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# Promoting the Progress: Three Decades of Patent Jurisprudence in the Court of Appeals for the Federal Circuit

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# The 2011 Symposium Student Legal Writing Competition Winner

# Promoting the Progress: Three Decades of Patent Jurisprudence in the Court of Appeals for the Federal Circuit

#### Damon C. Andrews\*

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#### I. Introduction

Congress significantly altered the landscape of Article III courts when three decades ago it established the Court of Appeals for the Federal Circuit pursuant to the Federal Courts Improvement Act of 1982. The Federal Circuit was born from a merger of the Court of Customs and Patent Appeals and

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<sup>1.</sup> Federal Courts Improvement Act of 1982, Pub. L. No. 97-164, 96 Stat. 25 (1982) (codified as amended in scattered sections of 28 U.S.C.).

the appellate jurisdiction of the Court of Claims,<sup>2</sup> and maintains exclusive jurisdiction over appeals related to governmental contracts,<sup>3</sup> veterans' benefits,<sup>4</sup> and international trade,<sup>5</sup> among other niche areas of federal law.<sup>6</sup> However, no single subject matter under its review has brought the Federal Circuit as much attention (or criticism<sup>7</sup>) as its exclusive jurisdiction over patent appeals.<sup>8</sup>

Several scholars assert that Congress created the Federal Circuit as part of an "experiment" in the judicial specialization of patent law, though it may be more apt to say that necessity – rather than experimentation – is the true mother of the court's invention. Prior to the creation of the Federal Circuit,

- 2. Peter Lee, Patent Law and the Two Cultures, 120 YALE L.J. 2, 26 (2010).
- 3. 28 U.S.C.A. § 1295(a)(10) (West Supp. 2011).
- 4. 38 U.S.C. § 7292 (2006).
- 5. 28 U.S.C. § 1295(a)(5) (2006).
- 6. For a more complete listing of the subject areas within the Federal Circuit's exclusive jurisdiction, see Paul R. Michel, Assuring Consistency and Uniformity of Precedent and Legal Doctrine in the Areas of Subject Matter Jurisdiction Entrusted Exclusively to the U.S. Court of Appeals for the Federal Circuit: A View from the Top, 58 Am. U. L. REV. 699, 699-700 (2009). For a breakdown by category of appeals filed before the Federal Circuit in the 2010 fiscal year, see Appeals Filed, by Category, U.S. CT. OF APPEALS FOR THE FED. CIRCUIT, http://www.cafc.uscourts.gov/images/stories/the-court/statistics/Caseload\_by\_Category\_Appeals\_Filed\_2010.pdf (last visited Mar. 28, 2010).
- 7. See Rochelle Cooper Dreyfuss, What the Federal Circuit Can Learn from the Supreme Court and Vice Versa, 59 Am. U. L. Rev. 787, 803 (2010) ("[The Federal Circuit] rarely provides insight into the policy rationale for its own decisions."); John M. Golden, The Supreme Court as "Prime Percolator": A Prescription for Appellate Review of Questions in Patent Law, 56 UCLA L. Rev. 657, 719-20 (2009) ("In recent years, patent law and the Federal Circuit have become targets of heavy criticism. Doubtless, much can be done to improve the performance of both."); Craig Allen Nard & John F. Duffy, Rethinking Patent Law's Uniformity Principle, 101 Nw. U. L. Rev. 1619, 1620-23 (2007) ("The Federal Circuit has been accused of producing an isolated and sterile jurisprudence that is increasingly disconnected from the technological communities affected by patent law.").
  - 8. 28 U.S.C. § 1295(a)(1), (4).
- 9. E.g., Rochelle Cooper Dreyfuss, The Federal Circuit: A Case Study in Specialized Courts, 64 N.Y.U. L. REV. 1, 3 (1989); John F. Duffy, Experiments After the Federal Circuit, 54 CASE W. RES. L. REV. 803, 803 (2004) (calling the Federal Circuit "an experiment in institutional design"); R. Polk Wagner & Lee Petherbridge, Is the Federal Circuit Succeeding? An Empirical Assessment of Judicial Performance, 152 U. PA. L. REV. 1105, 1115 (2004) ("Unifying appellate jurisdiction under a single court was seen as an effective, albeit untested, response to the widespread perception that the legal infrastructure of patent law was not being effectively managed.").
- 10. See S. REP. No. 97-275, at 2-4 (1981), reprinted in 1982 U.S.C.C.A.N. 11, 12-14 ("The creation of the Court of Appeals for the Federal Circuit provides such a forum for appeals from throughout the country in areas of the law where Congress determines that there is special need for national uniformity.") (emphasis added).

an appeal from a patent decision in a federal district court was heard in the district court's respective regional circuit court;<sup>11</sup> however, regional circuit courts varied widely in their interpretations of the Patent Act,<sup>12</sup> which led to objectionable forum shopping.<sup>13</sup> Additionally, Congress harbored concerns that the U.S. Patent and Trademark Office (PTO) was granting patents based on inventive standards that were unenforceable in the district and circuit courts across the country where the patents were later litigated.<sup>14</sup> To unify the patent laws, Congress created the Federal Circuit to route appeals to a single court.<sup>15</sup> Currently, patent cases arrive at the Federal Circuit by one of two primary avenues<sup>16</sup>: an appeal from a federal district court<sup>17</sup> or an appeal

<sup>11.</sup> Richard L. Revesz, Specialized Courts and the Administrative Lawmaking System, 138 U. PA. L. REV. 1111, 1125 & n.62 (1990) (citing 28 U.S.C. § 1338 (1982)).

<sup>12.</sup> Elizabeth I. Rogers, The Phoenix Precedents: The Unexpected Rebirth of Regional Circuit Jurisdiction Over Patent Appeals and the Need for a Considered Congressional Response, 16 HARV. J.L. & TECH. 411, 421 (2003) ("[S]tudies exposed particularly egregious problems of a lack of uniformity in patent cases and the forum-shopping that this lack of uniformity created.").

<sup>13.</sup> Joan E. Schaffner, Federal Circuit "Choice of Law": Erie Through the Looking Glass, 81 Iowa L. Rev. 1173, 1190 (1996) ("[T]he creation of the Federal Circuit itself was designed to reduce forum shopping opportunities among the regional circuit courts . . . "); see Charles W. Adams, The Court of Appeals for the Federal Circuit: More than a National Patent Court, 49 Mo. L. Rev. 43, 57-58 (1984) ("Patent owners rushed to bring infringement actions in circuits thought to be favorable to patents, while potential infringers hurried to file declaratory judgment actions in circuits with reputations for invalidating patents."). Although the problem of forum shopping has been largely resolved at the circuit court level, it nevertheless remains a problem. See Kimberly A. Moore, Forum Shopping in Patent Cases: Does Geographic Choice Affect Innovation?, 79 N.C. L. Rev. 889, 891-94 (2001) ("[D]espite the creation of the Federal Circuit, choice of forum continues to play a critical role in the outcome of patent litigation. . . . The lack of uniformity in patent enforcement is problematic in and of itself.").

<sup>14.</sup> Wagner & Petherbridge, *supra* note 9, at 1114-17 ("Congress was presented with reports demonstrating that the PTO was essentially 'freelancing' with respect to the standards of patentability, resulting in an increasing divergence in the legal framework . . . ."); *see* Dreyfuss, *supra* note 9, at 6 (stating that prior to the creation of the Federal Circuit, the PTO was "left largely to its own devices" and was "free to develop its own notions of patentiability [sic] but could not impose them on other federal courts").

<sup>15.</sup> See Lee Petherbridge, Patent Law Uniformity?, 22 HARV. J.L. & TECH. 421, 422-23 (2009) ("As Congress saw it, enabling a single body of national precedents for patent law would, among other things, repair the legal infrastructure of the patent system by improving uniformity of doctrinal development, and improving doctrinal stability and predictability.").

<sup>16.</sup> Patent-related cases are not limited to only these two paths to the Federal Circuit. See Lee Petherbridge & R. Polk Wagner, The Federal Circuit and Patentability: An Empirical Assessment of the Law of Obviousness, 85 Tex. L. Rev. 2051,

from a decision of the Board of Patent Appeals and Interferences (BPAI), <sup>18</sup> an administrative body of the PTO that decides questions of patentability and settles inventor priority disputes. <sup>19</sup>

In the nearly thirty years since the Federal Circuit's first published decision, 20 the court has decided numerous cases that have produced a rich patent jurisprudence. This Article seeks to evaluate that jurisprudence from several perspectives. Part II summarizes the Federal Circuit's patent history in terms of the court's judges, the external factors that have shaped its patent jurisprudence, and the overall success of the court in light of Congress's intent. Part III then evaluates the Federal Circuit's general stance on whether to uphold the PTO's grant or denial of a patent, or a district court's decision to invalidate a patent, with respect to several specific patent law issues, including claim construction. Finally, Part IV analyzes the Federal Circuit's relationship with the U.S. Supreme Court and examines the attention that the Court has given to patent cases throughout the Federal Circuit's existence based on the number of certiorari petitions granted, as well as the Court's treatment of the Federal Circuit's opinions with respect to their outcomes and reasoning. In sum, this Article canvasses the Federal Circuit's patent decisions from several angles to paint a comprehensive picture of the court's patent jurisprudence during the first three decades of its existence.

# II. PATENT TRENDS AT THE FEDERAL CIRCUIT: A DECADE-BY-DECADE REVIEW

More than 42,500 appeals have been filed with the Court of Appeals for the Federal Circuit since its founding in 1982,<sup>21</sup> and of the cases in which the court issued written opinions, more than 4900 originated in the PTO and dis-

<sup>2056-57 (2007) (</sup>noting that the Federal Circuit can hear appeals on cases involving patents from the Court of Federal Claims and the International Trade Commission (ITC)). However, "the court is cast in two critical roles: as the oversight authority for the administrative body that grants patents (the [PTO]) and as the sole appellate authority for litigated disputes involving already-issued patents." *Id.* at 2053.

<sup>17. 28</sup> U.S.C. § 1295(a)(4)(C) (2006).

<sup>18.</sup> Id. § 1295(a)(4)(A).

<sup>19.</sup> See 35 U.S.C. §§ 6, 134, 141 (2006).

<sup>20.</sup> S. Corp. v. United States, 690 F.2d 1368, 1369 (Fed. Cir. 1982) (en banc) ("This appeal is the first to be heard, and this opinion the first to be published, by the United States Court of Appeals for the Federal Circuit, established October 1, 1982 . . . .").

<sup>21.</sup> Historical Caseload, U.S. CT. OF APPEALS FOR THE FED. CIRCUIT, http://www.cafc.uscourts.gov/images/stories/the-court/statistics/Caseload\_Overall\_1983-2010.pdf (last visited Dec. 18, 2010) (42,634 appeals through fiscal year 2010).

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trict courts.<sup>22</sup> Through its holdings in these opinions, the Federal Circuit has generated a robust patent jurisprudence. The following subparts offer a survey of the Federal Circuit's patent jurisprudence ebb and flow through the decades. These subparts focus on the judges sitting on the court, the technological developments that have challenged the court when applying patent law doctrines, and the external factors that have influenced the court.

# A. 1982–1991: Establishing Precedent

The Federal Circuit is the youngest of the thirteen federal appellate courts.<sup>23</sup> However, even in its early years, the court had parameters for deciding cases. In *South Corp. v. United States*,<sup>24</sup> the Federal Circuit, sitting en banc, announced that holdings of the Court of Customs and Patent Appeals (CCPA) were to serve as binding precedent.<sup>25</sup> And not by any fluke or coincidence, five of the Federal Circuit's eleven inaugural judges were previously CCPA judges, including the first chief judge of the Federal Circuit, Howard Markey.<sup>26</sup> However, of the eleven appointments that comprised the court's early membership, only two judges had any experience related to patent litigation.<sup>27</sup> Fortunately, one of these judges was Giles Sutherland Rich, whom patent scholars widely consider to be the "father of modern American patent law."<sup>28</sup> Thus, the Federal Circuit's patent jurisprudence began its infancy

<sup>22.</sup> Jeffrey A. Lefstin, *The Measure of the Doubt: Dissent, Indeterminacy, and Interpretation at the Federal Circuit*, 58 HASTINGS L.J. 1025, 1055 tbl.I (2007) (4928 through June 2005).

<sup>23.</sup> Paul R. Michel, Past, Present, and Future in the Life of the U.S. Court of Appeals for the Federal Circuit, 59 AM. U. L. REV. 1199, 1199 (2010). Just two years prior to the creation of the Federal Circuit, Congress voted in 1980 to divide the Fifth Circuit into the Fifth and Eleventh Circuits. See Carl Tobias, The Impoverished Idea of Circuit-Splitting, 44 EMORY L.J. 1357, 1361 (1995). However, the only other appellate courts established in the twentieth century were the District of Columbia Circuit in 1948 and the Tenth Circuit in 1929. Id. at 1360-61.

<sup>24. 690</sup> F.2d 1368.

<sup>25.</sup> *Id.* at 1369. The rigidity of the CCPA precedent upon the Federal Circuit is subject to the Federal Circuit resolving a conflict en banc. *Id.* at 1370 n.2.

<sup>26.</sup> See Thomas H. Case & Scott R. Miller, An Appraisal of the Court of Appeals for the Federal Circuit, 57 S. CAL. L. REV. 301, 304 n.28, 306-07 (1984). Though there were twelve appointments to the Federal Circuit, there were only eleven active judges when the court began operating on October 1, 1982, due to the death earlier that year of Judge Robert Kunzig, a transferee from the Court of Claims. Michel, supra note 23, at 1202 n.15.

<sup>27.</sup> See Case & Miller, supra note 26, at 306 & n.42. However, five of the inaugural Federal Circuit judges had substantial experience in at least some area of intellectual property law, including copyright and trademark law. Michel, supra note 23, at 1202 n.15.

<sup>28.</sup> Kimberly A. Moore, Are District Court Judges Equipped to Resolve Patent Cases?, 15 HARV. J.L. & TECH. 1, 26 n.97 (2001); see Nadine Cohodas, The Found-

with not only a half-century of patent case law upon which to rely,<sup>29</sup> but also with one of the two principal drafters of the Patent Act among its judgeship.<sup>30</sup>

Many commentators lauded the Federal Circuit in its first decade for successfully advancing the goals that Congress had in mind when it formed the court.<sup>31</sup> In only its first three years, the Federal Circuit brought uniformity to patent law by resolving each of the thirteen conflicts that previously burdened the regional circuit courts.<sup>32</sup> Additionally, the Federal Circuit further developed its patent jurisprudence by establishing new patent law doctrine on issues not previously considered by the CCPA or regional circuit courts.<sup>33</sup> For example, in the case *Kingsdown Medical Consultants, Ltd. v. Hollister, Inc.*,<sup>34</sup> the Federal Circuit explained that gross negligence on behalf of a patent applicant does not necessitate a finding of either inequitable conduct or an applicant's intent to deceive the PTO.<sup>35</sup> The court also decided precedential patent cases in the areas of reexamination,<sup>36</sup> double patenting,<sup>37</sup>

ing Father of Patent Law, LEGAL TIMES (D.C.), July 10, 1995, at 13. After graduating from Columbia Law School, Judge Rich practiced patent law in his father's New York law firm. See U.S. Court of Appeals for the Federal Circuit, The Honorable Giles Sutherland Rich Circuit Judge, United States Court of Appeals for the Federal Circuit, 9 FED. CIR. B.J. 1, 1 (1999) [hereinafter U.S. Court of Appeals].

- 29. Although established in 1909 as the Court of Customs Appeals, the CCPA did not begin issuing patent-related decisions until 1929. See Comment, The Distinction Between Legislative and Constitutional Courts and Its Effect on Judicial Assignment, 62 COLUM. L. REV. 133, 146-47 (1962).
- 30. DONALD S. CHISUM ET AL., PRINCIPLES OF PATENT LAW 24 (3d ed. 2004) (calling Judge Rich the "principal architect of the 1952 Patent Act"); Donald R. Dunner, Giles Sutherland Rich, 9 FED. CIR. B.J. 71, 71 (1999) (calling Judge Rich "one of the two principal drafters of the Patent Act"). The other principal drafter of the Patent Act of 1952 was former PTO Examiner-in-Chief Pasquale J. Federico. See Chisum ET Al., supra, at 25.
- 31. E.g., Harry F. Manbeck, Jr., The Federal Circuit First Ten Years of Patentability Decisions, 14 GEO. MASON U. L. REV. 499, 499 (1992) ("It is fair to say that the overall verdict of the first ten years is that the Federal Circuit has in the main accomplished the objective for which it was created, and it is to be applauded for its achievements."); see Daniel J. Meador, Special Session of the United States Court of Appeals for the Federal Circuit Commemorating Its First Ten Years, 2 FED. CIR. B.J. 267, 270-71 (1992) ("What was [in 1982] new, unknown, and experimental is now [in 1992] a proven and valuable part of the federal judiciary.").
- 32. Howard T. Markey, *The Federal Circuit and Congressional Intent*, 41 Am. U. L. Rev. 577, 577 (1992).
  - 33. See infra notes 34-39 and accompanying text.
  - 34. 863 F.2d 867 (Fed. Cir. 1988) (en banc), cert. denied, 490 U.S. 1067 (1989).
  - 35. Id. at 876.
- 36. *In re* Etter, 756 F.2d 852, 858 (Fed. Cir. 1985) (en banc) (holding that the statutory presumption of validity pursuant to 35 U.S.C. § 282 does not apply to claims during reexamination proceedings), *cert. denied*, 474 U.S. 828 (1985).
- 37. Studiengesellschaft Kohle mbH v. N. Petrochem. Co., 784 F.2d 351, 354 (Fed. Cir. 1986) (per curiam) (holding that two patents that claim different classes of

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enablement,<sup>38</sup> and priority of filing<sup>39</sup> during its first ten years. However, while the Federal Circuit may have brought uniformity to patent law as a whole in its early years, its judges were not necessarily unified in doing so. Indeed, in the Federal Circuit's first year of existence, the court's judges dissented more often in patent cases on appeal from the PTO than in any other year.<sup>40</sup>

# B. 1992-2001: Technological (and Turbulent) Times

The Federal Circuit's second decade of patent jurisprudence was marked by major changes in the court's membership, <sup>41</sup> new and complex technologies, <sup>42</sup> and increased attention to its decisions. <sup>43</sup> For instance, by the Federal Circuit's twentieth anniversary, not one of its original eleven judges was still designated as "active" in handling caseloads. <sup>44</sup> Additionally, during two different periods, as few as eight judges comprised the court's membership. <sup>45</sup> Moreover, Judge Rich, the court's long-standing beacon for interpreting the Patent Act and the author of 581 patent opinions, died in 1999 at the age of

statutory subject matter are not the same invention), cert. dismissed, 478 U.S. 1028 (1986).

- 38. In re Lundak, 773 F.2d 1216, 1222 (Fed. Cir. 1985) (holding that an applicant need not transfer a specimen to an independent laboratory prior to the patent application filing date); Atlas Powder Co. v. E.I. du Pont de Nemours & Co., 750 F.2d 1569, 1576 (Fed. Cir. 1984) (holding that "[e]ven if some of the claimed combinations [are] inoperative, the claims are not necessarily invalid").
- 39. Racing Strollers, Inc. v. TRI Indus., Inc., 878 F.2d 1418, 1421 (Fed. Cir. 1989) (en banc) (holding that a design patent can claim the benefit of a utility patent's earlier filing date if the earlier utility patent discloses the design and all statutory conditions are met), overruling In re Campbell, 212 F.2d 606 (C.C.P.A. 1954).
- 40. Lefstin, *supra* note 22, at 1056 tbl.II, 1089 (reporting a 16.67% dissent rate). The data is conclusive only through June 2005. *Id.* at 1054.
  - 41. See infra notes 44-48 and accompanying text.
  - 42. See infra notes 49-52 and accompanying text.
- 43. See infra Part IV.A (discussing the Supreme Court's increased attention to Federal Circuit patent decisions).
- 44. See Haldane Robert Mayer, Reflections on the Twentieth Anniversary of the Court of Appeals for the Federal Circuit, 52 Am. U. L. REV. 761, 761-62 (2003) ("The Federal Circuit today is, literally, a different court from the one that existed twenty years ago.").
- 45. *Id.* at 762 (noting that "the court has been chronically short of judges" and that "[t]hroughout most of its existence... the court has had fewer than [its statutory allotment of] twelve active judges"). The want of a full membership on the Federal Circuit could be due, at least in part, to the Baldwin Rule, which requires Federal Circuit judges to live within a fifty-mile radius of Washington, D.C. Scott A. Herbst & Antigone G. Peyton, *On the Horizon: A New Federal Circuit*, 19 FED. CIR. B.J. 509, 519 n.42 (2010).

ninety-five. 46 Nevertheless, the Federal Circuit added to its first decade of patent jurisprudence by issuing over 2400 opinions in cases on appeal from the PTO and district courts between 1992 and 2001, 47 thus continuing to shape the patent laws. 48

From a technological perspective, this same ten-year span saw a dramatic increase in the complexity of patents.<sup>49</sup> These scientific developments spurred new legal challenges for the Federal Circuit when interpreting claim language and applying the doctrine of equivalents.<sup>50</sup> Indeed, as the world entered the computer and information age,<sup>51</sup> so too did the Federal Circuit's patent jurisprudence, with the court issuing opinions in several cases related to computer software, online networks, and semiconductors during its second decade.<sup>52</sup>

<sup>46.</sup> See U.S. Court of Appeals, supra note 2828, at 1, 3 (stating that Giles S. Rich was born on May 30, 1904 and died on June 9, 1999); see generally Univ. of Md. Law School, The 892 Published Opinions of Judge Giles Sutherland Rich, 9 FED. CIR. B.J. 111 (1999). The 581 opinions include those written during Judge Rich's time on both the Federal Circuit and the CCPA. See id.

<sup>47.</sup> See Lefstin, supra note 22, at 1055 tbl.I (2433 cases).

<sup>48.</sup> See Wagner & Petherbridge, supra note 9, at 1114 ("With impressive speed and agility, [the Federal Circuit], in two decades, has gone from creation to domination – broadening, strengthening, and shaping the patent law in innumerable ways.").

<sup>49.</sup> John. R. Allison & Mark A. Lemley, *The Growing Complexity of the United States Patent System*, 82 B.U. L. REV. 77, 78-81 (2002) ("By almost any measure – subject matter, time in prosecution, number of prior art references cited, number of claims, number of continuation applications filed, number of inventors – the patents issued in the late 1990s are more complex than those issued in the 1970s.").

<sup>50.</sup> See Hilton Davis Chem. Co. v. Warner-Jenkinson Co., 62 F.3d 1512, 1518 (Fed. Cir. 1995) (en banc) (per curiam) ("As technology becomes more sophisticated, and the innovative process more complex, the function-way-result test may not invariably suffice to show the substantiality of the differences."), rev'd, 520 U.S. 17 (1997); Matthew D. Powers & Steven C. Carlson, The Evolution and Impact of the Doctrine of Willful Patent Infringement, 51 SYRACUSE L. REV. 53, 98 (2001) ("[T]hese new kinds of patents raise difficult issues as to their scope, including their scope under the doctrine of equivalents, and as to what constitutes obviousness in light of the prior art.").

<sup>51.</sup> See Allison & Lemley, supra note 49, at 80 ("On the whole, the trend [in the 1990s] has been towards patenting in industries considered 'high-tech,' such as software, semiconductors, computers, and biotechnology.").

<sup>52.</sup> See, e.g., N. Telecom Ltd. v. Samsung Elecs. Co., 215 F.3d 1281, 1285-86 (Fed. Cir. 2000) (patent infringement action involving a patent pertaining to an aluminum etching process used in the manufacture of semiconductor devices); Wang Labs., Inc. v. Am. Online, Inc., 197 F.3d 1377, 1379 (Fed. Cir. 1999) (patent infringement action involving patent pertaining to online information system that provides textual and graphical information over a telephone network); Refac Int'l, Ltd. v. Lotus Dev. Corp., 81 F.3d 1576, 1578 (Fed. Cir. 1996) (patent infringement action involving patent pertaining to computer software program for converting source code to object code).

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Jurisdictionally speaking, the Federal Circuit reached a limit during its second decade on what patent-related cases it could hear. For example, in Holmes Group, Inc. v. Vornado Air Circulation Systems, Inc., 53 the Supreme Court overruled a 2001 Federal Circuit decision and held that the Federal Circuit lacked appellate jurisdiction over a case in which only the respondent's answer alleged a counterclaim arising under the federal patent laws, but the petitioner's original complaint made no such allegation.<sup>54</sup> Consequently, the Supreme Court's Vornado decision more clearly defined the outer parameters of the Federal Circuit's patent jurisprudence by limiting the court's perceived ability to hear any patent-related cases, even if the relation was merely tangential.<sup>55</sup> This restriction contrasts with the Federal Circuit's first ten years of decisionmaking, during which time the court adopted an arguably liberal application of the "in whole or in part" language of 28 U.S.C. § 1295, <sup>56</sup> thus wielding broad jurisdictional powers over cases involving patents.57

# C. 2002-2011: Appeals, Evaluation, and Executive Impact

The past ten years have been marked by a significant rise in the number of patent infringement cases appealed to the Federal Circuit from the district courts. For instance, as the Federal Circuit transitioned into its third decade,

<sup>53. 535</sup> U.S. 826 (2002), vacating 13 F. App'x 961 (Fed. Cir. 2001).

<sup>54.</sup> Id. at 831 (stating that for the purposes of determining whether a case "arises under" a statute, "federal jurisdiction generally exists 'only when a federal question is presented on the face of the plaintiff's properly pleaded complaint" (quoting Caterpillar, Inc. v. Williams, 482 U.S. 386, 392 (1987)), and that "whether a case arises under federal patent law 'cannot depend upon the answer'" (quoting Fair v. Kohler Die & Specialty Co., 228 U.S. 22, 25 (1913))).

<sup>55.</sup> Id. at 834 ("Not all cases involving a patent-law claim fall within the Federal Circuit's jurisdiction.").

<sup>56.</sup> See 28 U.S.C. § 1295(a)(1) (2006).

<sup>57.</sup> See, e.g., Aerojet-Gen. Corp. v. Mach. Tool Works, Oerlikon-Buehrle Ltd., 895 F.2d 736, 745 (Fed. Cir. 1990) (en banc) (holding that the Federal Circuit can maintain jurisdiction over a case in which the only patent-related claim appears as a counterclaim in the defendant's answer and not on the face of the plaintiff's complaint), abrogated by Telcomm Technical Servs., Inc. v. Siemens Rolm Comme'ns, Inc., 295 F.3d 1249 (Fed. Cir. 2002); Atari, Inc. v. JS & A Group, Inc., 747 F.2d 1422, 1440 (Fed. Cir. 1984) (en banc) (holding that once a district court determines that a case arises under the patent laws on any count, the Federal Circuit maintains jurisdiction over all related claims, including those not pertaining to patents), overruled by Nobelpharma AB v. Implant Innovations, Inc., 141 F.3d 1059 (Fed. Cir. 1998); see also, e.g., Wyden v. Comm'r of Patents & Trademarks, 807 F.2d 934, 935, 936-37 (Fed. Cir. 1986) (en banc) (holding that the PTO's denial of a passing grade to an applicant on the examination for registration arises under an Act of Congress related to patents, so as to confer jurisdiction to the Federal Circuit).

the number of appeals rose by more than one-third from 2001 to 2002<sup>58</sup> and has averaged over four-hundred per year since that time.<sup>59</sup> This increase has provided the Federal Circuit with numerous opportunities to expand upon its patent jurisprudence, and the court has taken advantage of these opportunities by issuing high-profile decisions in the areas of obviousness,<sup>60</sup> patentable subject matter,<sup>61</sup> willful infringement,<sup>62</sup> and injunctive relief<sup>63</sup> since 2002.

While the Federal Circuit's fist two decades may appear as an extended trial period for a specialized patent appeals court, <sup>64</sup> commentators in its third decade of existence shifted more to evaluating its successes and failures. <sup>65</sup> Indeed, as the Federal Circuit is now well over a quarter-century old, its early skeptics have been able to assess the court's patent decisions based on empirical measures rather than speculation and conjecture. <sup>66</sup> And while its patent

<sup>58.</sup> See Filings of Patent Infringement Appeals from the U.S. District Courts, U.S. Ct. of Appeals for the Fed. Circuit, http://www.cafc.uscourts.gov/images/stories/the-court/statistics/Caseload\_Patent\_Infringement\_Line\_chart\_for\_appeals\_filed\_2001-2010.pdf (last visited Dec. 22, 2010) (338 appeals in 2001 and 453 appeals in 2002, resulting in an increase of thirty-four percent).

<sup>59.</sup> See id. (average of 419 appeals per year).

<sup>60.</sup> See, e.g., Teleflex, Inc. v. KSR Int'l Co., 119 F. App'x 282 (Fed. Cir. 2005), rev'd sub nom. KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398 (2007). For a more complete analysis of the KSR decision and of the Federal Circuit's obviousness jurisprudence, see infra Part III.B.

<sup>61.</sup> See, e.g., Prometheus Labs., Inc. v. Mayo Collaborative Servs., 581 F.3d 1336 (Fed. Cir. 2009), vacated, 130 S. Ct. 3543 (2010), cert granted, 131 S. Ct. 3027 (2011); In re Bilski, 545 F.3d 943 (Fed. Cir. 2008) (en banc), aff'd sub nom. Bilski v. Kappos, 130 S. Ct. 3218 (2010). For a more complete analysis of the Federal Circuit's patentable subject matter jurisprudence, see also infra Part III.C.

<sup>62.</sup> See, e.g., In re Seagate Tech., LLC, 497 F.3d 1360, 1371 (Fed. Cir. 2007) (en banc) (holding that the standard for willful infringement is objective recklessness), overruling Underwater Devices, Inc. v. Morrison-Knudsen Co., 717 F.2d 1380 (Fed. Cir. 1983) (willful infringement based on merely negligent conduct).

<sup>63.</sup> See, e.g., MercExchange, L.L.C. v. eBay, Inc., 401 F.3d 1323, 1339 (Fed. Cir. 2005) (holding that courts will issue permanent injunctions against patent infringement absent exceptional circumstances), vacated sub nom. eBay Inc. v. MercExchange, L.L.C., 547 U.S. 388 (2006).

<sup>64.</sup> See supra note 9 and accompanying text (noting that the Federal Circuit was often referred to as an "experiment").

<sup>65.</sup> Donald R. Dunner, A Retrospective of the Federal Circuit's First 25 Years, 17 FED. CIR. B.J. 127, 128 (2007) ("[N]ow that the court has been in existence almost twenty-five years, it is appropriate to ask how the court has done. To what extent have the fears of the court's opponents been realized? And to what extent have the aspirations of its proponents been achieved?"); see also Rochelle Cooper Dreyfuss, In Search of Institutional Identity: The Federal Circuit Comes of Age, 23 BERKELEY TECH. L.J. 787, 787-90 (2008).

<sup>66.</sup> See Dreyfuss, supra note 65, at 792 ("Early critiques of the Federal Circuit were based on anecdotal evidence. Now that empiricists have become interested in

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jurisprudence is constantly being tested, both judicially<sup>67</sup> and in practice,<sup>68</sup> several scholars and practitioners assert that the Federal Circuit has been widely successful in achieving Congress's intended goals of uniformity and stability in the patent system.<sup>69</sup>

Looking forward, as the Federal Circuit soon marks its thirtieth anniversary, the court's patent jurisprudence has the potential to be remarkably different in the not-so-distant future. In the previous year alone, Chief Judge Michel retired from the bench, and Judges Mayer and Schall each assumed senior status.<sup>70</sup> Based on the number of currently active judges who are or

patent adjudication, observers need to consider the 'hard evidence' before they rush to the conclusion that something is wrong.").

67. During its 2010 Term, the Supreme Court decided three patent cases on appeal from the Federal Circuit: (1) Global-Tech Appliances, Inc. v. SEB S.A., 131 S. Ct. 2060 (2011), aff'g 594 F.3d 1360 (Fed. Cir. 2010); (2) Board of Trustees of the Leland Stanford University v. Roche Molecular Systems, Inc., 131 S. Ct. 2188 (2011), aff'g 583 F.3d 832 (Fed. Cir. 2009); and (3) Microsoft Corp. v. i4i Ltd. Partnership, 131 S. Ct. 2238 (2011), aff'g 598 F.3d 831 (Fed. Cir. 2010). Additionally, the Supreme Court granted certiorari to three more patent cases on appeal from the Federal Circuit to be decided during its 2011 Term: (1) Mayo Collaborative Services v. Prometheus Laboratories, Inc., 131 S. Ct. 3027 (2011); (2) Kappos v. Hyatt, 131 S. Ct. 3064 (2011); and (3) Caraco Pharmaceutical Laboratories, Ltd. v. Novo Nordisk A/S, 131 S. Ct. 3057 (2011).

68. See supra notes 58-59 and accompanying text (noting the rise in patent cases appealed to the Federal Circuit).

69. See Dreyfuss, supra note 65, at 792-93 (concluding that the increase in patent litigation may indicate that the Federal Circuit has successfully stabilized patent law, thus making patents more valuable and worth protecting); see generally Dunner, supra note 65 (praising the Federal Circuit when reflecting on its first twenty-five years).

70. Biographical Directory of Federal Judges, FED. JUD. CTR., http://www.fjc. gov/history/home.nsf/page/judges.html (search by each judge's last name) (last visited Dec. 23, 2010). On April 14, 2010, President Obama nominated Edward DuMont of the firm Wilmer, Cutler, Pickering, Hale and Dorr to fill a vacancy on the Federal Circuit. Press Release, The White House, President Obama Nominates Edward C. DuMont for the United States Court of Appeals for the Federal Circuit (April 14, 2010), available at http://www.whitehouse.gov/the-press-office/president-obamanominates-edward-c-dumont-united-states-court-appeals-federal-circu. On December 27, 2010, Judge Kathleen O'Malley (N.D. Ohio) was sworn in to fill the vacancy left by Judge Schall. Judge Kathleen O'Malley Sworn-in on December 27, 2010, U.S. CT. OF APPEALS FOR THE FED. CIRCUIT, http://www.cafc.uscourts.gov/2011/judgekathleen-omalley-sworn-in-on-december-27-2010.html (last visited Jan. 6, 2011) [hereinafter U.S. CT. OF APPEALS FOR THE FED. CIRCUIT]; Dennis Crouch, Federal Circuit Judge Kathleen O'Malley, PATENTLY-O BLOG (Mar. 10, 2010, 8:26 PM), http://www.patentlyo.com/patent/2010/03/federal-circuit-judge-kathleenomalley.html. On April 4, 2011, Jimmie Reyna was sworn in to fill the seat vacated by Judge Mayer. Biographical Directory of Federal Judges, FED. http://www.fjc.gov/servlet/nGetInfo?jid=3366&cid=999&ctype=na&instate=na (last visited July 3, 2010). On July 28, 2011, President Obama nominated Judge Evan

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soon will be eligible to assume senior status, President Obama may have the opportunity to appoint as many as nine judges to the Federal Circuit during his current term. <sup>71</sup>

#### III. THE FEDERAL CIRCUIT: PATENT FRIEND OR PATENT FOE?

Throughout its history, the Court of Appeals for the Federal Circuit has repeatedly been characterized as (or accused of) being a "pro-patent" court. <sup>72</sup> Even before its first patent decision, many commentators speculated that the Federal Circuit would be biased towards patentees. <sup>73</sup> Because a valid patent is a prerequisite to any infringement action pursuant to 35 U.S.C. § 271, <sup>74</sup> and because the majority of appeals before the BPAI pertain to the rejection of patent applications, <sup>75</sup> the Federal Circuit's patent jurisprudence concerning

Wallach of the Court of International Trade to fill another vacancy on the Federal Circuit. Press Release, The White House, President Obama Nominates Judge Evan Jonathan Wallach for the United States Court of Appeals for the Federal Circuit (July 28, 2011), available at http://www.whitehouse.gov/the-press-office/2011/07/28/pres ident-obama-nominates-judge-evan-jonathan-wallach-united-states-cour.

71. Herbst & Peyton, *supra* note 45, at 509 (noting that four active judges are eligible for senior status, and three more will be by the end of 2012). President Obama has already implemented a number of personnel changes to the federal patent system at the administrative level, i.e., the PTO. *See* Donald R. Dunner et al., 2009 Patent Law Decisions of the Federal Circuit, 59 AM. U. L. REV. 809, 813 (2010) (noting that President Obama appointed David Kappos as Director of the PTO in 2009, and stating that "[w]ith changes in personnel came a number of changes in policy").

72. E.g., Mark D. Janis, Reforming Patent Validity Litigation: The "Dubious Preponderance", 19 BERKELEY TECH. L.J. 923, 928 (2004) (stating that the Federal Circuit "adopted a pro-patent bias early in its tenure"); Petherbridge & Wagner, supra note 16, at 2052 ("It is by now a cliché to suggest that the United States Court of Appeals for the Federal Circuit has weakened the standards for obtaining patents."); Arti K. Rai, Engaging Facts and Policy: A Multi-Institutional Approach to Patent System Reform, 103 COLUM. L. REV. 1035, 1114 (2003) (stating that the Federal Circuit has "pro-patent tendencies"); see Matthew D. Henry & John L. Turner, The Court of Appeals for the Federal Circuit's Impact on Patent Litigation, 35 J. LEGAL STUD. 85, 114 (2006) ("estimat[ing] that patentees have been nearly three times more likely to achieve some success in overcoming a district court decision of invalid[ity] in an appeal in the [Federal Circuit] era"). But see Paul M. Janicke & LiLan Ren, Who Wins in Patent Infringement Cases?, 34 AIPLA Q.J. 1, 38 (2006) (concluding that the statistical evidence does not support the pro-patent bias of the Federal Circuit).

73. See Dunner, supra note 65, at 127 (stating that the early opponents of a specialized court feared that it "would inevitably become too pro-patent").

74. See 35 U.S.C.A. § 271 (West. 2001 and Supp. 2011); see also 35 U.S.C. § 282 (2006) (providing patent invalidity as a defense in an action for infringement).

75. U.S. PATENT & TRADEMARK OFFICE, PROCESS PRODUCTION REPORT (2010), http://www.uspto.gov/ip/boards/bpai/stats/process/fy2010sepb.pdf (last visited Dec. 26, 2010) (reporting 12,380 cases received by the BPAI related to ex parte appeals of

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issuance and validity has garnered special attention in legal scholarship.<sup>76</sup> The following subparts examine the patent "friendliness" of the Federal Circuit regarding whether to uphold the PTO's grant or denial of a patent, or whether to affirm or reverse a district court's invalidation of a patent with respect to several principal issues.

#### A. Claim Construction

Stated simply, "[t]he task of claim construction requires translating the words of the claim into a meaningful technological context." However, claim interpretation is anything but simple, and has often been described as difficult, complex, and a "mess." Nevertheless, claim construction has also been heralded as the "make-or-break determination in patent litigation" and the "linchpin of so many disputes in patent law." Therefore, the Federal Circuit's practice of construing claim language deserves considerable attention when reflecting on the court's patent jurisprudence as whole.

The Federal Circuit wields broad power in the realm of claim construction due to its landmark decision in *Markman v. Westview Instruments, Inc.*<sup>81</sup> In *Markman*, the Federal Circuit held that claim construction is a matter of law reserved "exclusively for the court." Thus, in appeals from the district courts, Federal Circuit judges review interpretations of claim language de novo. This standard of review has led to a remarkably high reversal rate of lower court patent decisions based on claim construction and has placed the

patent applications in 2010, and only 52 interference actions during this same time frame).

- 76. Sean B. Seymore, *The Enablement Pendulum Swings Back*, 6 Nw. J. TECH. & INTELL. PROP. 278, 278 n.6 (2008) ("The Federal Circuit's 'pro-patent' reputation has generated a vigorous academic debate."); *see* Petherbridge & Wagner, *supra* note 16, at 2053 ("Nowhere is the importance of the Federal Circuit more apparent and more discussed than with respect to the standards for patentability . . . .").
- 77. Lee Petherbridge, *The Claim Construction Effect*, 15 MICH. TELECOMM. & TECH. L. REV. 215, 218 (2008).
- 78. Lefstin, *supra* note 22, at 1025; *see generally* Moore, *supra* note 28 (discussing district court judges' struggles with claim construction).
- 79. David L. Schwartz, Practice Makes Perfect? An Empirical Study of Claim Construction Reversal Rates in Patent Cases, 107 MICH. L. REV. 223, 228 (2008).
  - 80. Lefstin, supra note 22, at 1025.
  - 81. 52 F.3d 967 (Fed. Cir. 1995) (en banc), aff'd, 517 U.S. 370 (1996).
  - 82. Id. at 970-71.
- 83. E.g., Gemtron Corp. v. Saint-Gobain Corp., 572 F.3d 1371, 1377 (Fed. Cir. 2009) (citing Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1456 (Fed. Cir. 1998)).
- 84. Moore, *supra* note 28, at 2, 4 (reporting that district court judges were held to have misconstrued claim language in 33% of cases reviewed by the Federal Circuit between 1996 and 2000, and that district court claim constructions required the Federal Circuit to either reverse or vacate judgments in 81% of cases during that time period); *see* Kathleen M. O'Malley et al., *A Panel Discussion: Claim Construction*

Federal Circuit's judges in a unique role as teachers, with the district court judges as "students of the class." However, because until recently there were no judges sitting on the Federal Circuit who had any previous experience construing patent claim language at the district court level, the Federal Circuit's claim construction jurisprudence has been the subject of criticism for being unstable and unpredictable. 87

Though the Federal Circuit has long adhered to the doctrine of construing claims in a way to sustain their validity, 88 several commentators have remarked that the court has overstepped its authority in this respect and has become too lenient in favor of patentees. However, the Federal Circuit's opinions reveal that this criticism is largely unfounded; indeed, the Federal Circuit has been careful when construing claim language to ensure that a patent's claims are given only their "ordinary and accustomed meaning as understood by one of ordinary skill in the art." For example, in *Rhine v. Ca*-

from the Perspective of the District Judge, 54 CASE W. RES. L. REV. 671, 682-83 (2004) ("[A]re [district court judges] really just so bad at [claim construction]? Are we district judges just stupid? Because I have a lot of respect for the Federal Circuit judges and I know they look at [claim construction] very carefully. Perhaps we really do not know what we are doing.").

- 85. Schwartz, *supra* note 79, at 225-27 (placing the relationship between Federal Circuit judges and district court judges in the context of the teaching-learning theory).
- 86. See Herbst & Peyton, supra note 45, at 510 (noting that Judge Kathleen O'Malley would be the first sitting district court judge confirmed to the Federal Circuit); U.S. CT. OF APPEALS FOR THE FED. CIRCUIT, supra note 70 (reporting that Judge O'Malley was only recently sworn into the Federal Circuit on December 27, 2010).
- 87. See, e.g., Lefstin, supra note 22, at 1026 (stating that "instability and unpredictability" in the Federal Circuit's claim construction framework has "reached a point of crisis"); Joseph Scott Miller, Enhancing Patent Disclosure for Faithful Claim Construction, 9 Lewis & Clark L. Rev. 177, 177 (2005) ("The proportion of Federal Circuit claim construction opinions that include separate concurrences or dissents continues to grow.").
- 88. E.g., Whittaker Corp. v. UNR Indus., Inc., 911 F.2d 709, 712 (Fed. Cir. 1990) (citing ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577 (Fed. Cir. 1984); cf. 35 U.S.C. § 282 (2006) ("A patent shall be presumed valid. Each claim of a patent . . . shall be presumed valid independently of the validity of other claims; dependent or multiple dependent claims shall be presumed valid even though dependent upon an invalid claim.").
- 89. E.g., Dan L. Burk & Mark A. Lemley, *Policy Levers in Patent Law*, 89 VA. L. REV. 1575, 1658-59 (2003) (stating the Federal Circuit's "strong presumption of validity is unwarranted"); see also John R. Thomas, *Claim Re-Construction: The Doctrine of Equivalents in the Post-Markman Era*, 9 LEWIS & CLARK L. REV. 153, 163 (2005).
- 90. Dow Chem. Co. v. Sumitomo Chem. Co., 257 F.3d 1364, 1372 (Fed. Cir. 2001) (citing Hockerson-Halberstadt, Inc. v. Avia Group Intern., Inc. 222 F.3d 951, 955 (Fed. Cir. 2000)). *But see* K-2 Corp. v. Salomon S.A., 191 F.3d 1356, 1362-63 (Fed. Cir. 1999) (citing Johnson Worldwide Assoc. v. Zebco Corp., 175 F.3d 985, 989 (Fed. Cir. 1999)) (noting that claim terms are given different meanings from their

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sio, Inc., <sup>91</sup> the Federal Circuit cautioned judges against "rewriting" claims in ways that would sustain their validity but that were not otherwise intended by the patentees. <sup>92</sup> More recently, in *Phillips v. AWH Corp.*, <sup>93</sup> the Federal Circuit limited the principle of construing claims to preserve their validity to only those claim terms that remain ambiguous after a court has employed all available tools for interpreting the claim. <sup>94</sup> Thus, despite its high reversal rate of district court claim constructions, the Federal Circuit has acted virtuously when interpreting claim language to sustain or invalidate a patent.

#### B. Nonobviousness

The requirement that an invention be nonobvious pursuant to 35 U.S.C. § 103(a) "lies at the heart of our patent system" and has been venerated as "the ultimate condition of patentability." Thus, it would be remiss to survey the Federal Circuit's patent jurisprudence without providing an overview of the court's general stance towards the nonobviousness doctrine. And because the statutory mandate of nonobviousness rears its head in the infringement context, <sup>97</sup> as well as in appeals from the BPAI, <sup>98</sup> the Federal Circuit has had countless opportunities to weigh in on this seminal issue. <sup>99</sup>

ordinary and customary meanings where the patentee explicitly states otherwise in a patent's intrinsic record).

- 91. 183 F.3d 1342 (Fed. Cir. 1999).
- 92. *Id.* at 1345 ("[I]f the only claim construction that is consistent with the claim's language and the written description renders the claim invalid, then the axiom [of construing claims to preserve their validity] does not apply and the claim is simply invalid."); Becton Dickinson & Co. v. C.R. Bard, Inc., 922 F.2d 792, 799 n.6 (Fed. Cir. 1990) ("Nothing in any precedent permits judicial redrafting of claims."); *see also* Elekta Instrument S.A. v. O.U.R. Scientific Int'l, Inc., 214 F.3d 1302, 1309 (Fed. Cir. 2000) (stating that "[judges] cannot construe the claim differently from its plain meaning in order to preserve its validity").
  - 93. 415 F.3d 1303 (Fed. Cir. 2005) (en banc).
- 94. *Id.* at 1327. For a list of claim construction tools and an analysis of courts' methodologies for construing claim language, see generally Christopher A. Cotropia, *Patent Claim Interpretation Methodologies and Their Claim Scope Paradigms*, 47 WM. & MARY L. REV. 49 (2005).
- 95. Nard & Duffy, supra note 7, at 1658; see also Christopher A. Cotropia, Non-obviousness and the Federal Circuit: An Empirical Analysis of Recent Case Law, 82 NOTRE DAME. L. REV. 911, 912 (2007) ("The nonobviousness requirement plays a critical role in United States patent law.").
- 96. NONOBVIOUSNESS THE ULTIMATE CONDITION OF PATENTABILITY (John F. Witherspoon ed. 1980).
- 97. E.g., Callaway Golf Co. v. Acushnet Co., 576 F.3d 1331, 1338-39 (Fed. Cir. 2009) (affirming a jury's determination that claims were not obvious when called into question by defendant's invalidity defense); Duro-Last, Inc. v. Custom Seal, Inc., 321 F.3d 1098, 1110 (Fed. Cir. 2003) (reversing trial court's grant of a directed verdict and invalidating two patents for obviousness reasons).

The Supreme Court laid the foundation for the nonobviousness doctrine when it first interpreted § 103(a) in the paramount 1966 case *Graham v. John Deere Co.* <sup>100</sup> However, because *Graham* was decided well over a decade and a half before the creation of the Federal Circuit, the Federal Circuit's nonobviousness jurisprudence has consisted largely of interpreting and applying the Court's instructions in *Graham*. <sup>101</sup> Notwithstanding this fact, the Federal Circuit has been active in developing the law of nonobviousness through its own decisions. For example, in *In re Dillon*, <sup>102</sup> which involved an applicant's appeal from a BPAI decision denying her a patent for a fuel additive, <sup>103</sup> the Federal Circuit expanded the scope of what may be used to establish a prima facie showing of obviousness by holding that prior art need not disclose the newly discovered properties in a claimed compound to render the compound obvious. <sup>104</sup> Likewise, in *In re Dembiczak*, <sup>105</sup> the Federal Circuit delineated its hindsight-bias analysis by refining the specificity with which an invention must have been obvious at a past moment in time. <sup>106</sup> However, the jewel in

<sup>98.</sup> Compare, e.g., In re Ochiai, 71 F.3d 1565, 1569, 1572 (Fed. Cir. 1995) (per curiam) (reversing the BPAI's denial of a patent based on a finding that the invention was not prima facie obvious), and In re Fine, 837 F.2d 1071, 1074, 1076 (Fed. Cir. 1988) (same), with In re Kubin, 561 F.3d 1351, 1361 (Fed. Cir. 2009) (affirming the BPAI's denial of a patent on obviousness grounds), and In re O'Farrell, 853 F.2d 894, 895 (Fed. Cir. 1988) (Rich, J.) (same).

<sup>99.</sup> See Ali Mojibi, An Empirical Study of the Effect of KSR v. Teleflex on the Federal Circuit's Patent Validity Jurisprudence, 20 ALB. L.J. Sci. & Tech. 559, 575-76 & tbl.1 (2010) (presenting a study that reported that within a roughly five-and-a-half-year period from 2004 to 2009, the Federal Circuit decided over 100 cases where the cases' dispositions hinged on an interpretation of the obviousness doctrine).

<sup>100. 383</sup> U.S. 1, 17-18 (1966).

<sup>101.</sup> See supra note 20 and accompanying text; see, e.g., Orthopedic Equip. Co. v. All Orthopedic Appliances, Inc., 707 F.2d 1376, 1379 (Fed. Cir. 1983) ("The central issue on appeal is whether the district court erred in finding the . . . patent claims invalid for obviousness under 35 U.S.C. § 103. Accordingly, we must refer to Graham v. John Deere Co., which establishes the test for obviousness.") (emphasis added) (citation omitted); see also Petherbridge & Wagner, supra note 16, at 2061-62 ("Over the years the Federal Circuit has paid great homage to the decision in Graham. Not only has it consistently relied on the Supreme Court's factor-based approach to determining the question of obviousness, it has also . . . . focused its attention on developing the jurisprudence surrounding the Supreme Court's holding that the determination of obviousness is to be ascertained at the time the invention was made.").

<sup>102. 919</sup> F.2d 688 (Fed. Cir. 1990) (en banc).

<sup>103.</sup> Id. at 691.

<sup>104.</sup> Id. at 697.

<sup>105. 175</sup> F.3d 994 (Fed. Cir. 1999), abrogated by In re Gartside, 203 F.3d 1305 (Fed. Cir. 2000).

<sup>106.</sup> See id. at 998-99. The Federal Circuit held that there must be a showing of "clear and particular" evidence that would have led one to combine references, including a "clear explication of the position adopted by the [patent] Examiner and the [BPAI]." Id. at 999-1000.

the Federal Circuit's crown of nonobviousness jurisprudence is its decision in *Teleflex, Inc. v. KSR International Co.*<sup>107</sup> In *KSR*, the Federal Circuit employed the now-famous teaching-suggestion-motivation (TSM) test for evaluating nonobviousness to vacate a district court's grant of summary judgment for the defendant.<sup>108</sup> Although the Supreme Court ultimately reversed the decision,<sup>109</sup> the flood of legal scholarship that followed the *KSR* saga doubtlessly elevated the importance of the Federal Circuit's decision among patent commentators.<sup>110</sup>

Among the several criteria of patentability, the Federal Circuit's decisions related to nonobviousness have received the most disapproval for being too patent "friendly." Yet, to critics' credit, empirical studies reveal that the Federal Circuit was indeed invalidating fewer patents under its own TSM test than under the Supreme Court's standard of obviousness formulated in KSR. For example, nearly two years before the Supreme Court granted certiorari in KSR, the Federal Circuit found only 40% of patents to be obvious and affirmed lower courts obviousness findings only 66% of the time. However, in the nearly two years after the Supreme Court's KSR decision, these values jumped to over 57% and 84%, respectively. Moreover, even before the Supreme Court handed down its KSR opinion, the Federal Circuit reacted to the mere grant of certiorari, finding patents to be obvious in almost 70% of cases during the ten-month period between the Court's grant of certiorari and its decision in KSR. Thus, when compared to pre-KSR percentages, little doubt exists that – at least from a statistical standpoint – the Federal Circuit

<sup>107. 119</sup> F. App'x 282 (Fed. Cir. 2005), rev'd sub nom. KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398 (2007).

<sup>108.</sup> Id. at 290.

<sup>109.</sup> KSR Int'l Co. v. Teleflex, Inc., 550 U.S. 398, 419 (2007) (stating that the Federal Circuit's application of the TSM test was "incompatible with [Supreme Court] precedents").

<sup>110.</sup> See, e.g., Harold C. Wegner, Commentary, Making Sense of KSR and Other Recent Patent Cases, 106 MICH. L. REV. FIRST IMPRESSIONS 39, 39 (2007), http://www.michiganlawreview.org/assets/fi/106/wegner.pdf ("For long-range importance in patent law, KSR stands alone as the single most important Supreme Court patent decision on the bread and butter standard of 'obviousness' in the more than forty years since the 1966 Graham v. John Deere.").

<sup>111.</sup> See, e.g., Gregory N. Mandel, Patently Non-Obvious: Empirical Demonstration that the Hindsight Bias Renders Patent Decisions Irrational, 67 OHIO ST. L.J. 1391, 1395-96 & n.6 (2006) ("A nearly unchallenged chorus now calls for tightening lenient patent standards, particularly the non-obvious requirement.").

<sup>112.</sup> Mojibi, supra note 99, at 581-582 & fig.1, 586 & fig.4.

<sup>113.</sup> Id

<sup>114.</sup> *Id.* at 584 & fig.3, 585. The Supreme Court granted certiorari to the Federal Circuit on *KSR* on June 26, 2006. KSR Int'l Co. v. Teleflex Inc., 548 U.S. 902 (2006). The Court then handed down its decision on April 30, 2007. KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398 (2007).

has allowed a generous portion of patents to pass through its own nonobviousness sieve.

## C. Patentable Subject Matter

As a threshold requirement to receive protection under the Patent Act, inventions must fall into one of several categories of patentable subject matter. While this criterion has long frustrated courts, it has assumed special significance during the Federal Circuit era of patent decisions as a result of an expanded marketplace of ideas operating alongside developing technologies. And although the Supreme Court has stated that patentable subject matter should "include anything under the sun that is made by man," there are of course practical limitations to this hyperbolic maxim. The following sections examine the Federal Circuit's jurisprudence with respect to two inventive categories of subject matter, method patents and biological arts, which have recently been the focus of rigorous debate regarding whether they are properly patentable pursuant to 35 U.S.C. § 101.

#### 1. Method Patents

Among the categories of patentable subject matter listed in § 101 are "new and useful process[es]." In 1972, the Supreme Court held in *Gottschalk v. Benson* that mental processes alone are not patentable. However, the Court qualified this holding by indicating that such processes may be patentable if they exhibit "substantial practical application." This caveat has been the seed of several recent Federal Circuit cases involving patents that claim methods of doing business, and *State Street Bank & Trust Co. v.* 

<sup>115.</sup> See 35 U.S.C. § 101 (2006); Parker v. Flook, 437 U.S. 584, 593 (1978) ("The obligation to determine what type of discovery is sought to be patented must precede the determination of whether that discovery is, in fact, new or obvious."); In re Bergy, 596 F.2d 952, 960 (C.C.P.A. 1979) ("The first door which must be opened on the difficult path to patentability is [section] 101."), vacated in part by Diamond v. Chakrabarty, 444 U.S. 1028 (1980).

<sup>116.</sup> See Sam S. Han, Analyzing the Patentability of "Intangible" Yet "Physical" Subject Matter, 3 COLUM. Sci. & Tech. L. Rev. 2, 1-2 (2002), available at http://www.stlr.org/html/volume3/han.pdf ("Since the infancy of this nation, courts have struggled with the issue of what is, or is not, patentable subject matter. As time and science move forward, the law struggles to keep pace while, at the same time, resisting change in order to maintain stability."); see also supra notes 49-52 and accompanying text.

<sup>117.</sup> Diamond v. Chakrabarty, 447 U.S. 303, 309 (1980) (citation and internal quotation marks omitted).

<sup>118. 35</sup> U.S.C. § 101.

<sup>119. 409</sup> U.S. 63, 68 (1972).

<sup>120.</sup> Id. at 71-72.

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Signature Financial Group, Inc. <sup>121</sup> is the common starting point for these cases. In State Street, the Federal Circuit held that a patent directed at a data processing system for managing financial services was within the realm of statutory subject matter under § 101, reasoning that the claimed transformation of data yielded a "useful, concrete and tangible result." <sup>122</sup> The Federal Circuit applied this framework the following year in AT&T Corp. v. Excel Communications, Inc., finding that claims directed toward identifying a telephone call recipient's primary interexchange carrier was patentable subject matter. <sup>123</sup> Many observers viewed the Federal Circuit's "useful, concrete and tangible result" standard as applied to business methods in these cases as being too permissive a threshold for patentable subject matter, <sup>124</sup> though the Supreme Court denied certiorari in both cases. <sup>125</sup>

The Federal Circuit's *State Street* progeny culminated with the appeal of *In re Bilski*. <sup>126</sup> The patent at issue in *Bilski* claimed a method of hedging risks in the field of commodities trading. <sup>127</sup> In finding the patent invalid for a want of patentable subject matter, the Federal Circuit reasoned that the claimed method was neither "tied to a particular machine or apparatus," nor did it "transform[] a particular article into a different state or thing." This two-pronged formulation for assessing methods patents diverged from the court's "useful, concrete and tangible result" standard, which had been established less than a decade earlier and not overruled by the Supreme Court. Although

<sup>121. 149</sup> F.3d 1368 (Fed. Cir. 1998), abrogated by In re Bilski, 545 F.3d 943 (Fed. Cir. 2008).

<sup>122.</sup> Id. at 1373 (internal quotation marks omitted).

<sup>123. 172</sup> F.3d 1352, 1358 (Fed. Cir. 1999), abrogated by In re Bilski, 545 F.3d 943 (Fed. Cir. 2008).

<sup>124.</sup> See Dreyfuss, supra note 65, at 807 n.94 (stating that "it took the Supreme Court until 2006 to notice there might be a problem with the [Federal Circuit's] expansive scope of patentable subject matter [in State Street]") (citing Lab. Corp. of Am. Holdings v. Metabolite Labs., Inc., 548 U.S. 124 (2006) (Justices Breyer and Stevens dissenting from the Court's dismissal of certiorari on a question as to whether a method for detecting vitamin deficiency constituted patentable subject matter)); Lee, supra note 2, at 61 n.354 ("[T]he Federal Circuit established a highly expansive and formalistic conception of patentable subject matter [in State Street], essentially equating patent eligibility with utility.").

<sup>125.</sup> Excel Commc'ns v. AT&T Corp., 528 U.S. 946 (1999) (denying certiorari); State St. Bank & Trust Co. v. Signature Fin. Grp., Inc., 525 U.S. 1093 (1999) (denying certiorari).

<sup>126. 545</sup> F.3d 943 (Fed. Cir. 2008) (en banc), aff'd sub nom. Bilski v. Kappos, 130 S. Ct. 3218 (2010). Among the other cases that comprise the State Street progeny is the appeal of In re Comiskey, 499 F.3d 1365, 1378 (Fed. Cir. 2007) (holding as unpatentable subject matter a method for mandatory arbitration involving legal documents), withdrawn and revised, 554 F.3d 967 (Fed. Cir. 2009) (holding as unpatentable subject matter a method for mandatory arbitration involving legal documents).

<sup>127.</sup> Bilski, 545 F.3d at 949-50.

<sup>128.</sup> Id. at 954 (citing Gottschalk v. Benson, 409 U.S. 63, 70 (1972)).

many practitioners do not think that a patent should have been granted in *Bilski* under *any* test, the Federal Circuit's adoption of the machine-ortransformation test as "the governing test for determining patent eligibility of a process under § 101" nevertheless indicates a retreat from its prior, less stringent views of patent-eligible subject matter under *State Street*. 130

# 2. Biological Arts

As an expected consequence of the rapidly developing biotechnology industry, a significant number of pending patent applications relate to the biological arts. Whether these applications are ultimately granted or denied by the PTO, it is only a matter of time until the Federal Circuit is called upon to address the patent eligibilities of their claims, in either the rejected-application context of a BPAI appeal or in the invalidity-defense context of an infringement suit. Thus, we can expect that the Federal Circuit's patent jurisprudence will soon include several more decisions related to the biotechnology and healthcare industry. 132

In fact, the Federal Circuit has already addressed whether several new biotechnologies are within the realm of patentable inventions contemplated by 35 U.S.C. § 101. For example, in *Prometheus Laboratories, Inc. v. Mayo Collaborative Services*, <sup>133</sup> the Federal Circuit found that claims directed to calibrating the proper dosage of drugs based on metabolite levels were patentable under § 101 as a "process." Notably, however, the court had to arrive at this disposition twice – once on direct appeal from the district court and again on remand from the Supreme Court in light of its *Bilski* decision. <sup>135</sup>

<sup>129.</sup> *Id.* at 956 (emphasis added). For a discussion of the Supreme Court's treatment of the Federal Circuit's decision in *Bilski*, see *infra* Part IV.B.

<sup>130.</sup> Bilski, 545 F.3d at 959-60 (concluding that the "useful, concrete and tangible result' inquiry is inadequate").

<sup>131.</sup> U.S. PATENT & TRADEMARK OFFICE, PATENT INVENTORY STATISTICS – STATISTICS, http://www.uspto.gov/patents/stats/appbacklog.jsp (last modified Oct. 7, 2009) (reporting 60,836 applications in the field of Biotechnology and Organic Chemistry awaiting a first Office action in 2009).

<sup>132.</sup> See John R. Allison & Mark A. Lemley, Who's Patenting What? An Empirical Exploration of Patent Prosecution, 53 VAND. L. REV. 2099, app. at 2148 tbl.1 (2000) (reporting that twelve percent of the patents issued during a two-year study were related to either pharmaceuticals, medicals devices, or biotechnology).

<sup>133. 628</sup> F.3d 1347 (Fed. Cir. 2010), modifying 581 F.3d 1336 (Fed. Cir. 2009).

<sup>134.</sup> *Id.* at 1359 ("Prometheus's asserted method claims satisfy the preemption test as well as the transformation prong of the machine-or-transformation test.").

<sup>135.</sup> Mayo Collaborative Servs. v. Prometheus Labs., Inc., 130 S. Ct. 3543 (2010), vacating and remanding 581 F.3d 1336 (Fed. Cir. 2009). While the Federal Circuit's Prometheus decisions may lead one to believe that the court is patent friendly in the realm of biotechnology, it has developed a rather strict written description requirement pursuant to 35 U.S.C. § 112. See, e.g., Regents of the Univ. of Cal. v. Eli Lilly & Co., 119 F.3d 1559, 1566 (Fed. Cir. 1997) (requiring an adequate written

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Likewise, in *Classen Immunotherapies, Inc. v. Biogen IDEC*<sup>136</sup> (also on remand after the Supreme Court's *Bilski* decision<sup>137</sup>), the Federal Circuit broke new ground in the biological arts by holding as valid two patents related to methods for vaccinating and immunizing subjects against common diseases. <sup>138</sup>

Additionally, the Federal Circuit's patent jurisprudence now includes what will likely be a foundational decision on gene patenting. In Association for Molecular Pathology v. U.S. Patent and Trademark Office, the plaintiffs, several organizations and individuals dedicated to genomics and its application in clinical molecular laboratory medicine, sued the defendants, the PTO and Myriad Genetics, the holder of the patents at issue, to invalidate patents on two human genes. 139 The Southern District of New York denied the defendants' motion to dismiss on the ground that the plaintiffs stated sufficient allegations to call into question whether the patents' claims were properly patentable under § 101. 140 On appeal, the Federal Circuit reversed the district court on the issue of patentability, finding that the defendants' claims directed to "isolated gene sequences" are indeed within the realm of patentable subject matter contemplated under § 101.141 Relying on Supreme Court precedent, the Federal Circuit stated that "[t]he distinction . . . between a product of nature and a human-made invention for purposes of § 101 turns on a change in the claimed composition's identity compared with what exists in nature," and concluded that "[i]t is undisputed that Myriad's claimed isolated DNAs exist in a distinctive chemical form—as distinctive chemical molecules—from DNAs in the human body, i.e., native DNA."<sup>142</sup>

description for a DNA patent to have "precise definition[s]"); see also Jeffie A. Kopczynski, Note, A New Era for § 112? Exploring Recent Developments in the Written Description Requirement as Applied to Biotechnology Inventions, 16 HARV. J.L. & TECH. 229, 242-46 (2002) (discussing several cases in which the Federal Circuit has "created a tough written description standard in the area of biotechnology patents").

<sup>136.</sup> Nos. 2006-1634, 2006-1649, 2011 WL 3835409 (Fed. Cir. Aug. 31, 2011).

<sup>137. 130</sup> S. Ct. 3541 (2010).

<sup>138.</sup> Classen Immunotherapies, Inc., 2011 WL 3835409, at \*15.

<sup>139. 669</sup> F. Supp. 2d 365, 369-70 (S.D.N.Y. 2009).

<sup>140.</sup> Id. at 398.

<sup>141.</sup> Ass'n for Molecular Pathology v. U.S. Patent & Trademark Office, No. 2010-1406, slip op. at 37-48 (Fed. Cir. July 29, 2011), *available at* http://www.cafc.uscourts.gov/images/stories/opinions-orders/10-1406.pdf.

<sup>142.</sup> Id. at 41.

# IV. THE FEDERAL CIRCUIT AND THE SUPREME COURT: A RELATIONSHIP BUILT ON REVERSAL?

Although the Federal Circuit has been dubbed "the de facto supreme court of patents," it is, of course, not the final arbiter on disputes arising under Title 35 of the U.S. Code. Thus, when evaluating the Federal Circuit's patent jurisprudence, it is important to put its opinions in the context of their "correctness" as determined by the U.S. Supreme Court. The following subparts provide an overview of the Federal Circuit's relationship with the Supreme Court regarding the Court's attention to the patent laws and its treatment of the Federal Circuit's decisions and reasoning in cases to which it has granted certiorari.

# A. The Supreme Court's Attention to the Federal Circuit

In 1981, patent cases comprised only about 1% of federal appellate courts' caseloads. While the number of patent appeals from district court decisions has risen in recent years (as well as the number of patents filed with the PTO and appeals taken to the BPAI (b), the Supreme Court's caseload has likewise increased nearly five-fold over the last half century. This parallelism might lead one to believe that the Supreme Court has not granted certiorari to a greater number of patent cases after the Federal Circuit was created than it did in the pre-Federal Circuit years. However, the Supreme Court has taken an increased interest in the Federal Circuit's patent jurisprudence in recent years (or has at least seemed to). For example, during the

<sup>143.</sup> Mark D. Janis, Patent Law in the Age of the Invisible Supreme Court, 2001 U. ILL. L. REV, 387, 387 (2001).

<sup>144.</sup> Adams, supra note 13, at 54 n.93, 62.

<sup>145.</sup> See supra notes 58-59 and accompanying text.

<sup>146.</sup> U.S. PATENT & TRADEMARK OFFICE, BPAI STATISTICS – PROCESS PRODUCTION REPORTS, http://www.uspto.gov/ip/boards/bpai/stats/process/index.jsp (follow "Process Production Report FY 2010" hyperlink and "Process Production Report FY 2000" hyperlink) (last visited Jan. 12, 2011) (reporting 17,754 cases pending before the BPAI for the 2010 fiscal year compared to only 6321 for the 2000 fiscal year).

<sup>147.</sup> The Justices' Caseload, SUPREME COURT OF THE UNITED STATES, http://www.supremecourt.gov/about/justicecaseload.aspx (last visited Jan. 12, 2011).

<sup>148.</sup> See Symposium, The Federal Circuit, the National Appellate Court, Celebration and Introspective Symposium, 19 FED. CIR. B.J. 327, 342-43 (2009) [hereinafter Symposium] (remarks of Chief Judge Michel) ("I must have read a hundred times that the Supreme Court has taken a sudden interest in the last two or three years in cases of [the Federal Circuit] – particularly patent cases. But, when I actually looked at the figures, the only real bump up in Supreme Court review numerically was in the 2001 to 2002 era, not in 2006 and 2007 with the famous patent cases, [KSR], eBay

Federal Circuit's first seven years of existence, the Supreme Court granted certiorari to the court in approximately 3% of petitions filed. This number rose to over 5% from 2001 to 2010. While this difference may appear inconsequential, given the Supreme Court's limited docket space, an increase of what equates to two to four cases per year is significant. <sup>151</sup>

Furthermore, in cases where substantive patent law was the central issue, the Supreme Court has taken a heightened interest in the Federal Circuit's jurisprudence over the course of the Federal Circuit's lifetime. During the October 1983 to October 1995 Terms, the Supreme Court issued only six patent decisions on the merits, and even these were "confined . . . to issues generally at the margins of substantive patent law." However, from the October 1996 Term through the October 2008 Term, the Court decided thirteen patent cases on the merits – more than twice the number of patent cases so decided in the previous thirteen Terms. And while some of these decisions pertained to tangential issues, such as jurisdiction and procedure, eight of the thirteen opinions went straight to the heart of patent law. Likewise, the Federal Circuit, which during its first two decades of existence paid arguably little attention to Supreme Court patent decisions, is now reciprocating the Court's interest. This frequently recurring dialogue, especially in re-

Inc. v. MercExchange, L.L.C., and the others with which practitioners are familiar.") (footnotes omitted).

<sup>149.</sup> See Mark J. Abate & Edmund J. Fish, Supreme Court Review of the United States Court of Appeals for the Federal Circuit 1982-1992, 2 Fed. CIR. B.J. 307, 307 n.1 (1992).

<sup>150.</sup> Petitions for Writ of Certiorari to the U.S. Supreme Court from Federal Circuit Cases, U.S. Ct. of Appeals for the Fed. Circuit, http://www.cafc.uscourts.gov/images/stories/the-court/statistics/Petitions\_for\_Writ\_of\_Certiorari\_2001-2010.pdf (last visited Jan. 12, 2011).

<sup>151.</sup> See Gary M. Hoffman & Robert L. Kinder, Supreme Court Review of Federal Circuit Patent Cases – Placing the Recent Scrutiny in Context and Determining If It Will Continue, 20 DEPAUL J. ART, TECH. & INTELL. PROP. L. 227, 239 (2010) ("[T]he fact that the Court has taken at least one patent case per year on average during the last ten is exceptional compared to the one case taken every three years during the first twelve years of the Federal Circuit's existence.").

<sup>152.</sup> John M. Golden, The Federal Circuit and the D.C. Circuit: Comparative Trials of Two Semi-Specialized Courts, 78 GEO. WASH. L. REV. 553, 557-58 (2010).

<sup>153.</sup> *Id.* at 558; *see also supra* note 67 (noting that the Court granted certiorari to the Federal Circuit on six cases involving substantive patent law during its 2010 Term).

<sup>154.</sup> Golden, supra note 152, at 558.

<sup>155.</sup> See Darin Snyder & Mark Davies, The Federal Circuit and the Supreme Court (Circa 2009), 19 FED. CIR. B.J. 1, 1 (2009) ("For most of its twenty-five year history, the Federal Circuit paid relatively little attention to Supreme Court patent decisions. The Court of Appeals saw its role as developing patent rules with modest regard to whether the rules cohered with Supreme Court precedent. No more. As illustrated by three recent en banc opinions, [In re Bilski, Egyptian Goddess, Inc. v.

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cent years, has provided the Supreme Court with numerous opportunities for assessing the Federal Circuit's patent jurisprudence.

## B. Harsh Affirmations, Harsher Reversals

The Federal Circuit's interpretations of the patent laws have been called "ridiculous" and "out of whack" when compared with Supreme Court patent jurisprudence. While this criticism undoubtedly reflects upon the Federal Circuit's patent decisions in isolated and extreme cases and fails to take into consideration the court's successes as a whole, statistical evidence nevertheless supports at least some dissatisfaction regarding the Federal Circuit's recent affirmation-reversal ratio by the Supreme Court. Over the last five years, the Supreme Court has reversed the Federal Circuit at an average rate of 80%, while the average reversal rate for all decisions by the Supreme Court during this time period was 72%. Notably, however, the Supreme Court reversed the Federal Circuit in patent-related decisions almost 90% of the time during this same five-year period. Supreme Court during this same five-year period.

Although the Supreme Court has not always been openly critical of the Federal Circuit, <sup>161</sup> subtle thorns in its remarks and opinions in cases reversing the Federal Circuit give credence to the attitudes of academics and practitioners that the Federal Circuit's patent jurisprudence is misguided. For example, in *eBay Inc. v. MercExchange, L.L.C.*, the Court approved of a "historically employed" four-factor test for granting injunctions, noting that the test is

Swisa, Inc., and In re Seagate Technology, LLC,] the Federal Circuit is now paying extraordinarily close attention to Supreme Court precedent.") (footnotes omitted).

<sup>156.</sup> Symposium, Molecules vs. Information: Should Patents Protect Both?, 8 B.U. J. Sci. & Tech. L. 190, 214 (2002) (statement of Dr. Andrew Marks regarding the Federal Circuit's decision in State Street Bank & Trust Co. and its progeny).

<sup>157.</sup> Wegner, *supra* note 110, at 41 (commenting on the Federal Circuit panel decision in KSR International Co. v Teleflex, Inc.).

<sup>158.</sup> See infra note 179 and accompanying text.

<sup>159.</sup> Hoffman & Kinder, supra note 151, at 241.

<sup>160.</sup> Id. at 241-42 (reporting seven out of eight cases overturned, yielding a reversal rate of 87.5%).

<sup>161.</sup> In oral argument before the Court in KSR, Justice Scalia famously stated the following regarding the Federal Circuit's TSM test: "It is misleading to say that the whole world is embraced within these three nouns, teaching, suggestion, or motivation, and then you define teaching, suggestion, or motivation to mean anything that renders it nonobvious. This is gobbledygook. It really is, it's irrational." Transcript of Oral Argument, KSR Int'l Co. v. Teleflex, Inc. at 38-39, 550 U.S. 398 (2007) (No. 04-1350). Chief Justice Roberts shared a similar disdain for the Federal Circuit's formulated TSM test. *Id.* at 37-38 ("[The TSM test] adds a layer of Federal Circuit jargon that lawyers can then bandy back and forth, but . . . it seems to me that it's worse than meaningless because it complicates the inquiry rather than focusing on the statute.").

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embedded in "well-established principles of equity." In vacating the Federal Circuit's decision, the Court stated that the Federal Circuit "departed in the opposite direction from the four-factor test." A year later, in KSR, the Court began its analysis "by rejecting the rigid approach of the Court of Appeals" and later stated that the Federal Circuit erred in its assessment of one having ordinary skill in the art, sarcastically noting that "[a] person of ordinary skill is also a person of ordinary creativity, not an automaton." The following year, in *Quanta Computer, Inc. v. LG Electronics, Inc.*, the Court considered whether the doctrine of patent exhaustion applied to method patents. After noting that the Federal Circuit held the doctrine inapplicable to method patents "at all," the Court reversed, rejecting the Federal Circuit's alternative argument, thus "disagree[ing] on both scores."

Moreover, even when the Supreme Court affirms the Federal Circuit in patent decisions, it has not always done so with great approval. For example, in affirming *Bilski*, the Supreme Court admonished the Federal Circuit, stating that it "should not read into the patent laws limitations and conditions which the legislature has not expressed," and made clear that the Federal Circuit misunderstood Supreme Court precedent related to patentable subject matter. The majority concluded by stating that "nothing in today's opinion should be read as endorsing interpretations of § 101 that the Court of Appeals for the Federal Circuit has used in the past." Thus, *Bilski* illustrates the idea that, in the context of the Supreme Court and the Federal Circuit, "affirm" is in no way analogous with "approve."

<sup>162. 547</sup> U.S. 388, 390, 391 (2006), vacating 401 F.3d 1323 (Fed. Cir. 2005). The four criteria a plaintiff must satisfy to receive an injunction are: (1) the plaintiff suffered irreparable harm; (2) remedies at law are inadequate to compensate for the injury; (3) the balance of hardships between the plaintiff and defendant warrants a remedy in equity; and (4) the public interest would not be disserved by a permanent injunction. *Id.* at 391.

<sup>163.</sup> Id. at 393.

<sup>164.</sup> KSR, 550 U.S. at 415.

<sup>165.</sup> Id. at 421.

<sup>166. 553</sup> U.S. 617 (2008), rev'g 453 F.3d 1364 (Fed. Cir. 2006).

<sup>167.</sup> Id. at 621.

<sup>168.</sup> Bilski v. Kappos, 130 S. Ct. 3218, 3226 (2010), *aff'g sub nom. In re* Bilski, 545 F.3d 943 (Fed. Cir. 2008) (quoting Diamond v. Diehr, 450 U.S. 175, 182 (1981) (internal quotation marks omitted)).

<sup>169.</sup> *Id.* ("The Court of Appeals incorrectly concluded that this Court has endorsed the machine-or-transformation test as the exclusive test.").

<sup>170.</sup> Id. at 3231 (emphasis added).

## V. CONCLUSION

While its jurisdiction is not limited exclusively to patent-related matters, the Federal Circuit has gained a reputation for being a "patent court" (though its judges contend otherwise 172). As the sole appellate guardian of the Patent Act, the Federal Circuit is entrusted with the responsibility of interpreting the laws that "promote the Progress of . . . useful Arts." As we reflect on nearly three decades of patent jurisprudence, those who know the court best – its chief judges – have commented that the Federal Circuit has "steadily gained momentum, maturity, and acceptance," accomplished a great mission in bringing uniformity, predictability, and enforceability to law," and "prove[n] itself to be a valuable component of the overall federal judicial system."

The Federal Circuit soon will enter another decade of patent decisions, certain to be accompanied by unique challenges brought on by new inventions. And as companies continue to file increasingly complex patent appli-

<sup>171.</sup> See Dreyfuss, supra note 9, at 21; William M. Landes & Richard A. Posner, An Empirical Analysis of the Patent Court, 71 U. CHI. L. REV. 111, 111-12 (2004).

<sup>172.</sup> See, e.g., Howard T. Markey, The Court of Appeals for the Federal Circuit: Challenge and Opportunity, 34 Am. U. L. REV. 595, 598 (1985) ("[T]he [Federal Circuit] is nonetheless no more 'specialized' than are the other federal courts of appeals, the specific substantive jurisdiction of which is equally limited to that Congress has assigned."); Michel, supra note 6, at 699, 701 (noting the Federal Circuit's diverse caseload and that the court is responsible "for numerous other areas of law [besides patents]"); S. Jay Plager, The Price of Popularity: The Court of Appeals for the Federal Circuit 2007, 56 Am. U. L. REV. 751, 754 (2007) (stating the Federal Circuit is not specialized in terms of its singular subject matter jurisdiction or the background of its judges, and that "[t]he subject matter jurisdiction of the court is broad and diverse"); Symposium, supra note 148, at 336 (remarks of Judge Rader referencing statements made by Federal Circuit Judges) ("The Federal Circuit has a broader jurisdiction than the regional circuits . . . . [T]he regional circuits are dominated by immigration and sentencing matters. . . . [T]he Federal Circuit, on the other hand, [offers visiting judges] five or six different kinds of cases . . . .") (internal quotation marks omitted); see also Herbst & Peyton, supra note 45, at 514 ("While the court's decisions in high-profile patent cases generally garner the most press, the Federal Circuit is not just a 'patent court."").

<sup>173.</sup> U.S. CONST. art. I, § 8, cl. 8; see Carl Tobias, The White Commission and the Federal Circuit, 10 CORNELL J.L. & PUB. POL'Y 45, 55 (2000) ("The tentative draft report observed that patents and copyrights are linked in Article I of the Constitution . . . . Indeed, the commissioners remarked that a perceived need for greater uniformity in the patent area was a principal motivating factor in the Federal Circuit's creation.").

<sup>174.</sup> Michel, *supra* note 23, at 1199.

<sup>175.</sup> Randall R. Rader, The United States Court of Appeals for the Federal Circuit: The Promise and Perils of a Court of Limited Jurisdiction, 5 MARQ. INTELL. PROP. L. REV. 1, 3 (2001).

<sup>176.</sup> Helen Wilson Nies, The Federal Circuit: A Court for the Future, 41 AM. U. L. REV. 571, 571 (1992).

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cations, <sup>177</sup> as well as more lawsuits to defend their patent rights, <sup>178</sup> the Federal Circuit will be repeatedly called upon to resolve novel legal issues that result from new and developing technologies. Despite these hurdles, we can rest assured that the nation's patent jurisprudence is in good hands and that the Federal Circuit "doubtlessly seeks to issue the best decision it can in each case." <sup>179</sup> Indeed, through its several thousand patent opinions, the Court of Appeals for the Federal Circuit has generated an extensive jurisprudence that has brought clarity and uniformity to the esoteric legal doctrines that pervade the Patent Act.

<sup>177.</sup> See supra notes 49-51; see also Warren K. Mabey, Jr., Deconstructing the Patent Application Backlog . . . A Story of Prolonged Pendency, PCT Pandemonium & Patent Pending Pirates, 92 J. PAT. & TRADEMARK OFF. SOC'Y 208, 231 (2010) ("As technology becomes more complex and the amount of prior art in a field swells, the length and complexity of patent applications grows as well.").

<sup>178.</sup> See generally Joseph P. Cook, On Understanding the Increase in U.S. Patent Litigation, 9 Am. L. & ECON. REV. 48 (2007) (noting the steady increase in patent litigation over the last two decades and stating that patent litigation has doubled in the last ten years).

<sup>179.</sup> See Howard T. Markey, The State of the Court, 38 Am. U. L. REV. 1093, 1094 (1989).