

Patent Law Developments 2015: A Quick Recapitulation

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In terms of case law, legislation and other developments in patent law, calendar year 2015 had no first order block buster comparable to the Supreme Court's 2014 *Alice* decision on patentable subject matter pertaining to computer implemented inventions or Congress' 2011 enactment of the America Invents Act. Nevertheless, there were important decisions by both the Supreme Court and the Court of Appeals for the Federal Circuit that commanded the attention of every patent professional.

In terms of volume of case precedents by the Supreme Court and the Federal Circuit, 2015 equaled 2014 as the busiest years ever, each year having about 140 precedential decisions. Below is a quick review of the most significant of those precedents.

Claim Construction. Construing patent claims is, of course, of global importance to both patentability and infringement. In *Teva Pharmaceuticals USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831 (2015), the Supreme Court revised the Federal Circuit's long-standing standard of appellate review that had given no deference to district court constructions. The Court required "clearly erroneous" deference to factual findings underlying claim construction but otherwise upheld treatment of claim construction based on "intrinsic evidence" (i.e., the specification and prosecution history) as a question of law.

Federal Circuit decisions applying *Teva* often exercised de novo review because there were no relevant fact findings. Accordingly, it continued regularly reversing district court claim constructions, both (1) those that unduly narrowed claims, *Inline Plastics Corp. v. EasyPak, LLC*, 799 F.3d 1364 (Fed. Cir. 2015), *Atlas IP, LLC v. St. Jude Medical, Inc.*, 804 F.3d 1185 (Fed. Cir. 2015), and (2) those that unduly broadened claims, *Enzo Biochem, Inc. v. Applera Corp.*, 780 F.3d 1149 (Fed. Cir. 2015), *Shire Development, LLC v. Watson Pharmaceuticals, Inc.*, 787 F.3d 1359 (Fed. Cir. 2015), *Cardsoft, LLC v. Verifone, Inc.*, 2015 U.S. App. LEXIS 20847 (Dec. 2, 2015).

For example, in *Shire Development*, the Federal Circuit, upon a remand by the Supreme

Court for reconsideration in light of *Teva*, affirmed its prior decision overturning a district court construction, noting that "the intrinsic evidence fully determines the proper constructions" and, therefore, that "this case does not involve factual findings to which we owe deference under *Teva*."

In a few decisions, deference made a difference. For example, in *Lighting Ballast Control, LLC v. Philips Elecs. N. Am. Corp.*, 790 F.3d 1329 (Fed. Cir. 2015), a panel, after a remand by the Supreme Court, changed its prior decision. It deferred to a district court's finding, based on expert testimony, that "voltage source means" signified structure (a rectifier) to a person skilled in the art. That finding meant that the claim phrase avoided Section 112(b) treatment and invalidity for indefiniteness for failure to disclose specific corresponding structure for the voltage source means.

That Federal Circuit judges will continue to disagree among themselves about claim construction post-*Teva* was well illustrated by the facts and holding in *Enzo*. The patent at issue concerned nucleotide probes. U.S. Pat. No. 5,449,767. The claim to a nucleotide probe required, inter alia, a structure ("A") that represented "*at least one component of a signal moiety.*" A district court construed the claim as covering probes in which A alone was the signal moiety. That meant that the claim covered "direct detection" of a probe as well as "indirect detection." The latter required addition of a chemical entity to provide a signal.

The Federal Circuit majority, per Chief Judge Prost, held that the district court erred. The claim language required that the A structure be a "component", which meant that it was part of a structure with more than one component. The claim also required that the structure A be attached to a group that did not interfere with the *formation* of a signal moiety, which suggested that the structure A was not the whole signalling moiety. The phrase "at least one" was, in some instances, interpreted as meaning "one or more." *Howmedica Osteonics Corp. v. Wright Medical Technology, Inc.*, 540 F.3d 1337 (Fed. Cir. 2008). However, here, unlike in *Howmedica*, the claim language required more than one component. Also, the patent's specification supported construing the claim as covering only indirect detection. It described direct detection only in the context of discussing how indirect detection was superior. The district court relied on claim differentiation, pointing to dependent claims that it deemed to involve direct detection. However, claim differentiation cannot broaden an independent claim's plain meaning.

In *Enzo*, the district court also found, based on expert testimony, that one example in the specification involved direct detection and concluded that the example supported its construction. The accused infringer did not rely on that finding on appeal. Under *Teva*, the Federal Circuit would be required to defer to the district court's finding unless it was clearly erroneous. However, that "sole factual finding" did not "override" "the analysis of the totality of the specification, which clearly indicates that the purpose of this invention was directed towards indirect detection, not direct detection."

Judge Newman dissented. She noted that the district court supported its construction by

intrinsic and extrinsic evidence through expert testimony and argued that, under *Teva*, the Federal Circuit must give deference to those findings. The district court found that the specification included a specific example of direct detection. It relied on expert evidence. The district court found that three dependent claims taught direct detection. Thus, the district court had "received some conflicting testimony, along with concessions on cross-examination." For that testimony, it had "concluded that 'at least one component' may include 'the whole signaling moiety.'" It did not clearly error.

Section 101; Patent Eligible Subject Matter. In 2015, Federal Circuit continued to apply the Supreme Court's framework, set forth in *Alice Corp. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2355 (2014), for determining whether patent claims to software and business methods fell within the "abstract idea" exclusion from the Section 101 definition of patentable eligible subject matter. There were four precedential decisions; all four found the claims at issue invalid under Section 101 as drawn to an abstract idea and insufficiently limited to an application of that idea. *OIP Technologies, Inc. v. Amazon.com, Inc.*, 788 F.3d 1359 (Fed. Cir. 2015); *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343 (Fed. Cir. 2015); *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363 (Fed. Cir. 2015); *Versata Development Group, Inc. v. SAP America, Inc.*, 793 F.3d 1306 (Fed. Cir. 2015).

Ariosa Diagnostics, Inc. v. Sequenom, Inc., 788 F.3d 1371 (Fed. Cir. 2015), applied the "product of nature" exception to Section 101 recognized by the Supreme Court in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 132 S. Ct. 1289 (2012). A patent's named inventors discovered a previously unknown fact: paternally-inherited, non-cellular DNA from a fetus ("cffDNA") was present in a pregnant woman's bloodstream (plasma and serum). Combining that discovery with known laboratory techniques, including amplification of DNA (by polymerase chain reaction ("PCR") or other methods) and DNA detection, the inventors implemented a method of detecting the fetal DNA and testing it for fetal characteristics, such as gender, paternity, or genetic defects. Using the method, the patent owner commercialized noninvasive pre-natal diagnosis tests. These were a substantial improvement over prior art invasive tests that required accessing fetal tissue. They made use of maternal plasma and serum that had previously been discarded as waste. The patent also obtained a patent to the cffDNA detection methods with claims to methods comprising amplifying and detecting the presence of "paternally inherited nucleic acid of fetal origin" in a "maternal serum or plasma sample from a pregnant female." Two companies selling non-invasive tests sued the patent owner in a district court, seeking a declaratory judgment. The patent owner counterclaimed for infringement. A district court granted summary judgment that the asserted claims were invalid as being directed to a natural phenomenon and adding only amplifying and detecting steps that were well-understood as of the patent's filing date (1997). A Federal Circuit panel affirmed the district court correctly held the claims invalid as drawn to ineligible subject matter applying the Supreme Court's decision, *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 132 S. Ct. 1289 (2012).

In *Ariosa*, Judge Linn wrote a short but powerful concurring opinion. Reluctantly, he

agreed that the Supreme Court's "sweeping language" in *Mayo* required invalidating the claims at issue even though they were to a "meritorious invention" that deserved patent protection. He argued that *Mayo* discounted, "seemingly without qualification" any post-solution activity that was conventional or obvious. That was unnecessary in *Mayo* because, in the case, doctors were already performing the claimed steps (administering the drug, measuring metabolite levels, and adjusting dosing based on the levels). In this case, in contrast, "no one was amplifying and detecting paternally-inherited cffDNA using the plasma or serum of pregnant mothers." Yet, the broad language in *Mayo* left no room for distinguishing this case. The inventors' discovery that "there was cell-free fetal DNA in the maternal plasma" was a "ground-breaking invention." The inventors " `effectuate[d] a practical result and benefit not previously attained,' so its patent would traditionally have been valid. *Le Roy v. Tatham*, 63 U.S. 132, 135-36 (1859) (quoting *Househill Coal & Iron Co. v. Neilson*, Webster's Patent Case 673, 683 (House of Lords 1843)); *Le Roy v. Tatham*, 55 U.S. 156, 175 (1852) (same)"

On December 2, 2015, the Federal Circuit denied rehearing en banc in *Ariosa*. Judge Newman wrote a dissenting opinion. Judge Lourie (joined by Judge Moore) and Judge Dyk wrote concurring opinions.

In re DiStefano, 2015 U.S. App. LEXIS 21925 (Dec. 17, 2015), addressed the "printed matter" doctrine. "Printed matter" was limited to the "content of information." When recited in a claim, printed matter was accorded "patentable weight" in distinguishing prior art only if it bore a functional or structural relation to a substrate.

Section 102; On Sale; "Supplier Exception"; Public Use; Provisional Applications. In *Medicines Company v. Hospira, Inc.*, 791 F.3d 1368 (Fed. Cir. 2015), *vacated*, 805 F.3d 1357 (Fed. Cir. 2015)(en banc), a panel held that pre-critical date batches of a drug by a patent owner's supplier triggered an "on sale" bar even though the supplier purported to sell "manufacturing services", not the batches, to the patent owner. On November 13, 2015, the Federal Circuit en banc vacated the panel decision and called for briefing on important issues concerning the "on sale" bar, including whether there can be a "sale" absent a transfer of title, the "experiment use" doctrine, and the status of a "supplier exception."

There were other notable decisions on Section 102. *Delano Farms Co v. California Table Grape Comm'n*, 778 F.3d 1243 (Fed. Cir. 2015), held that a third party's unauthorized use of an embodiment of the later patented invention was not sufficiently public to constitute a "public use" within the meaning of Section 102(b).

Dynamic Drinkware, LLC v. National Graphics, Inc., 800 F.3d 1375 (Fed. Cir. 2015), applied *In re Wertheim*, 646 F.2d 527, 537 (CCPA 1981), to hold that a reference patent was prior art under Section 102(e) as of its provisional application filing date only if claims in the reference patent were shown to be supported by the provisional application's disclosure. *Dynamic* discussed the burdens of producing evidence on prior art during an inter partes review.

Tyco Healthcare Group LP v. Ethicon Endo-Surgery, Inc., 774 F.3d 968 (Fed. Cir. 2014), held that an accused infringer's earlier development of a prototype was prior art as a Section 102(g) invention of another in determining the obviousness of an asserted patent claim.

Kennametal, Inc. v. Ingersoll Cutting Tool Co., 780 F.3d 1376 (Fed. Cir. 2015), applied an "immediately envisage" standard of "anticipation" under Section 102 to uphold a PTO Board decision in an inter partes reexamination that a claim was anticipated when the claimed combination was one of 15 variants a prior art patent disclosed.

Section 103; Obviousness. As every year, there was a constant flow of decisions by the Federal Circuit on obviousness. The decisions oscillate in tone and result.

Exemplifying the oscillation was a pair of cases reviewing a jury's no-obviousness verdict. In *Circuit Check Inc. v. QXQ Inc.*, 795 F.3d 1331 (Fed. Cir. 2015), the patents at issue concerned marking an interface plate to align a tester for circuit boards. Frankly, the inventive concept was quite simple. Nevertheless, a panel held that a district court erred in overturning a jury's verdict of no obviousness. Substantial evidence supported the jury's presumed findings that (1) prior art an accused infringer cited was not analogous, (2) differences between the claims and the prior art to which the patent owner and accused infringer stipulated were significant, the prior art lacking an element that made "the patented claims unique" and teaching away from the claimed invention, and (3) objective considerations (copying, long-felt need, commercial success, skepticism, and unexpected results) existed to support nonobviousness. Given those presumed findings, a reasonable jury could have reached the conclusion that the subject matter as a whole would not have been obvious at the time of the invention." The Federal Circuit observed: "Whatever doubts we have about these patents, the jury verdict was supported by substantial evidence."

In contrast, in *Univ. Central Fla. Bd. Trustees v. Emerson Electric Co.*, 797 F.3d 1350 (Fed. Cir. 2015), a panel held that a jury's verdict that asserted claims to a fan recycling control apparatus for a central air conditioning system were not invalid for obviousness could not stand even accepting, as case law required, the jury's resolution in the patent owner's favor of any credibility issue between opposing experts and any fact issues concerning the *Graham* factors on the prior art and objective evidence. The asserted claims were "invalid as a matter of law" because (1) one reference disclosed, without dispute, all the claim elements except one and "nearly" suggested addition of the remaining one, (2) the "nature of the problem" provided a motivation to combine the reference with other references to achieve a known objective (preventing air stagnation between heating or cooling cycles), and (3) there was no showing of a nexus between the patent owner's evidence of commercial success, licensing, and long-felt need and "any novel aspect of the claimed invention."

"Teaching away" is a commonly asserted ground for avoiding apparently close prior art. *Allergan, Inc. v. Sandoz Inc.*, 796 F.3d 1293 (Fed. Cir. 2015). However, *Dome Patent L.P. v. Lee*, 799 F.3d 1372 (Fed. Cir. 2015), held that one reference's explicit "teaching away" would

not have dissuaded a skilled artisan from making a combination because other references provided a "roadmap" for solving the problem the first reference identified.

Challenges to pharmaceutical patents failed in some cases, e.g., *Shire LLC v. Amneal Pharmaceuticals, LLC*, 802 F.3d 1301 (Fed. Cir. 2015), but not in others, e.g., *Spectrum Pharmaceuticals, Inc. v. Sandoz Inc.*, 802 F.3d 1326 (Fed. Cir. 2015).

On “objective evidence” (secondary considerations), such as commercial success, decisions continued to stress their importance but also found the evidence not sufficient to overcome obviousness in particular cases. E.g., *Prometheus Laboratories, Inc. v. Roxane Laboratories, Inc.*, 805 F.3d 1092 (Fed. Cir. 2015); *Cubist Pharmaceuticals, Inc. v. Hospira, Inc.*, 805 F.3d 1112 (Fed. Cir. 2015); *SightSound Technologies, LLC v. Apple*, 2015 U.S. App. LEXIS 21640 (Dec. 15, 2015)

A number of decisions reviewed decisions by the PTO Board in inter partes reexaminations and its successor procedure, inter partes review (IPR). For cases upholding obviousness rulings, see *Kennametal, Inc. v. Ingersoll Cutting Tool Co.*, 780 F.3d 1376 (Fed. Cir. 2015); *Belden Inc. v. Berk-Tek LLC*, 805 F.3d 1064 (Fed. Cir. 2015); *MCM Portfolio LLC v. Hewlett-Packard Co.*, 2015 U.S. App. LEXIS 20848 (Dec. 2, 2015); *Merck & Cie v. Gnosis S.P.A.*, 2015 U.S. App. LEXIS 21927 (Dec. 17, 2015) (substantial evidence supporting PTO Board findings of motivation to combine and no teaching away). *Redline Detection, LLC v. Star Envirotech, Inc.*, 2015 U.S. App. LEXIS 22897 (Dec. 31, 2015), upheld a no obviousness ruling.

Section 112; Definiteness, Enablement, Written Description, Means-Plus-Function Clauses. Decisions addressed the Section 112 requirements on definiteness, enablement, written description and means-plus-function clauses.

Receiving the most attention was indefiniteness. In its 2014 *Nautilus* decision, the Supreme Court repudiated the Federal Circuit’s standards for definiteness, which had required only that claims be “amendable to construction” and not “insolubly ambiguous.” Those standards were too tolerant of ambiguity. The proper standard was whether a claim, “read in light of the specification delineating the patent, and the prosecution history, fail[ed] to inform, with *reasonable certainty*, those skilled in the art about the scope of the invention.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120 (2014).

On remand in *Nautilus* itself, a panel reconfirmed its prior decision that the claims at issue were not indefinite in their use of “spaced relationship” to define the position of two claim elements. *Biosig Instruments, Inc. v. Nautilus, Inc.*, 783 F.3d 1374 (Fed. Cir. 2015), on remand from, 134 S. Ct. 2120 (2014).

Other panels similarly found no indefiniteness. *Warsaw Orthopedic, Inc. v. NuVasive, Inc.*, 778 F.3d 1365 (Fed. Cir. 2015); *Eidos Display, LLC v. AU Optronics Corp.*, 779 F.3d 1360 (Fed. Cir. 2015); *Apple Inc. v. Samsung Electronics Co., Ltd.*, 786 F.3d 983 (Fed. Cir. 2015).

Especially noteworthy was Judge Chen's opinion in *Ethicon Endo-Surgery, Inc. v. Covidien, Inc.*, 796 F.3d 1312 (Fed. Cir. 2015), holding that a claim was not indefinite even though it specified an average pressure applied to a structure and the patent specification failed to specify which of several methods could have been used to compute the average. Under the particular circumstances, a skilled artisan would have known, as a matter of physics and mathematics, to measure the pressure at the structure's midpoint. If the understanding of how to measure the pressure was within the knowledge of a person of ordinary skill in the art, there was no requirement that the patent's specification expressly "identify a particular measurement technique."

But some post-*Nautilus* decisions found indefiniteness. In the *Teva* case, after the Supreme Court remanded directing the Federal Circuit to apply the correct standard of appellate review of claim construction, the panel continued to find the claim indefinite. *Teva Pharmaceuticals USA, Inc. v. Sandoz, Inc.*, 789 F.3d 1335 (Fed. Cir. 2015), *on remand from*, 135 S. Ct. 831 (2015). It did so even while purporting to give deference to a district court's fact findings, based on expert testimony, on what a figure in the specification would have meant to a skilled artisan in regard to selecting one of several possible measuring. Contradictory statements in the prosecution of subsequent applications related to the patent in suit were intrinsic evidence overriding any extrinsic evidence and created an intolerable ambiguity.

Rather extraordinarily, in *Dow Chemical Co. v. Nova Chemicals Corp.*, 803 F.3d 620 (Fed. Cir. 2015), *rehearing en banc denied*, 2015 U.S. App. LEXIS 21924 (Dec. 17, 2015), a Federal Circuit panel, in an opinion by Judge Dyk, held claims requiring a certain slope invalid for indefiniteness because there were at least three known methods for measuring the slope (in addition to one the patent owner's expert "invented" and advocated). The methods led to difference results that could affect whether or not a given product infringed, and neither the patent nor its prosecution history provided sufficient guidance on which method should be used. In a prior appeal in the case, the Federal Circuit had affirmed a finding that the claims were *not* indefinite. However, Judge Dyk noted the prior decision had applied the lenient definiteness standard *Nautilus* repudiated. The prior finding would generally be binding under the law of the case and issue preclusion doctrines, but an exception for an intervening change in the law applied.

In *Dow*, the Federal Circuit denied rehearing en banc, but two judges dissented in an opinion by Judge O'Malley. Judge Moore wrote a concurring opinion. Chief Judge Prost, joined by the other two members of the panel (Dyk and Wallach), also wrote an opinion, joined by Judges Dyk and Wallach concurring in the denial and emphasizing that "if a skilled person would choose an established method of measurement, that may be sufficient to defeat a claim of indefiniteness, even if that method is not set forth *in haec verba* in the patent itself" and that nothing in the panel opinion was to the contrary.

Decisions addressed the enablement and written description requirements in Section 112. A pharmaceutical example was *Allergan, Inc. v. Sandoz Inc.*, 796 F.3d 1293 (Fed. Cir. 2015),

which held, inter alia, that it was not inconsistent to hold a claim to a pharmaceutical method not obvious because of, inter alia, unpredictability in the art, but also enabled despite that unpredictability. Obviousness was in view of the prior art whereas enablement was in view of the specification read in light of the prior art. In contrast, *Promega Corp. v. Life Technologies Corp.*, 773 F.3d 1338 (Fed. Cir. 2014), held “open-ended” claims to methods of co-amplifying repeating short DNA sequences not enabled because, inter alia, the patent owner had repeatedly emphasized the unpredictability of the technology to establish unobviousness over the prior art.

Vasudevan Software, Inc. v. MicroStrategy Inc., 782 F.3d 671 (Fed. Cir. 2015), reversed a summary judgment holding a “software” patent invalid for lack of enablement and written description. Four patents concerned collecting and analyzing data from multiple incompatible databases. In a district court infringement suit, the asserted claims required, inter alia, accessing "disparate databases." Relying on the *Wands* factors for assessing whether a claimed invention requiring experimentation was enabled, the district court granted summary judgment that the claims were invalid for lack of enablement. See *In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988). The district court emphasized, in particular, that (1) the inventor took three years after filing the priority application to develop a commercial embodiment, and (2) the specification provided insufficient guidance: it disclosed that "Jasmine" database software could be used but, in fact, the inventor was unable to practice the invention using Jasmine. The Federal Circuit agreed that the "question" was "close," but precluding summary judgment were disputed issues of material fact, such as (1) whether the time the inventor took was to develop a "commercial grade" embodiment, which the enablement requirement did not require, and (2) whether, the disclosed Jasmine software could, in fact, be used to produce a working embodiment of the claimed invention.

Inphi Corp. v. Netlist, Inc., 805 F.3d 1350 (Fed. Cir. 2015), held that introduction of “negative limitation” in a claim to distinguish prior art complied with the written description requirement if the limitation narrowed the claim to exclude one or more of a set of features that the specification described as alternatives. The court clarified that a prior decision, *Santarus, Inc. v. Par Pharmaceutical, Inc.*, 694 F.3d 1344 (Fed. Cir. 2012), did *not* require that the specification must always provide a positive reason to have excluded the alternative feature. In the case, the original claim recited a signal and the specification indicated that the signal could be A, B, C *or* D. In an inter partes reexamination, the patent owner added a limitation that the signal was “not an A or B signal.” The court warned that a patent owner could not “arbitrarily dissect its invention by amending the claims in order to avoid the prior art.”

In 2015, the topic of “means-plus-function” continued to receive attention. Most significantly, in *Williamson v. Citrix Online LLC*, 792 F.3d 1339 (Fed. Cir. 2015) (Part II.C.1 en banc), the Federal Circuit overruled prior panel decisions creating a “strong” presumption that a claim phrase not using the word “means,” such as “module”, was not governed by the Section 112 provision on “means-plus-function” clauses. Whether a clause was a “means” clause had consequences for both invalidity for indefiniteness and for claim scope. To avoid indefiniteness, a patent using a means clause in a claim must have set forth sufficient “corresponding structure”

for carrying out the claimed function. For a computer-implemented function, that often meant disclosing an “algorithm.” On scope, a means clause was limited to the corresponding structure and equivalents there.

Williamson held that the "strong" characterization was "uncertain in meaning and application, and [had] the inappropriate practical effect of placing a thumb on what should otherwise be a balanced analytical scale." The characterization had also "resulted in a proliferation of functional claiming untethered to § 112, para. 6 and free of the strictures set forth in the statute." A presumption would continue to apply but "without requiring any heightened evidentiary showing." The correct standard was: "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." If a term lacked the word "means," Section 112/6 applied "if the challenger demonstrates that the claim term fails to 'recite sufficiently definite structure' or else recites 'function without reciting sufficient structure for performing that function.'" A converse presumption of Section 112/6 applicability arising from use of "means" remained "unaffected." I

In *Williamson*, a panel applied the en banc standard to hold that a phrase, a "distributed learning control *module*" for performing three functions, including “coordinating” a “streaming data module,” in a claim to a “distributed learning” method was a means clause. In context, module was indistinguishable from “means.” That rendered the claim invalid for indefiniteness because the patent set forth no algorithm for carrying out the coordinating function.

Inter Partes Review. 2015 was the year when a new “river” of appeals began to flow to the Federal Circuit: appeals from decisions by the Patent Trial and Appeal Board (PTAB) in inter partes review (IPR) proceedings determining the patentability of claims in issued patents. The volume of decisions will grow in 2016 and thereafter. Appeals on inter partes reviews will be joined by those on post-grant review (PRG). PRG is available only for patent claims in applications asserting priorities after March 15, 2013.

In 2015, Federal Circuit decisions addressed both PTAB procedural rulings and substantive decisions on patentability, particularly, obviousness. Indeed, the last decision of the year, *Redline Detection, LLC v. Star Envirotech, Inc.*, 2015 U.S. App. LEXIS 22897 (Dec. 31, 2015), upheld a PTAB no obviousness ruling.

Decisions upheld the PTAB’s application of the broadest reasonable interpretation (BRI) standard for claim construction. E.g., *In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268 (Fed. Cir. 2015), *revising prior panel opinion*, 778 F.3d 1271 (Fed. Cir., 2015), *rehearing en banc denied*, 2015 U.S. App. LEXIS 11716 (Fed. Cir. 2015).

Examined closely, the decisions reviewing PTAB constructions under the BRI standard suggest that the theoretical difference between BRI standard and the narrower litigation standard is primarily just that, to wit, “theoretical.” A broad, abstract interpretation of a claim divorced

from the actual claim language and how the invention is described in a patent's specification is apt to be deemed unreasonable and therefore erroneous. E.g., *Microsoft Corp. v. Proxyconn, Inc.*, 789 F.3d 1292 (Fed. Cir. 2015); *Straight Path IP Group, Inc. v. Sipnet EU S.R.O.*, 2015 U.S. App. LEXIS 20477 (Nov. 25, 2015).

In *Microsoft and Prolitec, Inc. v. Scentair Technologies, Inc.*, 2015 U.S. App. LEXIS 21037 (Dec. 4, 2015), the Federal Circuit upheld PTAB decisions to deny a patent owner's motion to amend and narrow a claim when the patent owner failed to demonstrate that the amended claim was patentable over the prior art of record. In *Redline*, it upheld the PTAB's denial of a petitioner's motion to submit supplementation information, including an expert declaration.

Decisions held that the PTAB's determinations to institute inter partes review were not subject to judicial review, applying the Section 324(e) direction that the institution decision is "final and nonappealable." *Versata Development Group, Inc. v. SAP America, Inc.*, 793 F.3d 1306 (Fed. Cir. 2015), held that the Federal Circuit could review, in an appeal from a final PTAB decision, issues that the PTAB decided as part of its initiation decision but which constituted limits on the PTAB's ultimate invalidation authority. Compare *Achates Reference Publishing, Inc. v. Apple Inc.*, 803 F.3d 652 (Fed. Cir. 2015) (distinguishing *Versata*).

MCM Portfolio LLC v. Hewlett-Packard Co., 2015 U.S. App. LEXIS 20848 (Dec. 2, 2015), rejected a patent owner's arguments that inter partes review of an issued patent on petition of a private party was unconstitutional as violating either Article III, which vests the "judicial power" in judges with life tenure, or Seventh Amendment, which requires a jury trial in civil cases.

Section 271; Direct and Indirect Infringement; Active Inducement. In *Commil USA, LLC v. Cisco Systems, Inc.*, 135 S. Ct. 1920 (2015), the Supreme Court addressed the knowledge and intent requirements for establishing active inducement of infringement under Section 271(b).

On knowledge of *infringement*, it rejected an argument that its prior decision, *Global-Tech Appliances, Inc. v. SEB S. A.*, 131 S. Ct. 2060 (2011), required only that accused inducer have knowledge of the patent. Rather, the accused infringer must have known that the induced acts were infringing. An accused infringer will not be liable for active inducement if the accused infringer "reads the patent's claims differently" from the patent owner and "that reading is reasonable."

However, on knowledge of the *validity* of a patent, an accused infringer's good-faith belief that a patent was invalid did *not* "negate the scienter required for induced infringement." Thus, contrary to the ruling of a Federal Circuit panel, belief in an asserted patent's invalidity is not "a defense to a claim of induced infringement."

The patent owner's victory in the Supreme Court proved to be pyrrhic. On remand, a

Federal Circuit panel ruled for the accused infringer (Cisco) on another ground: there was no substantial evidence to support the jury's verdict of infringement. *Commil USA, LLC v. Cisco Systems, Inc.*, 2015 U.S. App. LEXIS 22680 (Dec. 28, 2015)

In 2012, the Federal Circuit had held, en banc, that there could active inducement under Section 271(b) even if, under the "single entity" rule governing direct infringement, no entity was liable for direct infringement. *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301 (Fed. Cir. 2012) (en banc), *rev'd & remanded*, 134 S. Ct. 2111 (2014). In 2014, the Supreme Court reversed and remanded, suggesting that the Federal Circuit's standard for direct infringement might be too restrictive and that the Federal Circuit would "have the opportunity to revisit the § 271(a) question." *Limelight Networks, Inc. v. Akamai Techs., Inc.*, 134 S. Ct. 2111 (2014).

On remand, sitting en banc, the Federal Circuit accepted the suggestion. *Akamai Technologies, Inc. v. Limelight Networks, Inc.*, 797 F.3d 1020 (Aug. 13, 2015) (En banc). It held that direct infringement of a method claim required that all the claim's steps be performed by, or attributable to, a "single entity." A first entity was responsible for a second entity's performance of a method step in "two sets of circumstances": when the first entity directed or controlled the other entity's performance, or the entities form a "joint enterprise."

The Federal Circuit noted that prior cases had held an entity liable for Section 271(a) direct infringement if the entity acted through an agent or contracted with another entity for the performance of one or more steps. In this case, liability could also be found when an entity conditioned another entity's "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." Supporting this extension was the Supreme Court's *Grokster* copyright infringement inducement decision, which stated that "an actor 'infringes vicariously by profiting from direct infringement' if that actor has the right and ability to stop or limit the infringement." *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, 545 U.S. 913, 930 (2005). In the future, "other factual scenarios may arise which warrant attributing others' performance of method steps to a single actor."

On the facts of the *Akamai* case, the Federal Circuit held that the new test was met. At trial in a district court, a jury had already found that the accused infringer had performed all the asserted method claim's steps except for step B and had controlled its customer's performance of step B. There was evidence to support findings on both performance conditioning and time/manner establishment. On whether the accused infringer had conditioned participation in an activity (here, use of the accused infringer's network) upon performance of step B, the accused infringer had a standard contract obligating a customer to perform step B if it wished to use the accused infringer's network. On establishing the manner or timing of the performance, the accused infringer provided detailed instructions and its "engineers continuously engage with customers' activities."

The same week as *Akamai*, another en banc decision, *Suprema, Inc. v. Mentalix Inc.*, 796 F.3d 1338 (Fed. Cir. 2015) (en banc), addressed application of active inducement theories to ITC importation exclusion proceedings. Trade Act Section 337 authorized the United States International Trade Commission (ITC) to exclude importation of, inter alia, "articles ... that infringe" a valid, enforceable patent.

The ITC interpreted Section 337 as extending to an importer's importation of an article that the importer used, after the importation and as actively induced by the article's seller, to infringe a patent's method claim.

In *Suprema*, a majority affirmed the ITC interpretation. The phrase "articles ... that infringe" was ambiguous in view of Section 271(a), which provides that persons, *not* articles, "infringe." To hold that there were "no 'articles that infringe' at the time of importation when direct infringement does not occur until after importation," as did a prior panel majority in this case, and as advocated in dissenting opinions, "effectively eliminated trade relief under Section 337 for induced infringement and potentially for all types of infringement of method claims." Relief in a district court was not practically available as to some foreign entities.

Export; Damages for Foreign Sales. Four 2015 cases addressed the extent to which a patent owner could collect patent infringement damages for foreign sales and uses by an accused infringer or by the accused infringer's customers when the accused infringer had engaged in some activities in the United States. *Halo Electronics, Inc. v. Pulse Electronics, Inc.*, 769 F.3d 1371 (Fed. Cir. 2014), *rehearing en banc denied*, 780 F.3d 1357 (Fed. Cir. 2015), *cert. granted* (Oct. 19, 2015); *Promega Corp. v. Life Technologies Corp.*, 773 F.3d 1338 (Fed. Cir. 2014); *WesternGeco L.L.C. v. ION Geophysical Corp.*, 791 F.3d 1340 (Fed. Cir. 2015); *Carnegie Mellon University v. Marvell Technology Group, Ltd.*, 2015 U.S. App. LEXIS 13622 (Fed. Cir. 2015).

Exhaustion. In *Lexmark International, Inc. v. Impression Products, Inc.*, 785 F.3d 565 (Fed. Cir. 2015) (en banc order), the Federal Circuit, acting en banc sua sponte, ordered briefing on two issues on exhaustion. In the case, the patent owner Lexmark sold printers that used cartridges. Lexmark had sold cartridges subject to a restriction on reuse. It asserted infringement claims against a company that facilitated refurbishing of Lexmark cartridges for reuse. The company asserted an exhaustion defense based on Lexmark's authorization of the sales of the cartridges. Some of the refurbished cartridges were sold by Lexmark outside the United States.

The first issue was whether there could be exhaustion when a sale authorized by a patent owner occurred outside the United States. The Federal Circuit had previously held that there was no such "international" exhaustion. *Jazz Photo Corp. v. International Trade Commission*, 264 F.3d 1094 (Fed. Cir. 2001). However, that precedent may have been undermined by the Supreme Court's decision in *Kirtsaeng v. John Wiley & Sons, Inc.*, 133 S. Ct. 1351 (2012), recognizing international exhaustion of copyright.

The second issue was whether a sale made under a “restriction that is otherwise lawful,” such as that a product be used only once and then returned to the seller, avoided exhaustion. A Federal Circuit decision, *Mallinckrodt, Inc. v. Medipart, Inc.*, 976 F.2d 700 (Fed. Cir. 1992), had held that a condition of a sale could avoid exhaustion. However, that ruling may have been undermined by the later Supreme Court patent exhaustion decision, *Quanta Computer, Inc. v. LG Electronics, Inc.*, 553 U.S. 617 (2008).

A panel decision, *Helperich Patent Licensing, LLC v. New York Times Co.*, 778 F.3d 1293 (Fed. Cir. 2015), plumbed the complexities of exhaustion after *Quanta*. The patent owner held a portfolio of patents with claims that read on mobile devices configured or used in a certain way and claims that read on acts of providing content to mobile devices in a certain way. The patent owner had licensed all mobile device manufacturers but sought to enforce the patents against content providers. In a long and complex opinion by Judge Taranto, the panel held that a district court erred by recognizing a “broad-brush defense” of exhaustion. Judge Taranto cited old Supreme Court precedent that allowed patent owners to separately enforce and license patents on related products.

Laches and Estoppel. In *SCA Hygiene Prods. Aktiebolag v. First Quality Baby Prods., LLC*, 2015 U.S. App. LEXIS 16621 (Fed. Cir. 2015) (en banc), a panel had affirmed a district court summary judgment that the defense of laches, that is, unreasonable, prejudicial delay in bringing suit, barred a patent owner’s claims for damages for past infringement but reversed a summary judgment that equitable estoppel barred all relief. The Federal Circuit granted en banc review to consider two questions that arose from the Supreme Court’s decision, *Petrella v. Metro-Goldwyn-Mayer, Inc.*, 134 S. Ct. 1962 (2014). *Petrella* held that a laches defense did not bar a copyright owner’s claim for damages for infringing acts occurring during the Copyright Act’s three-year statute of limitations.

The first question was: did *Petrella* require overruling the Federal Circuit’s 1992 en banc decision, *A.C. Aukerman Co. v. R.L. Chaides Constr. Co.*, 960 F.2d 1020 (Fed. Cir. 1992). *Aukerman* held that laches could bar damages for prior acts of patent infringement even though the acts occurred during the six-year damages limitation of 35 U.S.C. Section 286. Per a 6-5 judge majority, in an opinion by Chief Judge Prost, the Federal Circuit held that *Aukerman* and the laches defense to patent infringement damage claims survived *Petrella* because, in the 1952 Act, Congress included Section 282 on defenses to infringement. Section 282 did not specifically mention laches, but, in using general language, it was presumed that Congress intended to continue the pre-1952 common-law rule that laches could bar damages in patent infringement claims. Thus, unlike *Petrella*, application of laches to patent infringement damages was authorized by statute and did not entail a “separate of powers” problem, that is, courts overriding “Congress’ judgment on the timeliness of suit.”

Dissenting in part, Judge Hughes argued, inter alia, that, at the time of the 1952 Act, Supreme Court authority not involving patent infringement generally precluded applying laches to bar a damage claim brought within a federal statutory limitation and that a few “aberrational”

regional circuit decisions holding laches applicable to bar damage claims brought within the statutory limitations were *not* sufficient to have created a “well-established rule” that Congress could have intended to codify.

The second question was whether laches could, under some circumstances, bar all relief. The court, unanimously, held that the *Aukerman* holding that laches did not apply to injunctive relief must be revised in light of Supreme Court precedent. For injunctions, a district court should consider laches as part of the four-factor *eBay* framework. A patent owner’s delay in suing could impact the balancing hardships factor and the irreparable harm factor. However, the Supreme Court’s decisions in *Petrella* and *Menendez v. Holt*, 128 U.S. 514 (1888), dictated that “laches will only foreclose an ongoing royalty in extraordinary circumstances.”

Willful Infringement; Enhanced Damages. In the 2007 en banc *Seagate* decision, the Federal Circuit set out a two part test for determining willful infringement: (1) a patent owner must show that the accused infringer “acted despite an objectively high likelihood that its actions constituted infringement of a valid patent”, and (2) if the first prong is met, the patent owner must show that “this objectively defined risk (determined by the record developed in the infringement proceeding) was either known or so obvious that it should have been known to the accused infringer.” *In re Seagate Tech., LLC*, 497 F.3d 1360, 1371 (Fed. Cir. 2007) (en banc).

The Supreme Court’s 2014 decisions on attorney fees awards rejected a similar two-part test for determining when a patent infringement case was “exceptional” for attorney fee award purposes. *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749 (2014), or *Highmark Inc. v. Allcare Health Mgmt. Sys., Inc.*, 134 S. Ct. 1744, 1746 (2014).

The question arose: did *Octane Fitness* and *Highmark* undermine the Federal Circuit’s two-part *Seagate* framework for willfulness?

In *Halo Electronics, Inc. v. Pulse Electronics, Inc.*, 769 F.3d 1371 (Fed. Cir. 2014), *rehearing en banc denied*, 780 F.3d 1357 (Fed. Cir. 2015), *cert. granted*, 136 S. Ct. 356 (2015), a jury found that three patents were infringed and not invalid and that an infringer likely acted willfully, but the district court found no willful infringement. The Federal Circuit panel held that the district court did not err in finding that the first, objective prong of the two-prong willfulness inquiry was *not* satisfied because the accused infringer raised an obviousness defense to the asserted claims' validity that was not objectively unreasonable.

In *Halo*, three patents concerned "surface mount electronic packages," which were a component of computers and internet routers. The patent owner and the infringer were competitors in supplying electronic components. The infringer knew of the three patents as early as 1998. In 2002, the patent owner sent the infringer two letters, which offered a license but did not charge infringement. The infringer's president gave the letters to an engineer. The engineer spent two hours reviewing the patents and concluded that the patents were invalid in view of the

infringer's prior products. The infringer did not seek an opinion of counsel on validity, and it continued selling the products later found to infringe. A witness for the infringer later testified that noone had made a "conscious decision" whether it was permissible to continue selling those products. In 2007, the patent owner filed suit. At trial, the jury found that it was "high probable" that the infringement was willful. The district court granted the accused infringer's motion on willfulness.

The patent owner argued that the accused infringer "did not actually rely on any invalidity defense pre-suit when selling the accused products" and because the accused infringer's "obviousness defense was developed after the lawsuit was filed in 2007." The argument lacked merit. First, under the objective prong, an accused infringer's state of mind was not relevant. Second, as dictated by *Seagate*, objective reasonableness was "determined by the record developed in the infringement proceeding."

In *Halo*, the Federal Circuit denied rehearing en banc. Judge O'Malley dissented, arguing that the Federal Circuit should reevaluate its jurisprudence on enhanced damages. Judge Taranto wrote a length opinion, noting that there were many interesting questions about the Federal Circuit rules but arguing that this was not proper case to address them.

In October 2015, the Supreme Court granted certiorari in *Halo* on the following question:

“Whether the Federal Circuit erred by applying a rigid, two-part test for enhancing patent infringement damages under 35 U.S.C. § 284, that is the same as the rigid, two-part test this Court rejected last term in *Octane Fitness, LLC v. ICON Health & Fitness, Inc.* for imposing attorney fees under the similarly-worded 35 U.S.C. § 285.”

The Court also granted certiorari in another decision, *Stryker Corp. v. Zimmer Inc.*, 774 F.3d 1349 (Fed. Cir. 2014), *revised opinion on rehearing*, 782 F.3d 649 (Fed. Cir. 2015), *cert. granted*, 136 S. Ct. 356 (2015), on the following question.

“Whether the Federal Circuit improperly abrogated the plain meaning of 35 U.S.C. § 284 by forbidding any award of enhanced damages unless there is a finding of willfulness under a rigid, two-part test, when this Court recently rejected an analogous framework imposed on 35 U.S.C. § 285, the statute providing for attorneys' fee awards in exceptional cases.”

The magnitude of the stakes involved in determining the proper standard for willfulness was illustrated by a third 2015 Federal Circuit decision, *Carnegie Mellon University v. Marvell Technology Group, Ltd.*, 2015 U.S. App. LEXIS 13622 (August 4, 2015). The two patents at issue concerned an improved method of detecting accurately recorded data, such as that on a hard disk used by computers. A jury found that an accused infringer infringed directly and indirectly by developing, testing, and selling millions of chips that carried of the claimed method.

It awarded damages based on a reasonable royalty of \$1,169,140,271. Applying Section 284, the district court enhanced the damages by 23%, adding **\$287,198,828.60** to the award.

A Federal Circuit panel affirmed on liability, rejecting the accused infringer's challenges to the infringement and validity findings and to the denial of a laches defense. A new trial was required on a portion of the damages award to resolve an extraterritoriality issue. The district court erred by enhancing damages. The accused infringer knew of the patents, copied the named inventors' work and had no reasonable belief that it was not infringing. But it presented in the litigation a reasonable defense of invalidity based on a prior art reference. Under the *Seagate's* first objective prong, a reasonable defense of invalidity of patent in an infringement suit precluded a finding of willfulness or enhancement of damages, even if the accused infringer did not know of the reference or formulate its invalidity defense before the litigation.

Not surprisingly, the patent owner petitioned for rehearing en banc. On November 27, 2015, the Federal Circuit took an unusual step. *Carnegie Mellon University v. Marvell Technology Group, Ltd.*, 805 F.3d 1382. (Fed. Cir. 2015). It held the petition “in abeyance” as to the issue pending before the Supreme Court in *Halo* and *Stryker*. It otherwise denied the patent owner’s petition for rehearing en banc and denied that of the accused infringer as well. It directed that the case return to the district court, “which shall have discretion to determine how and when best to handle the proceedings on remand.”