § 102 so that there was no qualifying sale as to the '219 patent. Before the AIA, § 102(b) barred the patentability of an invention that was "patented or described in a printed publication in this or a foreign country or in public use or *on sale* in this country, more than one year prior to the date of the application for patent." By enacting the AIA, Congress amended § 102 to bar the patentability of an "invention that was patented, described in a printed publication, or in public use, on sale, *or otherwise available to the public* before the effective filing date of the claimed invention." 35 U.S.C. § 102(a)(1). Helsinn argued that the "otherwise available to the public" phrase changed the law, which now does not encompass secret sales and requires that a sale make the invention available to the public in order to trigger application of the on-sale bar.

Apart from the additional statutory language, this argument primarily relies on floor statements made by individual members of Congress that dealt more with public use, which is not now before the Circuit. The panel notes that as to offers for sale, requiring public disclosure of the details of the claimed invention as a condition of the on-sale bar "would work a foundational change in the theory of the statutory on-sale bar." It is sufficient that, if the existence of the sale is public, the details of the invention need not be publicly disclosed.

Finally, the panel addresses the issue of whether, under the Supreme Court's *Pfaff v. Wells* case, the invention was ready for patenting as of the critical date. The panel rejects the holding of the district court and the argument of Helsinn that in order for the invention to be ready for patenting, it had to meet the FDA standard, which requires finalized reports with fully analyzed results from successful Phase III trials. The panel finds that before the critical date of January 30, 2002, it was established that the patented invention would work for its intended purpose.

The Medicines Co. v. Hospira, Inc., 827 F.3d 1363 (Fed. Cir. 2016)

A unanimous en banc Circuit reverses the panel decision, ruling that two product-by-process patents directed to bivalirudin drug products used as anticoagulants to prevent blood from clotting during coronary surgery are not invalid despite an alleged on-sale bar under § 102(b). In an instructive analysis of the Supreme Court's 1998 *Pfaff v. Wells* case and other on-sale cases, the Circuit rules that in order to be an invalidating sale, title must have passed from the seller to the buyer for a price pursuant to UCC § 2-106(1). Here there was no title transfer, and this underscores that the sale was only of a third party's manufacturing services and not of the patented products.

Ben Venue Laboratories was paid by MedCo to manufacture what became MedCo's Angiomax product in order to make sure that the drug met USDA requirements. According to the opinion, for there to be a sale, the product must be commercially marketed, and that did not happen here until after the bar date. The opinion notes that it should not make a difference that the patentee contracted to have the product manufactured by a third party instead of having it manufactured in-house, which clearly would not have established a bar.

The district court had found that the patent was not invalid and that Hospira's generic version of Angiomax did not infringe. Both parties appealed, but this opinion deals only with the validity issue. MedCo had sold almost \$600 million of Angiomax in 2014, so the case is a significant one for MedCo and Pfizer, which acquired Hospira in 2015.

Applying § 102(b) in light of *Pfaff*, the Circuit concludes that the transactions between MedCo and Ben Venue in 2006 and 2007 did not constitute commercial sales of the patented product. The opinion holds that the mere sale of manufacturing services by a contract manufacturer to create embodiments of a patented product does not constitute a "commercial sale." The commercial benefit—even to both parties in a transaction—is not enough to trigger the on-sale bar of § 102(b); the transaction must be one in which the product is "on sale" in the sense that it is "commercially marketed." The invention was not commercially marketed in this case because: (1) only manufacturing services were sold to the inventor—the invention was not; (2) the inventor maintained control of the invention, as shown by the retention of title to the embodiments and the absence of any authorization to Ben Venue to sell the product to others; and (3) "stockpiling" by the purchaser of manufacturing services, standing alone, does not trigger the on-sale bar.

Comments: This ruling could prove to be quite helpful to pharmaceutical companies, which sometimes have early versions of drugs manufactured by outside suppliers. Readers will recall that on July 5 in the *Rapid v. Cellzdirect* case, the Circuit upheld a patent on medical diagnostics that had been ruled by the district court as not being directed to patentable subject matter. These recent Federal Circuit decisions are a breath of fresh air to an industry that has seen a series of negative rulings ever since the Supreme Court's broad patentable subject matter decisions in *Myriad* and *Mayo*.

In deciding that the patents were invalid under § 102(b), the panel decision also ruled that the experimental use exception does not apply here because experimental use cannot occur after a reduction to practice. The en banc opinion did not review this experimental use ruling by the panel since it held that this was not a commercial sale.

Indefiniteness

One-E-Way, Inc. v. ITC, 859 F.3d 1059 (Fed. Cir. 2017)

A divided panel reverses a determination of indefiniteness by the ITC, ruling that under *Nautilus*, the claim language, in combination with the specification and the prosecution history, informs, with reasonable certainty, those skilled in the art about the scope of the invention.

The two One-E-Way patents at issue are directed to a wireless digital audio system claiming: "a module adapted to reproduce said generated audio output, said audio having been wirelessly transmitted from said portable audio source *virtually free from interference* from device transmitted signals operating in the portable wireless digital audio system spectrum." The specification repeatedly highlights the private-listening feature of the claimed invention and makes clear that private listening is listening without interference from other users. During prosecution of the related parent patent, the applicant explained that the term "virtually free from interference" results in the ability to listen without eavesdropping.

Respondents argued that the term "virtually free from interference" did not inform one of ordinary skill as to how much interference is permitted. However, the majority concludes that, while One-E-Way did not define the scope of the term "virtually free from interference" in a technical sense, one in the art would understand that audio "free from interference" will be a bit better than audio "virtually free from interference," in the same way something "free from defects" will be a bit better than something "substantially" or "virtually free from defects." While "virtually" is a term of degree, one that slightly expands the scope of the term "free from interference," the inclusion of "virtually" in these claims does not render them indefinite.

Comment: The opinion cites to a 2015 *Apple v. Samsung* decision that upheld the validity of claims including "substantially centered" due to expert testimony based on the specification. The opinion might also have cited to the case of *Sonix Tech v. Publications Intl.*, decided by the Circuit earlier this year, where the Circuit found the specification helpful in determining the meaning of "visually negligible." There the Circuit looked to the 2014 *Enzo* decision, where the clause "not interfering substantially" was found acceptable because the intrinsic evidence provided guidance as to the scope of the claims, including examples of noninterfering structures and criteria for their selection.

The *Sonix* panel distinguished *Datamize*, where the phrase "aesthetically pleasing" was found indefinite because the specification provided no guidance as to an "aesthetically pleasing" look and feel of an interface screen. Similarly, in *Interval Licensing*, the Circuit found indefinite a claim that recited the display of content "in an unobtrusive manner that does not distract a user." The phrase was found to be a term of degree, purely subjective, with neither the claim language nor the intrinsic evidence offering an indication of the manner in which images were to be displayed to the user.

Rivera v. ITC, 857 F.3d 1315 (Fed. Cir. 2017)

The '320 patent describes as falling into two general categories: those that use "pods" (small filter packages), and those that use larger, cup-shaped filter cartridges. The patent purports to solve the problem of the incompatibility between pod-based and cartridge-based systems. The original claims were directed to a "pod adaptor assembly" or a "brewing chamber for a beverage pod." However, these claims were cancelled during prosecution in favor of broader claims reciting "a container ... adapted to hold brewing material." Rivera filed a complaint with the ITC over refillable cartridges that included an integrated mesh filter. The panel identifies the basic issue in this case as whether the patent as filed supports Rivera's claims to a "container ... adapted to hold brewing material."

Rivera argued unsuccessfully that the broad definition of "pod" in the specification provided written description support for both the species shown in the specification (with a "pod" being distinct from the cartridge), and the species represented by the accused products (with a filter integral to the cartridge). However, the panel notes that the distinction between pods and cartridges permeates the entire patent, and points out that Rivera's argument is directed to the question of enablement, and not written description. The panel clarifies "whatever a 'pod' is, the specification indicates that it is distinct from the receptacle; ... nothing in the specification shows that the 'pod' and the receptacle may be the same structure." The panel also points out that "the knowledge of ordinary artisans may be used to inform what is actually in the specification...but not to teach limitations that are not in the specification, even if those limitations would be rendered obvious by the disclosure in the specification."

Comments: When written description rejections arise during prosecution, they can often be addressed with claim amendments. However, once prosecution has concluded, a written description issue can result in a finding of invalidity. Thus, whenever claims are broadened during prosecution (especially when they are amended to cover a new embodiment or potentially infringing product), an applicant must take care to review the specification carefully for adequate support for the newly-added scope.

Cisco Systems, Inc. v. Cirrex Systems, LLC, 856 F.3d 997 (Fed. Cir. 2017)

Cisco's IPR of Cirrex's patent resulted in some of the claims being found patentable but a number of the claims being held invalid for lack of written description support. Both parties appealed and the Circuit affirms in part and reverses in part, revising the construction of some of the claims but finding all of the challenged claims invalid under section 112.

The Cirrex patent is directed to fiber optic communication signals. The parties separated the claims into three different groups: the equalization claims, the discrete attenuation claims, and the diverting element claims. All three groups contain claims that depend from claim 1, reproduced below:

1. A cross-connect waveguide system comprising:

- a planar lightguide circuit having one or more optical paths;
- a plurality of optical waveguides coupled to said planar lightguide circuit;

a *plurality of filtering devices* for feeding light energy into said optical paths of said planar lightguide circuit or receiving light energy from said optical paths of said planar lightguide circuit; and

a *diverting element* for feeding first light energy at a predetermined wavelength having first information content away from said *planar lightguide circuit*, and for feeding second light energy at said predetermined wavelength having second information content into said *planar lightguide circuit*, wherein said *diverting element* is remotely configurable and is controlled with optically encoded information.

The Circuit's 2010 en banc *Ariad v. Lilly* case states that the written description requirement provides that a patentee must clearly allow persons of ordinary skill in the art to recognize that he invented what is claimed. The level of detail required to satisfy the written description requirement varies depending on the nature and scope of the claims and on the complexity and predictability of the relevant technology. The panel agrees with Cisco that the claims are directed to subject matter that is indisputably missing from the specification, i.e., the claims "cover a mechanism for acting on individual channels of light within the planar lightguide circuit ("PLC") to discretely attenuate one of several channels" or "a mechanism for acting on individual channels of light within the PLC to make their several intensities equal." The specification does not meet the quid pro quo required by the written description requirement for the disputed claims because demultiplexing light to manipulate separately the intensities of individual wavelengths of light while the light is still inside the PLC is a technically difficult solution that the specification does not solve, let alone contemplate or suggest as a goal or desired result. Under the correct claim construction for the equalization and discrete attenuation claims, there is no substantial evidence in the record to support the Board's finding that the pertinent claims have sufficient written description support.

Substantial evidence supports the Board's finding of lack of written description support for the diverting element claims. Because the panel affirms the Board's finding of lack of written description support, it does not reach the Board's alternate grounds for unpatentability of the diverting element claims.

Sonix Tech. Co. v. Publications Int'l. Ltd., 844 F.3d 1370 (Fed. Cir. 2017)

The Circuit reverses a district court determination that the term "visually negligible" renders the asserted claims indefinite under 35 U.S.C. § 112 ¶ 2. Sonix's '845 patent describes a system for using a graphical indicator (e.g., a matrix of small dots) to encode information on the surface of an object. The surface may feature additional information as well; for example, illustrations or icons in a children's book.

Encoding information, such as bar codes, on the surface of an object is not new. The '845 patent purports to improve on conventional methods by rendering the graphical indicator "visually negligible." By way of example, the graphical indicator stores the same information as the bar code, but in a manner that does not "interfere with the other main information on the surface." In one embodiment the micro-units are dots, arranged in a matrix. The written description discloses differentiability, brightness, and homogeneity requirements for the graphical indicators being negligible to human eyes. For best results, the graphical micro-unit must be so tiny that only a microscope apparatus can detect it.

Sonix alleged that children's books using dot pattern technology produced by GeneralPlus infringed. In response, GeneralPlus and its parent company requested two separate ex parte reexaminations, but the PTO found that the claimed invention was patentable over the cited art. Appellees did not contend that the claims were indefinite until fairly late in the litigation, but the district court granted their motion for summary judgment of invalidity based on indefiniteness.

On appeal, the panel agrees with Sonix that under the *Nautilus* test, a skilled artisan would understand, with reasonable certainty, what it means for an indicator in the claimed invention to be "visually

negligible." According to the opinion, the intrinsic evidence supports, and the extrinsic evidence is consistent with, this conclusion. Moreover, until the filing of the summary judgment motion, no one, including the experts, had any difficulty determining the scope of "visually negligible."

The Circuit has rejected the proposition that claims involving terms of degree are inherently indefinite. For example, in *Enzo* the clause "not interfering substantially" was found acceptable, the Circuit reasoning that the intrinsic evidence provided guidance as to the scope of the claims, including examples of noninterfering structures and criteria for their selection. Terms of degree have been found indefinite, however, when such guidance is lacking. *Datamize* involved claims to an "aesthetically pleasing" look and feel for interface screens. Such language rendered the claim indefinite because, although the written description did detail various elements that might affect whether a screen was aesthetically pleasing, it provided no guidance to a person making aesthetic choices such that their choices will result in an "aesthetically pleasing" look and feel of an interface screen.

Similarly, in *Interval Licensing*, the Circuit found indefinite a claim that recited the display of content "in an unobtrusive manner that does not distract a user." The phrase was found to be a term of degree, purely subjective, and the claim language offered no objective indication of the manner in which content images are to be displayed to the user.

The panel agrees with the district court that the claim language itself does not unmistakably make clear the scope of "visually negligible"; however, it disagrees that the language is "purely subjective," as was the language in *Datamize* and *Interval Licensing*.

The opinion then turns to the "written description" requirement to determine whether there is some standard for measuring visual negligibility. The '845 patent contains considerably more detail than *Datamize* or *Interval Licensing*, including: (1) an exemplary design for a visually-negligible indicator; (2) requirements for the graphical indicators being negligible to humans; and (3) two specific examples of visually-negligible indicators. The panel concludes that the level of detail provided in the written description is closer to that provided in *Enzo* than it is to Datamize or *Interval Licensing*.

Written Description

Stanford University v. Chinese University of Hong Kong, 860 F.3d 1367 (Fed. Cir. 2017)

The Circuit reverses an interference ruling by the Board, noting that Stanford patents to fetal DNA testing methods were improperly determined to be invalid. Specifically, the Board had considered evidence submitted by an expert witness that was not part of the specification of the patent at issue and therefore was inappropriately considered.

This matter came before the Circuit in an appeal of a ruling in an interference proceeding filed by Chinese University, which contended that its personnel were the first inventors. This issue is, of course, a defense for pre-AIA-filed patent applications.

In its decision the panel first rejects Stanford's argument that this appeal could have been heard in district court. Specifically, the Circuit refuses to reconsider the decision it made in 2015 in its *Biogen v. Japanese Foundation* holding that the AIA abolished the right of parties to bring civil actions in district court under 35 U.S.C. § 146 in appealing decisions in interferences declared on or after September 16, 2012.

Second, the panel rejects Stanford's argument that, even if it cannot return to district court to complete the proceedings begun there, the Circuit should take into consideration the record developed in that proceeding. The panel rules that since the district court action should never have been initiated, it would be improper to consider evidence presented in that action.

Finally as to the merits, the panel rules that the Board improperly rejected Stanford's claims for lack of written description. The parties disputed whether the Board correctly determined that the '018 patent does not disclose the random massively parallel sequencing of nucleic acid sequences recited in the lateradded claims such that a person of skill in the art would have concluded that the inventors were in possession of the method claimed. The Board concluded that Chinese University's expert Dr. Gabriel supported her testimony with published references regarding targeted massively parallel sequencing, and, based on this, concluded that the '018 patent lacked sufficient written support.

The panel disagrees, holding that both Dr. Gabriel and the Board failed to cite any evidence of targeted or random sequencing on the Illumina platform prior to the filing date. Although Dr. Gabriel did point to two post-dated references, these references post-date the 2007 priority date, and the other references discuss a platform not referenced in the '018 patent.

In its remand, the panel rules that the Board may not use post-dated references as a source for "later knowledge about later art-related facts . . . which did not exist on the filing date." The Board also should examine whether a person of ordinary skill would have understood that the '018 patent's specification disclosed random MPS sequencing, as opposed to whether the specification did not preclude targeted MPS sequencing.

Cisco Systems, Inc. v. Cirrex Systems, LLC, 856 F.3d 997 (Fed. Cir. 2017)

Cisco's IPR of Cirrex's patent resulted in some of the claims being found patentable but a number of the claims being held invalid for lack of written description support. Both parties appealed and the Circuit affirms in part and reverses in part, revising the construction of some of the claims but finding all of the challenged claims invalid under section 112.

The Cirrex patent is directed to fiber optic communication signals. The parties separated the claims into three different groups: the equalization claims, the discrete attenuation claims, and the diverting element claims. All three groups contain claims that depend from claim 1, reproduced below:

- 1. A cross-connect waveguide system comprising:
- a planar lightguide circuit having one or more optical paths;
- a plurality of optical waveguides coupled to said planar lightguide circuit;
- a plurality of filtering devices for feeding light energy into said optical paths of said planar lightguide circuit or receiving light energy from said optical paths of said planar lightguide circuit; and
- a *diverting element* for feeding first light energy at a predetermined wavelength having first information content away from said *planar lightguide circuit*, and for feeding second light energy at said predetermined wavelength having second information content into said *planar lightguide circuit*, wherein said *diverting element* is remotely configurable and is controlled with optically encoded information.

The Circuit's 2010 en banc *Ariad v. Lilly* case states that the written description requirement provides that a patentee must clearly allow persons of ordinary skill in the art to recognize that he invented what is claimed. The level of detail required to satisfy the written description requirement varies depending on the nature and scope of the claims and on the complexity and predictability of the relevant technology. The panel agrees with Cisco that the claims are directed to subject matter that is indisputably missing from the specification, i.e., the claims "cover a mechanism for acting on individual channels of light within the planar lightguide circuit ("PLC") to discretely attenuate one of several channels" or "a mechanism for acting on individual channels of light within the PLC to make their several intensities equal." The specification does not meet the quid pro quo required by the written description requirement for the

disputed claims because demultiplexing light to manipulate separately the intensities of individual wavelengths of light while the light is still inside the PLC is a technically difficult solution that the specification does not solve, let alone contemplate or suggest as a goal or desired result. Under the correct claim construction for the equalization and discrete attenuation claims, there is no substantial evidence in the record to support the Board's finding that the pertinent claims have sufficient written description support.

Substantial evidence supports the Board's finding of lack of written description support for the diverting element claims. Because the panel affirms the Board's finding of lack of written description support, it does not reach the Board's alternate grounds for unpatentability of the diverting element claims.

Inventorship

Cumberland Pharm. Inc. v. Mylan Inst. LLC, 846 F.3d 1213 (Fed. Cir. 2017)

The Circuit affirms a determination by the district court that FDA personnel should not be named coinventors to a Cumberland patent covering a second generation of Acetadote®, an antidote for acetaminophen (Tylenol) overdoses. A determination that the invention was not obvious is also affirmed.

Mylan filed an ANDA, seeking to market its formulation for the drug, and Cumberland filed suit. Mylan admitted infringement but asserted invalidity on two grounds: derivation of the invention from someone at the FDA, and obviousness. According to the opinion, in order for Mylan to prevail on derivation, it had to prove, by clear and convincing evidence, a complete conception of the entire claimed invention that was communicated to Leo Pavliv, the named inventor on Cumberland's patent. The district court found that Mylan did not carry that burden.

The panel rules that the evidence supports this finding. In 2002, the FDA was considering Cumberland's application for permission to market the original EDTA-containing formulation of Acetadote®. The FDA requested justification for the inclusion of EDTA, a known stabilizer, in the product. According to the district court, this is not tantamount to suggesting that EDTA be deleted, which is part of the claimed invention, let alone replacing it with another agent, again, part of the claimed invention. Mylan argued that the request for data to support the inclusion of EDTA required Cumberland to undertake research that inevitably led it to the invention. According to the district court, and now the Circuit, that is not enough to prove derivation.

The panel also affirms the district court's rejection of Mylan's obviousness challenge. According to the opinion, a party seeking to invalidate a patent on the basis of obviousness must demonstrate that a skilled artisan would have been motivated to combine the teachings of the prior art to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success in doing so. The district court found that a skilled artisan would not have reasonably expected the claimed formulation to succeed in being stable without a stabilizer like EDTA. The panel rules that that finding is not clearly erroneous.

Obviousness

Intercontinental Great Brands v. Kellogg, 869 F.3d 1336 (Fed. Cir. 2017)

A divided panel affirms summary judgments as to obviousness and no unenforceability with respect to a patent directed to resealable food packaging. Kraft Foods Global Brands (now called Intercontinental) sued Kellogg for infringement of its '532 patent. Kellogg responded by filing a motion for summary judgment of obviousness based on prior art that had previously formed the basis of an unsuccessful ex

parte reexamination by a third party. Kellogg also contended that Kraft engaged in inequitable conduct in the reexamination, and Kraft moved for summary judgment on that issue.

The opinion provides a good discussion of *KSR*, noting that the Supreme Court ordered summary judgment after determining there was no genuine issue of material fact, and a conclusory affidavit as to obviousness did not preclude summary judgment. The panel first rejects Kraft's argument that the district court treated the objective indicia as "an afterthought." The opinion notes that the district court first concluded that Kellogg had made an extremely strong prima facie showing of obviousness, holding that no reasonable jury could conclude that a person skilled in packaging design would not be motivated to combine these features. Kraft, and Judge Reyna in his dissent, contended that the objective indicia must be evaluated before drawing a conclusion as to whether a reasonable jury would find motivation, not merely before drawing the ultimate obviousness conclusion. But, according to the majority, even with a motivation proved, the record may reveal reasons that, after all, the court should not conclude that the combination would have been obvious. One type of such additional evidence consists of evidence of objective indicia—commercial success traceable to the claimed invention, industry praise, copying, and certain other facts concerning people's actions and statements.

According to the opinion, this approach to the obviousness analysis fulfills the *KSR* requirement that the obviousness determination must be "expansive" and "flexible." It reflects an understanding of the role of "motivation" that fits the Circuit's consistent treatment of that element of the analysis as factual in nature. It also fits the Supreme Court's treatment of objective indicia as evidence to be weighed in the overall legal determination of obviousness. In his dissent, Judge Reyna argues that there should be no prima facie rule or test in the obviousness inquiry. That is, the burden of persuasion should not shift from the challenger to the patent holder after a legal determination of obviousness has already been made.

Kellogg avoided issues of fact as to the objective indicia by asking the district court to accept Kraft's assertions as to commercial success, industry praise, and copying. Therefore, the only thing left was a weighing of those indicia in order to come up with an ultimate conclusion. Kraft was critical of the fact that Kellogg did not offer expert witness testimony in support of its "common sense motivation to combine" argument, but the panel cites to other cases involving technologies and prior art that are simple enough that no expert testimony is needed.

The panel also rejects Kraft's final argument that the party challenging validity shoulders an enhanced burden if the invalidity argument relies on the same prior art considered during examination (here reexamination). The opinion concedes that, while it may be harder to meet the clear and convincing burden when the invalidity contention is based upon the same argument on the same reference that the PTO already considered, this does not mean that something more than clear and convincing evidence is required. In any event, the panel concludes that this is not a case in which what the PTO concluded makes a difference. First, the only express analysis of the most pertinent prior art (a *Machinery Update* article) was by the examiner, who rejected the claims. Second, the panel feels that the showing of obviousness is sufficiently strong that no PTO contrary determination could alter the conclusion about summary judgment.

Southwire Company v. Cerro Wire LLC, 870 F.3d 1306 (Fed. Cir. 2017)

The Circuit affirms an IPR determination of obviousness of a patent directed to a method of manufacturing electric cable in which a lubricant is incorporated into the outer sheath such that there is a reduction in pulling force required to install the cable.

Claim 1 is representative and is long and detailed, essentially claiming a method of manufacturing electrical cable in which a lubricant is applied to the material making up the outer layer of the cable during manufacture, such that the amount of force required to install the cable is reduced by at least about 30%. Cerro petitioned for IPR, after the patent had undergone two prior ex parte reexaminations in which the claims were determined to be patentable. During the IPR, Southwire sought to add claims 30-42 but the examiner concluded that all of claims 1-42 would have been obvious over various combinations of prior art.

Southwire appealed to the Board, which affirmed, explaining that "where the claimed and prior art products are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. It found that Summers's lubricants "would achieve the claimed force reduction" because Summers (in view of Dow) teaches the same method steps—namely, extruding a cable jacket formed from a plastic material containing a lubricant, such that the lubricant migrates to the surface of the jacket and lubricates the interface between the cable and any surface of the cable passageway.

On appeal, Southwire argues that, as an initial matter, the Board erred in relying on "inherency" in making its obviousness determination. The panel agrees with Southwire that the Board erred in relying on inherency in making its obviousness determination. The panel notes that the Circuit has recognized that inherency may supply a missing claim limitation in an obviousness analysis, and "the limitation at issue necessarily must be present" in order to be inherently disclosed by the reference. The Board cited no evidence that a reduction of 30% in the pulling force would necessarily result from the claimed process, which contains no steps that ensure such reduction.

However, the panel concludes that the Board's error was harmless because, although it improperly invoked inherency, it need not have. It made the necessary underlying factual findings to support an obviousness determination. It found that the claimed method simply applies the same process for the same purpose as disclosed in Summers—i.e., to reduce the pulling force on a cable for ease of installation. Those findings are supported by substantial record evidence.

Southwire also argues that the Board erred in acknowledging that Southwire's evidence shows a long-felt need, but then disregarding the evidence by finding that the prior art solved that need. The panel rejects this argument, noting that substantial evidence supports the Board's findings that Southwire's evidence lacked factual support, that its objective evidence lacked a nexus to the claimed invention, and that any long-felt need adduced from the evidence had already been met by Summers.

Vicor Corp. v. SynQor, Fed. Cir. Case 2016-2283 (August 30, 2017)

The Circuit is troubled with the Board's handling of two closely related inter partes reexaminations involving similar inventions, sharing common patentability issues, with the reexaminations being heard by the same Board panel, because the respective reexaminations contain inconsistent findings on identical issues. Accordingly the panel affirms in part and reverses in part the Board's decisions in both reexaminations.

SynQor owns several patents directed to the architecture of direct current-to-direct current (DC-DC) power converters, including the '290 and '021 patents. These and related patents had been the subject of prior litigation judgments and reexaminations involving validity, including appeals to the Circuit. In the present appeals, Vicor appeals the Board's decision in the '290 patent's reexamination holding that certain claims are patentable. SynQor appeals the Board's decision in the '021 patent's reexamination holding that certain claims in that patent are unpatentable as anticipated or obvious.

According to the panel, the Board's decision on these rejections was erroneous and must be vacated for two reasons. First, the Board improperly analyzed Vicor's obviousness arguments under only one of the four *Graham* factors when it looked exclusively at the objective evidence, without considering the remaining factors and the relative strength of the factors. Second, the Board reached inconsistent conclusions as to the evidentiary weight to be given to the secondary considerations evidence presented in the respective reexaminations of the '290 and '021 patents, without any explanation to justify such inconsistency. The Board's legal error is underscored by its opinion in the related reexamination of the '021 patent where it applied all four *Graham* factors and stated that the "Circuit has determined that only after considering the four *Graham* criteria can the decision maker make the legal determination of whether the invention is nonobvious." The Supreme Court instructed that, in performing an obviousness inquiry, "the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined."

Graham v. Deere. The Circuit has interpreted this mandate to require that "evidence relating to all four factors—including objective evidence of secondary considerations—must be considered before determining whether the claimed invention would have been obvious to one of skill in the art at the time of invention."

In Re Stepan Company, 868 F.3d 1342 (Fed. Cir. 2017)

In a split decision the Circuit vacates and remands a Board determination of obviousness of a patent application directed to herbicidal formulations containing glyphosate salt with a surfactant system.

The Board found Stepan failed to provide evidence that it would not have been routine optimization for a skilled artisan to select and adjust the claimed surfactants to achieve a cloud point above at least 70°C "since the Pallas reference teaches the surfactant component comprises any combination of surfactants" and "teaches the ideal cloud point should be above 60°C." It rejected evidence in Pallas that certain surfactant combinations failed the cloud point test at 60°C because it concluded that these failures did not involve the claimed surfactants. It found Stepan failed to establish the criticality of its claimed range of surfactants, showing neither that a 70°C cloud point was unexpectedly good nor that the prior art was silent on the connection between optimizing surfactants and cloud point. Because the Board failed to adequately articulate its reasoning, erroneously rejected relevant evidence of nonobviousness, and improperly shifted to Stepan the burden of proving patentability, the majority vacates the Board's decision that the claims would have been obvious.

Citing to its recent *Van Os* and *Arendi* decisions in which the Board found claimed inventions would have been "intuitive" or "common sense," the majority notes that the Board must provide some rational underpinning explaining why a person of ordinary skill in the art would have arrived at the claimed invention through routine optimization. Absent some additional reasoning, the Board's finding that a skilled artisan would have arrived at the claimed invention through routine optimization is insufficient to support a conclusion of obviousness.

Lastly, the majority holds that the Board erred when it shifted the burden of proving patentability to Stepan. The PTO bears the burden of establishing a prima facie case of obviousness. Only if this burden is met does the burden of coming forward with rebuttal argument or evidence shift to the applicant. In holding that Stepan had not met its burden, the Board cited case law in which the patentee claimed a range within the prior art and had to rebut a prima facie case of obviousness by showing criticality of its claimed range. This line of case law does not apply here for two reasons. First, for the reasons discussed above, the Board did not establish a prima facie case of obviousness because it failed to adequately articulate its reasoning. Second, Stepan's application does not merely claim a range of surfactants that is within or overlaps with the range of surfactant systems taught by Pallas. The claimed surfactant system contains four elements. The first three elements describe the surfactants, and their respective ranges, that comprise the surfactant system. The fourth element limits the combination of those surfactants to only those combinations that produce a cloud point above at least 70°C or no cloud point at all. It therefore may be that not all compositions that contain the claimed combination and range of surfactants fall within the claims. As an element of the composition claims, it was the PTO's—not Stepan's—burden to show that achieving a cloud point above 70°C would have been obvious to a person of ordinary skill in the art. To the extent the Board shifted the burden to Stepan to show the criticality of the cloud point element, the majority rules that the Board erred.

In his dissent, Judge Lourie agrees that the Board should have explained itself more fully, but because the bases for the obviousness rejection were readily apparent, he would affirm the Board decision since the reference "nearly anticipates the claim."

Honeywell Intl. Inc. v. Mexichem Amanco Holding, 865 F.3d 1348 (Fed. Cir. 2017)

The Circuit vacates and remands a determination of obviousness in two merged inter partes reexaminations involving patents directed to fluids used in air conditioning systems.

The Board affirmed the Examiner's rejection of many of the claims of the '366 patent as obvious. On appeal, Honeywell argues that the Board erred in (1) finding a motivation to combine the references with a reasonable expectation of success, (2) rejecting Honeywell's objective evidence, and (3) relying on a new ground of rejection when it relied on Omure, without giving Honeywell notice and opportunity to respond.

The panel first concludes that the Board committed legal error by improperly relying on inherency to find obviousness and in its analysis of motivation to combine the references. Early in its analysis, the Board rejected Honeywell's argument concerning unexpected results and its argument that the unpredictability of the art weighs against finding a motivation to combine the references with a reasonable expectation of success. Yet, when the Examiner used similar reasoning in responding to Honeywell's evidence of secondary considerations, the Board rejected that reasoning, acknowledging that inherent properties must be considered if they demonstrate unexpected and nonobvious results.

The panel notes that the use of inherency in the context of obviousness must be carefully circumscribed because "that which may be inherent is not necessarily known" and that which is unknown cannot be obvious. Thus, in dismissing properties of the claimed invention as merely inherent, without further consideration as to unpredictability and unexpectedness, the panel finds that the Board erred as a matter of law

The panel also holds that the Board erred in dismissing Honeywell's evidence of unpredictability in the art when it stated that one of ordinary skill would no more have expected failure than success in combining the references. The Board made what amounts to a finding that one of ordinary skill would not have had a reasonable expectation of success in combining HFO-1234yf with PAG lubricants, but then seemed to make a burden-shifting argument that Honeywell did not persuasively establish that one of ordinary skill would have expected failure. The Board rejected Honeywell's evidence, concluding that, because there would have been no reasonable expectation of success, one of ordinary skill would have arrived at the claimed combination by mere routine testing.

The opinion notes that the Board made what amounts to a finding that one of ordinary skill would not have expected success, because Honeywell's evidence persuasively established the "overall unpredictability" in the art, but then glossed over that finding with a "routine testing" rationale because Honeywell did not persuasively prove an expectation of failure. That is reverse reasoning. Unpredictability of results equates more with nonobviousness rather than obviousness, whereas that which is predictable is more likely to be obvious. Thus, reasoning that one would no more have expected failure than success is not a valid ground for holding an invention to have been obvious. Even when presenting evidence of unexpected results to "rebut" an Examiner's prima facie case for obviousness, a patent owner need not demonstrate that one of ordinary skill would have expected failure—rather, the patent owner need only establish that the results would have been unexpected to one of ordinary skill at the time of invention, or "much greater than would have been predicted."

With Judge Wallach dissenting, a majority of the panel rules that the Board violated the Administrative Procedure Act by relying on a new ground of rejection when it raised a patent to Omure as a basis for dismissing Honeywell's evidence of unexpected results. The Board need not "recite and agree with the examiner's rejection *in haec verba*" to avoid issuing a new ground of rejection, when the Board "relies on new facts and rationales not previously raised to the applicant by the examiner."

Here, during its analysis of Honeywell's evidence of secondary considerations, the Board expressly stated that it disagreed with the Examiner's treatment of that evidence. Accordingly, the Board rejected the Examiner's conclusions regarding the evidence of unexpected results and instead relied on Omure to find the evidence unpersuasive. As in prior cases where the Circuit has found a new ground of rejection, the Board's findings regarding Omure here were completely new and the Board did more than merely elaborate on the examiner's findings with more detail.

Soft Gel Technologies, Inc. v. Jarrow Formulas, Inc., 864 F.3d 1334 (Fed. Cir. 2017)

The Circuit affirms inter partes reexamination rejections of patent claims directed to formulations of soft gel capsules. CoQ10 is a compound that is required for the biological activity of certain proteins, affecting the function of almost all cells in the body, making it essential for the health of all human tissues and organs. In clinical trials, CoQ10 has been shown to be effective in regulating blood pressure and cholesterol levels, and thwarting cancer and other diseases. Although CoQ10 is synthesized by the body, the body may require more than it can synthesize or obtain through normal dietary intake. Oral supplementation can compensate for a CoQ10 deficiency, but CoQ10 is not very soluble in hydrophilic solvents such as water. At the time of the inventions most solvents used to administer CoQ10 in liquid form could dissolve, at most, only about 5 to 10 percent of the CoQ10, so CoQ10 was generally administered in solid form. The claims of the Soft Gel patents focus on solutions of CoQ10 and a monoterpene called limonene. Limonene is a compound that can have one of two different three dimensional physical structures, labeled d-limonene and l-limonene.

The examiner rejected various claims of the three patents at issue. On appeal, the Board considered five references. The first, a published patent application to Motoyama, claims an oral formulation containing CoQ10 dissolved in an oil. The next two references have overlapping disclosures; the first is a patent to Khan, and the second is a dissertation by Nazzal on which that patent is based. Both references note the poor solubility of CoQ10 in aqueous solvents such as water, and both posit that solvents such as lipids or oils could be used instead. The fourth reference was *Fenaroli's Handbook of Flavor Ingredients*, which notes that lemon essential oil has many different components, but "contains approximately 90% limonene (by weight)." The fifth reference is a monograph published by the World Health Organization's International Agency for Research on Cancer ("IARC"), which states that limonene is the most frequently occurring natural monoterpene. The monograph further explains that limonene occurs naturally in the dand I- forms, and that "the d form comprises 98-100% of the limonene in most citrus oils."

On appeal, Soft Gel challenges as erroneous the Board's factual findings (1) that d-limonene is the main constituent of lemon oil, (2) that Khan does not teach away from dissolving CoQ10 in lemon oil, and (3) that a person of ordinary skill would have had a reasonable expectation of success regarding the combination.

The panel rejects Soft Gel's first argument, noting that the IARC and Fenaroli references together show that lemon oil consists of approximately 88 to 90 percent d-limonene by weight. Soft Gel's "teaching away" argument is also thrown out because, according to the panel, Khan merely notes the difficulty of dissolving CoQ10 in many solvents other than essential oils such as lemon oil. Kahn goes on to teach the use of essential oils to make CoQ10 more available to the body, which is precisely what is claimed in Soft Gel's patents. Therefore, Kahn clearly does not teach away from the use of lemon oils.

Soft Gel further contends that a person of ordinary skill in the art would not have had a reasonable expectation of success in combining the references to use d-limonene in Motoyama's invention. Soft Gel points out that Motoyama, Nazzal, and Khan do not expressly mention d-limonene. But Soft Gel ignores the finding that the main constituent of lemon oil, as used in Nazzal and Khan, is d-limonene. Moreover, after describing the same formulation that is disclosed in Khan, Nazzal recommends further study of the nature of the interaction that exists between CoQ10 and essential oils and, more specifically, the "chemical components of essential oils, such as limonene, menthone, and carvone." Those recommendations for future research show that a person of skill in the art would have recognized—and at least Nazzal did recognize—that the monoterpenes limonene and carvone are of interest in the essential oil-CoQ10 mixtures.

Finally, according to Soft Gel, the reason Dr. Khan conducted follow up research was because it must not have been obvious that the lemon oil results in his earlier experiments were attributable to d-limonene. In making that argument, Soft Gel applies an incorrect legal standard for obviousness, requiring "absolute predictability" rather than "a reasonable expectation of success." Dr. Khan may have had just that expectation in conducting his subsequent research, in which he investigated whether d-limonene was responsible for the lemon oil-CoQ10 results. As the Board correctly noted, simply because Dr. Khan later undertook a study to evaluate limonenes in a particular drug delivery system does not mean that it would

not have been obvious that limonenes would have worked to some extent. Follow up studies are frequently conducted to confirm what is suspected to be true.

Millennium Pharmaceuticals, Inc. v. Sandoz Inc., 862 F.3d 1356 (Fed. Cir. 2017)

A district court finding of obviousness is reversed as to a Millennium patent covering its blockbuster cancer drug Velcade® in consolidated patent appeals involving Sandoz, Apotex and Teva. As stated by the panel, the issue on appeal is whether a person of ordinary skill, seeking to remedy the known instability and to produce an efficacious formulation of bortezomib, would obviously produce the D-mannitol ester of bortezomib, a previously unknown compound.

It is not disputed that Velcade provided unexpected properties, solving the problems that accompanied bortezomib. Sandoz argues that lyophilization was generally known in formulating pharmaceutical products. It states that bulking agents were known for use in lyophilization, and that mannitol was a known bulking agent. However, the panel concludes that the prior art does not teach or suggest that lyophilization of bortezomib in the presence of mannitol would produce a chemical reaction and form a new chemical compound, or provide a reason to make this specific new chemical compound, or that this new compound would solve the previously intractable problems of bortezomib formulation.

The district court also clearly erred in its determination that lyophilizing bortezomib with mannitol to form an ester was a "suitable option from which the prior art did not teach away." Millennium offered persuasive evidence that the chemical modification of bortezomib would have been unattractive to a person of ordinary skill for fear of disturbing the chemical properties whereby bortezomib functions effectively as an anti-cancer agent; in particular, a person of ordinary skill would have noted that the ester blocks a portion of the bortezomib molecule. Dr. Adams, the principal inventor in an expiring Millennium patent also covering Velcade testified that he was surprised when he learned that such a multiplicity of mannitol esters did not form with bortezomib.

The district court also clearly erred in its consideration of inherency. Millennium conceded that the ester is the "natural result" of freeze-drying bortezomib with mannitol. However, the inventor's own path itself never leads to a conclusion of obviousness; that is hindsight. What matters is the path that the person of ordinary skill in the art would have followed, as evidenced by the pertinent prior art.

Sandoz argues that although lyophilization in the presence of mannitol produced an unexpected result, the result was "inevitable" and thus "inherent," and thus not "inventive." However, invention is not a matter of what the inventor intended when the experiment was performed; obviousness is measured objectively in light of the prior art, as viewed by a person of ordinary skill in the field of the invention. No expert testified that they foresaw, or expected, or would have intended, the reaction between bortezomib and mannitol, or that the resulting ester would have the long-sought properties and advantages.

The panel also finds that the court erred in its examination of the objective indicia of unexpected results and long-felt need. Millennium presented expert testimony that the lyophilized mannitol ester of bortezomib yielded unexpected results as compared to bortezomib, viz., greatly improved stability, solubility, and dissolution. Although Sandoz now argues that the bortezomib glycerol ester is "generically" encompassed by the Adams Patent, glycerol ester is not specifically disclosed in the Adams Patent or elsewhere. The panel therefore concludes that the district court should have acknowledged the unrebutted evidence that the D-mannitol ester of bortezomib exhibited unexpected results compared with bortezomib, including unexpectedly superior stability, solubility, and dissolution.

The existence of a long-felt but unsolved need that is met by the claimed invention is further objective evidence of non-obviousness. The district court clearly erred in attributing Velcade's commercial success to bortezomib alone, as bortezomib is not a viable commercial product and had been denied FDA approval because of its instability. The D-mannitol ester was responsible for Velcade's successful results, for the D-mannitol ester is necessary to provide the required solubility and stability.

Apotex, Teva, and Millennium agreed that, since the judgment in the Sandoz case is reversed, the dismissal of the litigation between Millennium and Apotex and Teva should be vacated and remanded so that Apotex and Teva have an opportunity to present their case

Comment: It is rare to see an obviousness case discuss inherency, hindsight, teaching away, unexpected result and long-felt need, but this case has it all. The conclusion reached by the panel appeared preordained when the panel stated the issue on appeal to be "whether a person of ordinary skill, seeking to remedy the known instability and to produce an efficacious formulation of bortezomib, would obviously produce the D-mannitol ester of bortezomib, a previously unknown compound."

Outdry v. Geox, 859 F.3d 1364 (Fed. Cir. 2017)

The Circuit affirms a Board holding that claims of Outdry's patent directed to methods for waterproofing leather would have been obvious, ruling that the Board sufficiently articulated why a person of ordinary skill in waterproofing leather would be motivated to combine the prior art. Also, the motivation supported by the record and found by the Board need not, according to the opinion, be the same motivation articulated in the patent for making the claimed combination. Finally, the panel agrees with the Board as to the broadest reasonable interpretation of "directly pressing," and holds that the preamble clause "process for waterproofing leather" is not a separate limitation.

Regarding claim construction of the term "directly pressing," the Circuit agrees with Geox that the specification does not suggest that the process must form a uniform, sealed sheet of waterproof leather because the specification does not disclose a required degree of contact between the membrane and the leather in the regions that are between dots of adhesive.

As to the preamble phrase "process for waterproofing leather," the panel rules that this is not a separate limitation that must be disclosed in the prior art in order to support the Board's obviousness determination. According to the opinion, satisfaction of the claimed steps in the body of the claim necessarily results in satisfying a "process for waterproofing leather."

Comment: In its opinion the panel attempted to distinguish many other Circuit decisions in the past year that the Circuit has remanded based on the Board failing to follow *KSR*'s admonition that the basis for the motivation to combine must be explained. See *In re Van Os*, 844 F.3d 1359 (Fed. Cir. 2017); *Rovalma v. Bohler-Edelstahl*, Fed. Cir. Case 2016-2233 (May 11, 2017); *PersonalWeb Tech. v. Apple*, 848 F.3d 987 (Fed. Cir. 2017); *Icon Health & Fitness v. Strava*, 849 F.3d 1034 (Fed. Cir. 2017); *In re NuVasive*, 842 F.3d 1376 (Fed. Cir. 2016); *Apple v. Samsung*, 839 F.3d 1034 (Fed. Cir. 2016) (en banc).and *In re Warsaw Orthopedic*, 832 F.3d 1327 (Fed. Cir. 2016).

Novartis v. Noven, 853 F.3d 1289 (Fed. Cir. 2017)

The panel affirms a determination of obviousness in IPR decisions relating to two Novartis patents directed to a pharmaceutical used in the treatment of Alzheimer's, even though the patents were previously found by the District of Delaware not to be invalid. This was based on there being additional evidence of obviousness submitted during the IPRs, and the fact that the preponderance of evidence burden of proof in the PTO is not nearly as exacting as the clear and convincing evidence standard in court.

In contending that the PTO erred in reaching a decision that is contrary to that reached by the Delaware District Court and the Federal Circuit, Novartis relies on a single sentence from the Circuit's 2012 *Baxter International* decision. There, the Circuit stated that the PTO "ideally should not arrive at a different conclusion" if it faces the same evidence and argument as a district court. Novartis treats "ideally" in that passage as a mandate. However, the context in which that passage appears demonstrates that the Circuit used "ideally" to connote aspiration and, in fact, recognized that Congress has provided a separate review mechanism before the PTO with its own standards. The panel refuses to "imbue *Baxter* with a meaning that the decision itself does not support."

Moreover, the record here differed from that in the prior litigation, because Noven has presented additional prior art and declaratory evidence that was not before the Delaware court. Nevertheless, even if the record were the same, Novartis's argument would fail as a matter of law because a petitioner in an IPR proves unpatentability by a preponderance of the evidence (see 35 U.S.C. § 316(e)) rather than by clear and convincing evidence as in district court litigation. This means that the PTAB properly may reach a different conclusion based on the same evidence. That position comports with the 2016 case of *Cuozzo Speed Techs v. Lee*, in which the Supreme Court held that a district court may find a patent claim to be valid, and the PTO may later cancel that claim in its own review. The opinion concludes its analysis by finding that substantial evidence supports the Board's determination of the teachings of the prior art and a motivation to combine. Novartis asks the panel to reweigh the evidence and give greater weight to its expert testimony, but the Circuit refuses to reweigh evidence presented to the PTO.

Comment: Note that the panel did not get into a discussion as to the finality of the district court decision as it did in *Fresenius USA, Inc. v. Baxter Int'l, Inc.*, 721 F.3d 1330 (Fed. Cir. 2013) and *ePlus, Inc.v. Lawson Software*, 760 F.3d 1350 (Fed. Cir. 2014). The panel must have felt that the intervening *Cuozzo* decision rendered that discussion unnecessary.

Michael Meiresonne v. Google, Inc., 849 F.3d 1379 (Fed. Cir. 2017)

Based primarily on a prior art book *World Wide Web Searching for Dummies*, the Circuit affirms a PTAB determination of obviousness of patent claims directed to searching the Internet.

In response to an accusation of infringement, Google filed an IPR, which the Board instituted based on the obviousness of all four of the challenged claims. In its final ruling the PTAB found the claims obvious based on the combined teachings of the *Dummies* book by Hill and a patent to Finseth. It found that Hill disclosed all of the limitations of the claims except for the "rollover viewing area" limitation, which it found disclosed by Finseth.

The issue before the panel was whether Hill and Finseth teach away from the claimed invention, which combines descriptive text with a rollover viewing area. Meiresonne argued that Hill and Finseth teach away because both references disparage the use of descriptive text. He argued that Finseth's solution to the "cursory, if not cryptic" descriptive text was abandoning and replacing textual descriptions with graphical previews. He also noted that Hill describes the abstract text as "gibberish" and advocates "visiting the actual site" instead of reading an unreliable abstract.

However, the panel holds that substantial evidence supports the Board's fact finding that the prior art does not teach away from the claimed combination. Although Finseth teaches graphical previews in a rollover window, it never implies that text and graphics are mutually exclusive or advocates abandoning text descriptions altogether. The panel concludes that the disparaging remarks in Finseth such as "often cursory, if not cryptic" do not automatically convert the reference to one that teaches away from combining text descriptions with a rollover window. This description implies only that text descriptions may be incomplete or insufficient to fully understand the content. Nor does Hill's description of website abstracts as "sometimes as informative as a paragraph of gibberish" amount to promoting abandonment of text descriptions.

The opinion distinguishes this case from a prior "teaching away" case, *DePuy Spine*, where the prior art taught that the addition of a rigid screw to the prior art spinal assembly would eliminate or reduce the device's desired "shock absorber" effect, thereby rendering the device inoperative for its intended purpose. The prior art depicted a "causal relationship between rigidity and screw failure," which supported the finding that it taught away from using rigid screws. Here, neither Hill nor Finseth indicates that inclusion of descriptive text would detract in any way from Finseth's goal of using a rollover viewing area to peruse data "much faster" than previous methods and "determining which web pages would be of most interest to the user."

Los Angeles Biomedical Research Institute v. Eli Lilly and Company, 849 F.3d 1049 (Fed. Cir. 2017)

In a split decision, the Circuit vacates and remands a determination by the PTAB that all of the claims of a patent asserted against Lilly's Cialis erectile dysfunction product are invalid as obvious. In dissent, Judge Newman says she would affirm the decision but because the majority disagrees, it should simply reverse the Board rather than remand the case since the record is fully developed, and a time-consuming remand will defeat the AlA's goal of a prompt determination of validity issues.

The majority first determines that the patent is not entitled to the earlier filing date of a provisional patent application. For a patent to be entitled to an earlier priority date, each previous application in the chain must comply with the written description requirement of § 112(a). It is not enough that a disclosure in a parent application merely renders the later-claimed invention obvious; the disclosure must describe the claimed invention with all its limitations. The provisional application does not explicitly disclose a dosage of "up to 1.5 mg/kg/day," so it does not provide an effective filing date.

Claim 1, the only independent claim, recites: A method comprising:

a) administering a cyclic guanosine 3', 5'-monophosphate (cGMP) type 5 phos-phodiesterase (PDE5) inhibitor according to a continuous long-term regimen to an individual with at least one of a penile tunical fibrosis and corporal tissue fibrosis; and

b) arresting or regressing the at least one of the penile tunical fibrosis and corporal tissue fibrosis, wherein the PDE-5 inhibitor is administered at a dosage up to 1.5 mg/kg/day for not less than 45 days.

The panel rules that the broadest reasonable interpretation of the phrase "an individual with at least one of penile tunical fibrosis and corporal tissue fibrosis" is its plain meaning. The Board's construction ("an individual having symptoms that may be associated with penile fibrosis, such as erectile dysfunction, but not that the patient be specifically diagnosed as having penile tunical fibrosis or corporal tissue fibrosis") reads that limitation out of the claim. Because erectile dysfunction is merely a symptom that may be, but is not necessarily, associated with penile fibrosis, erectile dysfunction cannot be equated with tunical fibrosis and corporal tissue fibrosis. In addition to plain meaning, there is no support in either the specification, the prosecution history or the expert witness testimony for the Board's construction.

The panel also disagrees with the Board's conclusion that the phrase "arresting or regressing the at least one of a penile tunical fibrosis and corporal tissue fibrosis" should have no limiting role, but merely stating the intended result of administering a PDE5 inhibitor at a dosage of up to 1.5 mg/kg/day for at least 45 days. While not dispositive, it is significant that the phrase "arresting or regressing the penile fibrosis" is drafted as part of a separate step of the method, not as the preamble or introduction to a process carried out by the administration of the drug. The wherein clause sets forth the minimum duration supported by the disclosure (45 days) for the arrest or regression of fibrosis at a high dosage of the PDE-5 inhibitor. But the reference to a minimum duration period of 45 days says nothing about the efficacy of the method if a lower dosage of PDE5 inhibitor is administered. The majority therefore concludes that "arresting or regressing" the fibrosis adds an efficacy requirement that is not otherwise found in the claim.

The majority agrees with LAB that the Board's findings are insufficient to establish obviousness under the correct construction of the phrases at issue. The Board held that the references rendered obvious the treatment of erectile dysfunction via the claimed method, but it did not determine whether those references showed that it would have been obvious to use long-term continuous treatment with a PDE5 inhibitor to treat individuals with penile fibrosis and to achieve the arrest or regression of that condition. Specifically, the Board found that Montorsi and Whitaker taught the treatment of erectile dysfunction, and that the combination of Montorsi, Whitaker, and Porst gave rise to a reasonable expectation of success in treating erectile dysfunction. What the Board did not do, however, was to find that those references taught treating a patient with penile tunical fibrosis or corporal tissue fibrosis. Nor did the Board find that those references provided the basis for a reasonable expectation of success in treating those conditions. As indicated above, the correct construction of the pertinent claim language requires more than simply treating erectile dysfunction.

In a separate opinion, the Circuit affirms the Board's determination that there is no anticipation. According to the opinion: To anticipate, a reference must do more than "suggest" the claimed subject matter. Thus, the panel holds that substantial evidence supports the Board's finding that the reference does not disclose the claimed treatment regimen with sufficient clarity to satisfy "the demanding standard for anticipation."

In re Ethicon, Inc., 844 F.3d 1344 (Fed. Cir. 2017)

A divided panel affirms an IPR determination of obviousness involving a patent directed to Ethicon's drugeluting stents. The patent teaches that stent coatings delivering drugs locally can reduce restenosis that sometimes happens following angioplasty. Ethicon sued Boston Scientific and Abbott Labs, both of whom then filed petitions for IPR. The IPRs were instituted and merged. The Board rejected all of the claims based on prior art to Tuch, Tu and Lo, dismissing Ethicon's objective evidence of nonobviousness.

Tuch teaches that the polymer must be biocompatible, explaining that coating overlayers made with materials that have little elasticity can sustain significant cracking during stent deformation and that such cracking can result in more rapid elution of drugs. Tu and Lo teach using an 85:15 weight ratio of VDF:HFP. According to the majority, these teachings satisfy all of the limitations of the claims and support the Board's combination of the three references.

Ethicon contends first that Tuch never suggests that the elasticity of the polymer itself is an important characteristic, and asserts that it teaches away from using non-bioabsorbable coatings such as VDF:HFP by recommending bioabsorbable polymers. Second, Ethicon asserts that Tu is directed to medical devices other than stents and teaches away from allowing an elastomeric polymer such as VDF:HFP to be in contact with blood. Third, Ethicon argues that Lo is decades-old, nonanalogous art that provides no motivation to combine its teachings with medical devices. Finally, Ethicon asserts that Lo is directed to coatings for harsh, industrial applications, not implantable medical devices.

The majority rules that substantial evidence supports the challenged findings. Ethicon ignores the similar properties shared by coatings suitable for the devices disclosed by Tu and Ethicon's patent, and ignores embodiments in Tu that teach that the blood contacting layer can comprise VDF:HFP. Lo's age is irrelevant absent a showing of long-felt need or the failure of others. Ethicon also ignores that Lo discloses properties of VDF:HFP that would have been relevant to a skilled artisan considering a coating on a stent.

As to secondary considerations Ethicon relied solely on its expert's conclusory testimony to support its copying allegations. Regarding unexpected results, Ethicon's expert never even opined that the results pointed to would have been unexpected to a person of ordinary skill. Substantial evidence supports the Board's finding that the evidence of commercial success, industry praise, and unexpected results did not establish this was due to the 85:15 VDF:HFP coating, rather than to an unclaimed feature such as the drug or stent design.

Judge Newman dissents, arguing that the references recite thousands of polymer and copolymer components for stent coating materials, but not the copolymer of Ethicon's patent, although this copolymer was known for other uses. According to Judge Newman, there is no suggestion of its use as a drug-eluting coating in a vascular stent, nor were its advantages foreseen.

In re Marcel Van Os, 844 F.3d 1359 (Fed. Cir. 2017)

The Circuit vacates and remands a Board decision that affirmed an examiner's rejection of Apple's '470 application based upon obviousness because the Board failed to explain its reasoning, other than to say the invention was "intuitive." The application is directed to a user interface including a "first user touch" to open an application, a longer "second user touch" to initiate the interface reconfiguration mode, and a "subsequent user movement" to move an icon. The Board affirmed the rejection of some claims of the '470 application as being obvious in view of Hawkins and Gillespie. Hawkins discloses a personal

communication device with a touch-sensitive screen in which a user can rearrange buttons by dragging a button from one location to another location. Gillespie discloses a computer interface that allows icons to be removed or rearranged when placed in an activated state. Gillespie also teaches that an individual icon could be "activated" by touching the icon with multiple fingers, with rapid double taps, hovering the finger over an icon without touching the touch screen, or holding the finger on an icon for a sustained duration.

The examiner determined that Hawkins discloses each limitation of the rejected claims except an interface reconfiguration mode that is initiated by a user touch having a longer duration than a user touch of a first duration used to initiate an application. The examiner relied on Gillespie's disclosure of a sustained touch and reasoned that adding this feature to Hawkins "would be an intuitive way for users of Hawkins' device to enter into the editing mode." The Board sustained the examiner's rejection, holding that the combination of Gillespie with Hawkins would have been "intuitive."

The panel holds that the Board erred in affirming the examiner's rejection because neither the Board nor the examiner provided any reasoning or analysis to support the finding of a motivation to add Gillespie's disclosure to Hawkins beyond stating it would have been intuitive. The Circuit vacates and remands for further proceedings because the Board's decision was "potentially lawful but insufficiently or inappropriately explained." Judge Newman writes separately in concurrence, agreeing with the majority's holding that the Board's rationale was insufficient to warrant an obviousness rejection. However, she dissents as to the remedy, arguing that the appropriate remedy should have been to instruct the Board to allow the application because the Board failed to meet its statutory burden.

Comment: This is the third Circuit decision in the recent past in which the Circuit has instructed the Board that it requires a full explanation of the reasons for a determination of obviousness. See *In re NuVasive*, *Inc.*, Case No. 2015-1670 (Dec. 7, 2016) and *In re Warsaw Orthopedic*, *Inc.*, 832 F.3d 1327 (Fed. Cir. 2016). Hopefully the Board will get it this time and these expensive and time consuming remands will no longer be necessary.

Arendi S.A.R.L. v. Apple Inc., 832 F.3d 1355 (Fed. Cir. 2016)

The Circuit reverses an IPR determination of obviousness because the Board misapplied Circuit law on the use of common sense in an obviousness analysis. The litigation had been stayed pending IPR so defendants Apple, Google and Motorola Mobility will have to return to the district court for resolution of infringement and possible remedies.

The patent at issue is directed to a computer application designed to recognize specific words or data. The Board determined that the Pandit reference discloses each limitation of claim 1 except for performing a search for duplicate telephone numbers, names and addresses. However, the Board found it reasonable to presume, as a matter of common sense and common knowledge at the time of the invention, that Pandit would search for duplicate telephone numbers and, upon locating a duplicate entry, would display the name and/or address associated with the telephone number.

The panel notes that common sense has its proper place in the obviousness inquiry, but that there are caveats. First, common sense is typically invoked to provide a known motivation to combine, not to supply a missing claim limitation. Second, the limitation in question should be simple and the technology straightforward. Third, references to "common sense" cannot be used as a wholesale substitute for reasoned analysis and evidentiary support. The panel thus frames the issue as whether the Board accepted a conclusory assertion about general knowledge in the art without evidence on the record, particularly where it is an important limitation that is not indisputably within the common knowledge of those in the art.

The panel concludes that the Board's presumption that adding a search for phone numbers to Pandit would be "common sense" was conclusory and unsupported by substantial evidence. Also, the missing limitation is not a "peripheral" one, and there is nothing in the record to support the Board's conclusion that supplying the missing limitation would be obvious to one of skill in the art.

Allied Erecting & Dismantling Co. v. Genesis Attachments, LLC, 825 F.3d 1373 (Fed. Cir. 2016)

The panel affirms the IPR invalidation of claims directed to a universal attachment for mounting a variety of construction and demolition tools that can easily and quickly convert between different tools. Allied argued that two prior art pieces of equipment disclosed in patents to Caterpillar and Ogawa could not be physically combined in the manner proposed by the Board. However, the panel rules that the test is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference, but rather whether a skilled artisan would have been motivated to combine the teachings to achieve the claimed invention.

Allied also argued that Caterpillar teaches away from Ogawa because in Ogawa the main pivot pin functions as *both* the pivot point for the jaws and the means for attaching the jaws to the frame. According to Allied, because Ogawa encourages one in the art to do exactly what Caterpillar says they should not do—have the main pivot pin for both jaws also mount the jaws to the frame—Caterpillar teaches away from the combination with Ogawa. However, the panel rules that the disadvantage underscored by Caterpillar does not militate against finding the combination proper. Caterpillar expresses doubt as to whether an *optimal* design feature may have the main pivot pin for both jaws also mount the jaws to the frame in order to effect the quick change functionality. There is no teaching away from the combination of Caterpillar and Ogawa because the combination does not utilize the pivot pin attachment mechanism of Ogawa. There is no teaching away in Caterpillar from using the Ogawa feature of two movable jaws.

In any event, the PTAB grounded its modification of Caterpillar on Ogawa's teaching of two movable blades and wide range of angular movement. Thus, Ogawa's disclosure of the need for two separate cylinders is extraneous to the PTAB's decision. According to the PTAB, the claims of the '489 patent would have been obvious whether only a single or two cylinders are used.

Prior Invention

NFC v. Matal, 2017 U.S. App. LEXIS 18164 (Fed. Cir. 2017)

The panel reverses and remands an IPR decision in which the Board found claims obvious despite NFC's argument that it had created a prototype embodying the invention before the priority date of the cited prior art. The panel determines that third party work on the prototype inured to NFC's benefit, but remands for the Board to determine whether NFC presented evidence sufficient that the prototype embodied the claimed invention.

The patent at issue is directed to devices using electromagnetic induction to communicate information over short distances. NFC's '551 patent claims a priority date of March 25, 1999, the filing date of its French patent application. HTC petitioned for IPR based on a patent to Sears, which bears a filing date of February 8, 1999. NFC responded that Bruno Charrat, the named inventor in the '551 patent, and his team at Inside Technologies reduced the invention to practice on or before November 1998. NFC's general theory of the case was that Charrat had conceived the invention by June 1998, and then worked with a team at Inside to design a device embodying the invention ("the M210H device"). By September 1998, NFC claimed, Charrat and his team had sufficiently developed the device that they commissioned Concept Electronique ("CE"), a chip fabrication company, to generate printed circuit board ("PCB") layouts for the M210H device. In support, NFC presented evidence in the form of various dated and undated documents, including lab notebooks, wiring diagrams, test data and Charrat's testimony.

According to the panel, the Board's findings as to the contents of the documents are either inconsistent with the documents themselves or do not adequately consider the portions of the documents that support corroboration. Taken as a whole, the documents corroborate Charrat's account of conception, product development and later fabrication of the prototype.

The Board also was unpersuaded that NFC had provided sufficient evidence to demonstrate that CE produced the prototype according to Charrat's design and at his direction. The Board found this lack of

documentation counseled towards a conclusion that Charrat's activities were not corroborated, considering that we have, in the past, "found significant 'the absence of any physical record to support the oral evidence,' despite 'the ubiquitous paper trail of virtually all commercial activity' that normally exists 'in modern times," quoting *Woodland Trust v. Flowertree Nursery, Inc.* (Fed. Cir. 1998).

The panel finds the Board's reliance on *Woodland Trust* misplaced because that case involved an alleged public use that continued for about a decade, but was unsupported by any documentary evidence. Charrat's account is corroborated by the initial data sheet that began the project, communications with CE, and documents generated after Charrat and Inside received the prototype and began to test it. Corroboration of every factual issue contested by the parties is not a requirement of the law.

Because the Board assumed, but did not decide, that the prototype embodied the claimed invention, that issue must be decided on remand in order to determine whether Sears can be antedated.

Patentable Subject Matter

Secured Mail Solutions LLC v. Universal Wilde, Inc., 2017 U.S. App. LEXIS 20105 (Fed. Cir. 2017)

The Circuit affirms the dismissal of an infringement case asserting seven patents under § 101 because the claims of the asserted patents are directed to an abstract idea and the claims contain no additional elements that transform the nature of the claims into a patent-eligible application of the abstract idea.

The patents in suit are directed to methods in which a sender affixes an identifier on the outer surface of an envelope or package before the mail object is sent. Computers and networks are used to communicate the information about the mail object's contents and its sender after the mail object is delivered. The district court dismissed the case under Rule 12(b)(6), finding that all seven patents were directed to patent-ineligible subject matter.

In analyzing the claims under *Alice*'s step one, the panel notes that the Circuit looks to whether the claims focus on a specific means or method, or are instead directed to a result or effect that itself is the abstract idea and merely invokes generic processes and machinery. On appeal, Secured Mail argues that its claims are patent-eligible under *Enfish*, which was issued after the district court's decision. Here, despite the district court's statement that "a reasonably high level of generality" should be used, the district court's analysis correctly found that Secured Mail's claims are directed to an abstract idea.

The court in *Enfish* held the claims relating to a computer database implementation to be patent-eligible under *Alice* step one because the claims focused on an improvement to computer functionality itself, not on economic or other tasks for which a computer is used in its ordinary capacity. In contrast, the claims of Secured Mail's patents are not directed to an improvement in computer functionality. For example, the claims are not directed to a new barcode format, an improved method of generating or scanning barcodes, or similar improvements in computer functionality. Secured Mail argues that the claims are specifically directed to a sender-generated unique identifier, which improved on the existing process both by reliably identifying the sender of the mail object and by permitting the sender to create a bi-directional communication channel between the sender and recipient of the mail object. The fact that an identifier can be used to make a process more efficient, however, does not necessarily render an abstract idea less abstract.

Because the claims are directed to an abstract idea, the opinion then turns to the second step of the *Alice* inquiry, looking at whether the elements of the claims transform the nature of the claim into a patent-eligible application of the abstract idea. Secured Mail argues that the district court misunderstood the step two analysis, and instead of searching for an inventive concept, it only asked whether the "underlying" technology was conventional. The panel disagrees. The district court decision has pages analyzing the individual claim elements concluding that the claims are "replete" with routine steps, including "affixing

mail identification data," such as a barcode, to a mail object or "submitting a mail object to a mail carrier for delivery." The district court focused on the sender-generated barcode because Secured Mail argued that the sender-generated barcode was the inventive concept. However, the claim language does not provide any specific showing of what is inventive about the identifier or about the technology used to generate and process it. The claims merely provide that an identifier is affixed to a mail object that is used by the recipient to request and display electronic information. The use of barcodes was commonplace and conventional in 2001.

Secured Mail argued that because the district court's conclusions address questions of fact, it was inappropriate for the district court to dismiss the case via Rule 12(b)(6). However, the panel notes that the Circuit has determined claims to be patent-ineligible at the motion to dismiss stage based on intrinsic evidence from the specification without need for extraneous fact finding outside the record.

Visual Memory LLC v. Nvidia Corporation, 867 F.3d 1253 (Fed. Cir. 2017)

A divided panel reverses and remands the grant of a motion to dismiss under Rule 12(b)(6), ruling that the patent is not directed to an abstract idea but instead claims an enhanced computer memory system. Much like *Enfish*'s self-referential table and the motion tracking system in *Thales*, the claims survive step one of the *Alice* test, so the majority does not need to consider step two.

Claim 1 of the patent recites: "A computer memory system connectable to a processor and having one or more programmable operational characteristics, said characteristics being defined through configuration by said computer based on the type of said processor, wherein said system is connectable to said processor by a bus, said system comprising: a main memory connected to said bus; and a cache connected to said bus; wherein a programmable operational characteristic of said system determines a type of data stored by said cache."

Two recent cases inform the majority's evaluation of whether the claims are "directed to" an abstract idea pursuant to *Alice*'s first step. In *Enfish*, the Circuit held claims reciting a self-referential table for a computer database were patent-eligible under *Alice* step one because the claims were directed to an improvement in the computer's functionality. Similarly, in *Thales*, the Circuit determined that claims reciting a unique configuration of inertial sensors and the use of a mathematical equation for calculating the location and orientation of an object relative to a moving platform were patent-eligible under *Alice* step one. The majority's review of the claims demonstrates that they are directed to an improved computer memory system, not to the abstract idea of categorical data storage.

It is for this reason that the majority finds the district court's reliance on the patent-ineligible claims in the Circuit's 2014 *Content Extraction* case and its 2016 *TLI Communications* cases misplaced. In *Content Extraction*, the patents claimed a method of using a computer and a scanner to extract data from hard copy documents, recognizing specific information in the extracted data, and storing that information in memory. *Alice* clarified that adding a computer cannot spare a claim that otherwise would be directed to an abstract idea, so the Circuit concluded that these claims were directed to the basic concept of data recognition and storage. In *TLI Communications*, the invention involved assigning "classification data," such as timestamps or dates, to digital images, sending the images to a server, extracting the classification data, and having the server take the classification data into consideration when storing the digital images. The Circuit held that the claims were directed to the abstract idea of classifying and storing digital images in an organized manner. Although the claims recited the use of a phone and a server to carry out the claimed method, the claims did not describe a new telephone, a new server, or a new physical combination of the two and were not directed to a specific improvement to computer functionality.

The claims at issue do not simply require a "programmable operational characteristic." Even claim 1 requires a memory system with a main memory and a cache memory, where the memory system is configured by a computer to store a type of data in the cache memory based on the type of processor connected to the memory system.

Judge Hughes' dissent contends that the claimed programmable operational characteristic is nothing more than a black box, and that the patent lacks any details about how the invention's purpose is achieved. However, the majority notes that, when reviewing a dismissal under Rule 12(b)(6), where all factual inferences must be drawn in favor of the non-moving party, it is improper to assume that the code set forth in the specification would not teach one of ordinary skill how to practice the invention. Moreover, whether a patent specification teaches an ordinarily skilled artisan how to implement the claimed invention presents an enablement issue under 35 U.S.C. § 112, not an eligibility issue under § 101.

The Cleveland Clinic Foundation v. True Health Diagnostics LLC, 859 F.3d 1352 (Fed. Cir. 2017)

The Circuit affirms the invalidation of three Cleveland Clinic Foundation patents directed to diagnostic tests to detect the presence of an enzyme the body releases when there is arterial damage, ruling that the claims merely recite laws of nature. The panel also upholds the lower court's dismissal of claims of contributory or induced infringement as to a fourth patent for a treatment method involving administration of a lipid-lowering agent.

In keeping with its recent cases, the Circuit finds that the claims recite the relationship between MPO levels in the bloodstream and the risk of having or developing cardiovascular disease without anything more that would render the claims patent-eligible. The "determining" steps in the claims call for determining the MPO mass or activity level from the blood sample by whatever method the user chooses, and well known techniques existed for these "determining" steps. The process steps merely inform those "interested in the subject about the correlations that the researchers discovered."

Citing its *Ariosa Diagnostics v. Sequenom* case, the Circuit emphasizes the difference between inventions that cover diagnosing or observing natural phenomena, which aren't patentable, and patents on new techniques that harness those observations. The opinion distinguishes the claims at issue from those in *Rapid Litigation Management v. CellzDirect*, where the patent didn't cover just observations about the ability of liver cells to survive freeze-thaw cycles, but instead disclosed new and useful laboratory techniques for preserving the cells. This leaves open a very narrow door for the patentability of diagnostics patents.

The fourth patent in suit builds upon the three diagnostic patents but requires "administering a lipid lowering agent to the selected human patient." The panel agrees with the lower court that the Foundation fails to state a claim for contributory infringement because it did not identify any "material or apparatus" sold by True Health. Moreover, the manner in which defendant reports the results of the service it provides does not constitute a "material or apparatus" for purposes of a contributory infringement claim. With respect to induced infringement claim, the Foundation alleges no facts that suggest any connection between True Health and doctors that may prescribe lipid lowering drugs, and thus falls short of showing "specific intent and action" to induce infringement.

RecogniCorp, LLC v. Nintendo Co., Ltd., 855 F.3d 1322 (Fed. Cir. 2017)

RecogniCorp sued Nintendo for infringement of a patent directed to facial image transmission allegedly used in Nintendo's Wii video gaming system. The Circuit affirms a determination of invalidity by Judge Jones of the Western District of Washington under § 101, holding that the claims are directed to the abstract idea of encoding and decoding image data, and the claims do not contain an inventive concept sufficient to render the patent eligible.

Representative claim 1 recites:

1. A method for creating a composite image, comprising:

displaying facial feature images on a first area of a first display via a first device associated with the first display, wherein the facial feature images are associated with facial feature element codes; selecting a facial feature image from the first area of the first display via a user interface associated with the first device, wherein the first device incorporates the selected facial feature image into a composite image on a second area of the first display, wherein the composite image is associated with a composite facial image code having at least a facial feature element code and wherein the composite facial image code is derived by performing at least one multiplication operation on a facial code using one or more code factors as input parameters to the multiplication operation; and

reproducing the composite image on a second display based on the composite facial image code.

Under the first step of *Alice*, the panel holds that claim 1 is directed to the abstract idea of encoding and decoding image data. This method reflects standard encoding and decoding, an abstract concept long utilized to transmit information.

The panel rejects RecogniCorp's citation of *Diehr*, noting that *Diehr* is distinguishable because, outside of the math, claim 1 of the patent is not directed to otherwise eligible subject matter. Adding one abstract idea (math) to another abstract idea (encoding and decoding) does not render the claim non-abstract. The panel also distinguishes *Enfish*. Unlike *Enfish*, claim 1 does not claim a software method that improves the functioning of a computer. The panel holds that this case is similar to *Digitech*, where the claims were directed to the abstract idea of organizing information through mathematical correlations.

Proceeding to the second step of *Alice*, the panel finds that these claim elements do not transform the nature of the patent claims into a patent-eligible application. Distinguishing *DDR Holdings*, the panel holds that claim 1 contains no inventive concept. Nor does the presence of a mathematical formula dictate otherwise. Claims that are directed to a non-abstract idea are not rendered abstract simply because they use a mathematical formula. But the converse is also true: A claim directed to an abstract idea does not automatically become eligible merely by adding a mathematical formula.

The opinion notes that in *BASCOM*, the patent owner alleged that an inventive concept can be found in the ordered combination of claim limitations that transform the abstract idea of filtering content into a particular, practical application of that abstract idea. That allegation was found to be sufficient to survive a motion to dismiss similar to the motion at issue here, where all facts had to be construed in the patent owner's favor. However, RecogniCorp has not alleged a particularized application of encoding and decoding image data. In fact, claim 1 does not even require a computer; the invention can be practiced verbally or with a telephone.

Thales Visionix Inc. v. U.S., 850 F.3d 1343 (Fed. Cir. 2017)

The Circuit reverses a Court of Federal Claims holding that all claims of Thales' patent are directed to the abstract idea of mathematical equations. Specifically, the Circuit finds that the claims utilize the mathematical equations for the determination, but are not directed to these mathematical equations. Because the claims survive *Alice* step one, there is no need to proceed to *Alice* step two.

The '159 patent discloses an internal tracking system for tracking the motion of an object relative to a moving reference frame. Inertial sensors (e.g., accelerometers and gyroscopes) measure the specific forces associated with changes in a sensor's position and orientation relative to a known starting position. The '159 patent recognized that systems using these inertial sensors to measure changes with respect to the earth produced inconsistent position information between inertial sensors of the object (e.g., the helmet) and inertial sensors of the platform (e.g., the vehicle) when the moving platform accelerated or turned. In the disclosed system, the platform inertial sensors directly measure the gravitational field in the platform frame, and the object inertial sensors then calculate position information relative to the frame of the moving platform. The two claims at issue recite:

1. A system for tracking the motion of an object relative to a moving reference frame, comprising:

a first inertial sensor mounted on the tracked object;

a second inertial sensor mounted on the moving reference frame; and

an element adapted to receive signals from said first and second inertial sensors and configured to determine an orientation of the object relative to the moving reference frame based on the signals received from the first and second inertial sensors.

22. A method comprising determining an orientation of an object relative to a moving reference frame based on signals from two inertial sensors mounted respectively on the object and on the moving reference frame.

In summarizing the critical question to be answered in step one, the panel cites to *Mayo*, stating: "all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas." The Circuit disagrees with the Claims Court, which held that the claims are directed to the abstract idea of using "mathematical equations for determining the relative position of a moving object to a moving reference frame."

Regarding step one, the opinion quotes the 2016 *Rapid Litigation* case: "it is not enough to merely identify a patent-ineligible concept underlying the claim: we must determine whether that patent-ineligible concept is what the claim is 'directed to.'" While the claims utilize mathematical equations to determine the orientation of a tracked object, the equations serve only to tabulate the position and orientation information in this configuration. The claims are directed to methods that use inertial sensors in a non-conventional manner to reduce errors in measuring the relative position and orientation of a moving object on a moving reference frame, which is not an abstract idea.

This ruling emphasizes the distinction made by the Supreme Court in *Diamond v. Diehr* and *Alice* between, on the one hand, claims that merely *involve* an abstract concept, and claims that are *directed* to the abstract concept, and on the other.

Mentor Graphics Corp. v. EVE-USA, Inc., 851 F.3d 1275 (Fed. Cir. 2017)

Mentor achieves almost a clean sweep of many issues presented to the Circuit in an appeal from litigation in the District of Oregon between Mentor and various Synopsys companies, including its subsidiary EVE-USA. Mentor asserted patents directed to so-called simulation/emulation technology. Synopsys also asserted two of its patents against Mentor. Mentor's '376 patent, directed to a system for debugging source code after synthesis, was the only patent tried to the jury, and the panel affirms the denial of JMOL and the \$36 million jury verdict. The Circuit also vacates the motion in limine precluding Mentor from presenting evidence of willful infringement. The panel reverses summary judgment that Mentor's '882 patent lacks written description support and summary judgment that Mentor's infringement allegations regarding two of its patents are barred by claim preclusion. The panel reverses summary judgment that a Synopsys patent is indefinite but affirms summary judgment that the other patent it asserted lacks patent-eligible subject matter. The following discussion is limited to the patentable subject matter issue.

Summary Judgment Is Affirmed that Synopsys's '526 Patent Is Invalid Under § 101

The panel affirms summary judgment that the asserted claims of Synopsys's '526 patent are invalid under § 101 because of the presence of the term "machine-readable medium" in every challenged claim. A patentee is free to be his own lexicographer, and the specification expressly defines the term: "The computer readable medium is any data storage device that can store data which can be thereafter be [sic] read by a computer system." Mentor argued that because the '526 patent defines a "machine-readable medium" as including "carrier waves," the claims are invalid under the 2008 Circuit case of In re Nuijten. The claimed signal in Nuijten was not limited to a particular medium or carrier but rather covered "any

tangible means of information carriage." In that case, the Circuit held that a "transitory, propagating signal" did not fall within any statutory category of subject matter: process, machine, manufacture, or composition of matter. Therefore, because the claims covered "the signal itself," they were not eligible subject matter. Here, the panel holds that because the challenged claims are expressly defined by the specification to cover carrier waves, they are similar to the ineligible *Nuijten* claims in that the claims cover carrier signals themselves.

The challenged claims present a scenario where there are multiple covered embodiments, and some, but not all, of the covered embodiments are patent-eligible. For example, if the machine-readable medium used was a "random-access memory" or "optical data storage device," the claims would not run afoul of *Nuijten*. While not binding on the Circuit, it is instructive that MPEP § 2106 instructs that a claim covering both statutory and non-statutory embodiments is not eligible for patenting.

Intellectual Ventures I LLC v. Erie Indemnity Co., 850 F.3d 1315 (Fed. Cir. 2017)

The Circuit affirms a determination by the district court that the asserted claims of IV's '081 patent do not pass muster under § 101.

The panel quickly disposes of two secondary issues: the district court did not abuse its discretion in certifying the appeal because it expressly determined that there was no just reason for delay of proceedings; and the court correctly determined that IV was collaterally estopped from pursuing its patent infringement claims as to the '084 patent because the finality of judgement requirement was met.

The '081 patent concerns a system and method for editing XML documents. The patent claim creates the dynamic document based upon "management record types" ("MRTs") and "primary record types" ("PRTs"). The inventor coined these terms to describe the organizational structure of the data at issue.

Under step one of *Alice* eligibility analysis (whether the claim is directed to a law of nature, a natural phenomenon, or an abstract idea), the panel concludes that the claims of the '081 patent are directed to the idea of collecting, displaying, and manipulating data, and thus are abstract. Although the claimed data structures add a degree of particularity, the underlying concept embodied by the limitations merely encompasses the abstract idea itself of organizing, displaying, and manipulating data of particular documents.

Applying the second step of *Alice*, the panel perceives no "inventive concept" that transforms the abstract idea of collecting, displaying, and manipulating XML data into a patent-eligible application of that abstract idea. The claims recite two generic computer elements—a processor—and a series of generic computer "components" that merely restate their individual functions—i.e., organizing, mapping, identifying, defining, detecting, and modifying. They merely describe the functions of the abstract idea itself. MRT and PRT data structures do not sufficiently transform the abstract concept into a patentable invention. In particular, the MRTs and PRTs—although technical sounding—include generic data types for which the system can store the extracted data.

Although the patent purports to have met a need in the art to "allow the user to view and update XML documents in different formats, and manipulate the data and perform actions without programming skills," the claims recite nothing inventive or transformative to achieve this stated goal. Thus, taken individually or in combination, the recited limitations neither improve the functions of the computer itself, nor provide specific programming, tailored software, or meaningful guidance for implementing the abstract concept. Accordingly, they do not meaningfully limit the claims to provide the requisite inventive concept under step two.

Another decision, *IV v. Erie Indemnity*, decided the same day as *IV v. Capital One*, will not be separately discussed because its § 101 analysis and decision are essentially the same as those in the *Capital One* case. However, as to one of the patents in suit in *Erie*, the Circuit reverses the determination of invalidity because the chain of title was defective and, thus, IV did not have standing to sue.

McRO, Inc. v. Bandai Namco Games America, 837 F.3d 1299 (Fed. Cir. 2016)

This appeal is from a grant of judgment on the pleadings that the asserted claims of two patents directed to lip synching in video games are invalid under § 101. The panel reverses, holding that the ordered combination of claimed steps, using unconventional rules that relate subsequences of phonemes, timings, and morph weight sets, is not directed to an abstract idea and is therefore patent-eligible under § 101. The patents at issue automate the process of animating the face of a character who is speaking, replacing a tedious and time consuming process previously used by animators. The panel reaches this decision under the first step of *Alice* and in doing so compares the case to the recent *Enfish v. Microsoft* and *Rapid v. CellzDirect* cases in which it reached the same result.

In its ruling, the opinion cites the Circuit's 2015 *Ariosa v. Sequenon* case and asks if the claims at issue would preempt anyone from practicing the invention whether or not their system followed the same "rules" set forth in the claims. According to the opinion, the limitations in claim 1 prevent preemption of all processes for achieving automated lip synchronization of 3-D characters. McRO has demonstrated that motion capture animation provides an alternative process for automatically animating lip synchronization and facial expressions. The specific structure of the claimed rules would prevent broad preemption of all rules-based means of automating lip synchronization, unless the limits of the rules themselves are broad enough to cover all possible approaches. According to the opinion, there has been no showing that any rules-based lip synchronization process must use rules with the specifically claimed characteristics. Concluding that the claims are not directed to an abstract idea, the panel rules that there is no reason to proceed to step two of the *Alice* analysis.

McRO is better known as Planet Blue, and is often retained by video game companies to assist with animations. The use of Planet Blue's technology by Bandai Namco, as well as other defendants Sega, Disney, Sony, LucasArts and Warner Bros., resulted in the filing of these lawsuits, which were consolidated into a single action for pre-trial purposes.

This is the fourth such decision by the Circuit in the past four months, along with *Enfish v. Microsoft*, *Bascom Global v. AT&T*, and *Rapid v. CellzDirect*, all of which reversed district court invalidations based on unpatentable subject matter. Prior to these decisions, the only post-*Alice* precedential Circuit decision upholding claims under a section 101 challenge was *DDR Holdings v. Hotels.com*, decided in late 2014. These decisions provide us with several different examples of how to claim a wide variety of inventions to overcome section 101 attacks.

Rapid Litig. Mgmt. v. CellzDirect, Inc., 827 F.3d 1042 (Fed. Cir. 2016)

This decision provides hope that life science methods are patent eligible. The Circuit finds that the district court erred in its finding that the claimed methods in a patent for producing pure cultures of mature hepatocytes to be used for testing, diagnostic, and treating purposes were invalid under section 101. According to the opinion, the claims were not directed to a law of nature because the claims are simply not directed to the ability of hepatocytes to survive multiple freeze-thaw cycles; rather, the claims are directed to a new and useful laboratory technique for preserving hepatocytes. A claim that is interpreted as being a "constructive process" directed to achieving a new and useful end, the panel states, "is precisely the type of claim that is eligible for patenting." The panel recognizes that the inventors' discovery of the capacity for hepatocytes to undergo multiple cycles of freezing and thawing was just the beginning of their finding and was not where they stopped or what they patented, distinguishing this case from the recent decisions in *Genetic Techs., Ltd. v. Merial L.L.C.*; *Ariosa Diagnostics, Inc. v. Sequenom, Inc.* (cert. denied); and *In re BRCA1- & BRCA2*.

Comment – *Rapid* is the third Federal Circuit decision in as many weeks reversing decisions finding patents invalid as not being directed to patentable subject matter. *Enfish* and *Bascom Global* both involved computer-related claims, while *Rapid* related to life sciences. Until *Enfish* and *Bascom*, we have

had little guidance in claim drafting other than *DDR*, which was decided in late 2014. *Rapid* is encouraging as to the protection of technology in the life sciences and provides needed guidance since the Supreme Court denied cert in *Ariosa v. Diagnostics. Rapid* shows that claims that are drafted to methods for producing a tangible thing have a much better chance of being found patent eligible than methods of producing diagnostic information.

BASCOM Glob. Internet Servs. v. AT&T Mobility LLC, 827 F.3d 1341 (Fed. Cir. 2016)

The Circuit reverses and remands the grant of a motion to dismiss under Rule 12(b)(6), in which the Northern District of Texas held that Bascom failed to state a claim upon which relief can be granted because the claims of its patent are invalid as a matter of law under § 101. The Federal Circuit agrees that the invention covered an abstract idea. However, it found an inventive concept because the "particular arrangement of elements is a technical improvement over prior art ways of filtering such content."

The panel looks first to *Alice* and *Mayo* to set forth the tests for subject matter eligibility. (The court must first determine whether the claims at issue are directed to a patent-ineligible concept. If so, the court must then consider the elements of each claim both individually and as an ordered combination to determine whether the additional elements transform the nature of the claim into a patent-eligible application.)

The panel then turns to the two post-*Alice* cases in which it found computer-related claims to meet the tests of *Alice* and *Mayo*: *Enfish* and *DDR*. In *Enfish*, decided a little over a month ago, the Circuit found claim language reciting the invention's specific improvements to help the determination in step one that the invention was directed to those specific improvements in computer technology. But in *Enfish*, the Circuit also recognized that, in other cases involving computer related claims, there may be close calls about how to characterize what the claims are directed to. In such cases, an analysis of whether there are arguably concrete improvements in the recited computer technology could take place under step two. That is, some inventions' basic thrust might more easily be understood as directed to an abstract idea, but under step two of the *Alice* analysis, it might become clear that the specific improvements in the recited computer technology go beyond well-understood, routine, conventional activities and render the invention patent-eligible. The panel notes that the Circuit took this step-two path in *DDR*. That is, when the limitations of the claims are taken together as an ordered combination, the claims recite an invention that is not merely the routine or conventional use of the Internet.

The claims of Bascom's patent are directed to filtering content on the Internet. According to the panel, this case, unlike *Enfish*, presents a close call about how to characterize what the claims are directed to. Here, in contrast, the claims and their specific limitations do not readily lend themselves to a step-one finding that they are directed to a non-abstract idea. The panel therefore defers its consideration of the specific claim limitations' narrowing effect for step two.

Turning to step two, the panel notes that the "inventive concept" may arise in one or more of the individual claim limitations or in the ordered combination of the limitations. Under *Alice*, an inventive concept that transforms the abstract idea into a patent-eligible invention must be significantly more than the abstract idea itself, and cannot simply be an instruction to implement or apply the abstract idea on a computer.

In an interesting discussion of prior Federal Circuit section 101 cases, the panel contrasts the claims at issue in the present case with those involved in the post-*Alice* cases of *OIM*, *Content Extraction*, *Intellectual Ventures*, and *Ultramercial v. Hulu*.

The panel then turns to the patent at issue and concludes that an inventive concept is found in the non-conventional and non-generic arrangement of known, conventional pieces. The inventive concept described and claimed in the patent may be the installation of a filtering tool at a specific location, remote from the end-users, with customizable filtering features specific to each end-user. This design gives the filtering tool both the benefits of a filter on a local computer and the benefits of a filter on the ISP server. The panel rules that on this limited record, this specific method of filtering Internet content cannot be said, as a matter of law, to have been conventional or generic.

Comment: It is nice to see the Circuit provide further guidance as to patentable subject matter. Today, the Circuit issued another reversal on a ruling of patentable subject matter ineligibility in *Rapid Reversal v. Cellzdirect*. In that case, which will be included in next week's report, the Circuit held that a patent directed to a process for freezing hepatcytes (a type of liver cell) for use in research does in fact recite patentable subject matter.

Inequitable Conduct

Regeneron Pharmaceuticals, Inc. v. Merus N.V., 864 F.3d 1343 (Fed. Cir. 2017)

The Circuit affirms a district court determination that Regeneron engaged in inequitable conduct as to a patent covering a genetically engineered mouse which produces antibodies that are important in research relating to the treatment of diseases in humans. The basis of the inequitable conduct ruling was that the withheld art was brought to Regeneron's attention shortly before a notice of allowance was issued. Regeneron disclosed the prior art during prosecution of every related application, but now takes the position that the art did not have to be disclosed in connection with the prosecution of this patent because the art was merely cumulative and was not therefore but-for material.

The district court bifurcated the case into two trials. The first was to deal with materiality and the second was to deal with intent. After the first trial in which the references were determined to be material, the district court ruled that Regeneron's "repeated violations of discovery orders and improper secreting of relevant and non-privileged documents" permitted the court to draw an adverse inference that Regeneron's agents specifically intended to deceive the PTO by not disclosing the withheld references. The district court therefore concluded that Regeneron had committed inequitable conduct and held the patent to be unenforceable.

The opinion first reviews the requirements from *Therasense* to prove inequitable conduct but then jumps right into an analysis of the district court's rulings. The majority provides a detailed review, comparing the withheld prior art to that which was submitted, and concludes that the court did not clearly err in finding each of the withheld references but-for material. The majority also rules that the court did not abuse its discretion in sanctioning Regeneron by drawing an adverse inference of specific intent.

The troublesome litigation conduct included failing to provide detailed infringement contentions, broken down element-by-element as required by the local rules. This conduct included obfuscation at a hearing before the court, where the court felt that Regeneron was attempting to "game" the system by shifting the burden to Merus to propose claim constructions and then to take shots at those proposals. Regeneron also failed to provide the evidence it had of conception and reduction to practice, again as required by the local rules, even though such documents existed. The district court concluded, and the panel majority did not disagree, that the most troublesome behavior was the failure to disclose many documents between counsel and Regeneron after the district court had ruled that the attorney client privilege had been waived by intentionally producing one very detailed opinion.

Based on its review of the privilege log and its *in camera* review of some of the documents on the log, the district court concluded that Regeneron's behavior warranted sanctioning. Before imposing its sanction, however, the district court considered several alternate options, including allowing only certain relevant documents into evidence and permitting some witnesses while excluding others. However, the court concluded that to do so would have required a top-to-bottom re-review of the Regeneron privilege log, additional document production, fact depositions, and revised expert reports and depositions. Given its concerns with Regeneron's pattern of misconduct, the district court concluded that this would have to occur with the direct oversight of a special master, significantly increasing the time and cost for both Merus and the district court. After reviewing these findings, the majority concludes that the district court did not abuse its discretion by drawing an adverse inference of specific intent to deceive the PTO.

Regeneron argued that the district court's sanction was not an adverse inference but was, in fact, a dismissal which should have required a predicate finding of bad faith. However, the majority holds that the district court's sanction was a properly drawn adverse inference against Regeneron. Judge Newman's dissent relies heavily on the Circuit's 2001 *Aptix v. Quickturn* decision for the proposition that litigation misconduct cannot support a finding of unenforceability of a patent for inequitable conduct, but the majority holds that, in *Aptix*, the district court declared a patent unenforceable as a "penalty" because Aptix engaged in litigation misconduct under the doctrine of unclean hands. The Circuit reversed that decision holding that "the doctrine of unclean hands does not provide a suitable basis for the district court's judgment, as this equitable doctrine is not a source of power to punish." Here, Regeneron is accused not only of post-prosecution misconduct but also of engaging in inequitable conduct during prosecution. Moreover, here, Regeneron's litigation misconduct obfuscated its prosecution misconduct. The district court did not punish Regeneron's litigation misconduct by holding the patent unenforceable. Only after Merus proved the remaining elements of inequitable conduct did the district court hold the patent unenforceable.

Intercontinental Great Brands v. Kellogg, 869 F.3d 1336 (Fed. Cir. 2017)

A divided panel affirms summary judgments as to obviousness and no unenforceability with respect to a patent directed to resealable food packaging. Kraft Foods Global Brands (now called Intercontinental) sued Kellogg for infringement of its '532 patent. Kellogg responded by filing a motion for summary judgment of obviousness based on prior art that had previously formed the basis of an unsuccessful ex parte reexamination by a third party. Kellogg also contended that Kraft engaged in inequitable conduct in the reexamination, and Kraft moved for summary judgment on that issue. The following summary focuses on the inequitable conduct issue.

In Kellogg's cross-appeal, the entire panel sees no reversible error in the district court's conclusion that Kellogg's evidence was insufficient to permit a finding of the intent required for inequitable conduct based on Kraft's reexamination arguments. Kellogg's charge rests on a sentence in the *Packaging News* article—a short article that was the central focus before the Board, when the Board was specifically looking at and asking about the brief text. The relevant sentence in that article describes the Re-Seal It packaging as not using "conventional wrapping film." Kellogg says that the sentence is a misprint and that Kraft committed inequitable conduct by not so informing the Board.

The opinion distinguishes the Circuit's *Therasense* and *Ohio Willow Wood* cases, noting that, when there are multiple reasonable inferences that may be drawn, intent to deceive cannot be found. The alleged wrong is not what Kraft affirmatively stated about *Packaging News*. The only alleged wrong is Kraft's omission of any statement that the sentence in the *Packaging News* reference on which the Board was directly focusing was actually a misprint. Even if the sentence was a misprint, the district court properly concluded that the record does not support an inference of deceptive intent under the *Therasense* standard.

The Ohio Willow Wood Co. v. Alps South, LLC, 813 F.3d 1350 (Fed. Cir. 2016)

In the latest chapter of a long-running dispute between two manufacturers of prosthetic limbs, the Circuit rules that Ohio Willow Wood must pay Alps the attorney fees it incurred from the time it engaged in inequitable conduct during the second of two ex parte reexaminations. This determination is based on the panel's holding that the district court was not clearly erroneous in ruling that OWW's patent liaison was guilty of inequitable conduct by failing to disclose letters to the PTO that provided corroboration to testimony that OWW repeatedly contended was uncorroborated. Pursuant to *Therasense*, the panel agrees that deceptive intent is the single most reasonable inference to be drawn from the evidence. The PTO had withdrawn its rejection because the testimony about alleged prior art was uncorroborated, so the panel also found that the district court's ruling of "but for" materiality was not clearly erroneous.

While the panel finds that the district court did not abuse its discretion in its ultimate conclusion that the patent was unenforceable, the panel finds that Alps had not demonstrated by clear and convincing evidence that deceptive intent was the single most reasonable inference to draw from the liaison's failure to disclose "confidential" declarations from the litigation. Finally, the panel rejects Alps' cross appeal contending that other related patents should also be held to be unenforceable, as those patents had never been in the litigation and Alps had not requested such relief in its counterclaim.

<u>Infringement</u>

Based on Actions Outside of the US

Life Technologies Corp v. Promega Corp., 137 S. Ct. 734 (2017)

Promega sublicensed the Tautz patent, which claims a toolkit for genetic testing, to petitioner Life Technologies for the manufacture and sale of the kits for use in certain licensed law enforcement fields worldwide. One of the kit's five components, an enzyme known as the Taq polymerase, was manufactured by Life Technologies in the U.S. and then shipped to the United Kingdom, where the four other components were made, for combination there. When Life Technologies began selling the kits outside the licensed fields of use, Promega sued, claiming that patent infringement liability was triggered under §271(f)(1), which prohibits the supply from the U.S. of "all or a substantial portion of the components of a patented invention" for combination abroad.

The jury returned a verdict for Promega, but the District Court granted Life Technologies' motion for JMOL, holding that §271(f)(1)'s phrase "all or a substantial portion" did not encompass the supply of a single component of a multicomponent invention. The Federal Circuit reversed. It determined that a single important component could constitute a "substantial portion" of the components of an invention under §271(f)(1) and found the Tag polymerase to be such a component.

Held: The supply of a single component of a multicomponent invention for manufacture abroad does not give rise to §271(f)(1) liability.

(a) Section 271(f)(1)'s phrase "substantial portion" refers either to qualitative importance or to quantitatively large size, the statutory context points to a quantitative meaning. Neighboring words "all" and "portion" convey a quantitative meaning, and nothing in the neighboring text points to a qualitative interpretation. Moreover, a qualitative reading would render the modifying phrase "of the components" unnecessary the first time it is used in §271(f)(1). Only the quantitative approach thus gives meaning to each statutory provision.

Promega's proffered "case-specific approach," which would require a factfinder to decipher whether the components at issue are a "substantial portion" under either a qualitative or a quantitative test, is rejected. Tasking juries with interpreting the statute's meaning on an ad hoc basis would only compound, not resolve, the statute's ambiguity. And Promega's proposal to adopt an analytical framework that accounts for both the components' quantitative and qualitative aspects is likely to complicate rather than aid the factfinder's review.

(b) Under a quantitative approach, a single component cannot constitute a "substantial portion" triggering §271(f)(1) liability. This conclusion is reinforced by §271(f)'s text, context, and structure. Section 271(f)(1) consistently refers to the plural "components," indicating that multiple components make up the substantial portion.

Reading §271(f)(1) to cover any single component would also leave little room for §271(f)(2), which refers to "any component," and would undermine §271(f)(2)'s express reference to a single component "especially made or especially adapted for use in the invention." The better reading allows the two provisions to work in tandem and gives each provision its unique application.

(c) The history of §271(f) further bolsters this conclusion. Congress enacted §271(f) in response to *Deepsouth Packing Co. v. Laitram Corp.*, 406 U. S. 518, to fill a gap in the enforceability of patent rights by reaching components that are manufactured in the United States but assembled overseas. Consistent with Congress's intent, a supplier may be liable under §271(f)(1) for supplying from the United States all or a substantial portion of the components of the invention or under §271(f)(2) for supplying a single component if it is especially made or especially adapted for use in the invention and not a staple article or commodity. But, as here, when a product is made abroad and all components but a single commodity article are supplied from abroad, the activity is outside the statute's scope.

Claim Construction

Organik Kimya AS v. Rohm and Haas Co., 2017 U.S. App. LEXIS 19826 (Fed. Cir. 2017)

The panel affirms an IPR decision of the Board, sustaining the validity of two Rohm and Haas patents. The panel's decision is supported in part by a limiting interpretation of the phrase "include, are those which..." in the patents' specification, and also by unrebutted experimental evidence offered by Rohm and Haas.

The patents are directed to processes for preparing certain emulsion polymers having improved opacity, for use in opaque coatings such as paints, inks, and other products. The patented processes rely on the presence in an emulsion of a "swelling agent," which the Board construed as "expressing a structural element, i.e., 'an aqueous or gaseous, volatile or fixed base, or combinations thereof,' in functional terms, i.e., 'capable of permeating the shell and swelling the [acid] core [of a polymer particle], in the presence of the multistage polymer and monomer, under the conditions of the specific process for which the agent is to be used."

Organik objects to the Board's construction of the term, arguing that the "under the conditions..." element of the construction improperly limits the term in violation of the BRI standard. Organik argues that the specification provides an open-ended definition of "swelling agent," pointing to the language: "Suitable swelling agents *include, are those which*, in the presence of the multistage emulsion polymer and monomer, are capable of permeating the shell and swelling the core."

The panel affirms the Board's construction, agreeing with its determination that the modification of the word "include" by the phrase "are those which" suggests that suitable swelling agents include only those which exhibit the functional characteristics thereafter described, and that a "swelling agent" must permeate the base and swell the core under the reaction conditions described in the specification. The Board relied on unrebutted experimental evidence offered by Rohm and Haas's expert to find that the asserted prior art references thus did not disclose a "swelling agent." The panel affirms the Board's finding as supported by substantial evidence, and its determinations that the patents are not anticipated and not obvious.

Owens Corning v. Fast Felt Corp., 2017 U.S. App. LEXIS 19827 (Fed. Cir. 2017)

The Circuit rules in an IPR that the Board failed to apply the broadest reasonable interpretation ("BRI") to the phrase "roofing or building cover material." Owens Corning challenged the validity of a Fast Felt

patent directed to methods for printing nail tabs or reinforcement strips on roofing or building cover material. Given its correct, broader interpretation, the claim is found to be obvious in view of prior art.

The patent addresses applying polymer "nail tabs" on "roofing and building cover material." The specification explains that nail tabs have been used to reinforce specific locations on roofing or building cover material at which nails will be driven through the material to attach it to a wood roof deck or a building stud wall. Commonly, separate washers or tabs are applied with every nail to provide reinforcement, but that practice is expensive, inefficient, and dangerous.

All of the challenged claims contain the claim term "roofing or building cover material." The Board construed this phrase to mean "base substrate materials such as dry felt, fiberglass mat, and/or polyester mat, before coating or saturation with asphalt or asphalt mix, and asphalt coated or saturated substrates such as tar paper and saturated felt." The Board's construction required materials that would eventually be coated with asphalt even if they had not already been coated before printing.

The panel first notes that the Board did not address roofing or building cover materials that would never be coated in asphalt. The exclusion of such materials from the scope of the claims is mistaken. According to the panel, it is not reasonable to read the claims as limited to materials that either have been or are to be coated or saturated with asphalt or asphalt mix.

It is true that the preferred embodiments focus on roofing materials that are or will be coated or saturated with asphalt or asphalt mix, but that is not enough to narrow the claim scope in the IPR. The claims are plainly not so limited. Indeed, they are not even limited to "roofing materials," as they all expressly include "building cover material" as well as roofing material. Moreover, even the specification, when not discussing preferred embodiments, is not limited to roofing materials: it speaks of "roofing materials or other building materials normally employed as cover materials over a wood roof deck or stud wall." And Fast Felt has not disputed, or pointed to any evidence disputing, that some building cover materials (like the common Tyvek wrap referred to in the Board oral argument) are commonly installed without ever being coated or saturated with asphalt or asphalt mix.

In these circumstances, the broadest reasonable construction of "roofing or building cover material" would include materials that neither have been nor are to be coated or saturated with asphalt or asphalt mix. Therefore, the panel concludes that the Board erred in effectively construing the claims to exclude such materials.

In this case, it is not necessary or appropriate to remand for the Board to reassess the evidence in light of the correct claim construction. There is only one possible evidence-supported finding: the Board's rejection of Owens Corning's challenge, when the correct construction is employed, is not supported by substantial evidence.

In Re: Smith International, Inc., 2017 U.S. APP. LEXIS 18526 (Fed. Cir. 2017)

The Circuit overturns the Board's upholding of an examiner's rejection of several claims in an ex parte reexamination because the rejection was based upon an "unreasonably broad" claim construction. The decision provides needed guidance as to what constitutes the broadest reasonable interpretation ("BRI") in construing patent claims.

Smith is the owner of an '817 patent, which is directed to an expandable tool used in an oil drilling assembly. The tool is to be positioned within a wellbore, and it has a "body," essentially an outer housing covering the entire tool. Smith's corporate parent Schlumberger sued Baker Hughes for infringement of the patent, and Baker Hughes responded by requesting ex parte reexamination.

Three independent claims were rejected by the examiner as either being anticipated by Eddison or as being obvious in view of Eddison and two other references. Each of the rejected claims recited the term "body" without further limitation. In its appeal to the Board, Smith argued that, while Eddison refers to a

"body," it is not an outer housing, and does not provide a cover for the entire length of the Eddison drilling tool. It actually fits over a "mandrel" which constitutes the entire upper portion of the Eddison tool. Smith argued that the proper construction of "body" is "an outer housing"—which was not taught by Eddison. The Board rejected that argument, noting that "body" is a broad term that may encompass other components such as "mandrel" and "cam sleeve." The term "body" is recited in the claims without further limiting features, and the specification neither defines the term nor prohibits the examiner's broad reading of it.

The Circuit rules that, even when giving claim terms their BRI, the Board cannot construe claims "so broadly that its constructions are *unreasonable* under general claim construction principles," citing to its 2015 decision in *Microsoft v. Proxyconn*. There is no dispute that the specification consistently describes and refers to the body as a component distinct from others, such as a mandrel or piston. Thus, reading these latter elements from a prior art reference on the patent's recitation of "body" is improper.

The correct inquiry in giving a claim its BRI is not whether the specification affirmatively "proscribes or precludes" an examiner's broad reading of a claim, but rather whether "it is an interpretation that corresponds with what and how the inventor describes this information in the specification."

Georgetown Rail Equip. Co. v. Holland L.P., 2017 U.S. App LEXIS 15346 (Fed. Cir. 2017)

The Circuit affirms claim construction, willful infringement and enhanced damages of \$1 million in an action involving a patent to a digital system for inspecting tie plates for railroad tracks, which are steel plates that connect the steel rail tracks to wooden ties. The case went to trial after the parties competed head-to-head for a contract with Union Pacific. Holland won the contract using technologies from a U. K. company Rail Vision Systems, but shortly thereafter Georgetown was granted a preliminary injunction, precluding Holland from fulfilling the contract. After claim construction in which the district court determined that the preamble did limit the claim, the case proceeded to trial, where the jury found that Holland willfully infringed the patent and awarded over \$1.5 million in damages. The district court denied JMOL and awarded Georgetown an additional \$1 million in enhanced damages.

As to claim construction, the panel first notes that a preamble may be limiting if it recites essential structure or steps; claims depend on a particular disputed preamble phrase for antecedent basis; the preamble is essential to understand limitations or terms in the claim body; the preamble recites additional structure or steps underscored as important by the specification; or there was clear reliance on the preamble during prosecution to distinguish the claimed invention from the prior art. The reverse is also true. The panel rules that, in the context of the entire patent, it is apparent that the term "mounted on a vehicle for movement along the railroad track" is meant to describe the principal intended use of the invention but not to import a structural limitation or to exclude from the reach of the claims an assembly that does not include a vehicle mount.

The opinion then turns to the issue of whether the court properly denied JMOL as to infringement. Holland argued that it could not have infringed because it "did not benefit from or control" the purported infringing technology. The panel rejects this argument, holding that Holland's use of Rail Vision Systems' technology is analogous to the system found "used" for purposes of the infringement analysis in the Circuit's 2011 *Centillion* case. As in *Centillion*, Holland collects and gathers data by its system platform on the front-end. Then, Holland sends the gathered information to Rail Vision, with instructions to process and analyze the information. The fact that the transmission from the front-end to the back-end in this case involves physically removing the hard drives with data and shipping them overseas is of no consequence. The intermediary steps are still "put into service" as a result of Holland's front-end collection and request for processing, demonstrating Holland's ultimate control of, and derivation of benefit from, the system.

The panel then turns to Holland's contention that JMOL should have been granted as to the jury's award of lost profits. To determine if lost profits should be awarded, the Circuit applies its four-factor *Panduit* test, requiring the patentee to show: (1) demand for the patented product; (2) absence of acceptable noninfringing substitutes; (3) manufacturing and marketing capability to exploit the demand; and (4) the

amount of profit that would have been made. Holland contests the presence of the first and fourth factors. As to the first factor, Holland alleges that there is no evidence that Union Pacific demanded Georgetown's patented invention and, instead, evidence points to a conclusion that Union Pacific "repeatedly rejected" Georgetown's patented technology. The panel notes that Holland improperly narrows the scope of the inquiry, which merely asks whether demand existed in the marketplace for the patented product. Georgetown presented evidence showing that its system generated millions in revenue and was contracted out to four U.S. railroad companies, and Holland submitted evidence showing there was demand for the Rail Vision device at least before 2011. Holland argued that Georgetown must show demand "during the period of allegedly infringing sales," but the panel disagrees, noting that all a patentee must do is sell some item, the profits of which have been lost due to infringing sales. Thus, there is substantial evidence to support a finding that demand for the patented product existed. As to the amount of damages, Georgetown's damages expert set forth a legally sufficient evidentiary basis from which a reasonable jury could have found that Georgetown would have received business from Union Pacific for data collection services in this two-supplier market if Holland's infringing product was not being offered.

As to willful infringement, the panel determines that substantial evidence supports the verdict that Holland was aware of the patent and that Holland copied Georgetown's technology. As to enhanced damages, the panel cites to the district court's application of the nine *Read v. Portec* factors, and concludes that, under *Halo*, the court did not abuse its discretion in awarding enhanced damages of \$1 million in addition to the \$1.5 million damages award.

IPCom GmbH v. HTC Corporation, 861 F.3d 1362 (Fed. Cir. 2017)

The Circuit vacates obviousness determinations in an inter partes reexamination, ruling that the Board failed to conduct proper claim construction since it did not identify the structure in the specification that corresponds to a means-plus-function claim limitation.

In a prior appeal of the case, the Circuit determined that the phrase "an arrangement for reactivating the link with the first base station" is a means-plus-function limitation. While the Board recognized that ruling, it failed to properly construe that limitation. The Board rejected IPCom's proposed three-step algorithm allegedly disclosed in the '830 specification for performing the "arrangement for reactivating the link" function, but the Board failed to identify what it believed to be the correct algorithm from the specification; that omission led to an incomplete construction of the claim limitation and is incompatible with the Circuit's 1994 en banc holding in *In re Donaldson*.

In *Donaldson*, the PTO rejected Donaldson's claims by construing a means-plus-function limitation to encompass any means capable of performing the recited function, giving no consideration to the content in the specification. The PTO argued that such a practice was permissible under the broadest reasonable interpretation standard used by the agency. The Circuit rejected the PTO's view, holding that the agency must follow the plain language of § 112 ¶ 6.

Here, the issue of identifying in the '830 patent the algorithm for performing the "arrangement for reactivating the link" function was front and center during the reexamination. After the Board rejected IPCom's proposed three-step algorithm, the Board only questioned whether each individual step of IPCom's proposed algorithm was separately necessary. The Board then concluded its analysis by stating that it "need not consider whether or not the combination of Anderson and McDonald discloses or suggests these method steps."

The Board's analysis was erroneous because it never specified what it believed was the actual algorithm disclosed in the '830 patent for performing the "arrangement for reactivating the link" function. Like *Donaldson*, the Board here impermissibly treated the means-plus-function limitation in its patentability analysis as if it were a purely functional limitation. The panel therefore vacates the Board's claim construction of the "arrangement for reactivating the link" limitation, and remands for the Board to identify the corresponding algorithm (if any) in the specification. The panel affirms the obviousness determinations as to the claims on appeal that did not include the "arrangement" limitation.

Outdry v. Geox, 859 F.3d 1364 (Fed. Cir. 2017)

The Circuit affirms a Board holding that claims of Outdry's patent directed to methods for waterproofing leather would have been obvious, ruling that the Board sufficiently articulated why a person of ordinary skill in waterproofing leather would be motivated to combine the prior art. Also, the motivation supported by the record and found by the Board need not, according to the opinion, be the same motivation articulated in the patent for making the claimed combination. Finally, the panel agrees with the Board as to the broadest reasonable interpretation of "directly pressing," and holds that the preamble clause "process for waterproofing leather" is not a separate limitation.

Regarding claim construction of the term "directly pressing," the Circuit agrees with Geox that the specification does not suggest that the process must form a uniform, sealed sheet of waterproof leather because the specification does not disclose a required degree of contact between the membrane and the leather in the regions that are between dots of adhesive.

As to the preamble phrase "process for waterproofing leather," the panel rules that this is not a separate limitation that must be disclosed in the prior art in order to support the Board's obviousness determination. According to the opinion, satisfaction of the claimed steps in the body of the claim necessarily results in satisfying a "process for waterproofing leather."

Comment: In its opinion the panel attempted to distinguish many other Circuit decisions in the past year that the Circuit has remanded based on the Board failing to follow *KSR*'s admonition that the basis for the motivation to combine must be explained. See *In re Van Os*, 844 F.3d 1359 (Fed. Cir. 2017); *Rovalma v. Bohler-Edelstahl*, Fed. Cir. Case 2016-2233 (May 11, 2017); *PersonalWeb Tech. v. Apple*, 848 F.3d 987 (Fed. Cir. 2017); *Icon Health & Fitness v. Strava*, 849 F.3d 1034 (Fed. Cir. 2017); *In re NuVasive*, 842 F.3d 1376 (Fed. Cir. 2016); *Apple v. Samsung*, 839 F.3d 1034 (Fed. Cir. 2016) (en banc).and *In re Warsaw Orthopedic*, 832 F.3d 1327 (Fed. Cir. 2016).

Aylus Networks, Inc. v. Apple, Inc., 856 F.3d 1353 (Fed. Cir. 2017)

Aylus claimed that Apple's AirPlay system, which allows users to stream video and music between devices, infringed its patent. The panel affirms summary judgement that Apple's system does not infringe based upon a prosecution disclaimer by Aylus in its response to Apple's petitions for IPR.

Apple filed two separate petitions for IPR, and the Board instituted as to some but not all of the challenged claims. Following institution, Aylus filed a notice of voluntary dismissal in the district court, dismissing with prejudice its infringement contentions as to all of the asserted claims except claims 2 and 21, two of the claims that were denied institution in the IPR. Apple filed a motion for summary judgment of noninfringement as to these claims, which was granted based on the district court's construction of a limitation found in each of the two claims. In construing the critical limitations the district court relied on statements made by Aylus in its preliminary responses to Apple's petitions for IPR, finding the statements "akin to prosecution disclaimer." On appeal, Aylus argued that statements made during an IPR cannot be relied on to support a finding of prosecution disclaimer. Alternatively, Aylus argued that its statements did not constitute a clear and unmistakable disclaimer of claim scope.

The panel rejects both arguments, noting first that for prosecution disclaimer to attach, Circuit precedent requires that the alleged disavowing actions or statements made during prosecution be both clear and unmistakable. Such a disclaimer was present here.

According to the panel, the doctrine is rooted in the understanding that "competitors are entitled to rely on those representations when determining a course of lawful conduct, such as launching a new product or designing-around a patented invention." Ultimately, the doctrine of prosecution disclaimer ensures that claims are not "construed one way in order to obtain their allowance and in a different way against accused infringers." While normally found in pre-issuance prosecution, the doctrine has been applied by the Circuit in reissue and reexamination proceedings. It follows that we should apply the

doctrine in IPR proceedings as well. This will ensure that claims are not argued one way in order to maintain their patentability, and in a different way against accused infringers.

Aylus argues that statements made during an IPR proceeding are unlike those made during a reissue or reexamination proceeding because an IPR proceeding is an adjudicative proceeding as opposed to an administrative proceeding. This argument is belied by the Supreme Court's recent decision in *Cuozzo*, where the Court recognized that, in some significant respects, inter partes review is less like a judicial proceeding and more like a specialized agency proceeding. As such, it follows that statements made by a patent owner during an IPR proceeding can be considered during claim construction and relied upon to support a finding of prosecution disclaimer.

The panel also rejects the Aylus argument that its statements were not part of an IPR proceeding because they were made in a preliminary response before the Board issued its institution decision. Regardless of when the statements are made during the proceeding, the panel holds that the public is entitled to rely on those representations when determining a course of lawful conduct, such as launching a new product or designing-around a patented invention. In its response, Aylus told the PTO that there were a number of substantial differences between the challenged claims and the asserted references. Third parties such as Apple should be allowed to rely on these responses when attempting to design around a patent.

Core Wireless Licensing v. Apple, Inc., 853 F.3d 1360 (Fed. Cir. 2017)

The Circuit affirms a judgment of non-infringement of a patent directed to a system for sending data from a cell phone to the network using a selected channel. The patent in suit is one of the 2,000 patents and applications that Core Wireless purchased from Nokia.

Cell phones can transmit data packets to a cellular network (known as an uplink) in one of two ways—either by using a shared "common channel," which carries transmissions from multiple mobile stations, or by using a "dedicated channel," which carries transmissions from a single mobile station or cell phone. Dedicated channels permit faster and more reliable transmissions than common channels, but dedicated channels are at a premium, as there are not enough dedicated channels to carry all cellular transmissions. One aspect of this problem is whether the network or the cell phone should select the channel for the uplink. In the prior art, the phone would send the network information about the data packet to be sent so that the network could make the channel selection decision. But selection by the network wastes valuable system resources, because it requires the phone to send a message to the network regarding the data packet the phone wants to transmit, and then requires the network to make the channel selection decision.

The solution provided by the patent is to have the mobile station, not the network, make the uplink channel selection decision. Because the mobile station makes the channel selection decision, it does not use up traffic capacity by sending the message about the data packet to the network so that the network may select a channel.

The only claim that went to trial reads:

A mobile station connected with a cellular system, comprising means for sending uplink packet data to the system using a selected channel, wherein the selected channel is either a common channel (RACH) or dedicated channel (DCH), characterized in that it also comprises:

means for receiving a threshold value of the channel selection parameter from the system,

means for storing said threshold value of the channel selection parameter, and

means for comparing said threshold value of the channel selection parameter to a current value of the channel selection parameter for basis of said channel selection.

At trial, Apple showed that the network, not the cell phone, is responsible for selecting which channel to use for uplink transmissions, and that its cell phones lack the capability to select between common and dedicated channels for packet data transfer. Core Wireless contends that under the magistrate's claim construction, the cell phone need do no more than make a comparison, while Apple contends that the phone must have the capability to select a dedicated channel when the relevant threshold conditions are met. The problem with Core Wireless's argument is that the premise is incorrect: The magistrate did not clearly reject Apple's position and adopt Core Wireless's position. Instead, the magistrate focused primarily on whether Apple's control unit was a general purpose processor. Significantly, the magistrate included in his construction references to the patent specification that indicate that channel selection can be performed by the phone, consistent with the district court's discussion of the claim construction issue in its JMOL order.

Core Wireless argued that the district court erred in its JMOL order, where it explicitly construed the "means for comparing" limitation to require that the mobile station have the capability to make channel selections. The panel concludes that the court was correct that the claim requires a showing that the accused phones were capable of making channel selection decisions, and that the specification, prosecution history and extrinsic evidence all support this construction.

The panel therefore holds that a reasonable jury could find Apple's devices non-infringing based on that evidence, and that the district court correctly denied Core Wireless's motion for JMOL.

The Medicines Company v. Mylan, 853 F.3d 1296 (Fed. Cir. 2017)

The panel reverses a ruling that two Medicines patents directed to its ANGIOMAX® anti-clotting drug were infringed by a product proposed in Mylan's ANDA filing.

Medicines sued Mylan for patent infringement based on Mylan's seeking to market a generic version of ANGIOMAX. After construing the claims, the district court held on summary judgment that Mylan did not infringe the '343 patent because Mylan's process is more inefficient than the "inefficient mixing process" of Example 4. With respect to the '727 patent, however, the court held that "efficiently mixing" was not a claim limitation, so this precluded summary judgment. After a bench trial, the court held that Mylan's ANDA filing infringed the '727 patent.

On appeal, the panel agrees with Mylan that "efficient mixing" is required by the "batches" limitation and is therefore a limitation of both the '727 and '343 patents. Adopting Medicines' interpretation of the "batches" limitation would yield an unworkable claim construction. Under Medicines' interpretation, proof of infringement would necessitate forward-looking assessments of whether an accused infringer's production of future or "potential" batches would meet the claimed purity levels. If a defendant using the same process produced fifty batches, each reaching that purity level, each of those fifty batches would infringe. But the defendant would not know whether any of the batches infringed until all fifty batches had been produced. For an ongoing commercial compounding process, under Nautilus, this approach cannot provide "reasonable certainty" regarding the scope of the asserted claims.

As to the construction of "efficient mixing," Medicines extracts a verbatim statement from the specification that purports to define the term. However, according to the panel, this statement is not "definitional" because it does not accord with the linguistic formula used by the patentee to signal the designation of other defined terms. In defining terms, the patentee always used a similar format: the defined term in quotation marks, followed by the terms "refers to" or "as defined herein." Because the quoted language departs from this format, the statement Medicines relies on lacks the clear expression of intent necessary for a patentee to act as its own lexicographer.

Moreover, Medicines' construction of "efficient mixing" attempts to cover all methods of meeting this purity level, without describing the entire range of processes. The panel rejects this argument, noting that the compounding must be defined in terms of the particular processes identified in the specification, so Medicines' construction is not correct.

In the panel's view, Examples 4 and 5 in the specification clearly state what efficient mixing is and is not. Based on this, the panel construes the "efficient mixing" required by the patents in suit to require using the efficient mixing conditions of Example 5. Under this claim construction, Mylan's ANDA does not infringe the asserted claims since Mylan does not use the process required by Example 5.

Comment: Readers may recall that in an earlier appeal, a panel of the Circuit found these patents invalid because of a sale to Medicines from its supplier Ben Venue. An *en banc* Circuit disagreed, holding that Medicines' relationship with Ben Venue was such that Medicines was only purchasing services, and since title to the product never passed between the two entities, this was not a barring "sale." See *Medicines v. Hospira*, 827 F.3d 1363 (Fed. Cir. 2016)

TVIIM v. McAfee, 851 F.3d 1356 (Fed. Cir. 2017)

The Circuit affirms the district court's findings of non-infringement and invalidity under a uniform construction of disputed claim terms after finding that TVIIM waived its right to any new claim construction. The panel also holds that the district court did not abuse its discretion in denying a new trial.

TVIIM sued McAfee for infringement of a patented system that both identifies potential security threats to a computer and, under certain conditions, recommends action to a user to stop the threat. McAfee asked the district court to construe a single claim term: "vulnerability." The court ruled that "vulnerability" should have its plain and ordinary meaning, which is not limited to pre-existing security problems or vulnerabilities. The parties agreed that "vulnerability" is an "exploitable weakness in a computer system."

The jury returned a verdict finding that McAfee did not infringe and that the patent was invalid. TVIIM moved for JMOL, which the district court denied. TVIIM argued on appeal that the jury's findings are inconsistent since it could not have issued a verdict of non-infringement and invalidity because the disputed claim terms have more than one ordinary meaning. But the Circuit is quick to note that TVIIM did not seek the district court's construction of any of the disputed terms. Specifically, TVIIM never presented multiple ordinary meanings of the disputed claim terms or showed that the disputed claim terms are open to varying interpretations. The Circuit thus holds that TVIIM waived any new construction of the disputed claim terms by not requesting that these terms be construed by the district court. The Circuit also rules that substantial evidence supports the jury's verdict of non-infringement based on using the same construction it used for its invalidity verdict. Finally, the panel holds that even if an error occurred in the jury's verdict of infringement, such an error was harmless.

Technology Properties Ltd. LLC v. Huawei Technologies Co., 849 F.3d 1349 (Fed. Cir. 2017)

TPL sued a number of device manufacturers, contending that products manufactured by Nintendo, Samsung and LG infringed its patent, which claims ways for processors to adjust their speeds for maximum performance. The panel vacates the construction of "entire oscillator," describing a clock (oscillator) in a microprocessor, and remands the case. Two disclaimers derived from the prosecution history were held to limit the "entire oscillator" term. In one case, the corresponding limitation was affirmed even though it was broader than necessary to overcome the rejection. In the other, the panel reverses and remands because the district court's construction applied the disclaimer too broadly in view of the context of applicant's remarks.

The claim at issue requires, among other things, "an entire oscillator disposed upon said integrated circuit substrate," which refers to the variable-frequency CPU clock. The district court construed the term to mean "an oscillator located entirely on the same semiconductor substrate as the central processing unit that does not require a control signal and whose frequency is not fixed by any external crystal." Defendants contend the second half of the construction is proper because the patentee disclaimed certain claim scope during prosecution to overcome rejections based on patents to Magar and Sheets.

Magar discloses a microprocessor having a clock generator circuit that relies on an *external crystal*. TPL argues the district court erred by limiting the "entire oscillator" to one "whose frequency is not fixed by any

external crystal." It distinguishes Magar by arguing (1) Magar requires an off-chip crystal oscillator, while the claim generates the CPU clock signal on-chip; (2) Magar's only oscillator is the off-chip crystal that is input to CLOCK GEN, which is located on the same silicon substrate as the CPU; and (3) CLOCK GEN itself is not an oscillator because it simply takes the output of the off-chip crystal and modifies it to produce four derivative signals.

The panel holds that the argument TPL raises on appeal may have been sufficient to traverse the Magar rejection, but this is not the argument TPL presented during prosecution. Had those same arguments been made to the Patent Office, our construction may have been different because TPL likely disclaimed more than was necessary to overcome the rejection. When this happens, we hold patentees to the actual arguments made, not the arguments that could have been made.

While the Circuit describes this change in construction as "minor," and "likely does not affect the outcome in this case," because the parties stipulated to non-infringement under the district court's construction, the proper course of action is for the panel to vacate and remand.

MPHJ Tech. Investments, LLC v. Ricoh Americas Corp., 847 F.3d 1363 (Fed. Cir. 2017)

MPHJ appealed an IPR decision by the PTAB that found the claims of MPHJ's patent directed to scan-toemail technology to be anticipated. In its opinion affirming the decision, the panel considers the fact that the related provisional application included a limiting description of disputed claim terms that was omitted in the non-provisional to be evidence that the inventor intended a broader definition of the disputed claim terms. The panel affirms the Board's decision of anticipation based on the broader definition of the disputed claim terms.

The patent is directed to a virtual copier that "extends the notion of copying from a process that involves paper going through a conventional copier device, to a process that involves paper being scanned from a device at one location and copied to a device at another location." Independent claim 1 recites that "in response to the selection of said Go button, an electronic document management system integrates at least one of said electronic image, electronic graphics and electronic document using software so that said electronic image, electronic graphics and electronic document gets seamlessly replicated and transmitted to at least one of said plurality of external destinations." Additionally, independent method claim 4 recites "interfacing between at least one of said scanner, digital copier or other multifunction peripheral and email application software." MPHJ argued that the terms "seamlessly," "interfacing," and "Go button" represent a single-step operation that does not require any human intervention between the selection of the Go button and the replication at the external destination.

Under the broadest reasonable interpretation required by *Cuozzo*, the panel holds that the terms "seamlessly," "interfacing," and "Go button" do not limit the claims to a single-step operation either inherently or as informed by the specification. Additionally, the specification describes the one-step operation as "optional." MPHJ pointed to passages from the provisional application to which the patent claims priority, which described that "the IMAGinE Virtual Copier can copy paper from a physical device directly into a third-party software application in one step," and distinguished the virtual copier from prior art systems that required two or more steps. However, these passages were omitted from the non-provisional application. The panel states that "a person of skill in this field would deem the removal of these limiting clauses to be significant." Accordingly, the panel holds that the claims would encompass a multi-step operation, and are therefore anticipated.

Judge O'Malley concurs in part and dissents in part, saying that she agrees that claims 1-3 are anticipated but that she would uphold the patentability of claims 4-8. Judge O'Malley disagrees with the majority's interpretation of the effect of the omission of description that was included in the provisional application. She notes that the provisional application was incorporated by reference in the non-provisional application, so the "omitted" portions were actually effectively included in the non-provisional application. Because of this and further evidence in the specification, Judge O'Malley would hold that the terms "Go button" and "interfacing" require a one-step operation.

Comment: This case serves as a warning to all of us that when we make changes to the disclosure in preparing a non-provisional application based upon a previously-filed provisional, we need to make sure to be that lexicographer we hear so much about if we don't want those changes to be held against our client during claim construction.

Apple Inc. v. Samsung Elecs. Co., 839 F.3d 1034 (Fed. Cir. 2016) en banc

Apple alleged infringement of five of its smartphone patents, and Samsung countersued for infringement of two of its patents. After a jury trial, the district court entered a judgment awarding Apple \$119,625,000 in damages and ongoing royalties. In a February decision, a panel of the Circuit reversed the denial of Samsung's motion for JMOL of non-infringement as to the principal patent in suit, determining that Apple failed to prove that the accused Samsung products use a so-called "quick links" feature that permits users to quickly click on phone numbers and other links, rather than having to copy and paste. The Circuit also reversed the denial of JMOL of invalidity of two of Apple's patents, directed to the iPhone's "slide to unlock" and "autocorrect" features, rejecting Apple's arguments as to secondary considerations such as commercial success and praise from Apple users.

In an en banc decision, with one dissent, the Circuit reinstates the district court judgments as to the three patents in suit, holding that the jury verdict on each issue is supported by substantial evidence and the district court did not err when denying Samsung's JMOLs. The Circuit notes that it granted Apple's en banc petition to affirm its understanding of the appellate function as limited to deciding issues raised on appeal by the parties, "deciding these issues only on the basis of the record made below, and as requiring appropriate deference be applied to the review of factual findings." According to the majority, the Supreme Court made it clear in *Teva v. Sandoz* that findings of fact [there relating to claim construction] "are indisputably the province of the district court."

The majority notes that the panel reversed nearly a dozen jury fact findings including infringement, motivation to combine, the teachings of prior art references, commercial success, industry praise, copying, and long-felt need across three different patents. It did so despite the fact that some of these findings were not appealed and without ever mentioning the applicable substantial evidence standard of review. And with regard to objective indicia, it did so in ways that departed from existing law.

In dissent, Judge Dyk raises questions about how aspects of the obviousness doctrine ought to operate, but the majority notes that no party—at the panel or the petition for rehearing en banc stage—invited the Circuit to consider changing the existing law of obviousness. The case was taken en banc to affirm the Circuit's understanding of its appellate function, to apply the governing law, and to maintain its fidelity to the Supreme Court's *Teva* decision.

Given the length of the opinion, we have not attempted to edit it down to our normal two or three pages, but the full opinion does make for interesting reading.

Cox Commc'n, Inc. v. Sprint Commc'n Co. LP, 838 F.3d 1224 (Fed. Cir. 2016)

The Circuit reverses a ruling that the asserted claims of a Sprint patent are invalid as indefinite under 35 U.S.C. § 112, ¶ 2. The patent in suit is directed to so-called voice-over-IP, which allows telephone calls to be transmitted over the Internet, instead of through traditional telephone lines. The majority opinion initially notes that this case presents a peculiar scenario: the sole source of indefiniteness that Cox complains of, "processing system," plays no discernable role in defining the scope of the claims. All of the asserted claims are method claims, and the point of novelty resides with the steps of these methods, not with the machine that performs them. "Processing system" is merely the locus at which the steps are being performed. The plain language of the claims proves this point: if representative claim 1 is revised to remove the word "processing system," the meaning would not discernably change.

As *Nautilus* instructs, if a person of ordinary skill cannot discern the scope of a claim with reasonable certainty, it may be because one or several claim terms cannot be reliably construed. Nevertheless,

indefiniteness under § 112, ¶ 2 must ultimately turn on the question set forth by *Nautilus*: whether the "claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention." The Circuit concludes that, applied here, "processing system" does not prevent the claims from doing just that.

Cox contended that "processing system" is indefinite because the asserted claims only describe it in functional terms. The Circuit disagrees, pointing out that claims are not per se indefinite merely because they contain functional language.

In a concurring opinion, Judge Newman notes that she reads the majority opinion as providing "a new protocol of claim construction" with which she disagrees. She argues that, according to the majority's analysis, the adjudicator (1) first removes the challenged term from the claim, then (2) decides whether the claim has the same meaning without the challenged term, and (3) if the answer is "yes," rules that the claim is not indefinite as a matter of law. "This new style of claim construction will confound the already confused determination of patent rights."

In re CSB-Sys. Int'l, Inc., 832 F.3d 1335 (Fed. Cir. 2016)

CSB appeals a Board decision in an *ex parte* reexamination upholding an examiner's rejection of all claims of CSB's patent as unpatentable over the prior art. CSB argued that the Board construed the claims applying the wrong legal standard, namely the broadest reasonable interpretation standard that is normally applied during PTO examination and reexamination. The Circuit agrees with CSB that the Board should have applied the *Phillips* standard because the patent expired during the reexamination, and thus the patentee lost the opportunity to amend the claims. In doing so, the panel rejects the argument that BRI should be used because the claims could have been amended when they were before the examiner during the reexam.

The Circuit concludes, however, that the Board's claim construction was correct even under the *Phillips* standard, and therefore *affirms* its rejection of all claims as unpatentable over the prior art.

Comment: In a recent presentation, PTAB Chief Judge Michael Tierney opined: "In 9 out of 10 cases, actually, [using BRI or *Phillips* claim construction is] not going to make a difference." Also see *SAS Inst., Inc. v. ComplementSoft, LLC*, 2016 U.S. App. LEXIS 10508 (Fed. Cir. June 10, 2016), decided ten days before *Cuozzo*. In *SAS* the Circuit applied BRI in the appeal of an IPR, but in doing so cited to *Phillips* six different times, as well as to other cases that applied *Phillips*. On August 3 my colleague Nika Aldrich made a presentation to the IP Section of the Oregon State Bar in which he explained that he thought the BRI and *Phillips* tests are merging. See his PowerPoint.

This opinion was written by Judge O'Malley but it has Judge Newman's hand all over it. Judge Newman has repeatedly dissented from affirmations of IPR rulings invalidating patents because the IPR process does not sufficiently replicate patent litigation, even though its stated purpose is to be a substitute for litigating validity in court. Her argument that "broadest reasonable interpretation" is an inappropriate standard for claim construction in IPRs was soundly rejected by the Supreme Court in *Cuozzo*, but if you are a patentee appealing an invalidation ruling in an IPR, you should hope Judge Newman is on the panel. The language in this opinion is noticeably strong in ruling that the PTO needs to change its thinking and practices regarding the burden of proof in IPRs.

Construction of Means-Plus-Function Clauses

Skky v. MindGeek, 859 F.3d 1014 (Fed. Cir. 2017)

The panel affirms an IPR determination of obviousness of all of the claims of a patent challenged by adult video providers MindGeek and Playboy. At issue on appeal was (1) the Board's conclusion that "wireless device means" does not invoke § 112 ¶ 6 and does not require multiple processors; (2) various aspects of the merits of the obviousness determination; and (3) the Board's decision not to strike MindGeek's reply brief before the Board.

The claims are directed to a method for delivering audio and/or visual files to a wireless device. They include the term "wireless device means" but follow that with significant structural language. In determining whether a claim term invokes § 112 ¶ 6, "the essential inquiry is not merely the presence or absence of the word 'means' but whether the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure." *Williamson v. Citrix.* This is an important issue, particularly in an IPR, as it determines whether the claim is limited to the structure and materials described in the patent or whether the claims are given their "broadest reasonable interpretation." The panel rules that "wireless device means" does not invoke § 112 ¶ 6 because "wireless device" is "used in common parlance . . . to designate structure." Skky's arguments to the contrary are, in effect, an attempt to improperly import limitations from the written description into the claims.

Skky argues that even if "wireless device means" does not invoke § 112 ¶ 6, the term still should be construed to require multiple processors. Skky contends that the written description contains several embodiments requiring a cell phone, which includes a processor, attached to an accessory with its own processor, and that the software embodiment does not fall within the claim language. Skky argues that the prosecution history also supports this requirement, based on statements made during prosecution and because, as the claims were allowed over Rolf, they must cover something more than the wireless device with a single processor disclosed in Rolf.

Although the written description contains embodiments where the wireless device contains multiple processors, it also includes the software embodiment, in which the wireless device contains a single processor. The argument that the invention requires a "specialized processor" is refuted by the patent's express disclosure that the invention may be practiced using "a conventional cellular phone without the need for additional hardware." Accordingly, the Board did not err in concluding that "wireless device means" does not require multiple processors or a specialized processor.

The panel easily dismisses MindGeek's arguments as to nonobviousness, finding substantial evidence to support the Board's determinations. MindGeek's arguments that the Board abused its discretion in failing to strike Skky's reply brief are rejected as well, the panel noting that Skky's arguments were largely responsive to MindGeek's arguments and, to the extent they weren't, MindGeek was permitted by the Board to file a surreply to address those issues.

Divided Infringement

Eli Lilly and Company v. Teva Parenteral Medicines, Inc., 845 F.3d 1357 (Fed. Cir. 2017)

The Circuit finds that Teva, Barr and other generic drug manufacturers would infringe, either directly or by inducement, Eli Lilly's patent covering its Alimta® chemotherapy drug (comprised of pemetrexed disodium "pemtrexed") designed to treat lung cancer and mesothelioma, when used in combination with folic acid and vitamin B12. This case provides an interesting application of *Akamai* because no single actor would perform all of the steps of the method claims: physicians administer B12 and pemetrexed, while patients self-administer folic acid under the guidance of physicians. The history of *Akamai* was described in our recent discussion of the *Medgraph v. Medtronic* case, which wound its way through the courts during this litigation.

There were two bench trials in the present case, the first finding that the asserted claims were not invalid, and the second finding that defendants would induce infringement if they introduced their generics. In the

second trial, the district court applied the rulings in the *Akamai V* en banc decision, which held that, in addition to an agency or contractual relationship, induced infringement may be found where an alleged infringer "conditions participation in an activity on receipt of a benefit upon performance of a step or steps of a patented method and establishes the manner and timing of that performance."

The panel cites *Akamai V* for the proposition that where, as here, no single actor performs all steps of a method claim, direct infringement only occurs if "the acts of one are attributable to the other such that a single entity is responsible for the infringement." The performance of method steps is attributable to a single entity in two types of circumstances: when that entity "directs or controls" others' performance, or when the actors "form a joint enterprise," which is not alleged here. Therefore, the issue here is whether physicians direct or control their patients' administration of folic acid.

In Akamai V, the Circuit held that directing or controlling others' performance includes circumstances in which an actor: (1) "conditions participation in an activity or receipt of a benefit" upon others' performance of one or more steps of a patented method, and (2) "establishes the manner or timing of that performance." The district court's finding here that physicians "condition" pemetrexed treatment on the administration of folic acid is supported by the evidence. Defendants argue that mere guidance or instruction is insufficient to show "conditioning" under Akamai V, but the evidence regarding the critical nature of folic acid pretreatment and physicians' practices supports a finding that physicians cross the line from merely guiding or instructing patients to take folic acid to conditioning pemetrexed treatment on their administration of folic acid. The panel also rejects defendants' argument that an actor can only condition the performance of a step by imposing a legal obligation to do so, by interposing that step as an unavoidable technological prerequisite to participation, or, as in Akamai V, both.

With respect to the second prong—establishing the manner or timing of performance—the panel rejects defendants' argument that the product labeling "gives patients wide berth to select the dose, the dosage form, and the timing of folic acid self-administration." The product labeling demonstrates that physicians prescribe a dose of folic acid, specify that patients must ingest the folic acid daily during a particular span of days, and withhold pemetrexed if patients do not follow orders.

The panel concludes its 31 page opinion by rejecting defendants' arguments that the limitation "vitamin B12" is indefinite, and that the asserted claims are indefinite due to obviousness and obviousness-type double patenting.

Medgraph, Inc. v. Medtronic, Inc., 843 F.3d 942 (Fed. Cir. 2016)

The panel affirms the dismissal of Medgraph's case alleging infringement of two patents directed to methods of uploading patient data, such as the blood sugar levels of a diabetic patient, into a computer, which is accessed by medical staff treating the patient. The accused Medtronic product, called the CareLink System, allows diabetes patients to upload their blood glucose readings so that they can keep an online record of their data and can share the information remotely with a healthcare provider. The appeal arises from the fact that the district court's rulings coincided with the Circuit and Supreme Court decisions in the *Akamai* cases dealing with divided and induced infringement.

In Akamai I, the Circuit held that direct infringement of a method patent requires a single party to perform every step of a claimed method and that there can only be joint infringement when the acts of another are attributable to the accused infringer through either an agency relationship or a contractual obligation. In Akamai II, an en banc Circuit left the direct infringement standard in place but provided an independent inducement basis for divided infringement. Following Akamai II, Medtronic filed a motion for summary judgment of noninfringement.

In Akamai III, the Supreme Court reversed Akamai II on induced infringement and remanded the case to the Circuit for deciding the standard for divided infringement. On remand, the Circuit panel issued Akamai IV, consistent with Akamai I, holding that the accused infringer did not "direct or control" its customers to perform the claimed steps, that its customers were not agents, contractually obligated or in a joint enterprise. Following Akamai IV, the district court granted Medtronic's summary judgment of no direct

infringement because more than one person, i.e., the patient and the doctor, is required to perform all of the steps of the method claims.

Shortly thereafter, the Circuit issued its *en banc* decision in *Akamai V*, broadening the circumstances in which others' acts may be attributed to the accused infringer in cases of divided infringement, i.e., in addition to an agency or contractual relationship, attribution is proper where an alleged infringer "conditions participation in an activity on receipt of a benefit upon performance of a step or steps of a patented method and establishes the manner and timing of that performance."

Medgraph argued in the present appeal that it did not have an opportunity to present to the district court the type of evidence needed under *Akamai V*. While acknowledging that a change in the law normally requires remand, the panel rules that Medgraph has not pointed to any evidence that would permit attribution of patient- and doctor-performed steps to Medtronic as required by *Akamai V*. A finding of direct infringement requires that "all steps of the claim [be] performed by or attributable to a single entity." That rule was unaffected by *Akamai V*. Medtronic does not condition participation on receipt of a benefit upon performance of all of the claimed method steps. In fact, Medtronic permits using CareLink in a manner that clearly skips some of the claimed steps. There is similarly no liability for indirect infringement because indirect infringement is predicated on direct infringement, which was unchanged by *Akamai V*.

The Circuit also affirms summary judgment of noninfringement of a system claim in one of the patents. That determination turns on whether the claim term "and" can be construed to mean "or." The claims require both computer (Internet) and telephone capability, even though the specification states that data can be conveyed over the Internet or by telephone. The panel distinguishes other Circuit cases which have construed "and" to mean "or," because Medgraph's specifications do not require "or"; instead they support either an "and" or an "or" construction.

Akamai Techs., Inc. v. Limelight Networks, Inc., 797 F.3d 1020 (Fed. Cir. 2015)

While this case was decided in 2015, it provides some background for the other cases in this section. This case was returned to the Circuit by the Supreme Court, noting "the possibility that we erred by too narrowly circumscribing the scope of § 271(a)." Sitting en banc, the Circuit unanimously sets forth the law of divided infringement, and concludes that substantial evidence supports the jury's finding that Limelight directly infringes under § 271(a).

I. Divided Infringement

Direct infringement under § 271(a) occurs where all steps of a claimed method are performed by or attributable to a single entity. See BMC Res., Inc. v. Paymentech, L.P., 498 F.3d 1373 (Fed. Cir. 2007). Where more than one actor is involved in practicing the steps, a court must determine whether the acts of one are attributable to the other such that a single entity is responsible for the infringement. We will hold an entity responsible for others' performance of method steps in two sets of circumstances: (1) where that entity directs or controls others' performance, and (2) where the actors form a joint enterprise.

To determine if a single entity directs or controls the acts of another, we continue to consider general principles of vicarious liability. In the past, we have held that an actor is liable for infringement under § 271(a) if it acts through an agent or contracts with another to perform one or more steps of a claimed method. See BMC. We conclude, on the facts of this case, that liability under § 271(a) can also be found when an alleged infringer conditions participation in an activity or receipt of a benefit upon performance of a step or steps of a patented method and establishes the manner or timing of that performance. In those instances, the third party's actions are attributed to the alleged infringer such that the alleged infringer becomes the single actor chargeable with direct infringement. Whether a single actor directed or controlled the acts of one or more third parties is a question of fact, reviewable on appeal for substantial evidence, when tried to a jury.

Alternatively, where two or more actors form a joint enterprise, all can be charged with the acts of the other, rendering each liable for the steps performed by the other as if each is a single actor. A joint enterprise requires proof of four elements:

- (1) an agreement, express or implied, among the members of the group;
- (2) a common purpose to be carried out by the group;
- (3) a community of pecuniary interest in that purpose, among the members; and
- (4) an equal right to a voice in the direction of the enterprise, which gives an equal right of control.

Restatement (Second) of Torts § 491 cmt. c. As with direction or control, whether actors entered into a joint enterprise is a question of fact, reviewable on appeal for substantial evidence. Section 271(a) is not limited solely to principal-agent relationships, contractual arrangements, and joint enterprise, as the vacated panel decision held. Rather, to determine direct infringement, we consider whether all method steps can be attributed to a single entity.

II. Application to the Facts of This Case

Akamai filed an infringement action alleging infringement of several patents that claim methods for delivering content over the Internet. The parties agreed that Limelight's customers, not Limelight, perform the "tagging" and "serving" steps in the claimed methods. For example, Limelight performs every step save the "tagging" step, in which Limelight's customers tag the content to be hosted and delivered by Limelight's content delivery network. The district judge instructed the jury that Limelight is responsible for its customers' performance of the tagging and serving method steps if Limelight directs or controls its customers' activities. The jury found that Limelight infringed. The district court initially denied Limelight's JMOL for noninfringement, ruling that Akamai had presented evidence that Limelight directed or controlled its customers. Following our decision in *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318 (Fed. Cir. 2008), the district court granted Limelight's motion for reconsideration, holding as a matter of law that there could be no liability.

We reviewed the evidence that Limelight directs or controls its customers' performance of each remaining method step. Specifically, we reviewed the evidence that Limelight conditions its customers' use of its content delivery network upon its customers' performance of the tagging and serving steps, and that Limelight establishes the manner or timing of its customers' performance.

First, the jury heard evidence that Limelight requires all of its customers to sign a contract delineating the steps customers must perform to use the Limelight service. As to tagging, Limelight's form contract provides: "Customer shall be responsible for identifying via the then current Limelight process all URLs of the Customer Content to enable such Customer Content to be delivered by the Limelight network." As for the serving step, the form contract states that Limelight is not responsible for failures in its content delivery network caused by its customers' failure to serve content. Thus, if Limelight's customers wish to use Limelight's product, they must tag and serve content. Accordingly, substantial evidence indicates that Limelight conditions customers' use of its content delivery network upon its customers' performance of the tagging and serving method steps.

Substantial evidence also supports finding that Limelight established the manner or timing of its customers' performance. Upon completing a deal with Limelight, Limelight sends its customer a welcome letter instructing the customer how to use Limelight's service. The welcome letter contains a hostname assigned by Limelight that the customer "integrates into its webpages." This integration process includes the tagging step. Moreover, Limelight provides step-by-step instructions to its customers telling them how to integrate Limelight's hostname into its webpages if the customer wants to act as the origin for content. If Limelight's customers do not follow these precise steps, Limelight's service will not be available. Lastly,

the jury heard evidence that Limelight's engineers continuously engage with customers' activities. The engineers remain available if the customer experiences any problems. In sum, Limelight's customers do not merely take Limelight's guidance and act independently on their own. Rather, Limelight establishes the manner and timing of its customers' performance so that customers can only avail themselves of the service upon their performance of the method steps. Therefore, Limelight is liable for direct infringement.

Comment: This case has a long history that is important to understand in order to appreciate the significance of this ruling. Soon after a jury returned a \$45 million verdict for Akamai in 2006, the Circuit issued its *Muniauction* decision, which required that, for direct infringement, all the steps of a patent be performed by a single party or multiple parties in a formal relationship. The district court therefore issued JMOL, holding that Limelight could not have infringed. On appeal, the Circuit held that Limelight could be held liable for induced infringement but not direct infringement. The Supreme Court reversed that ruling, holding that there could be no induced infringement unless there is direct infringement, but instructed the Circuit to address the issue of direct infringement. The panel followed *Muniauction*, holding that there was no formal relationship and so there could be no direct infringement. In the present decision, the Circuit makes it considerably easier for direct infringement to be found based on something less than a formal arrangement; for example, if the accused infringer conditions participation in an activity upon performance of steps of a patented method.

Contributory and Induced Infringement

<u>Power Integrations, Inc. v. Fairchild Semiconductor International, Inc., 843 F.3d 1315 (Fed. Cir. 2016)</u>

This appeal involves six patents—four Power Integrations patents and two belonging to Fairchild. The parties are competitors in the power supply controller chip market. Power supplies are used with cell phones, computers, televisions, and the like. The power supply is often integrated into the plug itself, as is the case with many cellular phones. In other configurations, the power supply resides in a stand-alone module, as with many laptop computers.

Each party had been held liable for infringement of the other's patent(s) but in the present decision the panel reverses two rulings. In the words of the panel: "We have significantly reduced the scope of Fairchild's infringement liability in this case. As a result of our above holdings, only the district court's judgment that Fairchild is liable for direct infringement of the '851 and '876 patents remains untouched." Specifically, the panel reverses a ruling that Power Integrations' '605 patent is not anticipated; vacates the judgment that Fairchild induced infringement of the '851 and '876 patents; and reverses a finding that Fairchild's '972 patent is infringed under the doctrine of equivalents.

As to induced infringement, the panel concludes that the jury instruction misstated the law in a way that prejudiced Fairchild, which is primarily involved in selling chips to overseas distributors. However, because the panel does not find that the record requires a finding of non-infringement as a matter of law, it does not go further and, as Fairchild requests, enter judgment in its favor.

Induced infringement is defined in 35 U.S.C. § 271(b): "Whoever actively induces infringement of a patent shall be liable as an infringer." In order to establish active inducement of infringement, it is not sufficient that others directly infringe the claim. Nor is it sufficient that the party accused of infringement was aware of the acts by others that directly infringe. Rather, in order to find inducement, you must find that the party accused of infringement intended others to use its products in at least some ways that would infringe the asserted claims of the patent. However, that infringement need not have been actually caused by the party's actions. All that is required is that the party took steps to encourage or assist that infringement, regardless of whether that encouragement succeeded, or was even received. Intent to encourage or assist the acts that constitute direct infringement must be proven by evidence of active steps taken to

encourage direct infringement, such as providing products, advertising any infringing use, or instructing how to engage in any use that is infringing.

This instruction left the jury with the incorrect understanding that a party may be liable for induced infringement even where it does not successfully communicate with and induce a third-party direct infringer. The Supreme Court explained in *Global-Tech* that the term "induce" as it is used in § 271(b) "means to lean on; to influence; to prevail on; to move by persuasion. Each definition requires successful communication between the alleged inducer and the third-party direct infringer."

The jury found that Power Integrations infringed the claims under the doctrine of equivalents. Fairchild introduced evidence that the product contained the requisite two, distinct feedback signals. It identified "FB OUT" as the "first feedback signal associated with a voltage control loop" and the output of the constant current block, which it referred to as "I REDUCE," as the "second feedback signal associated with a current control loop." Power Integrations countered that the product contained a single feedback signal labeled "FEEDBACK (FB)"—and therefore could not infringe. The jury agreed with Power Integrations that its LinkSwitch-II products did not literally infringe the '972 patent. However, it found that the products infringed under the doctrine of equivalents.

Power Integrations argued on appeal that the jury's verdicts cannot be reconciled. It contends that, in finding no literal infringement, the jury necessarily found that Power Integrations products contain only a single feedback signal, not the two "distinct" feedback signals required by the claims. Pursuant to this understanding, Power Integrations argued that it is entitled to JMOL of no infringement. The panel agrees, noting that the jury necessarily found that the LinkSwitch-II products contain a single feedback signal when it rendered its verdict of no literal infringement.

Citing *Warner-Jenkinson v. Hilton Davis*, the panel notes that, under the doctrine of claim vitiation, if a court determines that a finding of infringement under the doctrine of equivalents would entirely vitiate a particular claimed element, then the court should rule that there is no infringement under the doctrine of equivalents. The panel agrees that a finding of infringement under the doctrine of equivalents would vitiate the requirement that the claimed feedback signals be "distinct."

Warsaw Orthopedic, Inc. v. NuVasive, Inc., 824 F.3d 1344 (Fed. Cir. 2016)

This case returns to the Circuit on vacatur and remand from the Supreme Court, for further consideration in light of *Commil v. Cisco*. The issue to be decided here was whether there was substantial evidence to support the jury verdict that Warsaw and a related Medtronic company (collectively "MSD") induced infringement of NuVasive's '236 patent directed to a method for detecting the presence of a nerve during surgery. MSD's knowledge of the '236 patent is undisputed. The panel concludes that MSD's infringement position was objectively unreasonable and that the jury, based on this evidence, could reasonably have concluded that MSD had knowledge (or was willfully blind to the fact) that its NIM-Eclipse device meets the limitations of the claims of the '236 patent. A reasonable jury could therefore have inferred that MSD must have known, or was willfully blind to the fact, that doctors using the device infringe those claims.

In its analysis, the panel first notes the holdings of *Commil USA*, *LLC v. Cisco Systems*, *Inc.*, 135 S. Ct. 1920 (2015) and *GlobalTech Appliances*, *Inc. v. SEB S.A.*, 563 U.S. 754 (2011) that proof of induced infringement requires not only knowledge of the patent but also proof the defendant knew the induced acts were infringing. *Commil* reaffirmed the statement in *Global-Tech* that willful blindness can satisfy the knowledge requirement for active inducement, even in the absence of actual knowledge. *Global-Tech* also held that knowledge of infringement can be inferred from circumstantial evidence.

The opinion then reviews the claim construction of the district court and concludes that the jury was properly instructed as to the meaning of the claim language. The panel then reviews MSD's present arguments as to claim construction and concludes that they are inconsistent with the patent and the prosecution history. Moreover, the panel rules that MSD's present construction is inconsistent with the

construction that MSD itself propounded before the district court. According to the opinion, "MSD's effort at this late stage amounts to a request for a revised claim construction that it never sought."

Judge Reyna concurs, but disagrees with the analysis, stating, "The opinion's analysis suggests that any time a defendant's products are found to directly infringe, the plaintiff has sufficiently established the defendant's intent to induce infringement. This proposition conflicts with *Global-Tech*, *Commil*, and our caselaw."

Unwired Planet, LLC v. Apple, Inc., 829 F.3d 1353 (Fed. Cir. 2016)

Unwired, a nonpracticing entity owning several thousand patents, filed suit against Apple based on infringement of ten of its patents. After Unwired dismissed five of the ten patents from the case, the Northern District of California granted summary judgment of noninfringement as to four of the remaining patents. In this appeal the Circuit affirms one and vacates three of those rulings. The following discussion deals solely with the indirect infringement issues.

The Strength of Apple's Non-Infringement Arguments Is Not an Appropriate Basis to Grant Summary Judgment of No Indirect Infringement

The '092 patent discloses an improved technology for identifying the location of a wireless station, such as a cell phone or pager. In order to more accurately locate a wireless station, the invention gathers inputs about the location of the wireless station from multiple location finding equipment such as handset global positioning system, time difference of arrival, and the use of cell/sector location. It then responds to a location request by providing the location information. Unwired alleged that the location-finding technology of iOS devices infringes a claim which recites, in relevant part, "receiving a plurality of device dependent *location inputs* provided by said location finding equipment."

The district court denied Apple's motion for summary judgment of no direct infringement, based on Apple's argument that the iOS devices only use a single "location input." However, the court granted Apple's motion for summary judgment of no induced or contributory infringement, reasoning that Apple's noninfringement argument was strong enough that no reasonable juror could conclude that Apple acted with actual knowledge or was willfully blind that it was inducing or contributing to infringement.

The panel vacates the summary judgment of no indirect infringement based on a conclusion that the district court's reliance on the objective strength of Apple's non-infringement arguments is not an appropriate basis on which to grant a motion for summary judgment of non-infringement.

Literal Infringement

Intellectual Ventures, LLC v. Motorola Mobility LLC, 870 F.3d 1320 (Fed. Cir. 2017)

A divided panel affirms the validity of many of the claims of two patents asserted by IV against Motorola, but the entire panel rules that substantial evidence does not support the jury's verdict of direct infringement as to the asserted claim of its '144 patent. This reversal of the denial of JMOL was because IV failed to demonstrate that Motorola obtained a benefit from every element of the claimed system.

The '144 patent, the principal patent in suit, is directed to transferring computer files electronically between two computers. Motorola contended the patent was invalid for lack of written description, arguing that the specification of the patent excludes "long term" or "permanent" storage of the data being transmitted on an intervening computing device. Despite this exclusion, Motorola contended that the scope of claim 41 covers embodiments that nevertheless use such long-term or permanent storage, in violation of the written description requirement. The panel disagrees, ruling that the claim does not cover long term or permanent storage, so there is no written description problem.

Motorola also argued that it was entitled to JMOL as to the obviousness of the '144 patent, but the majority disagrees with that contention as well, against Judge Newman's dissent, ruling that the teachings of IV's expert and the primary reference itself constituted substantial evidence supporting the jury's conclusion that the prior art did not "receive ... files irrespective of user action," as recited in the claim.

The most interesting part of the case deals with the issue of whether substantial evidence supports the jury's verdict of direct infringement. Claim 41 is a system claim with limitations directed to an "authenticating device configured to . . . generate a delivery report." At trial, IV argued that Motorola's customers directly infringed claim 41 by using the accused system to send text-plus-photo messages using a Multimedia Messaging Service ("MMS"), and that Motorola itself directly infringed claim 41 by testing the accused phones' MMS functionality. As evidence, IV presented consumer surveys showing that Motorola's customers sent MMS messages using the accused phones, and numerous compliance and testing documents from Motorola demonstrating that sending and receiving of MMS messages was tested on the various carrier networks. On appeal, Motorola contends that IV failed to offer evidence of a directly infringing "use" of the claimed system because none of the accused direct infringers "used" the "authenticating device configured to . . . generate a delivery report."

The panel first discusses the applicable standard from its 2005 *NTP* and 2011 *Centillion Data* cases. Claim 41 is written to claim a "device configured" to perform certain operations, some of which involve communications with other devices having certain functionality. In *NTP*, in addressing the question of "where" an infringing use of a claimed system occurs, the Circuit held that "the use of a claimed system under section 271(a) is the place at which the system as a whole is put into service, i.e., the place where control of the system is exercised and beneficial use of the system obtained." In *Centillion*, the Circuit applied *NTP*'s situs-of-infringement holding to resolve infringement of "system comprising" claims where components of the claimed system were in the possession of more than one actor. The Circuit concluded that "to 'use' a system for purposes of infringement, a party must put the invention into service, i.e., control the system as a whole and obtain benefit from it." Thus, under *NTP* and *Centillion*, to prove an infringing "use" of a system under § 271(a), a patentee must demonstrate "use"—that is, "control" and "benefit"—of the claimed system by an accused direct infringer.

In applying its interpretation of *NTP* and *Centillion* to the case on appeal, the panel sees the critical question as whether there was substantial evidence that Motorola's customers obtained a "benefit" from the generation of delivery reports. Neither of IV's direct infringement theories purported to explain how Motorola's customers satisfied this claim limitation by using the accused phones. Indeed, there is no evidence that the customers ever "generated a delivery report," as recited in the claim. Instead, IV relied on testimony and evidence that the delivery reports were generated by Multimedia Messaging Service Centers ("MMSC") maintained or operated by the customers' wireless service carriers when the customers used the accused phones.

In the '144 patent, the only benefits identified as flowing from the delivery reports rest on the sending device's ability to receive or retrieve the delivery reports from the third-party authenticating device. But, according to the panel, the evidence does not support an inference that Motorola's customers ever received the delivery reports. IV provided expert testimony that the accused Motorola phones were capable of sending and receiving MMS messages, and that the sending phone could display a confirmation that the MMS message was received. IV's expert conceded, however, that all but one of the MMSCs discussed at trial had been rendered technologically incapable of transmitting delivery reports to the sending phone (i.e., to Motorola's customers).

Having rejected as unsupported by substantial evidence IV's argument that Motorola's customers benefitted from the delivery reports generated by the MMSCs, the same non-infringement finding is necessary as to Motorola itself. Citing the Supreme Court's 2014 *Limelight v. Akamai* case, the panel rules that, because a finding of direct infringement is predicate to any finding of indirect infringement, none of the jury's verdicts with respect to infringement of claim 41 of the '144 patent is supported by substantial evidence. Accordingly, Motorola was entitled to judgment as a matter of law regarding non-infringement of claim 41 of the '144 patent.

Shire Development v. Watson, 848 F.3d 981 (Fed. Cir. 2017)

The panel reverses a determination of infringement of a patent directed to controlled-release oral composition of mesalamine used to treat inflammatory bowel diseases, concluding that Watson's ANDA product does not satisfy the Markush group requirements of the claims. In doing so, the Circuit rejects Shire's argument that its evidence overcomes the "strong presumption" that a claim element excludes ingredients not specified in the claim when the phrase "consisting of" or "consists of" is used in the claim.

When a matrix is hydrophilic, it readily dissolves in water. Conversely, when a matrix is lipophilic, it resists dissolving in water. The claims at issue recite in pertinent part:

Controlled release oral pharmaceutical compositions, containing as an active ingredient 5-amino-salicylic acid, comprising: a) an inner lipophilic matrix *consisting of* substances selected from the group *consisting of* [components listed], and wherein the active ingredient is dispersed both in the lipophilic matrix and in the hydrophilic matrix; (b) an outer hydrophilic matrix wherein the lipophilic matrix is dispersed, and said outer hydrophilic matrix *consists of* compounds selected from the group *consisting of* [components listed]. (emphasis added)

The district court determined that Watson's ANDA product satisfied the Markush limitations because the excipients falling outside the respective Markush groups were "unrelated" to the invention since they did not drive the water-affinity property of their respective matrices.

The panel first notes that claim limitations using the phrase "consisting of," or "consists of," to characterize the matrix, and "consisting of" to define the groups, "create a very strong presumption that that claim element is closed and therefore excludes any elements, steps, or ingredients not specified in the claim." Overcoming this presumption requires "the specification and prosecution history" to "unmistakably manifest an alternative meaning." The panel noted the 2004 *Norian* Circuit case that found the strong presumption to be overcome where a defendant added a spatula to a chemical kit to repair teeth and bones, because the spatula had no interaction with the claimed chemicals.

In the present case, Watson's ANDA product included additional compositions, some of which are hydrophilic and others of which are lipophilic. The district court found that Watson infringed because the component outside of the Markush group—i.e., the lipophilic magnesium stearate in the hydrophilic outer matrix—is unrelated to the invention. However, the panel disagrees. According to the opinion, the invention is a multimatrix system that relies on the hydrophilic and lipophilic characteristics of the matrices to release mesalamine in the colon in a sustained and uniform manner. When the outer, hydrophilic matrix interacts with a person's digestive fluids, the matrix creates a swollen barrier preventing aqueous solution from reaching the inner, lipophilic matrix. This delay permits the product to proceed through the digestive system until the water breaks apart the outer matrix, releasing the lipophilic granules. Here, the district court concluded that the magnesium stearate is overwhelmed by the hydrophilic properties of the sodium starch glycolate, and credited expert testimony that the hydrophilic sodium starch glycolate is more potent than the mag stearate when outside the granules.

The district court found that the magnesium stearate exerted lipophilic influence in the outer matrix. According to the opinion, no one has suggested that magnesium stearate, when in the outer matrix, is neither lipophilic nor hydrophilic. Thus, the panel concludes that the magnesium stearate retains its lipophilic character in the extragranular space. Accordingly, the magnesium stearate structurally and functionally relates to the invention, and its presence in the outer matrix violates the "consisting of" requirement of the claims.

Again according to the opinion, *Norian* did not restrict "related" components to only those that advance or are intended to advance a Markush group's allegedly inventive elements, which would in effect equate the scope of a Markush group's "consisting of" language with either "comprising" or "consisting essentially of."

Infringement Under the Doctrine of Equivalents

Jang v. Boston Scientific Corp., 2017 U.S. App. LEXIS 18825 (Fed. Cir. 2017)

In the fourth time this case has been to the Circuit, the panel affirms the district court's denial of Dr. Jang's motion for JMOL as to literal infringement and its vacatur of the jury verdict of infringement under the doctrine of equivalents ("DOE").

Dr. Jang's invention is to a coronary stent. At trial, the jury concluded that there was no literal infringement. As to this verdict, Dr. Jang appeals the denial of JMOL, arguing that no reasonable jury could have so found. Dr. Jang was able to obtain a verdict of infringement under the DOE, but the district court vacated that verdict because Dr. Jang failed to provide an acceptable hypothetical claim for an ensnarement analysis that did not also ensnare the prior art.

In 2002, Dr. Jang assigned his '021 patent to Boston Scientific ("BSC") for \$50 million, with the understanding that if BSC ever developed a stent that was covered by the '021 patent, BSC would owe Dr. Jang royalties up to an additional \$110 million. The issue here is whether BSC's Express stent is one such stent.

Dr. Jang filed suit against BSC to recover the additional royalties and BSC requested ex parte reexamination. BSC also moved to amend its answer to allege that if the patent was invalidated in the reexamination, it did not owe already-accrued royalties. That motion was denied, the district court deeming a ruling of invalidity irrelevant as to whether BSC owed Dr. Jang for past royalties. After the PTO invalidated all of the claims in the reexamination, BSC used the same tack and moved for summary judgment that it did not owe royalties for royalties accrued before the PTO ruling, but the district court denied that motion as well.

Prior to trial, BSC argued that Dr. Jang's DOE theory would ensnare the prior art, referencing three prior art patents. The district court decided to conduct a post-trial ensnarement hearing in the event the jury returned a verdict of infringement under the DOE. The jury subsequently ruled that there was no literal infringement but because the jury found infringement under the DOE, the district court conducted an evidentiary hearing on ensnarement. In that hearing, Dr. Jang presented hypothetical claims that he argued established a range of equivalents to which he believed he was entitled, above and beyond the actual scope of his asserted claims, that would be broad enough to literally cover BSC's Express stent, yet not so broad that it would be unpatentable over the prior art. However, the district court disagreed and vacated the jury verdict of infringement under the DOE.

The panel begins its analysis of the ensnarement issue by citing its 2009 *DePuy Spine v. Medtronic* case, which held that a DOE theory cannot be asserted if it will encompass or ensnare the prior art "even if a jury has found equivalence as to each claim element." The burden of producing evidence of prior art to challenge a hypothetical claim rests with an accused infringer, but the burden of proving patentability of the hypothetical claim rests with the patentee. Because the panel finds that Dr. Jang failed to submit a proper hypothetical claim that did not ensnare the prior art, the district court was correct that he was unable to meet his burden of proving his DOE theory. Again citing *DePuy*, the panel rejects Dr. Jang's argument that BSC should have been barred from presenting its ensnarement defense because BSC was not allowed to challenge the validity of the asserted claims. The panel rules that the ensnarement inquiry has no bearing on the validity of the actual claims, as the claims will remain valid whether or not Dr. Jang persuaded the panel that he is entitled to the range of equivalents sought here.

Willful Infringement

Mentor Graphics Corp. v. EVE-USA, Inc., 851 F.3d 1275 (Fed. Cir. 2017)

Mentor achieves almost a clean sweep of many issues presented to the Circuit in an appeal from litigation in the District of Oregon between Mentor and various Synopsys companies, including its subsidiary EVE-USA. Mentor asserted patents directed to so-called simulation/emulation technology. Synopsys also asserted two of its patents against Mentor. Mentor's '376 patent, directed to a system for debugging source code after synthesis, was the only patent tried to the jury, and the panel affirms the denial of JMOL and the \$36 million jury verdict. The Circuit also vacates the motion in limine precluding Mentor from presenting evidence of willful infringement. The panel reverses summary judgment that Mentor's '882 patent lacks written description support and summary judgment that Mentor's infringement allegations regarding two of its patents are barred by claim preclusion. The panel reverses summary judgment that a Synopsys patent is indefinite but affirms summary judgment that the other patent it asserted lacks patent-eligible subject matter. The following summary deals solely with the willful infringement issue.

The Panel Reverses the Grant of a Motion in Limine Precluding Mentor from Presenting Evidence of Willful Infringement as to Its '376 Patent

The district court held that Mentor was precluded from presenting evidence of willfulness because it relied exclusively on post-suit willfulness conduct, and it had not first sought a preliminary injunction. The court stated, "I think Synopsys is right about what we will call the *Seagate* rule, which is if you don't seek an injunction, you can't seek willful infringement for post-filing conduct." In reaching this conclusion, the court made two errors. First, it erred in determining that the alleged conduct was post-suit conduct because it erred in determining the filing date of the relevant suit. Second, it erred in concluding that Synopsys could not present evidence of post-filing willful infringement because Synopsys did not seek a preliminary injunction.

The relevant date for determining which conduct is pre-suit is the date of the patentee's affirmative allegation of infringement, in this case the date of Mentor's counterclaim. Mentor relies on Synopsys's acquisition of EVE, which terminated the license and rendered all subsequent sales infringing. These events occurred after the declaratory judgment was filed but prior to Mentor's counterclaim for infringement. The alleged acts of infringement are thus pre-suit acts, and there is accordingly no basis for excluding Mentor's evidence of willfulness.

The panel also disagrees with the court's second decision—that Mentor could not assert willful infringement because it did not seek a preliminary injunction. As the Circuit noted in its 2014 *Aqua Shield* case, there is "no rigid rule" that a patentee must seek a preliminary injunction in order to seek enhanced damages. The opinion also cites to the language in *Halo* "eschew[ing] any rigid formula for awarding enhanced damages under § 284." The panel thus holds that the district court abused its discretion in precluding Mentor from presenting evidence of willful infringement, and remands for further proceedings consistent with *Halo*.

Patent Office Matters

Covered Business Method Review

Return Mail, Inc. v. U.S. Postal Service, 868 F.3d 1350 (Fed. Cir. 2017)

The majority of a divided panel affirms the invalidity under § 101 of a Return Mail patent directed to the processing of mail items that are undeliverable due to an inaccurate address and, in doing so, broadens yet again the circumstances in which a Covered Business Method review can be utilized to challenge the validity of CBM patents. The AIA provides that a "person" may file a petition for CBM review if the person

has been sued for or charged with infringement of a patent. The majority rules that the USPS is a "person" under the Act, and the filing of an action in the Claims Court for compensation from the federal government is within the definition of "sued for infringement."

The panel first considers whether it can hear an appeal of the "standing" issue. The AIA authorizes appeals from the Board's final written decision in a CBM review proceeding, but the statute also includes a "no appeal" provision in § 324(e), stating that the determination by the Director whether to institute review is "final and nonappealable." The Postal Service argued that this appeal is precluded by the *Cuozzo* decision, barring judicial review of determinations by the Board regarding a "reasonable likelihood" of success of an IPR petition, as well as challenges grounded "in a statute closely related to that decision to institute IPR." The entire panel rejects that argument, noting that the statutory language and the legislative history of the AIA supports the conclusion that questions related to a party's standing touch upon the PTO's ultimate authority to act, which should be subject to appellate review.

A CBM review may be filed by a person only after being "sued for infringement" or otherwise charged with infringement. The entire panel rules that the filing of an action against the government in the Claims Court qualifies as being "sued for infringement." Return Mail argued that because § 1498(a) is grounded in eminent domain, it cannot be a suit "for infringement," but the panel disagrees. Looking to the meaning of "sued for infringement," the panel rules that there is no basis for Return Mail's argument that "sued for infringement" is limited to actions under 35 U.S.C. § 271, as Congress could have limited the statutory language to "sued for infringement under 35 U.S.C. § 271 or otherwise could have excluded section 1498 suits from the definition, but it did not do so.

The majority and Judge Newman disagree on whether the USPS can be considered a "person" under § 18(a)(1)(B). In its opening appeal brief, Return Mail failed to argue that the USPS was not a "person" so the majority notes that the issue normally would be considered waived. Even assuming the issue is not waivable, the majority is not persuaded that the word "person" upends the applicability of § 18(a)(1)(B) to the government. The dissent relies on a presumption that "in common usage the term 'persons' does not include the sovereign, and statutes employing it will ordinarily not be construed to do so." But the majority rules that when determining the scope of the term "person," there is no hard and fast rule of exclusion, and much depends on the context. Nor does the AIA use the term "person" in other provisions to exclude the government. Since the legislative history does not directly address the issue, and in the absence of briefing, the majority rules that it will not engage in speculation that Congress intended to exclude the government from filing petitions.

In a fairly routine analysis, the panel applies the two steps of *Alice*, finding that the method claims are directed to an abstract idea and that there is nothing in the claims that transforms the abstract idea into "something more."

Comment: In addition to distinguishing *Cuozzo* as to the appealability issue, the panel distinguishes the Circuit's 2015 *Achates* decision. The continued viability of that decision is presently being considered by the en banc Circuit in *Wi-Fi One v. Broadcom*. Both *Cuozzo* and *Achates* interpreted the scope of 35 U.S.C. § 314(d), an analogous no-appeal provision for IPRs. Because the pertinent language of § 314(d) is identical to that of § 324(e), the USPS argued that the Board's determination that it had standing is not reviewable by the Circuit. Nevertheless, the panel concludes that *Cuozzo* and *Achates* are distinguishable. Here, in contrast, whether a party is statutorily allowed to petition for CBM review does not amount to "little more than a challenge to the PTO's conclusion" about the petition's likelihood of success on the merits. The Board's determination of whether a party is qualified under § 18(a)(1)(B) to petition for CBM review is a condition precedent independent from a threshold analysis regarding the likelihood of success of the information contained in the petition. For this reason, the panel rules that the standing issue is appealable.

<u>Secure Axcess v. PNC Bank, 859 F.3d 998 (Fed. Cir. 2017) Petition for Panel and En Banc</u>
Rehearings Denied

In a divided panel decision on February 21, 2017, the Circuit continued to further restrict what constitutes a Covered Business Method patent, ruling that a system for authenticating a web page does not constitute a CBM patent. Over the dissent of Judge Lourie, the majority rejected the patentee's argument and the Board's holding that its history of suing financial institutions for infringement should be considered in evaluating whether or not the patent qualifies as a CBM patent. The definition of CBM patent is important because CBM proceedings can challenge patents on indefiniteness and patentable subject matter while IPRs are limited to challenges based on printed prior art. See our full report on the panel decision <a href="https://example.com/here-new-continued-restrict what constitutes a system for authenticating a web page does not constitute a CBM patent. Over the dissent of Judge Lourie, the majority rejected the patentee's argument and the Board's holding that its history of suing financial institutions for infringement should be considered in evaluating whether or not the patent qualifies as a CBM patent. The definition of CBM patent is important because CBM proceedings can challenge patents on indefiniteness and patentable subject matter while IPRs are limited to challenges based on printed prior art. See our full report on the panel decision <a href="https://example.com/here-new-callenge-restrict.com/here-new-callenge-re

In a 6-5 vote, the majority denying the petition rules that the panel opinion adopts a resolution that soundly resolves an ambiguity in the statutory language and is consistent with the Circuit's precedents and with a number of Board decisions. In these circumstances, further review of the CBM issue would be a poor use of judicial resources. The program is now more than halfway through its specified eight-year life, and is set to expire in a little over three years. The program has consistently been small in scale, and the issue presented in this case has arisen only rarely. Although the statute grants relevant rulemaking authority to the PTO, the legal issue comes to this court unaccompanied by any regulation except one that merely incorporates the statutory language. Should an extension of the CBM program in some form be deemed desirable, congressional redrafting is a better process through which to address the issues raised by the statute's current language.

The dissenters believe that the panel's decision requiring that the claim must include a financial activity is contrary to the statutory language, congressional intent, and the Circuit's case law. According to the dissent, although not every error by a panel is enbancable, this statutory interpretation question certainly satisfies the requirements for en banc review. In particular, both the Federal Rules of Appellate Procedure and the Circuit's Internal Operating Procedures ("IOPs") provide that en banc review is available for cases that involve "a question of exceptional importance." Maintaining uniformity of decisions is also an appropriate basis to grant rehearing en banc. There may be many patents whose identity as a CBM patent either will be at issue during the life of this statutory provision in proceedings before the Board, or would have been at issue under the correct statutory interpretation.

Secure Axcess v. PNC Bank, 848 F.3d 1370 (Fed. Cir. 2017)

The Circuit continues to further restrict what constitutes a Covered Business Method patent, ruling that a system for authenticating a web page does not constitute a CBM patent. Over the dissent of Judge Lourie, the majority rejects the patentee's argument and the Board's holding that its history of suing financial institutions for infringement should be considered in evaluating whether or not the patent qualifies as a CBM patent.

A representative claim states:

A method comprising: transforming, at an authentication host computer, received data by
inserting an authenticity key to create formatted data; and returning, from the authentication host
computer, the formatted data to enable the authenticity key to be retrieved from the formatted
data and to locate a preferences file, wherein an authenticity stamp is retrieved from the
preferences file.

The written description similarly discusses computer security with a focus on authenticating a web page. However, the written description does contain references that might be considered to concern "at least facially," according to the opinion, activities that are financial in nature.

The AIA § 18(a)(1)(E) defines a "covered business method patent" as: "a patent that claims a method or corresponding apparatus for performing data processing or other operations used in the practice, administration, or management of a financial product or service"

Secure Axcess first argued that the requirement that the "patent claims" applies only to the first clause—a method or corresponding apparatus for performing data processing or other operations—and not to that clause <u>and</u> the second clause—used in the practice, etc., of a financial product or service. On that issue, the majority rules construing the claim as argued by Secure Axcess would be radically out of keeping with the statute and congressional intent, considered in the context of other provisions in the statute.

The majority then turns to the more interesting issue as to whether this is properly considered "a financial product or service." The patent owner argued to the Board that the '191 patent was ineligible for CBM review because covered financial products and services were limited to products and services such as credit, loans, real estate transactions, securities and investment products, and similar financial products and services. The Board correctly pointed out that both the PTO in its rulemaking, and the Circuit in its then-recent *Versata* opinion, rejected that narrow view.

Moreover, in its *Unwired Planet* decision, the Circuit was called upon to determine if it had to limit itself to the express language of the statutory definition of a CBM patent, or could incorporate comments from the legislative history. The Circuit concluded that the additional phrases are not part of the statutory definition, and when used "as the legal standard to determine whether a patent is a CBM patent, that standard was not in accordance with law." The majority also holds that *Blue Calypso v. Groupon* is not to the contrary. There, the phrase used by the Board was "financial in nature," which does not involve the statutory broadening at issue in *Unwired Planet*.

In deciding the issue of whether or not these claims qualify under the CBM statute, the Board took into consideration the litigation history of Secure Axcess suing Bank of America, GE Capital and 40 other financial institutions. The majority holds that the litigation history should not be considered because a patent owner's choice of litigation targets could be influenced by a number of considerations, such as the volume of a particular target's infringement; the financial condition of the target; which targets are most likely to be willing to settle; available and friendly venues; and so on. The opinion might have added that those other factors are particularly significant here, given that Secure Axcess is an NPE.

The majority concludes that a remand to the Board for further consideration of the issues would be a wasteful act, since an affirmative finding that this patent so qualifies would be, in terms of the APA standard, arbitrary or capricious. The Board's conclusion that this is a CBM patent is therefore reversed.

Unwired Planet, LLC v. Google, Inc., 841 F.3d 1376 (Fed. Cir. 2016)

The Circuit reverses and remands a determination of patent invalidity by the Board in a covered business method (CBM) patent proceeding because the Board used on overly broad definition of what constitutes a CBM patent. According to the panel, the Board's application of the "incidental to" and "complementary to" language from the legislative history and from comments by the PTO during legislative consideration of the AIA, instead of the statutory definition, renders superfluous the limits Congress placed on the definition of a CBM patent. Therefore, according to the panel, the patent should never have been accepted for CBM patent review.

The '752 patent describes a system that allows users of cell phones to set "privacy preferences" that determine whether "client applications" are allowed to access their device's location information. The privacy preferences used to determine whether client applications are granted access may include, for example, "the time of day of the request, the device's current location at the time the request is made, the accuracy of the provided information and/or the party who is seeking such information." The Board determined that the '752 patent was a CBM patent because the location service could involve an eventual sale of services.

The panel applies the statutory definition of a CBM patent: "a patent that claims a method or corresponding apparatus for performing data processing or other operations used in the practice, administration, or management of a financial product or service." The panel instructs the Board that a patent directed to an invention that is merely "incidental to a financial activity, or complementary to a financial activity" is not a covered business method patent. This "incidental" or "complementary" language

was found in one legislator's comments during consideration of the bill that became the AIA, and the PTO's contemporaneous "general policy statement" regarding those comments, but that language never made it into the statute. Nor did the PTO adopt this statement in its rule-making procedures.

According to the panel, it is not enough that a sale has occurred or may occur, or even that the specification speculates such a potential sale might occur, for a patent to be deemed a CBM patent. The panel asks: "Does the sale of the dirt that results from use of the ditch digger render the patent a CBM patent? No, because the claims of the ditch-digging method or apparatus are not directed to 'performing data processing or other operations' or 'used in the practice, administration, or management of a financial product or service,' as required by the statute." Neither the delivery of advertising, as claimed by Unwired, nor the sale of dirt obtained by operation of a ditch digger, "claims a method or corresponding apparatus for performing data processing or other operations used in the practice, administration, or management of a financial product or service."

Reexaminations

In Re: Affinity Labs of Texas, LLC, 856 F.3d 902 (Fed. Cir. 2017)

The Circuit affirms the invalidity of all of the challenged claims in an appeal of an inter partes reexamination. But before getting to this ultimate issue, the panel evaluates a determination by the Board that the estoppel provision of section 317(b) did not required dismissal of the reexamination. That section requires that the PTO dismiss pre-AIA reexaminations after the party who requested the reexamination receives a final decision against it. Affinity had sued Apple, which petitioned for inter partes reexamination. The parties settled, with Apple's invalidity counterclaims being dismissed *without prejudice*. The Board ruled and the Circuit affirms that the dismissal without prejudice does not meet section 317(b)'s required condition for terminating the reexamination.

When Congress enacted the AIA, it specified that the pre-AIA provisions of the inter partes reexamination statute were to remain applicable to inter partes reexaminations. Therefore, while inter partes reviews are governed by the AIA, inter partes reexaminations are not. Here, the dismissal without prejudice of Apple's invalidity counterclaims does not reflect a final decision that Apple "failed to sustain the burden of proving the asserted claims' invalidity." Nor does the dismissal without prejudice prevent Apple from again challenging the validity of the patent in subsequent litigation. The estoppel provision of pre-AIA section 317(b) therefore does not serve as a bar to the inter partes reexamination of the patent.

The patent at issue relates to an audio download method in which content, such as a music file, is made available for download to different devices such as an MP3 player or a computer. The panel reviews the Board's claim construction under the broadest reasonable interpretation test and concurs with the Board. Since Affinity concedes that with this construction, the challenged claims are unpatentable, the panel affirms the Board's decision.

In Re: Affinity Labs of Texas, LLC, 856 F.3d 883 (Fed. Cir. 2017)

The issues were somewhat different in this second case involving an Affinity patent directed to connecting an MP3 player to a car's sound system. Affinity asserted the patent against Volkswagen and Apple, and the defendants requested inter partes reexaminations. Apple settled prior to trial but VW proceeded to trial and lost, the jury ruling that the patent was both infringed and valid. Affinity moved to dismiss the reexamination, citing section 317(b). Unlike the prior case, the post-trial judgment was with prejudice but the issue before the Circuit was whether the inter partes reexamination should be dismissed as to all claims or only those at issue in the Affinity/VW litigation.

Independent claims 28 and 35 were found infringed and valid, so claims that depended from those claims were also determined to fall within the estoppel provision of 317(b). However, the panel rules that "the

inter partes reexamination statutory scheme consistently reflects a careful, express focus on implementation on a claim-by-claim basis." In support of its position, the panel references section 311 (requiring a reexam requester to apply the prior art to every claim for which reexamination is requested) and section 315 (prohibiting a challenge to a patent claim which is determined to be valid).

As noted in the above *Affinity* case, Apple settled with Affinity as to its counterclaim for invalidity without prejudice, so Affinity's motion to dismiss as to the claims it challenged is also denied. An individual, Richard King, filed an ex parte reexamination, which was merged into the Apple/Affinity inter partes reexaminations, but because his reexamination was ex parte and not inter partes, section 317(b) is also, by the terms of the statute, inapplicable.

The panel then proceeds to the Board's determination of anticipation and obviousness and holds that substantial evidence supports the decisions as to all of the challenged claims.

Interference

Storer v. Clark, 860 F.3d 1340 (Fed. Cir. 2017)

The Circuit affirms a patent interference determination by the PTAB that a 2002 patent owned by Idenix, a Merck subsidiary, failed to enable the invention because it would have taken undue experimentation for one with ordinary skill in the art to practice the invention. This ruling thus gives a 2007 Gilead Pharmaceutical patent application priority.

At issue in this case is a patent application to methods of treating hepatitis C by administering compounds having a specific chemical and stereochemical structure. The interference was declared between an issued patent (Storer et al.) and a pending application (Clark), both of which were filed before the effective date of the AIA, which abolished the first-to-invent interference rule in favor of a first-to-file rule.

Storer initially filed suit in the District of Delaware, seeking review of the Board's decision under 35 U.S.C. § 146. The district court dismissed the case, based on the Circuit's 2015 ruling in *Biogen v. Japanese Foundation for Cancer Research*, that the AIA eliminated the option of district court review for interferences declared after September 15, 2012.

The issue on appeal is whether a Storer provisional, together with the prior art, enabled compounds having a particular substituent. Enablement is relevant to the issue of whether the provisional application is a constructive reduction to practice. Pursuant to 37 C.F.R. § 41.201, reduction to practice means a described and enabled anticipation under 35 U.S.C. 102(g)(1), in a patent application of the subject matter of a count. When a party to an interference seeks the benefit of an earlier-filed United States patent application, the earlier application must meet the requirements of 35 U.S.C. § 120 and 35 U.S.C. § 112 ¶ 1 for the subject matter of the count.

Whether undue experimentation is required is not a single, simple factual determination, but rather is a conclusion reached by weighing many factual considerations. Relevant factors may include (1) the quantity of experimentation necessary, (2) the amount of direction or guidance presented, (3) the presence or absence of working examples, (4) the nature of the invention, (5) the state of the prior art, (6) the relative skill of those in the art, (7) the predictability or unpredictability of the art, and (8) the breadth of the claims.

The panel concludes that substantial evidence supports the Board's finding that "a high amount of experimentation is necessary to synthesize" the target compound. The record before the Board showed sufficient variability and unpredictability to support the Board's conclusion that Storer's provisional application did not enable the interference subject matter.

Inter Partes Review

Agua Products, Inc. v. Matal, 2017 U.S. App. LEXIS 19293 (Fed. Cir. 2017)

A majority of the Circuit vacates and remands the Board's denial of the patent owner's motion to amend its patent in an IPR proceeding. On remand the Board is instructed to issue a final decision under § 318(a) assessing the patentability of the proposed substitute claims without placing the burden of persuasion on the patent owner. This decision should make it considerably easier for patentees who have been pulled into an IPR proceeding and will cause would-be IPR petitioners to think twice about filing a petition where a patentee can narrow its claims but still cover the petitioner's product.

The Circuit accepted en banc review to consider the proper allocation of the burden of proof when amended claims are proffered in IPR proceedings. Specifically, the Circuit considered how the AIA's statutory language in 35 U.S.C. § 316(e), which places "the burden of proving a proposition of unpatentability by a preponderance of the evidence" onto the petitioner in an IPR, applies to claim amendments authorized by 35 U.S.C. § 316(d). A panel of the Circuit concluded that the Board did not abuse its discretion in denying appellant Aqua Products' motion to amend various claims of its patent during the course of an IPR. See our report on the panel decision here.

Upon review of the statutory scheme, a majority of the Circuit rules that § 316(e) unambiguously requires the petitioner to prove all propositions of unpatentability, including for amended claims. This conclusion is dictated by the plain language of § 316(e), is supported by the entirety of the statutory scheme of which it is a part, and is reaffirmed by reference to relevant legislative history. Because a majority of the judges believe the statute is ambiguous on this point, the principal opinion written by Judge O'Malley concludes in the alternative that there is no interpretation of the statute by the PTO to which this court must defer under the Supreme Court's 1984 *Chevron* decision. In the absence of any such deference, the most reasonable reading of the AIA is one that places the burden of persuasion with respect to the patentability of amended claims on the petitioner.

However, the principal opinion notes its decision is narrow: "Because the participating judges have different views—both as to the judgment we should reach and as to the rationale we should employ, ... today's judgment is narrow. The final written decision of the Board in this case is vacated insofar as it denied the patent owner's motion to amend the patent. The matter is remanded for the Board to issue a final decision under § 318(a) assessing the patentability of the proposed substitute claims without placing the burden of persuasion on the patent owner."

In four concurring-in-part or dissenting-in-part opinions, the judges address the issue of deference to the PTO in its interpretation of its rules under *Chevron*, and the "burden of production" versus the "burden of persuasion."

Idemitsu Kosan Co., Ltd. v. SFC Co. Ltd., 870 F.3d 1376 (Fed. Cir. 2017)

The Circuit affirms an IPR decision invalidating the claims of an Idemitsu patent directed to an electroluminescence device as being obvious, and rejects Idemitsu's argument that SFC's argument relating to the teachings of a patent to Arakane was raised too late because it did not appear in SFC's petition or the Board's institutional decision.

The '648 patent claims a light-producing device containing an organic medium layer between an anode and cathode to emit light when a voltage is applied through the electrodes. The organic medium layer comprises an arylamine compound and a derivative compound. The Board found that Arakane teaches two compounds corresponding to the arylamine compound and the derivative compound to be combined to form the organic medium layer of the claimed device. On appeal, Idemitsu argued that the Board erred in finding that Arakane taught combining those particular compounds for the purpose of creating a light

emitting layer. Specifically, Idemitsu argued that Arakane features a requirement about an "energy gap" of the compounds, but the Board made no findings with respect to the energy gap relationship of the compounds corresponding to the '648 patent's components.

The Circuit affirms the Board's finding that Arakane's teaching to combine an HT compound with an ET compound to produce a light emitting layer is separate from its description of the energy gap. While Arakane may indicate that a particular combination is undesirable for its own purposes, the reference can nevertheless teach that combination if it remains suitable for the claimed invention.

Idemitsu also argued that the Board should not have engaged in fact-finding as to the teachings of Arakane without the benefit of expert testimony. But here, Idemitsu provided no supporting evidence for its own position – that Arakane teaches away. SFC has the ultimate burden of establishing unpatentability but it is not required to rebut mere attorney argument with expert testimony. The Board weighed the parties' competing arguments – each relying on the text of Arakane itself – and found SFC's reading to be more plausible. According to the panel, that is precisely what the Board is supposed to do.

The Circuit is not persuaded by Idemitsu's contention that SFC raised various obviousness arguments too late, since neither the Board's regulations nor the APA requires the institution decision or the petition of the IPR to anticipate and set forth every legal or factual issue that might arise in the course of the trial. The back-and-forth that took place during the IPR shows that what Idemitsu characterizes as an argument "raised too late" is simply the by-product of one party necessarily getting the last word.

Comment: The Circuit has in the past been critical of the Board for not providing an opportunity to a party to rebut arguments presented late in the IPR process. See, for example, the Circuit's *EmeraChem v. Volkswagen* case decided just three months ago. However, the panel feels that was not the situation in *Idemitsu*, citing the holding of the Circuit's 2016 *Genzyme Therapeutic* case: "There is no requirement, either in the Board's regulations, in the APA, or as a matter of due process, for the institution decision to anticipate and set forth every legal or factual issue that might arise in the course of the trial." The panel might have also cited its 2017 *Novartis v. Torrent Pharmaceuticals* decision for a similar holding. The cases seem to be fairly consistent in affirming Board decisions where the appellant has been on notice of an argument even if the argument was not fully developed until the filing of the final brief.

Ultratec, Inc. v. CaptionCall, LLC, 2017 U.S. App. LEXIS 16363 (Fed. Cir. 2017)

The Circuit vacates and remands an IPR decision invalidating the claims of Ultratec patents, ruling that the Board abused its discretion in refusing to admit potentially conflicting trial testimony of an expert witness for CaptionCall without explaining the bases for its decision.

Ultratec sued CaptionCall for infringement of patents directed to systems for assisting deaf or hard-of-hearing users to make phone calls. CaptionCall petitioned for IPRs but before the Board issued its final written decisions, the case went to trial, where a jury found the patents valid and infringed and awarded damages of \$44 million. The Board subsequently issued its decision invalidating all of the challenged claims based on anticipation or obviousness, and Ultratec appealed. The district court immediately stayed all post-trial briefing, casting doubt on Ultratec's ability to collect the awarded damages.

CaptionCall retained the same invalidity expert, Mr. Occhiogrosso, in the district court litigation and the IPRs, and he testified about some of the same references in the two proceedings. Within a week of the jury trial, Ultratec sought to introduce Mr. Occhiogrosso's trial testimony into the IPRs, alleging that his trial testimony conflicted with written declarations he made in the IPRs. The Board denied Ultratec's request in a conference call and indicated that a written order would follow, but the order never was issued. Of consequence to the panel was that the Board did not review the testimony when deciding whether it could be admitted. Following the hearing, the Board issued final written decisions, relying heavily on the Board's belief that Mr. Occhiogrosso was a credible witness.

The PTO's regulations require that a request to submit new information must show: (1) why the supplemental information reasonably could not have been obtained earlier; and (2) that consideration of the supplemental information would be in the interests of justice. The Circuit determines that Ultratec satisfied both requirements. The inconsistent testimony of the expert witness did not exist sooner and could not have been proffered to the Board sooner. The recent sworn testimony was by the same expert addressing the same patents, references, and limitations at issue in the IPR. Under such circumstances, no reasonable fact finder would refuse to consider evidence of inconsistent sworn testimony.

The Board offered no written order for the denial of admitting the trial testimony, and failed to offer any reasoned basis why it would not be in the interest of justice to consider sworn inconsistent testimony on the identical issue. CaptionCall and the PTO argued that Ultratec bore the responsibility to memorialize the conference call if it desired a written record for the denial. The Circuit finds no burden on the patentee to memorialize agency action or reasoning. It is the agency that has the obligation to fulfill its APA duty to provide a "satisfactory explanation for its action." The panel therefore rules that the Board abused its discretion when it refused to admit and consider the trial testimony by the expert witness and when it refused to explain its decision. The Board also notes, as it has in many recent decisions, that without an adequate explanation for the bases of a ruling, the Circuit cannot conduct a meaningful review.

Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co. Ltd., 868 F.3d 1013 (Fed. Cir. 2017)

The Circuit affirms an IPR holding of obviousness of a patent directed to a controller used in HVAC systems. In a concurring opinion, two Circuit judges question the appropriateness of the Board permitting joinder of a petition filed after the expiration of the one-year period in which petitions must be filed, and the Board's practice of expanding a panel to five judges. Here, a three-judge panel ruled the joinder inappropriate, but the Board's chief judge expanded the panel, which then voted to allow joinder.

Before turning to validity, the panel affirms the Board's construction of "control signals" to encompass an "on/off signal." The specification supports this "broadest reasonable interpretation," as does the doctrine of claim differentiation. Specifically, the "control signals" limitation recited in the independent claim encompasses other signals in additional to the specific control signals recited in dependent claim 20, given that dependent claims must further limit independent claims.

The asserted combination of Bessler and Kocybik is to incorporate "sinewave commutation" as taught by Kocybik into Bessler HVAC system. Regarding Nidec's arguments that Bessler teaches away from the asserted combination, the panel finds that there is nothing in Bessler to "criticize, discredit, or otherwise discourage" the use of sinewave commutation in HVAC systems.

The most interesting part of this decision is in the non-binding concurring opinion in which Judges Dyk and Wallach question the joinder of a second petition filed by Zhongshan more than one year after the filing of its initial petition. The AIA provides that an IPR may not be instituted if the petition is filed more than one year after the filing of a complaint against the petitioner or its privy. 35 U.S.C. § 315(b). This section does not apply to requests for joinder under § 315(c), which Judges Dyk and Wallach suggest was designed only to permit a new party to join a proceeding, rather than to allow a time-barred petitioner to add new issues through joinder of a second petition.

The concurrence also expresses concern about the PTO's practice of expanding administrative panels to "secure and maintain uniformity of the Board's decisions." Here, after a three-member panel denied Zhongshan's request for joinder, Zhongshan requested rehearing by an expanded panel. The chief judge of the Board, acting on behalf of the Director, expanded the panel from three to five members, and the reconstituted panel set aside the earlier decision. According to the concurrence: "While we recognize the importance of achieving uniformity in PTO decisions, we question whether the practice of expanding panels where the PTO is dissatisfied with a panel's earlier decision is the appropriate mechanism of achieving the desired uniformity." But, as with the joinder issue, they indicate that this issue does not need to be resolved here in order to affirm the Board's decision.

EmeraChem v. Volkswagen, 859 F.3d 1341 (Fed. Cir. 2017)

In affirming in part and reversing in part, the Circuit rules that the Administrative Procedure Act requires that the patentee be given an opportunity to respond to arguments the Board makes in cancelling claims directed to exhaust treatment catalysts used in diesel engines.

EmeraChem presented two arguments on appeal. First, EmeraChem argued that one of the cited references (Campbell) did not qualify as prior art under 35 U.S.C. § 102(e) because it was not invented "by another." Of the four inventors listed in the Campbell reference, two of the inventors (including Campbell) were also listed as inventors in the patent in question. EmeraChem's argument relies on a declaration of Campbell stating that the two common inventors are the sole inventors of the portions of the Campbell reference used for the obviousness rejection of the claims.

The Circuit notes that, for a prior art reference to be disqualified under § 102(e), an uncorroborated declaration by an interested party is insufficient to show that portions of the reference relied on as prior art and the claims in question represent the work of a common inventive entity. For example, EmeraChem did not call on the non-common inventors to testify as to the credibility of the declaration, and the declaration was made at least twenty years after the time of conception.

Regarding EmeraChem's second argument, as to sufficient notice, EmeraChem asserts that adequate notice was not provided for one of the references (Stiles) being used to challenge claims 3, 16, and 20 for obviousness. In particular, EmeraChem asserts that Volkswagen's pleading did not indicate that Stiles was being used to challenge the obviousness for those claims and, therefore, EmeraChem did not have an opportunity to respond to the grounds of the obviousness challenge.

While Volkswagen's pleading included a general statement that all the claims were challenged over a list of references including Stiles, Volkswagen's claim chart detailing the rejections of each of the claims did not indicate that Stiles was being used to challenge claims 3, 16, and 20. Further, the Circuit notes that the Board's Institution Decision included a claim-by-claim listing of the specific prior art references for which it was instituting review, and Stiles was not listed as being used for the review of those claims. Based on these reasons, the Circuit finds that EmeraChem was not provided with sufficient notice and the opportunity to respond.

In Re AT&T Intellectual Property II, LLC, 856 F.3d 991 (Fed. Cir. 2017)

In *AT&T*, the Circuit determines that the Board did not exceed its statutory authority when instituting an inter partes reexamination despite the reexamination requester later filing a petition requesting that the PTO deny its reexamination request, and affirms the Board's finding of anticipation.

AT&T's patent is directed to digital video data compression. LG petitioned for IPR based on a Yang patent but then determined that Yang did not support its anticipation contention, and filed a petition requesting that the PTO deny its reexamination request. However, it did not withdraw from the reexamination nor did it withdraw its reexamination request. Subsequently, the PTO granted reexamination and both AT&T and LG sought reconsideration, urging withdrawal based on deficiencies in Yang. The PTO denied the reconsideration request, stating that the examiner is required to make a "thorough study of the patent...and investigation of the available prior art...upon a reexamination proceeding" and the reexamination continued. LG subsequently withdrew from the proceedings.

The Circuit holds that because there was a reexamination request and a requester (LG), and that the Board found "a substantial new question of patentability affecting any claim of the patent raised by the request," the Board acted within its statutory authority by instituting reexamination.

As a result of the reexamination, the Board found that the AT&T patent was anticipated by a patent to Krause, which discloses the claim element "mapping a square block of transform coefficients into a one-dimensional list." AT&T contends that Krause's disclosure of "dividing a block of coefficients into regions" and its assertion that "vector coding an entire block at once is difficult" limits the scope of the Krause reference. The Board disagreed and found that Krause generally discloses vector coding of an entire

pixel block, that the reference to dividing the block into regions was only a preferred embodiment that did not limit the full disclosure. The Circuit holds that the Board's finding of anticipation is supported by substantial evidence

Novartis AG v. Torrent Pharmaceuticals Limited, 853 F.3d 1316 (Fed. Cir. 2017)

The panel rejects the Novartis contention that the Board should not have relied on an additional reference (Sakai) in the Final Written Decision invalidating a patent covering its billion dollar Gilenya® drug used to treat multiple sclerosis. Thus, the Circuit dismisses Novartis's argument that it had been denied adequate notice, that it would have submitted a "vastly different" record than it did if it had known Sakai was still a live issue, and that the Board's final decision therefore violated the APA.

The panel affirms PTAB findings that the claims are invalid as obvious, holding that the PTAB can rely on references which were not the grounds for institution of an IPR for supporting a finding of obviousness. Moreover, if trying to establish nonobviousness by presenting *objective indicia*, specific arguments for each relevant claim (independent and/or dependent) should be made to help establish nexus. If particular arguments for each claim are not made during the PTAB proceedings, such are waived and can't be made on appeal.

In its IPR petition, Torrent alleged that the claims were obvious due to a combination of references identified as Chiba and Aulton. However, Torrent also contended that some of the claims were anticipated by Sakai, and that other claims were obvious in view of a combination of Sakai and Chiba. The Board instituted the IPR based on the obviousness of Chiba and Aulton, and noted that Sakai provided the motivation to combine these two references.

The panel points out that the Board did not rule out Sakai in the Institution Decision, and the Board's discussion of Sakai in the Final Written Decision is not inconsistent with its review in the Institution Decision. The panel also rejects Novartis's complaints of "surprise" and its contention that, following the Institution Decision, the parties "paid Sakai scant attention in subsequent proceedings." In fact, the parties debated Sakai at length throughout the proceeding and in the same context that it was discussed by the Board in the Final Written Decision. Both parties' experts went into significant detail in their post-institution declarations discussing Sakai and its applicability to the motivation to combine inquiry.

The panel also rejects Novartis's characterization of Sakai as the "missing link" in the Board's obviousness analysis. Contrary to Novartis's contention, Sakai was discussed by the Board as one of several independent grounds supporting the motivation to combine. This is not a case where Sakai provided the linchpin of the Board's analysis, as Novartis contends. Moreover, had Novartis believed the Board eliminated Sakai from the proceeding, it had various procedural mechanisms at its disposal to respond to any perceived impropriety with Petitioners' continued reliance on the reference. For all these reasons, the panel finds no violation of the APA.

Wasica Finance v. Continental Automotive, 853 F.3d 1272 (Fed. Cir. 2017)

In a consolidated appeal of IPR proceedings involving two Wasica patents, the panel affirms all of the invalidity determinations and affirms all but one of the validity rulings. The patents are directed to systems for monitoring tire pressure, with each tire including a pressure measuring device and a transmitter that sends pressure data to a corresponding receiver.

The panel affirms the claim constructions by the Board. This doomed Wasica, because it did not contest the invalidity rulings if the constructions were affirmed. Because the patents had expired, the claims were construed under *Phillips* and not based on the broadest reasonable interpretation. The panel first rejects Wasica's argument that the claimed signals must contain numerical values of pressure, since claim 1 recites displaying data "as numbers *or* symbols." Second, the panel disagrees with Wasica's argument that "emittance of a predetermined switching signal" should include both wired and wireless transmissions. The plain and ordinary meaning of "emit" is simply "to send out," and electrical signals can

be "sent out" over wired connections. Moreover, the specification is rife with examples where the switching signal propagates in both wireless and wired form, and claims are normally not construed to exclude disclosed embodiments.

The panel rejects Schrader's argument that Oselin's prior art transmitters must use a constant frequency. The Board found, based on expert testimony, that one of ordinary skill would not have read Oselin to disclose what Schrader's counsel urges. The decision also rejects Schrader's argument that claim 6 is not anticipated since Oselin is at best "unclear" as to its teaching that allegedly anticipates. The panel holds that ambiguous references do not anticipate a claim.

The panel finds that substantial evidence supports the Board's ruling that Oselin's broad invocation of "any modulation scheme" (a genus) does not disclose the constant-frequency modulation scheme of claim 6 (a species). Therefore, the Board's determination that claim 6 is not anticipated is affirmed.

The panel rejects Continental's attempts to cure its IPR petition that offered only "conclusory and sweeping" obviousness allegations, noting that petitioners in IPR proceedings must adhere to the requirement that the initial petition identify with particularity the evidence that supports the grounds for the challenge to each claim. Unlike district court litigation—where parties have greater freedom to revise and develop their arguments over time—the expedited nature of IPRs bring with it an obligation for petitioners to make their case in their initial petition. After Wasica pointed out the flaws in Continental's petition, rather than explaining how the original petition was correct Continental effectively abandoned its petition in favor of a new argument. The panel sees no error in the Board declining to engage this new theory of prima facie obviousness.

Claim 9 requires the transmitter to send data to the receiver through "at least a 4-bit sequence" having four smaller "bit sequences" of information. Under the Board's construction, the transmitted signal must include at least eight bits—two for each component bit sequence. Not only does this approach rewrite "at least 4" to mean "at least 8," it also excludes signals comprising four, five, six, or seven bits that are expressly covered by the claim. Moreover, the context of the words surrounding "bit sequence" and the disclosure of a single-bit embodiment requires that the claim encompasses single-bit sequences. Therefore, claim 9 is invalid.

PersonalWeb Tech., LLC v. Apple, Inc., 848 F.3d 987 (Fed. Cir. 2017)

In yet another example of the Circuit demanding more detailed findings from the PTAB, the panel vacates an IPR obviousness determination in favor of Apple, instructing the Board to support its findings that the prior art disclosed all of the elements of the challenged claims and explain why a skilled artisan would have been motivated to combine prior art teachings with a reasonable expectation of success.

This matter arose when PersonalWeb sued Apple, alleging infringement of seven of its patents by iTunes and iCloud. PersonalWeb also sued EMC, Google and Facebook, and all but the '310 patent were successfully challenged by EMC in other IPR proceedings. The present appeal is from Apple's successful IPR against the '310 patent, based on prior art patents to Woodhill and Stefik.

The panel first affirms claim construction as being plain from the face of the claims, and then turns to obviousness. Under the theory presented by Apple and adopted by the Board, the panel rules that the Board had to make findings, supported by evidence and explanation, on two points. First, the Board had to find in Woodhill and Stefik all of the elements of the claims at issue. Citing the 2016 *NuVasive*, *Warsaw Orthopedic* and *Ariosa Diagnostics* cases, the panel holds that the Board also had to find that a person of ordinary skill in the art would have been motivated to combine the prior art as claimed and had a reasonable expectation of success in doing so. *KSR* explained that it is important to identify a reason that would have prompted a person of ordinary skill to combine the elements in the way the claimed new invention does. According to the Supreme Court: "To facilitate review, this analysis should be made explicit."

The panel finds the Board's opinion to be inadequate. For example, claim 24 requires "causing the content-dependent name of the particular data item to be compared to a plurality of values." The Board found this element satisfied but the Board discussion mentions only Stefik, not Woodhill. The Board's opinion does not explicitly say, let alone explain, how Woodhill shows that determination to involve a comparison between the content-based identifier and a plurality of values.

The panel also finds the Board's reasoning to be deficient in its finding that a relevant skilled artisan would have had a motivation to combine Woodhill and Stefik in the way claimed or that this combination would have had a reasonable expectation of success. The Board merely agrees with Apple's contention that a person of ordinary skill reading Woodhill and Stefik would have understood that the combination would have allowed for the selective access features of Stefik to be used with Woodhill's content-dependent identifiers feature. But that reasoning seems to say no more than that a skilled artisan, once presented with the two references, would have understood that they could be combined.

The panel concludes that its remand is not simply for the Board to explain what it meant or what it considered in reaching its decision. That is what the Circuit advised the Board in the *NuVasive*, *Warsaw Orthopedic* and *Ariosa Diagnostics* cases. Here, the Board is told that the remand is for the Board to go beyond that and reconsider the merits of the obviousness challenge.

Rovalma, S.A. v. Bohler-Edelstahl GMBH, 856 F.3d 1019 (Fed. Cir. 2017)

Rovalma's '056 patent is directed to methods for making steels with certain desired thermal conductivities. The Board instituted IPR based on Böhler's petition and its construction of the claims at issue. In its final written decision, however, the Board rejected Böhler's construction and adopted Rovalma's construction instead. Böhler had not submitted arguments or evidence for unpatentability based on Rovalma's construction. Nevertheless, the Board determined that Rovalma's own submissions demonstrated that the claims, construed as Rovalma urged, would have been obvious to a relevant skilled artisan over the same prior art that Böhler invoked.

On appeal, Rovalma argued that the Board exceeded its statutory powers in relying on Rovalma's own submissions based on the Circuit's 2016 *In re Magnum Oil* decision that rejected the PTO's contention that the Board could make an argument on behalf of a petitioner. The panel distinguished *Magnum*, noting that as long as Rovalma had adequate notice and opportunity to address the arguments, the Board's statutory authority was not exceeded.

Rovalma also argued on appeal that substantial evidence does not support the Board's determination. The panel concludes that the Board did not set forth its reasoning in sufficient detail to determine what inferences it drew from Rovalma's submissions. Therefore the panel cannot determine whether the Board's decision was substantively supported and procedurally proper, and therefore the Board's decision is vacated and remanded.

Comment: This case is yet another example of the Circuit demanding further details in Board decisions. Other recent examples include: *PersonalWeb Tech., LLC v. Apple, Inc.*, 848 F.3d 987 (Fed. Cir. 2017); *In re Marcel Van Os*, 844 F.3d 1359 (Fed. Cir. 2017); *In re NuVasive, Inc.*, 842 F.3d 1376 (Fed. Cir. 2016); and *In re Warsaw Orthopedic, Inc.*, 832 F.3d 1327 (Fed. Cir. 2016).

Icon Health and Fitness, Inc. v. Strava, Inc., 849 F.3d 1034 (Fed. Cir. 2017)

The Circuit affirms the PTAB's IPR determination of obviousness as to most of the claims of a patent directed to a portable system for retrieving exercise programs used in an exercise machine, but reverses that determination as to a few of the claims.

In its opinion, the panel considers Icon's argument that the Examiner and the PTAB simply adopted the factual and legal conclusions reached by Strava's technical expert, and failed to provide their own detailed analysis of the reasoning behind their conclusions. The panel reviews the patent claims in groups, noting first that it needed to look first to see if there was substantial evidence to support factual findings. In some instances, even though the expert rendered an opinion on the ultimate issue of obviousness, the panel explains that that does not constitute reversible error as long as other aspects of the expert declaration contain statements relating to factual findings. The opinion then proceeds to review the findings of the Board on the merits, evaluating whether the PTAB made factual findings with the requisite evidentiary basis and adequately explained its findings.

As to some of the claims, the panel concludes that neither the PTAB nor the Examiner made the requisite factual findings or provided adequate explanation. Specifically, the PTAB rejected some of Icon's arguments by asserting only that Icon "merely restates previous arguments regarding contacts of the cradle *as discussed above*." But the PTAB had never actually addressed those arguments above. The PTAB's opinion thus contains no substantive discussion of the limitations at issue for those claims. Because the PTAB failed to comport with what these principles demand, the PTAB's rejection of these claims must be vacated and the case remanded for additional PTAB findings and explanation.

The panel distinguishes the handling of other claims because the Examiner made his own factual findings. The PTAB did incorporate sections of the Examiner's Right of Appeal Notice, but the Examiner's factual findings have an adequate evidentiary basis. As to the adequacy of the Board's explanation, the panel notes that it would be preferable for the PTAB to provide its own reasoned explanation, but the PTAB did incorporate the Examiner's findings, which provide an adequate basis for the mere "combination of familiar elements." This is sufficient, if minimally, to explain the connection between the Examiner's factual findings and legal conclusion.

As to other claims, the PTAB merely stated that it was "not persuaded" by Icon's arguments and that "the Examiner's rejection was sufficiently supported by the record." However, the PTAB made only vague references to the prior art when summarizing Icon's arguments. At no point did the PTAB make explicit findings as to these elements or specify what aspects of the expert declarations it found persuasive. As with other claims, the PTAB never made factual findings with a basis in the record or provided the requisite explanation to support its findings for these claims. It merely summarized Icon's arguments and stated that the "Examiner's rejection was sufficiently supported by the record." Citing the recent *NuVasive* case, the panel notes that the PTAB cannot satisfactorily make a factual finding and explain itself by merely "summarizing and rejecting arguments without explaining why it accepts the prevailing argument."

Judge O'Malley concurs in part and dissents in part, writing separately because she believes that "remand is not the appropriate remedy in examination appeals in which the PTO has not carried its burden of establishing unpatentability." Rather than simply vacate the PTAB's findings with which the panel disagrees, she would reverse those findings.

Continuation Applications

Immersion Corporation v. HTC Corporation, 826 F.3d 1357 (Fed. Cir. 2016)

Avoiding the invalidation of some ten thousand patents, the Circuit reverses the district of Delaware, ruling that a continuation application filed the same day as the issuance of the parent is filed "before" the patent issues. The Circuit notes that the Supreme Court approved same-day continuations in 1863, and the 1952 Patent Act, which introduced 35 U.S.C. section 120, was broadly a codification of existing continuation practices. Same-day continuations have been approved by a consistent, clearly articulated agency practice going back at least half a century. This practice has engendered large-scale reliance and reflects the agency's procedural authority to define when the legal acts of "filing" and "patenting" will be deemed to occur.

Remedies

Damages

Rembrandt Wireless Technologies v. Samsung Electronics, 853 F.3d 1370 (Fed. Cir. 2017)

The Circuit agrees with Rembrandt and the district court that the per-unit royalty award is appropriate as to Samsung's infringing Bluetooth-compatible phone and television products, but is troubled by the court's application of the patent marking statute. Rembrandt did not require its licensee to mark products covered by one claim of the patent, which Rembrandt subsequently disclaimed to attempt to avoid the damages limitation of 35 U.S.C. § 287. The Circuit reverses the ruling that such a disclaimer is an effective means to avoid § 287 but remands on the issue of whether the patent marking requirement is on a claim-by-claim or entire patent basis.

Samsung unsuccessfully argued for a broader interpretation of the claims that would include prior art it asserted in support of its obviousness argument. The panel also affirms a determination of what constitutes a reasonable royalty, first agreeing that it was correct to consider the difference between what Samsung paid Texas Instruments for two different Bluetooth chips, one including Bluetooth Enhanced Data Rate functionality such as claimed in the patents-in-suit, and without. The Circuit also agrees it was appropriate for the district court to consider a settlement between Rembrandt and BlackBerry involving the same patents.

As an NPE, Rembrandt would normally not have had a problem with § 287, which provides that if a patentee fails to mark patented products with the patent number, damages are limited to those incurred after an infringer receives notice of the infringement (such as upon the filing of the suit in the present case). However, patentees must require licensees to mark their products, and Rembrandt failed to require its licensee Zhone to do that here. Rembrandt subsequently disclaimed claim 40 and argued that the obligation to mark the product embodying claim 40 had therefore vanished. The district court relied on Circuit precedence holding that a disclaimed patent claim is treated as if it had never existed, and denied a motion by Samsung that damages should exclude pre-notice damages. The Circuit rejects that holding, noting that while a disclaimer may relinquish rights of the patent holder, "we have never held that the patent owner's disclaimer relinquishes the rights of the public" and the provision requiring marking in order to collect pre-notice damages.

However, the Circuit has never ruled on whether the marking requirement applies on a "claim-by-claim" basis (as argued by Rembrandt) or a "patent-by-patent" basis (as argued by Samsung). Applying Rembrandt's claim-by-claim approach would permit Rembrandt to recover pre-notice damages for infringement of claims other than claim 40, which is the only claim that Samsung alleges the unmarked Zhone product embodied. The case is remanded for the district court to consider whether claim-by-claim or patent-by-patent is the correct approach.

Comcast IP Holdings v. Sprint Communications Co., 850 F.3d 1302 (Fed. Cir. 2017)

The Circuit affirms a \$7.5 million award to Comcast for the infringement by Sprint and Nextel (collectively, Sprint) of three patents directed to the use of computer network technology to facilitate a telephone call.

Sprint contests the construction of two of the terms of the patents but in each case the panel finds Sprint's arguments unpersuasive. Moreover, Sprint's arguments as to each of the terms are irrelevant because Sprint failed to show how its construction would have made any difference.

Sprint next complains that there was insufficient evidence for the jury to find two of the claim limitations—which the jury was instructed to apply its plain and ordinary meaning because neither party asked for a construction—were met by the accused systems. The panel disagrees, holding that there was substantial evidence to support the jury's findings.

In the panel's mind, Sprint was essentially proffering claim construction arguments in the guise of a challenge to the sufficiency of the evidence of infringement. But if Sprint desired such a narrow definition, it could (and should) have sought a construction to that effect. In light of this, the jury reasonably relied on Comcast's expert testimony that the relevant accused call flows were routed in a manner that infringes the patents.

Sprint also argued that the district court erroneously charged Comcast prejudgment interest from 2006 forward even though two of the three patents did not issue until later. In other words, Sprint contends the district court should have apportioned the prejudgment interest calculations based on the issue dates of the individual patents. Instead, the jury was told that the lump sum royalty payment should run from the date of the earliest relevant hypothetical negotiation.

The panel responds that the jury was also told that the hypothetical negotiators would have employed the "book of wisdom," looking forward in time from the date of the first hypothetical negotiation to account for "all information that would have been relevant to the parties in coming to and arriving at a deal." The experts agreed that this information would have included the issuance of any later patent relating to the same technology. Therefore, a lump sum royalty in the amount of \$7.5 million was appropriate and apportionment was not necessary. The panel therefore finds no abuse of discretion in the assessment of prejudgment interest against Sprint.

Prism Technologies LLC v. Sprint Spectrum L.P., 849 F.3d 1360 (Fed. Cir. 2017)

The Circuit affirms a reasonable royalty damage award of \$30 million for infringement of two Prism patents directed to network security systems, and affirms the denial of Prism's motion for an ongoing royalty. This appeal largely concerns Sprint's argument that a settlement agreement in which AT&T took a license under the same patents should not have been admitted into evidence.

On the same day that Prism sued Sprint, it sued AT&T for infringement of the same patents. The AT&T case went to trial first and on the last day of trial, just prior to closing arguments, the parties settled with AT&T taking a license. Sprint argued on appeal that the court should have excluded the license under Rule 403, which provides that relevant evidence may be excluded if its probative value is outweighed by its prejudicial effect. Weighing in favor of admission are: the patents are the same and the technology is very similar; one reason a litigation settlement would present distorted evidence is that litigation costs still to come may loom large in parties' decisions to settle, but here those costs were largely already incurred; and discovery and adversarial processes tend to move a legal inquiry toward improved answers, so the parties' agreement seems especially probative if reached toward the end of litigation. Weighing against admission are: the earlier suit's settlement figure may be too low if it was lowered by the patent owner's discounting of value by a possibility of losing on validity or infringement (the hypothetical negotiation assumes that the asserted patents are valid and infringed); and the royalty rate may have been too high since it included a risk to defendant of enhanced damages.

The panel has little trouble concluding that the court did not abuse its discretion in admitting the license agreement. What the court found particularly compelling was that Sprint itself had successfully sought the admission of several other Prism licenses on the same patents that resulted from prior litigation settlements (which of course set forth lower royalty rates). The panel also rejects two additional arguments Sprint presents: (1) litigation settlements on the issue of reasonable royalty rather than "established royalty" should be excluded; and (2) Rule 408 bars admission of evidence relating to settlement. After criticizing the application of those arguments in the present case, the panel rules that the arguments were waived since neither was presented to the district court.

Sprint also argues that the court erred in admitting Prism's damages evidence based on an estimate of costs Sprint avoided by infringing. At trial, Prism presented evidence that a reasonable royalty would reflect Sprint's willingness, in a hypothetical negotiation, to pay an amount calculated by reference to the costs that Sprint would have incurred if it had chosen not to infringe—in this case, the costs of building a private backhaul network instead of leasing backhaul services from third-party providers. Sprint argued that Prism's approach was insufficiently tied to the "footprint" of the invention because Prism did not

"invent" backhaul networks. The panel disagrees, ruling that a price for a hypothetical license may appropriately be based on consideration of the costs and availability of non-infringing alternatives and the potential infringer's cost savings.

In its cross-appeal, Prism argues that the district court erred in denying its motion for ongoing royalties. The panel notes that § 283 provides that a court may grant an injunction, and the Circuit has interpreted that provision to permit a court to award an ongoing royalty in lieu of an injunction. However, Prism's expert testified that the parties would have valued the patents based on Sprint's expected cost savings from avoiding the need to build its own backhaul network. Because those cost savings consisted, in large part, of Sprint's initial capital costs, the panel concludes that the jury could have reasonably found that the parties would have structured the agreement as a fully paid license.

Enhanced Damages

Halo v. Pulse and Stryker v. Zimmer, 136 S. Ct. 1923 (2016)

Section 284 of the Patent Act provides that, in a case of infringement, courts "may increase the damages up to three times the amount found or assessed." 35 U. S. C. §284. The Federal Circuit has adopted a two-part test for determining whether damages may be increased pursuant to §284. First, a patent owner must "show by clear and convincing evidence that the infringer acted despite an objectively high likelihood that its actions constituted infringement of a valid patent." *In re Seagate Technology, LLC*, 497 F.3d 1360. Second, the patentee must demonstrate, also by clear and convincing evidence, that the risk of infringement "was either known or so obvious that it should have been known to the accused infringer." *Ibid.* Under Federal Circuit precedent, an award of enhanced damages is subject to trifurcated appellate review. The first step of *Seagate* objective recklessness—is reviewed *de novo*; the second—subjective knowledge—for substantial evidence; and the ultimate decisionwhether to award enhanced damages—for abuse of discretion.

In each of these cases, petitioners were denied enhanced damages under the *Seagate* framework.

Held: The Seagate test is not consistent with §284.

- (a) The pertinent language of §284 contains no explicit limit or condition on when enhanced damages are appropriate, and this Court has emphasized that the "word 'may' clearly connotes discretion." *Martin v. Franklin Capital Corp.*, 546 U. S. 132, 136. At the same time, however, "[d]iscretion is not whim." Id., at 139. Although there is "no precise rule or formula" for awarding damages under §284, a district court's "discretion should be exercised in light of the considerations" underlying the grant of that discretion. *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 572 U.S. ____, _____. Here, 180 years of enhanced damage awards under the Patent Act establish that they are not to be meted out in a typical infringement case, but are instead designed as a sanction for egregious infringement behavior.
- (b) In many respects, the *Seagate* test rightly reflects this historic guidance. It is, however, "unduly rigid, and . .. impermissibly encumbers the statutory grant of discretion to district courts." *Octane Fitness*, 572 U. S., at .
- (1) By requiring an objective recklessness finding in every case, the *Seagate* test excludes from discretionary punishment many of the most culpable offenders, including the "wanton and malicious pirate" who intentionally infringes a patent—with no doubts about its validity or any notion of a defense—for no purpose other than to steal the patentee's business. *Seymour v. McCormick*, 16 How. 480, 488. Under *Seagate*, a district court may not even consider enhanced damages for such a pirate, unless the court first determines that his infringement was "objectively" reckless. In the context of such deliberate wrongdoing, however, it is not clear why an independent showing of objective recklessness should be a prerequisite to enhanced damages. *Octane Fitness* arose in a different context but is instructive here.

There, a two-part test for determining when a case was "exceptional"—and therefore eligible for an award of attorney's fees—was rejected because a claim of "subjective bad faith" alone could "warrant a fee award." So too here: A patent infringer's subjective willfulness, whether intentional or knowing, may warrant enhanced damages, without regard to whether his infringement was objectively reckless. The Seagate test further errs by making dispositive the ability of the infringer to muster a reasonable defense at trial, even if he did not act on the basis of that defense or was even aware of it. Culpability, however, is generally measured against the actor's knowledge at the time of the challenged conduct. In sum, §284 allows district courts to punish the full range of culpable behavior. In so doing, they should take into account the particular circumstances of each case and reserve punishment for egregious cases typified by willful misconduct.

- (2) Seagate's requirement that recklessness be proved by clear and convincing evidence is also inconsistent with §284. Once again, Octane Fitness is instructive. There, a clear and convincing standard for awards of attorney's fees was rejected because the statute at issue supplied no basis for imposing a heightened standard. Here, too, §284 "imposes no specific evidentiary burden, much less such a high one." And the fact that Congress erected a higher standard of proof elsewhere in the Patent Act, but not in §284, is telling. "[P]atent-infringement litigation has always been governed by a preponderance of the evidence standard." *Id.*, at . Enhanced damages are no exception.
- (3) Having eschewed any rigid formula for awarding enhanced damages under §284, this Court likewise rejects the Federal Circuit's tripartite appellate review framework. In *Highmark Inc. v. Allcare Health Management System, Inc.*, 572 U. S. the Court built on the *Octane Fitness* holding—which confirmed district court discretion to award attorney's fees—and rejected a similar multipart standard of review in favor of abuse of discretion review. The same conclusion follows naturally from the holding here: Because §284 "commits the determination" whether enhanced damages are appropriate to the district court's discretion, "that decision is to be reviewed on appeal for abuse of discretion." *Id.*, at _____. Nearly two centuries of enhanced damage awards have given substance to the notion that district courts' discretion is limited, and the Federal Circuit should review their exercise of that discretion in light of longstanding considerations that have guided both Congress and the courts.
- (c) Respondents' additional arguments are unpersuasive. They claim that Congress ratified the Seagate test when it reenacted §284 in 2011 without pertinent change, but the reenacted language unambiguously confirmed discretion in the district courts. Neither isolated snippets of legislative history nor a reference to willfulness in another recently enacted section reflects an endorsement of Seagate's test. Respondents are also concerned that allowing district courts unlimited discretion to award enhanced damages could upset the balance between the protection of patent rights and the interest in technological innovation. That concern—while serious—cannot justify imposing an artificial construct such as the Seagate test on the limited discretion conferred under §284.

Attorney Fees

AIA America, Inc. v. Avid Radiopharmaceuticals, 866 F.3d 1369 (Fed. Cir. 2017)

The Circuit rejects AIA's argument that it has a right to a jury trial as to its requests for attorney fees under § 285. AIA sued Avid for infringement of patents directed to research technologies stemming from the discovery of "Swedish mutation," a genetic mutation associated with early-onset familial Alzheimer's disease. Avid, in response, alleged that AIA lacked standing to assert the patents because Ronald Sexton, AIA's founder, and Dr. Mullan, the purported sole inventor, orchestrated a scheme to appropriate for themselves inventions from Imperial College (Imperial) in London and the University of South Florida (USF).

As part of a jury trial on AIA's standing, an alleged co-inventor Dr. Hardy testified about the conspiracy by which he, Dr. Mullan, and Mr. Sexton denied Imperial and USF rights in the Swedish mutation. The jury

determined that Dr. Hardy was a co-inventor so the district court determined that AIA lacked standing to assert the patents.

Avid subsequently moved for attorney's fees. The district court allowed the parties to submit extensive briefing, evidence, and declarations on the issue of fees. After holding a hearing in which AIA was allowed to present arguments in opposition to the motion, the court awarded fees in the amount of about \$4 million. AIA appealed on the basis that it was not permitted to try the attorney fee issue to a jury. Specifically, AIA argues that when an award of attorney's fees is based in part or in whole on a party's state of mind, intent, or culpability, only a jury may decide those issues.

According to the panel, the Seventh Amendment preserves the right to a jury trial for "suits at common law." The phrase "suits at common law" refers to suits in which only legal rights and remedies were at issue, as opposed to equitable rights and remedies. A two-step inquiry determines whether a modern statutory cause of action involves only legal rights and remedies. First, the court must compare the statutory action to 18th-century actions brought in the courts of England prior to the merger of the courts of law and equity. Second, the remedy sought must be examined to determine whether it is legal or equitable in nature. The Supreme Court has stressed the second step of this test is the more important of the two.

Turning to the first step, the nature of the claim, the panel holds that English courts have allowed claims for attorney's fees in both the courts of law and equity. But when brought in the courts of law, judges, not juries, determined attorney's fees. Therefore, since either a judge in the court of law or an equity court would determine attorney's fees, this implies that attorney's fees generally do not involve legal rights.

As to the second step, the nature of the remedy, the fact that the relief sought is monetary does not necessarily make the remedy "legal." When attorney's fees are themselves part of the merits of an action, they are regarded as a "legal" remedy. For example, a lawyer's fee claim against a client is a question for the jury, and a claim for attorney's fees under a contractual indemnification provision is a contractual "legal right" that is also a question for the jury. In contrast, when attorney's fees are awarded pursuant to a statutory prevailing party provision, they are regarded as an "equitable" remedy because they raise issues collateral to and separate from the decision on the merits. Since Avid sought fees as a prevailing party under § 285, the attorney's fees in this action are properly characterized as an equitable remedy.

Despite the foregoing, AIA argued that if a decision on attorney's fees involves considerations of a party's state of mind, intent, and culpability, then those questions must be presented to a jury under the Seventh Amendment. AIA, however, has pointed to no cases finding that once an issue is deemed equitable, a Seventh Amendment right to a jury trial may still attach to certain underlying determinations. Nor does AIA's argument fit within the Supreme Court's framework of when the right to a jury trial attaches to a claim.

Romag Fasteners, Inc. v. Fossil, Inc., 866 F.3d 1330 (Fed. Cir. 2017)

The majority of a split panel vacates and remands a case in which Romag sued Fossil for patent and trademark infringement involving magnetic snap fasteners for wrist watches. The district court had awarded \$2.5 million in attorney fees under the Patent Act but denied fees under the Lanham Act. The majority finds that the district court erred in applying *Octane Fitness*, both as to the patent and the trademark sides of the case.

Romag prevailed in the district court, which awarded attorney fees under § 285 because Fossil did not "withdraw [anticipation and obviousness] defenses with prejudice until after trial," and Fossil's "patent invalidity defense of indefiniteness bordered on frivolous." The district court declined to consider Romag's litigation conduct as part of the totality of circumstances because it had already sanctioned Romag for the timing of Romag's infringement suit and Romag's misconduct in its TRO filing. Specifically, Romag was aware of Fossil's infringement in May of 2010 but did not move for a TRO until three days before Black Friday (the Friday after Thanksgiving), and because its moving papers contained misleading representations. Romag had been sanctioned in connection with the TRO, so the district court concluded

that it saw "no need to further sanction Plaintiff by denying an award of fees in this case." With respect to the Lanham Act, the district court found that "in the absence of bad faith, fraud, or willfulness on part of the Defendants, this case is not 'exceptional' within the meaning of the Lanham Act and Plaintiff is not entitled to recover its reasonable attorney's fees."

The panel's opinion first addresses failure to award attorney fees under the Lanham Act and concludes that the case should be remanded for the district court to apply the *Octane Fitness* test rather than the "bad faith, fraud, or willfulness" test it did apply, since the pertinent language of the Lanham Act is the same as the Patent Act.

Turning to the award of attorney fees under § 285, as to Fossil's failure to formally withdraw its anticipation and obviousness invalidity defenses until after the close of evidence, the majority finds that both the district court and plaintiff were aware, at least as of the pre-trial conference, that Romag was going to withdraw those defenses. The majority also notes that the district court made no finding that Fossil's defenses of anticipation and obviousness were objectively unreasonable.

A prior district court judge hearing the case granted summary judgment for Romag as to Fossil's indefiniteness defense. However, the majority takes issue with the trial judge later taking the position that Fossil's indefiniteness defense "bordered on frivolous, ... was entirely meritless and was raised for improper purposes." Also, instead of considering Romag's behavior in connection with the TRO, which should have weighed *against* an award of attorney fees as part of the *Octane Fitness* "totality of the circumstances" test, the district court failed to consider such behavior because it had already sanctioned Romag. In view of the foregoing, the majority has no trouble ruling that the award of fees under § 285 needs to be vacated and remanded.

Judge Newman dissents as to the remand on the § 285 award, arguing that the majority ignores the highly deferential review required by *Highmark*, and instead substitutes its interpretation of the events that the trial judge experienced first-hand.

AdjustaCam v. Newegg, 861 F.3d 1353 (Fed. Cir. 2017)

Showing its post-*Octane Fitness* willingness to award attorney fees to prevailing defendants, the Circuit reverses the judgment of Judge Gilstrap of the Eastern District of Texas and awards fees to Newegg, which has a reputation for not settling such cases. This follows the remand of a prior appeal in the case following the *Octane Fitness* decision. In its remand, the Circuit noted that Newegg's arguments "appear to have significant merit."

AdjustaCam sued Newegg and dozens of other defendants for a patent directed to a camera clip that supports a camera both on a flat surface and when attached to a computer monitor. Unlike the claimed invention, Newegg's accused products use a ball-and-socket joint, allowing rotation about more than one axis. Prior to claim construction, AdjustaCam moved to dismiss most of the defendants from the litigation after they settled for far less than the cost of litigation.

Almost two years later, the court construed the patent to be limited to a rotatable attachment that permitted rotation about a single axis. Just prior to summary judgment briefing, AdjustaCam moved to dismiss its case against Newegg with prejudice. Newegg moved for a declaration that the case was exceptional, because AdjustaCam brought the action simply to extract nuisance-value settlements, and that AdjustaCam had no reasonable expectation of success, particularly after the *Markman* order. Newegg also noted that AdjustaCam served a substantively different "supplemental" infringement report the day of its infringement expert's deposition, without explaining the delay. Judge Gilstrap denied the motion, noting that AdjustaCam asserted relatively low damages against many defendants, and credited AdjustaCam's explanation that it had inadvertently served a draft expert report on Newegg and did not realize its mistake until the day of its expert's deposition.

While a first appeal of this case was pending, the Supreme Court issued its *Octane Fitness* decision, so the Circuit remanded the case to the Eastern District for reconsideration in view of *Octane*, noting that Newegg's arguments "appear to have significant merit, particularly its argument that AdjustaCam's continued pursuit of its infringement claims after the district court construed the claim term 'rotatably attached' was baseless." However, on remand, Judge Gilstrap, who took over the case due to the retirement of the judge making the original ruling, simply adopted the early determinations endeavoring "not to circumvent by hindsight the judgments and in person evaluations that the trial judge who dealt with this case in the courtroom arena was best-positioned to have made."

Despite the high "abuse of discretion" standard of review under the Supreme Court's *Highmark* case, the panel reverses the denial of attorney fees, holding under *Octane* that this case does in fact stand out from others with respect to the substantive strength of AdjustaCam's litigation position and the unreasonable manner in which the case was litigated. The panel appeared to be particularly incensed with Judge Gilstrap's wholesale adoption of the prior determinations, despite the remand instructions that Newegg's arguments "appear to have significant merit."

The panel also differs with both district court judges in their determinations that AdjustaCam's damages theories were not so outrageous as to justify an award of attorney fees. The panel indicates that it would be inclined to affirm if AdjustaCam's damages methodology were the only issue. However, in light of AdjustaCam's frivolous infringement argument and unreasonable manner of litigation, the panel concludes "that the district court clearly erred by failing to consider AdjustaCam's damages methodology as part of a totality-of-the-circumstances analysis. The irregularities in AdjustaCam's damages model and the purported nuisance value of many of its settlements should have played a role in the evaluation of whether this is case exceptional."

Nantkwest, Inc. v. Matal, 860 F.3d 1352 (Fed. Cir. 2017)

35 U.S.C. § 145 provides that a patent applicant dissatisfied with a decision of the PTAB may appeal directly to the district court for the Eastern District of Virginia in lieu of immediate appeal to the Federal Circuit. The statute provides that the applicant must pay "all of the expenses of the proceeding," regardless of the outcome.

Nantkwest appealed to the district court under § 145 and lost. The court awarded the PTO \$33,000 in witness fees, but denied its request for \$78,000 in attorney and paralegal fees (calculated as a pro-rata portion of the salaries of PTO staff involved in the matter). The court found that the "American Rule" requires that litigants pay their own attorneys' fees unless a statute or contract provides otherwise. The court found that the "all expenses" provision of § 145 was not "sufficiently specific nor explicit enough for the authorization of attorneys' fees" under the American Rule.

The Circuit reverses the decision and awards the PTO both witness fees and the requested attorney and paralegal fees. The panel reviewed application of the American Rule to the "all expenses" provision of § 145 and decides that this includes attorney fees. In its opinion the panel reviews definitions of "cost," "expense," and "attorney fee," and use of these terms in other statutes and by the Supreme Court. The panel notes that Nantkwest had not provided contrary Supreme Court authority that the term "expenses" categorically excludes attorneys' fees and found that "Congress… meant to award attorneys' fees under the broader term 'expenses' within the context of" proceedings under § 145.

Rothschild Connected Devices Innovations, LLC v. Guardian Protection Services, Inc., 858 F.3d 1383 (Fed. Cir. 2017)

The district courts just can't seem to get it right. Here the Circuit reverses the Eastern District of Texas's failure to grant attorney fees after the patentee Rothschild dismissed its case accusing defendants (collectively "ADS") of infringing a patent directed to mixing solids and liquids using the Internet to dictate the mixing ratios. Shortly after the action was filed, ADS filed a motion for judgment on the pleadings, arguing that claim 1 covered patent ineligible subject matter under § 101. At the same time, ADS sent Rothschild a notice pursuant to Rule 11 (a "safe harbor notice") enclosing a motion for sanctions under

the rule. In light of this, Rothschild voluntarily moved to dismiss its action but ADS opposed and filed a motion for fees pursuant to § 285, arguing that the case was devoid of merit and that Rothschild did not intend to test the merits of its claim. Instead, Rothschild filed this and over fifty other lawsuits against other defendants, alleging infringement by such far-fetched items as video cameras, coffee makers and horns.

The district court granted Rothschild's motion to dismiss but denied ADS's motion for attorney fees, holding that Rothschild's decision to voluntarily withdraw its complaint within the Safe Harbor period is the type of reasonable conduct Rule 11 is designed to encourage, noting that ADS had not demonstrated that Rothschild failed to conduct a reasonable pre-suit investigation of the prior art and that the filing of other infringement suits did not alone make the case exceptional.

The panel holds that the district court clearly erred by failing to consider Rothschild's willful ignorance of the prior art. In its safe harbor notice and cross-motion for attorney fees, ADS included prior art that purportedly anticipated claim 1. In response to ADS's cross-motion, Rothschild admitted that it had not conducted an analysis of that, but nonetheless contended that Rothschild possessed a good faith belief that the patent is valid. Here the district court never examined the circumstances behind the inconsistencies in these contentions.

Rothschild asserts that, before filing the lawsuit, they made a good faith determination of infringement and validity and that they reviewed publicly available information regarding ADS's products. However, since they did not provide examples of websites, product brochures, manuals, or any other publicly available information that they purportedly reviewed, the panel finds that the conclusory and unsupported statements have no evidentiary value.

Because Rothschild's affidavits have no evidentiary value, the undisputed evidence regarding Rothschild's vexatious litigation warrants an affirmative exceptional case finding here. In a concurring opinion, Judge Mayer wrote that he would have granted fees regardless of litigation conduct, given that the patent was clearly not directed to patentable subject matter, but the majority refused to go that far.

The district court erred as a matter of law when it stated that an attorney fee award under § 285 would contravene the aims of Rule 11's safe-harbor provision. Whether a party avoids or engages in sanctionable conduct under Rule 11(b) "is not the appropriate benchmark"; indeed, under *Octane Fitness* "a district court may award fees in the rare case in which a party's unreasonable conduct—while not necessarily independently sanctionable—is nonetheless so 'exceptional' as to justify an award of fees."

Checkpoint Systems, Inc. v. All-Tag Security S.A., 858 F.3d 1371 (Fed. Cir. 2017)

Applying the Supreme Court's *Octane Fitness* standard, the Circuit reverses a \$10 million award of attorney fees, interest and expenses under § 285, finding that the district court had abused its discretion in awarding fees where the charge of infringement was reasonable and the litigation was not brought in bad faith or with abusive tactics.

The case involved a patent directed to anti-theft tags manufactured in Europe and sold in the U.S. A jury found the patent to be not infringed, invalid, and unenforceable. The district court awarded fees based on plaintiff's inadequate pre-filing investigation, its improper motivation in bringing suit, and its infringement expert's "failure ... to inspect the correct accused product." Specifically, the district court found that the pre-filing investigation inadequately relied on a European infringement decision on a counterpart patent; two infringement opinions "given years before filing"; that plaintiff had brought suit to interfere improperly with defendants' business and to protect its own competitive advantage; and that plaintiff's expert had examined tags manufactured in Switzerland, while the accused tags were made in Belgium.

In finding that plaintiff did not have an improper motive in bringing suit, the panel distinguishes cases in which plaintiffs had demonstrated a pattern of filing infringement lawsuits to force settlement with no intention of testing the merits of their claims. The panel concludes that "motivation to implement the

statutory patent right by bringing suit based on a reasonable belief in infringement is not an improper motive." While the panel did not opine directly on the sufficiency of plaintiff's pre-filing investigation, it cites plaintiff's European patent win and two infringement opinions—as well as the district court's denial of defendant's summary judgment motions and a *Daubert* challenge—as evidence showing plaintiff's reasonable belief in infringement.

The panel also found the "exceptional case" determination to be unsupported by the fact that plaintiff's expert's infringement opinion had been based on a tag made in Switzerland, rather than Belgium. The Switzerland tag was apparently fabricated by the same machines that manufactured the accused, Belgium-originated tags, and plaintiff's expert report was in other respects reasonable given the available evidence.

Nova Chemicals Corp (Canada) v. Dow Chemical, 856 F.3d 1012 (Fed. Cir. 2017)

The Circuit affirms an award of \$2.5 million attorney fee award against Nova, holding that the district court did not abuse its discretion in finding the case exceptional because of Nova's filing of a lawsuit alleging that Dow defrauded the court in a prior case.

In 2005, Dow filed an infringement action in which it was successful in recovering over \$61 million in damages from Nova ("the 2010 judgment"). During a supplemental-damages phase of the infringement action, Nova became aware of evidence allegedly showing that Dow had committed fraud on the court in the course of obtaining the 2010 judgment. By then, however, Nova was time-barred from filing a motion under Rule 60(b)(3) to set aside that judgment for fraud or misrepresentation. Accordingly, Nova filed a separate action in equity against Dow ("the equity action") for relief from the 2010 judgment. Nova alleged two frauds on the court: First, that Dow had misrepresented its ownership of the asserted patents. Nova based this allegation on the testimony of a former Dow tax department employee in an unrelated Louisiana tax case ("the Louisiana action"). Second, Nova alleged that Dow's counsel knew of a "scheme to mislead the jury" with respect to infringement contending that Dow's expert had provided conflicting testimony about the accused product during a separate litigation in Canada (the "Canadian action").

The district court granted Dow's motion to dismiss the equity action, holding that "there was fundamentally no adequate allegation of the grave miscarriage of justice that is required under the extraordinary circumstances" for setting aside a prior judgment based on fraud. The court noted that the expert's testimony in the Louisiana action was "immaterial and irrelevant" to Dow's standing because the terms of the relevant patent transfer agreement were clear on their face. With respect to noninfringement, the district court held that Nova had merely identified arguably inconsistent statements by the expert that neither "plausibly alleged perjury" nor reached any fact that had been in material dispute at trial in the infringement action. Dow subsequently moved in the district court for sanctions, attorney fees, and costs. The court granted Dow's motion under § 285 and awarded \$2.5 million based on the weakness of Nova's litigating position and the manner in which NOVA pursued this case.

Nova argued that the district court committed legal error, and thus abused its discretion, by improperly viewing Nova's pursuit of the equity action to be an "extreme tactic." The panel agrees with Nova to the extent that the filing of an action to set aside a prior judgment, without more, does not render a case exceptional per se. Therefore, despite the extraordinary nature of relief that Nova sought, the district court erred to the extent it based its exceptional-case determination on Nova's filing of the equity action itself.

But, according to the panel, the district court did not base its analysis solely, or even primarily, on the fact that Nova filed an equity action. Rather, it expressly relied on alternative grounds, holding the case to be "exceptional, *both* in the substantive *strength* of Nova's litigating position and in the *manner* in which the case was litigated." At a minimum, the court did not abuse its discretion in concluding that the case was exceptional due to the substantive strength of Nova's litigating position.

Nova's allegations of fraud in this case mainly rested on purportedly conflicting testimony from the Louisiana action and the Canadian action. But, as explained by the district court, the arguable

inconsistencies in those other actions, even if proven, were immaterial to the 2010 judgment because the relevant patent transfer agreement unambiguously supported Dow's standing. The panel holds that Nova's allegations of fraud regarding the infringement determination are just as baseless, if not more so, given that the expert's testimony in the Canadian action was not necessarily inconsistent with his prior infringement testimony and, in any event, did not directly relate to the limitation that had been the focus of the parties' underlying infringement dispute. The panel holds therefore that the district court did not abuse its discretion in holding that Nova's litigating position was objectively baseless, and therefore upholds the award of attorney fees.

Bayer Cropscience v. Dow Agrosciences, 851 F.3d 1302 (Fed. Cir. 2017)

The Circuit easily determines that, under Octane Fitness and Highmark, the district court did not abuse its discretion in awarding Dow attorney fees under section 285 because the case stands out from others both as to its lack of substantive strength and the unreasonable manner in which Bayer conducted the litigation.

Bayer sued Dow for patent infringement even though it had entered into a license agreement in which Dow was permitted to commercialize soybeans that were genetically engineered to tolerate herbicides. Bayer took the position that Dow's license was limited to non-commercial transactions. The district court disagreed, concluding that Bayer's reading of the contract was "contorted," and was even contradicted by Bayer's own witnesses.

The parties agreed that English law governed, so Bayer presented expert testimony from a former Justice of the Supreme Court of the United Kingdom that Bayer's interpretation was reasonable. However, there was no dispute that under U.K. law, the circumstances surrounding the execution of an agreement are admissible. Not only did all of the evidence of surrounding circumstances support Dow's position, but Lord Collins conceded that his opinion was "incomplete" because he had only considered the text of the agreement. The surrounding circumstances included contemporaneous correspondence between the parties confirming that the intent of the agreement was to convey all commercial rights to Dow.

The manner in which Bayer litigated the case included the fact that Bayer added this patent infringement claim to an ongoing case between the parties only a few days after Dow issued a press release announcing its plans to commercialize the covered soybean product. And then, eighteen months later, Bayer filed a motion for preliminary injunction, even though Dow had not yet introduced the product. The district court ruled that had Bayer fully investigated its position, even just the evidence in its own control, it would not have filed the action. Moreover, the filing of a preliminary injunction amid targeted discovery that would prove fatal to its case rendered the motion "frivolous," and unnecessarily increased the costs of the litigation.

The panel refuses to accept Bayer's invitation to reweigh the evidence, as under Highmark the appropriate review is simply to determine if the district court abused its discretion. After reviewing the foregoing evidence, the panel determines that the district court did not abuse its discretion in determining that, under the totality of the circumstances, this was an exceptional case.

University of Utah v. Max Planck Gesellschaft, 851 F.3d 1317 (Fed. Cir. 2017)

The Circuit affirms the denial of attorney fees under § 285, showing how deferential it will be in such "abuse of discretion" rulings. The underlying dispute concerns inventorship of the Tuschl II patents, which relate to RNA interference ("RNAi"), a process that may be useful in treating a variety of diseases associated with overactive or mutated genes. Dr. Thomas Tuschl published an article describing various discoveries in the field of RNAi. Less than a month later, Dr. Brenda Bass, of the University of Utah ("UUtah"), published a mini-review that summarized the state of RNAi research. Dr. Bass's mini-review included several of her own hypotheses about enzymatic processes that may be responsible for the RNAi activity reported in Dr. Tuschl's article.

After publishing his article, Dr. Tuschl transitioned to a new line of research that would result in the patented Tuschl II invention. Dr. Tuschl read Dr. Bass's mini-review, recognized her hypothesis that 3' overhangs may be relevant to RNAi, and successfully tested that hypothesis. Data from cloning and sequencing revealed that species with 3' overhangs were prevalent in active RNAi systems. Based on these data, the Tuschl II inventors chemically synthesized candidate molecules with and without 3' overhangs and tested for RNAi activity. Max Planck filed a patent application for the discovery.

UUtah sued Max Planck for correction of ownership, claiming that Dr. Bass should be named as a sole or joint inventor of the Tuschl II patents. UUtah's claim of sole inventorship turned on allegations that Dr. Bass reduced to practice the concept that molecules with 3' overhangs would be integral to RNAi, focusing primarily on Dr. Bass's mini-review. Its claim of joint inventorship turned on alleged collaboration between Dr. Bass and the Tuschl II inventors that occurred over several conversations at various academic conferences.

During her deposition, Dr. Bass made several admissions undermining UUtah's allegation that Dr. Bass reduced the Tuschl II invention to practice. When asked if she ever did any of the experiments included in the Tuschl II patents," she responded: "Not that I know of." When asked if her lab ever studied how to put siRNAs on cells, she responded: "No." When asked if she ever tested siRNAs as agents for targeting messenger RNAs, she responded: "No."

On the eve of the deadline for dispositive motions, UUtah withdrew its sole inventorship claims, but declined to withdraw its joint inventorship claim. The district court then granted Max Planck's motion for summary judgment as to that claim.

Max Planck sought eight million dollars in attorney fees pursuant to 35 U.S.C. § 285, which the district court denied. Max Planck argued on appeal that the court disregarded the Supreme Court's direction in Octane Fitness by failing to consider the substantive weakness of UUtah's litigation position in light of Dr. Bass's deposition testimony, but the panel disagrees. District courts have discretion to make exceptional case determinations on a case-by-case basis, considering the totality of the circumstances. A "case presenting either subjective bad faith or exceptionally meritless claims may sufficiently set itself apart from mine-run cases to warrant a fee award." Other factors that may support a finding of exceptional case include frivolousness, motivation, objective unreasonableness of a case's factual or legal components, and the need in particular circumstances to advance considerations of compensation and deterrence. The district court made no finding that any of these factors applied here, but according to the panel, she had no obligation to write an opinion that reveals her assessment of every consideration. The opinion concludes with the statement that the Circuit will not second guess her determination.

Preliminary Injunctions

Mylan Institutional v. Aurobindo Pharma Ltd., 857 F.3d 858 (Fed. Cir. 2017)

The Circuit affirms in part and reverses in part the grant of a preliminary injunction. In doing so, the panel points out how difficult it is to analyze chemical cases under the "function" and "way" part of the "function, way, result" test, suggesting that the "substantial differences" test might be more appropriate for analysis of the doctrine of equivalents in chemical cases.

Aurobindo sought FDA approval to sell a generic version of Mylan's Lymphazurin® product, a dye used to map lymph nodes. Mylan sued for infringement and the district court granted a preliminary injunction as to all three of the patents in suit, ruling that the two process patents were infringed under the "function, way, result" ("FWR") test and that Aurobindo did not raise a substantial question of validity of the third patent directed to the compound itself.

Aurobindo argues on appeal that it had raised a substantial question of infringement as to the process patents under the DOE because manganese dioxide oxidizes isoleuco acid in a different "way" than silver oxide. The panel concludes that the district court's analysis of equivalence in this case was flawed, "no doubt because of the sparse and confusing case law concerning equivalents, particularly the paucity of chemical equivalence case law, and the difficulty of applying the legal concepts to the facts." The panel then attempts to provide more clarity on these subjects.

The panel first cites the Supreme Court's 1997 *Warner Jenkinson v. Hilton* case for the proposition that chemical cases may not be well-suited to consideration under the FWR test. The "result" of using a claimed compound may be more easily evaluated, as the structure and uses of one compound may be directly compared with those of another. But that is not how infringement under FWR is determined. It must be determined on a limitation-by-limitation basis. In the case of a chemical process claim, the "result" of a process producing a chemical compound may be clear—why else would a claim for infringement of a process claim be brought if the claimed result is not obtained? But the "function" and "way" of a particular limitation of a chemical process claim may remain vague and often overlap. Thus, either the district court did not address the "way" prong of the FWR analysis, or it performed a "way" analysis without considering critical factors. Either characterization constitutes error in the equivalents analysis. In this case, "the district court conducted an incomplete FWR analysis while essentially bypassing the substantial differences test, in a situation where the latter test might seemingly be more appropriate." The panel thus concludes that the court's grant of a preliminary injunction based on the process patents constituted an abuse of discretion.

The panel then turns to consideration of the Mylan patent directed to the compound itself. Aurobindo points to no legal error in the district court's analysis of the record evidence; it argues only that the court erred in "misreading the factual content of the prior art." However, the panel notes that what the prior art teaches is a question of fact that is reviewed with deference, especially at the preliminary injunction stage. The Circuit does not reweigh evidence on appeal. As to irreparable injury, the panel agrees with Mylan that the district court's determinations as to (1) lost sales, lost research and development, price erosion, and having to directly compete with an infringer; (2) there was a causal nexus between Aurobindo's infringement and Apicore's harm; and (3) without infringing the process and purity patents, Aurobindo would not be able to make the product described in its ANDA. Because Aurobindo does not challenge the district court's findings that the balance of equity and public interest factors weigh in favor of granting the preliminary injunction, the grant of the injunction as to the patent directed to the compound itself is affirmed.

Metalcraft of Mayville, Inc. v. The Toro Company, 848 F.3d 1358 (Fed. Cir. 2017)

The Circuit affirms the grant of a preliminary injunction precluding Toro from selling infringing lawnmowers, with a showing of irreparable harm based on plaintiff's proof that it would be impossible to quantify damages caused by loss of potentially-lifelong customers who prefer to purchase an entire line of products from the same manufacturer.

Metalcraft dba Scag ("Scag") is owner of a patent directed to a platform for a ride-on lawnmower that includes a suspended operator platform that isolates an operator from vibration. Following introduction of Scag's patented mower, Toro introduced its own line of mowers with a similar suspended platform. In granting Scag's motion for preliminary injunction, the district court found that Scag had shown infringement, that Toro failed to raise a substantial question of validity, that the balance of hardships tipped in Scag's favor, and that the public interest supported the injunction.

The Circuit's opinion first looks to infringement to determine if Toro established that the district court committed clear error. The asserted claims all state: "an operator platform that supports the seat and an entire body of an operator." Toro argued the accused mowers do not meet the limitation "an entire body of an operator" because the steering controls of the accused mowers are mounted to the chassis, not the operator platform, and therefore the operator's hands and arms are not supported by the platform. The panel disagrees, noting that while some of the dependent claims not at issue require that the steering

controls be connected to the operator platform, the claims at issue include no such limitation. Moreover, the specification supports the court's construction.

As to validity, Toro argued that a person of ordinary skill in the art would have been motivated to combine patents to a motorcycle shock absorber and to a suspended truck cab. The panel rules that the district court was not clearly erroneous in holding that Toro presented no proof of motivation to combine such teachings. "With no motivation to combine, we are left with only hindsight bias that KSR warns against." The panel thus concludes that Toro did not raise a substantial question of validity.

As to irreparable harm, Toro argues the district court abused its discretion by ignoring evidence of at least twelve other companies that sell mowers designed to decrease shock loads to the operator. However, the panel rules that the fact that other infringers may be in the marketplace does not negate irreparable harm. Furthermore, the district court determined the damage to Scag is irreparable because it is impossible to quantify the damages caused by the loss of a potentially lifelong customer. The fact that Toro's own Senior Marketing Manager declared that some customers "prefer to purchase an entire line of products from the same manufacturer for consistency" supports the court's determination. Citing the 2015 *Apple v. Samsung* Circuit ruling, the opinion notes that the loss of Scag customers may have far-reaching, long-term impact on its future revenues, and such sales are difficult to quantify.

As to the balance of equities and the public interest, the panel agrees with the district court that Scag's harm in the absence of an injunction outweighs Toro's harm if enjoined. It also concluded that in light of the importance of encouraging innovation and the fact that the public can continue to obtain the patented suspension system from Scag or other non-infringing mowers from Toro, the public interest favors the issuance of an injunction.

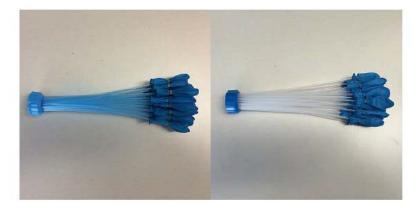
Comments: In addition to being supported by *Apple v. Samsung*, 801 F. 3d 1352 (Fed. Cir. 2015), this decision brings to mind *WBIP*, *LLC. v. Kohler Co.*, 829 F.3d 1317 (Fed. Cir. 2016), in which the Circuit rejected the argument that permitting an injunction would leave the plaintiff, a much smaller company, as the sole supplier of patented equipment. In all three decisions, the Circuit stressed the public's interest in the enforcement of patent rights, especially where the parties are competitors. This is the kind of language we heard from the Circuit pre-*eBay*.

Tinnus Enter., LLC v. Telebrands Corp., 846 F.3d 1190 (Fed. Cir. 2017)

The Circuit affirms the grant of a preliminary injunction in favor of a small company that pursued a larger "as seen on TV" infringer selling its product at Bed Bath and Beyond. The patented toy attaches to a hose to simultaneously fill multiple balloons by directing water through a plurality of hollow tubes. The Tinnus product is called BUNCH O BALLOONS. Telebrands' product is called BALLOON BONANZA.

Bunch O Balloons

Balloon Bonanza



Operating in parallel with the district court proceeding was Telebrands' Post Grant Review seeking to invalidate the Tinnus patent. The PTAB found that claim 1 was likely indefinite because the specification and the prior art both fail to provide any objective standard for measuring the scope of "filled" or "substantially filled," and the specification sets forth no limit on the amount of shaking needed to detach a filled container from the tube. The PTAB also found that a combination of prior art patents would likely render claim 1 obvious.

The magistrate concluded that the accused product infringed because he found that Telebrands' claim construction argument hinged on the contention that shaking is not required to detach the balloons from the tubes. The Balloon Bonanza instruction manual tells users to "turn off water and give balloons a shake to release." The panel finds that these instructions are at least circumstantial evidence of infringement for any claim elements taught by those materials, and a patentee is entitled to rely on circumstantial evidence to establish infringement.

Regarding invalidity, the Circuit holds that the burden on the accused infringer to show a substantial question of invalidity at the preliminary injunction stage is lower than what is required to prove invalidity at trial. According to the opinion, "vulnerability" is the issue at the preliminary injunction stage, while validity is the issue at trial. The § 282 presumption is sufficient to establish a likelihood of success on the validity issue, the burden being on the challenger to come forward with evidence of invalidity, which the patentee must then rebut. If the trial court concludes there is a substantial question concerning validity, it necessarily follows that the patentee has not succeeded in showing it is likely to succeed at trial on the merits of the validity issue.

As to indefiniteness, Telebrands presented the same arguments it did in the PGR, but because Telebrands did not object to the magistrate's indefiniteness determination, the panel follows 5th Circuit law and reviews the district court's determination for plain error. With this degree of deference, the panel rejects Telebrands' argument, concluding that it is difficult to believe that a person of ordinary skill in the art (with an associate's degree in a science or engineering discipline) who had read the specification and relevant prosecution history would be unable to determine with reasonable certainty when a water balloon is "substantially filled."

As to obviousness, Telebrands advances several arguments on appeal but, again, because Telebrands did not object to the magistrate's findings relating to obviousness, the panel reviews the district court's analysis for plain error. The particular problem confronting the inventor here was how to rapidly fill multiple containers with fluid. This is far removed from the problems associated with an endoscopic balloon insertion device for treating obesity, and Telebrands has not demonstrated that the cited art is reasonably pertinent to the problem addressed in the patent.

Finally, Telebrands alleges that it was clear error for the district court to rely on evidence pre-dating the '066 patent's issuance in support of its finding of irreparable harm. Evidence of consumer confusion, harm to reputation, loss of goodwill and a 40% price reduction pre-dating the patent is, at the very least, circumstantial evidence demonstrating the possibility of identical harms once the patent issues. Nonetheless, the record contains additional evidence of harm after the patent's issuance that is sufficient to support a finding of irreparable harm. For example, the Amazon website states that a customer liked the "off brand" Bunch O Balloons product better than the "name brand" Balloon Bonanza. This establishes persisting harm to Tinnus's reputation and tarnishes its status as the innovator in this market.

The magistrate also concluded that the balance of hardships and public interest factors weighed in Tinnus's favor due to the relative size of the parties and the strong public interest in enforcing valid patents. Telebrands did not appeal these findings so the grant of preliminary injunction is affirmed.

Comment: This case shows the importance of filing objections to all of the magistrate's findings and recommendations. Because Telebrands did not do so here, it faced the higher "plain error" standard of review as to indefiniteness and obviousness.

Permanent Injunctions

Amgen Inc. v. Sanofi Aventisub LLC, 2017 U.S. App. LEXIS 19416 (Fed. Cir. 2017)

Sanofi and Regeneron Pharmaceuticals convince the Circuit to reverse and remand a permanent injunction that would have barred sales of Praluent, a cholesterol drug that competes with Amgen's blockbuster drug Repatha. Repatha provides an alternative for patients who have not been successfully treated using Pfizer's Lipitor. The Circuit rules that the district court erred when it excluded post-priority-date evidence of written description and enablement, and gave improper jury instructions on written description.

The panel rules that post-priority-date evidence could be evidence of a failure of written description and enablement if it is determined that the patents fail to disclose "a representative number of species falling within the scope of the genus or structural features common to the members of the genus." We know that post-priority-date evidence may not be used to show the state of the art, but the panel rules that such evidence may be used to show that the patents failed to disclose a representative number of species. Similarly, such evidence may be used to show lack of enablement through undue experimentation.

The Circuit also rules that the lower court improperly instructed the jury on written description when it included the statement: "correlation between structure and function may also be satisfied by the disclosure of a newly characterized antigen." The Circuit reasons that a newly characterized antigen is insufficient to meet the written description, which requires "a precise definition, such as by structure, formula ... of species falling within the genus sufficient to distinguish the genus from other materials." The instruction incorrectly allowed jurors to determine the patent meets the written description requirement because it describes an antigen, which is not the invention. Furthermore, the Circuit holds that JMOL of no written description and no enablement was not proper here because of an incomplete record on the issues and therefore a legally insufficient evidentiary basis for JMOL.

However, the district court's JMOL of non-obviousness was proper. At trial, two PCT application publications were introduced that fail to predate the patents, but claim priority to provisional applications that do. At trial, the defendants were not able to demonstrate that the provisional applications provided written description support for the claims of the PCT applications. As a result, the priority date of the provisional applications may not be used and the two PCT publications post-dated the patents and were not admissible to determine obviousness.

One of the more interesting issues on appeal was whether a permanent injunction was appropriate. The district court had ruled that the injunction would disserve the public interest because the injunction would reduce the choice of drugs. Despite this determination, the court granted the injunction motion. In dictum, the panel notes that this is a clear violation of the Supreme Court's 2006 decision in *eBay*, which ruled that the public interest is one of four factors that must be satisfied to warrant a permanent injunction. However, the ruling that the public would be disserved because of a reduction in choice is itself legally wrong because if that was the case, virtually every injunction taking a drug off the market would disserve the public interest and, therefore, rarely would any injunction be appropriate.

Comments: The case is significant to the parties because annual sales of Repatha and Praluent both exceed \$100 million and are expected to grow dramatically in the next few years. But the case is significant beyond the parties since it will limit a patentee's ability to broadly claim a drug treatment, while providing only a few examples in the specification.

The panel's discussion requiring the presence of all four of the *eBay* factors is consistent with its ruling in *Nichia v. Everlight*, 2017 U.S. App. LEXIS 7527 (April 28, 2017), where the Circuit ruled that if the moving party had not demonstrated that it would suffer irreparable harm, the other *eBay* factors did not even have to be considered.

Genband US LLC v. Metaswitch Networks Corp., 861 F.3d 1378 (Fed. Cir. 2017)

Relying on its injunction decisions in the *Apple v. Samsung* cases, the Circuit vacates the denial of a motion for permanent injunction, noting that the patented feature needs to only be one of the reasons why an infringing product is purchased; that is, it does not need to be the only feature driving the demand for the product.

Genband sued Metaswitch for infringement of several patents directed to voice communications over the internet (VoIP). After a jury found claims of the patents infringed and not invalid and awarded over \$8 million in damages, Genband moved for a permanent injunction. Judge Gilstrap of the E. D. of Texas denied the motion, concluding that Genband had not established irreparable harm. The panel is troubled, however, that the court's conclusion may have relied on too stringent an interpretation of the requirement that the alleged irreparable harm is being caused by the infringement.

Judge Gilstrap declared that Genband had to prove that "the patented features drive demand for the product," citing the Circuit's two 2012 *Apple v. Samsung* opinions (*Apple I* and *II*). According to the panel, the "drive demand" formulation is susceptible to different interpretations, some stricter, some more flexible, in situations where the product at issue has multiple features that different purchasers might assign different weights in their purchasing decisions. For example, the "drive demand" formulation could require that the infringing feature be "the driver" of purchasing decisions, even requiring proof that no or almost no buyers would buy the product but for the infringing feature. Or it could require less, e.g., that the infringing feature be "a driver" of decisions by a substantial number of consumer decision-makers considering multiple features.

Here, Genband argued for a standard on the less stringent side of the spectrum, and the panel notes that it has been clear since *Apple III* in 2013 that a standard of the less demanding variety— a standard based on "a driver" as opposed to "the driver," applied in the multi-consumer, multi-feature context—is the governing one. Thus, rather than show that a patented feature is the exclusive reason for consumer demand, the patentee must show some connection between the patented feature and demand for the infringer's accused products. Described another way in the Circuit's 2015 *Apple IV* decision, the causal-nexus requirement "just means that there must be proof that the infringement causes the harm" that the patentee alleges is irreparable—in that case, "damage to the patentee's reputation as an innovator, lost market share, and lost downstream sales."

In addition to its causal-nexus determination, the district court deemed the delay in filing suit and Genband's choice not to seek a preliminary injunction to weigh against a finding of irreparable injury. Genband correctly points out that, when a patent owner postpones suit and forgoes a preliminary injunction, there may well be reasons for the patent owner's actions independent of any implied concession that the infringement-caused injury is not actually irreparable: for example, the competitive threat may initially be small, or the merits may be much better presented through full litigation than through abbreviated preliminary-injunction proceedings. But Genband has not justified a per se rule making the patent owner's choices about when to sue and whether to seek interim relief legally irrelevant. In this case, the timing of Genband's suit and Genband's decision not to ask for preliminary relief call for an evidentiary judgment to be handled by the district court on remand.

Comment: Given the panel's focus on the *Apple v. Samsung* decisions in its causal-nexus discussion, it is significant that the latest decision, *Apple IV*, may be accepted for certiorari. The *Apple* cases show that the standard to be applied to injunctions in patent cases is continuing to evolve in the Circuit. Also, as demonstrated in the recent *Metalcraft v Toro* decision affirming the grant of a preliminary injunction and *WBIP v. Kohler* vacating the denial of a permanent injunction, the Circuit has been stressing the public's interest in enforcing patent rights. The Supreme Court may take *Apple IV* and use it to remind the Circuit that *eBay* ruled there should be no special injunction tests for patent cases.

Nichia Corp. v. Everlight Americas, 855 F.3d 1328 (Fed. Cir. 2018)

Despite the defendant's failure to invalidate any of the three patents in suit and its unsuccessful noninfringement arguments, the Circuit affirms the denial of a permanent injunction requested by LED maker Nichia due to its dominant share of the market, its failure to identify a single lost sale to Everlight,

and its widespread licensing of the patents to other low cost competitors. This affirmance is based solely on the lack of a showing of irreparable injury, without consideration of the other three *eBay* factors.

The panel first reviews the district court's bench-trial findings as to claim construction, infringement and obviousness, and holds that the evidence supports the district court's findings. However, the most interesting part of the opinion relates to Nichia's motion for permanent injunction. After setting forth the four-factor *eBay* test, the panel notes *eBay*'s statement that, historically, courts have granted injunctive relief upon a finding of infringement in the vast majority of patent cases. The opinion then points out that the Circuit has similarly observed that "while a patentee is not entitled to an injunction in every case, 'it does not follow that courts should entirely ignore the fundamental nature of patents as property rights granting the owner the right to exclude."

Nichia challenges the district court's finding that it failed to establish that it will suffer irreparable harm absent an injunction. The court's conclusion relied on several findings, each weighing against Nichia. Specifically, the court found that (1) there is an absence of meaningful competition; (2) Nichia had failed to establish past irreparable harm, or the likelihood of irreparable harm in the future based on lost sales or price erosion; and (3) Nichia's licensing of the patents to major competitors suggested that harm from infringement of the patents-in-suit is not irreparable.

The panel finds that there is abundant support for these factual findings. As to the absence of meaningful competition, the district court found that Everlight generally sells to distributors rather than directly to customers, as Nichia does. The court explained that Everlight's competition accounted for "the proverbial 'drop in the bucket'" when compared to Nichia's total sales. Nichia identified 516 sales opportunities, with Everlight as a competitor in only 3. As to the one and only alleged instance of a lost sale, the evidence showed several other lower-priced, licensed competitors for the same opportunity.

Nichia also had alleged that it suffered price erosion because of Everlight's infringement in a sale to General Electric. While Nichia eventually won the GE contract at a price lower than it originally offered, Nichia's lower-price sale had been required by GE, so Nichia was going to have to lower its prices regardless of Everlight's competition. Further, the court found that several licensed competitors had offered products at lower prices, which drove down prices. There was therefore no clear error in the finding that Nichia failed to establish price erosion.

Nichia argues that the court wrongly found that its licensing activities precluded a finding of irreparable harm. To the extent the district court adopted a categorical rule, the panel agrees with Nichia. But the panel agrees that Nichia's prior licenses weigh against a finding of irreparable harm.

Because the panel finds no clear error in the district court's finding that Nichia failed to prove that it would suffer irreparable harm absent the injunction, and this is one of the four equitable factors, the court did not abuse its discretion in denying Nichia's request for an injunction.

This refusal of the panel to see a need to evaluate the other three *eBay* factors is consistent with some and inconsistent with other Circuit and district court decisions, which often have evaluated all four factors and then decided whether injunctive relief is appropriate.

Asetek Danmark A/S v. CMI USA Inc., 852 F.3d 1352 (Fed. Cir. 2017)

In an unusual, but well-justified, revision of a December, 2016 decision, the panel rehears the issue of the breadth of a permanent injunction granted by the district court. In the original opinion, written by Judge Taranto, the panel determined that the injunction was over-broad but, over the vehement dissent of Chief Judge Prost, the majority refused to vacate even the erroneous part of the injunction.

Specifically, the entire panel originally agreed that the injunction was over-broad in that it covered Cooler Master, a Taiwanese company who was not a party to the case at the time of the district court decision. Despite this, in its original decision the majority was reluctant to disturb the status quo, which had existed

for a year. Therefore, the injunction was kept in place, although the case was remanded for the district court to reconsider this part of the injunction. In dissent, Judge Prost wondered how an admittedly inappropriate injunction was not vacated or at least revised.

On rehearing, the entire panel revises the ruling to vacate the injunction as it applies to Cooler Master, and remands the case for further consideration as to whether an injunction against Cooler Master is appropriate. The earlier decision, discussed in my December 9 report, remains in effect in other respects.

WBIP, LLC v. Kohler Co., 829 F.3d 1317 (Fed. Cir. 2016)

In a thorough discussion of the objective considerations supporting nonobviousness, the panel affirms the denial of JMOL that the asserted claims directed to low–carbon monoxide-emitting electrical generators would have been obvious. The panel also affirms a determination of willful infringement that was based on instructions under *Seagate*. *Halo* was decided following the trial so the panel contrasts the test for willfulness under *Seagate* and *Halo*. Finally, in perhaps the most interesting ruling in the case, the panel determines that the district court abused its discretion in denying a motion for permanent injunction just because WBIP, a smaller company, would otherwise have been the sole supplier of a product designed to ensure the safety of the public. This discussion will deal solely with the injunction.

WBIP cross-appealed the district court's denial of a permanent injunction, which was based on the fact that WBIP was a much smaller producer of these low—carbon monoxide generators, so depriving the consuming public of access to a potentially lifesaving product showed that it was not in the public interest to grant the injunction. The panel notes that the district court did not explain how the public interest in enforcing patent rights was outweighed by the public interest of having more than one manufacturer of such generators, especially if WBIP has the manufacturing capacity to meet the industry's needs. The district court's decision was based on its reasoning that having more manufacturers of a lifesaving good in the market is better for the public interest, but this reasoning is true in nearly every situation involving such goods. Congress expressly indicated in 35 U.S.C. § 271(e)(4)(B) that injunctions may be granted in cases involving lifesaving goods, such as pharmaceutical drugs. The panel therefore vacates the judgment and remands the case for a more thorough analysis of the *eBay* factors.

Comments: We think you'll find the Circuit's opinion of interest, particularly the discussions of willful infringement and permanent injunction, where the Circuit appears to laud the grant of injunctions in pharmaceutical cases even though the injunction might jeopardize the supply to patients. The original 41-page opinion is wordy, but our much-condensed version includes, we think, the most pertinent analysis.