



AT SEA IN A BLACK BOX: CHARTING A CLEARER COURSE FOR
JURIES THROUGH THE PERILOUS STRAITS OF PATENT INVALIDITY

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Abstract

When jurors decide whether a putative patent infringer is liable under the doctrine of equivalents, Federal Circuit law requires that the patent owner's trial presentation provide "particularized evidence" and "linking argument" with respect to each prong of the classic tripartite test for liability (*i.e.*, substantial identity of "function," "way," and "result" between each element of the claimed invention and accused device). The court has recognized that absent such evidentiary roadmapping, jurors are "put to sea without guiding charts." In its August 2001 decision in *Monsanto Co. v. Mycogen Plant Science, Inc.*, the Federal Circuit refused to extend this same evidentiary framework to an accused infringer's affirmative defense that the patent in suit was invalid for prior invention under 35 U.S.C. § 102(g)(2). This article contends that the Federal Circuit in *Monsanto* improvidently deprived jurors of analytical guideposts that are essential to the kind of fully informed fact-finding that should underlie any verdict on the validity or invalidity of an issued patent. The article proposes that the evidentiary requirements for contextualization, particularization, and application of pertinent facts to applicable law, as previously required for liability determinations under the doctrine of equivalents, should likewise be mandated for all cases in which patent validity is challenged before a jury. The jury's deliberational task is no less complex in the validity phase of a patent trial than in the liability phase, and is further informed by the presumption of validity that attaches to issued patents. The risks of juror error that warrant imposition of particularized evidentiary requirements for liability determination are even more potent in the validity setting, for a jury's decision to sustain or invalidate an asserted patent affects not only the parties to the lawsuit but also the public at large. In keeping with its mandate to enhance predictability and uniformity in patent disputes, the Federal Circuit has the power and the responsibility to improve patent jury trial practice by requiring that validity challenges be tried under the same evidentiary ground-rules as those that the court has already established for equivalents liability.

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Jurors are key players in the complex, high-stakes battleground of U.S. patent infringement litigation.¹ When a jury is charged with resolving the sophisticated question of a defendant's liability for infringement under the doctrine of equivalents, the Federal Circuit wisely requires that the patentee (who carries the burden of proof on this issue) present "particularized testimony" on each of the "function," "way," and "result" elements of the classic *Graver Tank*² tripartite test for equivalents infringement.³ The patentee must also provide the jury with "linking argument" that ties this evidence to each of the three elements.⁴ By requiring this degree of contextualization and particularity in the evidentiary presentation of a liability theory whose imprecise boundaries have been the subject of debate for over 100 years,⁵ the Federal Circuit has injected a much-needed safeguard into a juror decisional process that has been criticized as uncertain, unpredictable, and virtually unreviewable.⁶

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¹ See Kimberly A. Moore, *Judges, Juries, and Patent Cases—An Empirical Peek Inside the Black Box*, 99 MICH. L. REV. 365, 366 n.7 (2000) (reporting that in 1998, 60% of all patent trials (62 out of 103) were tried before juries) (citing ADMIN. OFF. U.S. CTS., JUD. BUS. U.S. CTS. 167 tbl. C4 (1998)). For 1999, the percentage of patent jury trials rose to 62% (61 out of 98). See *id.* (citing ADMIN. OFF. U.S. CTS., JUD. BUS. U.S. CTS. 161 tbl. C4 (1999)).

² See *Graver Tank & Mfg. Co., v. Linde Air Prods. Co.*, 339 U.S. 605, 608 (1950) (stating that, in order to "[t]emper unsparing logic and prevent an infringer from stealing the benefit of an invention," a patentee may proceed against an accused device even though it does not literally infringe "if it performs substantially the same function in substantially the same way to obtain the same result") (citations omitted).

³ See *Lear Siegler, Inc. v. Sealy Mattress Co.*, 873 F.2d 1422, 1426 (Fed. Cir. 1989). In *Texas Instruments Inc. v. Cypress Semiconductor Corp.*, 90 F.3d 1558 (Fed. Cir. 1996), the Federal Circuit made clear that *Lear Siegler's* "particularized evidence"/"linking argument" requirement still applies even after the Federal Circuit's clarification in *Hilton Davis Chem. Co. v. Warner-Jenkinson Co.*, 62 F.3d 1512 (Fed. Cir. 1995) (en banc), *rev'd on other grounds*, 520 U.S. 17 (1997), that *Graver Tank's* "function," "way" and "result" trilogy is not the sole test for equivalency, but rather merely one way of establishing the ultimate question of the "insubstantiality of the differences" between each element of the claimed and accused devices. See *Texas Instruments*, 90 F.3d at 1566-67.

⁴ See *Lear Siegler*, 873 F.2d at 1426.

⁵ See, e.g., *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 234 F.3d 558 (Fed. Cir. 2000) (en banc), *cert. granted*, 121 S. Ct. 2519 (2001); *Warner-Jenkinson Co., v. Hilton Davis Chem. Co.*, 520 U.S. 17 (1997); *Graver Tank & Mfg. Co., v. Linde Air Prods. Co.*, 339 U.S. 605 (1950); *Winans v. Denmead*, 56 U.S. 330 (1853). See generally Hon. Paul R. Michel, *The Role and Responsibility of Patent Attorneys in Improving the Doctrine of Equivalents*, 40 IDEA 123 (2000) (characterizing the doctrine of equivalents as "the most difficult and least predictable of all doctrines in patent law to apply").

⁶ For criticisms of juries in patent litigation, see Moore, *supra* note 1, at 365 (noting "increasing skepticism regarding the role of juries in patent cases"); *id.* at 365 n.2 (collecting numerous secondary authorities critical of jury's role in patent litigation); *id.* (citing *In re Lockwood*, 50 F.3d

Regrettably, the Federal Circuit refuses to forge the same requirement of precise evidentiary presentation in jury trials of patent invalidity based on prior inventorship under 35 U.S.C. § 102(g)(2),⁷ a determination arguably just as complex as an analysis of infringement and demanding a greater burden of proof.⁸ In its August 16, 2001 decision in *Monsanto Co. v. Mycogen Plant Science, Inc.*,⁹ the Federal Circuit declined to extend the “particularized testimony”/“linking argument” requirement to a case in which it held that a jury had properly invalidated the Monsanto patent in suit¹⁰ under a § 102(g)(2) theory of earlier conception of the same invention by scientists of non-party Agracetus Corporation, coupled with diligence by Agracetus during the relevant period of time leading up to reduction to practice of the invention.¹¹ The Federal Circuit affirmed the patent’s invalidation based on the jury’s verdict, despite the fact that defendant/accused infringer Mycogen never

966, 980-81 (Fed. Cir. 1995) (Nies, J., dissenting from denial of rehearing en banc) (asserting that “[n]o more important nor contentious an issue arises in patent law jurisprudence than the appropriate role of juries in patent litigation”), *vacated*, 515 U.S. 1182 (1995)).

With regard to the virtual unreviewability of jury verdicts in patent cases, see, for example, *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1358 (Fed. Cir. 2001) (Michel, J., dissenting) (seeing in majority’s opinion, which sustained jury’s verdict that claimed invention marketed as “Roger Clemens Instructional Baseball” would not have been obvious, an implication that “a general jury verdict on the legal question of obviousness is essentially immune from review by the trial court on JMOL, or by [the Federal Circuit] on appeal.”); *Hilton Davis Chem. Co. v. Warner-Jenkinson Co.*, 62 F.3d 1512, 1538 (Fed. Cir. 1995) (en banc) (Plager, J., dissenting) (characterizing appellate review of doctrine of equivalents cases as “largely *pro forma*,” and noting that such cases typically come to Federal Circuit “with nothing more than a general verdict finding infringement” providing “no explanation by the jury of the rationale behind their verdict, if any exist”), *reversed*, 520 U.S. 17 (1997); *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1546 (Fed. Cir. 1983) (noting that a general verdict “involves a presumption that the jury found the facts and reached the legal conclusions undergirding its verdict. That practice leaving a wide area of uncertainty on review, appellate judges have expressed grave concern over use of the general verdict in civil cases.”).

⁷ Section 102(g)(2) of the Patent Act, 35 U.S.C.(2001), provides:

A person shall be entitled to a patent unless . . . before such person's invention thereof, the invention was made in this country by another inventor who had not abandoned, suppressed, or concealed it. In determining priority of invention under this subsection, there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other.

⁸ The burden of proof borne by an accused infringer seeking to invalidate a patent, which is presumptively valid, see 35 U.S.C. § 282, is “clear and convincing” evidence. See *Monsanto Co. v. Mycogen Plant Science, Inc.*, 261 F.3d 1356, 1362. In contrast, the patent owner seeking to establish infringement bears the lesser “preponderance of the evidence” burden of proof. See *SSIH Equip. SA v. United States Int’l Trade Comm’n*, 718 F.2d 365, 376 (Fed. Cir. 1983).

“Priority of invention is a question of law based on underlying factual determinations.” *Monsanto*, 261 F.3d at 1362.

⁹ *Monsanto*, 261 F.3d 1356 (Fed. Cir. 2001).

¹⁰ *Monsanto’s* U.S. Patent No. 5,500,365 was directed to genetically altered plants having heightened insecticidal resistance. See *Monsanto*, 261 F.3d at 1359. In accordance with the invention, the genetic material of the plants was modified so as to achieve better levels of expression of the *Bacillus thuringiensis* (*Bt*) protein, which is toxic to various insects. See *id.*

¹¹ See *id.* at 1359, 1361. The Federal Circuit explained that the earlier conception plus diligence theory had to be the basis for the jury’s verdict, because the evidence was insufficient to support the verdict under the alternate theory of an earlier reduction to practice by Agracetus. See *id.* at 1361-62.

explicitly informed the jury that it could prevail under such a theory;¹² the earlier-conception-plus-diligence theory was set forth only in the jury instructions.¹³

The district court had denied patentee Monsanto's motion for judgment as a matter of law ("JMOL"), determining that the record contained the "substantial evidence" quantum of evidence¹⁴ required to support the jury's presumed¹⁵ underlying fact finding of "reasonable diligence."¹⁶ Although never explained to the jury, Agracetus's lab notebooks were introduced into evidence at the close of trial,¹⁷ and the jury heard a conclusory statement in deposition testimony that Agracetus had made "reasonable efforts" during the relevant time period to create and test the invention.¹⁸

¹² See *id.* at 1363. The court stated that:

[i]t is undisputed that the defendants tried the case principally on the theory that Agracetus both conceived the invention prior to Monsanto and reduced it to practice before Monsanto, and that the defendants did not explicitly inform the jury that the defendants should prevail under the theory of an earlier conception coupled with diligence.

Id.

¹³ See *id.* (noting that "the jury was read proper instructions on establishing prior invention by an earlier conception coupled with diligence").

¹⁴ "Substantial evidence" has been defined as "such relevant evidence from the record taken as a whole as might be accepted by a reasonable mind as adequate to support the finding under review." *Perkin-Elmer Corp. v. Computervision Corp.*, 732 F.2d 888, 893 (Fed. Cir. 1984).

¹⁵ The fact-finding was presumed because the jury rendered only a general verdict of invalidity under 35 U.S.C. § 102(g)(2). See *Monsanto*, 261 F.3d at 1361 (explaining that jury "did not make any specific findings regarding conception, diligence, or reduction to practice").

¹⁶ See *id.* at 1361-62; *Monsanto Co. v. Mycogen Plant Science, Inc.*, 61 F. Supp. 2d 133, 152-53 (D. Del. 1999).

¹⁷ The district court's opinion lists a number of discrete laboratory notebook entries, each made by Agracetus scientists during the relevant time period from just before September 8, 1987 until mid-August 1988, as "significant dates and evidence of diligence":

October 20, 1987 · AMVBt2 construct made by Barton.
 November 2, 1987 · AMVBt3 construct made by Barton.
 January 15, 1988 · AMVBt4 construct made by Barton.
 Mid-January, 1988 · Transformation experiments conducted by Cannon.
 May 23-26, 1988 · Tobacco hornworm bioassays conducted by Cannon.
 June 3, 1988 · Cannon enters data in her laboratory notebook.
 June & July 1988 · Additional bioassays conducted by Cannon.
 August 11, 1988 · Western blot tests conducted by Miller.

Monsanto, 61 F. Supp. 2d 133, 185 (D. Del. 1999).

Based on these and other unspecified notebook entries, see *id.* (referring generally to "entries [made] in each of the following months: August, September, October, November and December 1987 and January 1988"), the district court concluded that "there is a legally sufficient evidentiary basis for a reasonable jury to find that [Agracetus scientists] Barton and Miller were the first to conceive of the invention, and then exercised reasonable diligence in reducing that invention to practice." *Id.* Accordingly, the district court concluded that the record provided "legally sufficient evidence to support the jury's finding that Claims 7, 8, 9 and 12 of the '365 patent are invalid by prior invention." *Id.*

Before the Federal Circuit, Monsanto argued that the defendants' "failure to provide argument or testimony that both explained the evidence and showed how it supported a diligence theory foreclosed the jury from relying on that theory." *Monsanto*, 261 F.3d at 1363. Monsanto also alleged that it was prejudiced because the defendants' failure to explicitly raise the diligence theory deprived Monsanto of an opportunity to rebut it. *Id.* As explained *infra*, the Federal Circuit rejected both of these arguments.

¹⁸ As reproduced in the district court's opinion sustaining the jury verdict of invalidity, the

Despite the relative paucity of competent evidence on reasonable diligence, the Federal Circuit sided with the district court and concluded that substantial evidence supported the *Monsanto* jury's presumed findings on diligence—presumed because the jury rendered only a general verdict of invalidity under Section 102(g).¹⁹ “The evidence is sufficient, despite the absence of argument or testimony explaining the lab notebooks and linking their contents to the elements of diligence, to support presumed jury findings that Agracetus was diligent throughout the entire critical period,”²⁰ the Federal Circuit found.

But such a cursory, unexplained, and non-contextualized presentation of technical evidence to a jury of laypersons, in support of a non-explicated legal theory of invalidation that turns on the proper application of patent law terms of art such as “conception” and “reasonable diligence,” is a precariously slender reed on which to strip a patentee of its valuable property right. The most troubling aspect of the evidentiary presentation to the *Monsanto* jury is not its lack of quantum (although this itself is questionable), but rather its lack of quality. Even assuming that the requisite quantum of evidence required under the “substantial evidence”/“reasonable jury” standard to sustain the jury's presumed findings was present in the record, there is no basis for presuming that the *Monsanto* jury arrived at its verdict through a reasoned, rational analysis that correctly applied the law to the facts. Other than the jury instructions read to them at the close of trial, there is no reason to presume that the jury understood what the “the law” on reasonable diligence is, much less properly applied it to completely unexplained evidence like the cryptic Agracetus laboratory notebook entries.²¹ Nor was there any meaningful opportunity for Monsanto to defend against an invalidity theory never explicitly stated at trial.

From all indications, the *Monsanto* jury was “put to sea without guiding charts,”²² and the virtual unreviewability of its “black box” verdict ensured that the lack of guidance at trial could not be remedied on appeal. The “black box” metaphor, previously coined to criticize the use of general jury verdicts,²³ is doubly appropriate

entirety of this deposition testimony was as follows:

Q. Between August 24, 1987 and this insect bioassay worm feeding 56 [in May 1988], did Ken Barton or you or someone under the supervision of Ken Barton or you make reasonable efforts toward obtaining transformed plants expressing *Bt4*?

A. Yes, we did.

Monsanto Co. v. Mycogen Plant Science, Inc., 61 F. Supp. 2d 133, 184 (D. Del. 1999). As the district court itself recognized, “[s]uch generalized statements do not satisfy diligence requirements.” *Id.* (citing *Naber v. Cricchi*, 567 F.2d 382, 386 (CCPA 1977)).

¹⁹ See *Monsanto*, 261 F.3d at 1361 (noting that the jury “did not make any specific findings regarding conception, diligence, or reduction to practice”); *id.* at 1362 (explaining that “the district court had only the jury's verdict of prior inventorship without any specific findings of underlying facts,” and that “[i]n such circumstances, factual findings in support of the prior inventorship verdict are presumed to have been made by the jury”).

²⁰ *Id.* at 1370.

²¹ See *supra* note 17.

²² *Lear Siegler, Inc. v. Sealy Mattress Co.*, 873 F.2d 1422, 1426 (Fed. Cir. 1989).

²³ See, e.g., *Warner-Jenkinson Co., v. Hilton Davis Chem. Co.*, 520 U.S. 17, 39 n.8 (1997) (noting “the concern over unreviewability due to black-box jury verdicts”); *In re Lockwood*, 50 F.3d 966, 990 (Fed. Cir. 1995) (Nies., J., dissenting from denial of rehearing en banc) (contending that “[a]s jury cases are now tried, in accordance with our precedent, the evidence respecting validity of a patent is thrown into the black box of the jury room, and the verdict is returned either valid or invalid”), *vacated*, 515 U.S. 1182 (1995); *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d

here where the jury was provided virtually no illumination of the analytical path by which it was to decide the question of prior invention. The lack of any explanatory testimony concerning the Agracetus laboratory notebooks, or linking argument that showed the jury how the notebook entries might amount to “reasonable diligence,” as that term has been defined by case law, ensured that the jury rendered its verdict in virtual darkness. The *Monsanto* jury operated within the confines of a “black box” that permitted no light to intrude upon the deliberational process, just as it prevented any meaningful review of the verdict because of the liberal “substantial evidence” standard of review. Both the inputs and outputs of the jury process were shrouded in darkness.

The Federal Circuit in *Monsanto* rejected adoption of a “particularized testimony”/“linking argument” requirement for § 102(g)(2) invalidity defenses, in large part because in prior Federal Circuit cases such a requirement has only been explicitly adopted in respect of doctrine of equivalents determinations. “[T]here is no general requirement that a party necessarily provide explanatory argument linking the evidence to each of the various elements of a legal theory,”²⁴ the court proclaimed. But the *Monsanto* court’s conclusion that a linking argument requirement is “the exception and not the rule”²⁵ for patent trials under current Federal Circuit precedent begs the larger policy question: to enhance reliability and predictability of the jury trial process in patent cases, why should the “particularized testimony”/“linking argument” requirement be limited to the sole issue of infringement under the doctrine of equivalents? Are not many aspects of patent litigation equally, if not more complex and fraught with risk of error, particularly those such as invalidity defenses where the evidentiary quantum required for invalidation is “clear and convincing” evidence?

I contend that an explicit “particularized evidence”/“linking argument” requirement makes good sense for *all* invalidity defenses litigated in patent jury trials. The heightened “clear and convincing” burden of proof to invalidate a presumptively valid issued patent²⁶ justifies a more particularized evidentiary presentation, just as such a presentation is justified in the equivalents infringement context where enhanced procedural cautions are appropriate because a patentee’s exclusionary right may be extended beyond the literal scope of its claims. Moreover, heightened evidentiary requirements are appropriate for jury trials of patent validity because the validity (or invalidity) of a patent impacts society at large, not just the parties to the lawsuit as in an infringement determination.

The equal analytical complexity of both the infringement and invalidity determinations also justifies extending the “particularized evidence”/“linking argument” requirement to invalidity defenses. Just as the legal rule for establishing liability under the doctrine of equivalents involves satisfaction of multiple elements, so too do most invalidity defenses. The Supreme Court has delineated these elements for several invalidity defenses. Where the Court has not yet done so, the

707, 718 (Fed. Cir. 1984) (recognizing that “[c]oncerns have been expressed by the patent bar that a jury trial creates a black box into which patents are thrown and emerge intact or invalid by an unknown and unknowable process”).

²⁴ *Monsanto*, 261 F.3d at 1367.

²⁵ *Id.*

²⁶ *See id.* at 1362.

Federal Circuit or its predecessor the CCPA have, as discussed *infra*.

Establishing a requirement of “particularized testimony”/“linking argument” for invalidity defenses tried before juries is within the Federal Circuit’s mandate, and in line with the court’s mission of enhancing predictability and uniformity in patent law.²⁷ Because a “particularized testimony”/“linking argument” requirement has already been required by the Federal Circuit since 1984 in one aspect of patent litigation without objection by the Supreme Court,²⁸ such a requirement can be seen as within the Circuit’s “special expertise” in patent matters to which the Supreme Court defers.²⁹

A uniform linking argument requirement is also consistent with the type of particularized guidance suggested by the Supreme Court in *Warner-Jenkinson* to remedy the patent jury “black box” problem; there the Court specifically suggested greater use of special verdicts and interrogatories in patent jury trials, but left in the Federal Circuit’s hands the broader question of “how best to implement procedural improvements to promote certainty, consistency, and reviewability to this area of the law.”³⁰ Nothing in *Warner-Jenkinson* suggests that extending a “particularized evidence”/“linking argument” requirement to invalidity defenses would unreasonably restrain a litigant’s Seventh Amendment jury trial rights, and the Federal Circuit has never questioned the application of such requirements on that basis.³¹

By declining the opportunity offered in *Monsanto* to expand the “particularized evidence”/“linking argument” requirements to invalidity defenses, the Federal Circuit squandered a chance to provide much-needed ground rules for patent jury trials. In so doing, the court sanctioned invalidation of patents under any statutorily-based theory so long as that theory is cursorily mentioned in the jury instructions, and the requisite “substantial evidence” is present somewhere in the evidentiary record. Whether the jury had any understanding of what the evidence meant and how to apply the law to the evidence is now moot. *Monsanto* not only illustrates the affirmance of a jury verdict that was likely reached by jurors who had no meaningful understanding of their analytical task; it virtually guarantees that same result will follow in future jury trials of invalidity. The Federal Circuit has the authority and the responsibility to rectify this aspect of patent jury trials, and there are compelling

²⁷ A primary objective underlying the Federal Circuit’s formation in 1982 was to “increase doctrinal stability in the field of patent law.” *Panduit Corp. v. All States Plastic Mfg. Co.*, 744 F.2d 1564, 1573 (Fed. Cir. 1984) (quoting S. Rep. 97-975, 97th Cong., 1st Sess. 5, *reprinted in* 1982 U.S. CODE CONG. & AD. NEWS 15) (legislative history of Federal Courts Improvement Act of 1982).

²⁸ The Federal Circuit denied rehearing in *Lear Siegler*; see *Lear Siegler, Inc. v. Sealy Mattress Co.*, No. 88-1540, 1989 U.S. App. LEXIS 8485 (Fed. Cir. June 5, 1989), and no petition for *certiorari* was filed in the Supreme Court. The *Nestier* and *Lear Siegler* requirements for “particularized evidence” and “linking argument” in the doctrine of equivalents context are still good law in the Federal Circuit. See *Comark Communications, Inc. v. Harris Corp.*, 156 F.3d 1182 (Fed. Cir. 1998); *Texas Instruments Inc. v. Cypress Semiconductor Corp.*, 90 F.3d 1558 (Fed. Cir. 1996).

²⁹ *Cf. Warner-Jenkinson Co., v. Hilton Davis Chem. Co.*, 520 U.S. 17, 40 (1997) (leaving to Federal Circuit’s “sound judgment in this area of its special expertise” the refinement of tests for infringement under the doctrine of equivalents).

³⁰ *Id.* at 39 n.8.

³¹ One judge of the Federal Circuit has criticized the “particularized evidence”/“linking argument” requirement for doctrine of equivalents cases as “paternalistic” and one which “diverts patent jury trials from the mainstream of the law.” *Malta v. Schulmerich Carillons, Inc.*, 952 F.2d 1320, 1344 (Fed. Cir. 1991) (Newman, J., dissenting).

reasons why the court should do so.

THE GENESIS OF THE FEDERAL CIRCUIT'S
“PARTICULARIZED EVIDENCE”/“LINKING ARGUMENT” REQUIREMENT

In its 1984 *Nestier Corp. v. Menasha Corp.* decision,³² a five-judge panel³³ of the Federal Circuit affirmed a trial court’s refusal to instruct a jury on infringement under the doctrine of equivalents when the patentee’s trial presentation was clearly limited to a theory of literal infringement. No “way” evidence of equivalency was ever presented, the Federal Circuit observed,³⁴ and the plaintiff’s technical expert witness specifically disclaimed any reliance on a doctrine of equivalents theory.³⁵ The *Nestier* court searched the record for evidence that the patentee had placed the doctrine of equivalents theory “in context” for the jury, but found none:

At no time did Nestier’s attorneys or witnesses present evidence which was explicitly related to the jury in the *Graver Tank* terms of equivalence of functions, means, and result. Analysis of equivalence involves those three factors, and a jury cannot be expected to be able to make any such determination absent evidence and argument concerning the doctrine and each of its elements. . . . This is not to say that the exact *Graver Tank* language must be used by attorneys and witnesses. However, appellant, which bore the burden of proving infringement, had the responsibility of establishing that context at trial and of stating its case within that context—but it failed to do so.³⁶

The trial court’s refusal to instruct on the doctrine of equivalents was proper, the Circuit concluded, because “[i]n a jury trial, a court should not instruct on a proposition of law about which there is no competent evidence.”³⁷

Five years later, the Federal Circuit in *Lear Siegler, Inc. v. Sealy Mattress Co.*³⁸

³² 739 F.2d 1576 (Fed. Cir. 1984).

³³ Although appeals to the Federal Circuit are typically heard by panels of three judges, in some instances the court has heard cases in panels of five judges. *See, e.g.,* Animal Legal Defense Fund v. Quigg, 932 F.2d 920 (Fed. Cir. 1991); Kinzenbaw v. Deere & Co., 741 F.2d 383 (Fed. Cir. 1984); *Nestier*, 739 F.2d at 1576; C.R. Bard, Inc. v. Schwartz, 716 F.2d 874 (Fed. Cir. 1983). This practice is likely a holdover from one of the Federal Circuit’s predecessor courts, the Court of Customs and Patent Appeals, which always sat as an *en banc* court of five judges. *See* In re Gosteli, 872 F.2d 1008, 1011 (Fed. Cir. 1989). Title 28, U.S.C., specifically authorizes the Federal Circuit’s expanded-panel practice. *See* 28 U.S.C. § 46(c) (2001) (stating that “[c]ases and controversies shall be heard and determined by a court or panel of not more than three judges (except that the United States Court of Appeals for the Federal Circuit may sit in panels of more than three judges if its rules so provide”).

³⁴ *See Nestier*, 739 F.2d at 1580 (noting “absence of any such evidence concerning equivalence of means”).

³⁵ *See id.* at 1580.

³⁶ *Id.* at 1579.

³⁷ *Id.* (quoting *Jackson v. Southern Railway Co.*, 317 F.2d 532, 537 (5th Cir. 1963)).

³⁸ 873 F.2d 1422 (Fed. Cir. 1989).

dramatically reinforced *Nestier's* requirement for proper contextualization of a doctrine of equivalents theory of infringement liability. Reversing a \$2.8 million jury verdict of infringement under the doctrine, the Federal Circuit held that without an explicit showing of how the patentee compares the function, way and result of each element of the claimed and accused devices, "a jury is more or less put to sea without guiding charts" when called upon to determine infringement under the doctrine of equivalents.³⁹

Admittedly, the patentee in *Lear Siegler* came much closer towards putting a doctrine of equivalents theory before the jury than in *Nestier*; the *Lear Siegler* jury was specifically instructed on the doctrine, after hearing closing argument in which the patentee's counsel pointed the jury to testimony elicited on cross-examination of the defendant's technical expert as "ha[ving] to do with equivalents."⁴⁰ Nevertheless, whether or not the expert's testimony on equivalence contained "sufficient probative force,"⁴¹ the Federal Circuit concluded that it was fatally deficient for failure of explication as to all three *Graver Tank* factors.⁴² The *Lear Siegler* court declared its support for "the ability of a jury to decide the factual issue of equivalence," but made it crystal clear that "to enable the jury to use its ability, *Nestier* requires that the three *Graver Tank* elements must be presented in the form of particularized testimony and linking argument."⁴³

Subsequent Federal Circuit decisions continue to enforce the *Nestier/Lear Siegler* requirements in doctrine of equivalents infringement cases. For example, the Federal Circuit majority in *Malta v. Schulmerich Carillons, Inc.*,⁴⁴ affirmed a trial court's grant of judgment notwithstanding the verdict ("JNOV") to the accused infringer because it concluded that the patentee had failed to present sufficient evidence of function, way and result to the jury in accordance with *Nestier* and *Lear Siegler*.⁴⁵ Concurring Judge Michel highlighted the need for an explicated presentation of evidence, even where jury instructions are not challenged:

That the instructions did not contain erroneous statements of law, were reasonably comprehensive, and went unchallenged is immaterial

. . . *Lear Siegler* is based on the very premise that sufficiency of instructions cannot cure an insufficiency of proof as to the three *Graver Tank* requirements. The reason we do not allow curing by instructions is that even with perfect jury instructions, determining

³⁹ *Id.* at 1425-26.

⁴⁰ *Id.* at 1426.

⁴¹ *Id.*

⁴² *See id.* at 1427.

⁴³ *Lear Siegler*, 873 F.2d at 1426.

⁴⁴ 952 F.2d 1320 (Fed. Cir. 1991).

⁴⁵ *See id.* at 1327. The *Malta* court explained that:

[w]hile *Lear Siegler* does not go so far as to require recitation of the magic words 'function', 'way', and 'result', we think that it at least requires the evidence to establish what the function, way, and result of both the claimed device and the accused device are, and why those functions, ways, and results are substantially the same.

Id. at 1327 n.5.

infringement by equivalents would still be guesswork for a jury unless it is given separate, explicit and substantial evidence of comparison as to each requirement of *Graver Tank*.⁴⁶

In *Texas Instruments Inc. v. Cypress Semiconductor Corp.*,⁴⁷ the Federal Circuit reaffirmed that the “particularized evidence”/“linking argument” requirement was still good law even after the Circuit’s clarification in *Hilton Davis Chem. Co. v. Warner-Jenkinson Co.*⁴⁸ that *Graver Tank*’s “function,” “way” and “result” trilogy is not the sole test for equivalency, but rather merely one way of establishing the ultimate question of the “insubstantiality of the differences”:⁴⁹

Pursuant to our precedent, a patentee must still provide particularized testimony and linking argument as to the “insubstantiality of the differences” between the claimed invention and the accused device or process, or with respect to the function, way, result test when such evidence is presented to support a finding of infringement under the doctrine of equivalents. Such evidence must be presented on a limitation-by-limitation basis. Generalized testimony as to the overall similarity between the claims and the accused infringer’s product or process will not suffice.⁵⁰

Most recently, the Federal Circuit in *Comark Communications, Inc. v. Harris Corp.*⁵¹ summarized the thrust of the *Nestier/Lear Siegler* line of cases as “ensur[ing] that a jury is provided with the proper evidentiary foundation from which it may permissibly conclude that a claim limitation has been met by an equivalent.”⁵²

In view of this line of authority, the *Monsanto* opinion is literally correct in stating that the Federal Circuit explicitly requires “particularized evidence” and “linking argument” in only one aspect of patent jury trials—assertions of infringement under the doctrine of equivalents. But that statement disregards the reality that for all practical purposes, the Federal Circuit already requires the same degree of evidentiary particularization and contextualization with respect to the defense of invalidity based on obviousness under 35 U.S.C. § 103, an issue frequently tried to juries.⁵³

⁴⁶ *Id.* at 1330 (Michel, J., concurring).

⁴⁷ 90 F.3d 1558 (Fed. Cir. 1996).

⁴⁸ 62 F.3d 1512 (Fed. Cir. 1995) (en banc), *rev’d on other grounds*, 520 U.S. 17 (1997).

⁴⁹ *See id.* at 1518-19.

⁵⁰ *Texas Instruments*, 90 F.3d at 1567.

⁵¹ 156 F.3d 1182 (Fed. Cir. 1998).

⁵² *Id.* at 1188.

⁵³ For example, in *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542 (Fed. Cir. 1983), the court established that it is not legal error to submit the ultimate legal question of obviousness to a jury, provided that proper procedures are followed to ensure that the jury’s analysis proceeds in accordance with the *Graham* factors. *See id.* at 1547. The *Connell* court emphasized that “the trier of fact must answer the [*Graham*] factual inquiries” and suggested that “[s]ubmission of the obviousness question to the jury should . . . be accompanied by detailed special interrogatories designed to elicit responses to at least all the factual inquiries enumerated in *Graham* . . . based on the presentations made in the particular trial.” *Id.* Although the court in *Railroad Dynamics, Inc. v. A. Stucki Co.*, 727 F.2d 1506 (Fed. Cir. 1984), subsequently clarified that “[f]ailure to submit

Thus, explicitly extending the *Nestier/Lear Siegler* “particularized evidence”/“linking argument” requirement to all invalidity defenses in jury trials as proposed herein would not represent a quantum leap beyond existing precedent. The ultimate goal is the same in either case: to ensure that before juries render verdicts on complex questions of patent law, whether involving infringement liability or patent invalidity, they are given appropriate guidance—the necessary navigational “charts,” to use *Lear Siegler’s* metaphor—in an attempt to increase the reliability of their verdict and to facilitate its meaningful review on appeal.

COMPARING JUROR ANALYTICAL TASKS: DETERMINING PATENT INVALIDITY VERSUS
DETERMINING INFRINGEMENT UNDER THE DOCTRINE OF EQUIVALENTS

The *Monsanto* court rejected application of a “particularized evidence”/“linking argument” requirement to the § 102(g)(2) invalidity defense raised by defendant/accused infringer Mycogen. Invalidity can be established under this statutory provision by one of two ways. The defendant can show that the named inventor was not the first inventor of the patented invention by establishing either that (1) someone other than the named inventor reduced the invention to practice in the U.S. before the named inventor did, and did not thereafter abandon, suppress, or conceal the invention; or (2) someone other than the named inventor conceived the invention before the named inventor did, and that person diligently worked towards reducing the invention to practice throughout the time period that extends from just before the named inventor’s conception date to the other person’s reduction to practice date.⁵⁴ Because the evidence was insufficient in quantum to support Mycogen’s principal theory⁵⁵ of an earlier reduction to practice by Agracetus,⁵⁶ the

detailed fact interrogatories [on each *Graham* factor] will not in every case result in the need for a new trial,” *id.* at 1517, it viewed the practice as “nonetheless strongly recommended as an appropriate means of guiding a jury, increasing the reliability of its verdict, and facilitating the judicial role following a jury trial.” *Id.* See also *Jurgens v. McKasy*, 927 F.2d 1552, 1558 (Fed. Cir. 1991) (explaining that “[w]hen the *Graham* factual underpinnings have been genuinely disputed . . . we presume that the jury resolved them in favor of the verdict winner”). Cf. *Ruiz v. A.B. Chance Co.*, 234 F.3d 654 (Fed. Cir. 2000) (holding in bench trial that district court reversibly erred by failing to make findings on each *Graham* factor).

⁵⁴ See *Monsanto*, 261 F.3d at 1361-62, 1362-63; *Mahurkar v. C.R. Bard, Inc.*, 79 F.3d 1572, 1577 (Fed. Cir. 1996).

⁵⁵ See *Monsanto*, 261 F.3d at 1363 (referring to earlier reduction to practice theory as the theory that “defendants tried the case principally on”).

⁵⁶ See *id.* at 1363 (stating that “[i]t is undisputed that the defendants tried the case principally on the theory that Agracetus both conceived the invention prior to Monsanto and reduced it to practice before Monsanto, and that the defendants did not explicitly inform the jury that the defendants should prevail under the theory of an earlier conception coupled with diligence”); *id.* at 1361-62 (explaining that given jury’s general verdict of invalidity under Section 102(g)(2), district court “worked through the possible scenarios that could justify the jury’s verdict” and found the evidence insufficient under the “reasonable jury” standard to support earlier reduction to practice, but sufficient to support earlier conception coupled with diligence). See also *Monsanto Co. v. Mycogen Plant Science, Inc.*, 61 F. Supp. 2d 133, 183 (D. Del. 1999) (concluding that record did not provide legally sufficient evidence for a reasonable jury to find that Agracetus’s scientists reduced the invention to practice before Monsanto’s scientists did); *id.* at 185 (concluding that record did provide legally sufficient evidence for a reasonable jury to find that Agracetus’s scientists were first to conceive the invention and then exercised reasonable diligence in reducing that invention to

only other theory on which the defendants could prevail was one of prior invention based on earlier conception by Agracetus coupled with Agracetus' reasonable diligence linking the conception to its later reduction to practice.

In rejecting the patentee Monsanto's charge that the defendant had not sufficiently explicated this latter theory for the jury, the Federal Circuit acknowledged that determining diligence can be "complex," but opined that "it is not fraught with the same problems as a function-way-result inquiry,"⁵⁷ which was at issue in *Nestier/Lear Siegler*. The court justified its less-rigorous treatment of the evidentiary presentation necessary to place defendant Mycogen's § 102(g)(2) invalidity defense before the jury on three primary grounds: (1) the Supreme Court has not identified any separate sub-elements of diligence, as it has with respect to the *Graver Tank* equivalency test;⁵⁸ (2) there is no risk analogous to the concern in doctrine of equivalents cases that the jury will merely look to "overall similarity" rather than considering equivalency by separately analyzing each of the function, way and result elements of *Graver Tank*;⁵⁹ and (3) "diligence" in the § 102(g)(2) context requires "reasonable diligence," and determining "reasonableness" is a "standard task" for juries that does not justify imposition of an additional requirement for particularized evidence and linking argument.⁶⁰

(1) *Sub-elements of diligence*

None of these three justifications withstands close scrutiny. First, the *Monsanto* court's assertion that the Supreme Court has not identified any separate sub-elements of diligence is an over-simplification of the Supreme Court's jurisprudence on prior invention based on conception coupled with diligence. Even if the Supreme Court has not issued any *Graver Tank*-style opinion in which it separately lists sub-elements for establishing diligence, it has certainly explored in considerable detail the evidentiary contours of what is required to meet the reasonable diligence requirement.⁶¹ The Supreme Court has also cited with approval⁶² the early "leading

practice).

⁵⁷ *Monsanto*, 261 F.3d at 1367.

⁵⁸ *See id.*

⁵⁹ *See id.*

⁶⁰ *See id.*

⁶¹ *Philadelphia and Trenton R.R. Co. v. Stimpson*, 39 U.S. 448 (1840), appears to be the earliest Supreme Court case alluding to the possibility of prior invention based on earlier conception plus diligence, rather than earlier reduction to practice. In that case Justice Story affirmed the lower court's admission of rebuttal evidence presented by the plaintiff to establish an invention date prior to the date of his patent:

In many cases of inventions, it is hardly possible in any other manner to ascertain the precise time and exact origin of the particular invention. The invention itself is an intellectual process or operation; and, like all other expressions of thought, can in many cases scarcely be made known, except by speech. The invention may be consummated and perfect, and may be susceptible of complete description in words, a month, or even a year before it can be embodied in any visible form, machine, or composition of matter. . . . But his conversations and declarations, stating that he had made an invention, and describing its details and explaining its operations, are properly to be deemed an assertion of his right, at that time, as an inventor to the extent of the facts and details which he then makes known:

decision”⁶³ of *Christie v. Seybold*,⁶⁴ in which then-Sixth Circuit Judge Taft (later President and Supreme Court Justice Taft) noted in 1893 that “[t]he question of reasonable diligence in any case depends . . . upon all the circumstances.”⁶⁵ What is “reasonable” requires distinguishing between “due diligence” and “temporary abandonment” of the invention,⁶⁶ the Sixth Circuit explained, and may involve considerations of the invention’s complexity as well as excuses for inactivity such as an inventor’s health, his finances, and his work on other inventions.⁶⁷

In addition to Supreme Court decisions, a wealth of more recent CCPA, regional circuit, Federal Circuit, and Patent Office Board of Appeals and Interferences decisions have elucidated a number of criteria for what constitutes “reasonable diligence.”⁶⁸ Reasonable diligence must be continuous over the entire relevant time period, and must involve either activity towards reduction to practice, or reasonable excuse for inactivity during gaps.⁶⁹ Professor Chisum summarizes the law in this area by stating that “[t]here are no hard and fast rules on diligence, but a number of factors or excuses recur,”⁷⁰ including commercial exploitation, poverty or illness, employment, doubts about value or feasibility, patent attorney workload, work on

although not of their existence at an antecedent time. In short, such conversations and declarations, coupled with a description of the nature and objects of the invention, are to be deemed a part of the *res gestae*; and legitimate evidence that the invention was then known to and claimed by him, and thus its origin may be fixed at least as early as that period.

Id. at 462 (emphasis added).

In *Marconi Wireless Tel. Co. of America v. United States*, 320 U.S. 1 (1943), the Supreme Court upheld the Court of Claims’ invalidation of Marconi’s U.S. Patent No. 763,772, issued in 1904 and directed to improvements in wireless telegraphy, based on prior conception coupled with diligence by one Stone, a rival inventor. The record contained “convincing proof” of Stone’s earlier conception, the Court found. *Id.* at 34. Moreover, the Court explained, “[t]o obtain the benefit of his prior conception, the inventor must not abandon his invention, *Gayler v. Wilder*, 10 How. 477, 481, but must proceed with diligence to reduce it to practice.” *Id.* at 35. Reviewing in detail the evidence, which included Stone’s disclosures in letters to other inventors, Stone’s description of the invention to his class at the Massachusetts Institute of Technology, and delays occasioned by Stone’s efforts to obtain financial backing and capital funding, *see id.* at 32-35, the Supreme Court concluded that “[w]e think Stone has shown the necessary diligence.” *Id.* at 35.

⁶² *See* *Marconi Wireless Tel. Co. of America v. United States*, 320 U.S. 1, 34 (1943) (citing *Christie v. Seybold*, 55 F. 69 (6th Cir. 1893), as among the several cases by which “[i]t is well established that as between two inventors priority of invention will be awarded to the one who by satisfying proof can show that he first conceived of the invention”).

⁶³ DONALD S. CHISUM, 3-CHISUM ON PATENTS § 10.02[3][b] (2001).

⁶⁴ 55 F. 69 (6th Cir. 1893).

⁶⁵ *Id.* at 77. More recently, the Federal Circuit has characterized the reasonable diligence inquiry as one involving a “rule of reason” approach, to be determined based on the particular circumstances of each case. *See* *Bey v. Kollonitsch*, 806 F.2d 1024, 1028 n.9 (Fed. Cir. 1986).

⁶⁶ *See Christie*, 55 F. at 69.

⁶⁷ *See id.*

⁶⁸ *See generally* CHISUM, *supra* note 63, at § 10.07 (summarizing cases).

⁶⁹ *See* *Griffith v. Kanamaru*, 816 F.2d 624, 626 (Fed. Cir. 1987) (explaining that “Griffith must account for the entire period from just before Kanamaru’s filing date until his reduction to practice”); *see also* *Naber v. Cricchi*, 567 F.2d 382, 385 n.5 (CCPA 1977) (explaining that “reasonable diligence” requirement of § 102(g) is founded on public policy that favors the early disclosure of inventions, similarly to requirement that there be no unreasonable delay in filing patent application following an actual reduction to practice so as to avoid holding of suppression or concealment).

⁷⁰ *See* CHISUM, *supra* note 63, at § 10.07[4].

other inventions.⁷¹

Perhaps most importantly with respect to the issues in *Monsanto*, the law is clear that testimony presented to establish diligence must be corroborated and it must be definite.⁷² General allegations that efforts continued during a particular time period are insufficient; the evidence of diligence must be definite as to dates and facts.⁷³

Even assuming for the sake of argument that the “reasonable diligence” concept does not involve any identifiably separate “elements,” the Supreme Court and the Federal Circuit have made clear that many other invalidity defenses do. Thus, the *Monsanto* court’s first justification for departing from a “particularized evidence”/“linking argument” requirement would not be supportable when extended to other invalidity defenses, as proposed herein.

Separate elements have been identified for at least the § 102(b) loss of right, § 103 obviousness, and § 112, ¶ 1 non-enablement invalidity defenses. For example, the Supreme Court, in *Pfaff v. Wells Elecs., Inc.*,⁷⁴ recently decreed that to invalidate a patent on the ground that the claimed invention was placed on sale within the meaning of 35 U.S.C. § 102(b), the challenger of validity must establish that prior to the critical date, (1) the patentee’s product was the subject of a commercial offer for sale and (2) that the invention was “ready for patenting.”⁷⁵ In *Graham v. John Deere Co.*,⁷⁶ the Court mandated that analysis of the legal conclusion of non-obviousness under 35 U.S.C. § 103 must involve consideration of the “basic factual inquiries”⁷⁷ of (1) the scope and content of the prior art, (2) the differences between the prior art and the claimed invention, (3) the level of ordinary skill in the art, and (4) so-called “secondary considerations.”⁷⁸ The Federal Circuit in *In re Wands*⁷⁹ specified a number of factors for analyzing during *ex parte* prosecution whether “undue

⁷¹ See *id.* (collecting and categorizing various “excuses for inactivity”).

⁷² See *Gould v. Schawlow*, 363 F.2d 908, 918 (CCPA 1966).

⁷³ See *Wiesner v. Weigert*, 666 F.2d 582, 589 (CCPA 1981). As the CCPA in *Gould* explained:

Gould’s testimony taken as a whole does not set forth adequate facts to support a finding of that continuity of activity which constitutes reasonable diligence. Merely stating that there were no weeks or months that he “did not work on the laser” is not enough, absent supporting facts showing specifically what that “work” consisted of and when it was performed.

Gould, 363 F.2d at 918. See also *Kendall v. Searles*, 173 F.2d 986 (CCPA 1949), in which the court observed that:

[t]he testimony of appellant’s other corroborating witnesses . . . was of a general nature to the effect that appellant from the time of his conception worked continuously on the development of his idea. [This] evidence, which was not specific as to dates and facts, does not constitute the kind of corroboratory evidence required to establish appellant’s diligence during the critical period.

Id. at 993.

⁷⁴ 525 U.S. 55 (1998).

⁷⁵ See *id.* at 67. The *Pfaff* Court further specified that the second, “ready for patenting” prong of the on sale test could be satisfied in at least two ways: “by proof of reduction to practice before the critical date; or by proof that prior to the critical date the inventor had prepared drawings or other descriptions of the invention that were sufficiently specific to enable a person skilled in the art to practice the invention.” *Id.* at 67-68.

⁷⁶ 383 U.S. 1 (1966).

⁷⁷ *Id.* at 17.

⁷⁸ See *id.* at 17-18.

⁷⁹ 858 F.2d 731 (Fed. Cir. 1988).

experimentation” would be required to make and use a claimed invention in accordance with the requirement for an enabling disclosure under 35 U.S.C. § 112, ¶ 1,⁸⁰ and the court has subsequently approved the application of that multi-factor analysis in *inter partes* litigation of invalidity defenses based on allegations of non-enablement.⁸¹ The analytical complexity of these invalidity defenses surely justifies evidentiary treatment on par with that of the doctrine of equivalents.

(2) Analogous Risk

The *Monsanto* court’s contention that jury resolution of invalidity under a theory of prior conception coupled with diligence does not suffer a risk analogous to that of a jury deciding equivalents infringement by overall similarity is similarly not well taken. The risks of juror confusion and error are equally potent in both settings; in fact, the potential for societal harm that would result from a jury’s mistake in interpreting whether a party’s actions amounted to “diligence” in the § 102(g)(2) sense is more severe than that which would result from the jury’s misinterpretation of whether two devices are “equivalents” in the doctrine of equivalents sense.

In the former setting, if a jury mistakenly finds infringement under the doctrine of equivalents by applying an incorrect “overall” similarity analysis, the patentee’s right to exclude the accused infringer will have been extended beyond the literal boundaries of the patent claims without the safeguard of an element-by-element analysis that relates the scope of protection awarded to the limitations of the claims. Such an analysis ensures an acceptable balance between the competing policies of the notice function of claims and meaningful protection of the inventor’s contribution,⁸² and prevents a court from erasing, “under the guise of applying the doctrine of equivalents, . . . a plethora of meaningful structural and functional limitations of the claim on which the public is entitled to rely in avoiding infringement.”⁸³ Even though this public notice policy goal will have been thwarted by the jury’s mistaken finding of liability under the doctrine of equivalents, the immediate and direct impact of the jury’s mistake will be borne only by the defendant accused infringer; the factual question of infringement by entities other than the defendant must be separately litigated.

In the latter setting of a challenge to patent validity, if a jury incorrectly concludes that someone other than the inventor earlier conceived the same invention and was reasonably diligent in reducing it to practice, the patent is rendered invalid

⁸⁰ See *id.* at 737. The court stated that the:

[f]actors to be considered in determining whether a disclosure would require undue experimentation . . . include (1) the quantity of experimentation necessary, (2) the amount of direction or guidance presented, (3) the presence or absence of working examples, (4) the nature of the invention, (5) the state of the prior art, (6) the relative skill of those in the art, (7) the predictability or unpredictability of the art, and (8) the breadth of the claims.

Id. (citation omitted).

⁸¹ See *Enzo Biochem, Inc. v. Calgene, Inc.*, 188 F.3d 1362, 1371-72 (Fed. Cir. 1999); *Amgen, Inc. v. Chugai Pharm. Co.*, 927 F.2d 1200, 1213 (Fed. Cir. 1991).

⁸² See *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 29-30 (1997).

⁸³ *Perkin-Elmer Corp. v. Westinghouse Elec. Corp.*, 822 F.2d 1528, 1532 (Fed. Cir. 1987).

and the defendant cannot be held liable for infringement. Nor can any other entity.⁸⁴ In this scenario the unjustified extension of rights will improperly benefit the accused infringer, and by extension all other competitors in the marketplace of the invention. In either scenario, valuable property rights will have been improperly assigned, but the societal impact is far more extensive when the jury's mistake pertains to the patent's invalidity rather than its enforcement.

(3) "Reasonable" Diligence Determination

The *Monsanto* court's final justification for its rejection of a "particularized evidence"/"linking argument" requirement was that a diligence inquiry under Section 102(g) requires that the jury consider whether the prior conceiver's diligence was "reasonable."⁸⁵ Because "reasonableness" is a typical subject of jury fact-finding in other types of tort cases such as negligence cases, the Federal Circuit noted, heightened evidentiary presentation requirements should not be imposed on a patent invalidity defense based on an assertion of reasonable diligence.⁸⁶

This extrapolates much too far. The fact that it is a standard task for juries in personal injury cases to determine if a person owing a duty of care to another acted in a "reasonable" manner provides no meaningful prediction of a jury's ability to determine in a patent invalidity trial if an earlier conceiver's actions in reducing an invention to practice constituted "reasonable" diligence throughout the required time period. The argument ignores the requirement that evidence of diligence must be definite and continuous throughout the relevant time period, in satisfaction of the public policy that patent law favors early disclosure of new technology and will not reward a later reducer unless she was first to conceive and continually diligent in working towards reduction to practice.⁸⁷ The evidence must also clearly show that the purported diligence activity was directed at reducing to practice the invention of the claims at issue, rather than some other invention.⁸⁸

The fallacy of extrapolating into the patent setting a jury's familiarity with "reasonableness" determinations in other types of cases is further evidenced by applying that argument to other invalidity defenses; surely the *Monsanto* court would not contend that jury determination of whether a given invention would have been obvious to a hypothetical "reasonable" person of ordinary skill in the art under 35 U.S.C. § 103 is a "standard task" that juries are equipped to perform without presentation of evidence and linking argument on each of the *Graham v. John Deere*

⁸⁴ See *Mycogen Plant Science, Inc. v. Monsanto Co.*, 252 F.3d 1306, 1310 (Fed. Cir. 2001) (declaring it "undisputed that as a result of collateral estoppel, a judgment of invalidity in one patent action renders the patent invalid in any later actions based on the same patent") (citing *Blonder-Tongue Labs., Inc. v. Univ. of Ill. Found.*, 402 U.S. 313, 349-50 (1971)).

⁸⁵ *Monsanto*, 261 F.3d at 1367.

⁸⁶ See *id.* at 1367-68 (citing authorities discussing jury determination of "reasonable care" in negligence cases).

⁸⁷ See *Naber v. Cricchi*, 567 F.2d 382, 385 n.5 (CCPA 1977).

⁸⁸ See *id.* at 385 (stating in interference context that it is "well settled that, to satisfy the 'reasonable diligence' requirement of 35 U.S.C. § 102(g), the work relied on must ordinarily be directly related to reduction to practice of the invention of the counts in issue").

factors.⁸⁹

CHOICE OF LAW:
FEDERAL CIRCUIT VERSUS REGIONAL LAW

Although not immediately apparent from the face of the opinion, choice of law issues directly contributed to the result in *Monsanto*. In analyzing the patentee's argument that the invalidity theory of earlier conception coupled with diligence was not properly before the jury, the Federal Circuit in *Monsanto* concluded that the issue was "not unique" to its jurisdiction and that accordingly, it should defer to the law of the relevant regional circuit, in this case the Third Circuit, because the suit was tried in the federal district court in Wilmington, Delaware.⁹⁰ The Federal Circuit read the law of the Third Circuit as "not requir[ing] that the defendant explicitly argue a theory in order for it to be before the jury."⁹¹ Rather, the Federal Circuit viewed Third Circuit precedent as making the jury instructions the "benchmark" of whether a particular issue is before a jury.⁹²

The *Monsanto* court's choice of Third Circuit law allowed it to sidestep the precedential force of *Lear Siegler*. There, in contrast with *Monsanto*, a different panel of the Federal Circuit had not considered itself constrained by regional circuit law from finding that a patentee's theory of liability was not properly before the jury, despite the jury's having been properly instructed on that theory.⁹³

More broadly, the *Monsanto* court departed from the apparent trend of recent Federal Circuit decisions to bring more issues within the ambit of "Federal Circuit law," even those not "unique" to patent law. When an issue of either substance or procedure is "intimately related to substantive patent law,"⁹⁴ the Federal Circuit is more frequently viewing such issues as not requiring deferral to regional circuit law.⁹⁵ For example, the court has held that a procedural issue that is not itself a substantive patent law issue is nevertheless governed by Federal Circuit law "if the issue pertains to patent law, if it bears an essential relationship to matters committed to our exclusive [jurisdiction] by statute, or if it clearly implicates the jurisprudential responsibilities of this court in a field within its exclusive jurisdiction."⁹⁶ In this manner the Federal Circuit is building a more robust body of patent-related precedent and applying its "special expertise" in patent law to a great array of issues that intersect with patent law.⁹⁷ Application of Federal Circuit law to

⁸⁹ See *supra* notes 76-78 and accompanying text.

⁹⁰ *Monsanto*, 261 F.3d at 1363.

⁹¹ *Id.* at 1364.

⁹² *Id.*

⁹³ See *Lear Siegler, Inc. v. Sealy Mattress Co.*, 873 F.2d 1422, 1425-26 (Fed. Cir. 1989) (following Federal Circuit's decision in *Nestier Corp. v. Menasha Corp.*, 739 F.2d 1576 (Fed. Cir. 1984)).

⁹⁴ *Beverly Hills Fan Co. v. Royal Sovereign Corp.*, 21 F.3d 1558, 1564 (Fed. Cir. 1994).

⁹⁵ See *id.* at 1564-65 (applying Federal Circuit law to issue of personal jurisdiction).

⁹⁶ In re *Spalding Sports Worldwide*, 203 F.3d 800, 803 (Fed. Cir. 2000) (citing *Midwest Indus., Inc. v. Karavan*, 175 F.3d 1356, 1359 (Fed. Cir. 1999) (en banc in relevant part)).

⁹⁷ *Cf. Beverly Hills Fan*, 21 F.3d at 1564-65 (asserting that the application of Federal Circuit law to personal jurisdiction issues "would clearly promote judicial efficiency, would be consistent with our mandate, and would not create undue conflict and confusion at the district court level").

these issues enables the court to fashion a body of nationally uniform patent and “patent-intersecting” law, in keeping with the policy rationale underlying the court’s formation.⁹⁸

The important issue of jury guidance raised by *Monsanto* deserves treatment within Federal Circuit law rather than regional circuit law. Whether the defendant’s evidentiary presentation properly placed the question of earlier conception coupled with reasonable diligence before the jury is inextricably intertwined with substantive patent law—*i.e.*, 35 U.S.C. § 102(g)(2), which requires “reasonable diligence,” and the wealth of case law interpreting that requirement. Even if one considers reasonable diligence as implicated in *Monsanto* to be a “procedural” issue, it is difficult to suggest an issue that is not more “intimately” or “essentially” related to the patent right; the question of whether the reasonable diligence issue was properly before the jury is completely dispositive of the invalidity of the patent in suit.

CONCLUSION

The Federal Circuit missed a clear opportunity to improve the patent jury trial process when it declined to require a more particularized and contextualized evidentiary presentation of the prior invention defense raised in *Monsanto*. Such a requirement should be mandated for all patent invalidity defenses tried to juries. Rather than perpetuate the current two-track system in which infringement is treated more rigorously, the Federal Circuit should require an evidentiary presentation by accused infringers asserting invalidity defenses that is no less particularized than that mandated for patentees asserting infringement under the doctrine of equivalents.⁹⁹ The risk of jury error is even higher in the invalidity

More generally, see Joan E. Schaffner, *Federal Circuit “Choice of Law”: Erie Through the Looking Glass*, 81 IOWA L. REV. 1173, 1179 (1996) (proposing an expanded choice of law regime for the Federal Circuit in which the court “should exercise independent jurisdiction over all legal issues that either (1) impact upon the patent-related primary activities of the parties or (2) relate to patent policy and thus invoke the special expertise of the Federal Circuit”).

⁹⁸ See *Group One, Ltd. v. Hallmark Cards, Inc.*, 254 F.3d 1041, 1047 (Fed. Cir. 2001) (announcing that Federal Circuit law must be applied to determine whether a commercial offer for sale has been made within the meaning of the on sale bar provision of 35 U.S.C. 102(b), because permitting patent validity issue to be resolved according to contract laws of relevant state where offer was made might lead to different patent validity outcomes in different states, a result “clearly incompatible with a uniform national patent system”). See generally Rochelle C. Dreyfuss, *The Federal Circuit: A Case Study in Specialized Courts*, 64 N.Y.U. L. REV. 1, 38 (1989) (criticizing Federal Circuit’s policy of applying regional circuit law to non-patent-related procedural and substantive issues as “objectionable from several perspectives”); *id.* at 59-60 (suggesting that freeing Federal Circuit from obligation to apply regional circuit law to non-patent issues would “put the court’s experience to better use,” facilitate “ability of the CAFC to bring its own expertise to bear on difficult policy questions,” and keep patent law “in the mainstream because of the CAFC’s greater familiarity with nonpatent doctrine and because the CAFC would itself influence the thinking of the remainder of the federal judiciary”).

⁹⁹ Five judges of the Federal Circuit established the evidentiary requirements set forth in *Nestier Corp. v. Menasha Corp.*, 739 F.2d 1576 (Fed. Cir. 1984). Although five judges do not constitute an *en banc* Federal Circuit (unlike the CCPA), it may be appropriate for an expanded panel, see 28 U.S.C. § 46(c), or even a full *en banc* court to consider the expansion of the *Nestier/Lear Siegler* requirements to all invalidity defenses, as proposed herein.

setting, because in addition to losing on liability the patentee forfeits its patent property right altogether. It is within the Federal Circuit's power, and its responsibility, to chart a clearer course for juries through the perilous straits of patent invalidity.