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The Increasing Use of Challenges to Expert Evidence Under Daubert and Rule 702 in Patent Litigation

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THE INCREASING USE OF CHALLENGES TO EXPERT EVIDENCE UNDER *DAUBERT* AND RULE 702 IN PATENT LITIGATION

*Douglas G. Smith**

TABLE OF CONTENTS

I.	INTRODUCTION	346
II.	THE PRINCIPLES ARTICULATED IN <i>DAUBERT</i>	347
III.	THE EXPANDING APPLICATION OF <i>DAUBERT</i> IN PATENT CASES	350
A.	DAMAGES	351
1.	<i>The Federal Circuit's Damages Framework</i>	352
2.	<i>The District Courts</i>	356
a.	<i>Apportionment of Damages</i>	356
b.	<i>Relevance of Underlying Data</i>	358
c.	<i>Reliability of Underlying Data and Analysis</i>	359
d.	<i>Lack of Evidentiary Support</i>	361
e.	<i>Intersection with Patent Law</i>	363
f.	<i>Expert Qualifications</i>	364
B.	LIABILITY.....	365
1.	<i>The Federal Circuit</i>	365
2.	<i>The District Courts</i>	365
a.	<i>Reliability and Scientific Support</i>	366
b.	<i>General Acceptance and Scientific Support</i>	368
c.	<i>Opinions Contrary to Claim Construction</i>	369
d.	<i>Parties' Intent</i>	371
e.	<i>Expert Qualifications</i>	372
IV.	CONCLUSION.....	372

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I. INTRODUCTION

The Supreme Court's decision in *Daubert v. Merrell Dow Pharmaceuticals*¹ has had wide-ranging impact. Codified in Federal Rule of Evidence 702, federal courts are now required to act as "gatekeepers" to ensure that expert evidence is both relevant and reliable. Courts have applied the principles articulated in the *Daubert* decision in an ever-expanding range of cases, including not only product liability and mass tort cases where the doctrine was originally developed,² but also antitrust, securities, commercial, and environmental contamination cases.³ Indeed, any case in which scientific or technical expert evidence is presented is a candidate for a challenge under *Daubert* to the reliability and relevance of a party's expert evidence.

Decisions regarding the admissibility of expert evidence under Rule 702 and *Daubert* are frequently dispositive. Wherever expert testimony is submitted or required to establish various elements of a plaintiff's claim, review by the trial court under Rule 702 and *Daubert* has the potential to bar plaintiff's claims in part or in their entirety. Even where *Daubert* motions are not completely successful, they can have the effect of significantly shaping the issues for trial. Accordingly, parties in large-scale litigation frequently expend great effort in litigating the scientific and technical basis for their claims before the trial judge.

Thus, it comes as no surprise that parties in patent litigation are increasingly challenging the admissibility of expert testimony under Rule 702 and *Daubert*. These challenges initially focused on the plaintiff's damages case, gaining support with the Federal Circuit decisions in *Lucent*,⁴ *ResQNet*,⁵ *Uniloc*,⁶ and *LaserDynamics*⁷ and building on the common-law principle that damages may not be speculative. However, challenges to other types of expert testimony are increasingly common. Thus, for example, litigants have challenged proffered expert testimony on infringement, claim construction, and enablement. Given

¹ *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579 (1993).

² *See, e.g.*, *Johnson v. Arkema, Inc.*, 685 F.3d 452 (5th Cir. 2012); *Pluck v. BP Oil Pipeline Co.*, 640 F.3d 671 (6th Cir. 2011); *Knight v. Kirby Inland Marine Inc.*, 482 F.3d 347 (5th Cir. 2007); *Dodge v. Cotter Corp.*, 328 F.3d 1212 (10th Cir. 2003); *Moore v. Ashland Chem. Inc.*, 151 F.3d 269 (5th Cir. 1998); *Barrett v. Atlantic Richfield Co.*, 95 F.3d 375 (5th Cir. 1996); *McClain v. Metabolife Int'l, Inc.*, 401 F.3d 1233, 1251–52 (11th Cir. 2005).

³ *See, e.g.*, *In re Williams Sec. Litig.-WCG Subclass*, 558 F.3d 1130 (10th Cir. 2009) (securities); *Ky. Speedway, LLC v. Nat'l Ass'n of Stock Car Auto Racing, Inc.*, 588 F.3d 908 (6th Cir. 2009) (antitrust); *Craftsmen Limousine, Inc. v. Ford Motor Co.*, 363 F.3d 761 (8th Cir. 2004) (antitrust); *In re TMI Litig.*, 193 F.3d 613 (3d Cir. 1999) (environmental contamination).

⁴ *Lucent Technologies, Inc. v. Gateway, Inc.*, 580 F.3d 1301 (Fed. Cir. 2009).

⁵ *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860 (Fed. Cir. 2010).

⁶ *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292 (Fed. Cir. 2011).

⁷ *LaserDynamics, Inc. v. Quanta Computer, Inc.*, 694 F.3d 51 (Fed. Cir. 2012).

that *Daubert* presents another opportunity for a litigant to derail or limit an opponent's claims, the frequency of such challenges, which can have significant impact on the litigation, is only likely to increase. Indeed, recent decisions in high-profile patent cases have only added to the likelihood that litigants will seek to invoke *Daubert* in future cases.

Part II of this Article discusses the general principles articulated in *Daubert* and subsequent decisions interpreting Rule 702. These decisions provide significant guidance regarding general principles that may be applied in assessing the relevance and reliability of proffered scientific evidence, including in the patent context. The Supreme Court has made clear that the scrutiny of expert evidence under Rule 702 and *Daubert* is rigorous, designed to ensure that any expert testimony upon which a party seeks to rely is both relevant and reliable, and that the expert is qualified to offer the opinions for which the expert is being offered.

Part III then discusses application of *Daubert* in the context of patent litigation, beginning first with its application to expert opinions regarding damages and then its expansion into other areas of expert testimony. As in other areas, many of the principles applied in analyzing *Daubert* issues in the patent context are not unique. Courts seek to ensure that an expert's testimony is sufficiently reliable to be admissible and that the expert's opinions are sufficiently related to the issues in the case. Nonetheless, patent cases present a whole new set of circumstances in which *Daubert* principles may be applied, given the wide range of experts that frequently testify in such cases and the unique role of the courts in deciding other threshold matters.

II. THE PRINCIPLES ARTICULATED IN *DAUBERT*

Under Rule 702 and *Daubert*, federal trial courts must serve as gatekeepers to ensure that any and all scientific testimony or evidence admitted is not only relevant, but reliable.⁸ As the Supreme Court recognized in its subsequent decision in *Weisgram v. Marley*, under Rule 702, expert testimony must meet “exacting standards of reliability.”⁹ The burden is on the proponent of expert testimony to show by a preponderance of proof that the expert meets each of the *Daubert* requirements.¹⁰ The requirements apply not only to purely “scientific” evidence, but to all expert testimony involving “technical” or “other

⁸ *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 589 (1993) (“[T]he trial judge must ensure that any and all scientific testimony or evidence admitted is not only relevant, but reliable.”).

⁹ *Weisgram v. Marley Co.*, 528 U.S. 440, 455 (2000).

¹⁰ 509 U.S. at 592 n.10.

specialized” knowledge.¹¹ In patent cases, the district court looks to the law of the regional circuit in determining the admissibility of expert evidence under Rule 702 and *Daubert*.¹²

Among other things, Rule 702 requires that expert witnesses (1) base their opinions upon sufficient facts or data, (2) develop their opinions using reliable principles and methods, and (3) apply those principles and methods reliably to the facts of the case.¹³ In addition, expert witnesses must be qualified by knowledge, skill, experience, training, or education to offer their opinions.¹⁴ Expert opinions that fail to meet these requirements are inadmissible.¹⁵

The text of Rule 702 provides some guidance with respect to the nature of the inquiry. The rule requires that an expert’s testimony be based on “scientific . . . knowledge,”¹⁶ which courts have interpreted as implying that the expert’s opinions have a “grounding in the methods and procedures of science.”¹⁷ Expert testimony cannot be based on mere “subjective belief or unsupported speculation.”¹⁸

Accordingly, under Rule 702’s reliability prong, proposed testimony must be supported by “appropriate validation”—what the Supreme Court in *Daubert* labeled “‘good grounds,’ based on what is known.”¹⁹ An expert’s mere assurance that the expert has utilized generally accepted principles is insufficient.²⁰ Rather, there must be some independent basis for concluding that the expert’s opinions meet the requirements under Rule 702.

Not only must expert opinion be based on sufficient facts and data, but it must be “the product of reliable principles and methods” that are reliably applied to the facts of the case.²¹ “[T]he reliability analysis applies to all aspects of an expert’s testimony: the methodology, the facts underlying the expert’s opinion, [and] the link between the facts and the conclusion.”²² In sum, an

¹¹ *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 141 (1999) (“We conclude that *Daubert*’s general holding—setting forth the trial judge’s general ‘gatekeeping’ obligation—applies not only to testimony based on ‘scientific’ knowledge, but also to testimony based on ‘technical’ and ‘other specialized’ knowledge.”). See also FED. R. EVID. 702 advisory committee note (2000 amendments) (“An opinion from an expert who is not a scientist should receive the same degree of scrutiny for reliability as an opinion from an expert who purports to be a scientist.”).

¹² *Micro Chem., Inc. v. Lextron, Inc.*, 317 F.3d 1387, 1390–91 (Fed. Cir. 2003).

¹³ FED. R. EVID. 702.

¹⁴ *Id.*

¹⁵ *McCorvey v. Baxter Healthcare Corp.*, 298 F.3d 1253, 1256 (11th Cir. 2002).

¹⁶ *Daubert*, 509 U.S. at 590 n.8.

¹⁷ *Id.* at 590.

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ *Brown v. Illinois Cent. R.R. Co.*, 705 F.3d 531, 536 (5th Cir. 2013).

²¹ FED. R. EVID. 702.

²² *Heller v. Shaw Indus., Inc.*, 167 F.3d 146, 155 (3d Cir. 1999).

expert must “employ[] in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field.”²³

Under *Daubert*'s relevance prong, expert evidence must assist the trier of fact to understand the evidence or to determine a fact in issue. The Supreme Court has characterized this language as imposing, among other things, a requirement of “fit” between the expert's proposed testimony and the facts and circumstances of the case.²⁴ In other words, an expert's opinion must be “sufficiently tied to the facts of the case that it will aid the jury in resolving a factual dispute.”²⁵ As the Supreme Court explained in *General Electric Co. v. Joiner*, expert testimony is inadmissible where “there is simply too great an analytical gap between the data and the opinion proffered.”²⁶ “[N]othing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert.”²⁷

Finally, the expert must be qualified to offer each of the expert's opinions.²⁸ In assessing this prong under Rule 702, courts seek to ensure that the expert has specific qualifications that fit the specific opinions the expert is intending to offer.²⁹ “The issue with regard to expert testimony is not the qualifications of a witness in the abstract, but whether those qualifications provide a foundation for a witness to answer a specific question.”³⁰

In applying these requirements, courts thoroughly scrutinize proffered expert testimony to ensure that the *Daubert* requirements are met at “every step” of an expert's analysis.³¹ “[A]ny step that renders the analysis unreliable under the *Daubert* factors renders the expert's testimony inadmissible.”³² “The analysis outlined in *Daubert* is extensive, requiring the district court to carefully and meticulously review the proffered scientific evidence.”³³

Novel and unsupported theories are inadmissible under *Daubert*. While such theories may be sufficient to generate hypotheses in the scientific arena, they

²³ *Kumho Tire*, 526 U.S. at 152.

²⁴ *Daubert*, 509 U.S. at 591.

²⁵ *Id.*

²⁶ 522 U.S. 136, 146 (1997).

²⁷ *Id.* at 137.

²⁸ FED. R. EVID. 702 (witness must be “qualified as an expert by knowledge, skill, experience, training, or education”).

²⁹ See, e.g., *Berry v. City of Detroit*, 25 F.3d 1342, 1351 (6th Cir. 1994); *Ralston v. Smith & Nephew Richards, Inc.*, 275 F.3d 965, 969-70 (10th Cir. 2001); *Wheeling Pittsburgh Steel Corp. v. Beelman River Terminals, Inc.*, 254 F.3d 706, 715 (8th Cir. 2001).

³⁰ *Berry v. City of Detroit*, 25 F.3d 1342, 1351 (6th Cir. 1994).

³¹ *Amorgianos v. Nat'l R.R. Passenger Corp.*, 303 F.3d 256, 267 (2d Cir. 2002).

³² *In re Paoli R.R. Yard PCB Litig.*, 35 F.3d 717, 745 (3d Cir. 1994) (emphasis omitted).

³³ *Miller v. Pfizer, Inc.*, 356 F.3d 1326, 1335 (10th Cir. 2004), quoting *United States v. Call*, 129 F.3d 1402, 1405 (10th Cir. 1997).

provide an inadequate foundation for the admissibility of an expert's opinions in a court of law.³⁴ “[W]hat science treats as a useful but untested hypothesis the law should generally treat as inadmissible speculation.”³⁵

III. THE EXPANDING APPLICATION OF *DAUBERT* IN PATENT CASES

Litigants are increasingly asking federal courts to apply these principles in patent cases. While parties initially raised *Daubert* and Rule 702 in the context of damages as a natural extension of case law holding that damages could not be speculative, as litigants had success in mounting such challenges, their use has expanded. As one magistrate judge recently observed, “*Daubert* motions used to be relatively rare in patent cases, and *Daubert* challenges to damages experts rarer still, [b]ut with a few high profile successes, now every patent trial lawyer worth her salt brings a challenge to the damages opinions offered by her adversary.”³⁶

In recent years, the application of *Daubert* has expanded beyond the subject of damages to other kinds of expert testimony in patent cases. Expert opinions relating to infringement or patent validity, for example, have increasingly been the subject of *Daubert* challenges. This is not particularly surprising given the general expansion of *Daubert* in many areas of the law as well as the wide range of different kinds of expert testimony that may arise in the context of patent litigation. As the Federal Circuit has remarked in the context of expert testimony at the *Markman* stage,

extrinsic evidence in the form of expert testimony can be useful to a court for a variety of purposes, such as to provide background on the technology at issue, to explain how an invention works, to ensure that the court's understanding of the technical aspects of the patent is consistent with that of a person of skill in the art, or to establish that a particular term in the patent or the prior art as a particular meaning in the pertinent field.³⁷

³⁴ *Rosen v. Ciba-Geigy Corp.*, 78 F.3d 316, 319 (7th Cir. 1996) (“Law lags science; it does not lead it.”); *Moore v. Ashland Chem. Inc.*, 151 F.3d 269, 276 (5th Cir. 1998) (“[T]he law cannot wait for future scientific investigation and research. We must resolve cases in our courts on the basis of scientific knowledge that is currently available.”).

³⁵ *Tamraz v. Lincoln Elec. Co.*, 620 F.3d 665, 677 (6th Cir. 2010).

³⁶ *Dynetix Design Solutions, Inc. v. Synopsys, Inc.*, 2013 WL 4538210, at *1 (N.D. Cal. Aug. 22, 2013).

³⁷ *Phillips v. AWH Corp.*, 415 F.3d 1303, 1318 (Fed. Cir. 2005).

Accordingly, with the rise in the use of expert evidence, challenges under Rule 702 and *Daubert* are becoming increasingly common in patent litigation.

A. DAMAGES

The principles governing the analysis of expert evidence with respect to patent damages are relatively well-established. They add to a framework for assessing damages that pre-dates *Daubert* and Rule 702 in which courts have laid out the appropriate measures and means of calculating damages in patent cases. Under this framework, where infringement is proven, a patentee is entitled to “damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer.”³⁸ Two alternative categories of compensation for patent infringement are the patentee’s lost profits and the reasonable royalty the patentee would have received through arms-length bargaining.³⁹ A reasonable royalty is “the floor below which damages shall not fall,”⁴⁰ and is typically based on a hypothetical negotiation between the patentee and the infringer at the time the infringement began.⁴¹ “The hypothetical negotiation tries, as best as possible, to recreate the *ex ante* licensing negotiation scenario and to describe the resulting agreement.”⁴²

The court’s decision in *Georgia-Pacific Corp. v. United States Plywood Corp.* provides a frequently cited list of factors that may be considered in determining a reasonable royalty and which have been extended in subsequent decisions.⁴³ Experts often use these factors as a basis for ascertaining a reasonable royalty to compensate for patent infringement. Accordingly, it is not surprising that one

³⁸ 35 U.S.C. § 284.

³⁹ *Lucent Technologies, Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1324 (Fed. Cir. 2009) (citing *Panduit Corp. v. Stablin Bros. Fibre Works, Inc.*, 575 F.2d 1152, 1157 (6th Cir. 1978)).

⁴⁰ *Lucent*, 580 F.3d at 1324 (quoting *Bandag, Inc. v. Gerrard Tire Co.*, 704 F.2d 1578, 1583 (Fed. Cir. 1983)).

⁴¹ *Unisplay, S.A. v. American Elec. Sign Co.*, 69 F.3d 512, 517 (Fed. Cir. 1995).

⁴² *Lucent*, 580 F.3d at 1325.

⁴³ *Georgia-Pacific Corp. v. U.S. Plywood Corp.*, 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970). These factors include: (1) established royalty rate for the patent; (2) license rates paid for comparable patents; (3) type of license (exclusive/non-exclusive or restricted/non-restricted); (4) licensor’s established licensing policies; (5) competitive relationship between licensor and licensee; (6) convoyed sales; (7) duration and terms of the license; (8) commercial success and established profitability; (9) advantages over old methods; (10) nature of patented invention and benefits to those that use it; (11) extent of use of the patent by the infringer; (12) customary industry rate for invention or analogous inventions; (13) portion of profit that should be credited to the invention as distinguished from non-patented elements, manufacturing process, business risks, or significant features added by the infringer; (14) opinion testimony of qualified experts; and (15) amount that licensor and licensee would have agreed upon. *Id.* The Federal Circuit “sanction[ed] the use of the *Georgia Pacific* factors to frame the reasonable royalty” in its decision in *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1317 (Fed. Cir. 2011).

of the first areas in which courts began applying *Daubert* and Rule 702 in patent cases was in the context of ascertaining the admissibility of expert damages testimony.

As a result, today there is a relatively robust body of case law applying Rule 702 and *Daubert* in the context of patent damages. In the last decade, the Federal Circuit has issued a string of decisions that have provided significant guidance with respect to both the relevance and reliability prong under Rule 702. These decisions have focused on ensuring that damages calculations “fit” the facts of the case by accurately placing a value on the harm caused by the alleged infringement while simultaneously ensuring that damages opinions are based on evidence that is “reliable and tangible . . . not conjecture or speculative.”⁴⁴

1. *The Federal Circuit’s Damages Framework.* While not a decision addressing Rule 702 or *Daubert* because such challenges were not raised at the district court, the Federal Circuit’s decision in *Lucent Technologies, Inc. v. Gateway, Inc.* is one of the seminal decisions addressing patent damages that is frequently cited in subsequent decisions under *Daubert* and Rule 702. In *Lucent*, the Federal Circuit held that a damages award for infringement of a patent for a method of entering information into fields on a computer screen without using a keyboard was not supported by substantial evidence.⁴⁵ The court found that some of the license agreements upon which the plaintiff’s damages expert based the reasonable royalty calculation were “radically different from the hypothetical agreement under consideration.”⁴⁶ The court held that “a lump-sum damages award cannot stand solely on evidence which amounts to little more than a recitation of royalty numbers, one of which is arguably in the ballpark of the jury’s award, particularly when it is doubtful that the technology of those license agreements is in any way similar to the technology being litigated”⁴⁷

Although the jury’s verdict was based on a lump sum and not a running royalty, the Federal Circuit held that to the extent the jury implicitly based its award on an application of the entire market value rule, the award was not supported by substantial evidence.⁴⁸ The court noted that the defendant’s product (Microsoft’s Outlook) was “an enormously complex software program comprising hundreds, if not thousands or even more, features,” and rejected the suggestion that “the use of one small feature, the date-picker, constitutes a

⁴⁴ *Uniloc*, 632 F.3d at 1318.

⁴⁵ 580 F.3d 1301 (Fed. Cir. 2009).

⁴⁶ *Id.* at 1327–28.

⁴⁷ *Id.* at 1329.

⁴⁸ *Id.* at 1324–25 (noting that jury awarded a lump sum and indicated no amount on the verdict form’s line for a running royalty).

substantial portion of the value of Outlook.”⁴⁹ The program consisted of millions of lines of code, “only a tiny fraction of which encodes the date-picker feature.”⁵⁰ The court observed that “numerous features other than the date-picker appear to account for the overwhelming majority of the consumer demand and therefore significant profit.”⁵¹ Thus, assuming the jury did apply the entire market value rule to award the lump-sum royalty, the court held such an application would amount to legal error.⁵²

In *ResQNet.com, Inc. v. Lansa, Inc.*, the Federal Circuit likewise vacated a damages award for infringement of patents relating to screen recognition software used to facilitate terminal emulation. The court noted that “a reasonable royalty analysis requires a court to hypothesize, not to speculate.”⁵³ “At all times, the damages inquiry must concentrate on compensation for the economic harm caused by infringement of the claimed invention.”⁵⁴ Following its prior decision in *Lucent*, the court found that the license agreements that served as the basis for plaintiff’s reasonable royalty analysis were not sufficiently comparable to the technology at issue to serve as a reliable basis for a damages analysis. Rather, the court found that the expert “used licenses with no relationship to the claimed invention to drive the royalty rate up to unjustified double-digit levels.”⁵⁵ The license agreements did not mention the patents in suit or show “any other discernible link to the claimed technology.”⁵⁶ As the court noted, it had “long required district courts performing reasonable royalty calculations to exercise vigilance when considering past licenses to technologies *other* than the patent in suit.”⁵⁷

In *Uniloc USA, Inc. v. Microsoft Corp.*, the court rejected “a matter of Federal Circuit law” the 25% rule of thumb, a longstanding standard for calculating a reasonable royalty.⁵⁸ Building on its prior decisions, the court concluded that, despite the rule’s longstanding pedigree, it was “a fundamentally flawed tool for determining a baseline royalty rate in a hypothetical negotiation” and thus was “inadmissible under *Daubert* and the Federal Rules of Evidence, because it fails

⁴⁹ *Id.* at 1332.

⁵⁰ *Id.*

⁵¹ *Id.* at 1333.

⁵² *Id.* at 1337.

⁵³ *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 869 (Fed. Cir. 2010).

⁵⁴ *Id.*

⁵⁵ *Id.* at 870.

⁵⁶ *Id.*

⁵⁷ *Id.* at 869. *See also* *Wordtech Sys. v. Integrated Networks Solutions, Inc.*, 609 F.3d 1308, 1320 (Fed. Cir. 2010) (“[C]omparisons of past patent licenses to the infringement must account for ‘the technological and economic differences’ between them.” (quoting *ResQnet.com*, 594 F.3d at 873)).

⁵⁸ *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1315 (Fed. Cir. 2011).

to tie a reasonable royalty base to the facts of the case at issue.”⁵⁹ The court observed that “[t]he bottom line of *Kumho Tire* and [*General Electric Co. v. Joiner*] is that one major determinant of whether an expert should be excluded under *Daubert* is whether he has justified the application of a general theory to the facts of the case.”⁶⁰ The court thereby extended the framework the court had developed for analyzing expert damages testimony by invoking the principles under Rule 702 and *Daubert*.

As the court observed, its prior decisions made clear that “there must be a basis in fact to associate the royalty rates used in prior licenses to the particular hypothetical negotiation at issue in the case.”⁶¹ However, the court found that the 25% rule of thumb “as an abstract and largely theoretical construct fails to satisfy this fundamental requirement.”⁶² This was because “[t]he rule does not say anything about a particular hypothetical negotiation or reasonable royalty involving any particular technology, industry or party.”⁶³ Accordingly, the court determined that the 25% rule of thumb was an even more unreliable and irrelevant basis for the royalty rate than the unrelated licenses at issue in *ResQNet* and *Lucent*.

In *LaserDynamics, Inc. v. Quanta Computer, Inc.*, the Federal Circuit expanded upon this line of cases by holding that a damages expert must apportion down to the “smallest salable patent-practicing unit” in a case involving patents relating to optical disc drives. The court reasoned that, “[w]here small elements of multi-component products are accused of infringement, calculating a royalty on the entire product carries a considerable risk that the patentee will be improperly compensated for non-infringing components of that product.”⁶⁴ Thus, the court held, “it is generally required that royalties be based not on the entire product, but instead on the ‘smallest salable patent-practicing unit.’”⁶⁵ As the court observed, it was common for products, particularly electronic devices, to include numerous distinct components, many of which may be separately patented.⁶⁶ Accordingly, it was particularly important in such cases to ensure that an expert’s damages analysis fit the precise facts of the case and not over-compensate plaintiffs for technology that was not related to the patents at issue.

⁵⁹ *Id.*

⁶⁰ *Id.* at 1316 (quoting *ResQNet.com*, 594 F.3d at 869).

⁶¹ *Id.* at 1317.

⁶² *Id.*

⁶³ *Id.*

⁶⁴ *LaserDynamics, Inc. v. Quanta Computer, Inc.*, 694 F.3d 51, 67 (Fed. Cir. 2012).

⁶⁵ *Id.* (quoting *Cornell Univ. v. Hewlett-Packard Co.*, 609 F. Supp. 2d 279, 283 (N.D.N.Y. 2009)).

⁶⁶ *Id.* at 66.

This conclusion flowed not only from the principle that damages should fit the precise injury alleged, but also from the requirement that damages be reliable and not speculative. As the court observed, the Federal Circuit had previously noted that “‘a reasonable royalty analysis requires a court to hypothesize, not to speculate . . . [T]he trial court must carefully tie proof of damages to the claimed invention’s footprint in the market place.’”⁶⁷ “A damages theory must be based on ‘sound economic and factual predicates.’”⁶⁸

The court concluded that the expert’s opinion failed to satisfy these requirements. The expert had not conducted any market studies or consumer surveys to ascertain whether the demand for laptop computers was driven by the patented optical disc drive technology. Rather, the court concluded that “the patented method is best understood as a useful commodity-type feature that consumers expect will be present in all laptop computers.”⁶⁹ The expert did not present any evidence that this patented feature alone motivated consumers to purchase a laptop computer. Moreover, the court concluded that the one-third apportionment factor the expert applied to reduce the royalty “appears to have been plucked out of thin air based on vague qualitative notions of the relative importance of the ODD technology.”⁷⁰ The court agreed with the district court that the expert supplied “no credible economic analysis” to support the apportionment factor, and thus the expert’s opinion was akin to the 25% rule of thumb that the court invalidated in *Uniloc*.⁷¹

Finally, in *Power Integrations, Inc. v. Fairchild Semiconductor International, Inc.*, the Federal Circuit similarly held that admission of an expert’s damages opinions was an abuse of discretion where the expert based the opinions on unreliable assumptions and data. The court determined that the expert’s opinions were “unreliable in several respects.”⁷² As a threshold matter, the court concluded that the source of the information upon which the expert relied for his estimates of Samsung’s worldwide sales was “unclear,” given that the expert

⁶⁷ *Id.* at 67 (quoting *ResQNet.com*, 594 F.3d at 869).

⁶⁸ *Id.* (quoting *Riles v. Shell Exploration & Prod. Co.*, 298 F.3d 1302, 1311 (Fed. Cir. 2002)). See also *DSU Med. Corp. v. JMS Co.*, 471 F.3d 1293, 1309 (Fed. Cir. 2006) (noting that, under the Federal Circuit’s decision in *Grain Processing*, “th[e] court requires sound economic proof of the nature of the market and likely outcomes with infringement out of the picture” and that “the concept of sound economic proof requires some grounding in ‘sound economic and factual predicates’”).

⁶⁹ *LaserDynamics*, 694 F.3d at 69.

⁷⁰ *Id.*

⁷¹ *Id.* See also *Uniloc*, 632 F.3d at 1318 (a patentee “must in every case give evidence tending to separate or apportion the defendant’s profits and the patentee’s damages between the patented feature and the unpatented features,” and that evidence must be “reliable and tangible . . . not conjecture or speculative”).

⁷² *Power Integrations, Inc. v. Fairchild Semiconductor Int’l, Inc.*, 711 F.3d 1348, 1373 (Fed. Cir. 2013).

could not explain where the information came from and “assumed” that the material was taken from the Internet.⁷³ In addition, the court concluded that the expert “made two speculative leaps.”⁷⁴ The expert relied upon data regarding shipments of Samsung phones, assuming that each Samsung mobile phone included a charger and that each of these chargers incorporated an infringing power circuit. However, the documents upon which the expert relied did not “provide any reliable link which might indicate that the shipped phones included chargers” and thus the expert could not “safely assume that all of these shipments must have included a charger.”⁷⁵ Moreover, the court noted that the “sales document lists no model numbers or other indicia from which [the expert] could reasonably infer that chargers assumed to be included incorporated . . . infringing power circuits.” As the court observed, several other companies sold competing power circuits to Samsung and thus “at least some of Samsung’s chargers could have incorporated the competing power circuits or Power Integrations’ own circuits, which do not infringe.”⁷⁶ Plaintiff’s expert provided no basis to distinguish between infringing and noninfringing chargers, and the court concluded that “his assumption that all chargers incorporated an infringing power circuit was speculation.”⁷⁷ Thus, the court held that the expert’s opinion was “derived from unreliable data and built on speculation,” “[was] too far removed from the facts of th[e] case,” and “lack[ed] the hallmarks of genuinely useful expert testimony.”⁷⁸

2. *The District Courts.* The district courts have applied these principles in excluding expert damages testimony that does not meet the requirements of Rule 702 and *Daubert* in a variety of diverse contexts, including in several recent high-profile decisions. While many of these cases involve straightforward application of the Federal Circuit’s decisions in cases such as *Lucent*, *ResqNet.com* and *LaserDynamics*, others involve broader issues, with courts looking to general *Daubert* principles to assess both the relevance and reliability of expert damages testimony.

a. *Apportionment of Damages.* Following Federal Circuit precedent, apportionment of damages is a frequent basis for motions to exclude expert damages opinions in the district courts. In *Rembrandt Social Media, LP v. Facebook, Inc.*, for example, the district court excluded the opinion of plaintiff’s damages expert in a case alleging that Facebook infringed a patent describing a

⁷³ *Id.*

⁷⁴ *Id.*

⁷⁵ *Id.* at 1373–74.

⁷⁶ *Id.* at 1374.

⁷⁷ *Id.*

⁷⁸ *Id.*

method for implementing a web page diary.⁷⁹ The court concluded that plaintiff's expert failed to properly apportion the defendant's revenue due to features that were alleged to infringe plaintiff's patent. As a result, the expert claimed damages " 'far in excess of the contribution of the claimed invention to the market' and thus claimed 'more than the 'damages adequate to compensate for the infringement.' "⁸⁰

The court observed that it was not always sufficient to apportion down to the smallest salable unit and that further apportionment may be required: "The smallest salable unit must be closely tied to the patent to suffice, and further apportionment is required even when 'the accused product is the smallest salable unit' . . . if the 'smallest salable unit is still a multi-component product encompassing non-patent related features.' "⁸¹ By way of example, the court cited the Federal Circuit's decision in *Lucent* that sales of the Outlook program could not serve as a basis for the royalty base where plaintiff alleged that only one feature of the program infringed. This was true even though the multi-component Outlook program was the smallest salable unit in the case. Thus, the court concluded that the expert's use of the entire value of certain features that could be used independently without infringing as the royalty base was "a mistake of the same kind as allowing [plaintiff's] expert to use the entire value of Facebook."⁸²

The court concluded that the expert's analysis of customer surveys to calculate the royalty rate was unreliable for similar reasons. The expert assumed without explanation that the weighted importance of any given feature of Facebook was equal to the same percentage of advertising revenue. The expert failed to perform an analysis to explain why the weighted importance of some feature to a user directly correlated with a certain percentage of Facebook's advertising revenue. The court therefore found the expert's methodology "suspect" and "unreliable under Rule 702."⁸³

Finally, in *Dynetix Design Solutions, Inc. v. Synopsys, Inc.*, the court excluded the opinions of plaintiff's damages expert on multiple grounds, including the failure of the expert to properly apportion damages.⁸⁴ The court observed that apportionment was required to determine the smallest salable infringing unit with close relation to the claimed invention. However, plaintiff's expert based

⁷⁹ *Rembrandt Social Media, LP v. Facebook, Inc.*, 22 F. Supp. 3d 585 (E.D. Va. 2013).

⁸⁰ *Id.* at 594 (quoting *Cornell Univ.*, 609 F. Supp. 2d at 283–84).

⁸¹ *Id.* (quoting *Synetix Design Solutions, Inc. v. Synopsys, Inc.*, 2013 WL 4538210 (N.D. Cal. Aug. 22, 2013)).

⁸² *Id.* at 595.

⁸³ *Id.* at 596.

⁸⁴ *Dynetix Design Solutions, Inc. v. Synopsys, Inc.*, No. C 11-05973PSG, 2013 WL 4538210, at *2 (N.D. Cal. Aug. 22, 2013).

the damages calculation on an “optional feature” of the allegedly infringing product, which had the patented feature at issue as only “one component.”⁸⁵ In addition, the court concluded that the expert “impermissibly assumed based on no facts in this particular case that the starting point for a hypothetical negotiation” over a reasonable royalty rate “would be 50% of the gross profit margin.”⁸⁶ The expert purported to base the 50% figure on “his own experience and judgment,” but the court concluded that this was an arbitrary figure that was akin to the 25% starting figure the Federal Circuit rejected as unreliable in *Uniloc*.⁸⁷

b. Relevance of Underlying Data. Courts have similarly ruled that reliance on data that is too far removed from the facts of the case renders an expert’s damages opinion inadmissible in a variety of different contexts. In *TV Interactive Data Corp. v. Sony Corp.*, for example, the court excluded the opinions of a damages expert who based his conclusion regarding a reasonable royalty rate on certain rates in patent pools. The court concluded that the expert “failed to show any degree of comparability” between these patent pools and the patent at issue in the suit and thus was not allowed to “refer to the royalty rates for the patent pools.”⁸⁸

In *DataQuill Ltd. v. High Tech Computer Corp.*, the court struck a portion of the plaintiff expert’s reasonable royalty analysis where the expert relied on license agreements for large patent portfolios executed by large companies, even though only two patents were at issue in the litigation and the patentee was a small company. The court determined that the expert had not shown that the agreements upon which the expert relied were “economically comparable,” even though the court conceded that the expert had provided evidence that the licenses were “technologically comparable.”⁸⁹ The court observed that “[t]he testimony of a damages expert in a patent suit who relies on non-comparable licenses in reaching his royalty rate should be excluded.”⁹⁰

In *Mondis Technology, Ltd. v. LG Electronics, Inc.*, the court excluded in part the opinions of plaintiff’s damages expert who relied on certain treble rate provisions in various licenses to argue that the royalty rate should be tripled.⁹¹ The court observed that the provisions upon which the expert relied were

⁸⁵ *Id.* at *3.

⁸⁶ *Id.* at *2.

⁸⁷ *Id.* at *4.

⁸⁸ *TV Interactive Data Corp. v. Sony Corp.*, 929 F. Supp. 2d 1006, 1017 (N.D. Cal. 2013).

⁸⁹ *Data Quill Ltd. v. High Tech. Computer Corp.*, 887 F. Supp. 2d 999, 1022 (S.D. Cal. 2011).

⁹⁰ *Id.* at 1022.

⁹¹ *Mondis Tech., Ltd. v. LG Elecs., Inc.*, No. 2:07-CV-565-TJW-CE, 2011 WL 2417367 (E.D. Tex. June 14, 2011).

penalty provisions that were designed to discourage the licensee from challenging or participating in a challenge to the validity of the patents.⁹² The court concluded that, “[a]s penalty clauses, they would not be relevant for the purpose that [plaintiff’s expert] intends to use them — that is — to show that by removing the ‘uncertainty’ of invalidity, the royalty rate would be tripled.”⁹³

Finally, in *Inventio AG v. Thyssenkrupp Elevator Corp.*, the court barred plaintiff’s damages expert from testifying regarding the defendant corporation’s total revenues. The court concluded that the defendant’s “overall revenues are irrelevant” to the issue of damages and therefore inadmissible under Rule 702.⁹⁴ In addition, the court found that such testimony would be inadmissible under Rule 403 as unduly prejudicial.⁹⁵

c. Reliability of Underlying Data and Analysis. The reliability of the data can also be grounds for exclusion. In *IP Innovation L.L.C. v. Red Hat, Inc.*, for example, the court observed that “[a] reliable reasonable royalty calculation depends on trustworthy evidence of both the royalty base and the royalty rate.”⁹⁶ The court concluded that the expert’s damages calculation relating to a desktop switching feature failed to meet this standard given that the expert had no reliable basis for the expert’s reasonable royalty calculation.⁹⁷ The court observed that “selected users’ statements in isolation and without a relationship to the actual claimed technology do not show an accurate economic measurement of total market demand for the switching feature, let alone its contribution to the demand for the entire product asserted as the royalty base.”⁹⁸ The court found that “[t]he workspace switching feature’s small role in the overall product is further confirmed when one considers the relative importance of certain other features such as security, interoperability, and virtualization.”⁹⁹ The court noted that the record was contrary to the expert’s assumptions given that “users do not buy the accused operating systems for their workspace switching feature.”¹⁰⁰

In addition, the court observed that the damages expert “arbitrarily picked a royalty rate that is much higher than the existing royalty rates for licenses to the patents-in-suit.”¹⁰¹ The expert had used a royalty rate for the “software

⁹² *Id.*

⁹³ *Id.* at *6.

⁹⁴ *Inventio AG v. Thyssenkrupp Elevator Corp.*, No. 08-874-RGA, 2014 WL 554853, at *3 (D. Del. Feb. 6, 2014).

⁹⁵ *Id.*

⁹⁶ *IP Innovation LLC v. Red Hat, Inc.*, 705 F. Supp. 2d 687, 689 (E.D. Tex. 2010).

⁹⁷ *Id.* at 691.

⁹⁸ *Id.* at 690.

⁹⁹ *Id.*

¹⁰⁰ *Id.*

¹⁰¹ *Id.* at 690–91.

industry,” which the court indicated encompassed much more than the desktop switching feature that was at issue in the case.¹⁰² The expert offered “no evidence that the alleged industry agreements are in any way comparable to the patents-in-suit.”¹⁰³ At the same time, the expert disregarded prior license agreements that involved one or more of the patents-in-suit. The court observed that “these licenses are far more relevant than the general market studies on which [the expert] primarily relied in his expert report.”¹⁰⁴ Accordingly, the expert not only relied on data that was not particularly relevant or reliable but failed to consider data that the court found was directly relevant to the reasonable royalty calculation.

In *Info-Hold, Inc. v. Muzak LLC*, the court similarly excluded an expert’s damages analysis because, among other things, the expert’s analysis was not reliable.¹⁰⁵ The court found that one basis for exclusion was the fact that the patentee’s expert had conducted “no independent analysis”; rather, he “relie[d], without verification, on Plaintiff’s employees and Plaintiff’s counsel for information crucial to his opinions.”¹⁰⁶ The court concluded that this violated Rule 702 because “an expert’s testimony must be based on independent analysis and objective proof.”¹⁰⁷

In *ABT Systems, LLC v. Emerson Electric Co.*, the court excluded in part the opinions of plaintiff’s damages expert on the ground that they lacked a reliable basis.¹⁰⁸ The expert based his opinion regarding a reasonable royalty rate in part on a trade brochure and the face of the touchscreen of the accused products, which he concluded suggested that the patented feature (a “CCF feature”) “could be the most important feature” of the product, which had a “significant upward impact on the royalty rate derived for the patents-in-suit.”¹⁰⁹ The court concluded that this opinion was “neither warranted by the facts relied upon by [the expert], nor the result of reliable principles and methods.”¹¹⁰ Accordingly, the court determined that it violated the principle that “[a] damages theory must be based on ‘sound economic and factual predicates.’”¹¹¹

¹⁰² *Id.* at 691.

¹⁰³ *Id.*

¹⁰⁴ *Id.*

¹⁰⁵ *Info-Hold, Inc. v. Muzak LLC*, No. 1:11-cv-283, 2013 WL 4482442, at *5 (S.D. Ohio Aug. 20, 2013).

¹⁰⁶ *Id.*

¹⁰⁷ *Id.*

¹⁰⁸ *ABT Sys., LLC v. Emerson Elec. Co.*, No. 4:11CV0374 AGF, 2013 WL 490174 (E.D. Mo. Feb. 8, 2013).

¹⁰⁹ *Id.* at *2.

¹¹⁰ *Id.*

¹¹¹ *Id.* (quoting *Riles*, 298 F.3d at 1311).

In *AVM Technologies, LLC v. Intel Corp.*, the court excluded the opinion of plaintiff's damages expert regarding a reasonable royalty based on a single licensing agreement that resulted from a settlement of prior litigation.¹¹² The court noted that plaintiff's expert failed to explain why the agreement alone could be the basis "for an accurate conclusion about the hypothetical negotiation over the '547 patent."¹¹³ The litigation settlement related to a different patent and was executed five years after the hypothetical negotiation would have taken place. The court found that reliance on this lone agreement was "completely speculative without, at a minimum, some analysis of the litigation that led to the settlement."¹¹⁴ "Without analysis of the litigation, the conclusion cannot be based on 'sound economic and factual predicates.'"¹¹⁵ Moreover, the court concluded that "[w]hereas multiple settlement agreements might show a pattern, a single settlement agreement on a different patent without any analysis of the settlement context is not a reliable method for calculating damages."¹¹⁶ And it noted that "[a]n analysis that relies on a single license agreement but does not take into account why other licenses are not comparable cannot be a reliable analysis."¹¹⁷

d. Lack of Evidentiary Support. Where an expert fails to support key aspects of the expert's damages opinion or makes unsupported assumptions, the damages opinions may likewise be subject to exclusion. In *Rolls-Royce PLC v. United Technologies Corp.*, for example, the court limited the opinions of plaintiff's damages expert in a case involving alleged infringement of a patent relating to the design of jet engine fan blades. The court concluded that the expert's opinion regarding price erosion damages was unsupported. While the expert asserted that jet engines were a "necessity" and thus the plaintiff would have been able to charge twice as much for its engines absent infringement, the expert did not "cite any evidence for the proposition that a jet engine is a necessity in the same way as is milk."¹¹⁸ Likewise, the court concluded that there was "insufficient evidence" to support the expert's use of the entire market value of the engines in calculating lost profits. The court found that the expert's opinion regarding "price erosion and lost profits damage is based on misstatements of the law, a lack of sound evidence, and unsupported

¹¹² *AVM Tech., LLC v. Intel Corp.*, 927 F. Supp. 2d 139 (D. Del. 2013).

¹¹³ *Id.* at 143.

¹¹⁴ *Id.*

¹¹⁵ *Id.* (quoting *Riles*, 298 F.3d at 1311).

¹¹⁶ *Id.* at 144.

¹¹⁷ *Id.*

¹¹⁸ *Rolls-Royce PLC v. United Tech. Corp.*, No. 1:10CV457, 2011 WL 1740143, at *4 (E.D. Va. May 4, 2011).

assumptions” and that his paid up royalty theory was similarly flawed.¹¹⁹ Finally, the court noted that the expert’s report “reads more like a lawyer’s brief advocating for the highest conceivable damage award rather than an expert trying to assist the trier of fact reach a reasonable damages figure.” “Because of this extensive overreaching, the entire report is undermined.”¹²⁰

In *Bowling v. Hasbro, Inc.*, the court similarly excluded an expert’s opinions on the ground that they were not sufficiently supported. The court noted that the expert’s report and testimony “reveal[ed] that no rigorous analysis was performed,” but “rather the witness engaged in a superficial and result oriented application of the *Georgia-Pacific* methodology.”¹²¹ Indeed, the court concluded that the analysis “lacks sufficient reference to facts, data, or any relevant information at all.”¹²² The court concluded that the expert’s assumption that the relationship between plaintiff and defendant would have been one of supplier and customer was particularly unsupported and was used to artificially inflate the royalty rate. As the court noted, “an expert opinion is not admissible when it is connected to existing data only by the *ipse dixit* of an expert.”¹²³ In particular the expert admitted that he had “no particular starting point” for his analysis of the appropriate royalty rate and was relying solely upon his own experience.¹²⁴

In addition, the court concluded that there was no attempt to “connect the *Georgia-Pacific* factors” to the expert’s “ultimate conclusion as to the reasonable royalty rate.”¹²⁵ Rather, the court concluded that the expert conducted only a superficial analysis of the *Georgia-Pacific* factors “in order to reason backwards to his pre-ordained conclusion.”¹²⁶ Accordingly, the court concluded that it was “apparent” that the expert “drafted a report specifically intended to superficially justify a royalty rate that would maximize damages” and that the expert’s opinions “lack a dependable foundation, are not reliable, and for this reason must be excluded.”¹²⁷

Finally, in *Carnegie Mellon University v. Marvell Technology Group, Ltd.*, the court excluded an expert’s damages opinions on the ground that certain elements had no “factual predicate.”¹²⁸ Specifically, the court noted that the plaintiff

¹¹⁹ *Id.* at *9.

¹²⁰ *Id.*

¹²¹ *Bowling v. Hasbro, Inc.*, No. 05-2295, 2008 WL 717741, at *4 (D.R.I. Mar. 17, 2008).

¹²² *Id.*

¹²³ *Id.*

¹²⁴ *Id.*

¹²⁵ *Id.* at *6.

¹²⁶ *Id.*

¹²⁷ *Id.* at *7.

¹²⁸ *Carnegie Mellon Univ. v. Marvell Tech. Grp. Ltd.*, No. 09-290, 2012 WL 5409800, at *3 (W.D. Pa. Nov. 6, 2012).

university's contention that the infringement had adversely affected its ability to attract top faculty or students, resulted in unspecified "lost opportunities," and diminished its capacity to fulfill its mission were unsupported. The court noted that "[w]ithout any factual support, these supposed 'harms' are speculative, not relevant, and, if presented at trial, would complicate the issues and confuse the jury."¹²⁹ The court similarly excluded evidence of alleged damage to the university's reputation and standing in the university community, holding that "such evidence is not relevant to the hypothetical negotiation, and, if presented at trial, will only tend to confuse the issues and mislead the jury."¹³⁰

e. Intersection with Patent Law. The admissibility of expert evidence under Rule 702 and *Daubert* may be inextricably interlinked with the court's decisions regarding substantive patent issues. In one recent decision that received significant publicity, for example, Seventh Circuit Judge Richard Posner, sitting by designation as a district court judge in the Northern District of Illinois, issued an opinion holding inadmissible proposed testimony by three of the parties' damages experts in a case involving patents relating to smartphones, effectively ending the litigation in a decision that the Federal Circuit subsequently reversed on appeal based largely on the court's determination that errors in claim construction infected the district court's decisions regarding admissibility of expert damages testimony.¹³¹

While the Federal Circuit reversed Judge Posner's decision on the admissibility of the expert evidence, the court focused heavily on substantive patent law issues. First, the court concluded that the ruling was based "on an incorrect claim construction" which, "alone, would require reversal and remand" because it "tainted the district court's damages analysis."¹³² Thus, the court observed that, by engaging in what the Federal Circuit considered to be an "overly narrow" construction of the claims, the district court improperly concluded that the expert's damages analysis "was too far removed from the asserted claims."¹³³ The other error the Federal Circuit found in the district court's analysis was that it allegedly failed to consider "the full scope of infringement," and as a result "incorrectly focused on individual claim limitations in isolation" in evaluating the reliability of the expert opinions.¹³⁴

The Federal Circuit's decision illustrates the complex ways in which evidentiary issues under Rule 702 and *Daubert* may intersect with substantive

¹²⁹ *Id.* (citations omitted).

¹³⁰ *Id.* at *4 (citations omitted).

¹³¹ *See* *Apple, Inc. v. Motorola, Inc.*, No. 1:11-w-6840, 2012 WL 1959560 (N.D. Ill. May 22, 2012).

¹³² *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1315–16 (Fed. Cir. 2014).

¹³³ *Id.* at 1317.

¹³⁴ *Id.*

issues in patent cases. In many ways, the Federal Circuit's decision in *Apple* is more about substantive issues regarding claim construction and infringement than it is about Rule 702. Accordingly, *Daubert* analyses in the context of patent cases may prove more complex in some situations than in other kinds of cases.

f. Expert Qualifications. Finally, limitations in an expert's qualifications have also been a basis for exclusion. While the Federal Circuit has only rarely addressed expert qualifications as a basis for exclusion, it has upheld at least one district court ruling on this ground. In *State Contracting & Engineering Corp. v. Condotte America, Inc.*, the court affirmed the exclusion of a damages expert who acknowledged that he had "no experience in placing a value on a patent and did not have any knowledge regarding reasonable royalties for construction-related patents."¹³⁵ However, such challenges have arisen more frequently in the district courts, typically as part of a broader *Daubert* motion challenging not only the expert's qualifications, but also the expert's methodology.

In *Sloan Valve Co. v. Zurn Industries, Inc.*, for example, the court excluded portions of the testimony of plaintiff's employee-expert on the issue of price erosion damages based on a lack of expertise.¹³⁶ The court found that plaintiff's expert lacked any background in economics and had no experience conducting economic analyses. Moreover, he had no specific experience in pricing or selling plumbing valves, the product at issue, let alone analyzing price erosion or determining the effect of a higher price on product demand.¹³⁷ As a result, plaintiff's expert did not perform any economic studies to support his opinion that plaintiff could have charged a higher price without any diminishing sales. The court observed, however, that "in a credible economic analysis, the patentee cannot show entitlement to a higher price divorced from the effect of that higher price on demand for the product." The court reasoned that "the patentee must also present evidence of the (presumably reduced) amount of product the patentee would have sold at the higher price."¹³⁸

A broad lack of qualifications may result in a broader exclusion. In *Info-Hold, Inc. v. Muzak LLC*, for example, the court concluded that an expert was not qualified to offer a damages opinion at all where the expert had never testified as a damages expert in a patent case before and had no prior experience with patent damages calculations.¹³⁹ Accordingly, the court excluded the expert's opinions in their entirety under Rule 702 and *Daubert*.

¹³⁵ *State Contracting & Eng'g Corp. v. Condotte Am., Inc.*, 346 F.3d 1057, 1073 (Fed. Cir. 2003).

¹³⁶ *Sloan Value Co. v. Zurn Inc.*, No. 16-w-60204, 2014 WL 806452 (N.D. Ill. Feb. 28, 2014).

¹³⁷ *Id.* at *3–4.

¹³⁸ *Id.* at *4 (quoting *Crystal Semiconductor Corp. v. TriTech Microelectronics Int'l, Inc.*, 246 F.3d 1336, 1357 (Fed. Cir. 2001)).

¹³⁹ *Muzak LLC*, 2013 WL 4482442, at *2.

B. LIABILITY

As challenges to expert evidence in patent cases have become more common, they have expanded into other areas. No longer is the focus solely on expert damages testimony. Rather, parties are filing motions to exclude a variety of expert opinions relating to liability, including opinions concerning claim construction, infringement, validity and enablement, among other things. These motions draw upon the general principles developed in other kinds of cases and are becoming increasingly common.

1. *The Federal Circuit.* The Federal Circuit has only rarely addressed the admissibility of expert opinions outside the damages context. In *Pharmastem Therapeutics, Inc. v. Viacell, Inc.*, for example, the Federal Circuit held that the contributory infringement opinion of the patentee's cell biology expert was not helpful to the jury and not an appropriate subject for expert evidence in a case involving alleged infringement of patents describing a process for collecting newborn infants' umbilical cord blood and preserving it through cryopreservation.¹⁴⁰ The court affirmed the district court, noting that the expert simply quoted "promotional information and other materials in which the defendants described their business operations for potential customers" and drew certain "inferences from those materials."¹⁴¹ The court concluded that the district court did not abuse its discretion in concluding that the jury was capable of understanding those materials without expert assistance.¹⁴²

The court further observed that the expert conducted little analysis and what analysis she did perform was flawed. Specifically, the court found that because the expert's testimony was "almost entirely based on an interpretation of defendants' marketing materials and materials directed to investors," any expertise the expert had as a cell biologist "was of no apparent help to the jury" in interpreting such materials.¹⁴³ Moreover, the court concluded that the expert's interpretation of these materials was "unreasonable" since they did not represent that preserved cord blood samples contained a sufficient number of stem cells to reconstitute an adult, as the expert maintained.¹⁴⁴

2. *The District Courts.* While the Federal Circuit has not issued much in the way of guidance concerning the application of Rule 702 to expert opinions relating to liability issues, the district courts have frequently addressed such questions. Drawing upon general principles governing the admissibility of

¹⁴⁰ *Pharmastem Therapeutics, Inc. v. Viacell, Inc.*, 491 F.3d 1342 (Fed. Cir. 2007).

¹⁴¹ *Id.* at 1354.

¹⁴² *Id.*

¹⁴³ *Id.* at 1355.

¹⁴⁴ *Id.*

expert opinions under Rule 702, they have excluded or limited expert testimony on a variety of different grounds.

a. Reliability and Scientific Support. District courts have excluded expert opinions, for example, where they have found that the expert's analysis was not reliable or was unsupported. In *Brandeis v. Keebler Co.*, for example, Judge Posner, sitting again by designation, excluded certain opinions of experts seeking to testify about liability issues in patent litigation over margarines used in Keebler cookies that had positive effects on cholesterol. While the court did not exclude the opinions of plaintiffs' infringement and validity expert in their entirety, it did exclude opinions regarding the positive health effects of the patented margarine based on studies in monkeys. The court found that the expert was "unable to evaluate the significance of studies on monkeys for human consumption, other than to say that monkeys are genetically rather similar to human beings."¹⁴⁵ As the court observed, "[i]n order for animal studies to be admissible to prove causation in humans, there must be good grounds to extrapolate from animals to humans."¹⁴⁶

The court took a similarly targeted approach to Keebler's expert. Keebler's expert critiqued the studies plaintiff relied on to support the health effects of the patented margarine and concluded that the findings regarding beneficial health effects could not be "generalized to all fat blends within the claimed range, and therefore that the patent does not enable reproduction of the patented product."¹⁴⁷ In support of her opinions, she cited certain other studies indicating that some fat blends within the patent's ranges did not produce the claimed health effects. The court concluded that the expert could discuss those studies and testify that they "cast doubt" on the validity of the study upon which plaintiff's expert relied, but could not testify that the studies "directly contradict" plaintiff's study "because of . . . differences in experimental designs."¹⁴⁸

Finally, the court excluded opinions of another of Keebler's experts based on testing conducted in the expert's home. Keebler's expert opined that the fat mixture that Keebler used was not really a margarine at all because it was not a stable emulsion. In rejecting this opinion as based on an unreliable methodology, the court concluded: "Conducting a test in one's home of a product that has been in transit for 36 hours strikes me as unprofessional; there is no suggestion that it is an industry practice."¹⁴⁹

¹⁴⁵ *Brandeis Univ. v. Keebler Co.*, No. 1:12-cv-01508, 2013 WL 5911233, at *4 (N.D. Ill. Jan. 18, 2013).

¹⁴⁶ *Id.* (quoting *In re Paoli R.R. Yard PCB Litig.*, 35 F.3d 717, 743 (3d Cir. 1994)).

¹⁴⁷ *Id.*

¹⁴⁸ *Id.* at *5.

¹⁴⁹ *Id.*

In *XpertUniverse, Inc. v. Cisco Systems, Inc.*, the court similarly excluded certain opinions by the defendant's technical expert. The court concluded that the expert could not offer the opinion that the source code he analyzed was executed or implemented in prior art (specific demonstrations that were offered before the critical date). The court found that the expert had failed to provide "any reliable basis for drawing this inference based on his expertise."¹⁵⁰ The expert indicated that in reaching this opinion, he had compared code text to screen shots in user manuals and other documents, which the court found "falls short of a reliable opinion based on [the expert's] scientific, technical, or specialized knowledge, as required by Rule 702."¹⁵¹ The court further found that there was a danger of unfair prejudice under Rule 403 from such testimony and that this ultimate conclusion was more properly left for the jury to decide.

In *Magnetar Technologies Corp. and G&T Conveyor Co. v. Six Flags Theme Parks Inc.*, a magistrate judge concluded that an expert's infringement opinion relating to patents for magnetic brakes "lack[ed] the proper grounds for his conclusions, because it [was] void of the necessary analysis for comparing each element of the claim to the accused product."¹⁵² As the court observed, to establish infringement, it was necessary to show that every limitation set forth in the patent claim was in the accused product or process exactly or by substantial equivalent. The court noted that the "'patentee's expert must set forth the factual foundation for his infringement opinion in sufficient detail for the court to be certain that features of the accused product would support a finding of infringement under the claim construction adopted by the court. . . .'"¹⁵³ The expert's opinion was inadmissible because it did not contain the required analysis, but rather merely "conclusory statements,"¹⁵⁴ citing the claim limitations and providing only some general references to documents or depositions without explaining "why the documents or deposition are relevant to the technology involved" or the claims at issue.¹⁵⁵ As the court observed, quoting the Supreme Court's decision in *Joiner*, "'nothing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the

¹⁵⁰ *XpertUniverse, Inc. v. Cisco Sys., Inc.*, No. 09-157-RGA, 2013 WL 1702159, at *1 (D. Del. Feb. 25, 2013).

¹⁵¹ *Id.*

¹⁵² *Magnetar Technologies Corp. v. Six Flags Theme Parks Inc.*, No. 07-127-LPS-MPT, 2014 WL 529983, at *6 (D. Del. Feb. 7, 2014).

¹⁵³ *Id.* (quoting *Intellectual Sci. & Tech., Inc.*, 589 F.3d 1179, 1183 (Fed. Cir. 2009)).

¹⁵⁴ *Id.*

¹⁵⁵ *Id.* at *8.

expert.’”¹⁵⁶ An expert cannot “provide[] data and a conclusion, with the chasm between not bridged by any analysis.”¹⁵⁷

Finally, an expert’s failure to eliminate alternative explanations for observations supporting an infringement opinion can be a basis for exclusion. In *Furminator v. Kim Laube & Co.*, for example, the court excluded the opinions of an accused infringer’s expert as unreliable under Rule 702 and *Daubert*. The expert offered the opinion that both the accused pet grooming tool and the patented tool cut non-loose hair from furry pets. However, the court observed that the expert’s opinion did not “properly account for the presence of cut or fractured hairs that were caused by circumstances not related to the use of the tools at issue in this case.”¹⁵⁸ The expert therefore failed to effectively eliminate potential alternative causes for the observations he made, rendering the expert’s unreliable.¹⁵⁹

b. General Acceptance and Scientific Support. Lack of support for an expert’s methodology or acceptance within the scientific community may be a related basis for exclusion of an expert’s opinions. In *Carnegie Mellon University v. Hoffmann-LaRoche, Inc.*, for example, the court excluded the plaintiffs’ scientific expert, largely because his opinions were inconsistent with the views of the scientific community.¹⁶⁰ The court observed that, “[w]hile *Daubert* forbids the exclusion of expert testimony on the basis of a rigid ‘general acceptance’ test, it does not wholly remove this factor from consideration.”¹⁶¹ “A reliability assessment . . . does permit[] explicit identification of a relevant scientific community and an express determination of a particular degree of acceptance within that community.”¹⁶² The court concluded that the expert’s opinion that Taq DNA polymerase does not exhibit 3’–5’ exonuclease activity was inconsistent with the view in the scientific community. As the court observed, a number of treatises and articles published in peer-reviewed journals refuted this contention.¹⁶³ In addition, the court noted that “[l]ike the expert in *Joiner*,” the expert had “analyzed data that was not his own and reinterpreted it in a manner inconsistent with the conclusions of those who originally generated it.”¹⁶⁴

In *Trivitis, Inc. v. Ocean Spray Cranberries, Inc.*, the court similarly excluded testimony by an expert on mass spectrometry and HPLC analysis on the ground

¹⁵⁶ *Id.* (quoting *Joiner*, 522 U.S. at 146).

¹⁵⁷ *Id.* at *12.

¹⁵⁸ *Furminator v. Kim Laube & Co.*, 758 F. Supp. 2d 797, 808 (E.D. Mo. 2010).

¹⁵⁹ *Id.*

¹⁶⁰ *Carnegie Mellon Univ. v. Hoffman-LaRoche, Inc.*, 55 F. Supp. 2d 1024, 1032–33 (N.D. Cal. 1999).

¹⁶¹ *Id.* at 1032 (quoting *Daubert*, 509 U.S. at 594).

¹⁶² *Id.*

¹⁶³ *Id.* at 1031–32.

¹⁶⁴ *Id.*

that his methodology was unsupported. Instead of relying on ultraviolet detection, the expert relied upon light scattering detection, which the court characterized as “unconventional.”¹⁶⁵ The expert failed to support his assertion that this was an established, pre-litigation methodology that he had used before, that light-scattering detection is an appropriate form of detection, and that the testing was conducted in a scientifically acceptable manner. The court rejected plaintiff’s argument that the fact that mass spectrometry and HPLC were accepted methodologies was sufficient to carry plaintiff’s burden. Finally, the court rejected affidavits plaintiff submitted in an attempt to validate the light-scattering methodology. The affidavits failed to set forth the qualifications of the experts who purported to validate the methodology and did not sufficiently establish that the methodology was reliable.¹⁶⁶

c. Opinions Contrary to Claim Construction. The admissibility of expert opinions relating to liability issues may overlap with substantive patent law issues, just as it does in the context of expert damages testimony. For example, courts have excluded expert opinions in certain circumstances where they were contrary to the court’s claim construction or governing legal principles or where the expert was seeking to offer what amounted to legal opinions.¹⁶⁷ These courts have followed guidance from the Federal Circuit and other courts, which on occasion have noted “the impropriety of patent lawyers testifying as expert witnesses and giving their opinion regarding the proper interpretation of a claim as a matter of law, the ultimate issue for the court to decide.”¹⁶⁸ Despite these restrictions, experts are sometimes in appropriate circumstances permitted to testify regarding how individuals with ordinary skill in the art understand claim terms.

In *MediaTek, Inc. v. Freescale Semiconductor, Inc.*, for example, the court excluded certain opinions from plaintiff’s claim construction expert on the ground that they relied largely on the prosecution of the patent at issue.¹⁶⁹ The court observed “[a]t trial, parties may “introduce[e] evidence as to the plain and ordinary meaning of terms not construed by the Court to one skilled in the art,” *so long as* the evidence does not amount to “argu[ing] claim construction to

¹⁶⁵ *Trivitis, Inc. v. Ocean Spray Cranberries, Inc.*, No. 101CV0316, 2012 WL 1944827, at *5 (S.D. Cal. May 29, 2012).

¹⁶⁶ *Id.* at *6.

¹⁶⁷ *Hochstein v. Microsoft Corp.*, No. 04-73071, 2009 WL 2022815, at *1 (E.D. Mich. July 7, 2009) (excluding expert’s opinion to the extent it was inconsistent with special master’s construction of claim as not including the requirement that data circuits be physically connected to the communication medium).

¹⁶⁸ *Endress + Hauser, Inc. v. Hawk Measurement Sys. Pty. Ltd.*, 122 F.3d 1040, 1042 (Fed. Cir. 1997).

¹⁶⁹ *MediaTek, Inc. v. Freescale Semiconductor, Inc.*, 2014 WL 971765, No. 11-cv-53414GR, at *6 (N.D. Cal. Mar. 5, 2014).

the jury.”¹⁷⁰ However, the court concluded that, “except in a rare case, use of the prosecution history raises issues solely for the court, not the jury.”¹⁷¹

Thus testimony grounded in the prosecution history to discern the meaning of a claim is properly excluded from presentation to the jury, especially where, as here, a fair reading of the expert report reveals an intention to argue claim construction. Similarly, while the court may in its discretion, consider extrinsic evidence if such sources will aid the court in determining “the true meaning of language used in the patent claims,” such evidence, if required, is not appropriate for presentation to a jury and is properly excluded at trial.¹⁷²

In *Personalized Media Communications, LLC v. Zynga, Inc.*, the court similarly excluded opinions offered by defendant’s enablement expert, finding that his opinions were based on an inaccurate legal standard.¹⁷³ The court observed that “the Federal Circuit has clearly and explicitly held that ‘[t]he dispositive question of enablement does not turn on whether the accused product is enabled.’”¹⁷⁴ Yet, defendant’s expert focused on use of the accused products as “the touchstone for enablement.”¹⁷⁵ The court therefore concluded that his opinions were not sufficiently relevant and reliable to satisfy the requirements of Rule 702 and *Daubert*.

In *The Medicines Co. v. Mylan Inc.*, the court excluded in part the opinions of plaintiff’s expert regarding the defendant’s drug compounding process.¹⁷⁶ The court had ruled at the summary judgment stage that the compounding process the defendant used was not directly relevant to infringement because the asserted claims in the patent-in-suit did not contain process limitations.¹⁷⁷ The process was only “indirectly relevant” to infringement insofar as it might affect whether Mylan’s bivalirudin drug product would infringe the maximum impurities limitation of the asserted claims.¹⁷⁸ Accordingly, the court held that the expert could not opine regarding whether Mylan’s compounding process

¹⁷⁰ *Id.* at *4.

¹⁷¹ *Id.* at *5.

¹⁷² *Id.*

¹⁷³ *Personalized Media Communications, LLC v. Zynga, Inc.*, No. 2:12-cv-0068-JRG-RSP, 2013 WL 5962812 (E.D. Tex. Nov. 7, 2013).

¹⁷⁴ *Id.* at *2 (quoting *Durel Corp. v. Osrarn Sylvania Inc.*, 256 F.3d 1298, 1306 (Fed. Cir. 2001)).

¹⁷⁵ *Id.*

¹⁷⁶ *The Medicines Co. v. Mylan Inc.*, No. 11-cv-1285, 2014 WL 1929360, at *5 (N.D. Ill. May 15, 2014).

¹⁷⁷ *Id.* at *1.

¹⁷⁸ *Id.* at *5.

was “efficient,” but could testify as to how it would affect the characteristics of the bivalirudin drug product it generated.¹⁷⁹

In *EZ Dock, Inc. v. Schafer Systems, Inc.*, the court excluded the testimony of plaintiff’s technical expert where the expert acknowledged that he was “not qualified to provide expert testimony on the operations of the PTO or how to construe claims.”¹⁸⁰ Moreover, the court noted that “it is the *Court’s* duty to instruct the jury on the applicable principles of patent law, just as claim construction is an issue for the *Court* and not the jury.”¹⁸¹ Accordingly, the court held that these were not proper subjects for expert testimony.¹⁸²

Finally, in *Astrazeneca UK Ltd. v. Watson Labs., Inc.*, the court excluded the testimony of a legal expert who planned to testify that an experienced chemical patent practitioner would read neither the patent’s claims nor prosecution history as affirmatively limiting the patent’s description of the invention and the scope of the salts that were equivalent.¹⁸³ The court found that the expert was not a person of ordinary skill in the art of the patent-in-suit and was offering what amounted to impermissible legal opinions.¹⁸⁴

d. Parties’ Intent. Experts seeking to testify about a party’s intent when taking certain actions before the Patent Office may find themselves subject to a *Daubert* challenge seeking to limit or exclude their opinions.¹⁸⁵ In *The Medicines Co. v. Mylan Inc.*, for example, the court excluded the defense expert’s opinions regarding the state of mind of the inventors and their intent to deceive the Patent Office regarding the applications and examination of the patent-in-suit. The court concluded that “[p]atent experts may not testify that they know the patentee’s intent to hide or lie about certain information during the patent prosecution process ‘because they are not mind readers.’”¹⁸⁶ Likewise, “patent experts may not ‘plumb the inventor’s and attorney’s minds and discern whether they ‘lacked candor’ or had actual intent to deceive during the patent prosecution process.’”¹⁸⁷ Accordingly the court excluded any expert testimony regarding the parties’ intent, while indicating that the expert could identify facts from the file history and record to support an inference that the applicant acted

¹⁷⁹ *Id.*

¹⁸⁰ *EZ Dock, Inc. v. Schafer Systems, Inc.*, No. CIV. 98-7364, 2003 WL 1610781, at *7 (D. Minn. Mar. 8, 2003).

¹⁸¹ *Id.*

¹⁸² *Id.*

¹⁸³ *Astrazeneca UK Ltd. v. Watson Labs., Inc.*, 2012 WL 5900686, at *1–2 (D. Del. Nov. 14, 2012).

¹⁸⁴ *Id.* at *2.

¹⁸⁵ 2014 WL 1758135, at *5.

¹⁸⁶ *Id.* (quoting *Bone Care Int’l, LLC v. Pentech Pharm., Inc.*, No. 08-CV-1083, 2010 WL 3894444, at *9 (N.D. Ill. Oct. 1, 2010)).

¹⁸⁷ *Id.*

with intent to deceive.¹⁸⁸ Similarly, the court excluded expert opinions regarding what the Patent Office examiner would have done if given different information as speculation.¹⁸⁹ Nonetheless, the court indicated that it would allow testimony as to what the expert believed would have been material to the patent examiner.¹⁹⁰

e. Expert Qualifications. Finally, a lack of qualifications may also undermine an expert's opinions. In *TASER International, Inc. v. Karbon Arms, LLC*, for example, the court excluded the opinion of an expert who admittedly had no expertise in electrophysiology.¹⁹¹ While defendants argued that the expert's testimony concerned only electrical engineering and not electrophysiology specifically, the court concluded that there were "numerous instances" where the expert offered opinions in the area of electrophysiology in rebutting the opinions of plaintiff's expert.¹⁹² The court therefore excluded these opinions as outside the expert's area of expertise.¹⁹³

Similarly, in *Trivitis, Inc. v. Ocean Spray Cranberries, Inc.*, the court excluded the testimony of the patent holder and CEO of the plaintiff company who sought to testify as an expert on HPLC and mass spectrometry.¹⁹⁴ The court noted that, while the patent holder had a degree in mathematics, he did not have a degree in chemistry and testified that his only formal chemistry education was a high school chemistry class and college chemistry courses.¹⁹⁵ Moreover, the expert offered only "conclusory" assertions that he had experience and training in HPLC and mass spectrometry. Accordingly, the court concluded that plaintiff failed to meet the threshold showing that the expert was qualified to present testimony on HPLC or mass spectrometry.¹⁹⁶

IV. CONCLUSION

These examples demonstrate the increasing frequency with which parties are filing motions seeking the exclusion of expert opinions under Rule 702 and *Daubert* in patent cases as well as the diversity of circumstances in which such challenges arise. Scrutiny of expert damages opinions under Rule 702 is

¹⁸⁸ *Id.*

¹⁸⁹ *Id.* at *7.

¹⁹⁰ *Id.*

¹⁹¹ *Taser Int'l, Inc. v. Karbon Arms, LLC*, No. 11-426-R0A, 2013 WL 6705478 (D. Del. Dec. 18, 2013).

¹⁹² *Id.* at *1.

¹⁹³ *Id.*

¹⁹⁴ *Teivitis, Inc. v. Ocean Spray Cranberries, Inc.*, No. 10CV0316, 2012 WL 1944827, at *6 (S.D. Cal. May 29, 2012).

¹⁹⁵ *Id.* at *4.

¹⁹⁶ *Id.*

2015]

CHALLENGES TO EXPERT EVIDENCE

373

frequently undertaken pursuant to a well-established framework developed by the Federal Circuit. However, challenges to expert opinions involving liability-related issues are increasingly common. Here, too, courts may draw upon a well-established body of legal principles falling outside the patent context, but nonetheless readily lending themselves to application in review of expert opinions offered in patent cases.

