

2019

2018 Patent Law Decisions of the Federal Circuit

Lori Gordon

King & Spalding LLP, lgordon@kslaw.com

Follow this and additional works at: <https://digitalcommons.wcl.american.edu/aulr>



Part of the [Intellectual Property Law Commons](#)

Recommended Citation

Gordon, Lori (2019) "2018 Patent Law Decisions of the Federal Circuit," *American University Law Review*. Vol. 68 : Iss. 4 , Article 4.

Available at: <https://digitalcommons.wcl.american.edu/aulr/vol68/iss4/4>

This Area Summary is brought to you for free and open access by the Washington College of Law Journals & Law Reviews at Digital Commons @ American University Washington College of Law. It has been accepted for inclusion in American University Law Review by an authorized editor of Digital Commons @ American University Washington College of Law. For more information, please contact kclay@wcl.american.edu.

2018 Patent Law Decisions of the Federal Circuit

AREA SUMMARIES
2018 PATENT LAW DECISIONS
OF THE FEDERAL CIRCUIT

LORI GORDON*

TABLE OF CONTENTS

Introduction.....	1265
I. Claim Construction	1265
II. Validity	1269
A. Patent-Eligible Subject Matter.....	1269
1. Cases implicating the timing of subject matter eligibility challenges.....	1270
2. Claims found eligible	1273
3. Claims found ineligible.....	1275
B. Anticipation.....	1278
C. Obviousness.....	1280
D. Indefiniteness	1286
E. Written Description and Enablement.....	1286
F. Obviousness-Type Double Patenting.....	1290
III. Infringement	1292
IV. Equitable Defenses	1296
A. Unclean Hands	1296
B. Inequitable Conduct.....	1297
C. Laches.....	1298
D. Implied Waiver	1299
V. Patent Office Appeals.....	1300

* Partner, King & Spalding LLP; J.D., 2003, *Seton Hall University School of Law*; M.S., Electrical Engineering, 1992, *Pennsylvania State University*; B.S., Electrical Engineering, 1990, *Lafayette College*. The views expressed here are my own and should not be attributed to my firm, any of my colleagues, or any of our clients.

A.	AIA Post-Grant Proceedings	1301
1.	Jurisdiction and standing.....	1301
2.	Privity and real party in interest	1305
3.	Impact of the Supreme Court's decision in SAS	1310
4.	One-year statutory bar.....	1312
5.	Tribal sovereign immunity	1313
6.	Motions to amend	1315
7.	Issue preclusion.....	1315
8.	Estoppel	1317
9.	Due process and procedural requirements	1319
B.	Reexamination	1323
C.	Anticipation and Obviousness.....	1324
1.	Printed publication	1328
2.	Priority benefit	1332
3.	Printed matter doctrine	1335
4.	Swearing behind a reference.....	1337
D.	Inventorship.....	1338
E.	Patent Term Adjustment	1338
F.	Federal Circuit Procedures	1339
G.	Attorneys' Fees and Sanctions	1342
VI.	Remedies.....	1345
A.	Apportionment	1346
B.	Enhanced Damages	1349
C.	Attorneys' Fees—Exceptional Cases	1350
D.	Double Recovery.....	1353
E.	Injunction.....	1353
VII.	District Court	1356
A.	Procedural.....	1356
B.	Pleading Standard.....	1358
C.	Motion to Amend Complaint.....	1359
D.	Declaratory Judgment Jurisdiction	1359
E.	Personal Jurisdiction and Venue.....	1362
F.	Standing.....	1367
G.	Jury Instructions	1370
	Conclusion	1371

INTRODUCTION

The Supreme Court and the U.S. Court of Appeals for the Federal Circuit issued several decisions that had a significant impact on patent law. In a major win for patent owners, the Supreme Court's ruling in *WesternGeco LLC v. ION Geophysical Corp.*¹ created the potential for dramatic increases in damages awards, when it held that patent owners can recover lost profits from foreign use of an invention.² The fate of invalidation proceedings before the Patent Trial and Appeal Board (PTAB) at the U.S. Patent and Trademark Office (PTO) hung in the balance in 2018. In *Oil States Energy Services LLC v. Greene's Energy Group, LLC*,³ the Supreme Court upheld the constitutionality of the PTAB inter partes review (IPR) proceedings.⁴ In a case decided on the same day, *SAS Institute Inc. v. Iancu*,⁵ the PTAB's partial institution practice was struck down by the Supreme Court.⁶ This case fundamentally transformed strategy for both petitioners and patent owners at the PTAB.

The Federal Circuit maintained a large patent docket in 2018 with over half of its opinions issuing on appeals from the PTAB. Many of the cases decided in 2018 involved novel legal questions regarding venue, tribal sovereign immunity in PTAB cases, the statutory interpretation of the one-year bar in IPR proceedings, apportionment of damages, Article III standing to appeal adverse PTAB decisions, and continued to address the question of patent eligibility. This Article collects and summarizes the Federal Circuit's 2018 patent decisions and analyzes their impact.

I. CLAIM CONSTRUCTION

Claim construction remained a popular issue presented in Federal Circuit appeals in 2018 because claim construction gets a de novo review at the Federal Circuit. Most cases followed the standard framework articulated in *Thorner v. Sony Computer Entertainment America LLC*⁷ and addressed common disputes such as incorporating

1. 138 S. Ct. 2129 (2018).

2. *Id.* at 2139.

3. 138 S. Ct. 1365 (2018).

4. *Id.* at 1379.

5. 138 S. Ct. 1348 (2018).

6. *Id.* at 1358.

7. 669 F.3d 1362, 1365 (Fed. Cir. 2012) ("The words of a claim are generally given their ordinary and customary meaning as understood by a person of ordinary skill in the art when read in the context of the specification and prosecution history."); *see also* *Blackbird Tech LLC v. ELB Elecs., Inc.*, 895 F.3d 1374, 1379 (Fed. Cir. 2018) (vacating

limitations from the specification into the claims and the use of plain and ordinary meaning.⁸ For PTAB appeals, claim construction was again a common theme in the cases that the Federal Circuit remanded or reversed.⁹ This Section highlights a few of the interesting claim construction decisions from 2018.

The most notable claim construction cases in 2018 dealt with collateral estoppel effect of prior judicial constructions. In *Knowles Electronics LLC v. Cirrus Logic, Inc.*,¹⁰ an appeal from the decision of PTAB in a reexamination proceeding, the Federal Circuit determined that the PTAB properly considered extrinsic evidence in its claim construction analysis because the intrinsic evidence was not definitive as to the meaning of the term “package.”¹¹ More importantly, the Federal Circuit addressed the interplay between the construction of the same term in a 2011 Federal Circuit case and the PTAB’s construction in the reexamination.¹² The Federal Circuit rejected Knowles’s argument that the PTAB erred by failing to evaluate the Federal Circuit’s claim construction during its claim construction

the district court’s claim construction requiring the attachment surface be secured to the ballast cover where plain language of the claim did not require such an attachment and embodiments in the specification describing this attachment mechanism were exemplary); *Sumitomo Dainippon Pharma Co. v. Emcure Pharm. Ltd.*, 887 F.3d 1153, 1154, 1158, 1160 (Fed. Cir. 2018) (affirming the district court’s claim construction in a Hatch-Waxman case because the plain language of the claim covered what was depicted in the claim, the (–)-enantiomer).

8. See *Hamilton Beach Brands, Inc. v. F’Real Foods, LLC*, 908 F.3d 1328, 1340 (Fed. Cir. 2018) (affirming PTAB’s claim construction that comported with claim’s plain language read in light of the specification); *Acceleration Bay, LLC v. Activision Blizzard Inc.*, 908 F.3d 765, 770 (Fed. Cir. 2018) (affirming PTAB’s claim construction because proposed construction impermissibly sought to import limitations from specification into claims); *Steuben Foods, Inc. v. Nestle USA, Inc.*, 884 F.3d 1352, 1355–56 (Fed. Cir. 2018) (affirming PTAB’s construction); *Polaris Indus., Inc. v. Arctic Cat, Inc.*, 882 F.3d 1056, 1065 (Fed. Cir. 2018) (same).

9. See *TF3 Ltd. v. Tre Milano, LLC*, 894 F.3d 1366, 1372–73 (Fed. Cir. 2018) (holding the PTAB’s construction unreasonably broad where its construction expanded the claims beyond what was disclosed in the specification); *In re Power Integrations, Inc.*, 884 F.3d 1370, 1376 (Fed. Cir. 2018) (finding the PTAB’s construction of “coupled” unreasonably broad because it would make every element in a circuit “coupled” to every other element rendering phrases in the claim meaningless); *In re Hodges*, 882 F.3d 1107, 1115 (Fed. Cir. 2018) (noting the PTAB’s construction of “signal” as “an act, event, or the like that causes or incites some action” unreasonably broad).

10. 883 F.3d 1358 (Fed. Cir. 2018).

11. *Id.* at 1363–64.

12. *Id.* at 1364–65 (citing *MEMS Tech. Berhad v. Int’l Trade Comm’n*, 447 F. App’x 142 (Fed. Cir. 2011)).

analysis and found that the PTAB's construction was consistent with the prior judicial construction, and thus proper.¹³ Judge Newman dissented, arguing that "consistency" was the wrong inquiry.¹⁴ Rather, Judge Newman asserted "[t]he question is whether the PTAB decision is precluded by the prior judicial decision, and whether any equitable or due process exception to preclusion may apply."¹⁵ In this case, because preclusion applied, Judge Newman argued that the prior Federal Circuit construction should have bound the PTAB.¹⁶

*Nestle USA, Inc. v. Steuben Foods, Inc.*¹⁷ applied collateral estoppel based on a prior Federal Circuit claim construction of the same term in a related patent.¹⁸ In an appeal of a different but related patent owned by Steuben Foods, the Federal Circuit construed the term "aseptic," and relied on binding lexicography in the specification.¹⁹ In this case, the claims at issue used the term "aseptic" in a similar fashion.²⁰ Because neither party identified any material difference between the two patents or their prosecution histories that would give rise to claim construction issues, the court vacated the PTAB's construction and construed "aseptic" to have the same meaning as the prior appeal.²¹

The Federal Circuit also addressed the issue of claim language sufficient to invoke 35 U.S.C. § 112(f).²² In *Zeroclick, LLC v. Apple Inc.*,²³ the Federal Circuit considered whether the use of "program" and "user interface code" in a claim element invokes 35 U.S.C. § 112, ¶ 6.²⁴ The Federal Circuit found that the district court erred in construing the limitations "program that can operate the movement of the pointer (0)" and "user interface code being configured to detect one or more locations touched by a movement of the user's finger on the screen

13. *Id.*

14. *Id.* at 1372 (Newman, J., dissenting).

15. *Id.*

16. *Id.* at 1373.

17. 884 F.3d 1350 (Fed. Cir. 2018).

18. *Id.* at 1351.

19. *Id.*

20. *Id.*

21. *Id.* at 1352.

22. Section 112(f) specifies that an "element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof." 35 U.S.C. § 112(f) (2012).

23. 891 F.3d 1003 (Fed. Cir. 2018).

24. *Id.* at 1006–07.

without requiring the exertion of pressure and determine therefrom a selected operation” as means-plus-function claims.²⁵ The failure to use the word “means” in these limitations created the rebuttable presumption that § 112, ¶ 6 does not apply.²⁶ To overcome the presumption, Apple was required to demonstrate that “the claim term fails to recite sufficiently definite structure or else recites function without reciting sufficient structure for performing that function.”²⁷ Because Apple failed to do so, it failed to rebut the presumption against application of § 112, ¶ 6.²⁸ The Federal Circuit found that the district court, which relied on Apple’s arguments, “erred by effectively treating “program” and “user interface code” as nonce words, which can operate as substitutes for “means” and presumptively bring the disputed claims limitations within the ambit of § 112, ¶ 6.”²⁹

One of the most significant changes in claim construction was made by rule, not case law. In 2018, the PTO enacted a rule that changed the claim construction standard for all America Invents Act (AIA) invalidity challenges that were filed on or after November 13, 2018. The standard changed from the broadest reasonable interpretation standard to the same standard used in district courts.³⁰ Because the claim construction rule change was not retroactive, the Federal Circuit will be addressing claim construction disputes under the broadest reasonable interpretation standard for years to come.

One interesting 2018 case, *Arendi S.A.R.L. v. Google LLC*,³¹ considered the role of prosecution history plays in a claim construction determination using the broadest reasonable construction standard.³² In the final written decision, the PTAB presented alternative rulings on claim construction—a primary ruling holding that no prosecution history disclaimer occurred and an alternative ruling assuming prosecution history disclaimer—and found the claims invalid under each.³³ The Federal Circuit determined that the PTAB erred in declining to apply prosecution disclaimer in its primary ruling. It reasoned that because the amended claim included a sufficient

25. *Id.*

26. *Id.* at 1007.

27. *Id.* (quoting *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1348 (Fed. Cir. 2015)).

28. *Id.* at 1007–08.

29. *Id.* at 1008.

30. 37 C.F.R. §§ 42.100, 42.200, 42.300.

31. 882 F.3d 1132 (Fed. Cir. 2018).

32. *Id.* at 1135–36.

33. *Id.*

explanation for the changes and the examiner confirmed that explanation, the amended claims met the requirements for prosecution history disclaimer and were allowable.³⁴

The interpretation of product-by-process claim language also took center stage in 2018 in *In re Nordt Development Co.*,³⁵ an appeal of the PTAB's affirmance of the examiner's claim rejections.³⁶ During prosecution, the examiner found that the phrase "injection molded," recited throughout the claim, described a "method of manufacturing an apparatus," whereas the claim was an apparatus claim.³⁷ The examiner rejected the claims contending that "[i]n order to anticipate the injection molded feature, the prior art must disclose the finished product and not the method of making the product."³⁸ The PTAB affirmed the finding that the applicant did not "persuasively explain what structural limitation is imparted by this manufacturing practice."³⁹ The Federal Circuit disagreed and found that the phrase "injection molded" connotes structure and noted that the specification describes injection molding as forming an integral component.⁴⁰ The court further noted that "words of limitation that can connote with equal force a structural characteristic of the product or a process of manufacture are commonly and by default interpreted in their structural sense, unless the patentee has demonstrated otherwise."⁴¹ The Federal Circuit vacated the PTAB's anticipatory rejection based on an incorrect claim construction and remanded for the PTAB to construe the term "injection molded."⁴²

II. VALIDITY

A. Patent-Eligible Subject Matter

The Federal Circuit addressed nine § 101 cases in 2018. Section 101 provides that "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof" is

34. *Id.* at 1136.

35. 881 F.3d 1371 (Fed. Cir. 2018).

36. *Id.* at 1372.

37. *Id.* at 1374.

38. *Id.*

39. *Id.*

40. *Id.* at 1375.

41. *Id.* at 1375–76 (citing 3M Innovative Props. Co. v. Avery Dennison Corp., 350 F.3d 1365, 1371–72 (Fed. Cir. 2003)).

42. *Id.* at 1376.

patent-eligible if it meets the other statutory requirements.⁴³ However, this provision “contains an important implicit exception: [L]aws of nature, natural phenomena, and abstract ideas are not patentable.”⁴⁴ In *Alice Corp. v. CLS Bank International*,⁴⁵ the Supreme Court set forth a two-step framework for distinguishing a patent that claims laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.⁴⁶ The first step requires discerning “whether the claims at issue are directed to one of those patent-ineligible concepts.”⁴⁷ The first step is the search for an “inventive concept” sufficient “to ensure that the claim amounts to ‘significantly more’ than the abstract idea itself.”⁴⁸ If the claims are directed to a patent-ineligible concept, the court then considers the “elements of each claim both individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.”⁴⁹ Many of the cases included dissents or concurrences expressing concerns about the current state of patent eligibility jurisprudence.⁵⁰

1. *Cases implicating the timing of subject matter eligibility challenges*

Several Federal Circuit cases in 2018 made it more difficult for defendants in a patent litigation to challenge subject matter eligibility in the early stages of the litigation. For example, in *Berkheimer v. HP*

43. 35 U.S.C. § 101 (2012).

44. *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014).

45. 573 U.S. 208 (2014).

46. *Id.* at 217.

47. *Id.*

48. *Finjan, Inc. v. Blue Coat Sys., Inc.*, 879 F.3d 1299, 1303 (Fed. Cir. 2018) (citing *Alice*, 573 U.S. at 217–18).

49. *Alice*, 573 U.S. at 217 (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 77–79 (2012)).

50. See, e.g., *In re Marco Guldenaar Holding B.V.*, 911 F.3d 1157, 1165 (Fed. Cir. 2018) (Mayer, J., concurring in the judgment) (stating that the Federal Circuit’s temptation to assess underlying facts during the eligibility determination will topple the current framework and stifle science and arts); *Interval Licensing LLC v. AOL, Inc.*, 896 F.3d 1335, 1354–55 (Fed. Cir. 2018) (Plager, J., concurring in part and dissenting in part) (scrutinizing the process of finding abstract ideas for involving redundant steps and an elusive search for inventiveness, and asking “[i]s it any wonder that the results of this process are less than satisfactory?”); *Berkheimer v. HP Inc.*, 890 F.3d 1369, 1374–75 (Fed. Cir. 2018) (per curiam) (Lourie, J., concurring) (stating that § 101 “needs clarification by higher authority, perhaps by Congress” and opining that “[t]he Supreme Court whittled away at the § 101 statute in *Mayo* by analyzing abstract ideas and natural phenomena with a two-step test” that introduces aspects of §§ 102 and 103 into the eligibility analysis), *petition for cert. filed*, No. 18-415 (U.S. Oct. 3, 2018).

Inc.,⁵¹ the Federal Circuit held that “[w]hile patent eligibility is ultimately a question of law, the district court erred in concluding there are no underlying factual questions to the § 101 inquiry.”⁵² In this case, the Federal Circuit considered whether a patentee waived his ability to argue that the dependent claims are separately patent eligible when the district court treated the sole asserted independent claim as representative.⁵³ Here, because the patentee did not agree to make the independent claim 1 representative, and the district court improperly treated the claim as representative because it was the sole asserted independent claim, the Federal Circuit found that the patentee did not waive its arguments regarding the dependent claims.⁵⁴ The court then turned to the two-step *Alice* test. In step one, the Federal Circuit rejected the patentee’s argument that the claims are not abstract because the parsing limitation of the claims “roots the claims in technology and transforms the data structure from source code to object code.”⁵⁵ The court found that limiting the invention to a technological environment does “not make an abstract concept any less abstract under step one.”⁵⁶ Regarding step two, the Federal Circuit found that a subset of asserted claims contain limitations directed to an arguably unconventional inventive concept.⁵⁷ Because the step two analysis involved a disputed question of fact, the district court’s summary judgment of the invalidity of these claims was improper.⁵⁸ Judge Lourie concurred, noting that “the law needs clarification by higher authority, perhaps by Congress, to work its way out of what so many in the innovation field consider are § 101 problems.”⁵⁹

In *Aatrix Software, Inc. v. Green Shades Software, Inc.*,⁶⁰ issued only a week after *Berkheimer*, the Federal Circuit held that the district court erred in finding the claims invalid under the § 101 at the Rule 12(b)(6) stage of the litigation.⁶¹ The district court granted the defendant’s

51. 881 F.3d 1360 (Fed. Cir. 2018), *petition for cert. filed*, No. 18-415 (U.S. Oct. 3, 2018).

52. *Id.* at 1369.

53. *Id.* at 1365.

54. *Id.* at 1365–66.

55. *Id.* at 1367.

56. *Id.* (quoting *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1340 (Fed. Cir. 2017)).

57. *Id.* at 1370.

58. *Id.*

59. *Berkheimer v. HP Inc.*, 890 F.3d 1369, 1374 (Fed. Cir. 2018) (per curiam) (Lourie, J., concurring), *petition for cert. filed*, No. 18-415 (U.S. Oct. 3, 2018).

60. 882 F.3d 1121 (Fed. Cir. 2018), *reh’g denied*, 890 F.3d 1354 (2015).

61. *Id.* at 1123.

Rule 12(b)(6) motion to dismiss, holding the asserted claims invalid as directed to ineligible subject matter.⁶² The Federal Circuit vacated, finding that the district court erred to the extent that it held the claims ineligible solely because it directed to an intangible embodiment.⁶³ Because the representative claim constituted a system claim, the Federal Circuit found that it fit within one of the four statutorily provided categories of patent-eligible subject matter, unlike claims to pure data and claims to transitory signals embedded with data.⁶⁴ Writing separately, Judge Reyna disagreed “with the majority’s broad statements on the role of factual evidence in a § 101 inquiry,” stating that Federal Circuit’s “precedent is clear that the § 101 inquiry is a legal question.”⁶⁵

Next, *Voter Verified, Inc. v. Election Systems & Software LLC*⁶⁶ involved issue preclusion at the Rule 12(b)(6) phase.⁶⁷ Voter Verified, previously sued Election Systems’ predecessors alleging infringement of the patent asserted in the present case.⁶⁸ The court in the prior case entered summary judgment in favor of Voter Verified, concluding that all claims except one were not invalid under § 101 because Election Systems failed to present any arguments or evidence regarding the invalidity of these claims.⁶⁹ On appeal, the Federal Circuit determined that the district court did not err in holding these claims were not proven invalid.⁷⁰ Over six years later, Voter Verified sued Election Systems in a different venue, and Election Systems filed a motion to dismiss the complaint under Rule 12(b)(6), arguing that all asserted claims were invalid under § 101.⁷¹ Voter Verified argued that issue preclusion prevents Election Systems from relitigating the § 101 issue.⁷² The district court granted the motion to dismiss and concluded that *Alice*’s two-step analysis constituted “a substantial change” in the law such that “the issue of patent validity is not precluded from further litigation.”⁷³

62. *Id.*

63. *Id.* at 1125–26, 1130.

64. *Id.* at 1125.

65. *Id.* at 1130 (Reyna, J., concurring in part and dissenting in part).

66. 887 F.3d 1376 (Fed. Cir. 2018), *cert. denied*, 2019 WL 113159 (U.S. Jan. 7, 2019).

67. *Id.* at 1379.

68. *Id.*

69. *Id.*

70. *Id.* at 1380.

71. *Id.*

72. *Id.*

73. *Id.*

The Federal Circuit first addressed the threshold issue of whether *Alice* was “a substantial change” in the law such that issue preclusion did not apply.⁷⁴ The Federal Circuit concluded that *Alice* did not alter the governing law of § 101 because the Supreme Court applied the same two-step framework it created in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*⁷⁵ in its § 101 analysis.⁷⁶ The Federal Circuit next considered the four required elements for issue preclusion under the Eleventh Circuit’s test⁷⁷ and determined that issue preclusion did not apply here because the § 101 issue was not actually litigated in the first district court action and was not necessary to the judgment in that case.⁷⁸

Applying the two-step *Alice* framework, the Federal Circuit found that the claims as a whole are drawn to the concept of voting, verifying the vote, and submitting the vote for tabulation—fundamental activities that have been performed by humans for hundreds of years, and therefore are “nothing more than abstract ideas.”⁷⁹ Because neither party disputed that the claims recited the use of a general purpose computer that carries out the abstract idea, the Federal Circuit determined that there was no inventive concept sufficient to transform the claims into patent-eligible subject matter.⁸⁰

2. Claims found eligible

*Finjan, Inc. v. Blue Coat Systems, Inc.*⁸¹ involved a software innovation—“a method of providing computer security by scanning a downloadable and attaching the results of that scan to the downloadable itself in the form of a ‘security profile.’”⁸² For software innovations, like the claims at issue in *Finjan*, the first inquiry often

74. *Id.* at 1381.

75. 566 U.S. 66 (2012).

76. *Id.* at 1382 (citing *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 217–18 (2014)).

77. The Eleventh Circuit requires a showing of all of the following four elements for issue preclusion to apply:

- (1) the issue at stake must be identical to the one involved in the prior litigation;
- (2) the issue must have been actually litigated in the prior suit;
- (3) the determination of the issue in the prior litigation must have been a critical and necessary part of the judgment in that action; and
- (4) the party against whom the earlier decision is asserted must have had a full and fair opportunity to litigate the issue in the earlier proceeding.

CSX Transp., Inc. v. Bhd. of Maint. of Way Emps., 327 F.3d 1309, 1317 (11th Cir. 2003).

78. *Voter Verified, Inc.*, 887 F.3d at 1383–84.

79. *Id.* at 1385.

80. *Id.* at 1386.

81. 879 F.3d 1299 (Fed. Cir. 2018).

82. *Id.* at 1303.

turns on whether the claims focus on “the specific asserted improvement in computer capabilities . . . or, instead, on a process that qualifies as an ‘abstract idea’ for which computers are invoked merely as a tool.”⁸³ The Federal Circuit found the claims to be directed to a non-abstract improvement in computer functionality because the claimed method “employs a new kind of file that enables a computer security system to do things it could not do before.”⁸⁴

*Core Wireless Licensing S.A.R.L. v. LG Electronics, Inc.*⁸⁵ also dealt with a software invention and involved *Alice*’s step one analysis.⁸⁶ The asserted claims were directed to an improved user interface for computing devices, particularly devices with small screens.⁸⁷ Specifically, the majority found that the invention improves efficiency by bringing together function and commonly accessed data in a summary window without requiring the user to open the application.⁸⁸ Therefore, the asserted claims were not directed to an abstract idea of an index, as argued by LG.⁸⁹

*Vanda Pharmaceuticals Inc. v. West-Ward Pharmaceuticals International Ltd.*⁹⁰ addressed the patent eligibility of method of treatment claims.⁹¹ The Federal Circuit held that the claims of the asserted patent were patent eligible.⁹² When applying *Alice* step one, the Federal Circuit rejected the West-Ward’s contention that similar claims were found to be patent ineligible in *Mayo*, and *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*⁹³ The court noted that the claims in *Mayo* were not directed to a novel method of treating a disease but instead, were targeted at a diagnostic method based on the “relationships between concentrations of certain metabolites in the blood and the likelihood that a dosage of a thiopurine drug will prove ineffective or cause harm.”⁹⁴ As such, *Mayo*’s claim as a whole was not directed to the

83. *Id.*

84. *Id.* at 1305.

85. 880 F.3d 1356 (Fed. Cir. 2018).

86. *Id.* at 1361–63.

87. *Id.* at 1362–63.

88. *Id.* at 1363.

89. *Id.* at 1362.

90. 887 F.3d 1117 (Fed. Cir. 2018), *petition for cert. filed*, No. 18-817 (U.S. Dec. 27, 2018).

91. *Id.* at 1121.

92. *Id.* at 1136.

93. *Id.* at 1134–36 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 74–75 (2012); *Ass’n for Molecular Pathology v. Myriad Genetics*, 569 U.S. 576, 580 (2013)).

94. *Id.* at 1134 (citing *Mayo*, 566 U.S. at 77).

application of a drug to a patient.⁹⁵ Here, the claims were directed to a specific method of treatment for specific patients using a specific compound at specific doses to achieve a specific outcome and therefore were different from *Mayo*.⁹⁶ Further, unlike the claims in *Mayo*, the asserted claims encompass more than the natural relationship between compounds; instead, they recite a method of treating patients based on this relationship.⁹⁷ The court found that *Myriad* did not compel a different result because “the asserted claims fall squarely within categories of claims that the [Supreme] Court stated were not implicated by its decision.”⁹⁸ Chief Judge Prost dissented and argued that the claims were directed to a law of nature, and therefore were patent ineligible.⁹⁹

3. *Claims found ineligible.*

In *SAP America, Inc. v. Investpic, LLC*,¹⁰⁰ another software invention case, the Federal Circuit affirmed the district court’s finding that the asserted claims were not patent-eligible.¹⁰¹ The asserted patent described and claimed systems and methods for performing certain statistical analyses of investment information.¹⁰² Applying the two-step *Alice* framework, the Federal Circuit found that the asserted claims were directed to abstract ideas; namely, selecting certain information, analyzing it, using mathematical techniques, and reporting or displaying the results of the analyses.¹⁰³ The fact that the information describes real investments did not change the analysis.¹⁰⁴ Regarding *Alice* step two, the Federal Circuit concluded that nothing in the claims moved them from the class of a subject matter ineligible application to an eligible application.¹⁰⁵ Although some of the claims required hardware

95. *Id.*

96. *Id.* at 1136.

97. *Id.*

98. *Id.*; see also *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 595–96 (2013) (disclaiming that the Supreme Court’s holding does not implicate method claims, applications of knowledge about genes, or the alteration of naturally occurring genetic code).

99. *Vanda Pharm. Inc.*, 887 F.3d at 1140 (Prost, C.J., dissenting).

100. 898 F.3d 1161 (Fed. Cir. 2018).

101. *Id.* at 1163.

102. *Id.* at 1163–64.

103. *Id.* at 1167.

104. *Id.* at 1168.

105. *Id.*

components, these limitations required no improved computer resources and in fact, are already available computers would suffice for the claims.¹⁰⁶

The Federal Circuit in *Interval Licensing LLC v. AOL, Inc.*,¹⁰⁷ affirmed the district court's determination that the asserted claims directed to the operation of an "attention manager" that provides information to a computer user without interfering with the user's primary activity failed to recite patent-eligible subject matter.¹⁰⁸ Applying the abstract idea step of the two-step *Alice* framework, the majority found that the recited claims were directed to an abstract idea because "they consist of generic and conventional information acquisition and organization steps that are connected to, but do not convert, the abstract idea—displaying a second set of data without interfering with a first set of data—into a particular conception of how to carry out that concept."¹⁰⁹ Turning to *Alice* step two, the majority found that nothing in the claim converted the abstract idea into an inventive concept.¹¹⁰ Judge Plager wrote separately to "concur in the carefully reasoned opinion" by the majority based on the current state of the law and to "dissent from our court's continued application of this incoherent body of doctrine."¹¹¹

The Federal Circuit affirmed the district court's grant of summary judgment that all of the asserted patent claims were ineligible under § 101 in *BSG Tech LLC v. Buyseasons, Inc.*¹¹² The asserted patents are directed to a "self-evolving generic index" for organizing information stored in a database.¹¹³ Under step one of the *Alice* framework, the Federal Circuit "agree[d] with the district court that the asserted claims are directed to the abstract idea of considering historical usage information while inputting data."¹¹⁴ The Federal Circuit rejected the patent owner's argument that the claims could not be directed to abstract ideas because their limitations were not satisfied by a generic computer.¹¹⁵ In this case, the database structure provided a generic environment in which the claimed method is performed, and thus, the recitation of a database structure slightly more detailed than a generic

106. *Id.* at 1169–70.

107. 896 F.3d 1335 (Fed. Cir. 2018).

108. *Id.* at 1338.

109. *Id.* at 1346.

110. *Id.*

111. *Id.* at 1348 (Plager, J., concurring in part and dissenting in part).

112. 899 F.3d 1281 (Fed. Cir. 2018).

113. *Id.* at 1283.

114. *Id.* at 1286.

115. *Id.* at 1286–87.

database did not save the asserted claims at step one.¹¹⁶ The Federal Circuit also found that the alleged benefits raised by the patent owner were not improvements to database functionality, but instead were benefits that flow from performing an abstract idea with a well-known database structure.¹¹⁷ Under step two of *Alice*, the Federal Circuit agreed with the district court that the asserted claims lacked an inventive concept.¹¹⁸ The court noted that “[i]f a claim’s only ‘inventive concept’ is the application of an abstract idea using conventional and well-understood techniques, the claim has not been transformed into a patent-eligible application of an abstract idea.”¹¹⁹ In this case, the Federal Circuit found that the only alleged unconventional feature was the requirement that users are guided by summary comparison usage information or relative historical usage information which is the abstract idea.¹²⁰

*In re Marco Guldenaar Holding B.V.*¹²¹ dealt with subject matter eligibility in the patent examination context.¹²² The claims at issue were directed to rules for playing a dice game and specifically, the markings (or lack thereof) on the dice.¹²³ The examiner rejected the claims as being directed to patent-ineligible subject matter under § 101 and the PTAB affirmed.¹²⁴ Under *Alice* step one, the Federal Circuit agreed with the PTAB that the claims were directed to the abstract idea of “rules for playing a dice game.”¹²⁵ The court found no error in the PTAB’s use of a more refined characterization of the claimed abstract idea as a means of acknowledging one method of organizing human activity.¹²⁶ The Federal Circuit rejected the applicant’s argument that the claimed dice have markings on one, two, or three die faces and were therefore not conventional.¹²⁷ The court found that the printed indicia on each die did not functionally relate to the substrate of the die, and therefore the markings constituted printed matter.¹²⁸ Because

116. *Id.*

117. *Id.* at 1288.

118. *Id.* at 1291.

119. *Id.* at 1290–91.

120. *Id.* at 1291.

121. 911 F.3d 1157 (Fed. Cir. 2018).

122. *Id.* at 1158–59.

123. *Id.* at 1159.

124. *Id.*

125. *Id.* at 1160–61.

126. *Id.*

127. *Id.* at 1161.

128. *Id.*

the printed matter, to which § 101 is inapplicable, constituted the only disputably unconventional aspect of the recited method of playing a dice game, the Federal Circuit held that “the rejected claims do not recite an ‘inventive concept’ sufficient to ‘transform’ the claimed subject matter into a patent-eligible application of the abstract idea.”¹²⁹ Judge Mayer wrote separately in concurrence and argued that “claims directed to dice, card, and board games can never meet the [§] 101 threshold because they endeavor to influence human behavior rather than effect technological change.”¹³⁰ Judge Mayer also disagreed with the court’s statement that patent eligibility inquiry “may contain underlying issues of fact,” and stated that “subject matter eligibility under . . . § 101 is a pure question of law, one that can, and should, be resolved at the earliest stages of litigation.”¹³¹

B. Anticipation

The Federal Circuit addressed anticipation in several contexts in 2018. In *Monsanto Technology LLC v. E.I. DuPont de Nemours & Co.*,¹³² the Federal Circuit considered inherent anticipation.¹³³ At issue in *Monsanto* was the extent to which extrinsic evidence, specifically expert declarations, may be used to support what is “necessarily present” in a prior art reference’s teaching.¹³⁴ Noting that “[i]t is well established that such reliance on extrinsic evidence is proper in an inherency analysis,”¹³⁵ the Federal Circuit concluded that the expert declarations did not expand the meaning of the prior art reference or serve as prior art; they demonstrated what is inherent in the prior art reference.¹³⁶ The Federal Circuit therefore held that substantial evidence supported the PTAB’s finding that the applied reference inherently anticipated a disputed limitation of the challenged claims.¹³⁷

129. *Id.* at 1162.

130. *Id.* at 1162 (Mayer, J., concurring).

131. *Id.*

132. 878 F.3d 1336 (Fed. Cir. 2018).

133. *Inherent Anticipation*, BLACK’S LAW DICTIONARY (10th ed. 2014) (“An invention’s lack of novelty arising from the existence of prior-art products or processes that necessarily possess the same characteristics. Inherency differs from obviousness in that a lack of novelty must be based on fact, not mere possibility or probability.”).

134. *Monsanto Tech. LLC*, 878 F.3d at 1345.

135. *Id.*

136. *Id.* at 1346.

137. *Id.* at 1347–48.

In *Core Wireless S.A.R.L. v. LG Electronics, Inc.*,¹³⁸ the jury found the asserted claims remained valid, even though the plaintiff chose not to present any affirmative evidence to rebut the defendant's prima facie case of anticipation.¹³⁹ The accused infringer, LG, argued that because the plaintiff failed to present affirmative evidence in rebuttal, it was entitled to judgment as a matter of law that the applied reference anticipated the claims.¹⁴⁰ The Federal Circuit disagreed and affirmed the denial of the defendant's motion for judgment as a matter of law, finding that the jury was entitled to evaluate the testimony of the defendant's expert and determine whether defendant clearly and convincingly established that the reference anticipated the claims.¹⁴¹ The Federal Circuit noted that "granting judgment as a matter of law for the party carrying the burden of proof is generally 'reserved for extreme cases,'" and this case did not rise to that level.¹⁴²

*Medicines Co. v. Hospira, Inc.*¹⁴³ involved application of the on-sale bar.¹⁴⁴ A patent is invalid under the on-sale bar if, before the critical date, the product is the subject of a commercial offer for sale and the invention is ready for patenting.¹⁴⁵ The asserted patents in *Medicines Co.* covered an improved process for manufacturing a drug product of bivalirudin, marketed by Medicines Co. under the brand name Angiomax.¹⁴⁶ On February 27, 2007, Medicines Co. entered into a distribution agreement stating that Medicines Co. desired "to sell the Product" to Integrated Commercialization Solutions, Inc. (ICS), and ICS "desire[d] to purchase and distribute the Product."¹⁴⁷ The agreement further forbade the Medicines Co. from selling Angiomax to any other party for the duration of the contract.¹⁴⁸ The Federal Circuit found that the terms of the distribution agreement made clear that Medicines Co. and ICS entered an agreement to sell and purchase the product, and thus constituted a commercial offer for sale for purposes of the on-sale bar.¹⁴⁹ The Federal Circuit remanded to the

138. 880 F.3d 1356 (Fed. Cir. 2018).

139. *Id.* at 1363–64.

140. *Id.*

141. *Id.* at 1364.

142. *Id.*

143. 881 F.3d 1347 (Fed. Cir. 2018).

144. *Id.* at 1352–53.

145. *Pfaff v. Wells Elecs., Inc.*, 525 U.S. 55, 67 (1998).

146. *Medicines Co.*, 881 F.3d at 1349.

147. *Id.*

148. *Id.*

149. *Id.* at 1352–53.

district court to consider whether the distribution agreement covered the patented product.¹⁵⁰

The court dealt with the impact of prior reexamination decisions in *Exmark Manufacturing Co. v. Briggs & Stratton Power Products Group, LLC*.¹⁵¹ In this case, the Federal Circuit found that the district court erred by basing its summary judgment of no invalidity solely on the fact that the asserted claim survived multiple reexaminations.¹⁵² The court held that a reexamination confirming patentability of a patent claim alone is not determinative of whether a genuine issue of fact precludes summary judgment of no invalidity.¹⁵³ The holding is supported by prior Federal Court decisions that a district court “is never bound by an examiner’s finding in an ex parte patent application proceeding.”¹⁵⁴ Instead, the deference owed to the decisions of the PTO takes the form of the presumption of validity under 35 U.S.C. § 282.¹⁵⁵ The presumption of validity can be overcome by the patent challenger who meets its burden of providing the factual elements of invalidity by clear and convincing evidence.¹⁵⁶

C. Obviousness

Most of the Federal Circuit’s decisions on obviousness do not warrant extended discussion because they dealt with case-specific disputes about underlying facts.¹⁵⁷ This section discusses a few representative cases from 2018 addressing interesting fact patterns and legal issues.

150. *Id.* at 1353–54.

151. 879 F.3d 1332 (Fed. Cir. 2018).

152. *Id.* at 1337.

153. *Id.* at 1341.

154. *Id.* (quoting *Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d 1348, 1359 (Fed. Cir. 2007)).

155. *Id.*

156. *Id.*

157. *See, e.g.*, *Hamilton Beach Brands, Inc. v. F’Real Foods, LLC*, 908 F.3d 1328, 1338 (Fed. Cir. 2018) (affirming the PTAB’s determination that petitioner did not establish a motivation to combine the prior art references); *Yeda Research & Dev. Co. v. Mylan Pharm. Inc.*, 906 F.3d 1031, 1043 (Fed. Cir. 2018) (affirming the PTAB’s obviousness finding noting that it “do[es] not read *Cyclobenzaprine* as establishing a rigid rule categorically precluding obviousness determinations without pk/pd data”); *ParkerVision, Inc. v. Qualcomm Inc.*, 903 F.3d 1354, 1361–62 (Fed. Cir. 2018) (affirming the PTAB’s finding that apparatus claims were obvious because an apparatus that is “capable of” performing certain functions may be anticipated by or obvious in view of a prior art apparatus that can likewise perform these functions); *IXI IP, LLC v. Samsung Elecs. Co.*, 903 F.3d 1257, 1265 (Fed. Cir. 2018) (finding that the PTAB’s determination that a PHOSITA reading the applied reference would understand that the cellphone is the master of the ad-hoc network and contains the

*Impax Laboratories Inc. v. Lannett Holdings Inc.*¹⁵⁸ highlights that although obviousness is ultimately a legal question, the lower court's underlying findings of fact often dictate the outcome in the appeal.¹⁵⁹ Lannett contended that the district court erred in concluding the claims at issue would not have been obvious based on an erroneous finding that the prior art taught away from nasal formulations of zolmitriptan.¹⁶⁰ Impax responded that the district court did not err because it correctly found that a skilled artisan would not have been motivated to make nasal formulations of zolmitriptan or have a reasonable expectation of success in doing so.¹⁶¹ Based on the record, the Federal Circuit held that the court clearly erred in its findings that a skilled artisan would not have been motivated to make a zolmitriptan nasal spray with a reasonable expectation of success.¹⁶² Zolmitriptan's known significant reliance on its active metabolite would have, on balance, dissuaded a person of skill in the art from making nasal formulations of zolmitriptan.¹⁶³ Noting that "this case was close," the Federal Circuit affirmed, deferring to the district court in its fact findings.¹⁶⁴

Next, *In re Brandt*¹⁶⁵ involved an appeal from the examiner's obviousness finding during examination.¹⁶⁶ The claim at issue required that the recited coverboard have a density "less than [six]

LUS is reasonable and supported by substantial evidence); *Luminara Worldwide, LLC v. Iancu*, 899 F.3d 1303, 1307 (Fed. Cir. 2018) (affirming the PTAB's finding of obviousness and rejecting argument that the PTAB changed the obviousness argument midstream); *Sirona Dental Sys. GmbH v. Institut Straumann AG*, 892 F.3d 1349, 1353–54 (Fed. Cir. 2018) (affirming obviousness judgment where substantial evidence supported the PTAB's finding that the combination discloses a limitation in the claims and that a person of ordinary skill in the art would have been motivated to combine the references); *Elbit Sys. of Am., LLC v. Thales Visionix, Inc.*, 881 F.3d 1354, 1356–59 (Fed. Cir. 2018) (affirming a non-obviousness judgment where substantial evidence supported the PTAB's finding that the prior art did not teach one element of the challenged claims); *Paice LLC v. Ford Motor Co.*, 881 F.3d 894, 901 (Fed. Cir. 2018) (affirming the Board's obviousness determination for one group of claims because "the '634 patent's own description of" the prior art reference supported the PTAB's findings, and that was an "[a]dmission . . . binding on the patentee").

158. 893 F.3d 1372 (Fed. Cir. 2018).

159. *Id.* at 1378–79.

160. *Id.* at 1378.

161. *Id.*

162. *Id.* at 1380–81.

163. *Id.*

164. *Id.* at 1382 (noting that "this case was close" because the evidence presented by both sides was equally compelling).

165. 886 F.3d 1171 (Fed. Cir. 2018).

166. *Id.* at 1173.

pounds per cubic foot.”¹⁶⁷ The examiner rejected the claim based on a reference disclosing a density between six and twenty-five pounds per cubic foot, concluding that it would have been an obvious design choice for a skilled artisan to have a coverboard with a density less than six pounds per cubic foot.¹⁶⁸ The PTAB affirmed the examiner’s rejection and determined that the claims were prima facie obvious based on the general rule that “when the difference between the claimed invention and the prior art is the range or value of a particular variable, then a prima facie rejection is properly established when the difference in the range or value is minor.”¹⁶⁹ The PTAB also found that applicant did not rebut the prima facie rejection through argument or evidence of unexpected results or teaching away nor did applicant show that the low-end range of six pounds per cubic foot had any different properties from a coverboard with a lower density of 5.99 pounds per cubic foot.¹⁷⁰

The Federal Circuit affirmed finding that the PTAB’s factual findings underlying the obviousness analysis were supported by substantial evidence.¹⁷¹ The court explained one of the procedural tools available to an examiner—the prima facie case of unpatentability.¹⁷² If the examiner establishes a prima facie case, the burden shifts to the applicant to come forward with rebuttal evidence or argument.¹⁷³ The examiner then considers the evidence as a whole before reaching a conclusion on the claims’ patentability under 35 U.S.C. § 103(a).¹⁷⁴ In this case, the court rejected the applicant’s argument that the examiner can only find a case of obviousness when there is an overlap between the claimed range and prior art range.¹⁷⁵ Here, because the claimed range and prior art range abut one another, and the applicant conceded as fact that there is no meaningful distinction between the two ranges, the Federal Circuit determined that substantial evidence supports the PTAB’s finding that the

167. *Id.* at 1173–74.

168. *Id.* at 1174.

169. *Id.* at 1175 (quoting *Titanium Metals Corp. of Am. v. Banner*, 778 F.2d 775, 783 (Fed. Cir. 1985)).

170. *Id.*

171. *Id.* at 1179.

172. *Id.* at 1175–76.

173. *Id.* at 1176.

174. *Id.*

175. *Id.*

differences in density ranges “could not be smaller.”¹⁷⁶ The Federal Circuit also rejected the applicant’s teaching away argument that was in essence an assertion that there is some criticality to having a coverboard density of greater than six pounds per cubic foot because applicant failed to introduce any supporting evidence.¹⁷⁷

In *ZUP, LLC v. Nash Manufacturing, Inc.*,¹⁷⁸ the Federal Circuit addressed the methodology for considering secondary considerations of nonobviousness.¹⁷⁹ In its appeal, the patentee, ZUP, argued that the district court improperly shifted the burden to prove non-obviousness to ZUP.¹⁸⁰ The majority “quickly dismissed” this argument and noted that Federal Circuit precedent is clear that “the burden of persuasion remains with the challenger during litigation because every issued patent is entitled to a presumption of validity.”¹⁸¹ The majority then found that even when all reasonable inferences are drawn in favor of ZUP, the “weak evidence of secondary considerations presented here simply cannot overcome the strong showing of obviousness.”¹⁸² Judge Newman dissented and argued that the majority improperly held that only three of the four *Graham v. John Deere Co.*¹⁸³ factors are considered in order to establish a prima facie case of obviousness, and the fourth *Graham* factor is applied only in rebuttal, whereby it must outweigh and rebut the first three factors.¹⁸⁴ Instead, Judge Newman argued that secondary consideration evidence must be considered together with the other evidence and not separated out and required to outweigh or rebut the other factors.¹⁸⁵

In *E.I. DuPont de Nemours & Co. v. Synvina C.V.*,¹⁸⁶ the Federal Circuit reversed the PTAB’s finding that the petitioner failed to prove that the challenged claims were obvious because the PTAB applied the wrong

176. *Id.* at 1177–78.

177. *Id.* at 1178.

178. 896 F.3d 1365 (Fed. Cir. 2018).

179. *Id.* at 1374.

180. *Id.* at 1373.

181. *Id.* (quoting *Novo Nordisk A/S v. Caraco Pharm. Labs., Ltd.*, 719 F.3d 1346, 1353 (Fed. Cir. 2013)).

182. *Id.* at 1375.

183. 383 U.S. 1, 3 (1966) (establishing the four factor test for non-obviousness as (1) ascertain the prior art; (2) differentiate the prior art and the claims; (3) ascertain the level of ordinary skill in the art; and (4) take into account any secondary considerations of non-obviousness).

184. *Zup, LLC*, 896 F.3d at 1380 (Newman, J., dissenting).

185. *Id.* at 1381.

186. 904 F.3d 996 (Fed. Cir. 2018).

legal standards for obviousness.¹⁸⁷ Specifically, the Federal Circuit found that the PTAB erred in concluding that the type of burden-shifting framework consistently applied in the Federal Circuit's overlapping range cases was implicitly foreclosed by subsequent cases not addressing this framework.¹⁸⁸ Neither *In re Magnum Oil Tools International, Ltd.*,¹⁸⁹ nor *Dynamic Drinkware, LLC v. National Graphics, Inc.*¹⁹⁰ forecloses application of this burden-shifting framework in the IPR context.¹⁹¹

For decades, the Federal Circuit and its predecessor have recognized that "where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation."¹⁹² An application of this principle is that "[a] prima facie case of obviousness typically exists when the ranges of a claimed composition overlap the ranges disclosed in the prior art."¹⁹³ Such an overlap creates a presumption of obviousness that a patentee may rebut in several ways.¹⁹⁴ That is, where there is a range disclosed in the prior art, and the claimed invention falls within that range, the burden of production falls upon the patentee to come forward with evidence of nonobviousness.¹⁹⁵ For example, a modification of a process parameter may be patentable if it "produce[s] a new and unexpected result which is different in kind and not merely in degree from the results of the prior art."¹⁹⁶ A claimed range that demonstrates such unexpected results is referred to as a "critical" range, and the patentee has the burden of proving criticality.¹⁹⁷ A patentee may rebut the presumption of obviousness by showing that the prior art taught away from the claimed range.¹⁹⁸ Additionally, a change to a parameter may be patentable if the parameter was not recognized as "result-

187. *Id.* at 999.

188. *Id.* at 1006.

189. 829 F.3d 1364, 1375 (Fed. Cir. 2016) (discussing the precedent of burden-shifting frameworks and the applicability in IPR cases).

190. 800 F.3d 1375, 1378 (Fed. Cir. 2015) (holding that the burden-shifting framework could be appropriate in the context of IPR).

191. *E.I. DuPont de Nemours & Co.*, 904 F.3d at 1002–03.

192. *Id.* at 1006 (citing *In re Geisler*, 116 F.3d 1465, 1469–70 (Fed. Cir. 1997); *In re Woodruff*, 919 F.2d 1575, 1578 (Fed. Cir. 1990); *In re Aller*, 220 F.2d 454, 456 (C.C.P.A. 1955)).

193. *E.I. DuPont de Nemours & Co.*, 904 F.3d at 1006.

194. *Id.*

195. *Id.*

196. *Id.* at 1006 (citing *Aller*, 220 F.2d at 456).

197. *Id.*

198. *Id.*

effective.”¹⁹⁹ The factfinder then assesses that evidence, along with all other evidence of record, to determine whether a patent challenger has carried its burden of persuasion to prove that the claimed range was obvious.²⁰⁰ In this case, the presumption of obviousness applied and the patentee failed to show any of the means to rebut obviousness.²⁰¹

“Incorporation by reference” is a common practice in patent drafting that incorporates the disclosure of another document into a patent by including a simple reference statement to that document. Disputes on the scope of incorporation typically arise when one party attempts to rely on the incorporated material to support an anticipation or obviousness challenge. In *Paice LLC v. Ford Motor Co.*,²⁰² the Federal Circuit addressed an interesting twist on incorporation by reference—the effect of incorporation by reference on priority date of an asserted patent. In response to a patent infringement suit, Ford filed twenty-five IPR proceedings against Paice, including those that led to the six proceedings against two patents at issue in this appeal.²⁰³ The PTAB found that a Patent Cooperation Treaty (PCT) publication, in view of a patent to Severinsky, rendered a set of challenged claims obvious.²⁰⁴ Paice argued that the PCT publication was not prior art because both challenged patents claimed priority to a patent application which predated the PCT publication and incorporated the Severinsky patent by reference, providing written description support for the claims.²⁰⁵ The PTAB rejected these arguments and determined that the application did not incorporate Severinsky, and the claims therefore lacked written description support.²⁰⁶ The Federal Circuit disagreed and found that the language “is incorporated herein by this reference” sufficiently incorporated the entire Severinsky patent despite other language stating that only portions of Severinsky would be applicable to the application’s purportedly new and improved hybrid vehicle.²⁰⁷ The court noted that “[t]he applicability of a document’s

199. *Id.* (citing *In re Applied Materials, Inc.*, 692 F.3d 1289, 1295 (Fed. Cir. 2012)).

200. *Id.* at 1007.

201. *Id.* at 1007–08.

202. 881 F.3d 894 (Fed. Cir. 2018).

203. *Id.* at 899–900.

204. *Id.* at 906. The “Severinsky” patent is named after Alexei “Alex” Severinsky, a Russian inventor who invented and patented the Hyperdrive power-amplified internal combustion engine power train. See *About Paice*, PAICE, <http://www.paicehybrid.com/about> (last visited May 20, 2019).

205. *Paice LLC*, 881 F.3d at 906.

206. *Id.*

207. *Id.* at 907.

disclosed features and the incorporation of the document itself are distinct concepts.”²⁰⁸ The court remanded for a determination of whether the priority patent application, with the Severinsky patent incorporated, provided adequate written description support for the claims.²⁰⁹

D. Indefiniteness

One case in 2018 dealt with the issue of indefiniteness. In *Berkheimer v. HP Inc.*,²¹⁰ the Federal Circuit affirmed the district court’s determination that the asserted claims were indefinite.²¹¹ The claims at issue each recited the term “minimal redundancy.”²¹² Because the specification uses inconsistent terminology to describe the level of redundancy that the system achieves and neither the claims nor the prosecution history add clarity, the Federal Circuit found that it was not clear error for the district court to find that a skilled artisan would not have known the meaning of “minimal redundancy” with reasonable certainty.²¹³ The court stressed that it was not holding that “all terms of degree are indefinite,” only that the term “minimal redundancy” is indefinite in light of the evidence.²¹⁴

E. Written Description and Enablement

In 2018, the Federal Circuit addressed a relatively high number of cases involving written description and enablement. One common fact pattern in these 2018 cases used written description to attack priority benefit claims. For example, in *D Three Enterprises, LLC v. SunModo Corp.*,²¹⁵ the Federal Circuit affirmed the district court’s finding that an asserted patent was not entitled to claim priority benefit to its provisional because the provisional lacked adequate written description support for the claimed subject matter. In the district court litigation, because the accused product was available to the public after the filing of the provisional application but before the filing of the asserted patents,²¹⁶ the patentee had to establish priority benefit to the provisional application to assert the patents against the

208. *Id.* at 908.

209. *Id.* at 910–11.

210. 881 F.3d 1360 (Fed. Cir. 2018).

211. *Id.* at 1364.

212. *Id.* at 1363.

213. *Id.*

214. *Id.* at 1364.

215. 890 F.3d 1042 (Fed. Cir. 2018).

216. *Id.* at 1045.

accused product.²¹⁷ To claim priority benefit, a patent application must disclose the claimed subject matter “in the manner provided by § 112(a)” which states that “[t]he specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable [a PHOSITA] to which it pertains . . . to make and use the same.”²¹⁸ On summary judgment, the district court determined that the asserted claims were not entitled to priority benefit of the provisional application because they were broader than the invention disclosed in the provisional such that they did not meet the written description requirement.²¹⁹ The Federal Circuit affirmed and noted that “[i]t is not sufficient for purposes of the written description requirement of § 112 that the disclosure, when combined with the knowledge in the art, would lead one to speculate as to the modifications that the inventor might have envisioned, but failed to disclose.”²²⁰ The court also found that the statement in the patent that said “[i]t is therefore intended that the following appended claims hereinafter introduced are interpreted to include all such modifications, permutations, additions and subcombinations are within their true spirit [sic] and scope” was merely boilerplate language, insufficient to show adequate disclosure of the claims.²²¹

Written description disputes also arise in cases involving genus-species claims. *Knowles Electronics LLC v. Cirrus Logic, Inc.*²²² addressed the PTAB’s determination that although the specification disclosed a genus, solder pads that are capable of being connected to a board, it failed to provide adequate written description support for the claimed species, pads that are connectable to a board specifically by using a reflow process.²²³ The Federal Circuit affirmed and found substantial evidence supported the PTAB’s determination that the specification does not provide adequate written description to allow a person having of ordinary skill in the art (PHOSITA) to recognize the inventor invented what is claimed.²²⁴ The court also rejected Knowles’s contention that PTAB disregarded “the state of the art at the time of

217. *Id.*

218. *Id.* at 1047 (citing 35 U.S.C. §§ 112(a), 120 (2012)).

219. *Id.*

220. *Id.* at 1050.

221. *Id.* at 1050–51.

222. 883 F.3d 1358 (Fed. Cir. 2018).

223. *Id.* at 1365.

224. *Id.* at 1366.

filing” and the “prior art knowledge” that would have demonstrated that a PHOSITA knew solder pads were intended to be capable of reflow attachment to a user’s board.²²⁵ Because of the conflicting views presented on the knowledge of a PHOSITA, the Federal Circuit determined that the PTAB reasonably found that a PHOSITA would not have recognized that the inventor possessed solder pads “configured to” connect to a printed circuit board through a reflow process.²²⁶

In addition to interesting legal issues when assessing obviousness, claimed ranges are also often subjects of written description disputes. In 2018, the Federal Circuit addressed written description support for a claimed range *General Hospital Corp. v. Sienna Biopharmaceuticals, Inc.*²²⁷ In an interference, the PTAB determined that the application lacked written description support and dismissed the interference proceeding.²²⁸ After construing the term about in the representative claim to mean “within 10%,” the PTAB found that none of the disclosed values in the application fall within the claimed 10% value.²²⁹ The specification also broadly stated that in an embodiment the particles have an optical density of at least “about 1 O.D” but does not expressly identify a maximum concentration.²³⁰ Where a specification discloses a broad range of values and a value within that range is claimed, the disclosure must allow one skilled in the art to “immediately discern the limitation at issue in the claims.”²³¹ The Federal Circuit determined that substantial evidence supported the PTAB’s determination that the examples provided in the specification, including disclosure of a range that only minimally overlapped with the claimed range, do not provide written description support for the claim term, noting “one cannot disclose a forest in the original application, and then pick a tree out of the forest and say here is my invention.”²³²

The Federal Circuit addressed enablement in one case in 2018—*In Trustees of Boston University v. Everlight Electronics Co.*²³³ In this case, the Federal Circuit reversed the denial of the defendant’s motion for judgment as a matter of law that the asserted patent was not enabled

225. *Id.*

226. *Id.*

227. 888 F.3d 1368 (Fed. Cir. 2018).

228. *Id.* at 1370.

229. *Id.* at 1370–72.

230. *Id.*

231. *Id.* (citing *Purdue Pharma L.P. v. Faulding Inc.*, 230 F.3d 1320, 1323 (Fed. Cir. 2000)).

232. *Id.* at 1372–73.

233. 896 F.3d 1357 (Fed. Cir. 2018).

as a matter of law.²³⁴ “[T]o be enabling, the specification of a patent must teach those skilled in the art how to make and use the full scope of the claimed invention without ‘undue experimentation.’”²³⁵ The claim at issue in this case recited “a non-single crystalline buffer layer” and “a growth layer grown on the buffer layer.”²³⁶ The court construed “non-single crystalline buffer layer” to encompass polycrystalline, amorphous, or a mixture of polycrystalline and amorphous.²³⁷ The constructions resulted in six permutations for the relationship between the growth layer and the buffer layer.²³⁸ The enablement issue concerned only one of the six permutations—a monocrystalline growth layer formed directly on an amorphous buffer layer.²³⁹ Because experts for both parties agreed that it is “impossible to epitaxially grow a monocrystalline film directly on an amorphous structure,” the Federal Circuit noted that it could “safely conclude that the specification does not enable what the experts agree is physically impossible.”²⁴⁰ Because “the specification must enable the full scope of the claimed invention,” the Federal Circuit rejected the patentee’s argument that the enabling disclosure of five out of six permutations was sufficient.²⁴¹ The Federal Circuit also rejected the patentee’s evidence that others have successfully grown a monocrystalline layer directly on an amorphous layer because patentee’s evidence did not suggest that these results were accomplished by following the specification’s teachings or that achieving these results was within an ordinary artisan’s skill as of the patent’s effective filing date.²⁴² Because “[t]he inquiry is whether the patent’s specification taught one of skill in the art how to make such a device without undue experimentation as of the patent’s effective filing date,” the Federal Circuit found that the patentee’s evidence was not probative of enablement.²⁴³

234. *Id.* at 1358.

235. *Genentech, Inc. v. Novo Nordisk, A/S*, 108 F.3d 1361, 1365 (Fed. Cir. 1997) (alteration in original) (quoting *In re Wright*, 999 F.2d 1557, 1561 (Fed. Cir. 1993)).

236. *Trs. of Bos. Univ.*, 896 F.3d at 1360 (emphasis omitted).

237. *Id.*

238. *Id.*

239. *Id.*

240. *Id.* at 1362.

241. *Id.* at 1364.

242. *Id.* at 1363–64.

243. *Id.* at 1363.

F. Obviousness-Type Double Patenting

Obviousness-type double patenting is an equitable doctrine with a goal of avoiding an unfair extension of patent term to a patentee. Invalidity attacks based on obviousness-type double patenting are rare and often involve a detailed analysis of the prosecution history to determine whether the one-way or two-way test applies and whether the patentee is entitled to benefit of the statutory safe harbor. For example, in *In re Janssen Biotech, Inc.*,²⁴⁴ the Federal Circuit addressed the application of the safe harbor provision, 35 U.S.C. § 121,²⁴⁵ in an obviousness-type double patenting case.²⁴⁶ The applicant filed the patent at issue as a continuation-in-part (CIP) including subject matter from its parent application and additional matter from another previously filed application.²⁴⁷ However, the patent issued with claims directed to subject matter in only the parent application and not to the added subject matter.²⁴⁸ The PTO subsequently granted an ex parte reexamination finding the claims unpatentable based on obviousness-type double patenting over three patents.²⁴⁹

During the reexamination proceeding, Janssen requested that the patent specification be amended to delete portions that were not present in the parent application so that the patent can be designated a divisional of the parent application, rather than a CIP.²⁵⁰ The PTO entered the amendments but did not confirm the status of the patent as a divisional.²⁵¹ After determining that the safe harbor provision of § 121 did not apply,²⁵² the examiner determined that the claims were unpatentable under the one-way test for double patenting.²⁵³ The PTAB affirmed the double patenting rejections on appeal.²⁵⁴ The threshold issue in the appeal was whether the § 121 safe harbor

244. 880 F.3d 1315 (Fed. Cir. 2018).

245. 35 U.S.C. § 121 (2012); *Janssen*, 880 F.3d at 1321 (citing *Pfizer, Inc. v. Teva Pharm. USA, Inc.* 518 F.3d 1353, 1360–62 (Fed. Cir. 2008)) (explaining that the safe harbor provision only applies to the original application and the original patent, or the divisional applications and patents issued on divisional applications; patents issued on continuation-in-part applications are not entitled to protection under the statute).

246. *Janssen*, 880 F.3d at 1317–18.

247. *Id.* at 1318–19.

248. *Id.*

249. *Id.* at 1317–18.

250. *Id.* at 1320.

251. *Id.*

252. *Id.*

253. *Id.*

254. *Id.*

provision applied and protected the patent from invalidation based on the reference patents.²⁵⁵ The Federal Circuit stressed that “aside from the original application and the original patent, the protection afforded by § 121 is limited to divisional applications and patents issued on divisional applications.”²⁵⁶ Here, the applicant voluntarily and deliberately filed an application properly designated as a CIP and the challenged patent issued from that CIP application, not a divisional application as required by the § 121 safe harbor provision. The Federal Circuit held that the patent owner cannot retroactively bring the challenged patent within the scope of the § 121 safe harbor provision by amending the CIP application during a reexamination to re-designate it as a divisional application.²⁵⁷

The Federal Circuit next turned to the issue of whether the PTAB’s application of the one-way test for obviousness double patenting was proper. The one-way test asks whether the “application claims are obvious over the patent claims,” whereas the two-way test additionally asks “whether the patent claims are obvious over the application claims.”²⁵⁸ The Federal Circuit affirmed the PTAB’s rejection under the doctrine of obviousness-type double patenting, finding that patent owner was not entitled to the two-way test for obviousness double patenting.²⁵⁹

In *UCB, Inc. v. Accord Healthcare, Inc.*,²⁶⁰ a Hatch-Waxman²⁶¹ case, the Federal Circuit affirmed the district court’s finding that the challenged claims were not invalid for obviousness-type double patenting.²⁶² As part of the double patenting inquiry, the court construes the claims in the earlier and later patents and determines the differences.²⁶³ The court then determines whether those differences render the claims patentably distinct.²⁶⁴ The dispute in *UCB* centered on how the two-step analysis should be applied. However, the majority found that the asserted claims were not invalid under either of the competing approaches

255. *Id.* at 1321.

256. *Id.* (citing *Pfizer, Inc. v. Teva Pharm. USA, Inc.*, 518 F.3d 1353, 1362 (Fed. Cir. 2008)).

257. *Id.* at 1322.

258. *Id.* at 1325.

259. *Id.* at 1325–26.

260. 890 F.3d 1313 (Fed. Cir. 2018).

261. *Id.* at 1317. The Drug Price Competition and Patent Term Restoration Act, otherwise known as the Hatch-Waxman Act, is a 1984 federal law that amends the Food, Drug and Cosmetic Act to authorize abbreviated applications for the approval of generic drugs. 21 U.S.C. § 355 (2012).

262. *UCB, Inc.*, 890 F.3d at 1317.

263. *Id.* at 1323.

264. *Id.*

because a PHOSITA would not have had reason to modify the earlier compound to arrive at lacosamide and would not have had a reasonable expectation of success.²⁶⁵ Chief Judge Prost dissented and argued that the prior art supported a reasonable expectation of success.²⁶⁶

III. INFRINGEMENT

Many of the Federal Circuit's infringement cases were routine and upheld lower courts factual findings.²⁶⁷ However, several cases addressed interesting fact patterns and uncommon points of law. One case, *Texas Advanced Optoelectronic Solutions, Inc. v. Renesas Electronics America, Inc.*,²⁶⁸ addressed the impact on infringement for a product that includes an infringing feature that is incapable of being used.²⁶⁹ At trial, the jury found infringement of both method and system claims based on the inclusion of a specific mode in the products, referred to as "Mode 3."²⁷⁰ Because there was no evidence that the accused products actually used Mode 3, the Federal Circuit reversed the verdict of infringement of the method claims.²⁷¹ However, the court affirmed the judgment of infringement of the apparatus claims because infringement of apparatus claims requires that the accused products have the ability to perform in Mode 3; it does not require actual use of the accused products in Mode 3.²⁷²

*Polara Engineering Inc. v. Campbell Co.*²⁷³ involved the issue of public and experiment use of a claimed invention. In the district court proceeding, the jury found that the asserted claims directed to a control system for crosswalk stations were not proven to be invalid.²⁷⁴ However, prior to the priority date of the patent, the patentee tested

265. *Id.* at 1327–29.

266. *Id.* at 1330–31 (Prost, C.J., dissenting).

267. *See* *Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc.*, 894 F.3d 1258, 1262 (Fed. Cir. 2018) (determining substantial evidence supported the jury's conclusion and affirming the verdict of infringement); *FastShip, LLC v. United States*, 892 F.3d 1298, 1300–01 (Fed. Cir. 2018); *Ottah v. Fiat Chrysler*, 884 F.3d 1135, 1140 (Fed. Cir. 2018) (affirming the district court's grant of summary judgment of non-infringement because no reasonable fact finder could find that the accused cameras which require tools to remove them met the "removably attached" limitation of the claim).

268. 895 F.3d 1304 (Fed. Cir. 2018).

269. *Id.* at 1327.

270. *Id.*

271. *Id.*

272. *Id.*

273. 894 F.3d 1339 (Fed. Cir. 2018).

274. *Id.* at 1347.

prototypes satisfying the limitations of the asserted claims.²⁷⁵ Following post-trial motions, the district court upheld the jury's verdict that the invention was not invalid based on this public use because substantial evidence supported the jury's finding that the installation of prototypes was experimental use necessary to ensure that the invention would work for its intended purpose.²⁷⁶ Under pre-AIA 35 U.S.C. § 102(b), "[a] person shall be entitled a patent unless . . . the invention was . . . in public use . . . in this country, more than one year prior to the date of the application for patent in the United States."²⁷⁷ However, "an inventor who seeks to perfect his discovery may conduct extensive testing without losing his right to obtain a patent for his invention—even if such testing occurs in the public eye."²⁷⁸ The Federal Circuit affirmed the jury's verdict and found that "substantial evidence supports the jury's finding of experimental use that negates the application of the public use bar."²⁷⁹ After articulating the factors that may be relevant to determining whether a use is experimental,²⁸⁰ the court noted that because invention relates to public safety, "the inventors could reasonably believe that they needed to ensure the invention's durability and safety before being certain that it would work for its intended purpose."²⁸¹

In another Hatch-Waman case, *Merck Sharp & Dohme Corp. v. Amneal Pharmaceuticals LLC*,²⁸² the Federal Circuit affirmed the district court's finding of non-infringement and held that the district court did not abuse its discretion in denying plaintiff's request for additional

275. *Id.* at 1345.

276. *Id.* at 1344.

277. *Id.* at 1348.

278. *Id.* (quoting *Pfaff v. Wells Elecs., Inc.*, 525 U.S. 55, 64 (1998)).

279. *Id.* at 1349.

280. The factors that may be relevant to determining whether a use is experimental include:

- (1) the necessity for public testing, (2) the amount of control over the experiment retained by the inventor, (3) the nature of the invention, (4) the length of the test period, (5) whether payment was made, (6) whether there was a secrecy obligation, (7) whether records of the experiment were kept, (8) who conducted the experiment, (9) the degree of commercial exploitation during testing, (10) whether the invention reasonably requires evaluation under actual conditions of use, (11) whether testing was systematically performed, (12) whether the inventor continually monitored the invention during testing, and (13) the nature of contacts made with potential customers.

Clock Spring, L.P. v. Wrapmaster, Inc., 560 F.3d 1317, 1327 (Fed. Cir. 2009).

281. *Polara*, 894 F.3d at 1350.

282. 881 F.3d 1376 (Fed. Cir. 2018).

samples of the accused product.²⁸³ The asserted patent claims involved mometasone furoate monohydrate (MFM), which is an ingredient in Merck's Nasonex nasal product.²⁸⁴ In 2014, Amneal filed an Abbreviated New Drug Application (ANDA) seeking approval to market a generic nasal spray containing corticosteroid anhydrous mometasone furoate,²⁸⁵ and sent Merck a notice letter certifying that its proposed product would not infringe the asserted patent claims and that the asserted patent was invalid.²⁸⁶ Merck subsequently filed an infringement suit against Amneal.²⁸⁷ The Food and Drug Administration (FDA) required Amneal to complete a bulk-hold study in which Amneal's commercial batch would be held for a four-day period before being packaged into nasal spray bottles.²⁸⁸ Amneal drew samples from the batch on the first day ("Day 1 Batch") and on the fourth day ("Day 4 Batch").²⁸⁹ After the bulk-hold study was completed, it mixed a 100 kg commercial batch and bottled it for storage ("A Batch").²⁹⁰ Amneal produced samples from the Day 1 Batch to Merck but did not provide samples of either the Day 4 Batch or the A Batch.²⁹¹ The district court did not compel Amneal to produce these samples but instead gave Merck the opportunity to prove at trial that the Day 4 and A Batch samples were substantively different than the Day 1 Batch samples.²⁹² The district court then found that Merck failed to carry its burden of proving infringement.²⁹³

The Federal Circuit affirmed. After noting the question was a close one, the Federal Circuit found that the district court did not abuse its discretion when it decided to proceed to trial as opposed to ordering additional discovery and delaying trial.²⁹⁴ The court determined that the district court took adequate steps to ensure that proceeding to trial would not prejudice Merck, including giving Merck the opportunity to prove at trial that the Day 4 and A Batch samples were different than the Day 1 Batch samples for purposes of infringement.²⁹⁵ Regarding

283. *Id.* at 1378.

284. *Id.* at 1379.

285. *Id.*

286. *Id.*

287. *Id.*

288. *Id.* at 1380.

289. *Id.*

290. *Id.*

291. *Id.*

292. *Id.* at 1381.

293. *Id.* at 1382.

294. *Id.*

295. *Id.*

infringement, the Federal Circuit found no clear error in the district court's fact finding that three Raman peaks were required and that Amneal's ANDA product will not infringe.²⁹⁶

Because design patents are not usually asserted in patent infringement cases, the Federal Circuit does not often issue opinions associated with design patents. However, in 2018, the Federal Circuit considered the application of prosecution history estoppel in a design patent infringement context in *Advantech Marketing, Inc. v. Shanghai Walk-Long Tools, Co.*²⁹⁷ Advantek sued its former manufacturer, Shanghai Walk-Long Tools ("Walk-Long"), for infringement of its design patent for a portable animal cage.²⁹⁸ The district court granted judgment on the pleadings under Federal Rule of Civil Procedure 12(c), holding that prosecution history estoppel barred Advantek from enforcing its design patent against the accused product.²⁹⁹ The Federal Circuit reversed.

Prosecution history estoppel in a design patent case depends on: "(1) whether there was a surrender; (2) whether it was for reasons of patentability; and (3) whether the accused design is within the scope of the surrender."³⁰⁰ During prosecution of the patent at issue, the examiner required the patentee to elect to prosecute claims to either a kennel without a cover or a kennel with a cover.³⁰¹ Advantek elected to prosecute the embodiment of a kennel without a cover.³⁰² Based on this prosecution history, the Federal Circuit found that Advantek elected to patent the ornamental design for a kennel with a particular skeletal structure.³⁰³ A competitor selling a kennel embodying the patented structure infringes Advantek's patent, regardless of any extra features that the competitor might add to the kennel.³⁰⁴ The Federal Circuit concluded that Advantek was not estopped by the prosecution history from asserting its design patent against Walk-Long.³⁰⁵

296. *Id.* at 1385–86. Raman spectroscopy is a vibrational spectroscopy technique, used to observe how a molecule vibrates in a crystal for the purpose of differentiating between crystalline forms. *See Merck Sharp & Dohme Corp. v. Amneal Pharm. LLC*, 235 F. Supp. 3d 625, 632 (D. Del. 2017) (discussing the procedure and the development of maps for analytical purposes).

297. 898 F.3d 1210 (Fed. Cir. 2018).

298. *Id.* at 1211–12.

299. *Id.* at 1212.

300. *Id.* at 1215.

301. *Id.* at 1214.

302. *Id.*

303. *Id.* at 1216–17.

304. *Id.*

305. *Id.*

IV. EQUITABLE DEFENSES

In addition to defenses based on on-infringement and invalidity, a party accused of infringement can assert a set of equitable defenses based on the conduct of the patentee. These defenses are non-statutory and are highly fact dependent. In 2018, the Federal Circuit addressed a wide variety of cases involving equitable defenses ranging from instances of litigation misconduct to improper conduct during prosecution of the asserted patents.

A. *Unclean Hands*

In *Gilead Sciences, Inc. v. Merck & Co.*,³⁰⁶ the Federal Circuit affirmed the district court's holding that Merck could not enforce the two asserted patents because its conduct gave it unclean hands.³⁰⁷

[D]etermination of unclean hands may be reached when "misconduct" of a party seeking relief "has immediate and necessary relation to the equity that he seeks in respect of the matter in litigation," i.e., "for such violations of conscience as in some measure affect the equitable relations between the parties in respect of something brought before the court."³⁰⁸

The doctrine "necessarily gives wide range to the equity court's use of discretion in refusing to aid the unclean litigant."³⁰⁹

Here, the Federal Circuit determined, based on the totality of the evidence-supported misconduct, the district court properly found that the patentee engaged in pre-litigation business misconduct.³¹⁰ First, Merck violated an agreed upon "firewall" by permitting an employee involved in related patent prosecution to participate in a conference call with Pharmasset³¹¹ representatives discussing the structure of its compound for treating Hepatitis C.³¹² Merck compounded this violation by continuing to use this employee in related patent prosecutions after the call.³¹³ The evidence supported the district court's finding that the employee's improperly acquired knowledge of

306. 888 F.3d 1231 (Fed. Cir. 2018).

307. *Id.* at 1239.

308. *Id.* (quoting *Keystone Driller Co. v. Gen. Excavator Co.*, 290 U.S. 240, 245 (1933)).

309. *Id.* (quoting *Precision Instrument Mfg. Co. v. Auto. Maint. Mach. Co.*, 324 U.S. 806, 815 (1945)).

310. *Id.* at 1240–41.

311. Pharmasset was later acquired by Gilead.

312. *Id.*

313. *Id.* at 1241.

Pharmasset's compound influenced Merck's prosecution strategy and was directly connected to the present patent litigation.³¹⁴

The Federal Circuit also determined that misconduct continued into the litigation.³¹⁵ First, the court found that the employee gave intentionally false testimony that he did not participate in the conference call.³¹⁶ Second, the court found that the employee's testimony about the role of the Pharmasset's compound in its prosecution of amended claims was "so incredible as to be intentionally false."³¹⁷ The Federal Circuit also found no abuse in discretion in the district court's conclusion that the unclean hands defense extended to both asserted patents.³¹⁸ In addition to finding that the employee played a key role in the prosecution of both patents, the district court concluded that "Merck's litigation misconduct infects the entire lawsuit, including the enforceability of the '712 Patent."³¹⁹

B. *Inequitable Conduct*

Inequitable conduct is an equitable issue committed to the discretion of the trial court and is, therefore, reviewed by the Federal Circuit under an abuse of discretion standard.³²⁰ In *Energy Heating, LLC v. Heat On-the-Fly, LLC*,³²¹ the Federal Circuit affirmed the district court's conclusion that the asserted patent was unenforceable for inequitable conduct.³²² The patent-at-issue involved a method and apparatus "for the continuous preparation of heated water flow for use in hydraulic fracturing" (also known as "fracing").³²³ The sole inventor knew that the patent process required that he file his application within one year of the first offer for sale or public use; yet, he did not disclose any of his companies sixty-one frac jobs that used the system to the PTO during prosecution as potential on-sale or public uses.³²⁴ The Federal Circuit found that the district court did not err in finding

314. *Id.*

315. *Id.* at 1244.

316. *Id.*

317. *Id.*

318. *Id.* at 1247.

319. *Id.* at 1233, 1247 ('712 Patent is short for U.S. Patent No. 8,481,712, one of the two patents relating to treatments of Hepatitis C involved in the case).

320. *Regeneron Pharm., Inc. v. Merus N.V.*, 864 F.3d 1343, 1351 (Fed. Cir. 2017).

321. 889 F.3d 1291 (Fed. Cir. 2018).

322. *Id.* at 1299.

323. *Id.* at 1296–97.

324. *Id.* at 1297–98.

the prior frac jobs were not experimental. Because the continuation patent was issued after the district court's judgment and had claims that were materially different, the district court did not abuse its discretion by not considering the PTO's issuance of a continuation patent in which the frac jobs were disclosed.³²⁵ Finally, the Federal Circuit found that the district court did not abuse its discretion in finding there was clear and convincing evidence "the inventor knew that the prior frac jobs were material and specifically intended to deceive the PTO by not disclosing these jobs."³²⁶

C. *Laches*

The equitable defenses of laches and equitable estoppel can arise when a patent holder delays action against an alleged infringer. In *John Bean Technologies Corp. v. Morris & Associates, Inc.*,³²⁷ the Federal Circuit was confronted with intersection of laches and ex parte reexamination. In June 2002, U.S. Patent No. 6,397,622 ("the '622 patent") issued two claims.³²⁸ Shortly after issuance, the defendant sent the patent owner a demand letter notifying the patent owner that the defendant believed the patent to be invalid and stating that any statements that assert infringement made from this point were likely to be met with a suit for unfair competition.³²⁹ The patent owner did not respond to the demand letter.³³⁰ In December 2013, eleven years after the '622 patent was issued, the patent owner filed an ex parte reexamination.³³¹ During that proceeding, the patent owner amended both of the original claims and added six additional claims.³³² After the PTO issued a reexamination certificate in 2013, the patent owner sued the defendant for infringement from the date the reexamination certificate issued.³³³ The district court granted summary judgment to the defendant holding that the infringement action was barred by both laches and equitable estoppel because the patent owner's decade-long silence was misleading conduct on which the defendant relied, and the defendant

325. *Id.* at 1301–02.

326. *Id.* at 1302.

327. 887 F.3d 1322 (Fed. Cir. 2018).

328. *Id.* at 1324.

329. *Id.* at 1324–25.

330. *Id.* at 1325.

331. *Id.*

332. *Id.*

333. *Id.* at 1326.

would be materially prejudiced if the patent owner was permitted to pursue its infringement case.³³⁴ The Federal Circuit disagreed and reversed.

The parties agreed that the Supreme Court's intervening decision in *SCA Hygiene Products Aktiebolag v. First Quality Baby Products, LLC*,³³⁵ which held "that laches cannot be asserted as a defense to infringement occurring within the six-year period prior to the filing of a complaint for infringement," barred Morris & Associates' laches defense,³³⁶ leaving only the defense of equitable estoppel. Because amended and issued reexamination claims cannot be broader than the original claims, the validity analysis for reexamination claims necessarily differs and what constitutes an infringing product can change."³³⁷ Because the asserted claims did not exist at, or were substantively altered since the time defendant sent patent owner the demand letter, the Federal Circuit determined that the patent owner "could not have engaged in misleading conduct or silence with respect to those claims."³³⁸ The district court's application of equitable estoppel was therefore an abuse of discretion.³³⁹

D. Implied Waiver

The conduct of a patentee during interaction with standards setting organization can also be the basis of an equitable defense called implied waiver. The Federal Circuit considered the scope of implied waiver in *Core Wireless Licensing S.A.R.L. v. Apple Inc.*³⁴⁰ The asserted patent in this case specifically refers to a version of the General Packet Radio Service (GPRS) standard that was being considered by the European Telecommunications Standards Institute (ETSI) at the time of the patent application.³⁴¹ When ETSI was developing proposals to address the problem of propagation delay in GPRS networks, Nokia submitted a proposal by the inventor of the asserted patent to ETSI, and ETSI initially recommended implementing the proposal in the standard.³⁴² Contemporaneously, Nokia filed a Finnish patent application based on the invention, to which the asserted patent

334. *Id.* at 1326–27.

335. 137 S. Ct. 954 (2017).

336. *John Bean Techs. Corp.*, 887 F.3d at 1324 n.1 (citing *SCA Hygiene Prods.*, 137 S. Ct. at 954).

337. *Id.*

338. *Id.* at 1328.

339. *Id.*

340. 899 F.3d 1356 (Fed. Cir. 2018).

341. *Id.* at 1359.

342. *Id.* at 1365.

claimed priority.³⁴³ ETSI however subsequently rejected Nokia's proposal.³⁴⁴ Four years later, Nokia disclosed the Finnish patent application and the U.S. patent application to ETSI.³⁴⁵

The court explained that "a participant in a standards-setting organization may waive its right to assert infringement claims against products that practice the standard."³⁴⁶ Such a waiver is implied when the patentee's "conduct was so inconsistent with an intent to enforce its rights as to induce a reasonable belief that such right has been relinquished."³⁴⁷ Conduct supporting implied waiver exists when "(1) the patentee had a duty of disclosure to the standard setting organization, and (2) the patentee breached that duty."³⁴⁸ The district court determined that Nokia did not have a duty to disclose the Finnish application because ETSI rejected Nokia's proposal.³⁴⁹ The district court also stated that "Apple presented no evidence that any ETSI member or other entity interpreted Nokia's failure to disclose the patent . . . as evidence that Nokia relinquished its patent rights."³⁵⁰ The Federal Circuit found that none of these reasons supported the district court's conclusion.³⁵¹ Rather than reversing, the Federal Circuit remanded for additional proceedings because it was "possible to interpret the district court's ruling as being based on the conclusion that, because Nokia's proposal was not adopted, no inequitable consequence flowed from Nokia's failure to disclose its patent application."³⁵²

V. PATENT OFFICE APPEALS

Appeals from the PTAB continued to dominate the Federal Circuit's case load in 2018. The Federal Circuit decided 226 PTAB appeals last year with most of these cases being appeals from AIA post-grant proceedings. Supreme Court decisions issued in early 2018 had the potential to dramatically change the practice of invalidation proceedings in the United States. In April, the Supreme Court issued

343. *Id.*

344. *Id.*

345. *Id.*

346. *Id.* (citing *Hynix Semiconductor Inc. v. Rambus Inc.*, 645 F.3d 1336, 1347–48 (Fed. Cir. 2011)).

347. *Id.*

348. *Id.*

349. *Id.* at 1366.

350. *Id.*

351. *Id.* at 1367.

352. *Id.* at 1368.

its much-anticipated decision on the constitutionality of AIA post-grant challenges in *Oil States Energy Services LLC v. Greene's Energy Group, LLC*.³⁵³ In a 7–2 decision, the Supreme Court upheld the constitutionality of inter partes review proceedings. The Supreme Court's decision in *SAS Institute Inc. v. Iancu*³⁵⁴ issued on the same day had a dramatic impact on post-grant practice. In *SAS*, the Supreme Court overruled the PTAB's practice of partial institution and created a ripple effect at the Federal Circuit in cases on appeal having a partial institution on either claims or grounds.³⁵⁵ Many of the Federal Circuit's decisions in the second quarter of 2018 addressed procedural issues created by the *SAS* decision. While the Federal Circuit continued to affirm about half of all PTAB appeals in summary affirmances, referred to as Rule 36 affirmances, many of the Federal Circuit's decisions addressed unsettled issues of statutory interpretation.

A. AIA Post-Grant Proceedings

1. Jurisdiction and standing

In § 314(d), Congress explicitly limited the court's jurisdiction over appeals from PTAB institutional decisions.³⁵⁶ That provision states that “[t]he determination by the Director whether to institute an [IPR] under this section shall be final and non-appealable.”³⁵⁷ Since 2015, the Federal Circuit broadly applied § 314(d) to deny itself jurisdiction over appeals seeking review of the PTAB's decisions of whether a petitioner was statutorily barred under § 315(b).³⁵⁸

However, in *Wi-Fi One, LLC v. Broadcom Corp.*,³⁵⁹ the court reversed course. The en banc court reconsidered whether § 314(d) prohibits review of questions relating to the time bar in view of the Supreme Court's analysis of § 314(d) in *Cuozzo Speed Technologies v. Lee*.³⁶⁰ In a 9–4 decision, the Federal Circuit overruled *Achates Reference Publishing, Inc. v. Apple Inc.*³⁶¹ and expanded its jurisdiction over PTAB appeals relating to the statutory bar of § 315(b).³⁶² The Federal Circuit noted

353. 138 S. Ct. 1365 (2018).

354. 138 S. Ct. 1348 (2018).

355. *Id.* at 1358.

356. 35 U.S.C. § 314(d) (2012).

357. *Id.*

358. *See* *Achates Reference Publ'g, Inc. v. Apple Inc.*, 803 F.3d 652, 658 (Fed. Cir. 2015).

359. 878 F.3d 1364 (Fed. Cir. 2018) (en banc).

360. 136 S. Ct. 2131 (2016); *Wi-Fi One*, 878 F.3d at 1367, 1369.

361. 803 F.3d 652 (Fed. Cir. 2015).

362. *Wi-Fi One*, 878 F.3d at 1375.

that a prohibition on reviewability requires clear indication by Congress in view of the strong presumption of reviewability of agency action.³⁶³ The court interpreted *Cuozzo* to suggest that § 314(d) only forbids review of “determinations closely related to the preliminary patentability determination or the exercise of discretion not to institute.”³⁶⁴ Finding the statutory bar of § 315(b) unrelated to either category, the court held that it had jurisdiction to review PTAB determinations related to § 315(b).³⁶⁵ The court has since extended this holding to encompass assignor estoppel.³⁶⁶

The court took on Article III standing in *Altaire Pharmaceuticals, Inc. v. Paragon Biotech, Inc.*³⁶⁷ “Standing to sue is a doctrine rooted in the traditional understanding of a case or controversy required by Article III.”³⁶⁸ To have standing to challenge the decision of a lower tribunal, an appellant “must have (1) suffered an injury in fact, (2) that is fairly traceable to the challenged [action], and (3) that is likely to be redressed by a favorable judicial decision.”³⁶⁹ Because inter partes reviews can be filed by anyone other than the patent owner, the lack of Article III standing can preclude a petitioner from appealing an adverse decision of the PTAB.

In 2011, Altair and Paragon entered into an agreement to pursue FDA approval for Altaire’s products, including R-phenylephrine hydrochloride products containing a 2.5% and a 10% phenylephrine hydrochloride ophthalmic solution.³⁷⁰ Paragon, pursuant to the agreement, submitted a new drug application (NDA).³⁷¹ The FDA responded by recommending that Paragon “[c]onsider adding a chiral purity test to the d[r]ug product specification.”³⁷² Altaire performed the recommended tests and provided a summary of the test results to

363. *Id.* at 1371–72.

364. *Id.* at 1373. The en banc court remanded the case to the original panel to determine whether the petitioner was time barred. *See id.* at 1375.

365. *Id.*

366. *See Arista Networks, Inc. v. Cisco Sys., Inc.*, 908 F.3d 792, 800–01 (Fed. Cir. 2018) (finding that the logic of *Wi-Fi One* abrogated the court’s previous holding in *Husky Injection Molding Sys. Ltd. v. Athena Automation Ltd.*, 838 F.3d 1236, 1241 (Fed. Cir. 2016), that assignor estoppel was not reviewable).

367. 889 F.3d 1274 (Fed. Cir. 2018).

368. *Id.* at 1281 (quoting *Spokeo, Inc. v. Robins*, 136 S. Ct. 1540, 1547 (2016)).

369. *Id.* (quoting *Spokeo*, 136 S. Ct. at 1547).

370. *Id.* at 1278.

371. *Id.*

372. *Id.*

Paragon who submitted a supplementary NDA filing to the FDA.³⁷³ Paragon later proposed an amendment to the agreement that addressed a new patent application filing.³⁷⁴ Altaire responded that the formulation, processes, and controls were developed solely by Altaire's CEO and were confidential information of Altaire.³⁷⁵ There was no indication in the record that Paragon's counsel responded to Altaire's substantive comments.³⁷⁶

In November 2013, Paragon filed a drug patent application, which subsequently was issued as U.S. Patent No. 8,859,623.³⁷⁷ In April 2015, Altaire filed a complaint against Paragon that alleged breach of a nondisclosure clause of the parties' agreement.³⁷⁸ In May 2015, Altaire filed a petition for post-grant review of the challenged patent supported by a declaration from its chief executive.³⁷⁹ In its final written decision, the PTAB determined that Altaire failed to prove by a preponderance of the evidence that the challenged claims would have been obvious and that Altaire failed to timely qualify its chief executive as an expert.³⁸⁰ Subsequently, in April 2017, Altaire filed a complaint seeking a declaratory judgment of invalidity of the '623 patent.³⁸¹

The Federal Circuit found that Altaire sufficiently demonstrated imminent harm, noting that Altaire intended to file an ANDA once the agreement is terminated and resume marketing its proprietary formation of the products and that Paragon refused to stipulate that it will not sue Altaire for infringement.³⁸² The Federal Circuit recognized that while "[a] claim is not ripe for adjudication if it rests upon contingent future events that may not occur as anticipated, or indeed may not occur at all," under the circumstances here, Altaire's injury is inevitable.³⁸³ Because the agreement between the parties prevents Altaire from manufacturing its products, the Federal Circuit also found that the injury was concrete and particularized.³⁸⁴ Judge Schall dissented, disagreeing as to whether Altaire demonstrated imminent

373. *Id.*

374. *Id.*

375. *Id.*

376. *Id.*

377. *Id.*

378. *Id.* at 1279.

379. *Id.*

380. *Id.* at 1280.

381. *Id.* at 1279.

382. *Id.* at 1282–83.

383. *Id.* at 1283.

384. *Id.*

harm.³⁸⁵ Judge Schall argued that at this point, one of two things will happen in the breach of contract suit—either Altaire or Paragon will prevail. If Paragon prevailed, Paragon might have the right to terminate the agreement.³⁸⁶ If Altaire prevailed, the critical linchpin of Altaire’s claim of imminent harm—the possibility that Paragon will be given the right to terminate the agreement—will have been eliminated.³⁸⁷ Judge Schall therefore concluded that a determination of imminent harm is speculative and did not warrant a determination of Article III standing for Altaire.³⁸⁸

In another Article III standing case, *JTEKT Corp. v. GKN Automotive Ltd.*,³⁸⁹ the Federal Circuit dismissed the appeal by the petitioner, JTEKT, because JTEKT lacked Article III standing to appeal.³⁹⁰ JTEKT filed an IPR petition against a patent owned by GKN. In a mixed decision, the PTAB found a subset of the challenged claims were not proven by JTEKT to be unpatentable.³⁹¹ Because JTEKT does not have a product on the market, to establish Article III standing for an appeal of the adverse decision, JTEKT was required to show that “it has concrete plans for future activity that creates a substantial risk of future infringement or likely cause the patentee to assert a claim of infringement.”³⁹² The Federal Circuit found that JTEKT’s evidence did not establish that its planned product would create a substantial risk of infringement or likely lead to charges of infringement.³⁹³ The Federal Circuit rejected JTEKT’s argument that IPR estoppel “constitutes a separate, and independent, injury in fact,” explaining that “estoppel provisions do not constitute an injury in fact when the appellant is not engaged in any activity that would give rise to a possible infringement suit.”³⁹⁴ However, in *E.I. DuPont de Nemours & Co. v. Synvina C.V.*,³⁹⁵ the Federal Circuit found that DuPont had Article III standing despite not facing a specific threat of infringement litigation

385. *Id.* at 1289 (Schall, J., dissenting).

386. *Id.*

387. *Id.*

388. *Id.* at 1289, 1291.

389. 898 F.3d 1217 (Fed. Cir. 2018).

390. *Id.* at 1218–19.

391. *Id.*

392. *Id.* at 1220–21.

393. *Id.* at 1221.

394. *Id.* (alterations omitted).

395. 904 F.3d 996 (Fed. Cir. 2018).

by the patentee because DuPont had taken and planned to take action that would have implicated the challenged patent.³⁹⁶

Finally, in *Knowles Electronics LLC v. Iancu*,³⁹⁷ the Federal Circuit addressed the ability of the PTO to intervene in an appeal to defend the PTAB's ruling after the petitioner departs. Patent owner, Knowles Electronics, appealed from the PTAB's determination that the claims challenged in a reexamination were invalid as anticipated or obvious.³⁹⁸ The third-party requester declined to appear and the PTO Director intervened "as of right."³⁹⁹ The majority held that the Director of the PTO "has an unconditional statutory 'right to intervene in an appeal from a [PTAB] decision'" under § 143.⁴⁰⁰ Judge Newman dissented, arguing that the PTO does not have authority as intervener to litigate when there is no appellee or respondent, unless the director has a concrete and particularized interest such as responding to a challenge to agency jurisdiction, regulations, or procedures.⁴⁰¹ No such interest existed in this case.⁴⁰²

2. *Privity and real party in interest*

The AIA prohibits institution of petitions filed more than one year after "the petitioner, real party in interest, or privy of the petitioner" was served with a complaint.⁴⁰³ For five years, the PTAB had the final say on who was a "real party in interest, or privy of the petitioner."⁴⁰⁴ Having expanded its jurisdiction to review PTAB determinations relating to the one-year statutory bar in *Wi-Fi One, LLC v. Broadcom Corp.*,⁴⁰⁵ the Federal Circuit finally began reviewing the PTAB's statutory interpretation, with mixed results.

The court's initial reviews affirmed the PTAB's privity analyses on the narrow ground that they were responsive to the arguments made

396. *Id.* at 1004–05.

397. 886 F.3d 1369 (Fed. Cir. 2018).

398. *Id.* at 1371–72.

399. *Id.* at 1379–80.

400. *Id.* at 1372 n.2. Section 143 provides: "The Director shall have the right to intervene in an appeal from a decision entered by the Patent Trial and Appeal Board in a derivation proceeding under section 135 or in an inter partes or post-grant review under chapter 31 or 32." 35 U.S.C. § 143 (2012).

401. *Knowles Elecs.*, 886 F.3d at 1383 (Newman, J., dissenting).

402. *Id.*

403. 35 U.S.C. § 315(b).

404. *See Achates Reference Publ'g., Inc. v. Apple Inc.*, 803 F.3d 652, 658 (Fed. Cir. 2015), *overruled by Wi-Fi One, LLC v. Broadcom Corp.*, 878 F.3d 1364 (Fed. Cir. 2018).

405. 887 F.3d 1329 (Fed. Cir. 2018), *cert. denied*, 138 S. Ct. 826 (2019).

by the respective patent owners.⁴⁰⁶ In *Wi-Fi One*, the petitioner was alleged to have had an indemnification agreement with a party that was barred from filing its own petition.⁴⁰⁷ The PTAB denied discovery related to the alleged agreement, stating that indemnity payments would not establish privity or control.⁴⁰⁸ In *WesternGeco LLC v. ION Geophysical Corp.*,⁴⁰⁹ the appellant was time-barred from filing its own petition but was able to join a petition filed by its indemnitor under § 315(c).⁴¹⁰ The patent owner argued that the original petitioner, who had settled the case before it was decided, was time-barred due to its relationship to the appellant.⁴¹¹

The appellants in both cases argued that the PTAB applied a restrictive standard for privity that would require the patent owner to prove that the petitioner had control over the related district court proceeding that triggered the § 315(b) bar.⁴¹² In both cases, the court noted that “privity” in § 315(b) carries its common law meaning⁴¹³ and is not limited to control,⁴¹⁴ which is but one factor that the Supreme Court has given for a finding of privity.⁴¹⁵ But it was not improper for

406. See *id.* at 1337 (“The Board’s decision to focus on [control in its privity analysis] was in response to the specific arguments that *Wi-Fi* raised on the privity issue.”); *id.* at 1352 n.2 (Reyna, J., dissenting) (“The majority justifies its narrow holding on grounds that . . . *Wi-Fi* limited its argument to the ‘control over the prior litigation’ ground.”); see also *WesternGeco LLC v. ION Geophysical Corp.*, 889 F.3d 1308, 1320 (Fed. Cir. 2018) (“To the extent the Board analyzed privity based on ION’s control over the PGS proceedings, it properly did so in response to *WesternGeco*’s advancement of a theory focusing primarily on control.”), *cert. denied*, 2019 WL 659884 (U.S. Feb. 19, 2019).

407. *Wi-Fi One*, 887 F.3d at 1339.

408. *Id.* at 1339–40.

409. 889 F.3d 1308 (Fed. Cir. 2018).

410. See *id.* at 1314–16.

411. See *id.* at 1316.

412. Compare *id.* at 1320 (addressing *WesternGeco*’s assertion that “the [PTAB] applied an unduly-restrictive test and focused only on control”), with *Wi-Fi One*, 887 F.3d at 1336 (“*Wi-Fi* argues that the [PTAB] improperly required *Wi-Fi* to satisfy ‘a hard and absolute requirement that *Broadcom* must have had the right to control the District Court Litigation in order to find that a District Court Defendant was a real party in interest or privity.”).

413. See *WesternGeco*, 889 F.3d at 1317; *Wi-Fi One*, 887 F.3d at 1335.

414. Compare *WesternGeco*, 889 F.3d at 1320 (“We agree with *WesternGeco* that ‘control’ is not the exclusive analytical pathway for analyzing privity; as described above, it is but one of a variety of considerations.”), with *Wi-Fi One*, 887 F.3d at 1336–37 (“[T]he [PTAB] recognized that there are a number of circumstances in which privity might be found, including when the nonparty controlled the district court litigation.”).

415. See *Taylor v. Sturgell*, 553 U.S. 880, 893–95 (2008) (outlining a non-exhaustive list of factors which are alone sufficient to establish party and non-party privity in litigation).

PTAB to limit its analysis to control where the patent owner had limited its argument to that factor.⁴¹⁶

The decision in *Wi-Fi One* also had a ripple effect, creating an opportunity for the Federal Circuit to address the meaning of the term “real party in interest” in the context of § 315(b).⁴¹⁷ In its Trial Practice Guide, the PTAB noted that “[w]hether a party who is not a named participant in a given proceeding nonetheless constitutes a ‘real party-in-interest’ or ‘privy’ to that proceeding is a highly fact-dependent question” that is “handled by the Office on a case-by-case basis.”⁴¹⁸ In practice, the PTAB’s analysis of “real party-in-interest” focused on assessing whether the extent of funding and control the non-participant party exercised in the proceeding. The Federal Circuit in *Applications in Internet Time, LLC v. RPX Corp.*⁴¹⁹ provided a detailed discussion for the determination of whether a non-participant is a real party-in-interest. The Federal Circuit determined that the PTAB applied an unduly restrictive test for determining whether a person or entity is a “real party in interest.”⁴²⁰ The court explained that “[d]etermining whether a non-party is a ‘real party in interest’ demands a flexible approach that takes into account both equitable and practical considerations, with an eye toward determining whether the non-party is a clear beneficiary that has a preexisting, established relationship with the petitioner.”⁴²¹

The Federal Circuit’s review of the PTO’s statutory interpretation under *Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.*⁴²² in *Applications in Internet Time* provides insight into the contours of “real party in interest.” Starting with assessing the usage of the term in the common law context, the court noted that the inclusion of the “real party in interest” and “privy of the petitioner” in § 315(b) makes clear that Congress planned for the provision to apply broadly—sweeping in not only what might be traditionally known as real parties in interest,

416. See *WesternGeco*, 889 F.3d at 1320; *Wi-Fi One*, 887 F.3d at 1337–38.

417. *Wi-Fi One*, 887 F.3d at 1335, 1340.

418. U.S. Patent & Trademark Office Trial Practice Guide, 77 Fed. Reg. 48759 (Aug. 14, 2012).

419. 897 F.3d 1336 (Fed. Cir. 2018).

420. *Id.* at 1339.

421. *Id.* at 1351.

422. 467 U.S. 837, 865–66 (1984) (establishing a legal formula for determining under what circumstances a court should give deference to a government agency in interpreting the statutes it administers).

but privies as well.⁴²³ The court also noted that the statutory language bars petitions where proxies or privies would benefit from an instituted IPR, even where the petitioning party might separately have its own interest in initiating an IPR.⁴²⁴ The court further looked to Federal Rule of Civil Procedure 17(a), titled “Real Party in Interest,” which codified the common law principles for real party in interest.⁴²⁵ Referencing a note to the 1966 Amendment of Rule 17(a) by the Advisory Committee describing the basis for the real-party-in-interest rule,⁴²⁶ the Federal Circuit identified two questions: “(1) what ‘right’ is being enforced; and (2) who is ‘entitled’ to enforce that right.”⁴²⁷ In the context of IPRs, the court determined that the right being enforced “is a petitioner’s right to seek administrative reexamination of the patentability of issued claims as an alternative to invalidating those claims in a judicial proceeding.”⁴²⁸ On the second question, the court assessed how close the relationship between the real party in interest and the IPR petitioner must be.⁴²⁹ When it comes to evaluating this relationship, the common law seeks to ascertain who, from a “practical and equitable” standpoint, will benefit from the redress that the chosen tribunal might provide.⁴³⁰ This common law notion applies with equal force in the IPR context when a patent owner is dragged into an IPR by a petitioner who necessarily has an interest in canceling the patent owner’s claims. That patent owner should not be forced to defend against later judicial or administrative attacks on the same or

423. *Applications in Internet Time*, 897 F.3d at 1346–47.

424. *Id.* at 1347.

425. *Id.* at 1347–48. Rule 17(a) provides that:

[a]n action must be prosecuted in the name of the real party in interest, and specifies seven categories of individuals who may sue in their own names without joining the person for whose benefit the action is brought: (1) executors; (2) administrators; (3) guardians; (4) bailees; (5) trustees of express trusts; (6) parties with whom or in whose name a contract has been made for another’s benefit; and (7) parties authorized by statute.

Id. (citing CHARLES ALAN WRIGHT ET AL., FEDERAL PRACTICE & PROCEDURE § 1545 (3d ed. 2018)).

426. *Id.* at 1348 (citing WRIGHT ET AL., *supra* note 425, § 1545) (“[T]he modern function of the rule in its negative aspect is simply to protect the defendant against a subsequent action by the party actually entitled to recover, and to ensure generally that the judgment will have its proper effect as *res judicata*.”).

427. *Id.*

428. *Id.*

429. *Id.* at 1349.

430. *Id.*

related grounds by a party that is so closely related to the original petitioner as to qualify as a real party in interest.⁴³¹

The Federal Circuit found that nothing suggested Congress intended for term to have meaning that departs from its common law origins.⁴³² The legislative history indicates that the terms “real party in interest” and “privy” were included in § 315 to serve two related purposes: (1) to ensure that third parties who have sufficiently close relationships with IPR petitioners would be bound by the IPR estoppel provision; and (2) to safeguard patent owners from having to defend their patents against belated administrative attacks by related parties via § 315(b).⁴³³

The Federal Circuit then found that the PTAB’s determination that Salesforce was not a real party in interest under § 315(b) relied on an impermissibly narrow understanding of the common law meaning of the term. It also found that the PTAB’s interpretation of the term was not based on consideration of the entirety of the administrative record, and seemingly misallocated the burden of proof.⁴³⁴ RPX, unlike a traditional trade association, is a for-profit company whose clients pay for its portfolio of “patent risk solutions,”⁴³⁵ which in turn help paying members “extricate themselves from NPE lawsuits.”⁴³⁶ One of RPX’s “strategies” for transforming the patent market is “the facilitation of challenges to patent validity” to “reduce expenses for [RPX’s] clients.”⁴³⁷ The Federal Circuit determined that the PTAB erred by not considering these and other facts, which, taken together, imply that RPX can and does file IPRs to serve its clients’ financial interests, and also that a key reason clients pay RPX is to benefit from this practice in the event they are sued by a non-practicing entity (NPE).⁴³⁸ The court further stressed that RPX bore the burden of persuasion on this issue.⁴³⁹ The Federal Circuit vacated the PTAB’s decision and remanded for further proceedings.⁴⁴⁰

431. *Id.* at 1350.

432. *Id.*

433. *Id.*

434. *Id.* at 1356.

435. *Id.* at 1351–52.

436. *Id.*

437. *Id.*

438. *Id.*

439. *Id.* at 1352.

440. *Id.* at 1358.

The Federal Circuit took on burden framework to be used in the real-party-in-interest analysis in *Worlds Inc. v. Bungie, Inc.*⁴⁴¹ The Federal Circuit first stressed that the IPR petitioner bears the ultimate burden of persuasion to show that its petitions are not time-barred under § 315(b) based on a complaint served on an alleged real party-in-interest more than a year earlier.⁴⁴² Turning to the procedure, the court agreed with the PTAB's practice of accepting an IPR petitioner's identification of the real parties in interest unless and until disputed by a patent owner.⁴⁴³ However, the court disagreed that this acceptance created a rebuttable presumption that shifted the burden of production to the patent owner to rebut.⁴⁴⁴ Instead, the patent owner must "produce *some* evidence that tends to show that a particular third party should be named a real party in interest."⁴⁴⁵ The court explained that "[a] mere assertion that a third party is an unnamed real party in interest, without any support for that assertion, is insufficient to put the issue into dispute."⁴⁴⁶

In this case, the Federal Circuit expressed concerns because the PTAB's statement that it was unpersuaded "that there is sufficient evidence that Activision is an unnamed real party in interest for the reasons given in the Institution Decision" based on patent owner's arguments implied that the PTAB assumed the burden of persuasion rested on patent owner.⁴⁴⁷ The court was also concerned that the PTAB may have relied on attorney argument as evidence that Activision was not controlling or funding these IPRs.⁴⁴⁸ The Federal Circuit therefore vacated the final written decisions and remanded the proceeding with instructions for the PTAB to weigh the evidence in a manner that places the ultimate burden of persuasion on Bungie, the IPR petitioner, and to do so in a manner consistent with recent precedent.⁴⁴⁹

3. *Impact of the Supreme Court's decision in SAS*

The primary transitional issue that the Federal Circuit had to face was whether it had jurisdiction, after *SAS*, to address appeals involving

441. 903 F.3d 1237 (Fed. Cir. 2018).

442. *Id.* at 1242.

443. *Id.* at 1243.

444. *Id.* at 1243–44.

445. *Id.* at 1244.

446. *Id.*

447. *Id.* at 1246.

448. *Id.*

449. *Id.* at 1246–48.

post-grant proceedings with partial institutions.⁴⁵⁰ The Federal Circuit decided that issue in the affirmative in *PGS Geophysical AS v. Iancu*.⁴⁵¹ The appeal in that case covered final written decisions in three IPRs and found certain claims of the challenged patent invalid as anticipated and other claims invalid as obvious.⁴⁵² The PTAB, however, did not institute trial on all claims or all grounds set forth in the three petitions.⁴⁵³ The Federal Circuit considered whether it had jurisdiction to address the IPR appeals in view of *SAS* and if so, whether it may and should decide the appeals and do so without sua sponte remanding for the PTAB to address the claims and grounds in the petition excluded by the PTAB in the IPRs.⁴⁵⁴ The Federal Circuit concluded that the existence of non-instituted claims and grounds did not deprive it of jurisdiction to decide the IPR appeals.⁴⁵⁵ The court determined that the standard for “final agency action” under the Administrative Procedure Act (APA) because the PTAB’s decision terminated the IPR proceeding as to all claims and all grounds and the PTAB made patentability determinations that affect the patent rights of patentee.⁴⁵⁶ Although some of what the PTAB did is now seen to be legally erroneous under *SAS*, legal error does not mean lack of finality.⁴⁵⁷ The Federal Circuit further determined that it need not reopen the non-instituted claims and grounds because no party sought *SAS*-based relief in this case.⁴⁵⁸

In *Nobel Biocare Services AG v. Intradent USA, Inc.*,⁴⁵⁹ the Federal Circuit concluded that that it had jurisdiction over the appeal of an IPR in which the PTAB instituted trial on fewer than all challenged claims and grounds and was not obligated to reopen non-instituted claims or grounds.⁴⁶⁰ Because neither party requested a remand for the PTAB to consider non-instituted claims, the court saw no reason to exercise any discretion to remand the non-instituted claims or grounds sua sponte.⁴⁶¹

450. See *PGS Geophysical AS v. Iancu*, 891 F.3d 1354, 1359 (Fed. Cir. 2018).

451. *Id.* at 1357.

452. *Id.* at 1359.

453. *Id.* at 1358–59.

454. *Id.* at 1359.

455. *Id.* at 1360.

456. *Id.* at 1361 (citing Administrative Procedure Act, 5 U.S.C. § 704 (2012)).

457. *Id.* at 1362.

458. *Id.*

459. 903 F.3d 1365 (Fed. Cir. 2018).

460. *Id.* at 1374.

461. *Id.*

The Federal Circuit, in other cases, granted motions by a party to remand for the PTAB to consider non-instituted grounds or claims.⁴⁶²

4. *One-year statutory bar*

Under Section 315(b), accused infringers must file any IPR petitions against an asserted patent within one-year of service of a complaint alleging infringement of that patent.⁴⁶³ In *Click-to-Call Technologies, LP v. Ingenio, Inc.*,⁴⁶⁴ the Federal Circuit addressed the interpretation of the statutory language “served with a complaint alleging infringement of a patent.”⁴⁶⁵ In an *en banc* footnote, the Federal Circuit reversed the PTAB’s interpretation, holding that § 315(b)’s time-bar applies “to bar institution when an IPR petitioner was served with a complaint for patent infringement more than one year before filing its petition, but the district court action in which the petitioner was so served was voluntarily dismissed without prejudice.”⁴⁶⁶

Although the holding is relatively straightforward, the facts of the case are more complex and involve transfers of ownership, acquisitions, and name changes. In 2001, the current exclusive licensee of the patent at issue filed an infringement action against Keen, which subsequently changed its name to Ingenio, Inc.⁴⁶⁷ Subsequently, the exclusive licensee voluntarily dismissed the complaint “without prejudice.”⁴⁶⁸ Ingenio was then acquired by AT&T which then sold its interest in Ingenio.⁴⁶⁹ After Click-to-Call acquired the patent, it filed a patent suit against Ingenio, which changed its name to YP Interactive LLC.⁴⁷⁰ In May 2013, Ingenio with other petitioners filed an IPR petition challenging the asserted claims, and the PTAB rejected Click-to-Call’s

462. See *BioDelivery Scis. Int’l, Inc. v. Aquestive Therapeutics, Inc.*, 898 F.3d 1205, 1207 (Fed. Cir. 2018) (granting opposed motion to remand to consider non-instituted claims and grounds); *Adidas AG v. Nike, Inc.*, 894 F.3d 1256, 1257–58 (granting motion to remand to consider non-instituted ground of obviousness where PTAB determined claims to be non-obvious over the instituted ground).

463. 35 U.S.C. § 315(b) (2012) (“An inter partes review may not be instituted if the petition requesting the proceeding is filed more than 1 year after the date on which the petitioner, real party in interest, or privy of the petitioner is served with a complaint alleging infringement of the patent.”).

464. 899 F.3d 1321 (Fed. Cir. 2018) (*en banc*).

465. *Id.* at 1328 (alterations omitted).

466. *Id.* at 1328 n.3.

467. *Id.* at 1325.

468. *Id.*

469. *Id.* at 1325–26.

470. *Id.* at 1326.

contention that the IPR was time-barred by the 2001 complaint against Keen in its institution decision.⁴⁷¹ In its final written decision, the PTAB affirmed its conclusion that petitioners were not barred from filing an IPR petition because the initial action was dismissed without prejudice, which left the parties in the same legal position as if the underlying complaint had never been served.⁴⁷²

The Federal Circuit reversed the PTAB's narrow interpretation finding that the statutory language "unambiguously precludes" the PTAB from instituting an IPR if the petition is filed more than one year after the petitioner or real party-in-interest is served with a complaint of patent infringement.⁴⁷³ The majority found that section 315(b) is agnostic regarding what events transpired after the defendant was served.⁴⁷⁴ Judge Dyk dissented, arguing that the PTAB's interpretation was correct and section 315(b)'s time-bar should not apply.⁴⁷⁵ Several subsequent Federal Circuit decisions relied on *Click-to-Call* to dismiss several other IPRs.⁴⁷⁶

The *Click-to-Call* decision opens the door to patent owners serving and subsequently voluntarily dismissing a complaint without prejudice to "start the clock" running against a defendant. This creates a strategic dilemma for a defendant who is no longer under imminent risk of patent litigation but has a limited time window to challenge the patent at the PTAB.

5. Tribal sovereign immunity

Last year also presented the Federal Circuit with the opportunity to address a controversial attempt by Allergan to terminate an IPR proceeding under the doctrine of tribal immunity by transferring its patents to the Saint Regis Mohawk Tribe. The case, *Saint Regis Mohawk Tribe v. Mylan Pharmaceuticals Inc.*,⁴⁷⁷ addressed the threshold issue of

471. *Id.* at 1326–27.

472. *Id.* at 1327.

473. *Id.* at 1333.

474. *Id.* at 1330.

475. *Id.* at 1350 (Dyk, J., dissenting).

476. See *Bennett Regulator Guards, Inc. v. Atlanta Gas Light, Co.*, 905 F.3d 1311, 1315 (Fed. Cir. 2018) (finding no distinction between an involuntary and voluntary dismissal without prejudice, vacating the PTAB's final written decision, and remanding for dismissal), *petition for cert. filed sub nom.*, *Atlanta Gas Light Co. v. Bennett Regulator Guards, Inc.*, No. 18-999 (U.S. Jan. 31, 2019); *Luminara Worldwide, LLC v. Iancu*, 899 F.3d 1303, 1306 (Fed. Cir. 2018) (vacating the PTAB's final written decision and remanding for dismissal of IPR where the petition was filed more than one year after the complaint was served, but subsequently voluntarily dismissed without prejudice).

477. 896 F.3d 1322 (Fed. Cir. 2018), *petition for cert. filed*, No. 18-899 (U.S. Jan. 11, 2019).

whether tribal sovereign immunity applies to IPR proceedings.⁴⁷⁸ Mylan, Teva, and Akorn each filed IPR petitions against Allergan's Restasis patents.⁴⁷⁹ The PTAB instituted trial and scheduled a consolidated oral hearing.⁴⁸⁰ Before the hearing, Allergan transferred the Restasis patents to the Saint Regis Mohawk Tribe.⁴⁸¹ The Saint Regis Mohawk Tribe subsequently moved to terminate the IPR proceedings arguing that it is entitled to assert tribal sovereign immunity, and Allergan moved to withdraw from the proceedings.⁴⁸² The PTAB denied both motions.⁴⁸³ Allergan and the Saint Regis Mohawk Tribe appealed.⁴⁸⁴

The Federal Circuit affirmed, holding that tribal sovereign immunity cannot be asserted in an IPR proceeding.⁴⁸⁵ Several factors convinced the court that an IPR proceeding was more like an agency enforcement action than a civil suit brought by a private party.⁴⁸⁶ First, the director possesses broad discretion in deciding whether to institute review.⁴⁸⁷ Second, because a petitioner is not required to participate in a proceeding, the role of the parties suggests that immunity does not apply.⁴⁸⁸ Third, the PTO procedures in an IPR do not mirror the Federal Rules of Civil Procedure.⁴⁸⁹ In making its decision, the Federal Circuit also stressed that it was leaving "for another day" the question of whether there is any reason to treat state sovereign immunity differently.⁴⁹⁰ Judge Dyk wrote separately in concurrence "to describe in greater detail the history of [IPR] proceedings, history that confirms that those proceedings are not adjudications between private parties."⁴⁹¹

The *Saint Regis* decision left open the question of whether state sovereign immunity still applies in IPR proceedings. To date, the PTAB has treated state sovereign immunity differently than tribal sovereign immunity and ruled that state universities were shielded from PTAB

478. *Id.* at 1325.

479. *Id.*

480. *Id.*

481. *Id.*

482. *Id.*

483. *Id.*

484. *Id.*

485. *Id.* at 1329.

486. *Id.* at 1327.

487. *Id.*

488. *Id.* at 1328.

489. *Id.*

490. *Id.* at 1329.

491. *Id.* (Dyk, J., concurring).

challenges under this doctrine. The reasoning in *Saint Regis* decision indicates that the Federal Circuit may find that state sovereign immunity also does not apply in the PTAB.

6. *Motions to amend*

In October 2017, the en banc Federal Circuit in *Aqua Products, Inc. v. Matal*⁴⁹² held that under the PTO's current rules, the PTO may not place the burden of persuasion regarding the patentability of proposed amended claims on the patent owner.⁴⁹³ This decision caused a significant change in PTAB procedure which previously placed the burden on the patent owner as the moving party to demonstrate the patentability of the proposed substitute claims.⁴⁹⁴ In 2018, the Federal Circuit addressed several interim cases in which final written decisions were issued prior to the en banc decision in *Aqua Products*. In these cases, the PTAB vacated the PTAB's denial of the motions to amend because they improperly placed the burden on patent owners to demonstrate patentability and remanded to the PTAB to reconsider in light of *Aqua Products*.⁴⁹⁵

7. *Issue preclusion*

*MaxLinear, Inc. v. CF CRESPE LLC*⁴⁹⁶ addressed the application of issue preclusion in AIA post-grant proceedings.⁴⁹⁷ Petitioner, MaxLinear, appealed the PTAB's final written decision, finding that the challenged claims were patentable.⁴⁹⁸ During the pendency of this appeal, the Federal Circuit affirmed the PTAB's decision in a separate IPR proceeding that held the challenged independent claims to be unpatentable over different prior art grounds.⁴⁹⁹ The Federal Circuit held that issue preclusion applied. The fact that the separate IPR became final while the present case was pending on appeal was irrelevant.⁵⁰⁰ The Federal Circuit vacated the PTAB's finding of

492. 872 F.3d 1290 (Fed. Cir. 2017).

493. *Id.* at 1324–25.

494. *Id.* at 1300.

495. *See id.* at 1356–57.

496. 880 F.3d 1373 (Fed. Cir. 2018).

497. *Id.* at 1376.

498. *Id.* at 1374.

499. *Id.*

500. *Id.* at 1376 (citing *Soverain Software LLC v. Victoria's Secret Direct Brand Mgmt., LLC*, 778 F.3d 1311, 1315 (Fed. Cir. 2015) (“[I]ssue preclusion applies even though the precluding judgment . . . comes into existence while the case as to which preclusion is sought . . . is on appeal.”)).

patentability and remanded for the PTAB to decide whether the remaining dependent claims can survive in view of the collateral estoppel effect of the finding of unpatentability of the independent claims in the previous IPR.⁵⁰¹

In another issue preclusion case, *VirnetX Inc. v. Apple, Inc.*,⁵⁰² the Federal Circuit found that VirnetX was collaterally estopped by the Federal Circuit's Rule 36 judgment in a related appeal from relitigating the question of whether an applied reference was a printed publication.⁵⁰³ Apple filed two IPR petitions against the challenged claims.⁵⁰⁴ Both petitions relied on RFC 2401 in a ground of unpatentability.⁵⁰⁵ The PTAB instituted trial in both, and VirnetX filed patent owner responses arguing that RFC 2401 was not a printed publication.⁵⁰⁶ The PTAB disagreed and concluded that the challenged claims were unpatentable as obvious.⁵⁰⁷ In a related appeal, VirnetX appealed seven final written decisions in which the PTAB found that RFC 2401—in combination with other references—rendered obvious a number of patents related to the challenged patent in this case.⁵⁰⁸ In those cases, VirnetX also argued that RFC 2401 was not a printed publication.⁵⁰⁹ The Federal Circuit summarily affirmed the PTAB's final written decisions pursuant to Rule 36.⁵¹⁰ The Federal Circuit found that VirnetX was collaterally estopped from relitigating the question of whether RFC 2401 was a printed publication because that question was necessary and essential to the judgment in the related appeal; in fact, it was the only issue raised in that appeal.⁵¹¹

The Federal Circuit applied collateral estoppel sua sponte in *XY, LLC v. Trans Ova Genetics, L.C.*⁵¹² In the underlying district court case, the jury found the challenged claims neither invalid nor infringed.⁵¹³ Defendant appealed the district court's decision, claiming an abuse of

501. *Id.* at 1377–78.

502. 909 F.3d 1375 (Fed. Cir. 2018).

503. *Id.* at 1378.

504. *Id.* at 1377.

505. *Id.*

506. *Id.*

507. *Id.*

508. *Id.*

509. *Id.*

510. *Id.*

511. *Id.* at 1378.

512. 890 F.3d 1282 (Fed. Cir. 2018).

513. *Id.* at 1288.

discretion in determining the invalidity of its claim.⁵¹⁴ The asserted claims were also challenged in an IPR proceeding.⁵¹⁵ The PTAB held that a set of claims (the Freezing Patent claims) were unpatentable,⁵¹⁶ and the Federal Circuit affirmed the PTAB's finding of unpatentability.⁵¹⁷ The court's majority found that the affirmance of an invalidity finding, whether from a district court or the PTAB, has a collateral estoppel effect on all pending or co-pending actions.⁵¹⁸ The Federal Circuit therefore did not address the defendant's invalidity arguments as to the Freezing Patent claims and dismissed the appeal of these claims as moot.⁵¹⁹ Judge Newman dissented arguing that "due process is not served by [the majority's] sua sponte creation of this estoppel on this appeal, without notice to the parties, without briefing, and without opportunity to respond."⁵²⁰

8. Estoppel

The scope and extent of the estoppel provisions of the AIA statute remained a hotly debated issue in 2018. The Federal Circuit addressed one estoppel case in 2018, *Arthrex, Inc. v. Smith & Nephew, Inc.*,⁵²¹ involving the interplay between statutory disclaimer, adverse judgment, and patent owner estoppel.⁵²² Prior to institution, the patent owner, Arthrex, statutorily disclaimed all claims challenged in the IPR and stated that the filing of the statutory disclaimer was not a request for an adverse judgment.⁵²³ The PTAB however entered an adverse judgment against Arthrex concluding that 37 C.F.R. § 42.73(b) permits the PTAB to construe the statutory disclaimer of all challenged claims as a request for adverse judgment, even when the statutory disclaimer occurs before the institution decision.⁵²⁴ As a result of the

514. *Id.* at 1293–94.

515. *Id.* at 1294.

516. *Id.*

517. *Id.* (citing *XY, LLC v. ABS Glob., Inc.*, Appeal No. 16-2228).

518. *Id.*

519. *Id.* at 1295.

520. *Id.* at 1298 (Newman, J., concurring in part and dissenting in part).

521. 880 F.3d 1345 (Fed. Cir. 2018).

522. *Id.* at 1347.

523. *Id.*

524. *Id.*

adverse judgment, patent owner estoppel under 37 C.F.R. § 42.73(d)(3)(i)⁵²⁵ attached to Arthrex.⁵²⁶

The Federal Circuit first addressed the threshold issue of whether the adverse final judgment was appealable under 35 U.S.C. § 319⁵²⁷ since the PTAB did not issue a “final written decision.”⁵²⁸ The majority held that the adverse judgment was appealable because 28 U.S.C. § 1295 provides the Federal Circuit with jurisdiction over “an appeal from a decision of—the Patent Trial and Appeal Board of the United States Patent and Trademark Office with respect to . . . inter partes review under title 35” and 35 U.S.C. § 319 “does not cabin” the appeal rights conferred by § 1295.⁵²⁹

The Federal Circuit was split on the issue of whether the PTAB properly entered an adverse judgment against Arthrex.⁵³⁰ Rule § 42.73(b) provides that “[a] party may request judgment against itself at any time during a proceeding” and lists four actions that may be construed by the PTAB as a request for adverse judgment, including “cancellation or disclaimer of a claim such that the party has no remaining claim in the trial.”⁵³¹ The majority held that the PTAB’s interpretation is consistent with the rule because “in the trial” can be interpreted to mean that there is no claim remaining for trial.⁵³² Judge O’Malley wrote separately to highlight that the PTO’s expansive definition of “proceeding,” encompassing both the trial and the preliminary proceeding, and its practice of issuing adverse judgments prior to institution seem to conflict with the Federal Circuit’s decision in *Shaw Industries Group, Inc. v. Automated Creel Systems, Inc.*,⁵³³ that “[t]he IPR does not begin until it is instituted.”⁵³⁴ In dissent, Judge Newman disagreed with the majority’s interpretation arguing that because all

525. 37 C.F.R. § 42.73(d)(3)(i) (2018) precludes a patent owner “from taking action inconsistent with the adverse judgment including obtaining in any patent . . . [a] claim that is not patentably distinct from a finally refused or canceled claim.”

526. *Arthrex*, 880 F.3d at 1347.

527. 35 U.S.C. § 319 (2012) (“A party dissatisfied with the *final written decision* of the Patent Trial and Appeal Board under section 318(a) may appeal the decision pursuant to sections 141 through 144.”) (emphasis added).

528. *Arthrex*, 880 F.3d at 1348.

529. *Id.* (quoting 28 U.S.C. § 1295 (2012)).

530. *Id.* at 1349–51.

531. 37 C.F.R. § 42.73(b) (2018).

532. *Arthrex*, 880 F.3d at 1350. Rule 42.2 defines “trial” as requiring “a contested case instituted by the Board based upon a petition.” 37 C.F.R. § 42.2.

533. 817 F.3d 1293 (Fed. Cir. 2016).

534. *Arthrex*, 880 F.3d at 1351 (O’Malley, J., concurring).

challenged claims were disclaimed before the PTAB instituted trial, the PTAB's authority to render adverse judgment did not arise.⁵³⁵

9. *Due process and procedural requirements*

Arguments that the PTAB violated due process or procedural requirements⁵³⁶ of the APA continued to take center stage in Federal Circuit cases in 2018. Many of these cases address the PTAB's handling of evidence and arguments, particularly the difficult issue of whether evidence and argument presented in a petitioner's reply is impermissible. In *Altaire Pharmaceuticals, Inc. v. Paragon Biotech, Inc.*,⁵³⁷ the Federal Circuit found that the PTAB violated the APA by refusing to consider patentee's expert testimony and test data.⁵³⁸ In May 2015, Altaire filed a petition for post-grant review of the challenged patent supported by a declaration of its chief executive, Mr. Al Sawaya.⁵³⁹ In its patent owner response, Paragon challenged the declaration as not satisfying the requirements of 37 C.F.R. § 42.65(b).⁵⁴⁰ In its reply, Altaire included a second declaration from Mr. Al Sawaya discussing his experience and providing additional information regarding how the testing was performed.⁵⁴¹ The PTAB determined that Altaire failed to timely qualify Mr. Al Sawaya as an expert and that Altaire's test data were entitled no weight.⁵⁴²

The Federal Circuit determined that the PTAB abused its discretion by failing to consider Mr. Al Sawaya's testimony.⁵⁴³ Because Paragon challenged Mr. Al Sawaya's qualifications and knowledge of test results in its response, it was proper for Altaire to submit a second declaration responding to the arguments raised in the patent owner response.⁵⁴⁴

535. *Id.* at 1355–56 (Newman, J., dissenting).

536. *See, e.g.*, *Hamilton Beach Brands, Inc. v. F'Real Foods, LLC*, 908 F.3d 1328, 1338–39 (Fed. Cir. 2018) (rejecting argument that Board violated the APA by changing claim construction theories midstream without providing parties an opportunity to respond).

537. 889 F.3d 1274 (Fed. Cir. 2018).

538. *Id.* at 1284.

539. *Id.* at 1279.

540. *Id.* at 1280. Rule 42.65(b) requires a party that relies on a technical test or data from such a test to “provide an affidavit explaining: (1) [w]hy the test or data is being used; (2) [h]ow the test was performed and the data was generated; (3) [h]ow the data is used to determine a value; (4) [h]ow the test is regarded in the relevant art; and (5) [a]ny other information necessary for the [PTAB] to evaluate the test and data.” *Id.* (citing 37 C.F.R. 42.65(b) (2018)).

541. *Id.*

542. *Id.*

543. *Id.* at 1285.

544. *Id.*

The Federal Circuit noted that the PTAB could have granted Paragon a sur-reply, rather than refuse to consider Mr. Al Sawaya's declaration.⁵⁴⁵ The Federal Circuit also determined that the PTAB abused its discretion by refusing to consider evidence regarding the test data and testing method.⁵⁴⁶ The Federal Circuit remanded for the PTAB to consider Mr. Al Sawaya's declaration and reconsider the test data.⁵⁴⁷

Next, *Dell Inc. v. Accelaron, LLC*⁵⁴⁸ involved the appeal of a remand determination by the PTAB in an IPR proceeding.⁵⁴⁹ In the underlying IPR, the PTAB relied on a new argument and evidence presented by Dell for the first time at oral argument, without providing Accelaron an opportunity to respond.⁵⁵⁰ The PTAB confirmed the validity of a set of claims and cancelled the remaining claims as either anticipated or obvious.⁵⁵¹ Both parties appealed and the Federal Circuit remanded, among other reasons, on grounds that the PTAB erred when it failed to give Accelaron an opportunity to respond.⁵⁵² On remand, the PTAB decided to not consider the newly raised "slides" argument during oral argument due to it being new and non-responsive. The PTAB further held that the claim presented was not anticipated.⁵⁵³

Dell argued that the PTAB's failure to consider its argument was contrary to Federal Circuit precedent and the remand order.⁵⁵⁴ The Federal Circuit disagreed and affirmed the PTAB's decision, finding that precedent did not compel the PTAB to consider Dell's new evidence and "[u]nless it chose to exercise its waiver authority under 37 C.F.R. § 42.5(b), the PTAB was obligated to dismiss Dell's untimely argument given that the untimely argument in this case was raised for the first time during oral argument."⁵⁵⁵ Regarding Dell's second argument, the Federal Circuit stated that the remand order did not order PTAB to consider Dell's new argument and Accelaron's response, but set out the requisite procedures that would apply had the PTAB actually considered Dell's evidence.⁵⁵⁶ The Federal Circuit

545. *Id.*

546. *Id.* at 1286–87.

547. *Id.*

548. 884 F.3d 1364 (Fed. Cir. 2018).

549. *Id.* at 1365.

550. *Id.*

551. *Id.* at 1367.

552. *Id.* at 1365.

553. *Id.* at 1368.

554. *Id.* at 1369.

555. *Id.*

556. *Id.*

also rejected Dell's public policy argument holding that due process and preserving the PTAB's discretion outweigh any negative effects of not invalidating a patent claim.⁵⁵⁷

In *Anacor Pharmaceuticals, Inc. v. Iancu*,⁵⁵⁸ the Federal Circuit addressed APA and due process arguments in the context of post-grant proceedings. Anacor argued that the PTAB's final written decision violated the APA and due process for two reasons: first, the PTAB adopted a new theory of unpatentability presented in petitioner's reply without giving Anacor notice and opportunity to respond; and second, the petitioner impermissibly relied on new evidence not included in the petition to satisfy burden of showing prima facie case of obviousness.⁵⁵⁹ The Federal Circuit rejected the first argument because the PTAB based its decision on the same references and inferences proposed in the petition.⁵⁶⁰ The Federal Circuit rejected the second argument as well, noting that there is "no blanket prohibition against the introduction of new evidence during an inter partes review proceeding" and in this case, Anacor had ample notice and opportunity to respond to the new reference which were properly offered in reply to arguments made by Anacor and for purpose of showing state of the art at the time of the patent application.⁵⁶¹

In *Yeda Research & Development Co. v. Mylan Pharmaceuticals Inc.*,⁵⁶² the Federal Circuit rejected the patent owner's argument that its due process rights and the APA were violated because it did not have notice of, and an opportunity to respond to, a reference introduced for the first time in the reply declaration of petitioner's expert.⁵⁶³ Under *Genzyme Therapeutic Products LP v. Biomarin Pharmaceutical Inc.*,⁵⁶⁴ "the introduction of new evidence in the course of the trial is to be expected in [IPR] trial proceedings and, as long as the opposing party is given notice of the evidence and an opportunity to respond to it, the introduction of such evidence is perfectly permissible under the APA."⁵⁶⁵ In *Yeda*, the patent owner received notice because the reference was provided with petitioner's reply, and patent owner

557. *Id.* at 1370.

558. 889 F.3d 1372 (Fed. Cir. 2018).

559. *Id.* at 1379–80.

560. *Id.* at 1380.

561. *Id.* at 1380, 1382.

562. 906 F.3d 1031 (Fed. Cir. 2018).

563. *Id.* at 1040.

564. 825 F.3d 1360 (Fed. Cir. 2016).

565. *Id.* at 1366.

deposed petitioner's expert, including questioning the expert about the reference at issue.⁵⁶⁶ Further, the patent owner could have addressed the reference at oral argument or sought leave to file a sur-reply to respond but did not take either action.⁵⁶⁷ The patent owner also argued that PTAB erred in considering the reference when assessing "knowledge, motivations, and expectations of a PHOSITA regarding the prior art because the reference did not qualify as prior art."⁵⁶⁸ The Federal Circuit disagreed noting that the PTAB has recognized that non-prior art evidence of what was known "cannot be applied, independently, as teachings separately combinable" with other prior art. However, this evidence "can be relied on for their proper supporting roles, e.g., indicating the level of ordinary skill in the art, what certain terms would mean to one with ordinary skill in the art, and how one with ordinary skill in the art would have understood a prior art disclosure."⁵⁶⁹ The Federal Circuit therefore found that the PTAB did not violate the APA or patent owner's due process rights.⁵⁷⁰

*Ericsson Inc. v. Intellectual Ventures I LLC*⁵⁷¹ addressed the scope of the PTAB's ability to strike arguments included in a petitioner's reply.⁵⁷² In its final written decision, the PTAB found that Ericsson had not proven the challenged claims were unpatentable because the asserted reference only taught one type of interleaving, interleaving R-blocks within an S-block as opposed to the interleaving of packets with other packets within a packet block.⁵⁷³ In reaching its decision, the PTAB rejected portions of Ericsson's reply that argued to a person of ordinary skill in the art, the difference between the disclosed and claimed interleaving was insubstantial given that interleaving packets together was known in the art, holding that this was a new theory beyond the scope of a proper reply.⁵⁷⁴ The Federal Circuit disagreed, finding that Ericsson's arguments "merely expand[ed] on a previously argued rationale as to why the prior art disclosures are insubstantially distinct from the challenged claims," and did not constitute a new

566. *Yeda*, 906 F.3d at 1040 (pointing to multiple references which gave notice).

567. *Id.*

568. *Id.* at 1041.

569. *Id.* (citing *Dominion Dealer Sols., LLC v. AutoAlert, Inc.*, No. IPR2014-00684, 2014 WL 5035359, at *5 (P.T.A.B. Oct. 6, 2014)).

570. *Id.* at 1040, 1042.

571. 901 F.3d 1374 (Fed. Cir. 2018).

572. *Id.* at 1379–80.

573. *Id.* at 1378–79 (noting that packets are a specific nomenclature for the '831 patent).

574. *Id.*

rationale.⁵⁷⁵ The Federal Circuit further stressed that its decision “should not be viewed as changing or challenging PTAB’s practice of limiting the scope of replies pursuant to its regulations.”⁵⁷⁶

B. Reexamination

Prior to the advent of the AIA post-grant proceedings in September 2012, a party could challenge the validity of certain patents in inter partes reexamination proceedings. One issue that arises from reexaminations and other PTO invalidation proceedings is the extent to which a jury can be made aware of the details of the PTO proceeding. In *01 Communique Laboratory, Inc. v. Citrix Systems, Inc.*,⁵⁷⁷ the Federal Circuit addressed the use of testimony regarding a reexamination proceeding during the district court trial.⁵⁷⁸ The district court stayed the litigation pending resolution of a request for inter partes reexamination filed in March 2008 against the asserted patent by Citrix.⁵⁷⁹ In October 2013, the PTAB confirmed the patentability of the asserted claims over various prior art references,⁵⁸⁰ and the Federal Circuit affirmed.⁵⁸¹ The district court denied Citrix’s motion to exclude evidence pertaining to the PTO reexamination proceedings and held that the reexamination could be used in a limited manner at trial, but Citrix could not be identified as the party that requested the reexamination because “it would be unfairly prejudicial to Citrix to attribute the reexamination request to Citrix or to indicate that it was Citrix that advanced certain arguments in the reexamination process.”⁵⁸² The district court was concerned that the jurors might put undue weight on the fact that Citrix advanced arguments that were rejected by the PTAB, even though the PTAB uses a different standard and does not have the benefit of the full array of evidence that would be presented to the jury.⁵⁸³ The Federal Circuit held that the lower court did not abuse its discretion by allowing the

575. *Id.* at 1381.

576. *Id.* at 1380 (explaining that the Board’s discretion to reject arguments not raised in before the reply brief).

577. 889 F.3d 735 (Fed. Cir. 2018).

578. *Id.* at 744.

579. *Id.* at 738.

580. *Id.*

581. *Id.*; *see also* *Citrix Sys., Inc. v. 01 Communique Lab., Inc.*, 581 F. App’x 900 (Fed. Cir. 2014) (affirming the lower court’s holding).

582. *01 Communique Lab.*, 889 F.3d at 739.

583. *Id.*

PTO reexamination record to be used and not informing the jury about the Citrix party that requested the reexamination.⁵⁸⁴

C. *Anticipation and Obviousness*

Most of the 226 PTAB appeal decisions issued in 2018 dealt with reviewing the PTAB's findings on anticipation or obviousness. Anticipation is a question of fact. Obviousness is a question of law based on underlying factual findings, including the scope and content of prior art references and the existence of a reason to combine those references. The Federal Circuit reviews agency findings of fact for support by substantial evidence in the agency record, and agency rulings of law are reviewed for correctness in accordance with law.⁵⁸⁵ Most of the Federal Circuit's decisions do not warrant extended discussion because they dealt with case-specific disputes about underlying facts. In the majority of these cases, the Federal Circuit affirmed the PTAB's decision.⁵⁸⁶ However, the Federal Circuit did vacate the PTAB's decision in a few cases.⁵⁸⁷ Several PTAB decisions fell short of the requirement that the PTAB "explicate its factual conclusions, enabling the [Federal Circuit] to verify readily whether those conclusions are indeed supported by 'substantial evidence' contained within the record."⁵⁸⁸

*In re Hodges*⁵⁸⁹ was a rare case in which the Federal Circuit reversed the PTAB, rather than vacating and remanding for further proceedings.⁵⁹⁰ During prosecution, the examiner rejected the claims

584. *Id.* at 744.

585. *See In re Gartside*, 203 F.3d 1305, 1316 (Fed. Cir. 2000).

586. *See PGS Geophysical AS v. Iancu*, 891 F.3d 1354, 1364 (Fed. Cir. 2018) (finding that substantial evidence supported the PTAB's finding of motivation to combine); *Anacor Pharm., Inc. v. Iancu*, 889 F.3d 1372, 1385 (Fed. Cir. 2018) (affirming obviousness determination because substantial evidence supported the PTAB's finding that a PHOSITA would have expected compounds at issue would share activities, such as inhibition of fungi); *Steuben Foods, Inc. v. Nestle USA, Inc.*, 884 F.3d 1352, 1356–57 (Fed. Cir. 2018) (noting that other factual determinations should be included); *Polaris Indus., Inc. v. Arctic Cat, Inc.*, 882 F.3d 1056, 1074 (Fed. Cir. 2018) (affirming obviousness determination based on Board's claim construction).

587. *See Nestle USA, Inc. v. Steuben Foods, Inc.*, 884 F.3d 1350, 1352 (Fed. Cir. 2018) (vacating the PTAB's nonobviousness decision and remanding where claim construction determined to be erroneous).

588. *Gartside*, 203 F.3d at 1314; *see also Power Integrations, Inc. v. Lee*, 797 F.3d 1318, 1326–27 (Fed. Cir. 2015) (holding that the PTAB's reasoning must be set out "in sufficient detail to permit meaningful appellate review").

589. 882 F.3d 1107 (Fed. Cir. 2018).

590. *Id.* at 1109.

as anticipated by the Rasmussen reference, the Frantz reference, and as obvious over the combination of Rasmussen and Frantz.⁵⁹¹ The Federal Circuit found that the PTAB's anticipation determinations based on Rasmussen and Frantz were unsupported by substantial evidence and reversed both decisions.⁵⁹² Regarding Rasmussen, the court reversed the PTAB's determination because the only finding supported by substantial evidence in Rasmussen pertains to the claim limitation at issue.⁵⁹³ After finding that the PTAB's construction of "signal" was unreasonably broad, the court reversed the PTAB's determination on the Frantz rejection because the only permissible factual finding was that Frantz did not disclose a "signal" under an reasonable construction—a position supported by the PTO's refusal to defend the PTAB's Frantz determination on appeal.⁵⁹⁴ Finding that the "obviousness determinations involved 'potentially lawful but insufficiently or inappropriately explained' factual findings," the Federal Circuit vacated the obviousness determination and remanded for further factual findings and explanation.⁵⁹⁵

Judge Wallach, writing separately, concurred in the decision to reverse the Frantz and obviousness decisions but dissented with respect to the Rasmussen decision because "the majority goes too far in reversing the PTAB's anticipation finding."⁵⁹⁶ The dissent noted that Federal Circuit precedent has identified two "rare circumstances"⁵⁹⁷ where the Federal Circuit may reverse the PTAB's ultimate patentability determinations: when the PTAB has committed legal error and no further factual findings are required and when the PTAB made erroneous factual findings and "only one permissible factual finding" exists.⁵⁹⁸ The dissent argued that by departing from the default rule that deficient agency decisions should be vacated and remanded, the majority improperly acted as the factfinder.⁵⁹⁹

591. *Id.* at 1110–11 (referring to the two patents at issue in the case, the Rasmussen and the Frantz, which together render all claims obvious).

592. *Id.* at 1112–13.

593. *Id.* at 1113–14.

594. *Id.* at 1115–16.

595. *Id.* at 1117.

596. *Id.* at 1117 (Wallach, J., concurring in part and dissenting in part).

597. *Id.* at 1118 (citing *Ariosa Diagnostics v. Verinata Health, Inc.*, 805 F.3d 1359, 1365 (Fed. Cir. 2015)).

598. *Id.* (citing *Corning v. Fast Felt Corp.*, 873 F.3d 896, 903 (Fed. Cir. 2017)).

599. *In re Hodges*, 882 F.3d 1107, 1121 (Fed. Cir. 2018).

The Federal Circuit addressed the reliance on “ordinary creativity” or “common sense” during obviousness inquiries in *DSS Technology Management, Inc. v. Apple Inc.*⁶⁰⁰ Noting that common sense and common knowledge have their proper place in the obviousness inquiry if explained with sufficient reasoning, the court stressed that “there are at least three caveats to note in applying ‘common sense’ in an obviousness analysis.”⁶⁰¹ First, common sense is typically invoked to provide a known motivation to combine, not to supply, a missing claim limitation; second, common sense is invoked to fill in a missing limitation only when “the limitation in question was unusually simple and the technology particularly straightforward”; third, “references to ‘common sense’—whether to supply a motivation to combine or a missing limitation—cannot be used as a wholesale substitute for reasoned analysis and evidentiary support, especially when dealing with a limitation missing from the prior art references specified.”⁶⁰² In this case, the Federal Circuit found that the requisite reasoned analysis and evidentiary support was not present.⁶⁰³ The court then reversed rather than vacating and remanding because the only proffered evidence, the testimony of Apple’s expert, was conclusory and unspecific and the court could not glean a more reasoned explanation from the record.⁶⁰⁴ Judge Newman dissented and argued that the PTAB’s decision was adequately explained, and regardless, the proper remedy was remand and “not [cementing] this inadequacy into a final judgment for the opposing party.”⁶⁰⁵

*Ericsson Inc. v. Intellectual Ventures I LLC*⁶⁰⁶ was another case where the Federal Circuit reversed the PTAB’s invalidity determinations, rather than vacating and remanding.⁶⁰⁷ The PTAB ruled that the challenged independent claim was neither anticipated nor obvious because the petitioner had “not demonstrated, by a preponderance of the evidence, that any of claims 1–16” were anticipated or obvious over the applied prior art reference.⁶⁰⁸ The PTAB did not separately analyze

600. 885 F.3d 1367 (Fed. Cir. 2018).

601. *Id.* at 1374 (citing *Arendi S.A.R.L. v. Apple Inc.*, 832 F.3d 1355, 1361 (Fed. Cir. 2016)).

602. *Id.*

603. *Id.* at 1376–77.

604. *Id.* at 1377.

605. *Id.* at 1377–78 (Newman, J., dissenting).

606. 890 F.3d 1336 (Fed. Cir. 2018).

607. *Id.* at 1349 (vacating and remanding the remaining claims at issue).

608. *Id.* at 1340.

the challenged dependent claims.⁶⁰⁹ The Federal Circuit found that the PTAB's determinations were not supported by substantial evidence.⁶¹⁰ Specifically, the court held that the testimony of Intellectual Ventures' expert's contradictory statements in the reference were unsupported opinions and therefore "not substantial evidence."⁶¹¹ Judge Wallach dissented and argued that "[t]he majority improperly steps out of the appellate role and substitutes its own interpretation of the evidence for the PTAB's."⁶¹²

In *Polaris Industries, Inc. v. Arctic Cat, Inc.*,⁶¹³ the Federal Circuit vacated the PTAB's obviousness determination as to a set of claims because "the PTAB's analysis of these claims was inadequate."⁶¹⁴ The court found that the PTAB's analysis applied an improper framework to assess patentee's teaching away argument, specifically improperly disregarding teachings of a reference as ill-defined "subjective preferences," focusing on what a skilled artisan would have been able to do, rather than what a skilled artisan would have been motivated to do and encouraging the fact-finder to discard evidence relevant to teaching-away and motivation to combine.⁶¹⁵ On remand, the court instructed the PTAB to analyze whether the reference teaches away from the claims "under the framework that our case law *has* articulated."⁶¹⁶

*In re Durance*⁶¹⁷ also involved an appeal of the examiner's rejection during prosecution.⁶¹⁸ However, *Durance* addressed PTO procedure during examination and appeal. After the examiner issued a final rejection of the claims as obvious, the applicant appealed the rejection to the PTAB.⁶¹⁹ In the examiner's answer, the examiner set forth a new structural-identity argument but did not designate the argument as a new ground of rejection.⁶²⁰ The applicant challenged the examiner's rejections of the structural identity.⁶²¹ The PTAB affirmed the

609. *Id.*

610. *Id.* at 1346.

611. *Id.*

612. *Id.* at 1354 (Wallach, J., dissenting) (noting that the proper inquiry considers whether substantial evidence supported the finding).

613. 882 F.3d 1056 (Fed. Cir. 2018).

614. *Id.* at 1067, 1074.

615. *Id.* at 1068–69.

616. *Id.* at 1070.

617. 891 F.3d 991 (Fed. Cir. 2018).

618. *Id.* at 997.

619. *Id.*

620. *Id.* at 998.

621. *Id.* at 999.

examiner's obviousness rejection and disregarded applicant's reply brief arguments finding that the arguments did not respond to arguments raised in the answer.⁶²² The Federal Circuit disagreed and found that if the examiner's answer included arguments raised for the first time; an applicant may address those in its reply.⁶²³ Here, the applicant's reply brief was responsive to the examiner's answer and included citations indicating the new arguments to which the applicant was responding.⁶²⁴ The Federal Circuit vacated the PTAB's decision and remanded for the PTAB to consider the arguments made in the reply brief.⁶²⁵

Secondary considerations were also at issue in several PTAB appeals decided in 2018. In *Polaris Industries, Inc. v. Arctic Cat, Inc.*,⁶²⁶ the Federal Circuit vacated the PTAB's finding of obviousness of a set of claims because the PTAB improperly rejected its un rebutted evidence of commercial success.⁶²⁷ The patentee provided evidence that its product, covered by the claimed invention, was a commercial success.⁶²⁸ When the patentee shows that the asserted objective evidence is tied to a specific product and that product "embodies the claimed features, and is coextensive with them," the court presumes a nexus between the commercial success and the claims.⁶²⁹ In this case, the PTAB refused to give substantial weight to the patentee's undisputed evidence because it characterizes the evidence as conclusory.⁶³⁰ The Federal Circuit instructed the PTAB to assess the import of patentee's evidence on remand "after presuming that a nexus between the claims and the commercial success" of the product exists, unless and until that presumption is adequately rebutted.⁶³¹

1. *Printed publication*

One ancillary issue that often arises in prior art challenges is whether the petitioner has adequately established that the asserted reference is a printed publication. Many of the Federal Circuit's anticipation and

622. *Id.*

623. *Id.* at 1001–02.

624. *Id.* at 999.

625. *Id.* at 1003 (outlining the arguments the PTAB must address).

626. 882 F.3d 1056 (Fed. Cir. 2018).

627. *Id.* at 1071–73.

628. *Id.*

629. *Id.* at 1072.

630. *Id.* (detailing the evidence that the PTAB refused to fully consider).

631. *Id.* at 1073.

obviousness decisions involving non-patent literature such as catalogs, conference presentations, and technical reports turned on this issue. *GoPro, Inc. v. Contour IP Holding LLC*⁶³² addressed the issue of whether a prior art product catalog was a printed publication.⁶³³ In its final written decision, the PTAB determined that the 2009 GoPro Catalog, asserted as prior art, did not qualify as a prior art printed publication and therefore the petitioner failed to establish that the challenged claims were unpatentable.⁶³⁴ The petitioner provided evidence that the GoPro Catalog was distributed at the Tucker Rocky annual dealer trade show, attended by vendors and dealers.⁶³⁵ The PTAB concluded that petitioner did not establish “that the GoPro Catalog was disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the subject matter or art and exercising reasonable diligence could have located it.”⁶³⁶ Specifically, a “person ordinarily skilled in the art would not be interested in the dealer show because it was not an academic conference or camera industry conference, but rather a dealer show for action sports vehicles like motorcycles, motorbikes, ATVs, snowmobiles, and watercraft.”⁶³⁷ The Federal Circuit disagreed, holding that the “case law regarding accessibility [was] not as narrow as the PTAB interprets it.”⁶³⁸ The Federal Circuit noted that “the GoPro Catalog was disseminated with no restrictions and was intended to reach the general public.”⁶³⁹ Because trade shows, like conferences, are “directed to individuals interested in the commercial and developmental aspects of products,”⁶⁴⁰ the Federal Circuit reasoned that “The fact that the dealer show is focused on action sports vehicles is not preclusive of persons ordinarily skilled in the art from attending to see what POV digital cameras were being advertised and displayed.”⁶⁴¹ The court found that, based on the record evidence, the petitioner met the burden of proving that the GoPro Catalog was a printed publication.⁶⁴²

632. 908 F.3d 690 (Fed. Cir. 2018).

633. *Id.* at 691.

634. *Id.* at 693.

635. *Id.* at 692.

636. *Id.* at 693.

637. *Id.* at 694.

638. *Id.*

639. *Id.* at 695.

640. *Id.* at 694.

641. *Id.* at 695.

642. *Id.* at 694.

Because the PTAB did not consider the merits of the obviousness claim, the PTAB vacated and remanded.⁶⁴³

The issue of public availability of a catalog was addressed by the Federal Circuit again in *Nobel Biocare Services AG v. Intradent USA, Inc.*⁶⁴⁴ The court noted that “[b]ecause there are many ways in which a reference may be disseminated to the interested public, ‘public accessibility’ has been called the touchstone in determining whether a reference constitutes a ‘printed publication.’”⁶⁴⁵ To support the public accessibility of the catalog, petitioner provided the International Trade Commission testimony of the inventor who testified that he distributed the catalog at the International Dental Show conference in March 2003 without requiring a confidentiality agreement.⁶⁴⁶ The petitioner also submitted two declarations to corroborate the testimony of the inventor; one of the declarants both received and retained a copy of the catalog in his files.⁶⁴⁷ “Corroboration is required of any witness whose testimony alone is asserted to invalidate a patent, regardless of his or her level of interest.”⁶⁴⁸ Sufficiency of corroboration in prior invention or public use cases is assessed based on a number of factors including, for example, the relationship between the corroborating witness and the alleged prior user, the time period between the event and trial, and the interest of the corroborating witness.⁶⁴⁹ The Federal Circuit found that the petitioner’s corroboration was legally sufficient and rejected the argument that the testimony of one witness cannot be corroborated by the testimony of another witness.⁶⁵⁰ The date on the catalog matched the date the witnesses testified it was publicly available, and this constituted further corroboration of public accessibility as of that date.⁶⁵¹ The Federal Circuit determined that substantial evidence supported the PTAB’s finding that the catalog was publicly accessible prior to the critical date of the challenged patent.⁶⁵²

643. *Id.* at 695–96.

644. 903 F.3d 1365 (Fed. Cir. 2018).

645. *Id.* at 1375 (quoting *In re Hall*, 781 F.2d 897, 898–99 (Fed. Cir. 1986)).

646. *Id.* at 1371–72.

647. *Id.* at 1372–73, 1376.

648. *Id.* at 1377–78 (quoting *Finnigan Corp. v. Int’l Trade Comm’n*, 180 F.3d 1354, 1369 (Fed. Cir. 1999) (alteration omitted)).

649. *Id.* at 1378.

650. *Id.*

651. *Id.* at 1378–79.

652. *Id.* at 1376.

In *Medtronic, Inc. v. Barry*,⁶⁵³ the Federal Circuit addressed the issue of whether a video demonstration and slide presentation presented to spinal surgeons at various industry meetings and conferences were “printed publications.”⁶⁵⁴ The PTAB found that the video and slides were not prior art.⁶⁵⁵ The Federal Circuit vacated the PTAB’s determination and found that the PTAB did not fully consider all the relevant factors such as the size and nature of the meetings, whether the meetings were open to people interested in the subject matter of the material disclosed, and whether there was “an expectation of confidentiality between the distributor and the recipients of the materials.”⁶⁵⁶

*Jazz Pharmaceuticals, Inc. v. Amneal Pharmaceuticals, LLC*⁶⁵⁷ addressed whether FDA advisory committee “materials were sufficiently accessible to the public to constitute prior art.”⁶⁵⁸ The obviousness grounds presented by petitioner in the six IPR proceedings at issue in this case relied on four documents, collectively referred to as the Advisory Committee Art (ACA materials): “(1) the FDA advisory committee meeting transcript and slides; (2) an FDA preliminary clinical safety review of Xyrem®; (3) a Xyrem® briefing booklet; and (4) a video and transcript regarding a proposed distribution system for Xyrem®.”⁶⁵⁹

The Federal Circuit found that substantial evidence supported the PTAB’s finding that the ACA materials were publicly accessible.⁶⁶⁰ First, the notice in the Federal Register, a reference that those of ordinary skill in the art would be motivated to examine, widely disseminated the ACA materials through a hyperlink to a public FDA website where the ACA materials were accessible.⁶⁶¹ Second, “the ACA materials were available online for a substantial time before the critical date of the patents in suit.”⁶⁶² Third, “the ACA materials were distributed via public domain sources with no possible expectation that the materials would remain confidential or not be copied.”⁶⁶³ The Federal Circuit

653. 891 F.3d 1368 (Fed. Cir. 2018).

654. *Id.* at 1379.

655. *Id.*

656. *Id.* at 1382–83.

657. 895 F.3d 1347 (Fed. Cir. 2018).

658. *Id.* at 1351.

659. *Id.* at 1350–52.

660. *Id.* at 1356.

661. *Id.* at 1357–58.

662. *Id.* at 1358.

663. *Id.*

further noted “if accessibility is proved, there is no requirement to show that particular members of the public actually received the information.”⁶⁶⁴

*Acceleration Bay, LLC v. Activision Blizzard Inc.*⁶⁶⁵ addressed the public accessibility of a technical report loaded on the website of a university.⁶⁶⁶ The parties did not dispute that the report had been uploaded to the university’s Computer Science and Engineering Technical Reports Library’s website prior to the critical date.⁶⁶⁷ The dispute focused on whether the technical report was publicly accessible.⁶⁶⁸ “[P]ublic accessibility’ requires more than technical accessibility.”⁶⁶⁹ Because there was no evidence that the report was disseminated to the public, “the PTAB focused on whether an interested skilled artisan, using reasonable diligence, would have found” the report on the Technical Reports Library website.⁶⁷⁰ “The website allowed a user to view a list of technical reports indexed only by author or year.”⁶⁷¹ This evidence suggests that an artisan may have located the report by skimming through potentially hundreds of titles, most containing unrelated subject matter.⁶⁷² Because the technical report was not indexed in a meaningful way and the website’s advanced search form was deficient, the Federal Circuit found that the PTAB did not err in finding that the report was not publicly accessible and therefore not a printed publication.⁶⁷³

2. *Priority benefit*

The issue of properly claiming priority benefit arises in several contexts in PTAB proceedings. For example, a petitioner often must establish benefit to an earlier application to use the prior application’s filing date to support a proposed ground of unpatentability. Similarly, a patent owner may attempt to establish priority benefit to an earlier application to avoid a prior art rejection. A petitioner may also attack a patent owner’s priority benefit claim in order to use a prior art reference that pre-dates the patent’s filing date but post-dates the

664. *Id.* at 1360 (citing *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1569 (Fed. Cir. 1988) (alterations omitted)).

665. 908 F.3d 765 (Fed. Cir. 2018).

666. *Id.* at 772–74.

667. *Id.* at 773.

668. *Id.*

669. *Id.*

670. *Id.*

671. *Id.*

672. *Id.*

673. *Id.*

earlier application. The Federal Circuit addressed a wide range of priority benefit issues in 2018.

In *Droplets, Inc. v. E*TRADE Bank*,⁶⁷⁴ the Federal Circuit affirmed the PTAB's finding that the challenged patent was not entitled to the benefit of a provisional application.⁶⁷⁵ Regulation 1.78, which implements the priority benefit statutory provisions of 35 U.S.C. § 119(e) and § 120, "requires that an application contain a specific reference to each prior-filed application to which the application seeks to claim priority," including each prior-filed application's application number and familial relationship.⁶⁷⁶ Further, the specific reference "must be included in an application data sheet . . . or the specification must contain . . . such reference in the first sentence(s) following the title."⁶⁷⁷ The challenged patent in this case claimed priority benefit to its immediate parent patent ("the '838 patent") and to a provisional application ("the '917 patent") which was not co-pending at the time the challenged patent was filed.⁶⁷⁸ The '838 patent was a continuation of another patent ("the '745 patent") that properly claimed priority benefit to the '917 provisional application.⁶⁷⁹ The challenged patent incorporated the '838 patent by reference but did not include an explicit recitation of the benefit claim from the '838 patent to the '745 patent. The issue on appeal was whether the challenged patent is entitled to claim benefit of the '917 provisional by virtue of the incorporation by reference of the '838 patent.⁶⁸⁰ The Federal Circuit determined that the statutory "specific reference" requirement does not contemplate incorporation by reference because "[t]o require the public to search for an unstated priority claim through incorporated materials would create uncertainty and would require the type of guesswork that the statute is meant to avoid."⁶⁸¹

*Hologic, Inc. v. Smith & Nephew, Inc.*⁶⁸² addressed priority benefit in the context of written description support.⁶⁸³ The challenged patent claimed priority to a patent cooperation treaty (PCT) application (the

674. 887 F.3d 1309 (Fed. Cir. 2018).

675. *Id.* at 1322.

676. *Id.* at 1315.

677. *Id.* at 1316 (citing 37 C.F.R. § 1.78(d)(3) (2009)).

678. *Id.*

679. *Id.*

680. *Id.*

681. *Id.* at 1320.

682. 884 F.3d 1357 (Fed. Cir. 2018).

683. *Id.* at 1358.

“Emanuel PCT”), which was nearly identical to the specification of the challenged patent.⁶⁸⁴ During the inter partes reexamination, the examiner found that the challenged patent could not claim priority to the Emanuel PCT because the disclosure in the Emanuel PCT of only a “fibre optics bundle” did not provide adequate written description support for the broad genus of “light guides.”⁶⁸⁵ The examiner then rejected the claims as obvious over the Emanuel PCT in combination with a secondary reference.⁶⁸⁶ The PTAB reversed the examiner’s rejection and found that the Emanuel PCT provided written description support for the claimed “light guide.”⁶⁸⁷ The Federal Circuit affirmed the PTAB’s finding and held that substantial evidence supported the PTAB’s finding.⁶⁸⁸ The parties did not dispute that a “fibre optics bundle” is a type of light guide and that various types of light guides were well-known in the art.⁶⁸⁹ Therefore, from the intrinsic evidence, a PHOSITA, reviewing the Emanuel PCT, would have understood the inventor had possession of the claimed light guide.⁶⁹⁰ The court also found that “prior patents reflecting the state of the art at the time of the invention and expert testimony regarding that evidence support the PTAB’s findings.”⁶⁹¹

*Natural Alternatives International, Inc. v. Iancu*⁶⁹² addressed priority claims in a patent family.⁶⁹³ The challenged patent was the eighth applications in a family of applications directed to increasing athletes’ endurance.⁶⁹⁴ While the fourth application was pending, the patent owner filed a provisional application.⁶⁹⁵ The fifth application in the family was amended after filing to claim priority only to the provisional application.⁶⁹⁶ The sixth through eighth applications issued claimed priority benefit of the fifth through first applications and the provisional application.⁶⁹⁷ The patent owner did not dispute that it

684. *Id.* at 1360.

685. *Id.* at 1358, 1360.

686. *Id.* at 1360.

687. *Id.* at 1360–61.

688. *Id.* at 1364.

689. *Id.* at 1362.

690. *Id.* at 1363.

691. *Id.*

692. 904 F.3d 1375 (Fed. Cir. 2018).

693. *Id.* at 1377.

694. *Id.*

695. *Id.*

696. *Id.* at 1377–78.

697. *Id.* at 1378.

waived priority to the fourth through first applications in the fifth application but argued that the sixth application maintained priority back to the first application.⁶⁹⁸ On appeal, the PTAB determined that when the eighth application was filed, the fifth application was not entitled to benefit of the fourth application through first applications and affirmed the examiner's rejection based on the patent that issued from the first application.⁶⁹⁹

The Federal Circuit rejected patent owner's argument that priority properly vested by virtue of meeting all the requirements of § 120.⁷⁰⁰ Noting that the patent owner's vesting argument conflates properly claiming priority and demonstrating entitlement to priority, the Federal Circuit found that the PTAB did not err in its priority determination because the fifth application lacked priority to the first application, and the eighth application's priority claim to the first application (via the fifth application) did not satisfy all of § 120's requirements.⁷⁰¹

3. *Printed matter doctrine*

*Praxair Distribution, Inc. v. Mallinckrodt Hospital Products IP Ltd.*⁷⁰² expanded the scope of the printed matter doctrine beyond printed matter to include mental steps.⁷⁰³ The challenged claims in *Praxair* "generally require supplying a medical provider with a cylinder of nitric oxide gas and providing the medical provider with certain prescribing information relating to the harmful side effects of nitric oxide for certain patients identified" with left ventricular dysfunction.⁷⁰⁴ During claim construction for claims 1–8 and 10, the PTAB interpreted the provided information, evaluating, and recommending "claim limitations to be either printed matter or purely mental steps not entitled to patentable weight" because the "limitations lacked a functional relationship to the other claim limitations."⁷⁰⁵ However, for claim 9, the PTAB interpreted the "in accordance with" language to mean "based on, or as a result of" and thereby established a functional relationship to the remaining limitations of the claim.⁷⁰⁶

698. *Id.*

699. *Id.*

700. *Id.* at 1379.

701. *Id.* at 1381.

702. 890 F.3d 1024 (Fed. Cir. 2018).

703. *Id.* at 1031, 1038.

704. *Id.* at 1028.

705. *Id.* at 1030.

706. *Id.*

Patentee, Mallinckrodt, challenged the application of the printed matter doctrine to claims 1–8 and 10–11.⁷⁰⁷ The Federal Circuit applied a two-step framework for printed matter analysis. First, a determination must be made whether the claim limitation is directed to printed matter.⁷⁰⁸ A claim limitation is directed to printed matter if it claims the content of information.⁷⁰⁹ Mallinckrodt argued that the PTAB erred by concluding that claim limitations reciting metal steps were not entitled to patentable weight.⁷¹⁰ The Federal Circuit rejected this argument finding that “[b]ecause claim limitations directed to mental steps may attempt to capture informational content, they may be considered printed matter lacking patentable weight in an obviousness analysis.”⁷¹¹ Here, the court found that the claims were directed to printed matter.⁷¹² “If a claim limitation is directed to printed matter, then the next step is to ascertain whether the printed matter is functionally related to its ‘substrate.’”⁷¹³ In this case, the Federal Circuit found that the PTAB did not err in finding that the recitation of “providing pharmaceutically acceptable nitric oxide gas” in the preamble did not create a functional relationship between the printed matter and the remaining claim limitations.⁷¹⁴

Judge Newman wrote separately concurring in the judgment but disagreeing “with the court’s view of the ‘printed matter doctrine’ and its application to ‘information’ and ‘mental steps.’”⁷¹⁵ Judge Newman argued that unprinted matter or a mental step “does not become ‘printed’ if it carries information, nor even if it requires thinking.”⁷¹⁶ Judge Newman also disagreed with the majority’s analysis, which first applied the “printed matter doctrine” to remove some limitations from the claim, then reviewed what is left of the claim.⁷¹⁷

707. *Id.* at 1031.

708. *See id.* at 1032–33.

709. *Id.* at 1031–32 (citing *In re DiStefano*, 808 F.3d 845, 848 (Fed. Cir. 2015)).

710. *Id.* at 1033.

711. *Id.*

712. *Id.* at 1033–34.

713. *Id.* at 1032.

714. *Id.* at 1034.

715. *Id.* at 1038 (Newman, J., concurring in the judgment).

716. *Id.* at 1039.

717. *Id.* at 1042.

4. *Swearing behind a reference*

In *Apator Miitors ApS v. Kamstrup A/S*,⁷¹⁸ the Federal Circuit addressed the requirements for swearing behind a reference in a post-grant proceeding. The court noted that an inventor can “swear behind a reference by proving he conceived his invention” prior to the reference’s effective filing date in and, after that date, diligently reduced his invention to practice.⁷¹⁹ When a party seeks to prove conception through an inventor’s testimony, the party must proffer evidence, “in addition to [the inventor’s] own statements and documents,” corroborating the inventor’s testimony.⁷²⁰ “Conception is a question of law predicated on subsidiary factual findings, one of which is the sufficiency of corroboration.”⁷²¹

In this case, patentee filed a declaration from the inventor, Mr. Drachmann, in which he declared he conceived of the invention prior to the applied reference’s filing date.⁷²² The patentee further filed e-mails and drawings as independent evidence to corroborate the inventor’s testimony.⁷²³ The PTAB rejected the patentee’s attempt to swear behind the applied reference and found the challenged claims unpatentable at final written decision.⁷²⁴ The Federal Circuit affirmed, finding that substantial evidence supported the PTAB’s finding that Apator had not established conception prior to the effective filing date of the applied reference.⁷²⁵ The Federal Circuit noted that the evidence proffered by patentee “is stuck in a catch-22 of corroboration” because the e-mails and drawings can only provide the necessary corroboration with testimony from Mr. Drachman.⁷²⁶ The court found that Mr. Drachmann’s unwitnessed emails and drawing were insufficient on their own to corroborate his testimony.⁷²⁷

718. 887 F.3d 1293 (Fed. Cir. 2018).

719. *Id.* at 1295 (citing *Perfect Surgical Techniques, Inc. v. Olympus Am., Inc.*, 841 F.3d 1004, 1007 (Fed. Cir. 2016)).

720. *Id.* (citing *Mahurkar v. C.R. Bard, Inc.*, 79 F.3d 1572, 1577 (Fed. Cir. 1996)) (acknowledging that by requiring corroboration of the testimony, inventors cannot describe their actions in a self-serving manner).

721. *Id.*

722. *Id.* at 1294.

723. *Id.*

724. *Id.* at 1295.

725. *Id.* at 1296.

726. *Id.*

727. *Id.* at 1297 (noting the similarity to other circumstances where the court found that unwitnessed laboratory notebooks were insufficient to corroborate testimony).

D. *Inventorship*

*In re VerHoef*⁷²⁸ involved an appeal of the PTAB affirmance of the examiner's rejection of all application claims as unpatentable under 35 U.S.C. § 102(f), which provides that one cannot obtain a valid patent if "he did not himself invent the subject matter sought to be patented."⁷²⁹ Conception and inventorship are questions of law that the Federal Circuit reviews de novo, premised on underlying factual findings that the Federal Circuit reviews for substantial evidence.⁷³⁰ The application at issue was directed to a dog mobility device.⁷³¹ The applicant, VerHoef, conceded that the essential feature of the claims was conceived and suggested by a veterinarian.⁷³² The Federal Circuit rejected VerHoef's argument that he should be declared sole inventor because he maintained "'intellectual domination' and control" of the work.⁷³³ The Federal Circuit agreed with the PTO that the veterinarian was a joint inventor because she contributed an essential feature of the claimed invention.⁷³⁴

E. *Patent Term Adjustment*

*Actelion Pharmaceuticals, Ltd. v. Matal*⁷³⁵ addressed patent term adjustments under 35 U.S.C. § 154, which accounts for any undue delays in patent examination caused by the PTO.⁷³⁶ One such delay is an "A delay," which arises when the PTO fails to meet statutory deadlines for events that occur during prosecution, such as providing notice to the applicant of the rejection of a claim or taking action on an applicant's reply to such a rejection.⁷³⁷ The dispute in the appeal was the PTO's "A delay" calculation.⁷³⁸

Actelion filed a first PCT application on July 16, 2009 and a second PCT application on July 15, 2010, claiming priority to the first PCT.⁷³⁹ On January 12, 2012, four days before the thirty month priority date (January 16, 2012), Actelion filed an application (the '619

728. 888 F.3d 1362 (Fed. Cir. 2018).

729. *Id.* at 1363, 1365.

730. *Id.* at 1365.

731. *Id.* at 1364.

732. *See id.* at 1364–65.

733. *Id.* at 1366.

734. *Id.*

735. 881 F.3d 1339 (Fed. Cir. 2018).

736. *Id.* at 1340.

737. *Id.* at 1340–41.

738. *Id.* at 1340.

739. *Id.* at 1342.

application). This was a national stage application of the second PCT application, claiming priority from the July 16, 2009 priority date.⁷⁴⁰ With the application filing, Actelion filed a preliminary amendment stating that “[a]pplicant earnestly solicits early examination” but did not check the box on Form 1390 indicating “an express request to begin national examination procedures.”⁷⁴¹ On April 26, 2013, the PTO issued a restriction requirement which undisputedly ended the accrual of “A delay.”⁷⁴² The PTO later issued an issue notification providing a grant of forty-one patent term adjustment days.⁷⁴³ Actelion filed a request for recalculation and in response the PTO reduced the PTA to forty days.⁷⁴⁴ Actelion then filed suit against the PTO in the Eastern District of Virginia pursuant to § 154(b)(4).⁷⁴⁵

The Federal Circuit affirmed the district court’s grant of summary judgment to the PTO.⁷⁴⁶ The Federal Circuit found that Actelion’s remark that it “earnestly solicits early examination and allowance of these claims” was insufficient to communicate to the PTO an “express request” pursuant to § 371(f) under either the pre- or post-Technical Corrections Act⁷⁴⁷ statute.⁷⁴⁸ The Federal Circuit also found no error with the PTO’s determination that because January 16, 2012 was a national holiday, the national stage for the ‘675 patent commenced on January 17, 2012, the next workday.⁷⁴⁹

F. Federal Circuit Procedures

The Federal Circuit dismissed a cross-appeal in *Droplets, Inc. v. E*TRADE Bank* as improper.⁷⁵⁰ Both Droplets and E*TRADE argued

740. *Id.*

741. *Id.*

742. *Id.*

743. *Id.*

744. *Id.*

745. *Id.* at 1342–43.

746. *Id.* at 1346.

747. On January 14, 2013, Congress enacted the Technical Corrections-Leahy Smith America Invents Act (“Technical Corrections Act”). Pub. L. No. 112-274, 126 Stat. 2456 (2013). The Technical Corrections Act included amendments to provisions of 35 U.S.C. § 154, covering patent term adjustments. Prior to the amendments under TCA, § 154(b)(1)(A)(i)(II) read “the date on which an international application fulfilled the requirements of section 371 of this title” and after amendments read “the date of commencement of the national stage under section 371 in an international application.” See 126 Stat. at 2457.

748. *Actelion Pharm.*, 881 F.3d at 1345–46.

749. *Id.* at 1346.

750. 887 F.3d 1309, 1312 (Fed. Cir. 2018).

that 35 U.S.C. § 141(c) language that a party who is dissatisfied with the final written decision of the PTAB may appeal permits a party to appeal not only the outcome but alternative invalidity grounds.⁷⁵¹ The Federal Circuit disagreed, stressing that it is a well-established rule that as an appellate tribunal, the Federal Circuit reviews judgments, not opinions.⁷⁵² Further, a cross-appeal is only proper when acceptance of the argument advanced “would result in a reversal or modification of the judgment rather than an affirmance.”⁷⁵³ In this case, because the PTAB “entered a judgment of invalidity as to all challenged claims, there is no basis for a cross-appeal as to additional grounds for invalidity.”⁷⁵⁴

*Xitronix Corp. v. KLA-Tencor Corp.*⁷⁵⁵ involved the appellate jurisdiction of the Federal Circuit.⁷⁵⁶ The appeal arises solely from a *Walker Process Equipment, Inc. v. Food Machinery & Chemical Corp.*⁷⁵⁷ monopolization claim under the Sherman⁷⁵⁸ and Clayton⁷⁵⁹ Acts alleging fraud on the PTO.⁷⁶⁰ The Federal Circuit declined to exercise jurisdiction and transferred the case to the United States Court of Appeals for the Fifth Circuit.⁷⁶¹ Because Federal Circuit jurisdiction extends to cases in which patent law is a necessary element of one of the well-pleaded claims, the only question for the appeal was “whether the monopolization allegation ‘necessarily depends on resolution of a substantial question of federal patent law, in that patent law is a necessary element of one of the well-pleaded claims.’”⁷⁶² The Federal Circuit found that in this case there was nothing unique to patent law about the allegations of false statements made to the PTO.⁷⁶³

751. *Id.* at 1321.

752. *Id.*

753. *Id.* at 1322 (quoting *TypeRight Keyboard Corp. v. Microsoft Corp.*, 374 F.3d 1151, 1157 (Fed. Cir. 2004)).

754. *Id.*

755. 882 F.3d 1075 (Fed. Cir. 2018).

756. *Id.*

757. 382 U.S. 172, 176–77 (1965) (holding that enforcement of a patent procured by fraud could be a federal antitrust violation).

758. Sherman Antitrust Act of 1890, Pub. L. No. 51-647, ch. 647, 26 Stat. 209 (1890) (codified at 15 U.S.C. §§ 1–38).

759. Clayton Antitrust Act of 1914, Pub. L. No. 63-212, 38 Stat. 730 (codified at 15 U.S.C. §§ 12–27, 29 U.S.C. §§ 52–53).

760. *Xitronix Corp.*, 882 F.3d at 1076.

761. *Id.* at 1075–76.

762. *Id.* at 1076–77.

763. *Id.* at 1077.

In *In re Power Integrations, Inc.*,⁷⁶⁴ the Federal Circuit denied the petitions for a writ of mandamus filed by the petitioner in four denied IPRs.⁷⁶⁵ In each proceeding, the PTAB found that none of the applied references were shown to be prior art and therefore denied institution.⁷⁶⁶ Petitioner requested rehearing and the PTAB denied the request for rehearing, filing a detailed opinion explaining its decision.⁷⁶⁷ Section 314(d) of Title 35 entitled “No Appeal,” specifies that “[t]he determination by the Director whether to institute an IPR under this section shall be final and nonappealable.”⁷⁶⁸ Faced with this statutory prohibition on appeal, the petitioner did not directly appeal but sought to obtain review of the non-institution decision through petitions for mandamus covering all four of the PTAB’s orders.⁷⁶⁹ To gain the remedy of mandamus, the petitioner must show that its right for a writ of mandamus is “clear and indisputable,” and that there are no “adequate alternative legal channels” for relief.⁷⁷⁰ The Federal Circuit held that mandamus does not lie in this case because the present case involves no issues extraneous to the application of patent law principles of unpatentability based on printed publications, nor does it involve any “shenanigans” on the part of the PTAB that might justify appellate review or review by mandamus.⁷⁷¹ The court however noted that the decision “is not to say that mandamus will never lie in response to action by the agency relating to the non-institution of inter partes review.”⁷⁷²

In *Hamilton Beach Brands, Inc. v. F’Real Foods, LLC*,⁷⁷³ the Federal Circuit refused to consider patent owner’s argument, framed as an alternative basis for affirmance of the PTAB’s decision because patent owner did not file a cross-appeal.⁷⁷⁴ In this case, patent owner, f’real, filed and served a complaint alleging infringement of the challenged patent in October 2014.⁷⁷⁵ However, at the time, the patents were assigned to a holding company (Rich Products Corporation) and not to f’real; therefore, f’real moved to voluntarily dismiss the complaint

764. 899 F.3d 1316 (Fed. Cir. 2018).

765. *Id.* at 1316–17.

766. *Id.* at 1318.

767. *Id.*

768. *Id.* (citing 35 U.S.C. § 314(d) (2012)).

769. *Id.* at 1319.

770. *Id.*

771. *Id.* at 1321.

772. *Id.*

773. 908 F.3d 1328 (Fed. Cir. 2018).

774. *Id.* at 1337.

775. *Id.* at 1336.

without prejudice.⁷⁷⁶ In January 2016, f'real, joined with Rich Products, filed a new complaint asserting infringement of the challenged patent.⁷⁷⁷ In May 2016, more than one year after the service of the first complaint, petitioner filed an IPR petition challenging the asserted claims.⁷⁷⁸ The PTAB determined that the petition was not subject to the one-year bar of § 315(b) because f'real lacked standing to file the original complaint and therefore the complaint was not a "proper federal pleading."⁷⁷⁹ In view of the Federal Circuit's decision in *Click-to-Call*, f'real argued that the one-year time-bar of § 315(b) applies, and the PTAB lacked jurisdiction to institute and asked the Federal Circuit to dismiss the IPR petition.⁷⁸⁰ The Federal Circuit refused.⁷⁸¹ Although framed as an alternative basis to affirm the PTAB's decision, the Federal Circuit determined that f'real's argument, if it had merit, would require vacatur of the PTAB's decision and a remand for dismissal of the petition.⁷⁸² Because acceptance of the argument would require a modification of the PTAB's decision, a cross-appeal was required and because f'real did not file a cross-appeal, the Federal Circuit did not reach the § 315(b) issue.⁷⁸³

G. Attorneys' Fees and Sanctions

In *Bennett Regulator Guards, Inc. v. Atlanta Gas Light Co.*,⁷⁸⁴ the Federal Circuit considered the PTAB's power to issue sanctions and to accept late filings.⁷⁸⁵ Late in the IPR trial, but before the final written decision was issued, Atlanta Gas's parent company, AGL Resources Inc., merged with another company and changed its name.⁷⁸⁶ Atlanta Gas did not notify the PTAB of the merger or the name change, and the PTAB did not know of the changes when it issued its final decision.⁷⁸⁷ Shortly after issuance of the final written decision, the patent owner notified the PTAB of petitioner's changed corporate parentage and sought

776. *Id.*

777. *Id.* at 1336–37.

778. *Id.* at 1337.

779. *Id.*

780. *Id.*

781. *Id.*

782. *Id.*

783. *Id.*

784. 905 F.3d 1311 (Fed. Cir. 2018).

785. *Id.* at 1316.

786. *Id.* at 1313–14.

787. *Id.* at 1314.

sanctions for petitioner's nondisclosure.⁷⁸⁸ Because the merger created a conflict, one member of the panel recused himself and the reconstituted panel authorized patent owner to move for the "costs and fees" it had incurred between the date of the final written decision and the PTAB's grant of sanctions.⁷⁸⁹ At the time of the Federal Circuit decision, the PTAB had not ruled on the sanction motion.⁷⁹⁰ Because the PTAB has not quantified any sanctions, pendent jurisdiction would be required to decide the challenges to the PTAB's sanction order.⁷⁹¹ The Federal Circuit extends pendent jurisdiction only reluctantly and only to issues "inextricably intertwined" with or necessary to resolution of issues already before the court.⁷⁹² The court declined to exercise pendent jurisdiction in this case and remanded the issue to the PTAB to consider its order given the outcome of the appeal.⁷⁹³

Section 145 actions in which the applicant files a civil action against the Director of the PTO in the United States District Court for the Eastern District of Virginia are rare.⁷⁹⁴ However, in 2018, the Federal Circuit addressed the issue of whether applicants who invoke § 145 are required to pay PTO's attorneys' fees.⁷⁹⁵ The Federal Circuit split on the issue with a strong dissent by Chief Judge Prost combined with the Fourth Circuit's position in *Shammas v. Focarino*,⁷⁹⁶ *Shammas* involved 15 U.S.C. § 1071(b)(3), a trademark analogue to § 145, and with its split from the majority in *Nantkwest*, creates the possibility that this issue could ultimately be decided by the Supreme Court.⁷⁹⁷

788. *Id.*

789. *Id.*

790. *Id.*

791. *Id.* at 1315.

792. *Id.*

793. *Id.* at 1316.

794. 35 U.S.C. § 145 (2012); *see also* Jeremiah Frueauf et al., *Biopharma Patent Applicants Should Consider a Rarely Used Strategy*, STERNE KESSLER (Mar. 18, 2019, 4:01 AM), <https://www.sternekeessler.com/news-insights/publications/biopharma-patent-applicants-should-consider-rarely-used-strategy>.

795. *See Nantkwest, Inc. v. Iancu*, 898 F.3d 1177, 1180 (Fed. Cir. 2018) (en banc) (discussing whether § 145 would allow PTO to collect attorneys' fees).

796. 784 F.3d 219 (Fed. Cir. 2015).

797. *Compare Nantkwest*, 898 F.3d at 1180 (holding that § 145 does not require the applicant to pay attorneys' fees), *with id.* at 1196 (Prost, C.J., dissenting) (arguing that § 145 requires the applicant to pay all expenses relating to the proceedings, including the PTO personal expenses), *and Shammas*, 784 F.3d at 227 (awarding attorneys' fees to the PTO under 15 U.S.C. § 1071(b)(3)).

In *Nantkwest, Inc. v. Iancu*,⁷⁹⁸ the en banc court addressed the issue of whether applicants who invoke § 145 are required by statute to pay “[a]ll the expenses of the proceedings” incurred by the office in defending the PTAB’s decision, including the PTO’s attorneys’ fees.⁷⁹⁹ The majority of the court determined that it did not because the American Rule⁸⁰⁰ prohibits courts from shifting attorneys’ fees from one party to another absent a “specific and explicit” directive from Congress.⁸⁰¹

The Patent Act⁸⁰² provides two mutually exclusive options for judicial review of an adverse PTAB decision.⁸⁰³ The applicant may appeal directly to the Federal Circuit under § 141, or the applicant may file a civil action against the director of the PTO in the United States District Court for the Eastern District of Virginia under § 145.⁸⁰⁴ A § 145 challenge is more expansive involving the possibility of discovery, new evidence, motions practice, and a trial.⁸⁰⁵ An applicant proceeding under § 145 is responsible for his own expenses and fees but also the PTO’s “expenses of the proceeding.”⁸⁰⁶ The majority noted that previously the PTO relied on the “expenses” provision to recover travel expenses to attend depositions, court reporter fees, and reasonable fees for expert witnesses but “[f]or more than 170 years, however, the PTO never sought—and no court ever awarded—attorneys’ fees under § 145 or its predecessor.”⁸⁰⁷

The majority first determined that the American Rule, providing that “[e]ach litigant pays his own attorney’s fees, win or lose,” applies to § 145.⁸⁰⁸ The American Rule serves as the “basic point of reference” whenever a court “consider[s] the award of attorney’s fees” and may only be displaced by an express grant from Congress.⁸⁰⁹ The majority

798. 898 F.3d 1177 (Fed. Cir. 2018).

799. *Id.* at 1180.

800. *See id.* at 1181 (explaining that the American Rule dates back to at least the jurisprudence of the late 1700s and states that litigants pay their own attorneys’ fees, regardless of whether they win or lose).

801. *Id.* at 1180.

802. Patent Act of 1836, ch. 357, 5 Stat. 117 (1836).

803. *See Nantkwest*, 898 F.3d at 1180 (outlining the Patent Act’s procedures for judicial review).

804. 35 U.S.C. §§ 141, 145 (2012); *Nantkwest*, 898 F.3d at 1180.

805. *Nantkwest*, 898 F.3d at 1180.

806. *Id.*

807. *Id.* at 1180–81.

808. *Id.* at 1181, 1184 (quoting *Baker Botts LLP v. ASARCO LLC*, 135 S. Ct. 2158, 2164 (2015)).

809. *Id.* at 1181 (citing *Baker Botts*, 135 S. Ct. at 2164).

then found that § 145’s statement that “[a]ll the expenses of the proceedings shall be paid by the applicant” lacks the “specific and explicit” congressional authorization required to displace the American Rule.⁸¹⁰ The majority reviewed Congress’s usage of the terms “expenses” and “attorneys’ fees” in other statutes and judicial usage of statute and concluded that these demonstrated that the ordinary meaning of “expenses” does not include attorneys’ fees.⁸¹¹

Chief Judge Prost, joined by Judges Dyk, Reyna, and Hughes, dissented.⁸¹² The dissent argued the plain text of § 145 provides the answer—when it says “[a]ll the expenses of proceeding shall be paid by the applicant” it means the applicant must pay all the expenses of the proceeding.⁸¹³ The dissent noted that the PTO used salaried government lawyers to assist in defending and therefore these lawyers incurred expenses because the time they devoted to this case was not available for other work.⁸¹⁴ The dissent concluded that the language of § 145 evinces Congress’s “specific and explicit” intent to depart from the American Rule and to impose upon the applicant payment of all the expenses of the proceeding, including the PTO’s personnel expenses.⁸¹⁵

VI. REMEDIES

Both the Supreme Court and the Federal Circuit took on the issue of damages in patent infringement cases. In one of the most significant cases of the year, the Supreme Court ruled in *WesternGeco LLC v. ION Geophysical Corp.*⁸¹⁶ that a patent owner can collect lost profits based on foreign sales. The Federal Circuit’s damages cases primarily address the issue of apportionment of damages which is a central component of every patent damages case.

In *FastShip, LLC v. United States*,⁸¹⁷ the Federal Circuit affirmed the Court of Federal Claims’s determination of infringement but modified the damages award.⁸¹⁸ FastShip, LLC sued the United States in the Court of Federal Claims alleging infringement by two of the Navy’s

810. *Id.* at 1187.

811. *Id.* at 1187–91.

812. *Id.* at 1196 (Prost, C.J., dissenting).

813. *Id.*

814. *Id.* at 1197.

815. *Id.* at 1203.

816. 138 S. Ct. 2120 (2018).

817. 892 F.3d 1298 (Fed. Cir. 2018).

818. *Id.* at 1300–01.

Freedom-class Littoral Combat Ships (LCS).⁸¹⁹ After finding infringement of the asserted claims, the Court of Federal Claims determined that one of the accused ships was not “manufactured” for purposes of 28 U.S.C. § 1498.⁸²⁰ The case turned on the meaning of “manufactured” in § 1498, which was a matter of first impression.⁸²¹ The Federal Circuit interpreted “manufactured” in accordance with its plain meaning, such that a product is “manufactured” when it is made to include each limitation of the thing invented and is therefore suitable for use.⁸²² Applying this interpretation, the Federal Circuit found that the ship was not manufactured prior to the expiration of the patent.⁸²³ The court further agreed with both parties that the Court of Federal Claims miscalculated the total royalty base and modified the damages award accordingly.⁸²⁴

A. *Apportionment*

*Finjan, Inc. v. Blue Coat Systems, Inc.*⁸²⁵ dealt with apportionment of damages.⁸²⁶ When the accused technology does not make up the whole of the accused product, the patentee must separate or apportion the infringer’s profits and the patentee’s damages between the patented feature and the unpatented features.⁸²⁷ The patentee’s apportionment evidence “must be reliable and tangible, and not conjectural or speculative.”⁸²⁸ *Finjan* apportioned its damages base to a specific feature that was the “smallest salable patent-practicing unit” of the infringing product.⁸²⁹ However, because the feature also contained non-infringing features, the Federal Circuit found that additional apportionment was

819. *Id.* at 1300.

820. *Id.* at 1302–03. Section 1498(a) provides that “[w]henever an invention described in and covered by a patent of the United States is used or manufactured by or for the United States without license of the owner thereof or lawful right to use or manufacture the same, the owner’s remedy shall be by action against the United States in the United States Court of Federal Claims for the recovery of his reasonable and entire compensation for such use and manufacture.” 28 U.S.C. § 1498(a) (2012).

821. *Fastship*, 892 F.3d at 1303.

822. *Id.* at 1306.

823. *Id.*

824. *Id.* at 1310.

825. 879 F.3d 1299 (Fed. Cir. 2018).

826. *Id.* at 1302.

827. *Id.* at 1310.

828. *Id.* (quoting *Garretson v. Clark*, 111 U.S. 120, 121 (1884)).

829. *Id.*

still required.⁸³⁰ The Federal Circuit also found that Finjan's royalty rate was unsupported by substantial evidence.⁸³¹ Despite finding that "Finjan failed to present a damages case that can support the jury's verdict," the Federal Circuit remanded to the district court to determine whether Finjan waived the right to establish a reasonable royalty under a new theory and whether to order a new trial on damages.⁸³²

In *Exmark Manufacturing Co. v. Briggs & Stratton Power Products Group, LLC*,⁸³³ the Federal Circuit vacated the jury's damages award and remanded for a new trial on damages.⁸³⁴ Briggs & Stratton Power Products Group argued that the damages expert should have apportioned or separated the value of the improvement from the other features of the mower through the royalty base rather than the royalty rate.⁸³⁵ The Federal Circuit disagreed noting that apportionment can be addressed in a variety of ways, including "by careful selection of the royalty base to reflect the value added by the patented feature [or] . . . by adjustment of the royalty rate so as to discount the value of a product's non-patented features; or by a combination thereof."⁸³⁶ Here, using the accused mower sales as a royalty base, an apportioning through the royalty rate is an acceptable methodology provided that patent owner adequately and reliably apportions between the improved and conventional features of the accused mower.⁸³⁷ The Federal Circuit found that the expert opinion of the patent owner's damages expert was inadmissible because it failed to adequately tie the expert's proposed royalty rate to the facts of the case and concluded that the district court abused its discretion in denying patent owner's motion for a new trial on damages.⁸³⁸ The Federal Circuit further determined that "the district court abused its discretion by holding that prior art is relevant to damages only to the extent that the prior art was commercialized."⁸³⁹

In *Power Integrations, Inc. v. Fairchild Semiconductor International, Inc.*,⁸⁴⁰ the Federal Circuit addressed the entire market value rule.⁸⁴¹ In this

830. *Id.*

831. *Id.* at 1311–12.

832. *Id.* at 1312.

833. 879 F.3d 1332 (Fed. Cir. 2018).

834. *Id.* at 1347.

835. *Id.* at 1348.

836. *Id.* (citing *Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d 1201, 1226 (Fed. Cir. 2014)).

837. *Id.*

838. *Id.* at 1349.

839. *Id.* at 1352.

840. 894 F.3d 1258 (Fed. Cir. 2018).

841. *Id.* at 1262.

case, the damages verdict rested on Power Integrations' reliance on the entire market value rule, which "allows for the recovery of damages based on the value of an entire apparatus containing several features, when the feature patented constitutes the basis for consumer demand."⁸⁴² "If the product has other valuable features that also contribute to driving consumer—demand, patented or unpatented—then the damages for patent infringement must be apportioned to reflect only the value of the patented feature."⁸⁴³ The Federal Circuit found that the evidence presented by Power Integrations was insufficient as a matter of law to invoke the entire market value rule, vacated the jury award of \$139.8 million in damages, and remanded for a new trial.⁸⁴⁴

The Federal Circuit vacated the district court's determination of the ongoing royalty rate in *XY, LLC v. Trans Ova Genetics, L.C.*⁸⁴⁵ After a jury found defendant willfully infringed the asserted patents and that the asserted patents were not invalid, patent owner filed a motion seeking an award of an ongoing royalty as an equitable remedy for defendant's future infringement.⁸⁴⁶ Noting that defendant admitted that it intended to continue to practice the asserted patents, the district court determined an ongoing royalty would be appropriate.⁸⁴⁷ The district court observed that the jury effectively adopted the fifteen percent royalty rate on gross sales and the four percent royalty rate for reverse sorting services proposed by patent owner's damages expert at trial, and "every one of XY's prior licenses include[d] a [ten percent] royalty rate, which tend[ed] to prove that [ten percent] [was] XY's established royalty."⁸⁴⁸ Based on these observations, the district court calculated an ongoing royalty rate for gross sales by averaging the jury's 15% percent rate with the 10% rate in the prior licenses to arrive at 12.5% and calculated for services by taking half of the 4% royalty rate.⁸⁴⁹ The Federal Circuit disagreed with the district court, which focused on pre-verdict factors "that were either irrelevant or less relevant than post-verdict factors" such as prior agreements between the parties.⁸⁵⁰ The

842. *Id.* at 1270 (quoting *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1336 (Fed. Cir. 2009)).

843. *Id.* at 1271.

844. *Id.* at 1273.

845. 890 F.3d 1282 (Fed. Cir. 2018).

846. *Id.* at 1288–89.

847. *Id.* at 1289.

848. *Id.*

849. *Id.*

850. *Id.* at 1297.

court found that the district court's focus should have been on patent owner's improved bargaining position and any other changed economic factors rather than patent owner's past acts.⁸⁵¹ The Federal Circuit remanded for the district court to recalculate the ongoing royalty rate.⁸⁵²

B. *Enhanced Damages*

Under 35 U.S.C. § 284, a “court may increase the damages up to three times the amount found or assessed.” In *Halo Electronics, Inc. v. Pulse Electronics, Inc.*,⁸⁵³ the Supreme Court described § 284 “as providing that ‘punitive or increased damages’ could be recovered ‘in a case of willful or bad-faith infringement.’”⁸⁵⁴ However, a finding of willful infringement does not require the district court to award enhanced damages.⁸⁵⁵ In *Polara Engineering Inc. v. Campbell Co.*,⁸⁵⁶ the Federal Circuit vacated the district court's decision to award enhanced damages because the district court did not adequately explain its basis for doing so.⁸⁵⁷ Applying the factors listed in *Read Corp. v. Portec, Inc.*,⁸⁵⁸ the district court determined that five of the nine *Read* factors favored an award of enhanced damages, two of the factors weighed against enhancement, and two of the factors were neutral.⁸⁵⁹ The Federal Circuit determined that the district court's observation that “obviousness was a close call” and that the “other invalidity theories were weaker” was insufficient to determine why the district court viewed the closeness of the *Read* factor as neutral.⁸⁶⁰ The Federal Circuit remanded instructing “the district court to provide a more complete explanation, including a discussion of the public use defense, in exercising its discretion. We express no view on whether damages should be enhanced or, if so, by what amount.”⁸⁶¹

851. *Id.* at 1298.

852. *Id.*

853. 136 S. Ct. 1923 (2016).

854. *Id.* at 1930. The Federal Circuit remanded in *Exmark Manufacturing Co. v. Briggs & Stratton Power Products Group, LLC* because the district court's decision that excluded evidence did not comport with the standard articulated in *Halo*. *Exmark*, 879 F.3d 1332, 1353 (Fed. Cir. 2018).

855. *Halo*, 136 S. Ct. at 1933.

856. 894 F.3d 1339 (Fed. Cir. 2018).

857. *Id.* at 1355–56.

858. 970 F.2d 816, 826–27 (Fed. Cir. 1992).

859. *Polara*, 894 F.3d at 1347.

860. *Id.* at 1355.

861. *Id.* at 1356.

C. Attorneys' Fees—Exceptional Cases

*Raniere v. Microsoft Corp.*⁸⁶² dealt with the contours of exceptional case requirements.⁸⁶³ Raniere sued Microsoft and AT&T for patent infringement and asserted five patents against AT&T and two against Microsoft.⁸⁶⁴ Raniere assigned all rights in the patents to Global Technologies, Inc. (GTI), and later Raniere executed a document on behalf to GTI that purportedly transferred the asserted patents from GTI to himself.⁸⁶⁵ Microsoft moved to dismiss the suit for lack of standing.⁸⁶⁶ After discovery on the issue of standing and a hearing, the district court concluded that Raniere was unlikely to be able to cure the standing defect and dismissed the case with prejudice.⁸⁶⁷ The Federal Circuit affirmed.⁸⁶⁸ While the merits appeal was pending, Microsoft and AT&T filed a motion seeking attorney fees and costs pursuant to 35 U.S.C. § 285.⁸⁶⁹

In exceptional cases, a district court may award reasonable attorney fees to the prevailing party.⁸⁷⁰ An exceptional case is “simply one that stands out from others with respect to the substantive strength of a party’s litigating position . . . or the unreasonable manner in which the case was litigated.”⁸⁷¹ The Federal Circuit rejected Raniere’s argument that a dismissal with prejudice, without adjudication of a patent infringement claim, precludes a finding that a defendant has prevailed.⁸⁷² First, the court noted that under the Supreme Court’s holding in *CRST Van Expedited, Inc. v. Equal Employment Opportunity Commission*,⁸⁷³ “a defendant need not obtain a favorable judgment on the merits in order to be a ‘prevailing party.’”⁸⁷⁴ Other circuits have interpreted *CRST* to mean that, if a defendant prevails on a jurisdictional issue, it may be a prevailing party.⁸⁷⁵ Second, the court

862. 887 F.3d 1298 (Fed. Cir. 2018).

863. *Id.* at 1303.

864. *Id.* at 1300.

865. *Id.*

866. *Id.*

867. *Id.*

868. *Id.*

869. 35 U.S.C. § 285 (2012).

870. *Id.*

871. Raniere, 887 F.3d at 1303 (quoting *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct 1749, 1756 (2014)).

872. *Id.*

873. 136 S. Ct. 1642, 1651 (2016).

874. Raniere, 887 F.3d at 1304.

875. *Id.* at 1305–06, 1306 n.1 (discussing varying approaches among the circuits).

found that even without the benefit of *CRST*, defendant was a prevailing party because the district court dismissed Ranieri's infringement suit "with prejudice," which was tantamount to a decision on the merits.⁸⁷⁶ The Federal Circuit also affirmed the district court's conclusion that the case was exceptional based on Ranieri's behavior throughout the litigation employing "a pattern of obfuscation and bad faith" which caused the defendants to incur significant fees and costs to oppose Ranieri's positions.⁸⁷⁷

The Federal Circuit in *In re Rembrandt Technologies LP Patent Litigation*⁸⁷⁸ affirmed the district court's exceptional case determination but vacated the fee award.⁸⁷⁹ The court deemed the case exception for three reasons: (1) Rembrandt improperly compensated its fact witnesses; (2) Rembrandt engaged in (or failed to prevent) widespread document spoliation over a number of years; and (3) Rembrandt should have known that the asserted patents that were revived after abandonment were unenforceable.⁸⁸⁰ After noting that the "district court's remarkably terse orders shed little light on its justifications for its decisions on these fact-intensive issues," the Federal Circuit could not say that any of the district court's findings were based "on an erroneous view of the law or on a clearly erroneous assessment of the evidence."⁸⁸¹ Regarding the fee award, the Federal Circuit held that the district court failed to establish a "causal connection" between the misconduct and the fee award.⁸⁸² The Federal Circuit vacated the fee award and remanded for the district court to determine how much of the claimed fee award Rembrandt should pay based on the misconduct associated with the exceptional case determination.⁸⁸³

In *Energy Heating, LLC. v Heat On-the-Fly, LLC*,⁸⁸⁴ the Federal Circuit vacated the district court's denial of motions for attorneys' fees under § 285 and remanded for further proceedings on the issue.⁸⁸⁵ After finding inequitable conduct, the district court declined to award fees stating that the patentee "reasonably disputed facts with its own

876. *Id.* at 1307.

877. *Id.* at 1308.

878. 899 F.3d 1254 (Fed. Cir. 2018).

879. *Id.* at 1260–61.

880. *Id.* at 1265.

881. *Id.* at 1266–67.

882. *Id.* at 1280.

883. *Id.*

884. 889 F.3d 1291 (Fed. Cir. 2018).

885. *Id.* at 1306.

evidence and provided a meritorious argument against a finding of inequitable conduct.”⁸⁸⁶ However, the court noted that under *Therasense, Inc. v. Becton, Dickinson & Co.*,⁸⁸⁷ inequitable conduct requires a specific intent to deceive, and “to meet the clear and convincing evidence standard, the specific intent to deceive must be ‘the single most reasonable inference able to be drawn from the evidence.’”⁸⁸⁸ Because the district court’s reasoning contradicted *Therasense*, the Federal Circuit was unsure whether the court’s basis for denial rested on a misunderstanding of the law or an erroneous fact finding and remanded to the district court for reconsideration.⁸⁸⁹

The Federal Circuit affirmed the district court’s denial of the accused infringer’s motion for attorney fees in *Stone Basket Innovations, LLC v. Cook Medical LLC*.⁸⁹⁰ After plaintiff filed its infringement case, the accused infringer filed an IPR petition challenging all claims of the asserted patent.⁸⁹¹ The PTAB instituted trial, and the patent owner subsequently requested an adverse judgment.⁸⁹² After the PTAB granted adverse judgment, the patent owner moved to dismiss the patent litigation with prejudice.⁸⁹³ The district court determined that the case was not exceptional and found that the record did not demonstrate that patent owner “willfully ignored the prior art or failed to evaluate its case” or that patent owner’s “actions were . . . objectively unreasonable in light of the circumstances.”⁸⁹⁴ The Federal Circuit rejected the accused infringers’ argument that its invalidity contentions placed patent owner on clear notice of the asserted patent’s invalidity because the contentions were based on prior art considered by the examiner with no further explanation.⁸⁹⁵ The inventor’s deposition testimony regarding the novelty of a single claim element also did not make the case exceptional because invalidity is established by considering the patent claim as a whole.⁸⁹⁶ Finally, the Federal Circuit found that the district court was within its discretion to

886. *Id.* at 1307.

887. 649 F.3d 1276 (Fed. Cir. 2011) (en banc).

888. *Energy Heating*, 889 F.3d at 1307 (quoting *Therasense, Inc.*, 649 F.3d at 1290).

889. *Id.* at 1308.

890. 892 F.3d 1175 (Fed. Cir. 2018).

891. *Id.* at 1177.

892. *Id.* at 1177–78.

893. *Id.* at 1178.

894. *Id.* at 1178–79.

895. *Id.* at 1179–80.

896. *Id.* at 1180.

factor in the accused infringer's litigation conduct because conduct of the parties is a relevant factor under the totality-of-the-circumstances inquiry in *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*⁸⁹⁷ Here, the accused infringer failed to inform patent owner that it believed it was being subjected to exceptional litigation behavior or demand that the case be dismissed.⁸⁹⁸

D. Double Recovery

*Texas Advanced Optoelectronic Solutions, Inc. v. Renesas Electronics America, Inc.*⁸⁹⁹ dealt with the issue of double recovery.⁹⁰⁰ At trial, the jury found the defendant liable for trade secret misappropriation and patent infringement.⁹⁰¹ The Federal Circuit vacated the patent infringement damages, holding that the patent award represented an impermissible double recovery because although the jury awarded only a portion of the proposed patent royalty, the patent award covered sales that were part of the trade secret misappropriation disgorgement award.⁹⁰²

E. Injunction

To obtain a permanent injunction, a party succeeding on the merits of patent infringement, must show (1) irreparable injury in the absence of an injunction, (2) inadequacy of compensatory remedies at law, (3) a balance of hardships favoring an injunction, and (4) consistency of an injunction with the public interest.⁹⁰³

*Texas Advanced Optoelectronic Solutions*⁹⁰⁴ dealt with the first element from *eBay, Inc. v. MercExchange, LLC*.⁹⁰⁵ The district court found that Texas Advanced Optoelectronic Solutions (TAOS) had not shown irreparable harm because TAOS requested a reasonable royalty as compensation for past infringement and a reasonable royalty should be adequate to compensate TAOS for future infringement.⁹⁰⁶ The court found that a request for relief in the form of a reasonable royalty may be relevant to the irreparable harm and inadequacy of

897. *Stone Basket*, 892 F.3d at 1181.

898. *Id.*

899. 895 F.3d 1304 (Fed. Cir. 2018).

900. *Id.* at 1328.

901. *Id.*

902. *Id.*

903. *See eBay Inc. v. MercExchange, LLC*, 547 U.S. 388, 391 (2006).

904. *Tex. Adv. Optoelectronic Sols.*, 895 F.3d at 1331.

905. *eBay*, 547 U.S. at 391.

906. *Tex. Adv. Optoelectronic Sols.*, 895 F.3d at 1331.

compensation elements of eBay but it does not mean there do not exist the kinds of hard-to-measure harms that can justify injunctions to prevent them before they occur.⁹⁰⁷ The Federal Circuit therefore vacated the district court's denial of an injunction and remanded for further consideration of the request.⁹⁰⁸

*MACOM Technology Solutions Holdings, Inc. v. Infineon Technologies AG*⁹⁰⁹ was another 2018 case involving injunctions. Nitronex (predecessor to MACOM) obtained several patents related to gallium nitride (GaN) which it later sold to Infineon's predecessor (International Rectifier Corporation).⁹¹⁰ As part of the sale, the parties executed a license agreement defining a "Field of Use" characterized by GaN-on-silicon technology and licensing MACOM to practice the patents within the "Field of Use only."⁹¹¹ Infineon notified MACOM that it believe MACOM breached the agreement by making and selling GaN-on-silicon-carbide technology and subsequently terminated the agreement.⁹¹² MACOM sued Infineon asserting contract claims, a claim for declaratory judgment of non-infringement of the licensed patents, and a declaratory judgment that the agreement was wrongly terminated and remains in effect (wrongful termination claim).⁹¹³ MACOM also moved for a preliminary injunction based on the wrongful termination claim.⁹¹⁴ The district court granted the preliminary injunction invalidating the termination of the agreement, barring Infineon from designing, developing, making, using offering to sell, selling or servicing products in the exclusive field that practice the licensed patents, and prohibiting Infineon from granting licenses or sublicenses to the licensed patents.⁹¹⁵

To obtain a preliminary injunction in the Ninth Circuit, a party must show that: (1) it is likely to succeed on the merits, (2) it is likely to suffer irreparable harm in the absence of preliminary relief, (3) the balance of equities tips in its favor, and (4) an injunction is in the

907. *Id.*

908. *Id.* at 1332.

909. 881 F.3d 1323 (Fed. Cir. 2018).

910. *Id.* at 1326.

911. *Id.*

912. *Id.* at 1326–27.

913. *Id.* at 1327.

914. *Id.*

915. *Id.*

public interest.⁹¹⁶ The Federal Circuit rejected Infineon’s argument that the district court erred in finding that MACOM showed a likelihood of success on its wrongful termination claim because Infineon’s termination of the agreement was not wrongful.⁹¹⁷ The Federal Circuit determined that the district court did not err in finding that MACOM could likely establish that its activity outside the agreement’s licensed Field of Use did not breach the implied covenant of good faith and fair dealing.⁹¹⁸ The Federal Circuit also rejected Infineon’s second argument that the district court erred in finding that MACOM was likely to suffer irreparable harm.⁹¹⁹ The Federal Circuit determined that the district court did not rely only on Infineon’s marketing in finding irreparable harm; it also relied on the commercial benefits of the agreement’s exclusivity.⁹²⁰ The Federal Circuit then concluded “that a sufficient causal nexus exists between Infineon’s termination of the Agreement and this harm to MACOM that the district court identified.”⁹²¹ Infineon also challenged the content of the injunction.⁹²² The Federal Circuit vacated the first sentence which enjoined Infineon from undertaking certain activities concerning products in the exclusive field because it lacked the specificity required by Rule 65(d).⁹²³ The court found that the injunction prohibited infringing acts—but without reference to any particular, adjudicated infringing product.⁹²⁴ The Federal Circuit also vacated the second sentence which enjoined Infineon from granting particular licenses or sublicenses because it ordered specific performance of a provision without a showing of a breach.⁹²⁵

916. *Id.* at 1328 (citing *Disney Enters., Inc. v. VidAngel, Inc.*, 869 F.3d 848, 856 (9th Cir. 2017)).

917. *Id.*

918. *Id.* at 1329.

919. *Id.* at 1330–31.

920. *Id.*

921. *Id.* at 1331.

922. *Id.*

923. *Id.* Rule 65(d) mandates that every order granting an injunction must “state the reasons why it issued,” “state its terms specifically,” and “describe in reasonable detail—and not by referring to the complaint or other document—the act or acts restrained or required.” Fed. R. Civ. P. 65(d)(1).

924. *MACOM Tech. Sols.*, 881 F.3d at 1332.

925. *Id.* at 1332–33.

VII. DISTRICT COURT

A. *Procedural*

*01 Communique Laboratory, Inc. v. Citrix Systems, Inc.*⁹²⁶ affirmed the district court's denial of patentee's, 01 Communique Lab, motion for a new trial.⁹²⁷ On appeal, Communique argued that it was "entitled to a new trial on the issues of infringement and damages because Citrix resorted to 'a well-known defendant's trick,' known as the 'practicing the prior art defense.'"⁹²⁸ The Federal Circuit agreed that there is no "'practicing the prior art' defense to literal infringement"⁹²⁹ but noted that a litigant is not precluded from arguing that if a claim term must be broadly interpreted to read on an accused device, then this broad construction will read on the prior art.⁹³⁰ The Federal Circuit further noted that "when an accused product and the prior art are closely aligned, it takes exceptional linguistic dexterity to simultaneously establish infringement and evade invalidity."⁹³¹ That was exactly the problem faced by Communique in this case. The Federal Circuit found that the arguments by Citrix did not rest on an improper "practicing the prior art" defense but instead correctly recognized that claim terms must be construed the same way for both invalidity and infringement.⁹³² The court further rejected the argument that Citrix's comparisons were "devastatingly prejudicial to the integrity of the trial" because the jury instructions made "abundantly clear" that in assessing infringement the jury was not to compare the accused product to the prior art.⁹³³

In *SimpleAir, Inc. v. Google LLC*,⁹³⁴ the Federal Circuit vacated the district court's order dismissing SimpleAir's complaint under Rule 12(b)(6) as barred by issue preclusion and the *Kessler*⁹³⁵ doctrine.⁹³⁶ *SimpleAir* initiated a series of patent infringement lawsuits asserting one or more patents from a family of patents against Google over a six-year

926. 889 F.3d 735 (Fed. Cir. 2018).

927. *Id.* at 744.

928. *Id.* at 740–41.

929. *Id.* at 742.

930. *Id.*

931. *Id.* at 742–43.

932. *Id.* at 743.

933. *Id.* at 743–44.

934. 884 F.3d 1160 (Fed. Cir. 2018).

935. *Kessler v. Eldred*, 206 U.S. 285, 288–90 (1907) (holding that a patent holder is barred from bringing an infringement action against a customer of a seller who, prior to the sale, prevailed on an action for infringement on the same patent).

936. *SimpleAir*, 884 F.3d at 1162–63.

period.⁹³⁷ The asserted patents are children linked to the same parent by continuation applications, and therefore, share a common specification with the parent.⁹³⁸ During prosecution of the asserted patents, SimpleAir filed terminal disclaimers over the parent application to overcome an obviousness-type double patenting rejection.⁹³⁹ To date, the litigations have resulted in three judgments of non-infringement in Google's favor.⁹⁴⁰

In this case, SimpleAir's fourth infringement case, the district court held that the present case and the previous cases involved the same claim or cause of action. The Court reasoned that the asserted patents shared the same title and specification with the previously adjudicated patents and that the filing of a terminal disclaimer to overcome the PTO's obviousness-type double patenting rejections indicated that the PTO believed the content of the patents in suit to be patentably indistinct from the earlier patents.⁹⁴¹ Notably, the district court never compared the claims of the asserted patents with the claims of the previously adjudicated patents.⁹⁴²

The Federal Circuit found that the district court erred by presuming that a terminally disclaimed continuation patent presents the same cause of action as a parent patent based on the filing of the terminal disclaimer alone.⁹⁴³ Although a terminal disclaimer is a strong clue that the claims in a continuation lacked a patentable distinction over the parent, that strong clue does not give rise to the presumption that a patent subject to a terminal disclaimer is patentably indistinct from its parent patent.⁹⁴⁴ The court further noted that its cases "foreclose the inference that filing a terminal disclaimer functions as an admission regarding the patentability of the resulting claims."⁹⁴⁵ The

937. *Id.* at 1163.

938. *Id.*

939. *Id.*

940. *Id.*

941. *Id.* at 1164.

942. *Id.*

943. *Id.* at 1169.

944. *Id.* at 1168.

945. *Id.* at 1167 (citing *Motionless Keyboard Co. v. Microsoft Corp.*, 486 F.3d 1376, 1385 (Fed. Cir. 2007) ("A terminal disclaimer is simply not an admission that a later-filed invention is obvious."); *Ortho Pharm. Corp. v. Smith*, 959 F.2d 936, 941 (Fed. Cir. 1992) (rejecting argument that patent applicant admitted to obviousness-type double patenting by filing terminal disclaimer); *Quad Envtl. Techs. Corp. v. Union Sanitary Dist.*, 946 F.2d 870, 874 (Fed. Cir. 1991) ("[T]he filing of a terminal disclaimer simply

court vacated the district court's order and remanded to the district court to determine whether the asserted claims are patentably distinct from the previously adjudicated claims.⁹⁴⁶

B. Pleading Standard

In *Disc Disease Solutions, Inc. v. VGH Solutions, Inc.*⁹⁴⁷ and *Nalco Co. v. Chem-Mod, LLC*,⁹⁴⁸ the Federal Circuit addressed the pleading standard for patent infringement claims.⁹⁴⁹ In *Disc Disease*, the Federal Circuit reversed the district court's grant of a motion to dismiss plaintiff's complaint for failure to state a claim.⁹⁵⁰ The plaintiff filed a complaint alleging patent infringement that specifically identified the accused products and alleged the products meet "each and every element of at least one claim" of the asserted patents, "either literally or equivalently."⁹⁵¹ The following day, amendments to the Federal Rules of Civil Procedure took effect, abrogating Rule 84 and Form 18.⁹⁵² The district court subsequently granted defendant's motion to dismiss the complaint finding that the complaint did not satisfy the *Iqbal* and *Twombly*⁹⁵³ plausibility standard.⁹⁵⁴ The Federal Circuit disagreed holding that plaintiff's allegations provided the defendant fair notice of infringement of the asserted patents and therefore were sufficient under the plausibility standard of *Iqbal* and *Twombly*.⁹⁵⁵

In *Nalco*, the Federal Circuit reversed the district court's dismissal of Nalco's amended complaint for failure to state a claim for direct infringement, indirect infringement, and infringement under the doctrine of equivalents.⁹⁵⁶ Regarding direct infringement, the court found that defendant's arguments "boil[ed] down to objections to Nalco's proposed claim construction for 'flue gas'" based on alleged admissions made during an inter partes reexamination which was a

serves the statutory function of removing the rejection of double patenting, and raises neither presumption nor estoppel on the merits of the rejection.")).

946. *Id.* at 1171.

947. 888 F.3d 1256 (Fed. Cir. 2018).

948. 883 F.3d 1337 (Fed. Cir. 2018).

949. *Disc Disease*, 888 F.3d at 1260; *Nalco*, 883 F.3d at 1350.

950. *Disc Disease*, 888 F.3d at 1260.

951. *Id.* at 1258.

952. *Id.*

953. *Ashcroft v. Iqbal*, 556 U.S. 662 (2009); *Bell Atl. Corp. v. Twombly*, 550 U.S. 554 (2007).

954. *Disc Disease*, 888 F.3d at 1258–59.

955. *Id.* at 1260.

956. *Nalco Co. v. Chem-Mod, LLC*, 883 F.3d 1337, 1354 (Fed. Cir. 2018).

dispute not suitable for resolution on a motion to dismiss.⁹⁵⁷ Regarding indirect infringement, the court concluded that the complaint alleged facts that plausibly showed that defendants specifically intended their customers to infringe and that defendants knew the customers' action constitute infringement.⁹⁵⁸ Regarding infringement under the doctrine of equivalents, the court found that Nalco's claim adequately stated a claim for infringement by explicitly incorporating the detailed infringement contentions explaining its doctrine of equivalents claim.⁹⁵⁹

C. Motion to Amend Complaint

In *Aatrix Software, Inc. v. Green Shades Software, Inc.*,⁹⁶⁰ the Federal Circuit reversed the district court's denial of Aatrix's motion for leave to file a second amended complaint.⁹⁶¹ "A district court should freely give leave to amend a complaint 'when justice so requires,'"⁹⁶² but may deny a motion to amend on numerous grounds such as "undue delay, undue prejudice to the defendants, and futility of the amendment."⁹⁶³ Noting that the district court "gave no reason for its denial of Aatrix's motion to amend," the Federal Circuit found that the proposed second amended complaint contained allegations that, taken as true, would have directly affected the district court's patent eligibility analysis.⁹⁶⁴ Specifically, the proposed amended complaint alleged facts directed to inventive concepts in the claimed invention and would be useful for *Alice/Mayo* step two that requires consideration of whether the claims contain an "inventive concept" sufficient to transform the claimed abstract idea into a patent-eligible application.⁹⁶⁵

D. Declaratory Judgment Jurisdiction

In *AbbVie Inc. v. MedImmune Ltd.*,⁹⁶⁶ the Federal Circuit affirmed the district court's dismissal of a declaratory-judgment action.⁹⁶⁷ The

957. *Id.* at 1349.

958. *Id.* at 1356.

959. *Id.* at 1354.

960. 882 F.3d 1121 (Fed. Cir. 2018).

961. *Id.* at 1123.

962. *Id.* at 1126 (quoting Fed. R. Civ. P. 15(a)(2)).

963. *Id.* (quoting *Mann v. Palmer*, 713 F.3d 1306, 1316 (11th Cir. 2013)).

964. *Id.*

965. *Id.* at 1126–27 (citing *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 221 (2014)).

966. 881 F.3d 1334 (Fed. Cir. 2018).

967. *Id.* at 1335.

declaratory judgment action concerned a 1995 development and licensing agreement entered into by predecessors to AbbVie and MedImmune, licensing AbbVie to practice the challenged patent and requiring AbbVie to pay royalties on sales of certain antibodies “until the last to expire of [certain] Patents or the expiry of fifteen years from the date of first commercial sale of a product by [AbbVie’s predecessor] . . . (whichever is later).”⁹⁶⁸ AbbVie brought the declaratory-judgment action seeking only a declaration that the challenged claim is invalid.⁹⁶⁹ AbbVie contended that a declaration of the patent’s invalidity would constitute its expiration for purposes of the 1995 agreement and cause its royalty obligations to expire in January 2018.⁹⁷⁰ The district court dismissed the complaint on two alternative grounds: first, because AbbVie does not practice the challenged patent, it is in not at risk of an infringement suit, and second, deciding the invalidity question would not resolve the parties’ ultimate dispute.⁹⁷¹

The Federal Circuit disagreed with the district court’s first ground for dismissal holding that a contractual dispute, if properly presented, could be the subject of a declaratory judgment action regardless of whether a party was at risk of an infringement suit.⁹⁷² However, AbbVie did not seek a declaration of its contractual obligations, only a declaration of invalidity that would not resolve the parties’ contractual dispute.⁹⁷³ The agreement between the parties was governed by British law and it is an open question whether the British courts would consider the invalidation of a patent to be tantamount to its expiration for purposes of the agreement.⁹⁷⁴ Without resolution to this question, the contractual dispute would persist.⁹⁷⁵ Because “a litigant may not use a declaratory judgment action to obtain piecemeal adjudication of defenses that would not finally and conclusively resolve the underlying controversy,” the Federal Circuit affirmed the district court’s second ground for dismissal.⁹⁷⁶

968. *Id.*

969. *Id.*

970. *Id.*

971. *Id.* at 1336.

972. *Id.* at 1336–37.

973. *Id.* at 1337.

974. *Id.* at 1338.

975. *Id.*

976. *Id.* at 1337–38 (quoting *MedImmune Inc. v. Genentech, Inc.*, 549 U.S. 118, 127 n.7 (2007)).

*AIDS Healthcare Foundation, Inc. v. Gilead Sciences, Inc.*⁹⁷⁷ also dealt with a declaratory judgment action.⁹⁷⁸ AIDS Healthcare Foundation provides medical care to persons afflicted with AIDS, including providing antiviral drugs such as the tenofovir alafenamide fumarate (“TAF”) products that Healthcare buys from defendants.⁹⁷⁹ Healthcare sought a declaratory judgment of invalidity of five patents “to clear out the invalid patents” so it “would have the ability then to partner with generic makers and purchase TAF as soon as it could become available on expiration of the five-year New Chemical exclusivity set forth in 21 U.S.C. § 355(j) (5) (F) (ii).”⁹⁸⁰ Notably, no potential generic producer had filed an ANDA for any TAF-containing products at the initiation of this action, for TAF’s new chemical entity period of exclusivity foreclosed such a filing until November 2019.⁹⁸¹ The district court granted defendants’ motion to dismiss for lack of a case or controversy in terms of the Declaratory Judgment Act.⁹⁸² The Federal Circuit affirmed.

A plaintiff seeking a declaratory judgment bears the burden of demonstrating that a case or actual controversy existed at the time the declaratory action was filed.⁹⁸³ That requires a showing of injury-in-fact, connection between the challenged conduct and the injury, and redressability by the requested remedy.⁹⁸⁴ “The foundation of a declaratory action is that the facts alleged, under all the circumstances, show that there is a substantial controversy, between parties having adverse legal interests, of sufficient immediacy and reality to warrant the issuance of a declaratory judgment.”⁹⁸⁵ Here, the Federal Circuit found that plaintiff had not met the immediacy and reality requirement because there was no present infringement, no threat of or possibility of infringement litigation, and no meaningful preparation to infringe.⁹⁸⁶ The court also rejected Healthcare’s argument that its actions created liability for inducing infringement

977. 890 F.3d 986 (Fed. Cir. 2018).

978. *Id.* at 989.

979. *Id.*

980. *Id.*

981. *Id.* at 992.

982. *Id.* at 990.

983. *Id.*

984. *Id.* at 990–91 (citing *Steel Co. v. Citizens for a Better Env’t*, 523 U.S. 83, 103–04 (1998)).

985. *Id.* at 991 (quoting *MedImmune Inc. v. Genentech, Inc.*, 549 U.S. 118, 127 (2007); *Maryland Cas. Co. v. Pac. Coal & Oil Co.*, 312 U.S. 270, 273 (1941)).

986. *Id.*

because there was no direct infringement.⁹⁸⁷ The Federal Circuit also found that an adverse economic interest is not itself an adverse legal interest, and the absence of a covenant not to sue infringers did not create a justiciable case or controversy.⁹⁸⁸ Regarding Healthcare's argument that public policy is served by invalidation of invalid patents, the Federal Circuit noted that "the Hatch-Waxman Act is already a balance of several policy interests, seeking to preserve the patent incentive to invent new drugs, while enabling validity challenge by ANDA filers before actual infringement occurs."⁹⁸⁹

E. Personal Jurisdiction and Venue

The Federal Circuit addressed three petitions for writ of mandamus on the issue of venue under the patent venue statute.⁹⁹⁰ *In re HTC Corp.*⁹⁹¹ addressed where foreign companies can be sued for patent infringement.⁹⁹² HTC Corp. petitioned for writ of mandamus directing the U.S. District Court for the District of Delaware to vacate its order denying-in-part HTC's motion to dismiss for improper venue and dismiss the complaint.⁹⁹³ HTC Corp. is a Taiwanese corporation with its principal place of business in Taiwan, and its wholly owned U.S. based subsidiary, HTC America, is a Washington corporation with its principal place of business in Seattle, Washington.⁹⁹⁴ The Delaware district court found that venue was not proper as to HTC America but was proper as to HTC Corp.⁹⁹⁵ Following the order, plaintiffs voluntarily dismissed their suit against HTC America without prejudice.⁹⁹⁶ HTC Corp. filed a mandamus petition seeking dismissal for improper venue.⁹⁹⁷

"A writ of mandamus is a drastic remedy available only in extraordinary circumstances."⁹⁹⁸ "The following conditions must be met for the court to issue a writ: (1) the petitioner must have no other

987. *Id.* at 992–93.

988. *Id.* at 993–94.

989. *Id.* at 995.

990. 28 U.S.C. § 1400.

991. 889 F.3d 1349 (Fed. Cir. 2018).

992. *Id.* at 1351.

993. *Id.*

994. *Id.*

995. *Id.*

996. *Id.* at 1351–52.

997. *Id.* at 1352.

998. *Id.*

adequate means to attain the relief desired; (2) the petitioner must demonstrate a “clear and indisputable” right to the issuance of the writ; and (3) “even if the first two prerequisites have been met, the issuing court, in the exercise of its discretion, must be satisfied that the writ is appropriate under the circumstances.”⁹⁹⁹ The Federal Circuit found that the first condition was not met because “unlike a defendant challenging the denial of a § 1404(a) transfer motion, a defendant aggrieved by the denial of an improper venue motion has an adequate remedy on appeal from a final judgment.”¹⁰⁰⁰ Specifically, if after judgment venue is determined to have been improper, and the improper venue objection was not waived, HTC Corp. “will be entitled to assert it on appeal and, if the objection is sustained, obtain from [the appeals] court an order vacating the judgment . . . and directing the remand of the action to the [appropriate venue].”¹⁰⁰¹ The court explained that “[g]iven the availability of adequate relief on appeal, mandamus review of improper venue decisions is generally inappropriate.”¹⁰⁰²

The Federal Circuit also held that HTC Corp. failed to demonstrate the second condition: that its right to a writ was clear and indisputable.¹⁰⁰³ Relying on the Supreme Court’s decision in *Brunette Machine Works, Ltd. v. Kockum Industries, Inc.*,¹⁰⁰⁴ the Federal Circuit reaffirmed the “long-established rule that suits against aliens are wholly outside the operation of all the federal venue laws, general and special.”¹⁰⁰⁵ The court explained its belief that Congress did not intend the 2011 amendments to 28 U.S.C. § 1391(c)¹⁰⁰⁶ to “upend the centuries-old understanding that the venue laws (as opposed to requirements of personal jurisdiction) do not restrict the location of suits against alien defendants.”¹⁰⁰⁷ The Federal Courts Jurisdiction and Venue Clarification Act of 2011 made only one minor change to the alien-venue rule, limited to venue protection to alien natural persons

999. *Id.* (citing *Cheney v. U.S. Dist. Court for D.C.*, 542 U.S. 367, 380–81 (2004)).

1000. *Id.* at 1352–53.

1001. *Id.* at 1353 (quoting *Gulf Research & Dev. Co. v. Leahy*, 193 F.2d 302, 304–05 (3d Cir. 1951)).

1002. *Id.*

1003. *Id.* at 1354.

1004. 406 U.S. 706 (1972).

1005. *In re HTC*, 889 F.3d at 1354 (quoting *Brunette*, 406 U.S. at 714).

1006. 28 U.S.C. § 1391(c)(3) (2012) (“[A] defendant not resident in the United States may be sued in any judicial district, and the joinder of such a defendant shall be disregarded in determining where the action may be brought with respect to other defendants.”).

1007. *HTC*, 889 F.3d at 1356.

having permanent resident status.¹⁰⁰⁸ The Federal Circuit rejected HTC Corp.'s argument that *Brunette* creates a "loophole" for a plaintiff to forum shop, noting that HTC Corporation's interpretation creates "a far more unsatisfactory loophole—a complete inability for a patent owner to bring its infringement claims against alien defendants that fall outside the non-residence-based clause of § 1400(b)."¹⁰⁰⁹

The Federal Circuit clarified the issue of where a domestic corporation "resides" under § 1400 when its state of incorporation has more than one judicial district in *In re BigCommerce, Inc.*¹⁰¹⁰ Plaintiffs, Diem and Express Mobile, each filed patent infringement suits against BigCommerce in the District Court for the Eastern District of Texas.¹⁰¹¹ BigCommerce is incorporated in the state of Texas and is registered and headquartered in Austin, Texas, which is in the Western District of Texas.¹⁰¹² It was undisputed that BigCommerce had no place of business in the Eastern District of Texas.¹⁰¹³ BigCommerce moved to dismiss the *Diem* case and transfer the *Express Mobile* case, arguing that under the Supreme Court's decisions in *TC Heartland*¹⁰¹⁴ and *Stonite Products*,¹⁰¹⁵ it resides only in the Western District of Texas.¹⁰¹⁶ In both cases, the district court held that "a domestic corporation resides in the state of its incorporation and if that state contains more than one judicial district, the corporate defendant resides in each such judicial district for venue purposes."¹⁰¹⁷ BigCommerce petitioned for a writ of mandamus in both cases.¹⁰¹⁸

The Federal Circuit found that mandamus was warranted because different district courts have come to different conclusions about whether a corporation "resides" under § 1400(b)¹⁰¹⁹ in every judicial

1008. *Id.* at 1359.

1009. *Id.* at 1360–61.

1010. 890 F.3d 978 (Fed. Cir. 2018).

1011. *Id.* at 980.

1012. *Id.*

1013. *Id.*

1014. *TC Heartland LLC v. Kraft Foods Grp. Brands LLC*, 137 S. Ct. 1514, 1521 (2017) (reaffirming that a domestic defendant corporation "resides" under § 1400(b) only in its state of incorporation).

1015. *Stonite Prods. Co. v. Melvin Lloyd Co.*, 315 U.S. 561, 563 (1942).

1016. *In re BigCommerce*, 890 F.3d at 980.

1017. *Id.* (quoting *Diem LLC v. BigCommerce, Inc.*, No. 6:17-cv-00186, 2017 WL 3187473, at *2 (E.D. Tex. July 26, 2017)).

1018. *Id.*

1019. 28 U.S.C. § 1400(b) (2012) ("Any civil action for patent infringement may be brought in the judicial district where the defendant resides, or where the defendant has committed acts of infringement and has a regular and established place of business.").

district within its state of incorporation when the state has more than one judicial district.¹⁰²⁰ After considering the plain meaning and legislative history of § 1400(b), the Federal Circuit held that

for purposes of determining venue under § 1400(b) in a state having multiple judicial districts, a corporate defendant shall be considered to ‘reside’ only in the single judicial district within that state where it maintains a principal place of business, or, failing that, the judicial district in which its registered office is located.¹⁰²¹

The Federal Circuit determined that in this case venue is proper under the resides prong of § 1400(b) only in the Western District of Texas.¹⁰²²

In *In re ZTE (USA) Inc.*,¹⁰²³ the Federal Circuit granted ZTE’s petition for a writ of mandamus, vacated the order denying ZTE’s motion to dismiss, and remanded for reconsideration.¹⁰²⁴ The Federal Circuit found that the case presented two basic and undecided issues relating to proper judicial administration: whether Federal Circuit or regional circuit law governs the burden of proof for determining the propriety of venue under § 1400(b), and on which party the burden rests.¹⁰²⁵ On the first issue, the Federal Circuit held that Federal Circuit law governs the placement of the burden of persuasion on the propriety of venue under § 1400(b).¹⁰²⁶ On the second issue, the Federal Circuit held as a matter of Federal Circuit law that, upon motion by the defendant challenging venue in a patent case, the plaintiff bears the burden of establishing proper venue.¹⁰²⁷ Because the district court incorrectly assigned the burden of proof on venue to ZTE and failed to fully consider all relevant factors, the court vacated the order denying the motion and remanded for reconsideration.¹⁰²⁸

*M-I Drilling Fluids UK Ltd. v. Dynamic Air Ltda.*¹⁰²⁹ addressed personal jurisdiction over a foreign entity.¹⁰³⁰ Patent owner sued defendant in the U.S. District Court for the District of Minnesota, alleging infringement of five patents.¹⁰³¹ Dynamic Air Ltda. (DAL) is a foreign

1020. *BigCommerce*, 890 F.3d at 981.

1021. *Id.* at 986.

1022. *Id.*

1023. 890 F.3d 1008 (Fed. Cir. 2018).

1024. *Id.* at 1010.

1025. *Id.* at 1011.

1026. *Id.* at 1013.

1027. *Id.*

1028. *Id.* at 1010.

1029. 890 F.3d 995 (Fed. Cir. 2018).

1030. *Id.* at 998.

1031. *Id.*

entity organized under the laws of Brazil with a principal place of business in Brazil.¹⁰³² DAL is a subsidiary of Dynamic Air Inc. which is a Minnesota corporation with its principal place of business in Minnesota.¹⁰³³ Between October 2011 and January 2012, the Brazilian state-owned oil company Petroleo Brasileiro S.A. (Petrobras) requested bids for installation of systems on ships, and DAL subsequently won the bid.¹⁰³⁴ DAL installed the allegedly infringing system on PTAB two U.S. flagged ships.¹⁰³⁵ The district court dismissed the case for lack of personal jurisdiction under Rule 12(b)(2), finding that although the alleged infringing activities took place on U.S.-flagged ships that are themselves U.S. territory, the contract between Petrobras and DAL did not identify the ships on which DAL would be required to make installations.¹⁰³⁶ Therefore, DAL did not purposefully avail itself of the privilege of conducting activities within the United States because its contacts were exclusively due to the unilateral activity of Petrobras.¹⁰³⁷

Reviewing the issue de novo¹⁰³⁸ under Federal Circuit precedent, the Federal Circuit reversed the dismissal for lack of jurisdiction and remanded for further proceedings.¹⁰³⁹ The sole issue on appeal was whether the exercise of personal jurisdiction over DAL comports with due process.¹⁰⁴⁰ After finding that DAL's activities were purposefully directed at the United States and the claim of patent infringement arose out of those contacts, the burden shifted to DAL to present a compelling case that the presence of some other consideration would render jurisdiction unreasonable.¹⁰⁴¹ In assessing whether exercise of personal jurisdiction over a defendant would be reasonable and fair, the Federal Circuit considers five due process factors: (1) the burden

1032. *Id.*

1033. *Id.*

1034. *Id.*

1035. *Id.* at 998–99.

1036. *Id.* at 999.

1037. *Id.*

1038. Personal jurisdictional issues in patent infringement cases are reviewed de novo and under Federal Circuit precedent. *See Synthes (U.S.A.) v. G.M. Dos Reis Jr. Ind. Com de Equip. Medico*, 563 F.3d 1285, 1292–93 (Fed. Cir. 2009).

1039. *M-I Drilling Fluids*, 890 F.3d at 1003.

1040. *Id.* at 1000 (“[D]ue process requires only that in order to subject a defendant to a judgment in personam, [the defendant must] have certain minimum contacts with [the forum] such that the maintenance of the suit does not offend ‘traditional notions of fair play and substantial justice.’” (quoting *Int'l Shoe Co. v. Washington*, 326 U.S. 310, 316 (1945))).

1041. *Id.* at 1001–02.

on the defendant; (2) the forum's interest in adjudicating the dispute; (3) the plaintiff's interest in obtaining convenient and effective relief; (4) the interstate judicial system's interest in obtaining the most efficient resolution of controversies; and (5) the shared interest of the states in furthering fundamental substantive social policies.¹⁰⁴² Because the exclusive licensee of the asserted patents, and therefore one of the allegedly injured parties is a U.S. domiciliary, the Federal Circuit determined that it has a paramount interest in obtaining convenient and effective relief in a U.S. court.¹⁰⁴³ Because the exclusive licensee is a U.S. plaintiff trying to enforce its U.S. patents for alleged infringing activity in a U.S. territory, the court found that the first three factors strongly favor exercising specific personal jurisdiction over DAL.¹⁰⁴⁴ Regarding the final two factors, concerned "with the potential clash of substantive social policies between competing fora and the efficiency of a resolution to the controversy," the forum here is the entire United States so no competing forum is available and the court had "no reason to believe that the [f]ederal [g]overnment's interest in its foreign relations policies with Brazil will be hindered by allowing the district court to exercise personal jurisdiction" over DAL.¹⁰⁴⁵ Judge Reyna wrote in concurrence providing additional reasoning why the exercise of personal jurisdiction here does not offend traditional notions of fair play and substantial justice.¹⁰⁴⁶

F. Standing

*Advanced Video Technologies LLC v. HTC Corp.*¹⁰⁴⁷ affirmed the district court's dismissal of plaintiff's infringement complaints for lack of standing because plaintiff did not have full ownership of the asserted patent.¹⁰⁴⁸ The sole issue in the appeal was whether a co-inventor of the patent transferred her ownership interests in the patent under the terms of an employment agreement.¹⁰⁴⁹ The Federal Circuit analyzed whether any of three provisions of the employment agreement

1042. *Id.* at 1002.

1043. *Id.*

1044. *Id.*

1045. *Id.* at 1002–03 (internal citations omitted).

1046. *Id.* at 1003 (Reyna, J., concurring).

1047. 879 F.3d 1314 (Fed. Cir. 2018).

1048. *Id.* at 1319.

1049. *Id.* at 1315–16.

effected a transfer of ownership rights from the co-inventor: a “will assign” provision, a trust provision, and a quitclaim provision.¹⁰⁵⁰

The “will assign” provision provided that the co-inventor “will assign to the Company” all her right, title, and interest in any inventions.¹⁰⁵¹ The Federal Circuit agreed with the district court that the “will assign” language “invoked a promise to do something in the future and did not effect a present assignment” and did not create an immediate assignment of the co-inventor’s rights.¹⁰⁵² The trust provision provided that the co-inventor “will hold in trust for the sole right and benefit of the Company.”¹⁰⁵³ The Federal Circuit found that even if the co-inventor’s interests in the invention were immediately placed in trust, “it does not follow that those interests were automatically, or ever, actually transferred out of trust in favor of [the company].”¹⁰⁵⁴ Because under California trust law, a trust beneficiary “generally is not the real party in interest,” “may not sue in the name of the trust,” and “has no legal title or ownership interest in the trust assets,”¹⁰⁵⁵ the plaintiff cannot maintain a patent infringement suit where the co-inventor is not a party nor can she be involuntarily joined as a plaintiff in the pending suit.¹⁰⁵⁶ Finally, the “quitclaim assignment” providing that the co-inventor “waive and quitclaim to the Company any and all claims” served to waive the co-inventor’s rights to interests in any patent rights that she assigned under the agreement.¹⁰⁵⁷ Because no patent rights were ever assigned, the Federal Circuit found that the quitclaim provision did not affect an assignment of the patent from the co-inventor.¹⁰⁵⁸

Judge O’Malley concurred because binding precedent “compels the result.”¹⁰⁵⁹ However, Judge O’Malley wrote separately to express her belief that the binding precedent “that a non-consenting co-owner or co-inventor can never be involuntarily joined in an infringement action pursuant to Rule 19 of the Federal Circuit Rules of Civil Procedure is incorrect.”¹⁰⁶⁰ Judge Newman dissented because the

1050. *Id.* at 1317.

1051. *Id.*

1052. *Id.* at 1317–18.

1053. *Id.* at 1317.

1054. *Id.* at 1318.

1055. *Id.* (quoting *Saks v. Damon Raike & Co.*, 8 Cal. Rptr. 2d 869, 874–75 (Cal. Ct. App. 1992)).

1056. *Id.*

1057. *Id.* at 1318–19.

1058. *Id.* at 1319.

1059. *Id.* (O’Malley, J., concurring).

1060. *Id.*

employment agreement “placed ownership of the employee’s inventions with the employer” and therefore the co-inventor had no ownership interest in the asserted patent.¹⁰⁶¹

*James v. j2 Cloud Services, LLC*¹⁰⁶² addressed standing in the correction-of-inventorship context.¹⁰⁶³ Plaintiff filed a correction-of-inventorship claim alleging that he is the sole inventor of a patent that lists two different individuals as inventors.¹⁰⁶⁴ The patent was originally assigned to JFAX, the company owned by the listed inventors, and subsequently assigned to Advanced Messaging Technologies, Inc. (AMT).¹⁰⁶⁵ The defendant in this case, j2, has an exclusive license to the patent.¹⁰⁶⁶ At the time of the invention, the plaintiff worked for GSP Software, which entered into a contract with JFAX to develop software to provide fax-to-email, email-to-fax, and voicemail-to-email functionalities.¹⁰⁶⁷ The plaintiff admitted that he assigned all copyrights in code and compiled software to JFAX but denied assigning any patent ownership or inventorship rights.¹⁰⁶⁸ The district court dismissed the case finding that the plaintiff lacked Article III standing because he “fail[ed] to allege facts sufficient to show that he has an ownership or financial interest in the . . . patent.”¹⁰⁶⁹ The Federal Circuit disagreed and reversed.

The Federal Circuit concluded that if the plaintiff were to prevail on his allegations that he was the sole inventor and that sole inventorship entails sole ownership, he would have stood to gain concretely.¹⁰⁷⁰ Such gain would be directly related to the merits of the claim and would redress the injury of being deprived of allegedly rightful ownership which, absent other facts, would be sufficient to give plaintiff Article III standing.¹⁰⁷¹ The case therefore turned on whether the plaintiff assigned his patent rights to JFAX under either the software development agreement or by the “hired-to-invent doctrine.”¹⁰⁷² The

1061. *Id.* at 1326 (Newman, J., dissenting).

1062. 887 F.3d 1368 (Fed. Cir. 2018).

1063. *Id.* at 1370.

1064. *Id.*

1065. *Id.*

1066. *Id.*

1067. *Id.* at 1370–71.

1068. *Id.* at 1371.

1069. *Id.* (citing *James v. j2 Cloud Servs. Inc.*, No. 2:16-cv-05769, 2016 WL 9450470, at *5 (C.D. Cal. Dec. 19, 2016)).

1070. *Id.* at 1372.

1071. *Id.*

1072. *Id.* at 1373.

Federal Circuit found that the software development agreement was amenable to the construction that it does not assign, or promise to assign, patent rights that would otherwise accrue to the plaintiff as an inventor.¹⁰⁷³ At the present stage of the litigation, the Federal Circuit concluded that the agreement must be construed in plaintiff's favor and therefore does not deprive plaintiff of constitutional standing.¹⁰⁷⁴ The court also determined that the "hired-to-invent" rule, recognizing that an employer may "claim an employee's inventive work where the employer specifically hires or directs the employee to exercise inventive faculties," was inapplicable.¹⁰⁷⁵ Unlike prior cases applying the rule, the agreement for engagement of services in this case was between two artificial legal entities, and the inventor was not personally a party to either.¹⁰⁷⁶

G. Jury Instructions

*Flexuspine, Inc. v. Globus Medical, Inc.*¹⁰⁷⁷ involved the impact of the jury's failure to heed a "stop instruction" in the jury verdict form.¹⁰⁷⁸ In *Flexuspine*, the verdict form instructed the jury to address the questions of invalidity and damages only if they made an affirmative finding of infringement.¹⁰⁷⁹ However, after finding no infringement, the jury indicated that the claims were also found invalid and wrote "0" for the damages amount.¹⁰⁸⁰ After the district court instructed the jury to re-execute the verdict form consistent with the instructions therein, the jury found the claims not to be infringed and left the questions of invalidity and damages unanswered.¹⁰⁸¹ The district court dismissed the defendant's Rule 59(e) motion requesting that the judgment be amended to include the jury's invalidity verdict as well as the defendant's invalidity counterclaims, rendering the Rule 50(b) motion for judgment as a matter of law on invalidity moot.¹⁰⁸²

The Federal Circuit rejected defendant's contention that the district court was not authorized to direct the jury to further consider its

1073. *Id.* at 1374.

1074. *Id.* at 1375.

1075. *Id.* at 1375–76 (quoting *Teets v. Chromalloy Gas Turbine Corp.*, 83 F.3d 403, 407 (Fed. Cir. 1996)).

1076. *Id.*

1077. 879 F.3d 1369 (Fed. Cir. 2018).

1078. *Id.* at 1371–72.

1079. *Id.* at 1371.

1080. *Id.* at 1372.

1081. *Id.*

1082. *Id.* at 1372–73.

answers and verdict because the “jury’s answers to the validity and damages questions ‘had to conflict’ with the jury’s answer of no infringement” because the verdict form predicated the answers to those questions on an affirmative response to the infringement question.¹⁰⁸³ The Federal Circuit also rejected the defendant’s argument that the district court’s dismissal of its invalidity counterclaims violated defendant’s Seventh Amendment right to a jury claim.¹⁰⁸⁴ Because defendant failed to object to the verdict form, the issue of invalidity was submitted to the jury as an affirmative defense, not a counterclaim.¹⁰⁸⁵ Therefore, the district court did not deprive defendant of its right to a jury trial outright, “it merely declined to submit its counterclaims to *this* jury.”¹⁰⁸⁶ Finally, the Federal Circuit affirmed the district court’s dismissal of the Rule 50(b) claim, finding that a “district court judge faced with an invalidity counterclaim challenging a patent that it concludes was not infringed may either rehear the claim or dismiss it without prejudice.”¹⁰⁸⁷

CONCLUSION

The Supreme Court and Federal Circuit resolved many cases in 2018 that significantly impacted the practice of patent law. The next year will bring further clarity from the Supreme Court and Federal Circuit on the issues ranging from Article III standing, IPR real party in interest, on-sale bar, and fair, reasonable, and on-discriminatory royalties for standards-essential patents. And as always, we expect the Federal Circuit and PTO to provide more guidance on the contours § 101 in 2019.

1083. *Id.* at 1373–74 (quoting *White v. Grinfas*, 809 F.2d 1157, 1161 (5th Cir. 1987)).

1084. *Id.* at 1375.

1085. *Id.*

1086. *Id.*

1087. *Id.* at 1376 (citing *Liquid Dynamics Corp. v. Vaughan Co.*, 355 F.3d 1361, 1371 (Fed. Cir. 2004)).