

2014 Distinguished Intellectual Property Visitor

THE INDEFINITE ROLE OF THE TRIAL JUDGE IN PATENT LITIGATION*

by
*Honorable Patti B. Saris***

Thank you. I am honored to be invited to speak on patent law here at Lewis and Clark Law School, with its nationally known intellectual property law program and strong emphasis on the innovators of tomorrow—and their future attorneys.

I would like to talk about the unclear role of the trial judge in patent litigation. I hope the talk will be useful, non-obvious, and novel. In fact, maybe I will patent the speech so no one else can use the ideas for twenty years. You may all think this is a joke, but I recently attended a conference in New York discussing efforts to patent medical treatments and financial strategies. If these can be patented, why not legal methods or, for that matter, judges' speeches on legal method patents?

This is a critical time in the field of patent law. The Supreme Court, the Congress, the bar, and the stakeholders are all debating the challenges facing our patent system. Some of these challenges are profoundly difficult. Should computer-implemented methods of doing business be

* This article is based on a speech given by the Honorable Patti B. Saris at Lewis & Clark Law School on February 19, 2014. Since then, the Federal Circuit has issued *Lighting Ballast Control LLC v. Philips Electronics North American Corp.*, 744 F.3d 1272 (Fed. Cir. 2014) (en banc); the Supreme Court has issued *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120 (2014), *vacating and remanding*, 715 F.3d 891 (Fed. Cir. 2013), and *Highmark, Inc. v. Allcare Health Mgmt. Sys., Inc.*, 134 S. Ct. 1744 (2014), *vacating and remanding*, 687 F.3d 1300 (Fed. Cir. 2012); and the Supreme Court has granted certiorari on the question of the appropriate standard of review for claim construction in *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 723 F.3d 1363 (Fed. Cir. 2013), *cert. granted*, 134 S. Ct. 1761 (2014) (mem.). The article reflects these new developments in the area of patent law. *See infra* notes 47, 58, 73, 98.

** Chief Judge, United States District Court for the District of Massachusetts. I would like to thank Ms. Blair Greenwald, my former law clerk, for her assistance.

patentable?¹ What about genetic sequences?² Among the various government bodies, and often within them, there is no consensus on how to address these issues.

My personal interest in innovation began more than thirty years ago when I was a young staff member working for Senator Edward Kennedy on the Senate Judiciary Committee. I was assigned to work on legislation to decrease government regulation and increase productivity. The need for innovation and economic growth had surged to the front of the national agenda after the recession in the 1970s. The United States faced a high percentage of obsolete industrial plants, low capital investment, and low productivity growth. R&D expenditures were drying up.

In 1982, Congress took action and passed legislation to create the Federal Circuit. Judge Pauline Newman, a charming and smart chemist and one of the first judges on the Federal Circuit, explained why:

It was clear that patents could never serve as reliable investment incentives when their fate in the courts was so unpredictable, and the judicial attitude in general so hostile. . . . [M]ost judges didn't understand the patent system and how it worked, and . . . this lack of understanding was accompanied by a general view that patents were bad for the nation and should be struck down. . . . [T]he fate of patents in court [was] such that no patent could be counted on to survive litigation.³

In fact, in the 1980s, attorneys often advised their clients to willfully infringe because courts found patents invalid in approximately 80% of cases, so the risk of suit was minimal. In this legal and economic environment, a supervisory court was needed to promote greater uniformity in the interpretation and application of the U.S. patent laws and to “foster technological growth and industrial innovation.”⁴

So the questions today are (1) do we have a better patent system thirty years after the creation of the Federal Circuit, and (2) what we can do to improve our system?

As a federal trial judge who has spent large amounts of time on patent litigation, I believe that, although the patent system has improved, it also needs to be fixed. In Baby Judges School⁵ twenty years ago, I met an official of the Patent and Trademark Office (PTO) who told me that his was a pro-patent mission. Indeed, on its current website, the PTO asserts

¹ See *CLS Bank Int'l v. Alice Corp. Pty. Ltd.*, 717 F.3d 1269 (Fed. Cir. 2013), *aff'd*, No. 13-298, 134 S. Ct. 2347 (2014).

² See *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107 (2013).

³ Pauline Newman, *Origins of the Federal Circuit: The Role of Industry*, 11 FED. CIR. B.J. 541, 542 (2001).

⁴ *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 390 (1996) (quoting H.R. REP. NO. 97-312, at 20 (1981)) (internal quotation marks omitted).

⁵ Orientation seminars for newly appointed district judges, provided by the Federal Judicial Center and the Administrative Office. See FEDERAL JUDICIAL CENTER: ANNUAL REPORT 2013 at 5, available at [http://www.fjc.gov/public/pdf.nsf/lookup/AnnRep13.pdf/\\$file/AnnRep13.pdf](http://www.fjc.gov/public/pdf.nsf/lookup/AnnRep13.pdf/$file/AnnRep13.pdf).

that “[t]he strength and vitality of the U.S. economy depends directly on effective mechanisms that protect new ideas and investments in innovation and creativity.”⁶ The PTO proudly announces its “mission to foster innovation and competitiveness” by answering the “continued demand for patents and trademarks[, which] underscores the ingenuity of American inventors and entrepreneurs.”⁷

Many judges have the perception that any well-heeled inventor who presses hard enough will get a patent. In truth, it is often difficult for an examiner to reject the claims of a persistent and well-funded inventor (although, after numerous amendments, the patent might not be as broad as originally sought).⁸ The PTO’s pro-customer, pro-patent attitude of “what’s good for patents is good for the U.S.” has contributed to a dramatic increase in the number of patents filed and granted. Here are some surprising statistics: the number of patents granted in the United States increased at less than one percent per year from 1930 until 1982, the year the Federal Circuit was created.⁹ Between 1982 and 2012, however, the number of patents granted more than *quadrupled*.¹⁰ In fiscal year 2012, the PTO received 576,763 patent applications.¹¹ Some companies file thousands of patent applications a year simply to protect themselves from patent infringement suits. In fact, just in 2012, the PTO granted IBM nearly 6,500 utility patents and granted Samsung over 5,000.¹²

This boom in patents has also had a major impact on the courts. “[T]he number of patent lawsuits was roughly constant throughout the 1960s and 1970s, began to rise with the increase in patent awards in the 1980s, and ballooned in the 1990s.”¹³ In 2012, nearly 5,200 patent actions were filed,¹⁴ the highest number ever recorded. This represents an increase of almost 30% from the year before.¹⁵ The increasing number of lawsuits can be attributed somewhat to litigation by non-practicing entities (also called NPEs or “trolls”) as well as to the anti-joinder provision of

⁶ U.S. Patent & Trademark Office, *The USPTO: Who We Are*, <http://www.uspto.gov/about/index.jsp>.

⁷ *Id.*

⁸ ADAM B. JAFFE & JOSH LERNER, *INNOVATION AND ITS DISCONTENTS: HOW OUR BROKEN PATENT SYSTEM IS ENDANGERING INNOVATION AND PROGRESS, AND WHAT TO DO ABOUT IT* 29–30 (2004).

⁹ *Id.* at 11.

¹⁰ U.S. PATENT & TRADEMARK OFFICE, *U.S. PATENT STATISTICS CHART: CALENDAR YEARS 1963–2013* (2014), *available at* http://www.uspto.gov/web/offices/ac/ido/oeip/taf/data/us_stat.pdf.

¹¹ *Id.*

¹² U.S. PATENT & TRADEMARK OFFICE, *ALL TECHNOLOGIES REPORT*, at B-1 (2014), *available at* http://www.uspto.gov/web/offices/ac/ido/oeip/taf/all_tech.pdf.

¹³ JAFFE & LERNER, *supra* note 8, at 13.

¹⁴ CHRIS BARRY ET AL., *2013 PATENT LITIGATION STUDY: BIG CASES MAKE HEADLINES, WHILE PATENT CASES PROLIFERATE* 6 (2013) *available at* <http://www.pwc.com/us/en/forensic-services/publications/2013-patent-litigation-study.jhtml>.

¹⁵ *Id.*

the America Invents Act (AIA).¹⁶ But, the numbers were rising even before the AIA: 2011 saw more than a 50% increase in the number of lawsuits since 2009. Whatever the cause, there is a high correlation between the number of patents granted and the number of patent actions filed.¹⁷

Many judges hate patent cases, although they do not hate patents. I do not hate patent cases—in fact, I often enjoy them because of the high quality of the lawyering and the opportunity to learn the science. But, I have to say, patent litigation does not get a good report card from my colleagues. Let me explain why: patent litigation today is too *costly* and too *unpredictable*.

Let's start with *costly*. I recently learned at a patent conference in New York City that many attorneys inform their clients that attorneys' fees and costs can be several million dollars through the claim construction hearing alone, and as much as ten million through appeal in a bet-the-company case. In a run-of-the-mill patent case, fees can easily exceed two to three million dollars.¹⁸ In fact, a 2010 study found that the litigation costs of intellectual property cases were, on average, 62% higher than those of non-IP cases.¹⁹

These astronomical litigation costs are compounded by growing damage awards. Before 2012, only three patent infringement cases had involved damages over \$1 billion. Yet, in 2012, juries in three separate cases awarded damages over \$1 billion. Meanwhile, over the last ten years, median damages in cases brought by non-practicing entities were on average more than double that of cases brought by practicing entities.²⁰

No wonder patent litigation is called the game of kings and queens. Frugal Ben Franklin, our founding inventor and author of *Poor Richard's Almanac*, would never have been financially able to protect his lightning rod through litigation.

Patent litigation is also extraordinarily *unpredictable*. Of course, all civil litigation is unpredictable and expensive, thus resulting in the high settlement rate (typically, only two to three percent of civil cases go to trial).²¹ However, even by comparison, patent litigation is *unusually* risky.

In 2010, the Federal Circuit reversed in full or in part approximately 40% of patent infringement cases.²² In 2011, the Federal Circuit reversed

¹⁶ Leahy-Smith America Invents Act, H.R. 1249, 112th Cong. § 19 (2011) (codified as amended at 35 U.S.C. § 299 (2012)).

¹⁷ BARRY ET AL., *supra* note 14, at 6.

¹⁸ AM. INTELLECTUAL PROP. LAW ASS'N, 2013 REPORT OF THE ECONOMIC SURVEY (2013).

¹⁹ EMERY G. LEE III & THOMAS E. WILLGING, FED. JUDICIAL CTR., LITIGATION COSTS IN CIVIL CASES: MULTIVARIATE ANALYSIS 8 (2010).

²⁰ BARRY ET AL., *supra* note 14, at 3.

²¹ John Barkai et al., *A Profile of Settlement*, 42 CT. REV., Dec. 1, 2006 at 34, 34.

²² U.S. COURT OF APPEALS FOR THE FED. CIRCUIT, AFFIRMANCE AND REVERSAL RATES FOR DISTRICT COURT PATENT INFRINGEMENT APPEALS (2011), *available at*

at least one term in about 30% of claim construction cases.²³ While the Federal Circuit's reversal rate for claim construction appeals is now lower than its high of nearly 50% ten years ago,²⁴ it still far exceeds the 6.9% average rate of reversal of the regional circuits.²⁵

The cost and unpredictability of patent litigation has a significant impact on the national economy. A Harvard Business School professor and a Brandeis economics professor have observed that “[a]s the patent system becomes a distraction from innovation rather than a source of incentive, the engine of technological progress and economic growth begins to labor.”²⁶

So why is patent litigation so expensive and so unpredictable? The most recent legislation passed by Congress, the America Invents Act, addressed several longstanding issues by changing the first-to-invent rule to the first-to-file rule, eliminating the best mode defense, and providing post-grant review, all of which may have a huge impact on patent litigation. Congress is also currently considering legislation to address actions brought by so-called “trolls.”²⁷

These are all important problems. However, I will address a more institutional question: the Federal Circuit's lack of deference to, and respect for, the role of the district judge. The problem lies in areas like claim construction, attorneys' fees, obviousness, and indefiniteness. Most importantly, until the reversal rate decreases in the claim construction area, the costs and unpredictability of patent litigation will remain high. Therefore, to improve the current state of patent litigation, one must address claim construction.

I am sure that as intellectual property students, you all know the basic parameters of claim construction. The claim defines the “metes and bounds” of an invention.²⁸ In 1996, the Supreme Court entrusted the task of claim construction to the courts instead of the jury in *Markman v.*

http://patentlyo.com/media/docs/2011/10/caseload_patent_infringement_affirmance_and_reversal_rates_2001-2010.pdf.

²³ J. Jonas Anderson & Peter S. Menell, *Informal Deference: An Historical, Empirical, and Normative Analysis of Patent Claim Construction*, 108 Nw. U. L. REV. (forthcoming 2014) (manuscript at 36), available at <http://www.laipla.net/wp-content/uploads/2013/09/AndersonDeference.pdf>. The “reversal rate” refers to the “rate at which the Federal Circuit reversed at least one term in claim construction cases.” *Id.*

²⁴ *Id.*

²⁵ See ADMIN. OFFICE OF THE U.S. COURTS, TABLE B-5: U.S. COURTS OF APPEALS—APPEALS TERMINATED ON THE MERITS, BY CIRCUIT, DURING THE 12-MONTH PERIOD ENDING JUNE 30, 2013, available at <http://www.uscourts.gov/uscourts/Statistics/StatisticalTablesForTheFederalJudiciary/2013/june/B05Jun13.pdf>.

²⁶ JAFFE & LERNER, *supra* note 8, at 13.

²⁷ Transparency in Assertion of Patents Act, S. 2049, 113th Cong. (2014); Innovation Act, H.R. 3309, 113th Cong. (2013); Patent Transparency and Improvements Act of 2013, S. 1720, 113th Cong. § 5.

²⁸ *Thorner v. Sony Computer Entm't Am. LLC*, 669 F.3d 1362, 1367 (Fed. Cir. 2012).

*Westview Instruments, Inc.*²⁹ Before *Markman*, juries often determined the meaning of ambiguous terms based on the patent claims and specification, the patentee's intended meaning of the claim terms, the prosecution history, and any expert testimony.³⁰ To address uncertainties arising from this practice, the Federal Circuit held that claim construction was "strictly a question of law" and therefore subject to de novo review on appeal.³¹ The Supreme Court, however, called claim construction "a mongrel practice" that did not fit neatly into either category of applying a "pristine legal standard" or of finding a "historical fact."³² Still, the Supreme Court decided to entrust the trial court, rather than the jury, with claim construction to assuage the fear of greater uncertainty if jury claim construction were to continue.³³ In the Court's view judges were better trained and disciplined to interpret the words of a claim and thus to determine the scope of a legally protected invention.³⁴ Claim construction was therefore placed "exclusively within the province of the court" in order to encourage stability, predictability, and transparency in the decision-making process.³⁵

Claim construction may sound rather straightforward, but it is not. The "mongrel practice" sometimes includes not only findings of law but also findings of fact. For example, sometimes judges need to make a "simple credibility judgment" to resolve conflicting opinions of dueling experts, each of "whose testimony [is] equally consistent with a patent's internal logic."³⁶ While acknowledging this possibility, the Supreme Court expected that this situation would rarely occur and decided that, in general, judges were better-suited to construe patent claims.³⁷

The Federal Circuit has continued to parse district courts' claim constructions, which can involve factual findings, under a pure de novo standard of review. This may help explain why the Federal Circuit's rate of reversal has fluctuated between 20 and 45 percent" since *Markman*.³⁸ De novo review creates uncertainty for litigants, unpredictability for district court judges, and general confusion for the R&D community. Alarming, greater experience with patent law seems to make no difference: the reversal rate is no better for district court judges with larger patent dockets than it is for judges with little or no patent experience.³⁹ If a

²⁹ 517 U.S. 370, 372 (1996).

³⁰ *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 977 (Fed. Cir. 1995) (en banc), *aff'd* 517 U.S. 370 (1996).

³¹ *Id.*

³² *Markman*, 517 U.S. at 378, 388.

³³ *Id.* at 391.

³⁴ *Id.* at 388–89.

³⁵ *Id.* at 372.

³⁶ *Id.* at 389.

³⁷ *Id.* at 388–89.

³⁸ David L. Schwartz, *Pre-Markman Reversal Rates*, 43 LOY. L.A. L. REV. 1073, 1075 (2010).

³⁹ *Id.* at 1092.

particular judge's experience has little effect on the reversal rate, what will?

It is not surprising that the task of claim construction is so difficult. There is often more than one reasonable interpretation because of the inherent difficulty of using words in a claim to describe a cutting-edge invention. Sometimes, a lay trial court must rely on a person of ordinary skill in the art to explain how complex scientific terms were understood at the time of the invention; and often, extrinsic evidence (e.g., technical dictionaries, expert tutorials, affidavits, and evidentiary hearings) is also necessary. Many judges believe we need a more deferential standard of review for claim construction to account for this fact-finding. When a district court judge can say that “[y]ou get reversed 37% of [the] time” and “might as well throw darts,”⁴⁰ one thing that *is* clear is that we need a solution.

In *Markman*, the Supreme Court did not address what standard of review to apply to claim construction. Despite this open question, most of the Federal Circuit decisions immediately after *Markman* reviewed claim construction de novo. Initially, the Federal Circuit did find in a small number of cases that there was a factual component to claim construction and reviewed those facts with deference.⁴¹

In 1998, the Federal Circuit clarified its view that claim construction was purely a matter of law subject to de novo review in *Cybor Corp. v. FAS Technologies, Inc.*,⁴² but this decision was far from unanimous. A number of the judges pointed out that the Supreme Court described claim construction as a “mongrel practice” and was silent on the standard of review. For these reasons, four Federal Circuit judges suggested granting some level of deference to the district court.⁴³ A fifth judge argued that the high reversal rate of almost 40% undermined *Markman*'s goals of

⁴⁰ *Id.* at 1092–93 (alteration in original) (quoting J. Marsha J. Pechman) (internal quotation marks omitted).

⁴¹ *E.g.*, *Wiener v. NEC Elecs., Inc.*, 102 F.3d 534, 539–40 (Fed. Cir. 1996) (declining to remand because under *Markman* “claim construction ‘falls somewhere between a pristine legal standard and a simple historical fact,’” and the “district court’s interpretation error prove[d] harmless” (quoting *Miller v. Fenton*, 474 U.S. 104, 114 (1985))); *Metaullics Sys. Co. v. Cooper*, 100 F.3d 938, 939 (Fed. Cir. 1996) (“Where a district court makes findings of fact as a part of claim construction, we may not set them aside absent clear error.”). In *Eastman Kodak Co. v. Goodyear Tire & Rubber Co.*, the court never explicitly laid out the standard of review for claim construction but indicated some level of deference while reviewing the record, noting that “[t]he trial court is best situated to gauge the relevance and need for additional evidence to explicate claim terms” due to its “trained ability to evaluate [expert] testimony” and its “better position to ascertain whether an expert’s proposed definition fully comports with the specification and claims.” 114 F.3d 1547, 1555–56 (Fed. Cir. 1997) (alteration in original) (quoting *Markman*, 517 U.S. at 390) (internal quotation marks omitted).

⁴² 138 F.3d 1448 (Fed. Cir. 1998) (en banc).

⁴³ *Id.* at 1462 (Plager, J., concurring), 1463 (Bryson, J., concurring), 1463–64 (Mayer, C.J., concurring, joined by Newman, J.).

predictability and certainty, and that de novo review would destroy the benefits of having only judges construe patent claims.⁴⁴ As another Federal Circuit judge noted, the de novo standard fosters unpredictability and adds a “sporting element” to the court’s review.⁴⁵

This intra-circuit split on the standard of review has not eased since *Cybor* and has recently returned to the fore. In both 2004 and 2006, the Federal Circuit suggested that it would revisit the standard of appellate review, but both times the court declined to address the question in its decisions.⁴⁶ Recently, in *Lighting Ballast Control LLC v. Philips Electronics North American Corp.*, the Federal Circuit reaffirmed *Cybor* and declared claim construction subject entirely to de novo review.⁴⁷ After extensive briefing by both parties in addition to more than twenty amici curiae, the majority opted to reaffirm its prior holding because “no intervening precedent, no contrary legislation, no shift in public policy, [and] no unworkability of the standard” counseled against stare decisis.⁴⁸ Additionally, the Court felt that de novo review “ha[d] demonstrated its feasibility” and that “no clearly better alternative ha[d] been proposed.”⁴⁹ The six-member majority also stressed the importance of the amici submitted by the technology industries, “all” of whom “urge[d] retention of the *Cybor* standard” to encourage “stability, national uniformity, and predictability in claim construction.”⁵⁰

The dissent, authored by Judge Kathleen M. O’Malley (a well-respected, former district judge) and joined by three others, stressed the Supreme Court’s view of claim construction as a “mongrel practice,” *Cybor*’s inconsistency with Federal Rule of Civil Procedure 52(a), and the “considerable uncertainty and expense” that de novo review adds to patent litigation.⁵¹ Deference to the factual component of claim construction “would introduce *greater stability* and less expense, and would afford the appropriate respect for district courts’ factual determinations.”⁵² The dissent also noted that while the reversal rate had declined somewhat in the last few years, the current rate still dwarfs the reversal rates of its sister circuits.⁵³ “It is not an overstatement to conclude that the reversal rate has had a detrimental effect on the parties, the court, and the credibility

⁴⁴ *Id.* at 1476 & n.4 (Rader, J., dissenting).

⁴⁵ *Id.* at 1479 (Newman, J., additional views).

⁴⁶ See *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 469 F.3d 1039, 1040–41 (Fed. Cir. 2006) (Michel, C.J., dissenting); *Phillips v. AWH Corp.*, 376 F.3d 1382, 1383 (Fed. Cir. 2004) (per curiam).

⁴⁷ 744 F.3d 1272 (Fed. Cir. 2014) (en banc). The following discussion of *Lighting Ballast* was not in the original speech, which was given two days before the Federal Circuit issued the opinion.

⁴⁸ *Id.* at 1292.

⁴⁹ *Id.*

⁵⁰ *Id.* at 1287.

⁵¹ *Id.* at 1296–97 (O’Malley, J., dissenting).

⁵² *Id.* at 1311.

⁵³ *Id.*

of the patent system generally.”⁵⁴ The dissent also criticized the weight that the majority placed on *stare decisis* given that *Cybor* has suffered heavy criticism since it was handed down and has repeatedly been up for review.⁵⁵

Meanwhile, the Supreme Court has not yet resolved the issue. Even though the parties in *Medtronic, Inc. v. Mirowski Family Ventures, LLC*, posed the question in their certiorari petition last year,⁵⁶ the Supreme Court only granted certiorari on the question of who bears the burden of persuasion on the issue of infringement when a licensee seeks a declaratory judgment against a patentee.⁵⁷ However, only six weeks after the Federal Circuit’s *Lighting Ballast* decision, the Supreme Court finally granted certiorari on the question of review for claim construction in *Teva Pharmaceuticals USA, Inc. v. Sandoz, Inc.*⁵⁸ The Supreme Court may finally provide the correct ballast for the trial and appellate courts.

As recognized by the unanimous Supreme Court in *Markman*, claim construction is not a matter of law devoid of any factual component.⁵⁹ For example, in a case I had, I needed expert testimony as to whether the term “DNA” was understood in 1982 to be single- or double-stranded. This is a factual inquiry demanding expert testimony and other extrinsic evidence. As the dissenting judges in *Lighting Ballast* recently stated:

[C]laim construction often requires district courts to resolve underlying issues of disputed fact . . . includ[ing], among others: whether a claim term had a specialized meaning among those skilled in the art at the time; what texts, including treatises and dictionaries, demonstrate about how a person of skill in the art would interpret a claim term, and which contemporaneous tests are most relevant; whether to credit one expert’s testimony over another’s regarding issues bearing on claim construction; who qualifies as a person of ordinary skill in the art; what is the relevant field of invention; what prior art is relevant; what a person of skill in the art would glean from that prior art; and what inferences can be fairly drawn from the prosecution history, including whether a disclaimer of claim scope has occurred.⁶⁰

⁵⁴ *Id.* (quoting Brief for Amicus Curiae of Ass’n of the Bar of N.Y. at 14, *Lighting Ballast*, 744 F.3d 1272 (No. 12-1014)) (internal quotation marks omitted).

⁵⁵ *See id.* at 1310–11.

⁵⁶ Petition for Writ of Certiorari, *Mirowski Family Ventures, LLC v. Medtronic, Inc.* (S. Ct. Mar. 14, 2013) (No. 12-1116), 2013 WL 1092152, at *i, *cert. denied*, 134 S. Ct. 1022 (2014) (mem.).

⁵⁷ *Medtronic, Inc. v. Mirowski Family Ventures, LLC*, 134 S. Ct. 843, 846 (2014).

⁵⁸ 723 F.3d 1363 (Fed. Cir. 2013), *cert. granted*, 134 S. Ct. 1761 (2014) (mem.). All references to *Teva Pharmaceuticals* were not in the original speech, which was given six weeks before the Supreme Court granted certiorari. *See infra* note 105.

⁵⁹ *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 388; *see also* *Phillips v. AWH Corp.*, 376 F.3d 1382, 1384 (Fed. Cir. 2004) (Mayer, J., dissenting).

⁶⁰ 744 F.3d at 1316 (O’Malley, J., dissenting).

As such, any patent reform must acknowledge that, frequently, claim construction is not only a question of law but can be a mixed question of law and fact. The standard of review should therefore not be *de novo* but a more deferential one, the level of deference depending on the extent to which extrinsic evidence is needed.⁶¹ The need for a sliding scale of deference becomes particularly apparent when a judge holds an evidentiary hearing to determine how a person of ordinary skill in the art would understand a claim term. Many judges are hopeful that the Supreme Court will issue an opinion that softens the *de novo* standard of review for claim construction.

However, changing the standard of review is not a silver bullet. The Federal Circuit has further complicated the process through confusing and schizophrenic case law governing claim construction, such as, for example, the “distinction between using the specification to interpret the meaning of a claim and importing limitations from the specification into the claim.”⁶² Two different lines of case law have made defining and applying this distinction extremely difficult. One study concluded that a district court’s approach to claim construction, such as applying this distinction in a procedural manner versus a flexible holistic manner, was one of the leading reasons for reversal.⁶³ While the Federal Circuit has provided some guidance, I believe that the distinction will continue to “be a difficult one to apply in practice”⁶⁴ and create even more uncertainty among litigants. In my view, the Federal Circuit should acknowledge that there is no formal bright line rule in this area. Then, courts could simply seek to define patents holistically based on all intrinsic evidence (i.e., claim term, specification, and prosecution history) and, where necessary, extrinsic evidence.

De novo review has also been a problem in other areas of patent litigation. Let’s begin with the award of attorneys’ fees in patent infringement cases. A “key aim of [the attorneys’ fees statute⁶⁵] was ‘to enable the

⁶¹ *Cf. id.* at 1279. Several amici curiae, including that of the United States, sensibly suggested “a solution whereby the standard of review would depend on whether the district court’s claim construction drew solely from the record of the patent and its prosecution history (called ‘intrinsic evidence’), or whether external information or witness testimony was presented in the district court (that is, ‘extrinsic evidence’). Applying this distinction, some amici propose[d] that claim constructions based on extrinsic evidence would receive clearly erroneous review, for such evidence may entail credibility or reliability findings, while constructions based solely on the patent document and prosecution history would receive *de novo* review.” *Id.*

⁶² *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005) (en banc).

⁶³ Greg Reilly, *Improvably Granted: Why the En Banc Federal Circuit Chose the Wrong Claim Construction Issue*, 80 U. CHI. L. REV. DIALOGUE 43, 48 (2013) (citing R. Polk Wagner & Lee Petherbridge, *Is the Federal Circuit Succeeding? An Empirical Assessment of Judicial Performance*, 152 U. PA. L. REV. 1105, 1143–45 (2004)).

⁶⁴ *Phillips*, 415 F.3d at 1323.

⁶⁵ 35 U.S.C. § 285 (2012).

court to prevent a gross injustice to an alleged infringer.”⁶⁶ To accomplish this, courts were granted the discretion to award reasonable attorneys’ fees to the prevailing party in exceptional cases. In general, a court’s finding that a case is “exceptional” is reviewed for clear error, and its award of fees is reviewed for abuse of discretion.⁶⁷ However, the Federal Circuit determined that some findings made under the attorneys’ fees statute (for example, whether the suit is objectively baseless) are strictly matters of law subject to de novo review.⁶⁸ In the recent case of *Highmark v. Allcare*, the Federal Circuit held that defendants can collect attorneys’ fees if the court finds that a patent infringement action was frivolously brought.⁶⁹ In this situation, fees could be awarded if the litigation (1) was objectively baseless and (2) was brought in subjective bad faith. The Federal Circuit held that a court’s finding that the litigation was objectively baseless would be reviewed de novo as a question of law, even though this finding is “based on underlying mixed questions of law and fact.”⁷⁰

As Judge Mayer pointed out in his dissent, “an exceptional case finding [should be reviewed] for clear error” because the “district court has lived with the case and the lawyers for an extended period.”⁷¹ By contrast, the Federal Circuit has “only the briefs and the cold record . . . with counsel appearing before [it] for only a short period of time . . . [and is] not in the position to second-guess the trial court’s judgment.”⁷²

The Supreme Court, recognizing the inherent problem of de novo review in these circumstances, just recently vacated and remanded the case.⁷³ The attorneys’ fees statute at 35 U.S.C. § 285 commits the determination of a case as “exceptional” to the district court’s discretion.⁷⁴ “[T]he text of the statute ‘emphasizes the fact that the determination is for the district court,’ which ‘suggests some deference to the district court upon appeal.’”⁷⁵ With reasoning similar to that of Judge Mayer in his dissent below, the Supreme Court noted that, “‘as a matter of the sound administration of justice,’ the district court ‘is better positioned’ to decide whether a case is exceptional because it lives with the case over a

⁶⁶ *Kilopass Tech., Inc. v. Sidense Corp.*, 738 F.3d 1302, 1312 (Fed. Cir. 2013) (quoting *Mathis v. Spears*, 857 F.2d 749, 755 (Fed. Cir. 1988)).

⁶⁷ *Forest Group, Inc. v. Bon Tool Co.*, 590 F.3d 1295, 1304 (Fed. Cir. 2009).

⁶⁸ *See, e.g., Inland Steel Co. v. LTV Steel Co.*, 364 F.3d 1318, 1320 (Fed. Cir. 2004) (holding that the definition of “prevailing party” is a question of law).

⁶⁹ *Highmark, Inc. v. Allcare Health Mgmt. Sys., Inc.*, 687 F.3d 1300, 1308–10 (Fed. Cir. 2012), *vacated and remanded*, 134 S. Ct. 1744 (2014).

⁷⁰ *Id.* at 1309.

⁷¹ *Id.* at 1319 (Mayer, J., dissenting in part) (quoting *Eon-Net LP v. Flagstar Bancorp.*, 653 F.3d 1314, 1324 (Fed. Cir. 2011)) (internal quotation marks omitted).

⁷² *Id.* (quoting *Eon-Net LP*, 653 F.3d at 1324) (internal quotation marks omitted).

⁷³ *See Highmark, Inc. v. Allcare Health Mgmt. Sys., Inc.*, 134 S. Ct. 1744 (2014). Discussion of *Highmark* was not in the original speech, which was given more than two months before the Supreme Court issued this decision.

⁷⁴ *Id.* at 1748.

⁷⁵ *Id.* (quoting *Pierce v. Underwood*, 487 U.S. 552, 559 (1988)).

prolonged period of time.”⁷⁶ The Supreme Court acknowledged that “[a]lthough questions of law may in some cases be relevant to the § 285 inquiry, that inquiry generally is, at heart, ‘rooted in factual determinations’”⁷⁷ and, for this reason, “is to be reviewed on appeal for abuse of discretion.”⁷⁸

A third major area with a problematic standard of review is the Federal Circuit’s treatment of obviousness as a pure matter of law. Under current law, obviousness is reviewed *de novo* even though it is based on underlying findings of fact, such as whether a reference is prior art,⁷⁹ the scope and content of prior art,⁸⁰ the level of ordinary skill in the art,⁸¹ the weight given to objective evidence,⁸² and the suggestion or motivation to combine prior art.⁸³

Typically, in my experience, the jury decides the bottom-line obviousness question on a general verdict form.⁸⁴ The verdict answers the question, “Is the claim obvious?” but does not explicitly lay out the underlying factual findings. This can become a complicated nightmare because the Federal Circuit must then conduct a backwards analysis of the black-box jury verdict and use hindsight to figure out what facts the jury must have found to decide obviousness.⁸⁵ Even so, for obviousness no deference is given to the jury’s verdict (otherwise reviewed under the

⁷⁶ *Id.* at 1748 (internal citation omitted) (quoting *Pierce*, 487 U.S. at 559–60).

⁷⁷ *Id.* at 1749 (quoting *Cooter & Gell v. Hartmarx Corp.*, 496 U.S. 384, 401 (1990)).

⁷⁸ *Id.* at 1748. In a related decision issued the same day, *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749 (2014), the Supreme Court made another move toward greater trial court discretion in patent litigation. In *Octane*, the Court found that the Federal Circuit’s framework for the award of attorneys’ fees under § 285 was “unduly rigid” and “impermissibly encumbers the statutory grant of discretion to district courts.” *Id.* at 1755. The Court then held that an “exceptional case” under § 285 “is simply one that stands out from others with respect to the substantive strength of a party’s litigating position . . . or the unreasonable manner in which the case was litigated. District courts may determine whether a case is ‘exceptional’ in the case-by-case exercise of their discretion.” *Id.* at 1756. In addition, the Court “reject[ed] the Federal Circuit’s requirement that patent litigants establish their entitlement to fees under § 285 by ‘clear and convincing evidence’” because the statute “demands a simple discretionary inquiry” and “imposes no specific evidentiary burden, much less such a high one.” *Id.* at 1758.

⁷⁹ *TypeRight Keyboard Corp. v. Microsoft Corp.*, 374 F.3d 1151, 1159 (Fed. Cir. 2004).

⁸⁰ *Yoon Ja Kim v. ConAgra Foods, Inc.*, 465 F.3d 1312, 1326 (Fed. Cir. 2006).

⁸¹ *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17 (1966).

⁸² *In re GPAC Inc.*, 57 F.3d 1573, 1580–81 (Fed. Cir. 1995).

⁸³ *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1351 (Fed. Cir. 2001).

⁸⁴ *Id.* at 1356.

⁸⁵ See generally Adam Powell, Note, *KSR Fallout: Questions of Law Based on Findings of Fact and the Continuing Problem of Hindsight Bias*, 1 HASTINGS SCI. & TECH. L.J. 241 (2009); Theresa Weisenberger, Note, *An “Absence of Meaningful Appellate Review”: Juries and Patent Obviousness*, 12 VAND. J. ENT. & TECH. L. 641, 662–67 (2010).

substantial evidence standard)⁸⁶ or, if decided by the court, to the judge's conclusion (otherwise reviewed for clear error).⁸⁷

The fourth issue, indefiniteness, is another question of law dependent on factual findings. Under Federal Circuit case law in effect until 2014, a claim had to be "insolubly ambiguous" or not amenable to claim construction to be found indefinite.⁸⁸

In 1942, the Supreme Court held that a claim was indefinite if it created "a zone of uncertainty which enterprise and experimentation may enter only at the risk of infringement claims[, which] would discourage invention only a little less than unequivocal foreclosure of the field."⁸⁹ The Federal Circuit, however, announced a different standard in 2001: a claim was indefinite if it was "insolubly ambiguous" or "if reasonable efforts at claim construction prove[d] futile."⁹⁰ The "accused infringer must demonstrate by clear and convincing evidence that one skilled in the relevant art could not discern the boundaries of the claim based on the claim language, the specification, the prosecution history, and the knowledge in the relevant art."⁹¹ To me, the Federal Circuit's standard seems much harder to meet than the Supreme Court's "zone of uncertainty" test. This high standard might help explain why, from 1998 to 2008, less than four percent of appeals in intellectual property cases raised a question of claim indefiniteness.⁹² Under the "insolubly ambiguous" test, even if the scope of a claim is not plain on its face, even if the task to discern the scope is "formidable," even if "some experimentation may be necessary," and even if "reasonable persons will disagree," the claim *still* may not be indefinite.⁹³

Like claim construction, the Federal Circuit treats indefiniteness as a question of law subject to *de novo* review even though it relies on findings of fact, such as the level of skill in the art and the degree of "experimentation." In *Biosig v. Nautilus*, the Federal Circuit reversed the trial court's finding of indefiniteness and concluded that the term "spaced relationship" as applied to the handgrip on a treadmill was not indefinite as

⁸⁶ See *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1309–10 (Fed. Cir. 2009).

⁸⁷ FED. R. CIV. P. 52(a)(6).

⁸⁸ *Biosig Instruments, Inc. v. Nautilus, Inc.*, 715 F.3d 891, 898 (Fed. Cir. 2013), *vacated and remanded*, 134 S. Ct. 2120 (2014).

⁸⁹ *United Carbon Co. v. Binney & Smith Co.*, 317 U.S. 228, 236 (1942); see also *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 390 (1996) (quoting *United Carbon*, 317 U.S. at 236).

⁹⁰ *Exxon Research & Eng'g Co. v. United States*, 265 F.3d 1371, 1375 (Fed. Cir. 2001).

⁹¹ *Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 723 F.3d 1363, 1368 (Fed. Cir. 2013) (alterations omitted) (quoting *Wellman, Inc. v. Eastman Chem. Co.*, 642 F.3d 1355, 1366 (Fed. Cir. 2011)) (internal quotation marks omitted).

⁹² Christa J. Laser, Note, *A Definite Claim on Claim Indefiniteness: An Empirical Study of Definiteness Cases of the Past Decade with a Focus on the Federal Circuit and the Insolubly Ambiguous Standard*, 10 CHI.-KENT J. INTELL. PROP. 25, 30 (2010).

⁹³ *Biosig*, 715 F.3d at 901–02 (quoting *Exxon*, 265 F.3d 1375).

a matter of law.⁹⁴ The term at issue refers to the spacing between electrodes on the handgrips that allows for the detection of heart signals and acts as a heart-rate monitor. The Federal Circuit found that the term “spaced relationship” was not indefinite because “the variables” of “spacing, size, shape, and material affecting the spaced relationship . . . can be determined by those skilled in the art.”⁹⁵ This legal conclusion, however, was based on the appellate court’s extensive review of the facts, including both intrinsic and extrinsic evidence regarding these “variables.”⁹⁶

The Supreme Court granted certiorari this past January in *Biosig* on the standard for indefiniteness⁹⁷ and vacated the decision below in June 2014.⁹⁸ For the first time since 1942, the Court revisited the standard for indefiniteness and “conclude[d] that the Federal Circuit’s formulation, which tolerates some ambiguous claims but not others, does not satisfy the statute’s⁹⁹ definiteness requirement.”¹⁰⁰ “In place of the ‘insolubly ambiguous’ standard, [the Court] h[e]ld that a patent is invalid for indefiniteness if its 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.”¹⁰¹ Significantly, the Court expressed concern that the Federal Circuit’s “‘amenable to construction’ or ‘insolubly ambiguous’” standard “can breed lower court confusion” because “such terminology can leave courts and the patent bar at sea without a reliable compass.”¹⁰² The Court did not discuss the *de novo* standard of review; but, in a footnote following its warning about lower court confusion, the Court left for another day the current treatment of indefiniteness as a matter of law despite the potential for underlying factual disputes.¹⁰³

None of this lecture is meant to understate the complexity of patent litigation, which often involves very difficult scientific issues. I have had

⁹⁴ *Id.* at 903–04.

⁹⁵ *Id.* at 903 (internal quotation marks omitted).

⁹⁶ *Id.* at 899–902.

⁹⁷ *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 896 (2014) (mem.).

⁹⁸ *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120 (2014). The following discussion of the Supreme Court’s *Nautilus* decision was not in the original speech, which was given more than three months before the Court issued the opinion.

⁹⁹ 35 U.S.C. § 112, ¶ 2 (2006).

¹⁰⁰ *Nautilus*, 134 S. Ct. at 2124.

¹⁰¹ *Id.*

¹⁰² *Id.* at 2130.

¹⁰³ *Id.* at 2130 n.10. “The parties nonetheless dispute whether factual findings subsidiary to the ultimate issue of definiteness trigger the clear-and-convincing-evidence standard and, relatedly, whether deference is due to the PTO’s resolution of disputed issues of fact. We leave these questions for another day. The court below treated definiteness as a ‘legal issue [the] court reviews without deference,’ and *Biosig* has not called our attention to any contested factual matter—or PTO determination thereof—pertinent to its infringement claims.” *Id.* (alteration in original) (citation omitted) (quoting *Biosig Instruments, Inc. v. Nautilus, Inc.*, 715 F.3d 893, 897).

the opportunity to sit as a district judge with the Federal Circuit and was able to see firsthand how challenging the Federal Circuit Judges' jobs are and how hard they work as they review voluminous briefs and thick appendices on very dense factual and scientific issues. The complexity of patent cases has increased over the last decade and will no doubt continue to do so. Nevertheless, while their task is hard, the persistent problems caused by the non-deferential standard of review—which undermines the role of the trial judge in fact-finding and case management—must be addressed to improve the predictability and reduce the expense of patent litigation.

It is obvious that the Supreme Court has recently taken a more active role in the area of patent law. Over the past few months, the Supreme Court has resolved six significant patent cases¹⁰⁴ and granted certiorari on the question of the appropriate standard of review for claim construction in a seventh.¹⁰⁵ This year, Supreme Court rulings have signaled a sea of change in patent litigation.

Thank you for inviting me to give this talk. To answer the question I began with: I do believe the patent system is better than the one we had thirty years ago when Congress was concerned about innovation, but the system right now is neither predictable nor uniform and is growing even more expensive. Hopefully, in the coming year, with continued guidance from the Supreme Court, the trial court will be restored to its proper role as fact-finder and case-manager in patent litigation.

Thank you. I would love to hear your views.

¹⁰⁴ *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, No. 13-298, 2014 WL 2765283 (2014) *aff'g* 717 F.3d 1269 (Fed. Cir. 2013); *Nautilus*, 134 S. Ct. 2120 (2014), *vacating and remanding*, 715 F.3d 891 (Fed. Cir. 2013); *Limelight Networks, Inc. v. Akamai Technologies, Inc.*, 134 S. Ct. 2111 (2014), *reversing and remanding*, 692 F.3d 1301 (Fed. Cir. 2012); *Highmark, Inc. v. Allcare Health Mgmt. Sys., Inc.*, 134 S. Ct. 1744 (2014), *vacating and remanding*, 687 F.3d 1300 (Fed. Cir. 2012); *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749 (2014), *reversing and remanding*, 496 F. App'x 57 (Fed. Cir. 2012); *Medtronic, Inc. v. Mirowski Family Ventures, LLC*, 134 S. Ct. 843 (2014), *reversing and remanding*, *Medtronic, Inc. v. Boston Scientific Corp.*, 695 F.3d 1266 (Fed. Cir. 2012).

¹⁰⁵ *Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 723 F.3d 1363 (Fed. Cir. 2013), *cert. granted*, 134 S. Ct. 1761 (2014) (mem.).