

A CONSTITUTIONAL DOOR AJAR: APPLYING THE *EX PARTE YOUNG* DOCTRINE TO DECLARATORY JUDGMENT ACTIONS SEEKING STATE PATENT INVALIDITY

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“The State has no power to impart to [its officer] any immunity from responsibility to the supreme authority of the United States.”¹

In 2007 alone, universities generated \$2 billion in income by licensing their patents. As arms of the state, state universities license with sovereign immunity—state-owned patents are protected from judgments declaring them invalid. This Note proposes that this advantage can be removed by the application of the Ex parte Young doctrine. The author unpacks the doctrine element by element and shows that there are no obstacles to its application to declaratory judgment suits alleging the invalidity of state patents. First, the author explains that the doctrine’s remedial prong would be satisfied because universities create a justiciable controversy as to the validity of their patents when they offer licenses and because neither the Seminole Tribe detailed remedial scheme exception nor the Coeur d’Alene submerged lands exception applies. Second, the author illustrates that the doctrine’s constitutional sovereign immunity prong would be satisfied because patent invalidity is a violation of federal law, and a declaration of patent invalidity is prospective relief. The author offers insight into why the issue has not yet been considered by the Federal Circuit, focusing on the incentives of both the universities and their potential licensees. Finally, the author recommends that the Federal Circuit, en banc, conclude that the Ex parte Young doctrine is available for declarations of state patent invalidity because it is doctrinally sound and justified by policy.

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1. *Ex parte Young*, 209 U.S. 123, 160 (1908).

I. INTRODUCTION

“[W]e must meet apart—You there—I—here—With just the Door ajar That Oceans are—and Prayer—And that White Sustenance—Despair—”² Emily Dickinson wrote absolute boundaries may separate two people but for a single syllable.³ Sovereign immunity is no ocean: declarations of invalidity, a significant remedy available for most patents,⁴ and state patents are separated but for a single doctrine.⁵

Declarations of invalidity stand on the first side of the door. Courts liken a patent to a contract.⁶ In exchange for an inventor’s full disclosure of her *patentable* invention to the United States Patent and Trademark Office (PTO), the federal government grants the inventor a right to exclude others from making, using, or selling the invention for twenty years.⁷

Even though the PTO carefully examines over 450,000 new patent applications filed each year,⁸ legal accidents happen: invalid patents are issued.⁹ In other words, a patent is issued even though the subject matter of the invention is not patentable.¹⁰ One commentator argues there are reasonably thousands of active, invalid patents.¹¹ Invalid patents injure the public.¹² Indeed, an invalid patent gives a person the right to exclude the public from making, using, or selling something that already belongs to the public.¹³

2. Emily Dickinson, Poem 706, in *THE POEMS OF EMILY DICKINSON* 314, 316 (R.W. Franklin ed., 1999).

3. THOMAS GARDNER, *A DOOR AJAR* 210 (2006).

4. See RUSSELL L. WEAVER ET AL., *REMEDIES: CASES, PRACTICAL PROBLEMS AND EXERCISES* 448 (2004).

5. Congressional abrogation, waiver, and suits against state officers under the *Ex parte Young* doctrine are three ways to vitiate state sovereign immunity. ERWIN CHERMERINSKY, *FEDERAL JURISDICTION* §§ 7.5–7.7, at 431–78 (5th ed. 2007).

6. See, e.g., *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 984–85 (Fed. Cir. 1995) (en banc).

7. 35 U.S.C. § 154(a)(2) (2006) (setting the duration of a patent term); *id.* § 271(a) (“[W]hoever without authority makes, uses, offers to sell, or sells any patented invention . . . infringes the patent.”); see also *Markman*, 52 F.3d at 985.

8. Doug Lichtman & Mark A. Lemley, *Rethinking Patent Law’s Presumption of Validity*, 60 *STAN. L. REV.* 45, 46 (2007); see also U.S. PATENT & TRADEMARK OFFICE, *U.S. PATENT STATISTICS*, http://www.uspto.gov/go/taf/us_stat.pdf. Patent prosecution—the administrative process of acquiring a patent from the PTO—may go on for several years. See 35 U.S.C. §§ 132, 133, 135, 154(b)(1)(B).

9. Christopher R. Leslie, *Patents of Damocles*, 83 *IND. L.J.* 133, 136–38 (2008).

10. See 35 U.S.C. § 282(2)–(3).

11. Leslie, *supra* note 9, at 137.

12. *Precision Instrument Mfg. Co. v. Auto. Maint. Mach. Co.*, 324 U.S. 806, 816 (1945) (“A patent by its very nature is affected with [the] public interest The far-reaching social and economic consequences of a patent . . . give the public a paramount interest in seeing that patent[s] . . . are kept within their legitimate scope.”); see also 6 DONALD CHISUM, *CHISUM ON PATENTS* § 19.01 (2008) (“[P]atent validity is of great importance to the public interest.”); Christopher R. Leslie, *The Anticompetitive Effects of Unenforced Invalid Patents*, 91 *MINN. L. REV.* 101, 113–28 (2006).

13. 35 U.S.C. § 271(a). Something that is not patentable may already be invented or does not warrant a patent because it is such a small improvement over something that already exists. See *id.* §§ 101–03.

Courts may declare a patent invalid to correct the PTO's legal accident.¹⁴ Outside of patent infringement litigation,¹⁵ interested parties may bring an action against a patentee seeking a declaration that a patent is invalid.¹⁶ These actions are styled declaratory judgment actions.¹⁷ The Supreme Court recognizes that declaratory judgment actions seeking patent invalidity serve "the strong federal policy favoring the full and free use of ideas in the public domain."¹⁸ Moreover, the Court recently favored this *strong* federal policy by lowering the declaratory judgment standing threshold for licensees seeking to invalidate licensors' patents.¹⁹

State patents stand on the second side of the door. Through patent licensing to industry, universities are growing players in the market for innovation: the development of inventions—beneficial scientific discoveries—into commercial products.²⁰ Indeed, state universities "sit front and center"²¹ in relation to the \$2 billion in licensing income that university patents generated in 2007.²² Nevertheless, state universities, as arms of the state,²³ maintain Eleventh Amendment sovereign immunity

14. *Id.* § 282. The distinction between an *invalid patent* and *one or more invalid claims of a patent* is important but technical. Thus, throughout the rest of this Note, an "invalid patent" refers to one or more invalid claims of a patent. *See, e.g., Dayco Prods., Inc. v. Total Containment, Inc.*, 329 F.3d 1358, 1370 (Fed. Cir. 2003). To analyze patent invalidity, a court must first construe the claim language. *See generally* Phillips v. AWH Corp., 415 F.3d 1303 (Fed. Cir. 2005) (en banc). While claim construction is beyond the scope of this Note, a maxim of claim construction is that "claims should be construed to preserve their validity" when a claim term remains ambiguous after all of the available evidence has been analyzed. *Id.* at 1327.

15. *Dayco Prods.*, 329 F.3d at 1370; *see also* Leslie, *supra* note 12, at 109 ("[P]atent invalidity is a commonly asserted response to charges of patent infringement.").

16. *See, e.g., Lorelei Ritchie de Larena, Re-evaluating Declaratory Judgment Jurisdiction in Intellectual Property Disputes*, 83 IND. L.J. 957, 959 (2008) ("Intellectual property disputes are prime candidates for declaratory relief.").

17. 28 U.S.C. § 2201(a) (2006). *See generally* EDWIN BORCHARD, DECLARATORY JUDGMENTS 802–23 (2d ed. 1941).

18. *Lear, Inc. v. Adkins*, 395 U.S. 653, 674 (1969); *see also* Paul J. LaVanway, Jr., Note, *Patent Licensing and Discretion: Reevaluating the Discretionary Prong of Declaratory Judgment Jurisdiction After MedImmune*, 92 MINN. L. REV. 1966, 1973 (2008).

19. *MedImmune, Inc. v. Genentech, Inc.*, 549 U.S. 118, 146 (2007) (Thomas, J., dissenting) ("[T]he majority has given every patent licensee a cause of action . . . for challenging the validity of licensed patents."); *see also* *Autogenomics, Inc. v. Oxford Gene Tech. Ltd.*, 566 F.3d 1012, 1027 (Fed. Cir. 2009) (Newman, J., dissenting) ("The evolving law under *MedImmune* facilitates challenge to adversely held patents."); *Micron Tech., Inc. v. Mosaid Techs., Inc.* 518 F.3d 897, 902 (Fed. Cir. 2008) ("Whether intended or not, the now more lenient legal standard facilitates or enhances the availability of declaratory judgment jurisdiction in patent cases.").

20. Jerry G. Thursby & Marie C. Thursby, *University Licensing*, 23 OXFORD REV. ECON. POL'Y 620, 623–24 (2007).

21. Elizabeth A. Rowe, *The Experimental Use Exception to Patent Infringement: Do Universities Deserve Special Treatment?*, 57 HASTINGS L.J. 921, 945 (2006) ("Approximately sixty percent of the patents issued to universities in 2001 went to state universities.").

22. *See* ASS'N OF UNIV. TECH. MANAGERS, AUTM U.S. LICENSING ACTIVITY SURVEY: FY2007 44–48 (2008), available at http://www.autm.net/FY_2007_Licensing_Activity_Survey.htm (follow "FY2007 U.S. Licensing Survey Activity Survey Summary" hyperlink).

23. Although "arm of the state" is an individual legal conclusion for each state university, this Note assumes "arm of the state" is satisfied. CHEMERINSKY, *supra* note 5, § 7.4, at 428–30.

to alleged violations of patent law, including patent invalidity.²⁴ The Supreme Court recognizes that sovereign immunity is an important aspect of federalism that resulted when “[t]he Framers split the atom of sovereignty.”²⁵

Thus, state university participation in the innovation market highlights tension between patent policy and sovereign immunity policy recognized by the Supreme Court. On the surface, the Court favors interested parties challenging weak patents to police the public domain so long as these patents are not state-owned.²⁶ This tension poses a problem—states’ immunity to declarations of patent invalidity may incentivize state universities to “seek[] excessively broad patents over basic research results” and contribute to the number of active, invalid patents.²⁷

Yet, policing the public domain need not yield to federalism so quickly. While closing the doors on abrogation and constructive waiver of state sovereign immunity to patent law violations, the Supreme Court left a door ajar—the *Ex parte Young* doctrine.²⁸ This doctrine is a federal offensive remedy, which provides that some suits against state officers are not barred by Eleventh Amendment sovereign immunity.²⁹ Thus, policing the public domain would check federalism if the door were completely opened. Nevertheless, the United States Court of Appeals for

24. U.S. CONST. amend. XI; Fla. Prepaid Postsecondary Educ. Expense Bd. v. Coll. Sav. Bank, 527 U.S. 627, 656–57 (1999); *Tegic Commc’ns Corp. v. Bd. of Regents*, 458 F.3d 1335, 1340 (Fed. Cir. 2006). Moreover, the state’s sovereign immunity may extend to exclusive licensees of the state’s patents. See, e.g., *Genentech, Inc. v. Regents of the Univ. of Cal.*, 143 F.3d 1446, 1448 (Fed. Cir. 1998) (the University of California, a party to the action, licensed a patent claiming recombinant DNA technology to Eli Lilly), *rev’d on other grounds*, 527 U.S. 1031 (1999). The licensor of a patent is the real party in interest in a patent dispute, including a declaratory judgment action seeking a declaration of patent invalidity. FED. R. CIV. P. 17. Accordingly, state-licensors usually must be joined in the licensee’s disputes involving the underlying patent. FED. R. CIV. P. 19.

25. U.S. Term Limits, Inc. v. Thornton, 514 U.S. 779, 838 (1995) (Kennedy, J., concurring). The Court recently denied certiorari in *Biomedical Patent Management Corp. v. California Department of Health Services*—a case challenging California’s sovereign immunity to patent infringement. 129 S. Ct. 895 (2009). California is “the leader among the nation’s universities in developing new patents.” OFFICE OF TECH. TRANSFER, UNIV. OF CAL., UC TECHNOLOGY TRANSFER ANNUAL REPORT 3 (2006), <http://www.ucop.edu/ott/genresources/documents/OTTRptFY06.pdf>.

26. See *Lear, Inc. v. Adkins*, 395 U.S. 653, 674 (1969); *Tegic Commc’ns Corp.*, 458 F.3d at 1340.

27. Robert G. Bone, *From Property to Contract: The Eleventh Amendment and University-Private Sector Intellectual Property Relationships*, 33 LOY. L.A. L. REV. 1467, 1509–10 (2000). Although beyond the scope of this Note, commentators argue that state sovereign immunity to patent law violations creates another problem—the United States violates its obligations under treaties involving intellectual property. See, e.g., Peter S. Menell, *Economic Implications of State Sovereign Immunity From Infringement of Federal Intellectual Property Rights*, 33 LOY. L.A. L. REV. 1399, 1446 (2000); Cecily Anne Snyder, Comment, *Can the United States Meet Its Obligation to Protect Intellectual Property Rights Under the International GATT/TRIPs Agreement After the Florida Prepaid Cases?*, 35 U.S.F. L. REV. 407, 436 (2001).

28. *Coll. Sav. Bank v. Fla. Prepaid Postsecondary Educ. Expense Bd.*, 527 U.S. 666, 704 (1999) (Breyer, J., dissenting) (“I recognize the possibility that Congress may achieve its objectives in other ways. *Ex parte Young* . . . is still available . . .”); see also *Seminole Tribe v. Florida*, 517 U.S. 44, 72–73 n.16 (1996).

29. See, e.g., RICHARD H. FALLON, JR. ET AL., HART AND WECHSLER’S THE FEDERAL COURTS AND THE FEDERAL SYSTEM 890–92 (6th ed. 2009); MICHAEL L. WELLS ET AL., CASES AND MATERIALS ON FEDERAL COURTS 31–32 (2007).

the Federal Circuit has yet to apply the *Ex parte Young* doctrine to any alleged violations of patent law.³⁰ Further still, the court has stated, “*Ex parte Young* presents novel questions of applicability to . . . declaration[s] of patent invalidity.”³¹

The door left ajar creates uncertainty.³² To correct the uncertainty, this Note applies the *Ex parte Young* doctrine to declaratory judgment actions seeking invalidity of state patents. This Note opens the door, arguing that the *Ex parte Young* doctrine is available for declarations of state patent invalidity. This conclusion rests in part on the claim that patent invalidity is a violation of federal law.³³ Part II of this Note puts the door ajar in context, providing background information on declaratory judgment actions seeking patent invalidity, university participation in the market for innovation, and Eleventh Amendment sovereign immunity. Part III shows there are no “novel questions of applicability” by carefully applying the *Ex parte Young* doctrine element by element to declaratory

30. *Vas-Cath, Inc. v. Curators of Univ. of Mo.*, 473 F.3d 1376, 1384–85 (Fed. Cir. 2007); *Pennington Seed, Inc. v. Produce Exch. No. 299*, 457 F.3d 1334, 1341–43 (Fed. Cir. 2006) (dismissing patent infringement claim against University of Arkansas officials under *Ex parte Young* because “[a]llegations that a state official directs a University’s patent policy are insufficient to causally connect that state official to . . . patent infringement”); *Xechem Int’l, Inc. v. Univ. of Tex. M.D. Anderson Cancer Ctr.*, 382 F.3d 1324, 1334–35 (Fed. Cir. 2004) (Newman, J., additional views) (reviewing *Ex parte Young* doctrine to keep the “door ajar,” but expressing no view on the applicability of the doctrine to a claim of incorrect inventorship); *Genentech, Inc. v. Regents of the Univ. of Cal.*, 143 F.3d 1446, 1455 (Fed. Cir. 1998), *vacated on other grounds*, 527 U.S. 1031 (1999) (“*Ex parte Young* presents novel questions of applicability to an action requesting declaration of patent invalidity and noninfringement.”); *Coll. Sav. Bank v. Fla. Prepaid Postsecondary Educ. Expense Bd.*, 148 F.3d 1343, 1354 (Fed. Cir. 1998), *vacated on other grounds*, 527 U.S. 666 (1999); *Genentech, Inc. v. Eli Lilly & Co.*, 998 F.2d 931, 943–44 (Fed. Cir. 1993). *But see Pennington Seed*, 457 F.3d at 1345 (Schall, J., concurring) (affirming the judgment of the district court without joining the majority’s application of the *Ex parte Young* doctrine).

31. *Genentech*, 143 F.3d at 1455.

32. *See, e.g.*, Brief of *Amici Curiae* Chamber of Commerce of the United States of America and Software & Information Industry Ass’n in Support of Petitioners at 11 n.4, *Biomedical Patent Mgmt. Corp. v. Cal. Dept. of Health Serv.*, 129 S. Ct. 895 (2009) (No. 07-956); Christopher L. Beals, Comment, *A Review of the State Sovereignty Loophole in Intellectual Property Rights Following Florida Prepaid and College Savings*, 9 U. PA. J. CONST. L. 1233, 1276 (2007) (“[T]here are still many questions that remain to be answered, including the use of preemptive declaratory judgment suits to defend against impending state lawsuits . . .”). As this Note went to press, there was pending litigation where a plaintiff sought a declaration of invalidity against a state patent under *Ex parte Young*. *Ass’n for Molecular Pathology v. USPTO*, No. 09-Civ.-4515, 2009 WL 3614434, at *25 (S.D.N.Y. Nov. 2, 2009). The plaintiff’s claim survived a motion to dismiss, but the defendant state university officers did not challenge the plaintiff’s application of the *Ex parte Young* doctrine. *See id.* Rather, the state officers argued that the plaintiff lacked declaratory judgment standing and that the court did not have personal jurisdiction over the state officers. *Id.* at *18–22, 25. As of November 15, 2009, the defendants had not yet filed a notice of appeal. Public Access to Court Records, https://ecf.nysd.uscourts.gov/cgi-bin/DktRpt.pl?428249602599729-L_961_0-1 (last visited Nov. 15, 2009) (subscription required); *see also* Justia.com, <http://news.justia.com/cases/featured/new-york/nysdce/1:2009cv04515/345544/> (last visited Nov. 15, 2009). The state officers could still raise the *Ex parte Young* doctrine application issue—by arguing state sovereign immunity bars the suit—but if they are not careful, they might waive sovereign immunity through litigation conduct. *See infra* Part II.C.

33. *See* 28 U.S.C. §§ 2201–2202 (2006); FED. R. CIV. P. 57; *Genentech*, 998 F.2d at 942–44 (holding that 35 U.S.C. § 296 abrogated state sovereign immunity as to declaratory judgment actions seeking a declaration of patent invalidity). Nevertheless, the Supreme Court later invalidated 35 U.S.C. § 296. *Fla. Prepaid Postsecondary Educ. Expense Bd. v. Coll. Sav. Bank*, 527 U.S. 627, 647–48 (1999).

judgment actions seeking invalidity of state patents. Finally, Part IV recommends that the Federal Circuit en banc decide that the *Ex parte Young* doctrine is available for declaratory judgment actions seeking state patent invalidity. This recommendation rests in part on the observation that Federal Circuit panels and judges describe elements of the *Ex parte Young* doctrine differently.³⁴

II. BACKGROUND

“Ajar” means slightly open.³⁵ Part II explains how *slightly* the door is open. Understanding the number of legal inches between declarations of patent invalidity and state patents is needed to analyze the *Ex parte Young* doctrine in Part III. To this end, Section A illustrates the development of declaratory judgment actions seeking patent invalidity by analyzing a hypothetical involving TextCo, a cell phone texting company, and PhoneCo, a cell phone manufacturer.³⁶ Next, Section B surveys university participation in the market for innovation. Finally, Section C summarizes Eleventh Amendment sovereign immunity.

A. *RSVPs and Declaratory Judgment Actions Seeking Patent Invalidity*

In the market for innovation, TextCo may *invite* PhoneCo to take a license to its texting software patent.³⁷ Like most invitations, TextCo’s invitation may take the form of one or more letters or face-to-face conversations.³⁸ A license to TextCo’s patent gives PhoneCo the permission to use the texting software in PhoneCo’s phones in exchange for ongoing royalties, i.e., payments that are usually a percentage of sales revenue.³⁹ This Section first explores how PhoneCo may respond to TextCo’s invitation. Indeed, PhoneCo may reply “yes,” “no,” or “no, I’m going to sue you” to TextCo’s invitation.⁴⁰ Next, this Section briefly explains that the

34. For example, two panels have described the connection requirement differently. *Compare Vas-Cath*, 473 F.3d at 1384–85, with *Pennington Seed*, 457 F.3d at 1341. Also, Federal Circuit judges have described the violation requirement differently. *Compare Pennington Seed*, 457 F.3d at 1345, with *Xechem Int’l*, 382 F.3d at 1334–35 (Newman, J., additional views).

35. MERRIAM WEBSTER’S COLLEGIATE DICTIONARY 26 (10th ed. 1993).

36. TextCo and PhoneCo are hypothetical companies motivated by *Tegic Communications Corp. v. Board of Regents*, 458 F.3d 1335 (Fed. Cir. 2006).

37. *See, e.g., SanDisk Corp. v. STMicroelectronics, Inc.*, 480 F.3d 1372, 1383–85 (Fed. Cir. 2007) (Bryson, J., concurring). TextCo’s texting software patent is also motivated by *Tegic Communications Corp.*, 458 F.3d at 1335.

38. *See, e.g., Sony Elecs., Inc. v. Guardian Media Techs., Ltd.*, 497 F.3d 1271, 1275–81 (Fed. Cir. 2007) (noting that Guardian *invited* several companies including Sony to take a license through letters and a face-to-face meeting).

39. HAROLD EINHORN & THOMAS PARKER, PATENT LICENSING TRANSACTIONS § 1.01 (Matthew Bender 2008).

40. PhoneCo’s administrative responses to TextCo’s invitation are beyond the scope of this Note because, as we shall see, administrative proceedings are no answer to state sovereign immunity. *See infra* note 214. Nevertheless, inter partes reexamination is a PTO procedure that provides a comprehensive remedial *alternative* to validity litigation. 35 U.S.C. §§ 311–318 (2006); *see, e.g., Tun-Jen*

state of the law of declaratory judgment jurisdiction makes it difficult for TextCo to know when to put the declaratory judgment action *répondez s'il vous plaît* (RSVP) box on its invitation.

First, TextCo's invitation is no social call—at minimum the invitation implies PhoneCo's current or future phones fall within the scope of TextCo's texting software patent.⁴¹ Judge Markey, the first Chief Judge of the Federal Circuit, observed that companies like TextCo may “engage[] in a *danse macabre*, brandishing a Damoclean threat with a sheathed sword.”⁴² Assuming PhoneCo believes it does not need a license to sell its current or future phones that use texting software, PhoneCo is faced with a Hobson's choice: pay for a license to a patent it does not need or face infringement litigation.⁴³ Importantly, PhoneCo may become so terrified of potential infringement liability that it stops all phone manufacturing tied to the alleged infringement.⁴⁴

Congress observed—without another option—that companies like PhoneCo are left with no choice at all.⁴⁵ In 1934, Congress enacted the Declaratory Judgment Act, which provides: “In a case of actual controversy within its jurisdiction . . . any court of the United States . . . may declare the rights and other legal relations of any interested party seeking such declaration, whether or not further relief is or could be sought.”⁴⁶ The Supreme Court quickly held the statute was “procedural only” and did not create substantive rights beyond Article III.⁴⁷ Moreover, the Supreme Court observed that the statute provides “courts unique and substantial discretion” to grant declaratory judgment jurisdiction.⁴⁸ Shortly after the statute was enacted, lower courts observed the

Chiang, *The Advantages of Inter Partes Reexamination*, 90 J. PAT. & TRADEMARK OFF. SOC'Y 579, 580 (2008).

41. See *SanDisk Corp.*, 480 F.3d at 1384.

42. *Arrowhead Indus. Water, Inc. v. Ecolochem, Inc.*, 846 F.2d 731, 734–35 (Fed. Cir. 1988) (emphasis in original). Yet, equity prevents the patentee's *death dance* from continuing indefinitely. See *A.C. Aukerman Co. v. R.L. Chaides Constr. Co.*, 960 F.2d 1020, 1028, 1041–46 (Fed. Cir. 1992). For example, a presumption of laches—which bars relief from infringement damages accrued before the suit—arises when the patentee's dance continues for more than six years. *Id.* at 1020, 1028, 1041. Also, equitable estoppel—which bars all relief—might apply if the patentee's dance eventually “lulls the infringer into a sense of security.” *Id.* at 1041–46.

43. *Ritchie de Larena*, *supra* note 16, at 957.

44. *Id.*

45. *Id.* Scholars also argued for declaratory judgments. See generally Edwin M. Borchard, *The Declaratory Judgment—A Needed Procedural Reform*, 28 YALE L.J. 105 (1918). Borchard went on to help draft the federal Declaratory Judgment Act. WEAVER ET AL., *supra* note 4, at 409.

46. 28 U.S.C. § 2201(a) (2006); see also *id.* § 2202; FED. R. CIV. P. 57 (outlining the procedure for federal declaratory judgments).

47. U.S. CONST. art. III; see also *MedImmune, Inc. v. Genentech, Inc.*, 549 U.S. 118, 138–39 (2007) (Thomas, J., dissenting) (“[T]he operation of the Declaratory Judgment Act is procedural only.” (quoting *Aetna Life Ins. Co. v. Haworth*, 300 U.S. 227, 240 (1937))).

48. *Wilton v. Seven Falls Co.*, 515 U.S. 277, 286 (1995) (“[T]he Declaratory Judgment Act has been understood to confer on federal courts unique and substantial discretion . . . to declare the rights of litigants.”); see also 28 U.S.C. § 2201(a) (“[A]ny court . . . may declare the rights . . . of any interested party . . .” (emphasis added)).

statute could be used to declare patents invalid.⁴⁹ Thus, Congress, with the Supreme Court's approval, gave companies like PhoneCo another option, albeit merely procedural.

PhoneCo may find a declaratory judgment action seeking patent invalidity an attractive way to RSVP to TextCo's invitation.⁵⁰ By filing a declaratory judgment action, PhoneCo cuts off the *in terrorem* effect of TextCo's invitation—so long as PhoneCo prevails on the merits, TextCo will have nothing left to license.⁵¹ Furthermore, filing a declaratory judgment action gives PhoneCo two strategic advantages.⁵² First, PhoneCo chooses the forum for the suit.⁵³ Second, PhoneCo chooses the time of the suit.⁵⁴ One commentator has shown that the first filer has a statistically significant advantage of prevailing on the merits in a declaratory judgment action before a jury.⁵⁵

Nevertheless, PhoneCo should not get too excited. Declaratory judgment actions are nearly as expensive as infringement litigation.⁵⁶ Invalidity rulings usually occur earlier in litigation than infringement rulings because more infringement rulings are decided at trial.⁵⁷ Yet, there is little difference between the *cost* of obtaining either an invalidity ruling or an infringement ruling on summary judgment.⁵⁸ For example, there is little difference between both the days to termination and the documents filed for invalidity rulings and infringement rulings on summary judgment.⁵⁹ Accordingly, parties rarely take a declaratory judgment action to an invalidity ruling. For example, one study concluded that nearly ninety-eight percent of all invalidity claims in the analyzed data set settled.⁶⁰

49. See, e.g., *E. Edlmann & Co. v. Triple-A Specialty Co.*, 88 F.2d 852, 853–55 (7th Cir. 1937); *Zenie Bros. v. Miskend*, 10 F. Supp. 779, 780–82 (S.D.N.Y. 1935).

50. Kimberly A. Moore, *Judges, Juries, and Patent Cases—An Empirical Peek Inside the Black Box*, 99 MICH. L. REV. 365, 404–08 (2000); see also Jay P. Kesan & Gwendolyn G. Ball, *How Are Patent Cases Resolved? An Empirical Examination of the Adjudication and Settlement of Patent Disputes*, 84 WASH. U. L. REV. 237, 276–78 (2006).

51. See, e.g., KIMBERLY A. MOORE ET AL., *PATENT LITIGATION AND STRATEGY* 31 (2d ed. 2003).

52. *Id.*

53. Moore, *supra* note 50, at 404.

54. *Id.*

55. *Id.* at 405–06.

56. See Kesan & Ball, *supra* note 50, at 309–10. For simplicity, Kesan and Ball classify both declaratory judgment actions seeking invalidity and counterclaims of invalidity asserted in infringement litigation as “patent infringement suits.” *Id.* at 242 n.36 (internal quotation marks omitted).

57. *Id.* at 277–78.

58. See *id.* at 309–10 (arguing that the days to termination and documents filed are proxies for cost because they gauge the amount of time attorneys spent on the matter).

59. See *id.* Because this data was collected and analyzed before *MedImmune, Inc. v. Genentech, Inc.*, 549 U.S. 118 (2007), it is probably only a floor for the ultimate trajectory of declaratory judgment actions seeking patent invalidity. See, e.g., Ronald A. Bleeker & Michael V. O’Shaughnessy, *One Year After MedImmune—The Impact on Patent Licensing & Negotiation*, 17 FED. CIR. B.J. 401, 435–36 (2008). More importantly, the Federal Circuit has foreshadowed a race to the courthouse. *Micron Tech., Inc. v. Mosaid Techs., Inc.*, 518 F.3d 897, 902 (Fed. Cir. 2008) (“[T]he ease of obtaining a declaratory judgment could occasion a forum-seeking race to the courthouse between accused infringers and patent holders.”).

60. Kesan & Ball, *supra* note 50, at 276 tbl.8.

Furthermore, another study found that only fourteen percent of all patent cases in the analyzed data set were declaratory judgment actions.⁶¹ In short, declaratory judgment actions are a last resort, the *nuclear option* RSVP, which may be justified through cost-to-benefit calculus.⁶²

Finally, “a case of actual controversy” sufficient under the Declaratory Judgment Act for a declaration of patent invalidity is a moving target at the Federal Circuit.⁶³ The Supreme Court started this shift in the law by expanding the target. In *MedImmune, Inc. v. Genentech, Inc.*, the Court held that the petitioner, a licensee to a patent claiming a drug, did not have to break or terminate its license agreement with the respondent, the licensor-patentee, before seeking a declaratory judgment that, *inter alia*, the patent was invalid.⁶⁴ In reaching its conclusion, the Court stated—in a footnote—that the Federal Circuit’s reasonable apprehension of suit prong for declaratory judgment jurisdiction “conflicts with our decisions.”⁶⁵ Generally, the reasonable apprehension of suit prong was satisfied if the patentee expressly threatened the putative declaratory judgment plaintiff with suit.⁶⁶ The Federal Circuit quickly concluded that the Supreme Court’s footnote abrogated much of its declaratory judgment jurisprudence.⁶⁷

In the wake of *MedImmune*, the Federal Circuit has not yet defined the outer boundaries of declaratory judgment jurisdiction,⁶⁸ but some Federal Circuit panels currently view the totality of the circumstances through the “lens of standing” as an analytical framework.⁶⁹ The court’s analysis amounts to applying justiciability doctrines, particularly standing and ripeness, to determine whether “a case of actual controversy” exists.⁷⁰ Nevertheless, the Federal Circuit recognizes that “the now more lenient legal standard facilitates or enhances the availability of declaratory judgment jurisdiction in patent cases.”⁷¹

61. Moore, *supra* note 50, at 404.

62. See Kesan & Ball, *supra* note 50, at 310.

63. See *Sony Elecs., Inc. v. Guardian Media Techs., Ltd.*, 497 F.3d 1271, 1283–85 (Fed. Cir. 2007).

64. 549 U.S. at 137.

65. *Id.* at 132 n.11. The Court’s disfavor for the reasonable apprehension of suit test to establish declaratory judgment jurisdiction in patent disputes parallels the earlier development of declaratory judgment jurisdiction for anticipatory challenges to state criminal statutes. See *id.* at 128–29. Compare *Steffel v. Thompson*, 415 U.S. 452, 475 (1974) (declaratory judgment jurisdiction may be established when putative declaratory judgment plaintiff shows genuine threat of prosecution), with *Babbitt v. United Farm Workers Nat’l Union*, 442 U.S. 289, 301–03 (1979) (declaratory judgment jurisdiction may be established when State has not disavowed potential prosecution). One commentator argues that the federal courts have not yet developed a consistent approach for anticipatory challenges to state criminal statutes. WELLS ET AL., *supra* note 29, at 491.

66. See *Teva Pharm. USA, Inc. v. Pfizer, Inc.*, 395 F.3d 1324, 1333 (Fed. Cir. 2005).

67. *SanDisk Corp. v. STMicroelectronics, Inc.*, 480 F.3d 1372, 1380 (Fed. Cir. 2007).

68. *Sony*, 497 F.3d at 1284.

69. *Prasco, LLC v. Medicis Pharm. Corp.*, 537 F.3d 1329, 1338 (Fed. Cir. 2008).

70. 28 U.S.C. § 2201 (2006); *Prasco*, 537 F.3d at 1338.

71. *Micron Tech., Inc. v. Mosaid Techs., Inc.*, 518 F.3d 897, 902 (Fed. Cir. 2008); see also *Autogenomics, Inc. v. Oxford Gene Tech. Ltd.*, 566 F.3d 1012, 1027 (Fed. Cir. 2009) (Newman, J., dissenting) (“The evolving law under *MedImmune* facilitates challenge to adversely held patents.”).

In sum, invitations to take patent licenses are routine in the market for innovation. Post-*MedImmune*, the declaratory judgment action is widely available as the *nuclear option* RSVP to these invitations. Although a court may declare the underlying patent invalid to render the invitation harmless, declaratory judgment actions are nearly as expensive as patent infringement litigation.

B. University Participation in the Market for Innovation

The federal government observed in the 1980s, “If you build it, [they] will come.”⁷² Section B explains what the federal government built, who came to the game, how the game is played, and what the players have acquired.

The federal government *built* the Bayh-Dole Act of 1980, and universities came to the game.⁷³ The “burgeoning literature” on university technology transfer, i.e., university participation in the market for innovation, which includes patent licensing,⁷⁴ agrees that the Bayh-Dole Act jump-started the growth of university technology transfer.⁷⁵ Before 1980, there were twenty-five university technology transfer offices (TTOs).⁷⁶ By 2005, there were over 3330 TTOs.⁷⁷ The Bayh-Dole Act provided a uniform process through which inventions created with federal research funds may be owned by the recipients of those funds.⁷⁸ Standardized ownership incentivized federal research fund recipients—including universities—to protect *their* inventions arising from federally funded research.⁷⁹

Today, universities continue to receive a large part of their research funds from the federal government.⁸⁰ In 2007, the federal government gave nearly \$32 billion in research grants to universities, hospitals, and research institutions, which accounted for sixty-five percent of these institutions’ annual research expenditures.⁸¹ Moreover, federal research grants make up as much as ninety percent of some universities’ research expenditures.⁸²

72. *FIELD OF DREAMS* (Universal Pictures 1989).

73. See Bayh-Dole Act of 1980, Pub. L. No. 96-517, 94 Stat. 3015 (codified as amended at 35 U.S.C. §§ 200–212 (2006)).

74. Donald S. Siegel et al., *Technology Transfer Offices and Commercialization of University Intellectual Property: Performance and Policy Implications*, 23 OXFORD REV. ECON. POL’Y 640, 641 (2007).

75. 35 U.S.C. §§ 200–212; Lorelei Ritchie de Larena, *The Price of Progress: Are Universities Adding to the Cost?*, 43 HOUS. L. REV. 1373, 1374–77 (2007).

76. Ritchie de Larena, *supra* note 75, at 1412.

77. *Id.*

78. 35 U.S.C. §§ 200–212. Nevertheless, the federal government obtains “a nonexclusive, non-transferable, irrevocable, paid-up license to practice or have practiced for or on [their] behalf” on all inventions. *Id.* § 202(c)(4).

79. Ritchie de Larena, *supra* note 75, at 1378–82.

80. See *id.* at 1379–80.

81. See ASS’N OF UNIV. TECH. MANAGERS, *supra* note 22, at 21 tbl.US-3.

82. EINHORN & PARKER, *supra* note 39, § 6.05.

Universities play the game in three steps.⁸³ First, after a university professor or graduate student makes a scientific discovery, he files an invention disclosure with the TTO.⁸⁴ Because university employment or enrollment is given in exchange for ownership of all future intellectual property, many university employees and students are obligated to file invention disclosures with their TTO.⁸⁵ Second, the TTO, which is staffed with licensing professionals often called University Patent Administrators or University Technology Managers, determines whether the disclosed invention should be patented by valuing the invention's commercial potential.⁸⁶ Finally, if the TTO concludes the invention is commercially viable, the TTO patents and *markets* the invention by seeking potential licensees in industry.⁸⁷

University technology transfer is a risky business.⁸⁸ TTOs often have difficulty evaluating disclosed inventions' commercial potential because the disclosed inventions usually have a low level of development: these inventions are far from ready to go to market as a product.⁸⁹ Indeed, a majority of university inventions are *embryonic*—merely a proof of concept or lab scale prototype.⁹⁰ The embryonic nature of university inventions is consistent with the traditional role of a university: creating and disseminating knowledge.⁹¹

Embryonic inventions in university technology transfer drive the behavior of both TTOs and industry.⁹² First, TTOs primarily focus on generating licensing income from perceived jackpot inventions.⁹³ With this focus, TTOs reconcile the high transaction costs of both obtaining patent protection and securing licenses with the speculative commercial potential of embryonic inventions.⁹⁴ Second, industry is cautious in licensing embryonic university inventions because the cost of taking a product to market falls solely on the licensee.⁹⁵ Moreover, several companies have remarked that TTOs are difficult to negotiate with—TTOs are “aggressive,” overstate the commercial value of their patents, and lack business knowledge.⁹⁶

83. See, e.g., Siegel et al., *supra* note 74, at 643.

84. See, e.g., *id.*

85. See, e.g., *id.*

86. See, e.g., *id.*; see also EINHORN & PARKER, *supra* note 39, § 6.05.

87. Siegel et al., *supra* note 74, at 643.

88. See Thursby & Thursby, *supra* note 20, at 626.

89. *Id.* at 625–26.

90. *Id.* at 626 tbl.2.

91. *Id.* at 623.

92. See *id.* at 630–31; Henry R. Hertzfeld et al., *Intellectual Property Protection Mechanisms in Research Partnerships*, 35 RES. POL'Y 825, 833–37 (2006).

93. See Thursby & Thursby, *supra* note 20, at 630–31.

94. See *id.* at 627–31.

95. Hertzfeld et al., *supra* note 92, at 835.

96. *Id.* at 833–37. Companies eventually stop negotiating with the university and approach the professors directly. *Id.* at 835; see also Albert N. Link et al., *An Empirical Analysis of the Propensity of Academics to Engage in Informal University Technology Transfer*, 16 INDUS. CORP. CHANGE 641, 641 (2007) (showing that male, tenured faculty who allocate a high percentage of their time to grant

Finally, universities have acquired much from playing the game.⁹⁷ To their credit, universities suggest many socially beneficial technologies would not be commercialized but for university technology transfer.⁹⁸ Yet, because most university inventions are embryonic, they may embody basic ideas.⁹⁹ These basic ideas, in turn, may be the building blocks of an entire field.¹⁰⁰ For example, universities are named on almost twenty percent of all patents directed to biotechnology.¹⁰¹ Also, universities are named on twelve percent of all patents directed to nanotechnology, a nascent field.¹⁰² These percentages are high when considering universities annually receive less than 2.5 percent of all patents issued.¹⁰³ One commentator argues that “[n]anotechnology patents bear watching” because universities have acquired building block patents in this field.¹⁰⁴

University building block patents may hurt innovation.¹⁰⁵ Although universities are not patent trolls (nonmanufacturers who extract high fees for the use of their patents), universities usually license their patents exclusively to one party because they are focused on generating licensing income.¹⁰⁶

In sum, universities—largely funded by the federal government—play an active role in the market for innovation. Indeed, universities own many biotechnology and nanotechnology patents. Yet, industry cau-

research are more likely to work with companies directly). Further still, disputes may arise between the TTO and the faculty. *See, e.g.*, Complaint at 1, Curators of the Univ. of Mo. v. Suppes, No. 2:2009cv04012 (W.D. Mo. Jan. 26, 2009), <http://docs.justia.com/cases/federal/district-courts/missouri/mowdce/2:2009cv04012/89158/1/0.pdf> (state university seeking, *inter alia*, declaration of inventorship against university faculty member).

97. *See, e.g.*, Ritchie de Larena, *supra* note 75, at 1386–91 (explaining that some observers argue that “the Bayh-Dole Act effectively created the thriving biotech industry”).

98. *See, e.g.*, ASS’N OF UNIV. TECH. MANAGERS, *THE ART OF COLLABORATION: THE RELATIONSHIPS THAT BRING ACADEMIC INNOVATIONS TO THE MARKETPLACE* (2008), http://www.betterworldproject.org/documents/AUTM_BWR1_08.pdf; ASS’N OF UNIV. TECH. MANAGERS, *TECHNOLOGY TRANSFER WORKS: 100 INNOVATIONS FROM ACADEMIC RESEARCH TO REAL-WORLD APPLICATION* (2008), http://www.betterworldproject.org/documents/AUTM_BWR2_08.pdf.

99. *See generally* Arti Kaur Rai, *Regulating Scientific Research: Intellectual Property Rights and the Norms of Science*, 94 NW. U. L. REV. 77 (1999) (arguing that universities patent basic research).

100. *See* Mark A. Lemley, *Patenting Nanotechnology*, 58 STAN. L. REV. 601, 606–13 (2005).

101. David E. Adelman & Kathryn L. DeAngelis, *Patent Metrics: The Mismeasure of Innovation in the Biotech Patent Debate*, 85 TEX. L. REV. 1677, 1687 n.44 (2007).

102. Lemley, *supra* note 100, at 616 tbl.2.

103. U.S. PATENT & TRADEMARK OFFICE, U.S. COLLEGE AND UNIVERSITIES UTILITY PATENT GRANTS 1969–2005, available at http://www.uspto.gov/go/taf/univ/asgn/table_1_2005.htm (at most 2.19 percent of utility patents issued annually). In 2007, universities received 2.3 percent of all utility patents issued. ASS’N OF UNIV. TECH. MANAGERS, *supra* note 22, at 21 tbl.US-3 (3622 university patents issued in 2007); U.S. PATENT & TRADEMARK OFFICE, *supra* note 8 (157,283 total patents issued in 2007).

104. Lemley, *supra* note 100, at 630.

105. Ritchie de Larena, *supra* note 75, at 1385–86; *see also* Lemley, *supra* note 100, at 613–14.

106. *See* Jay P. Kesan, *Transferring Innovation*, 77 FORDHAM L. REV. 2169, 2169 (2009) (arguing that university technology transfer “narrow[ly] focus[es]” on “generating licensing income and obtaining reimbursement for legal expenses”); Mark A. Lemley, *Are Universities Patent Trolls?*, 18 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 611, 616 (2008); Lemley, *supra* note 100, at 626; Thursby & Thursby, *supra* note 20, at 630–31. *But see id.* at 626–27 (arguing that about fifty-four percent of licenses are nonexclusive).

tiously takes licenses to university patents for two reasons. First, university patents are risky because of their low level of development. Second, universities tend to overstate the value of their patents.

C. Patent Law's Experience with State Sovereign Immunity

Sovereign immunity is anchored in English common law: the King could not be sued in his own courts without his consent.¹⁰⁷ Yet, sovereign immunity has never translated well in our federal system of co-sovereigns—today the federal government and the fifty states each have their own courts.¹⁰⁸ The concept of states being sued in federal court has “bedeviled American jurists since before the Constitution was adopted.”¹⁰⁹ Keeping this *bedevilmment* in mind, Section C first briefly lays out the basic structure of state sovereign immunity. Next, Section C explains patent law’s experience with state sovereign immunity.

The Supreme Court’s interpretation of the Eleventh Amendment is the source of state sovereign immunity.¹¹⁰ The Eleventh Amendment, which was originally proposed the day after *Chisholm v. Georgia* was decided, provides: “The Judicial power of the United States shall not be construed to extend to any suit in law or equity, commenced or prosecuted against one of the United States by Citizens of another State, or by Citizens or Subjects of any Foreign State.”¹¹¹ The text of the Eleventh Amendment merely alters the federal judiciary’s Article III diversity jurisdiction and alienage jurisdiction by prohibiting both citizens of one state and citizens of foreign countries from suing another state in federal court.¹¹² Nevertheless, the Supreme Court recognizes that the Eleventh Amendment “stand[s] not so much for what it says, but for the presupposition . . . which it confirms”—states cannot be sued by private parties in federal court without their consent.¹¹³

107. See *Chisholm v. Georgia*, 2 U.S. (2 Dall.) 419, 437–46 (1793) (Iredell, J.).

108. See generally Ralph Brubaker, *Of State Sovereign Immunity and Prospective Remedies: The Bankruptcy Discharge as Statutory Ex parte Young Relief*, 76 AM. BANKR. L.J. 461 (2002) (explaining sovereign immunity is a translation problem). On the other hand, Justice Holmes justified sovereign immunity through legal positivism—“A sovereign is exempt from suit, not because any formal conception or obsolete theory, but on the logical and practical ground that there can be no legal right as against the authority that makes the law on which the right depends.” *Kawanakoa v. Polyblank*, 205 U.S. 349, 353 (1907).

109. MARTIN H. REDISH & SUZANNA SHERRY, *FEDERAL COURTS* 345 (5th ed. 2002).

110. CHEMERINSKY, *supra* note 5, § 7.3, at 415–21. But see *Alden v. Maine*, 527 U.S. 706, 728, 754 (1999) (holding that the State of Maine may not be sued for alleged violations of federal law in Maine state court without its consent) (“[S]overeign immunity derives not from the Eleventh Amendment but from the structure of the original Constitution itself.”).

111. U.S. CONST. amend. XI; Brubaker, *supra* note 108, at 475 n.48.

112. U.S. CONST. art. III, § 2; U.S. CONST. amend. XI; 28 U.S.C. § 1392 (2006) (diversity jurisdiction); *Seminole Tribe v. Florida*, 517 U.S. 44, 54 (1996); see also *Atascadero State Hosp. v. Scanlon*, 473 U.S. 234, 248 (1985) (Brennan, J., dissenting).

113. *Seminole Tribe*, 517 U.S. at 54 (quoting *Blatchford v. Native Vill. of Noatak*, 501 U.S. 775, 779 (1991)). The *Hans* Court was the first Court to float above the text of the Eleventh Amendment. *Hans v. Louisiana*, 134 U.S. 1, 13 (1890). Other case law extended state sovereign immunity beyond suits by private individuals in federal court. See, e.g., *Fed. Mar. Comm’n v. S.C. State Ports Auth.*, 535

Sovereign immunity is no ocean: congressional abrogation, waiver, and suits against state officers under the *Ex parte Young* doctrine are three exceptions to sovereign immunity.¹¹⁴ Yet, the Supreme Court closed the doors on both abrogation and constructive waiver to patent law violations on the same day.¹¹⁵

First, the abrogation door was closed, even though Congress did its best to keep it open.¹¹⁶ In 1992, Congress enacted the Patent Remedy Act which expressly provided, with a clear legislative statement, that states were liable for patent law violations.¹¹⁷ In *Florida Prepaid Postsecondary Education v. College Savings Bank*, the Supreme Court struck down the statute as invalidly enacted under the Fourteenth Amendment.¹¹⁸ Applying *City of Boerne v. Flores*,¹¹⁹ the Court concluded that the statute's corrective measure—state liability for patent law violations—was not congruent and proportional to any Fourteenth Amendment violation because patent infringement by states was minimal.¹²⁰ Moreover, the Supreme Court observed that both the lower court and the respondent recognized that Congress could not abrogate state sov-

U.S. 743, 760 (2002) (federal administrative agency proceedings); *Alden*, 527 U.S. at 759–60 (1999) (suits in their own state courts alleging federal law claims); *Principality of Monaco v. Mississippi*, 292 U.S. 313, 330 (1934) (federal court suits brought by foreign countries); *New Hampshire v. Louisiana*, 108 U.S. 76, 91 (1883) (federal court suits by sister states seeking debts owed to their citizens).

114. CHEMERINSKY, *supra* note 5.

115. *Fla. Prepaid Postsecondary Educ. Expense Bd. v. Coll. Sav. Bank*, 527 U.S. 627, 633–34 (1999); *Coll. Sav. Bank v. Fla. Prepaid Postsecondary Educ. Expense Bd.*, 527 U.S. 666, 680 (1999).

116. *Fla. Prepaid*, 527 U.S. at 633–34.

117. Patent Remedy Act of 1992, Pub. L. 102-560, 106 Stat. 4230 (codified at 35 U.S.C. §§ 271(h), 296(a) (2006)).

Any State, any instrumentality of a State, and any officer or employee . . . acting in his official capacity, shall not be immune, under the eleventh amendment [sic] of the Constitution of the United States or under . . . [the] doctrine of sovereign immunity, from suit in Federal court by any person . . . for infringement of a patent under section 271, or for any other violation under this title.

35 U.S.C. § 296(a). The Supreme Court requires “a clear legislative statement” for Congress to abrogate state sovereign immunity. *Seminole Tribe*, 517 U.S. at 55 (internal quotation marks omitted).

118. 527 U.S. at 639–40. The *Fitzpatrick* Court first recognized that Congress may abrogate state sovereign immunity under Section 5 of the Fourteenth Amendment. *Fitzpatrick v. Bitzer*, 427 U.S. 445, 456 (1976); *see also* 17 U.S.C. § 501(a) (2006); *Chavez v. Arte Publico Press*, 204 F.3d 601, 608 (5th Cir. 2000) (striking down statutory language similar to § 296 in the Copyright Act).

119. 521 U.S. 507 (1997).

120. *Fla. Prepaid*, 527 U.S. at 639–40 (observing that the opinion below identified only eight state patent infringement suits between 1880 and 1990). Following *Florida Prepaid*, the General Accounting Office (GAO) examined state patent infringement suits from 1985–2001. U.S. GEN. ACCOUNTING OFFICE, INTELLECTUAL PROPERTY: STATE IMMUNITY IN INFRINGEMENT ACTIONS 2 (2001), <http://www.gao.gov/new.items/d01811.pdf>. The GAO found there were forty-seven cases alleging state infringement or unauthorized use of intellectual property filed in federal court between 1985 and 2000, which was less than 0.05 percent of all intellectual property suits filed in federal court during that time period. *Id.* at 7. The GAO also found that eleven cases alleging state infringement or unauthorized use of intellectual property were filed in state courts between 1985 and 2000. *Id.* Thus, one commentator suggested that Congress should reenact the Patent Remedy Act because the increased number of state patent infringement cases might satisfy the *City of Boerne v. Flores* congruence and proportionality test to be validly enacted under the Fourteenth Amendment. Beals, *supra* note 32, at 1255. Post-*Boerne*, Congress has occasionally validly abrogated state sovereign immunity under the Fourteenth Amendment. *See, e.g., Tennessee v. Lane*, 541 U.S. 509, 533–34 (2004) (Title II of the Americans with Disabilities Act).

ereign immunity to patent law violations under Article I, particularly either the Commerce Clause or the Patent and Copyright Clause.¹²¹

Second, the constructive waiver door was closed.¹²² In *College Savings Bank v. Florida Prepaid Postsecondary Education Expense Board*, the Supreme Court held that states cannot constructively waive sovereign immunity.¹²³ After *College Savings Bank*, states' litigation conduct is the focus of *voluntary* waiver arguments.¹²⁴ States may always voluntarily waive their sovereign immunity so long as the state either invokes federal jurisdiction or "makes a clear declaration that it intends to submit itself to [federal] jurisdiction."¹²⁵ Some states, however, will likely never waive their immunity.¹²⁶ Furthermore, the extent of the waiver varies among the states that voluntarily waive their immunity.¹²⁷ The Federal Circuit, which applies its own law to state sovereign immunity waiver,¹²⁸ actively decides waiver in the patent law context.¹²⁹

121. *Fla. Prepaid*, 527 U.S. at 636 (citing *Seminole Tribe*, 517 U.S. 44 at 73); see also U.S. CONST. art. I, § 8, cls. 3, 8. The Supreme Court, however, has since carved out an exception to Congress's inability to abrogate state sovereign immunity under *any* Article I power. See *Cent. Va. Cmty. Coll. v. Katz*, 546 U.S. 356, 379 (2006) (holding that Congress may abrogate state sovereign immunity under the Bankruptcy Clause). One commentator defends *Katz* by explaining that the Bankruptcy Clause gives Congress a federal forum power—even though the commentator does not ascribe to this theory. Ralph Brubaker, *Explaining Katz's New Bankruptcy Exception to State Sovereign Immunity: The Bankruptcy Power as a Federal Forum Power*, 15 AM. BANKR. INST. L. REV. 95, 130–34 (2007). Indeed, *Katz* may be used to argue that the Patent and Copyright Clause also abrogated states' sovereign immunity. See generally Robert A. Cohen, *Patent Infringement and the Eleventh Amendment: Can the Sovereign Be Held Accountable?*, 49 IDEA 85 (2008) (comparing the *Katz* rationale and the Bankruptcy Clause with the Patent and Copyright Clause).

122. *Coll. Sav. Bank v. Fla. Prepaid Postsecondary Educ. Expense Bd.*, 527 U.S. 666, 680 (1999).

123. *Id.* The Court distinguished its past cases, which permit Congress to condition approval of an interstate compact or condition receipt of federal funds. *Id.* at 686–87.

124. See CHEMERINSKY, *supra* note 5, § 7.6, at 452–59; see, e.g., *Lapides v. Bd. of Regents*, 535 U.S. 613, 616 (2002) (holding that the state's act of removing a case from state court to federal court waives sovereign immunity).

125. *Coll. Sav. Bank*, 527 U.S. at 676 (internal quotations omitted).

126. E.g., W. VA. CONST. art. VI, § 35 ("The State of West Virginia shall never be made a defendant in any court of law or equity . . ."); ALA. CODE. § 41-9-60 (2008) (claims against the State of Alabama may only be brought administratively).

127. *Fla. Prepaid Postsecondary Educ. Expense Bd. v. Coll. Sav. Bank*, 527 U.S. 627, 659 (1999) (Stevens, J., dissenting) (observing that the Colorado statute waives tort claims arising out of specific accidents; Minnesota statute does not waive immunity when, *inter alia*, state employee exercises due care; Maryland statute does not waive immunity to claims arising from a single occurrence that seek over \$100,000).

128. *Regents of the Univ. of N.M. v. Knight*, 321 F.3d 1111, 1123–24 (Fed. Cir. 2003); see *Midwest Indus., Inc. v. Karvan Trailers, Inc.*, 175 F.3d 1356, 1359–62 (Fed. Cir. 1999) (explaining choice of law test for patent law and nonpatent law issues).

129. *Biomedical Patent Mgmt. Corp. v. Cal. Dep't Health Servs.*, 505 F.3d 1328, 1331, 1343 (Fed. Cir. 2007) (holding that the state's intervention on behalf of a subcontractor in a previous suit filed by the plaintiff, which was dismissed for improper venue, did not waive the state's sovereign immunity to the instant lawsuit), *cert. denied*, 129 S. Ct. 895 (2009); *Baum Research & Dev. Co. v. Univ. of Mass.* at Lowell, 503 F.3d 1367, 1370–71 (Fed. Cir. 2007) (holding that forum selection clause in license agreement waived state's sovereign immunity); *Vas-Cath, Inc. v. Curators of Univ. of Mo.*, 473 F.3d 1376, 1383–84 (Fed. Cir. 2007) (holding state waives sovereign immunity to appellate review of an initiated PTO interference); *Regents of the Univ. of N.M.*, 321 F.3d at 1126–27 (holding that the state waives sovereign immunity to compulsory counterclaims).

In sum, state sovereign immunity, which is primarily embodied in the Eleventh Amendment, looms large in patent law. First, congressional abrogation of state sovereign immunity is unavailable. Second, although the Federal Circuit actively decides waiver issues, waiver arguments are limited to styling states' litigation conduct as *voluntary* waiver.

D. Part II Summary

Part II put the door ajar in context. On the first side of the door, declarations of patent invalidity serve “the strong federal policy favoring the full and free use of ideas in the public domain”¹³⁰ by removing weak patents that economically injure the public from the market. Although declaratory judgment actions are nearly as expensive as infringement litigation, they provide flexibility and strategic advantages to one who has been *invited* to take a patent license. Indeed, both the Supreme Court and Federal Circuit have recently lowered the threshold to obtain declaratory judgment standing.

On the second side of the door, universities are active in the market for innovation. Universities primarily patent inventions having a low level of development, but own several patents in biotechnology and nanotechnology. Yet state universities, which dominate university participation in the market for innovation, maintain sovereign immunity to alleged patent law violations including patent invalidity. Sovereign immunity may incentivize state universities to seek excessively broad patents and increase the number of active, invalid patents. Although the Supreme Court closed the doors on abrogation and constructive waiver of sovereign immunity to patent law violations, the Court left a door ajar—suits against state officers under the *Ex parte Young* doctrine.

III. ANALYSIS

“[T]he doctrine of *Ex parte Young* seems indispensable to the establishment of constitutional government and the rule of law.”¹³¹ Indeed, the *Ex parte Young* doctrine is a fundamental limit on state sovereign immunity.¹³² By enabling suits against state officers, the *Ex parte Young* doctrine gives federal courts the power to enforce “the supreme Law of the Land” against state actors.¹³³ First, Section A reviews *Ex parte*

130. *Lear, Inc. v. Adkins*, 395 U.S. 653, 674 (1969).

131. 17A CHARLES ALAN WRIGHT ET AL., FEDERAL PRACTICE & PROCEDURE § 4231, at 144 (3d ed. 2007).

132. See FALLON ET AL., *supra* note 29, at 891.

133. U.S. CONST. art. VI, cl. 2 (Supremacy Clause); see also WRIGHT ET AL., *supra* note 131, § 4231. Admittedly, § 1983, which Congress enacted under the Fourteenth Amendment, also gives federal courts the power to enforce the Constitution and federal laws against state actors. 42 U.S.C. § 1983 (2006). In fact, § 1983 is the weapon of choice against state and local government officers. CHEMERINSKY, *supra* note 5, § 8.1, at 482–83. Yet, § 1983 has elaborate immunity doctrines whereas the *Ex parte Young* doctrine does not afford any immunity from relief. Compare *id.* § 8.6, at 526–58, with Supreme Court of Va. v. Consumers Union of the U.S., Inc., 446 U.S. 719, 730–33 (1980). A de-

Young, the doctrine's namesake case. Next, Section B sets out the modern *Ex parte Young* doctrine. Third, Section C unpacks the modern doctrine and applies the doctrine element by element to declarations of patent invalidity. By way of comparison, Section D applies a first principles view of *Ex parte Young* to declarations of patent invalidity. Finally, although this Part shows that there are no doctrinal hurdles to applying the *Ex parte Young* doctrine to declarations of patent invalidity, Section E shows how the nature of the parties, i.e., states and industry, may explain why the door is still ajar.

A. *Ex parte Young*

Ex parte Young may well be “one of the three most important decisions the Supreme Court of the United States has ever handed down.”¹³⁴ Section A reviews the facts, procedural posture, and holding of *Ex parte Young*.

The detailed facts and procedural posture of *Ex parte Young* begin with a related case, *Perkins v. Northern Pacific Railway Company*.¹³⁵ In 1907, the Minnesota legislature enacted a statute that prescribed below-market railroad rates for both passenger and freight transportation.¹³⁶ The statute provided both civil and criminal penalties for violations by railroad employees.¹³⁷ Shareholders of the affected railroads responded to the statute by filing derivative actions against the railroads in federal court.¹³⁸ In *Perkins*, the plaintiff shareholders—claiming the statute was unconstitutional under the Due Process Clause of the Fourteenth Amendment because it violated their *economic* liberty—sought injunctions against the defendant railroads from complying with the statute and an injunction against defendant Edward T. Young, the Minnesota Attorney General, from enforcing the statute.¹³⁹ The circuit court rejected

tailed comparison of the *Ex parte Young* doctrine and § 1983 suits for patent invalidity is beyond the scope of this Note. Nevertheless, several commentators have discussed the applicability of § 1983 for intellectual property violations. See, e.g., Jesse H. Choper & John C. Yoo, *Who's Afraid of the Eleventh Amendment? The Limited Impact of the Court's Sovereign Immunity Rulings*, 106 COLUM. L. REV. 213, 225–32 (2006); Daniel J. Meltzer, *Overcoming Immunity: The Case of Federal Regulation of Intellectual Property*, 53 STAN. L. REV. 1331, 1349–57 (2001); Gary Pulsinelli, *Freedom to Explore: Using the Eleventh Amendment to Liberate Researchers at State Universities from Liability for Intellectual Property Infringements*, 82 WASH. L. REV. 275, 314–75 (2008).

134. WRIGHT ET AL., *supra* note 131, § 4231, at 135. The author suggests that *Marbury v. Madison* and *Martin v. Hunter's Lessee* are the other two most important cases. *Id.*

135. 155 F. 445 (C.C.D. Minn. 1907). For an excellent discussion of the facts and procedural posture of *Young* and *Perkins*, see Brubaker, *supra* note 108, at 486–93; John Harrison, *Ex parte Young*, 60 STAN. L. REV. 989, 990–94 (2008). For further discussion of *Ex parte Young*, see Barry Friedman, *The Story of Ex parte Young: Once Controversial, Now Canon*, in FEDERAL COURTS STORIES (Vicki Jackson & Judith Resnik eds.) (forthcoming 2009), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1406696.

136. Brubaker, *supra* note 108, at 486–87; Harrison, *supra* note 135, at 991–93.

137. Brubaker, *supra* note 108, at 486–87; Harrison, *supra* note 135, at 991–93.

138. *Perkins*, 155 F. at 447; Brubaker, *supra* note 108, at 486; Harrison, *supra* note 135, at 991–92.

139. *Perkins*, 155 F. at 447; Brubaker, *supra* note 108, at 486; Harrison, *supra* note 135, at 992–93.

Young's sovereign immunity arguments and issued a preliminary injunction against Young, which at that time was not immediately appealable.¹⁴⁰

Young's next move was designed to orchestrate Supreme Court review.¹⁴¹ First, Young filed a state court mandamus action against the defendant railroads to compel compliance with the statute.¹⁴² The circuit court responded by holding Young in contempt.¹⁴³ Because he was now under a final order of a lower court, Young successfully petitioned the Supreme Court for a writ of habeas corpus.¹⁴⁴

Justice Peckham wrote for the Court in *Ex parte Young*, Young's habeas petition.¹⁴⁵ In denying Young's habeas relief, the Court held that the circuit court's injunction was proper.¹⁴⁶ The Court reached its holding for two reasons. First, sovereign immunity did not bar relief against Young as the Attorney General.¹⁴⁷ Second, injunctive relief was appropriate from the federal court under these circumstances.¹⁴⁸

The *Ex parte Young* holding, which is the foundation of the *Ex parte Young* doctrine, has been the subject of academic debate for over 100 years.¹⁴⁹ The traditional view divides *Ex parte Young* into two discrete holdings.¹⁵⁰ First, an implied federal cause of action exists to enjoin state officers from violations of the Constitution and federal law.¹⁵¹ Second, this injunctive relief is not barred by state sovereign immunity.¹⁵² On the other hand, a first principles view of *Ex parte Young* rejects the implied federal cause of action in favor of the anti-suit injunction.¹⁵³ As an ancient equity tool, the anti-suit injunction "restrain[s] proceedings at

140. *Perkins*, 155 F. at 447–48, 456; Brubaker, *supra* note 108, at 486; Harrison, *supra* note 135, at 992–93.

141. Brubaker, *supra* note 108, at 486–87; Harrison, *supra* note 135, at 993.

142. Brubaker, *supra* note 108, at 486; Harrison, *supra* note 135, at 993.

143. Brubaker, *supra* note 108, at 486; Harrison, *supra* note 135, at 993.

144. Brubaker, *supra* note 108, at 486–87; Harrison, *supra* note 135, at 993.

145. 209 U.S. 123, 142 (1908). Justice Peckham is infamous for his decision in *Lochner v. New York*, 198 U.S. 45, 52 (1905).

146. *Ex parte Young*, 209 U.S. at 148; Brubaker, *supra* note 108, at 487; Harrison, *supra* note 135, at 994.

147. *Ex parte Young*, 209 U.S. at 159–60; Brubaker, *supra* note 108, at 487, 489; Harrison, *supra* note 135, at 994.

148. *Ex parte Young*, 209 U.S. at 168; Brubaker, *supra* note 108, at 487; Harrison, *supra* note 135, at 994.

149. See, e.g., WRIGHT ET AL., *supra* note 131, § 4231; Brubaker, *supra* note 108, at 487 n.105; Harrison, *supra* note 135.

150. Brubaker, *supra* note 108, at 483. This view is denoted as "traditional" in this Note because Professor Brubaker cites a long list of respected authority. See, e.g., *id.* at 487 n.105 (citing RICHARD H. FALLON, JR. ET AL., HART & WECHSLER'S THE FEDERAL COURTS AND THE FEDERAL SYSTEM 1065 (4th ed. 1996)).

151. Brubaker, *supra* note 108, at 483. State courts may also grant similar relief against state officers. *Gen. Oil Co. v. Crain*, 209 U.S. 211, 226–27 (1908) (decided on the same day as *Ex parte Young*). State courts are no help when seeking a declaration of state patent invalidity because federal courts have exclusive subject matter jurisdiction over patent law issues. 28 U.S.C. § 1338(a) (2006); see also *Genentech, Inc. v. Eli Lilly & Co.*, 998 F.2d 931, 943 (Fed. Cir. 1993) ("An action seeking declaration of patent invalidity arises under the patent law . . .").

152. Brubaker, *supra* note 108, at 489.

153. Harrison, *supra* note 135, at 990 ("There is no exception, no fiction, no new cause of action, and no paradox, and all for the same reason.").

law. . . . [One] who would be the defendant in a corresponding lawsuit can enforce in equity a legal position that would be a defense at law.”¹⁵⁴ The first principles view is grounded in historical practice before *Ex parte Young*.¹⁵⁵ Nevertheless, the first principles view is not in line with modern case law because it purports to limit the *Ex parte Young* doctrine where modern case law does not.¹⁵⁶

B. Today’s *Ex parte Young* Doctrine

Section A reviewed the *Ex parte Young* of yesteryear. Today, the *Ex parte Young* doctrine is a vibrant centenarian. Section B sets out the modern doctrine.

The Supreme Court recently stated that the *Ex parte Young* doctrine requires that “the complaint allege[] an ongoing violation of federal law and seeks relief properly characterized as prospective.”¹⁵⁷ Moreover, a court only makes a “straightforward inquiry” into the requirements, which does not reach the merits of the complaint.¹⁵⁸ Although *Ex parte Young* was formally justified by distinguishing the state officer from the state itself, the modern *Ex parte Young* doctrine is functionally justified as a necessary exception to sovereign immunity to enforce federal law.¹⁵⁹ The Court’s *straightforward* inquiry deserves scrutiny because it represents 100 years of case law refining *Ex parte Young*.

The straightforward inquiry fits within a larger doctrinal framework.¹⁶⁰ The traditional view of the modern *Ex parte Young* doctrine is divided into two conjunctive prongs.¹⁶¹ First, the remedial prong provides an implied federal cause of action against state officials.¹⁶² Importantly, whether the plaintiff is entitled to a remedy under the implied cause of action is a question answered by substantive law.¹⁶³ Second, the constitutional sovereign immunity prong provides that the remedy sought against the state official is not barred by the Eleventh Amendment.¹⁶⁴ Here, the straightforward inquiry addresses whether the remedy is barred.¹⁶⁵ Thus, the straightforward inquiry is directed to only the constitutional sovereign immunity prong of the *Ex parte Young* doctrine.¹⁶⁶

154. *Id.* at 990, 1002–08.

155. *See id.* at 990 (stating that anti-suit injunctions have been used for centuries).

156. *Id.* at 1019–21.

157. *Verizon Md. Inc. v. Pub. Serv. Comm’n*, 535 U.S. 635, 645 (2002) (quoting *Idaho v. Coeur d’Alene Tribe*, 521 U.S. 261, 296 (1997) (O’Connor, J., concurring in part and concurring in the judgment)).

158. *Id.* at 646.

159. *Cent. Va. Cmty. Coll. v. Katz*, 546 U.S. 356, 378 n.14 (2006); Brubaker, *supra* note 108, at 489.

160. *See* Brubaker, *supra* note 108, at 556 n.409.

161. *Id.* at 483.

162. *Id.*

163. *See id.* at 498–501.

164. *Id.* at 483.

165. *See id.* at 493–98.

166. *Id.*; *see also* *Verizon Md. Inc. v. Pub. Serv. Comm’n*, 535 U.S. 635, 645–46 (2002).

C. *Unpacking and Applying the Modern Ex parte Young Doctrine*

Suits against state university officials that rely on *Ex parte Young* usually involve faculty, students, or staff alleging discrimination.¹⁶⁷ Yet, the Federal Circuit contemplated—but ultimately declined—applying the doctrine in a state university suit alleging patent infringement.¹⁶⁸ With the doctrinal framework in hand, the modern *Ex parte Young* doctrine may be unpacked and applied element by element to declarations of patent invalidity. Section C concludes that the *Ex parte Young* doctrine is available for declaratory judgment actions seeking invalidity of state patents. First, Section 1 sets out a paradigm declaration of patent invalidity hypothetical used throughout the analysis—StateU, a state university, invites PhoneCo to take a license to its cell phone texting software. Next, Section 2 analyzes the remedial prong of the *Ex parte Young* doctrine. Finally, Section 3 analyzes the constitutional sovereign immunity prong of the *Ex parte Young* doctrine.

1. *Paradigm Declaration of Patent Invalidity Hypothetical*

Suppose StateU has a TTO which comprises three employees: a Director, a Technology Manager, and a Patent Agent.¹⁶⁹

First, the TTO receives from a faculty member an invention disclosure that describes cell phone texting software that recognizes a user's partially typed text and completes the word the user intends to type.¹⁷⁰ Second, the TTO determines that the texting software is valuable and

167. See, e.g., *Nelson v. Univ. of Tex. at Dallas*, 535 F.3d 318, 319 (5th Cir. 2008) (terminated employee alleged violation of the Family Medical Leave Act); *Peirick v. IUPUI Athletics Dep't*, 510 F.3d 681, 686 (7th Cir. 2007) (terminated female coach alleged sex and age discrimination under Title VII and the Age Discrimination Employment Act); *Monroe v. Ark. State Univ.*, 495 F.3d 591, 592–93 (8th Cir. 2007) (nursing student alleged he was dismissed for chemical dependence); *Constantine v. Rectors & Visitors of George Mason Univ.*, 411 F.3d 474, 478 (4th Cir. 2005) (law student alleged discrimination under the Americans with Disabilities Act when she was not given more time for an exam).

168. *Pennington Seed, Inc. v. Produce Exch. No. 299*, 457 F.3d 1334, 1341–43 (Fed. Cir. 2006) (dismissing patent infringement claim against University of Arkansas officials under *Ex parte Young* because “[a]llegations that a state official directs a University’s patent policy are insufficient to causally connect that state official to . . . patent infringement”). Further, several commentators have also discussed the applicability of *Ex parte Young* to patent infringement. See, e.g., Cohen, *supra* note 121, at 114–16; Meltzer, *supra* note 133, at 1334; Bruce E. O’Connor & Emily C. Peyser, *Ex parte Young: A Mechanism for Enforcing Federal Intellectual Property Rights Against States*, 10 B.U. J. SCI. & TECH. L. 225, 227 (2004) (arguing that *Ex parte Young* applies to state university officials for patent infringement); Pulsinelli, *supra* note 133, at 301–14; Beals, *supra* note 32, at 1265; Snyder, *supra* note 27, at 433–34; Abhay Watwe, Comment, *Ex parte Young Remedy for State Infringement of Intellectual Property*, 12 LEWIS & CLARK L. REV. 793, 817 (2008) (proposing new causal connection test for applying *Ex parte Young* to patent infringement). Although not dealing with state sovereign immunity, one commentator argues that the *Ex parte Young* doctrine is applicable for tribal infringement of intellectual property. Eagle H. Robinson, Comment, *Infringing Sovereignty: Should Federal Courts Protect Patents and Copyrights From Tribal Infringement?*, 32 AM. INDIAN L. REV. 233, 255–56 (2008).

169. See *supra* notes 76–77 and accompanying text.

170. This hypothetical is based on the facts of two cases. *Sony Elecs., Inc. v. Guardian Media Techs., Ltd.*, 497 F.3d 1271 (Fed. Cir. 2007); *Tegic Commc’ns Corp. v. Bd. of Regents*, 458 F.3d 1335 (Fed. Cir. 2006). See *supra* notes 84–85 and accompanying text for additional discussion.

decides to obtain patent protection.¹⁷¹ Although the Patent Agent usually prepares and prosecutes all of the TTO's patent applications, the TTO decides to obtain outside counsel to prepare and prosecute the texting software patent application. Nevertheless, the Patent Agent works closely with the outside patent attorney during patent prosecution. The patent issues, and the university now owns a patent claiming the texting software.¹⁷² Unfortunately, the PTO made a legal mistake—the issued patent is invalid.¹⁷³ Yet, the TTO employees do not know the patent is in fact invalid.¹⁷⁴

Next, the Technology Manager markets the patent by inviting forty-eight cell phone companies, including PhoneCo, to take a paid license to the patent.¹⁷⁵ The Technology Manager's invitations are in the form of letters to the companies.¹⁷⁶ Like TextCo's earlier license invitation, PhoneCo is not interested in StateU's invitation because PhoneCo believes it does not need a license to sell its cell phones that use texting software. Moreover, PhoneCo believes its future phones will not embody StateU's patent. After PhoneCo concludes the nuclear option RSVP is cost justified, PhoneCo files a declaratory judgment action against each of StateU's TTO employees seeking invalidity of StateU's patent.¹⁷⁷ Does PhoneCo have a remedy? Is StateU immune from suit? The following Sections analyze these questions.

2. *Applying the Remedial Prong of the Ex parte Young Doctrine*

The remedial prong of the *Ex parte Young* doctrine provides an implied federal cause of action against state officials.¹⁷⁸ Yet, substantive law controls whether the plaintiff is entitled to a remedy under the implied cause of action.¹⁷⁹ Nevertheless, the Supreme Court recognizes two exceptions which set aside the implied cause of action.¹⁸⁰ First, the Court in *Seminole Tribe v. Florida* articulated the “detailed remedial scheme” exception.¹⁸¹ Second, the Court in *Idaho v. Coeur d'Alene Tribe* articulated

171. See *supra* note 86 and accompanying text.

172. See *Tegic Commc'ns Corp.*, 458 F.3d at 1337.

173. See *supra* notes 8–11 and accompanying text.

174. This fact is added to keep the *Ex parte Young* analysis focused on a declaration of patent invalidity. TTO employee knowledge that the patent was in fact invalid goes to other claims that are beyond the scope of this Note—a declaration of unenforceability due to inequitable conduct and patent misuse, which is an antitrust cause of action. See, e.g., *Walker Process Equip., Inc. v. Food Mach. & Chem. Corp.*, 382 U.S. 172 (1965); *Molins PLC v. Textron, Inc.*, 48 F.3d 1172 (Fed. Cir. 1995); *Leslie*, *supra* note 12 (discussing *Walker Process*).

175. See *Tegic Commc'ns Corp.*, 458 F.3d at 1337; *supra* notes 38, 87 and accompanying text.

176. See *Sony Elecs., Inc. v. Guardian Media Techs., Ltd.*, 497 F.3d 1271, 1274 (Fed. Cir. 2007).

177. See *supra* Part II.A.

178. *Brubaker*, *supra* note 108, at 483.

179. *Id.* at 484.

180. *Idaho v. Coeur d'Alene Tribe*, 521 U.S. 261, 269 (1997); *Seminole Tribe v. Florida*, 517 U.S. 44, 74 (1996); *Brubaker*, *supra* note 108, at 497 n.150, 500.

181. *Seminole Tribe*, 517 U.S. at 74; *Brubaker*, *supra* note 108, at 500.

the “exceedingly narrow . . . submerged lands” exception.¹⁸² This Note only briefly analyzes these two exceptions because the Federal Circuit already appears to implicitly recognize that these exceptions do not apply under patent law.¹⁸³

Section 2 concludes that the remedial prong of *Ex parte Young* is satisfied for PhoneCo’s declaratory judgment action seeking a declaration of invalidity. First, Section 2.a analyzes, under patent law, whether PhoneCo is entitled to a declaration of patent invalidity against StateU’s patent. Second, Section 2.b briefly analyzes whether patent law provides a detailed remedial scheme for declarations of invalidity. Third, Section 2.c briefly analyzes whether the *Coeur d’Alene* submerged lands exception applies to declarations of state patent invalidity.

a. PhoneCo Is Entitled to a Remedy Under Patent Law

PhoneCo seeks a declaration that StateU’s patent is invalid. Before relying on the *Ex parte Young* implied cause of action against the TTO employees, PhoneCo must show it is entitled to the declaration under patent law.¹⁸⁴ First, PhoneCo must show the court has declaratory judgment jurisdiction to declare the university’s patent invalid.¹⁸⁵ Second, PhoneCo must show the university’s patent is invalid on the merits.¹⁸⁶

The state of the law regarding declaratory judgment jurisdiction is in flux at the Federal Circuit.¹⁸⁷ Nevertheless, a court will have jurisdiction to declare patents invalid under the Declaratory Judgment Act when a “controversy [is] based on a real and immediate injury or threat of future injury that is caused by the defendants.”¹⁸⁸ Here, the Technology Manager’s license invitation in the form of a letter to PhoneCo is enough to establish a controversy.¹⁸⁹ Indeed, the Technology Manager’s invita-

182. Carlos Manuel Vázquez, *Eleventh Amendment Schizophrenia*, 75 NOTRE DAME L. REV. 859, 910 (2000); see also *Coeur d’Alene*, 521 U.S. at 296 (O’Connor, J., concurring in part and concurring in the judgment); Brubaker, *supra* note 108, at 497 n.150.

183. See *Pennington Seed, Inc. v. Produce Exch.* No. 299, 457 F.3d 1334, 1341 (Fed. Cir. 2006) (“[C]ontinuing prospective violations of a federal patent right by state officials may be enjoined by federal courts under the *Ex parte Young* doctrine”); *Genentech, Inc. v. Regents of the Univ. of Cal.*, 143 F.3d 1446, 1449, 1455–56 (Fed. Cir. 1998), *vacated on other grounds*, 527 U.S. 1031 (1999) (reading *Seminole Tribe* to imply that *Ex parte Young* implied cause of action is not set aside by a detailed remedial scheme under patent law).

184. See Brubaker, *supra* note 108, at 483. Patent law provides patent invalidity. 35 U.S.C. § 282 (2006).

185. See *supra* notes 63–71 and accompanying text.

186. See *supra* notes 19, 163 and accompanying text.

187. See *supra* notes 63–67 and accompanying text.

188. *Prasco, LLC v. Medicis Pharm. Corp.*, 537 F.3d 1329, 1339 (Fed. Cir. 2008) (emphasis omitted).

189. See *SanDisk Corp. v. STMicroelectronics, Inc.*, 480 F.3d 1372, 1381 (Fed. Cir. 2007) (“[W]here a patentee asserts rights under a patent based on certain identified ongoing or planned activity of another party, and where that party contends that it has the right to engage in the accused activity without license, an Article III case or controversy will arise and the party need not risk a suit for infringement by engaging in the identified activity before seeking a declaration of its legal rights.”).

tion to take a license asserts StateU's patent rights in response to PhoneCo's ongoing sales of cell phones.¹⁹⁰ Furthermore, PhoneCo believes it does not need a license to sell its current or future phones that use texting software.¹⁹¹ Thus, the Technology Manager's invitation on behalf of StateU is no different than TextCo's invitation.¹⁹² Accordingly, the court will have declaratory judgment jurisdiction to declare StateU's patent invalid.

Next, PhoneCo must show it is entitled to the declaration on the merits.¹⁹³ Under patent law, PhoneCo must show by clear and convincing evidence that StateU's patent does not satisfy at least one patentability requirement.¹⁹⁴ Indeed, PhoneCo will prevail on the merits because StateU's patent is in fact invalid.¹⁹⁵

For the foregoing reasons, PhoneCo is entitled to a declaration that StateU's patent is invalid. Moreover, a declaration of invalidity is the only remedy PhoneCo needs to continue to sell its cell phones and end StateU's *danse macabre*.¹⁹⁶ In fact, after the court declares StateU's patent invalid, the Technology Manager's invitation to license StateU's patent is harmless to PhoneCo.¹⁹⁷

190. See *id.*; *supra* Part II.A.

191. See *supra* Part III.C.1.

192. See *supra* Part II.A. The remedial prong and the constitutional sovereign immunity prong of the *Ex parte Young* doctrine are often conflated. Brubaker, *supra* note 108, at 487.

193. See *supra* notes 19, 163 and accompanying text.

194. 35 U.S.C. § 282 (2006). A valid patent must have eligible, useful, novel, and nonobvious subject matter. *Id.* §§ 101–103. Moreover, the patent disclosure, which describes the invention, must be adequate. *Id.* § 112.

195. See *supra* Part III.C.1.

196. See *supra* note 52 and accompanying text. Thus, the company would not need a permanent injunction to enjoin the Technology Manager from sending invitations to take a license. In fact, the company probably could not enjoin the Technology Manager's conduct. See *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388 (2006). As a threshold matter, the Technology Manager's conduct of sending license invitations to the company probably does not violate patent law. See 35 U.S.C. §§ 1–376. Moreover, the Technology Manager's conduct probably does not violate any other *federal law*. See *infra* Part III.C.3 (explaining that *Ex parte Young* only extends to violations of federal law). Even if the Technology Manager's conduct violated federal law, a permanent injunction requires four conjunctive elements:

A plaintiff must demonstrate: (1) that it has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction.

eBay Inc., 547 U.S. at 391. Interestingly, while the *eBay* Court heightened the requirements for permanent injunctions in patent disputes, the *MedImmune* Court lowered the requirements for obtaining declarations of invalidity. Compare Yixin H. Tang, *The Future of Patent Enforcement After eBay v. MercExchange*, 20 HARV. J. L. & TECH. 235, 252 (2006) (noting the heightened permanent injunction standard after *eBay*), with *Micron Tech., Inc. v. Mosaid Techs., Inc.*, 518 F.3d 897, 902 (Fed. Cir. 2008) (“[T]he now more lenient legal standard facilitates or enhances the availability of declaratory judgment jurisdiction in patent cases.”).

197. See *supra* notes 37–40 and accompanying text.

b. Patent Law Does Not Provide a “Detailed Remedial Scheme”
for Patent Invalidation

The *Seminole Tribe* Court articulated the “detailed remedial scheme” exception to the *Ex parte Young* implied cause of action.¹⁹⁸ In *Seminole Tribe v. Florida*, the plaintiff sought an injunction under *Ex parte Young* to enjoin the Governor of Florida to engage in good-faith bargaining under the Indian Gaming Regulatory Act (IGRA).¹⁹⁹ The Court denied the injunction because the Court construed the Act to authorize enforcement suits only against “the State.”²⁰⁰ Moreover, the Court construed the Act to afford a “detailed remedial scheme” for the enforcement suits that was narrower than *Ex parte Young* relief.²⁰¹ The Act prescribed: first, a compulsory negotiation time-frame; second, forced mediation; and finally, Department of the Interior gaming regulations.²⁰² The Court offered little criteria and guidance for applying the detailed remedial scheme exception to future cases.²⁰³ On the other hand, the Court cited with approval lower courts that construed statutes to authorize the *Ex parte Young* implied cause of action.²⁰⁴

The *Ex parte Young* implied cause of action should not be set aside because patent law does not provide a detailed remedial scheme for patent invalidity for two reasons.²⁰⁵ First, unlike the IGRA, patent law does not purport to authorize enforcement suits only against *the State* for patent law violations.²⁰⁶ Indeed, 35 U.S.C. § 296, which is an invalidated patent law statute, authorized enforcement suits against “[a]ny State, any instrumentality of a State, and any officer or employee of a State or instrumentality of a State acting in his official capacity.”²⁰⁷ By expressly authorizing suits against state officials, § 296 did not set aside the *Ex parte Young* implied cause of action.²⁰⁸ Moreover, the “officer or employee”

198. *Seminole Tribe v. Florida*, 517 U.S. 44, 74 (1996) (“Where Congress has created a remedial scheme for the enforcement of a particular federal right, we have, in suits against federal officers, refused to supplement that scheme with one created by the judiciary.”).

199. *Id.* at 73.

200. *Id.* at 73–74.

201. *Id.* at 74–75. Because the *Seminole Tribe* Court reasoned that *Ex parte Young* relief could be set aside by statute, the *Ex parte Young* implied cause of action is most likely federal common law. *See id.* The argument that the *Ex parte Young* doctrine is a matter of federal common law is further supported by noticing that *Ex parte Young* was decided when *Swift* was good law, which freely encouraged federal courts to make federal common law. *Swift v. Tyson*, 41 U.S. 1, 18 (1842). Even after *Erie*, federal courts make federal common law to promote federal interests. *Erie R.R. Co. v. Tompkins*, 304 U.S. 64 (1938); *see, e.g., Boyle v. United Techs. Corp.*, 487 U.S. 500, 512 (1988) (fashioning a federal common law affirmative defense to state law torts suits for military contractors).

202. *Seminole Tribe*, 517 U.S. at 74–75.

203. CHEMERINSKY, *supra* note 5, § 7.5, at 449.

204. *Seminole Tribe*, 517 U.S. at 75 n.17.

205. *Cf. Pulsinelli*, *supra* note 133, at 302–04 (arguing that patent law does not provide a detailed remedial scheme for patent infringement).

206. *Compare* 35 U.S.C. § 296(a) (2006), *invalidated by Fla. Prepaid Postsecondary Educ. Expense Bd. v. Coll. Sav. Bank*, 527 U.S. 627, 636 (1998), *with* 25 U.S.C. § 2710(d) (2006), *invalidated by Seminole Tribe*, 517 U.S. at 47.

207. 35 U.S.C. § 296(a).

208. *See Brubaker*, *supra* note 108, at 487.

invocation may be enough to conclude that Congress intended to authorize the *Ex parte Young* implied cause of action because the *Seminole Tribe* Court cited with approval lower courts that construed statutes with similar language to authorize the implied cause of action.²⁰⁹

Second, unlike the IGRA, patent law does not purport to afford a detailed remedial scheme for enforcement suits that is narrower than *Ex parte Young* relief.²¹⁰ Indeed, § 296 afforded the same remedies against state officials that are available against private entities.²¹¹ Because a declaration of patent invalidity is a remedy available against private patentees, § 296 afforded a declaration of patent invalidity against state officials.²¹² Here, PhoneCo seeks a declaration of patent invalidity against the TTO employees under the *Ex parte Young* implied cause of action.²¹³ Thus, the relief afforded under § 296 and the *Ex parte Young* implied cause of action are identical. Accordingly, § 296 did not purport to afford a detailed remedial scheme that is narrower than *Ex parte Young* relief. For the foregoing reasons, patent law does not provide a detailed remedial scheme for patent invalidity.²¹⁴

c. *Coeur d'Alene* Submerged Lands Exception Does Not Apply to Declarations of Patent Invalidity

The *Coeur d'Alene* Court articulated the submerged lands exception to the *Ex parte Young* implied cause of action.²¹⁵ In *Idaho v. Coeur*

209. Compare 35 U.S.C. § 296(a), with *Seminole Tribe*, 517 U.S. at 75 n.17.

210. Compare 35 U.S.C. § 296(b), invalidated by *Fla. Prepaid*, 527 U.S. at 648, with 25 U.S.C. § 2710(d), invalidated by *Seminole Tribe*, 517 U.S. at 47.

211. 35 U.S.C. § 296(b).

212. See 28 U.S.C. § 2201 (2006); 35 U.S.C. § 282; *id.* § 296(b).

213. See *supra* Part III.C.1.

214. Similarly, inter partes reexamination is not a detailed remedial scheme because § 296(b) neither expressly nor impliedly purported to limit invalidity relief against state officials to inter partes reexamination. See 35 U.S.C. § 296(b); *id.* §§ 311–18 (2006); *supra* notes 199–202 and accompanying text. More importantly, states are likely to retain sovereign immunity to inter partes reexamination proceedings in the PTO. See *Vas-Cath, Inc. v. Curators of Univ. of Mo.*, 473 F.3d 1376, 1382–83 (Fed. Cir. 2007) (“[I]nterference proceedings in the PTO bear strong similarities to civil litigation . . .” (internal quotation marks omitted) (citing *Fed. Mar. Comm’n v. S.C. State Ports Auth.*, 535 U.S. 743 (2002))); see also Robert T. Neufeld, *Closing Federalism’s Loophole in Intellectual Property Rights*, 17 *BERKELEY TECH. L.J.* 1295, 1319–20 (2002) (arguing that the *Federal Maritime* rationale extends to all PTO proceedings). Furthermore, current patent reform aims, among other things, to create the post-grant opposition proceeding, which is a strong administrative challenge to patent validity. H.R. 1260 § 6(h), 111th Cong. (as introduced in House, Mar. 3, 2009), http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=111_cong_bills&docid=f:h1260ih.txt.pdf; see also H.R. 1980 § 6(f), 110th Cong. (as passed by House, Sep. 7, 2007), http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110_cong_bills&docid=f:h1908eh.txt.pdf. This Note leaves for another day the application of the *Ex parte Young* doctrine to administrative proceedings in the PTO that seek invalidation of a state patent. Nevertheless, both the doctrinal and policy arguments for applying the *Ex parte Young* doctrine to declaratory judgment actions seeking declarations of patent invalidity in the federal courts should run similar to applying the *Ex parte Young* doctrine to administrative proceedings in the PTO.

215. *Idaho v. Coeur d’Alene Tribe*, 521 U.S. 261, 281 (1997); see, e.g., Brubaker, *supra* note 108, at 497 n.150 (“[*Coeur d’Alene*] represents an exception to conventional *Ex parte Young* doctrine, but it is an exceedingly narrow, almost *sui generis* exception.”). This Note denotes the *Coeur d’Alene* submerged lands exception as an exception to the remedial prong of the *Ex parte Young* doctrine as op-

d'Alene Tribe, the plaintiff, *inter alia*, sought a declaratory judgment under *Ex parte Young* against defendant state officials that the plaintiff was entitled to exclusive use, occupancy, and the right of quiet enjoyment of certain submerged lands of Lake Coeur d'Alene and connected navigable waterways.²¹⁶ The Court denied the declaratory judgment because "particular and special circumstances" made the suit "the functional equivalent of a quiet title action [which] implicat[es] special sovereignty interests."²¹⁷ Indeed, the requested declaration would shift "all benefits of ownership and control" from the defendants to the plaintiffs.²¹⁸

The *Ex parte Young* implied cause of action should not be set aside by the *Coeur d'Alene* submerged lands exception because a declaration of patent invalidity is not "the functional equivalent of a quiet title action [which] implicat[es] special sovereignty interests."²¹⁹ Admittedly, both patents and submerged lands are property, even though patents are personal property granted by the federal government.²²⁰ Nevertheless, a declaration of patent invalidity does not shift *any*, let alone "all[,] benefits of ownership and control" from the patentee to the declaratory judgment plaintiff because the declaration leaves nothing to shift.²²¹ Indeed, a court corrects the PTO's legal accident by declaring the patent should not have been granted.²²² Accordingly, unlike the submerged lands in *Coeur d'Alene*, a state does not have "special sovereignty interests" in an invalid patent because it should not have been granted.²²³

For the foregoing reasons, the *Ex parte Young* implied cause of action should not be set aside by the *Coeur d'Alene* submerged lands exception.

posed to the constitutional sovereign immunity prong. Analytically, this is a distinction without a difference because the two prongs are conjunctive requirements for the *Ex parte Young* doctrine. *Id.* at 483.

216. *Coeur d'Alene Tribe*, 521 U.S. at 264–65.

217. *Id.* at 281, 287. A concurring opinion went further: "A federal court cannot summon a State before it in a private action seeking to divest the State of a property interest." *Id.* at 289 (O'Connor, J., concurring in part and concurring in the judgment) (citing Fla. Dept. of State v. Treasure Salvors, Inc., 458 U.S. 670 (1982)). *But see id.* at 301–03 (Ginsburg, J., dissenting) (citing *Treasure Salvors*, 458 U.S. at 670) ("That a claim involves title is . . . irrelevant under *Young* . . . [A] title claim [has] never displaced *Young* so as to render state officials immune to suit by a rival claimant . . ."). The *Treasure Salvors* litigation involved a dispute between the State of Florida and in-state corporations as to ownership of personal property discovered off Florida's coast. 458 U.S. 670, 673 (1982).

218. *Coeur d'Alene Tribe*, 521 U.S. at 282.

219. *Id.* at 281. *But see* Stacey Drews, Note, *How the Xechem Decision May Insulate State Universities From Correction of Inventorship Suits*, 81 IND. L.J. 411, 427–28 (2006) (arguing that *Coeur d'Alene* submerged lands exception may apply to correction of inventorship suit).

220. *See* 35 U.S.C. § 261 (2006).

221. *Coeur d'Alene Tribe*, 521 U.S. at 282; *see also* 35 U.S.C. § 282; CHISUM, *supra* note 12, ("A [sic] invalidity judgment binds the patentee as against persons not party to the suit . . .").

222. *See* CHISUM, *supra* note 12. Thus, declarations of state patent invalidity also do not "divest the [s]tate of a property interest" because declaration provides the state should never have had a property interest. *See Coeur d'Alene Tribe*, 521 U.S. at 289–90 (O'Connor, J., concurring in part and concurring in the judgment).

223. *Coeur d'Alene Tribe*, 521 U.S. at 281.

d. Section 2 Summary

Section 2 applied the remedial prong of the *Ex parte Young* doctrine. First, PhoneCo is entitled to a declaration that StateU's patent is invalid under patent law. The court will have declaratory judgment jurisdiction to declare the patent invalid because the Technology Manager created a controversy as to the validity of StateU's patent by sending the invitation to take a license to PhoneCo. Moreover, PhoneCo will prevail on the merits because StateU's patent is in fact invalid.

Also, neither the *Seminole Tribe* detailed remedial scheme exception nor the *Coeur d'Alene* submerged lands exception sets aside PhoneCo's declaration of patent invalidity under the *Ex parte Young* implied cause of action. Patent law does not provide a detailed remedial scheme for patent invalidity for two reasons. First, patent law does not purport to only authorize enforcement suits against *the State* for patent law violations. Second, patent law does not purport to afford a detailed remedial scheme for enforcement suits that is narrower than *Ex parte Young* relief. Finally, the *Coeur d'Alene* submerged lands exception does not apply. A declaration of patent invalidity is not "the functional equivalent of a quiet title action which implicates special sovereignty interests" because the declaration provides the patent should not have been granted.

3. *Applying the Constitutional Sovereign Immunity Prong of the Ex parte Young Doctrine*

The constitutional sovereign immunity prong provides that the remedy sought against the state official is not barred by the Eleventh Amendment.²²⁴ Whether the remedy is not barred is a question answered by the straightforward inquiry that analyzes "whether the complaint alleges an ongoing violation of federal law and seeks relief properly characterized as prospective."²²⁵ Thus, the constitutional sovereign immunity prong has two requirements: the violation requirement and the prospective relief requirement. Yet, academics currently debate the role that "ongoing" serves in the straightforward inquiry.²²⁶ Moreover, the Federal Circuit, along with other circuits, also requires a connection between the state officer and the alleged violation of federal law.²²⁷

Today, the constitutional sovereign immunity prong is functionally justified as a necessary exception to sovereign immunity to enforce fed-

224. See Brubaker, *supra* note 108, at 493–98.

225. *Verizon Md. Inc., v. Pub. Serv. Comm'n*, 535 U.S. 635, 645 (2002).

226. See, e.g., Ralph Brubaker, *From Fictionalism to Functionalism in State Sovereign Immunity: The Bankruptcy Discharge as Statutory Ex parte Young Relief After Hood*, 13 AM. BANKR. INST. L. REV. 59, 100–19 (2005).

227. *Pennington Seed, Inc. v. Produce Exch. No. 299*, 457 F.3d 1334, 1342 (Fed. Cir. 2006) ("[*Ex parte Young*] cannot be applied to an action against any random state official."); Watwe, *supra* note 168, at 796–98.

eral law.²²⁸ Though the Court developed the prong through “an exercise in line-drawing,”²²⁹ the straightforward inquiry represents a careful balance between state and federal interests.²³⁰

Section 3 concludes that the constitutional sovereign immunity prong of *Ex parte Young* is satisfied for PhoneCo’s declaratory judgment action seeking a declaration of patent invalidity. First, Section 3.a analyzes whether patent invalidity is a violation of federal law. Next, Section 3.b analyzes whether a declaration of patent invalidity is prospective relief. Third, Section 3.c briefly discusses the “ongoing” debate and analyzes whether StateU is committing an *ongoing* violation of federal law. Finally, Section 3.d discusses the Federal Circuit’s connection requirement and analyzes whether a connection exists for at least one of the three TTO employees named in PhoneCo’s suit: the Director, the Technology Manager, and the Patent Agent.

a. StateU’s Invalid Patent Violates Federal Law

The *Pennhurst* Court articulated the violation requirement.²³¹ In *Pennhurst State School & Hospital v. Halderman*, the plaintiffs sought an injunction against state officials under *Ex parte Young* to improve conditions of a state mental institution.²³² The plaintiffs alleged, *inter alia*, that the mental institution conditions violated state law.²³³ The Court denied the plaintiffs injunctive relief because the suit did not allege a violation of federal law.²³⁴ The Court reached its holding by emphasizing the functional significance of the *Ex parte Young* doctrine—“to vindicate federal rights and hold state officials responsible to the supreme authority of the United States.”²³⁵ Accordingly, the Court reasoned that the *Ex parte Young* doctrine does not serve its purpose by providing relief against state officials for state law violations because there is no vindication of federal rights.²³⁶

Because remedies are given for violations of law, the *Ex parte Young* doctrine remedial prong inquiry—whether substantive law provides a remedy—usually also satisfies the violation requirement, so long

228. *Cent. Va. Cmty. Coll. v. Katz*, 546 U.S. 356, 378 n.14 (2006); Brubaker, *supra* note 108, at 489.

229. *Idaho v. Coeur d’Alene Tribe*, 521 U.S. 261, 280 (1997) (Kennedy, J., minority opinion).

230. *See, e.g., id.* at 305 (Ginsburg, J., dissenting); WRIGHT ET AL., *supra* note 131, § 4232.

231. *Pennhurst State Sch. & Hosp. v. Halderman*, 465 U.S. 89, 106 (1984).

232. *Id.* at 92.

233. *Id.*

234. *Id.* at 106.

235. *Id.* at 105 (internal quotation marks omitted). The *Pennhurst* functional justification of *Ex parte Young* doctrine makes it a “watershed Eleventh Amendment decision.” Brubaker, *supra* note 226, at 109 (quoting Carlos Manuel Vázquez, *Night and Day: Coeur d’Alene, Breard, and the Unraveling of the Prospective-Retrospective Distinction in Eleventh Amendment Doctrine*, 87 GEO. L.J. 1, 32 (1998)).

236. *Pennhurst State Sch. & Hosp.*, 465 U.S. at 106.

as the substantive law is federal law.²³⁷ Yet patent invalidity, on its face, is not a violation of federal law even though a declaration of invalidity is a remedy for patent invalidity provided by patent law.²³⁸ Indeed, a patent's existence "does not create a *right* to challenge its validity in court."²³⁹ Accordingly, a violation requirement analysis—distinct from the remedial prong analysis—is needed for a declaration of patent invalidity.

Patent invalidity is indeed a violation of federal law.²⁴⁰ This claim follows from Federal Circuit case law interpreting 35 U.S.C. § 296 before it was invalidated by the *Florida Prepaid* Court.²⁴¹ In *Genentech, Inc. v. Eli Lilly & Co.*, the plaintiffs filed a declaratory judgment action against the state university, who accused the plaintiffs of patent infringement, seeking, *inter alia*, a declaration of patent invalidity.²⁴² The *Genentech* court interpreted § 296 to permit the plaintiff's declaratory judgment action.²⁴³ Section 296 purported to abrogate state sovereign immunity "for infringement of a patent . . . or for any other violation under this title."²⁴⁴ The court made two observations. First, the court observed "a variety of [patent law] provisions" may be violated, including the statutory requirements for patentability.²⁴⁵ Second, the court emphasized claims of patent invalidity are actionable only after the patentee creates an actual controversy as to the validity of the patent.²⁴⁶ The state university created the actual controversy by accusing the plaintiff of patent infringement.²⁴⁷ Thus, the court held that § 296 permitted the state university "to be a defendant in a suit asserting [its] patent is in violation of the

237. "A remedy is anything a court can do for a litigant who has been wronged or is about to be wronged." DOUGLAS LAYCOCK, *MODERN AMERICAN REMEDIES* 1 (3d ed. 2002). Violation means "[a]n infraction or breach of the law; a transgression." BLACK'S LAW DICTIONARY 1705 (9th ed. 2009). For additional discussion, see Brubaker, *supra* note 108, at 483 (discussing the *Ex parte Young* remedial prong).

238. See 28 U.S.C. § 2201 (2006); 35 U.S.C. § 282 (2006); *Int'l Med. Prosthetics Research Assocs., Inc. v. Gore Enter. Holdings, Inc.*, 787 F.2d 572, 576 (Fed. Cir. 1986).

239. *Int'l Med. Prosthetics Research Assocs., Inc.*, 787 F.2d at 576 (emphasis added); see also *Prasco, LLC v. Medicis Pharm. Corp.*, 537 F.3d 1329, 1338 (Fed. Cir. 2008) ("*MedImmune* does not change our long-standing rule that the existence of a patent is not sufficient to establish declaratory judgment jurisdiction."). On the other hand, a patent's existence is enough to challenge its validity in an inter partes examination proceeding in the PTO. 35 U.S.C. §§ 311–318.

240. See *Genentech, Inc. v. Eli Lilly & Co.*, 998 F.2d 931, 943–44 (Fed. Cir. 1993) (holding that 35 U.S.C. § 296 abrogated state sovereign immunity as to declaratory judgment actions seeking a declaration of patent invalidity).

241. *Id.*

242. *Id.* at 935.

243. *Id.* at 944.

244. 35 U.S.C. § 296(a), *invalidated* by Fla. Prepaid Postsecondary Educ. Expense Bd. v. Coll. Sav. Bank, 527 U.S. 627, 648 (1998).

245. See *Genentech*, 998 F.2d at 942–43.

246. *Id.* at 943. An actual controversy refers to declaratory judgment jurisdiction. See *id.* (citing *Arrowhead Indus. Water, Inc. v. Ecolochem, Inc.*, 846 F.2d 731, 735–36 (Fed. Cir. 1988)). Thus, whether PhoneCo's claim of patent invalidity is actionable was already analyzed under the remedial prong. See *supra* Part III.C.2.a.

247. See *Genentech*, 998 F.2d at 943.

law.”²⁴⁸ Accordingly, the court necessarily interpreted patent invalidity is a “violation” of patent law.²⁴⁹

The *Genentech* court’s § 296 analysis informs the violation requirement analysis. Admittedly, as Part II.C explains, § 296 is no longer good law, but the statute was invalidated on grounds not related to the “violation” interpretation.²⁵⁰ Indeed, the *Genentech* court’s § 296 analysis shows that the Federal Circuit views patent invalidity as a violation of federal law. Thus, PhoneCo’s declaratory judgment action seeking a declaration that StateU’s patent is invalid alleges a violation of federal law. Indeed, PhoneCo needs to only allege that StateU’s patent violates at least one statutory patentability requirement to satisfy the violation requirement.²⁵¹

b. PhoneCo’s Requested Declaration of Patent Invalidity Is Permissible Prospective Relief

The *Edelman* Court articulated the prospective relief requirement.²⁵² This requirement does most of the work for the straightforward inquiry.²⁵³ In *Edelman v. Jordan*, the plaintiff sought declaratory and injunctive relief against defendant state officials under *Ex parte Young* alleging, *inter alia*, that the defendants administered a federally funded disability aid program in violation of federal regulations.²⁵⁴ Among the requested relief, the plaintiff sought an injunction requiring the defendants to award past benefits wrongfully withheld.²⁵⁵ The Court denied the injunction because it sought retrospective relief barred by the Eleventh Amendment.²⁵⁶ The Court observed that the relief awarded in *Ex parte Young* was prospective only: the *Young* defendant was required “to conform his future conduct . . . to the requirement of [federal law].”²⁵⁷ The Court emphasized that impermissible relief under *Ex parte Young* is payment of state funds as a form of retroactive compensation.²⁵⁸ Accordingly, the Court concluded that the plaintiff’s request for past disability benefits was impermissible relief under *Ex parte Young* and thus barred by the Eleventh Amendment.²⁵⁹

248. *Id.*

249. *See id.*

250. 35 U.S.C. § 296(a) (2006), *invalidated by* Fla. Prepaid Postsecondary Educ. Expense Bd. v. Coll. Sav. Bank, 527 U.S. 627, 648 (1999).

251. *See* 35 U.S.C. § 282 (referring to the statutory patentability requirements).

252. *Edelman v. Jordan*, 415 U.S. 651, 664 (1974).

253. *See* Brubaker, *supra* note 108, at 494–96.

254. *Edelman*, 415 U.S. at 653.

255. *Id.* at 656.

256. *Id.* at 678.

257. *Id.* at 664.

258. *Id.* at 668.

259. *Id.* at 678.

Importantly, the Court recognized that prospective relief that affects state revenue is not necessarily impermissible.²⁶⁰ For example, the Court observed that the *Young* defendant was enjoined from enforcing a state law that provided substantial monetary penalties for violation.²⁶¹ Thus, the permissible prospective relief in *Young* denied the state potential revenue.²⁶² Yet, the Court stated “an ancillary effect on the state treasury is a permissible and often an inevitable consequence of the principle announced in *Ex parte Young*”²⁶³

A declaration of patent invalidity is permissible prospective relief.²⁶⁴ By declaring a patent invalid, a court declares that the patent should not have been granted.²⁶⁵ Thus, the remedy provides only that a patent owner can *no longer* assert rights under the patent.

Here, PhoneCo’s requested declaration of patent invalidity would prospectively operate against StateU because the university could no longer assert rights under their patent.²⁶⁶ Further, the declaration of patent invalidity does not entitle PhoneCo to *any* damages from StateU, let alone a payment of state funds as a form of retroactive compensation.²⁶⁷

Nevertheless, the declaration of patent invalidity probably affects state revenue because the declaration likely cuts off StateU’s license revenue from the patent.²⁶⁸ Yet, cutting off licensing revenue is a permissible ancillary effect on the state treasury because the declaration only prevents the state from receiving potential revenue.²⁶⁹ First, the declaration cuts off new licensing revenue because third parties would be unwilling to license technology *protected* by an invalid patent.²⁷⁰ Similarly, the declaration cuts off ongoing licensing revenue because the declaration enables licensees to escape paying *future* royalties on the license.²⁷¹ On the other hand, the declaration does not enable licensees to seek restitution of past royalties absent unusual license provisions such as a warranty of patent validity.²⁷² For the foregoing reasons, a declaration of patent invalidity is permissible prospective relief.

260. *Id.* at 667.

261. *Id.*

262. *See id.*

263. *Id.* at 668; *see also* *Milliken v. Bradley*, 433 U.S. 267, 289 (1976) (upholding state school desegregation order and noting that federal courts may “enjoin state officials [under *Ex parte Young*] . . . notwithstanding a direct and substantial impact on the state treasury”).

264. *See Edelman*, 415 U.S. at 664, 667.

265. *See* 35 U.S.C. § 282 (2006); CHISUM, *supra* note 12.

266. *See* 35 U.S.C. §§ 154(a), 282.

267. *Id.* § 282.

268. *See* EINHORN & PARKER, *supra* note 39, §§ 2.02, 2.08.

269. *See Edelman*, 415 U.S. at 667.

270. *See* EINHORN & PARKER, *supra* note 39, §§ 2.02[3]–[4], 2.08.

271. *Id.* § 2.08 n.11, 12 and accompanying text.

272. *Id.* §§ 2.02[4], 2.08.

c. The “Ongoing” Debate Is Irrelevant When Applying the Constitutional Sovereign Immunity Prong to Declarations of Patent Invalidity

The *Ex parte Young* doctrine constitutional sovereign immunity prong is satisfied by the straightforward inquiry—“the complaint alleges an ongoing violation of federal law and seeks relief properly characterized as prospective.”²⁷³ Yet, the role “ongoing” serves in the straightforward inquiry is uncertain.²⁷⁴ The *Green* Court first used the term “ongoing” interchangeably with “continuing” merely to emphasize the difference between prospective and retrospective relief.²⁷⁵ But the Court repeatedly uses the “ongoing” language in later opinions without analysis.²⁷⁶ Moreover, the Federal Circuit recently used the “continuing” language in its formulation of the *Ex parte Young* doctrine.²⁷⁷

Viewing “ongoing” as a constitutional sovereign immunity prong requirement relies on a “regressive and muddled version of . . . *Ex parte Young*.”²⁷⁸ For example, the defendant in *Ex parte Young* was enjoined from a threatened future violation of federal law, not an ongoing or continuing violation.²⁷⁹ Thus, the ongoing and continuing language is best viewed as short hand for the legal conclusion that the *Ex parte Young* remedial prong is satisfied.²⁸⁰ Indeed, an “ongoing violation of federal law” entitles the plaintiff to a remedy under the implied cause of action because substantive law affords a remedy for an “ongoing violation.”²⁸¹ Importantly, some circuits do not view “ongoing” as a constitutional sovereign immunity prong requirement.²⁸²

Regardless of the role “ongoing” serves in the straightforward inquiry, declarations of patent invalidity satisfy the constitutional sovereign immunity prong. As a threshold matter, Section 2.a shows patent invalidity is a violation of federal law.²⁸³ Furthermore, even if “ongoing” is a requirement of the straightforward inquiry, then patent invalidity is also an “ongoing violation federal law.” This result follows from the remedial prong analysis. Under patent law, PhoneCo may *only* seek a declaration of patent invalidity against StateU when the TTO employees have created a controversy as to the validity of StateU’s

273. *Verizon Md. Inc., v. Pub. Serv. Comm’n*, 535 U.S. 635, 645 (2002).

274. Brubaker, *supra* note 108, at 560.

275. *See id.*; *see generally* *Green v. Mansour*, 474 U.S. 64 (1985).

276. Brubaker, *supra* note 108, at 560 (citing *Vázquez*, *supra* note 235, at 61).

277. *Pennington Seed, Inc. v. Produce Exch. No. 299*, 457 F.3d 1334, 1345 (Fed. Cir. 2006) (“[C]ontinuing prospective violations of a federal patent right by state officials may be enjoined by federal courts under the *Ex parte Young* doctrine . . .” (emphasis added)).

278. Brubaker, *supra* note 226, at 100.

279. *See* Brubaker, *supra* note 108, at 560–61.

280. Brubaker, *supra* note 226, at 106.

281. *See supra* notes 149–51 and accompanying text.

282. *See Waste Mgmt. Holdings, Inc. v. Gilmore*, 252 F.3d 316, 329–30 (4th Cir. 2001); *Summit Med. Assocs., P.C. v. Pryor*, 180 F.3d 1326, 1338 (11th Cir. 1999).

283. *See supra* notes 240–49 and accompanying text.

patent.²⁸⁴ Accordingly, the controversy satisfies the “ongoing” requirement because a declaration of patent invalidity is not available for threatened future patent invalidity.²⁸⁵ For example, PhoneCo could not obtain a declaration of patent invalidity in response to the Technology Manager’s invitation to license a patent application. Indeed, even if the TTO employees create a controversy as to the validity of their patent before it issues, a court cannot declare a patent invalid until it issues.²⁸⁶ Importantly, this reasoning supports the view that the ongoing and continuing language is short hand for the legal conclusion that the remedial prong is satisfied. In sum, the *Ex parte Young* doctrine is available for declarations of invalidity regardless of the role “ongoing” plays in the straightforward inquiry.

d. PhoneCo May Allege a Connection Between Patent Invalidity and at Least One Technology Transfer Office Employee

The straightforward inquiry contains no connection requirement.²⁸⁷ Yet, the *Ex parte Young* Court observed that the state officer “must have *some connection* with the enforcement of the act, or else it is merely making him a party as a representative of the State.”²⁸⁸ Over 100 years later, the Supreme Court has yet to articulate the kind of connection needed for the *Ex parte Young* doctrine.²⁸⁹

Nevertheless, the Federal Circuit, along with other circuits, has grafted its own connection requirement on to the *Ex parte Young* constitutional sovereign immunity prong.²⁹⁰ The *Pennington Seed* court, a 2-1 Federal Circuit panel, described the connection requirement as “a nexus between the violation of federal law and the individual accused of violating that law.”²⁹¹ In *Pennington Seed*, the plaintiff sought an injunction against defendant state officials under *Ex parte Young* for patent infringement.²⁹² The defendants were specifically state university employees: the Chairman of the Board, President, and a professor.²⁹³ The plaintiff alleged that the defendants marketed the patented product and also argued that the defendants were liable for patent infringement be-

284. See *supra* notes 240–49 and accompanying text.

285. See 35 U.S.C. § 131 (2006); *id.* § 282.

286. See 35 U.S.C. § 131; *id.* § 282 (providing for declaring a *patent* invalid, not a *patent application*).

287. *Verizon Md. Inc., v. Pub. Serv. Comm’n*, 535 U.S. 635, 645 (2002).

288. *Ex parte Young*, 209 U.S. 123, 157 (1908) (emphasis added).

289. *Watwe*, *supra* note 168, at 796.

290. See *Pennington Seed, Inc. v. Produce Exch. No. 299*, 457 F.3d 1334, 1342–44 (Fed. Cir. 2006) (“[*Ex parte Young*] cannot be applied to an action against any random state official.”); *Watwe*, *supra* note 168, at 796–98.

291. *Pennington Seed*, 457 F.3d at 1342. In a concurring opinion, Judge Schall only affirmed the dismissal on abrogation and personal jurisdiction grounds. *Id.* at 1345 (Schall, J., concurring). Thus, Judge Schall’s reasoning did not reach the *Ex parte Young* doctrine. *Id.* Accordingly, Judge Schall did not join Part II B2 of the court’s opinion that discussed the connection requirement. *Id.*

292. *Id.* at 1337 (majority opinion).

293. *Id.*

cause they supervised the university's intellectual property activity.²⁹⁴ Yet, the *Pennington Seed* court denied the plaintiff's injunction because the connection requirement was not satisfied.²⁹⁵ The court stated that the connection requirement is met when plaintiffs allege an actual violation of federal law by the state official.²⁹⁶

The *Pennington Seed* court's connection requirement may merely be careful policing of the violation requirement. For example, the court emphasized that "[a]llegations that a state official directs a University's patent policy are insufficient to causally connect that state official to a violation of federal patent law" because overseeing patent policy is merely the state official's state-law obligation.²⁹⁷ Indeed, the violation requirement—as articulated in *Pennhurst*—ensures that the constitutional sovereign immunity prong extends only to violations of federal law, and not state law.²⁹⁸

Interestingly, the connection requirement is ambiguous at the Federal Circuit.²⁹⁹ The *Vas-Cath* court, a Federal Circuit panel convened about five months after the *Pennington Seed* court, applied only the "some connection" language in *Ex parte Young* to its case.³⁰⁰ Because the *Vas-Cath* plaintiff alleged no connection, the *Vas-Cath* court could safely apply the "some connection" language without expressly conflicting with the *Pennington Seed* connection requirement.³⁰¹ Indeed, prior decisions of one Federal Circuit panel bind all later panels unless the panel decision is overturned by the Federal Circuit en banc.³⁰²

Regardless of the ambiguity of the connection requirement, Phone-Co may allege a causal connection between patent invalidity and at least one TTO employee to satisfy the connection requirement.

First, the Technology Manager's *act* of sending a license invitation to the company may be enough to satisfy the connection requirement. Admittedly, the act, on its face, is not an actual violation of federal law. But because the invitation asserts rights under the patent, the act is enough to create a controversy as to the validity of StateU's patent to establish declaratory judgment jurisdiction under the remedial prong.³⁰³ Thus, the Technology Manager's act has a causal connection with the controversy. This connection is probably enough to satisfy the *Vas-Cath* court's "some connection" requirement. On the other hand, the *Pennington Seed* connection requirement—an actual violation of federal law

294. *Id.* at 1342.

295. *Id.*

296. *Id.*

297. *Id.* at 1343–44.

298. *Pennhurst State Sch. & Hosp. v. Halderman*, 465 U.S. 89, 106 (1984).

299. *Compare Vas-Cath, Inc. v. Curators of Univ. of Mo.*, 473 F.3d 1376, 1384–85 (Fed. Cir. 2007), with *Pennington Seed*, 457 F.3d at 1345.

300. *Vas-Cath, Inc.*, 473 F.3d at 1384–85.

301. *Id.*

302. *Newell Cos., Inc. v. Kenney Mfg. Co.*, 864 F.2d 757, 765 (Fed. Cir. 1988).

303. *See Prasco, LLC v. Medicis Pharm. Corp.*, 537 F.3d 1329, 1338 (Fed. Cir. 2008).

by that official—is more difficult to satisfy. Yet, because the *Genentech* court necessarily interpreted “violation” under § 296 to include declaratory judgment actions, a causal connection with the controversy may be enough to be an actual violation of federal law by that official.³⁰⁴

Second, the Patent Agent’s *act* of working on the patent application with outside counsel is probably not enough to satisfy the connection requirement. Even if the act is tenuously connected with the controversy as to the validity of the patent, the act does not assert rights under the patent. Thus, the act could not establish declaratory judgment jurisdiction under the remedial prong. Accordingly, the act probably does not satisfy the *Vas-Cath* court’s “some connection” requirement. More importantly, the Patent Agent’s act does not satisfy the *Pennington Seed* connection requirement because it is not an actual violation of federal law.

Finally, the Director has no act to satisfy the connection requirement. The Director’s supervisory responsibilities are a general, state-law obligation, which the *Pennington Seed* court emphasized was not enough to satisfy the connection requirement in view of *Pennhurst*.

Because PhoneCo may allege a connection between patent invalidity and one TTO employee—the Technology Manager—PhoneCo satisfies the connection requirement.

e. Section 3 Summary

Section 3 applied the constitutional sovereign immunity prong of the *Ex parte Young* doctrine. First, StateU’s invalid patent violates federal law. This claim follows from the *Genentech* court necessarily interpreting patent invalidity as a “violation” of patent law within the meaning § 296 to reach its conclusion that a declaratory judgment action against a state university was permissible under § 296. Second, PhoneCo’s declaration of patent invalidity is prospective relief. The declaration merely provides that a patent owner can *no longer* assert rights under the patent. Also, the declaration merely has an ancillary effect on the state treasury because the declaration would only cut off potential license revenue. Thus, PhoneCo seeks permissible prospective relief. Third, even if “ongoing” is a requirement of the straightforward inquiry, then patent invalidity is also an “ongoing violation of federal law.” A controversy as to the validity of the patent created by the patent owner is always needed for a declaration of patent invalidity under the remedial prong; thus, a declaration is never available for threatened future patent invalidity. Finally, PhoneCo may allege a connection between patent invalidity and the Technology Manager to satisfy the Federal Circuit’s connection requirement. The Technology Manager’s act of sending a li-

304. See *Genentech, Inc. v. Eli Lilly & Co.*, 998 F.2d 931, 943–44 (Fed. Cir. 1993); see also *supra* Part III.C.1.

cense invitation to PhoneCo is enough to create a controversy as to the validity of the patent: thus, there is a causal connection between the Technology Manager and the controversy. Because the *Genentech* court necessarily interpreted “violation” under § 296 to include declaratory judgment actions, the Technology Manager’s causal connection with the controversy is enough to satisfy the connection requirement.

D. Applying a First Principles View of Ex parte Young

Applying a first principles view of the *Ex parte Young* doctrine to declarations of invalidity is instructive to the door ajar. Even though the first principles view limits the *Ex parte Young* doctrine where modern case law does not, a declaration of patent invalidity is justified by the first principles view.³⁰⁵

The first principles view, which is grounded in historical practice before *Ex parte Young*, rejects the implied federal cause of action in favor of the anti-suit injunction.³⁰⁶ As an ancient equity tool, the anti-suit injunction “restrain[s] proceedings at law . . . [One] who would be [a] defendant in a corresponding lawsuit can enforce in equity a legal position that would be a defense at law.”³⁰⁷ In *Young*, the circuit court for the District of Minnesota enjoined the defendant from initiating a criminal proceeding in Minnesota state court.³⁰⁸

The influence of the anti-suit injunction lives on in the federal courts. For example, federal courts continue to enjoin parties from proceeding in other courts including state courts subject to the Anti-Injunction Act, which prohibits federal courts from enjoining *ongoing* state court proceedings.³⁰⁹ More importantly, the anti-suit injunction was the forerunner of declaratory judgments.³¹⁰ Indeed, declaratory judg-

305. See Harrison, *supra* note 135, at 1019–21. On the other hand, applying the *Ex parte Young* doctrine to patent infringement is not justified by the first principles view because patent infringement is not a defense at law. 35 U.S.C. § 271 (2006); see Harrison, *supra* note 135, at 1019–21; cf. LAYCOCK, *supra* note 237, at 525 (citing *In re Lockwood*, 50 F.3d 986, 973–74, 979 (Fed. Cir. 1995), *vacated on other grounds*, 575 U.S. 1182 (1995)) (noting that “there is no record” of an alleged infringer seeking an anti-suit injunction against a patentee).

306. Harrison, *supra* note 135, at 990 (“There is no exception, no fiction, no new cause of action, and no paradox, and all for the same reason.”); cf. Sina Kian, *Pleading Sovereign Immunity: The Doctrinal Underpinnings of Hans v. Louisiana and Ex parte Young*, 61 STAN L. REV. 1233, 1235 (2009) (arguing that Harrison “is right, but for the wrong reasons”).

307. Harrison, *supra* note 135, at 990, 1002–08; see also BORCHARD, *supra* note 17, at 3–5 (origin of declaratory judgment actions).

308. *Ex parte Young*, 209 U.S. 123, 132 (1908).

309. All Writs Act, 28 U.S.C. § 1651 (2006); Anti-Injunction Act, *id.* § 2283; see, e.g., *Standard Microsystems Corp. v. Tex. Instruments Inc.*, 916 F.2d 58, 59–62 (2d Cir. 1990) (reviewing injunction enjoining parties from proceeding in Texas state court). Indeed, the *Ex parte Young* Court emphasized that an anti-suit injunction only enjoins individuals and does not affect a court itself. See *Ex parte Young*, 209 U.S. at 163.

310. Harrison, *supra* note 135, at 999–1000.

ments preserve the function of the anti-suit injunction without requiring all of the equitable factors for injunctions, such as irreparable injury.³¹¹

The first principles view claims that anti-suit injunctions do not implicate state sovereign immunity.³¹² Because the party seeking an anti-suit injunction is asserting a defense at law—rather than an affirmative claim against the state—a court may issue the anti-suit injunction without offending state sovereign immunity.³¹³

The first principles view concludes that the injunction issued against the defendant in *Young* was an anti-suit injunction that did not implicate state sovereign immunity.³¹⁴ Indeed, the anti-suit injunction in *Young* merely provided negative relief—rather than an affirmative demand for damages or specific performance—so the injunction’s effect was to treat an unconstitutional state law as invalid.³¹⁵

PhoneCo’s declaratory judgment action seeking a declaration of patent invalidity is justified by the first principles view because the declaration resembles an anti-suit injunction. This result is not surprising given that the anti-suit injunction is the forerunner to declaratory judgments. First, patent invalidity is a defense at law to patent infringement.³¹⁶ Moreover, like the anti-suit injunction in *Young*, PhoneCo’s declaration of patent invalidity merely provides negative relief against StateU—the declaration’s effect is to treat a patent that violates patent law as invalid.³¹⁷ Yet, PhoneCo’s declaratory judgment action might not satisfy all of the equitable factors for injunctions. For instance, irreparable injury may not be satisfied. On the one hand, the Technology Manager’s invitation is enough to establish a “controversy . . . based on a real and immediate injury or threat of future injury that is caused by the defendants” to satisfy declaratory judgment jurisdiction.³¹⁸ Nevertheless, a “real and immediate injury” may be less than an irreparable injury.

In sum, applying a first principles view of the *Ex parte Young* doctrine to declarations of invalidity is instructive because a declaration of patent invalidity is justified by the first principles view. The first principles view rejects the implied cause of action for the anti-suit injunction. Moreover, the first principles view concludes that anti-suit injunctions do not implicate state sovereign immunity. A declaration of patent invalidity resembles an anti-suit injunction because it is a declaratory judgment that asserts invalidity, which is a defense at law. Yet, the Technology

311. *Id.* The Supreme Court has observed that a declaratory judgment “is a much milder form of relief than an injunction.” *Steffel v. Thompson*, 415 U.S. 452, 471 (1974).

312. *See* Harrison, *supra* note 135, at 999–1000.

313. *See id.* at 1000.

314. *Id.* at 1002–08.

315. *Id.* at 1004–05.

316. 35 U.S.C. § 282 (2006).

317. *See id.*; CHISUM, *supra* note 12.

318. *See* Prasco, LLC v. Medicis Pharm. Corp., 537 F.3d 1329, 1339 (Fed. Cir. 2008) (emphasis omitted).

Manger's invitation may not be enough to establish all of the equitable factors for injunctions, such as irreparable injury.

E. The Nature of the Parties May Explain the Door Ajar

This Part shows there are no doctrinal hurdles to applying the *Ex parte Young* doctrine to declarations of patent invalidity. Therefore, the doctrinal analysis begs the question—why has the *Ex parte Young* doctrine not yet been applied to declarations of patent invalidity? This Section answers the question by showing that PhoneCo's cost-to-benefit calculus of whether to seek a declaration of patent invalidity against StateU includes more than weighing the cost to license the texting software patent versus the cost and certainty of obtaining a declaration of invalidity. Indeed, as a general matter, the natures of the parties, i.e., universities and industry, as repeat players in the market for innovation does not incentivize industry players to bring declaratory judgment actions seeking declarations of patent invalidity against universities. Accordingly, parties rarely ask courts to apply the *Ex parte Young* doctrine to declarations of patent invalidity.

Section 1 provides background empirical information on parties in patent litigation. Then Section 2 explains that universities probably do not litigate patent disputes because university technology transfer is a high volume business. Next, Section 3 argues that industry players are not generally incentivized to bring declaratory judgment actions seeking declarations of invalidity against universities because universities and industry are repeat players in the market for innovation. Finally, Section 4 explains why the door ajar might still be opened despite industry players' generalized incentives.

1. Small Firms Litigate but Universities Do Not Litigate

Parties choose whether to settle or litigate a dispute to a judgment based on “their ability to overcome transaction costs, their degree of risk aversion, [and] their relative ability to bargain for a settlement.”³¹⁹ In the patent law context, empirics show that small firms, i.e., businesses with less than \$10 million in annual sales, often choose to litigate.³²⁰ Indeed, small firms made up over fifty percent of all plaintiffs in one commentator's data set.³²¹ Interestingly, about twenty percent of these small firms sued large firms with more than \$500 million in annual sales.³²² Thus, this

319. Gwendolyn G. Ball & Jay P. Kesan, *Transaction Costs and Trolls: Strategic Behavior by Individual Inventors, Small Firms and Entrepreneurs in Patent Litigation* 4 (Ill. Law & Econ. Paper Series, Research Papers No. LE09-005, 2009), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1337166.

320. *Id.* at 2, 13–14, 25.

321. *Id.* at 2, 14.

322. *Id.* at 2, 17.

data suggests that small firms tend to overcome patent litigation transaction costs.³²³

On the other hand, universities rarely choose to litigate patent disputes.³²⁴ Universities made up less than two percent of all plaintiffs in the commentator's data set.³²⁵ Further still, in about eighty percent of the small subset of cases in which a university was a plaintiff, it appears to have been joined as a co-plaintiff in litigation initiated by a business.³²⁶ Recall that patentee-licensors usually must be joined in licensees' patent litigation because the patentee-licensor is the real party in interest in the dispute.³²⁷ Thus, this data suggests that universities rarely choose to litigate patent disputes.³²⁸ Because small firms tend to overcome patent litigation transaction costs, there probably is another explanation why universities rarely litigate patent disputes.

2. *University Technology Transfer Is a High Volume Business with Repeat Players*

Universities may rarely litigate patent disputes because university technology transfer is a high volume business with repeat players. For purposes of this Section, university technology transfer includes both patent licensing and research grants.

University patent licensing is a high volume business with repeat players. For example, universities received 3622 patents in 2007.³²⁹ Considering there is probably a time lag between when a patent issues and when a patent is licensed, universities executed 4419 "licenses and options" in 2007.³³⁰ Industry players often execute these agreements with universities with the goal of creating long-term strategic partnerships.³³¹

Similarly, university research grants are a high volume business with repeat players. Since 1998, industry research grants to universities have been increasing.³³² For example, universities received \$2.09 billion in research grants from industry in 1998.³³³ By 2007, the annual industry research grant total grew to \$3.42 billion.³³⁴ Like patent licenses, research

323. *Id.* at 2, 22–23.

324. *Id.* at 14, 31 tbl.2.

325. *See id.* at 29 tbl.1.b, 30 tbl.1.c, 31 tbl.2 (sixty-five university plaintiffs divided by 5386 cases).

326. *Id.* at 14.

327. *See supra* note 24.

328. Ball & Kesan, *supra* note 319, at 14.

329. ASS'N UNIV. TECH. MANAGERS, *supra* note 22, at 32 tbl.US-7.

330. *Id.* at 35 tbl.US-8.

331. Hertzfeld et al., *supra* note 92, at 835, 837; ASS'N UNIV. TECH. MANAGERS, *supra* note 22, at 35 tbl.US-8 (noting that the breakdown of the agreements is 17.8 percent start-ups, 50 percent small companies, and 32.2 percent large companies). Unfortunately, the criteria that distinguishes "small companies" from "large companies" are undefined. *Id.*

332. ASS'N UNIV. TECH. MANAGERS, *supra* note 22, at 21 tbl.US-3.

333. *Id.*

334. *Id.*

grants also often align with the industry player's goal of creating long-term strategic partnerships.³³⁵

Data in both university patent licensing and university research grants calls to mind one adage that explains why universities rarely litigate their patent disputes—do not bite the hand that feeds you. Because universities have so many patents to license and universities repeatedly license their patents to industry players, universities are incentivized to settle patent disputes out of court. Indeed, a university litigating a dispute over any one patent threatens both future patent licenses and industry research grants. Thus, even though universities probably forgo higher royalty payments on any one patent license, universities make up that loss by executing more patent licenses and receiving more industry research grants.

3. *Industry Players Are Not Generally Incentivized to Seek Declarations of Patent Invalidity Against Universities*

Because universities avoid biting the hand that feeds them, industry players are not, as a general matter, incentivized to sue universities in the patent law context. Indeed, universities made up less than one percent of all defendants in one commentator's data set.³³⁶ Accordingly, industry players are not generally incentivized to bring declaratory judgment actions seeking a declaration of invalidity—a subset of patent litigation—against universities.³³⁷

Returning to this Note's hypothetical, even though PhoneCo does not believe it needs StateU's texting software to sell its current or future phones, PhoneCo may find the *nuclear option* RSVP to StateU's invitation—a declaratory judgment action seeking a declaration of invalidity—is not cost justified. Rather, PhoneCo may settle the patent dispute with StateU out of court. Further still, PhoneCo might even ignore StateU's invitation entirely because PhoneCo knows that universities rarely litigate patent disputes.

4. *The Door Might Still Be Opened*

Section E shows that industry players are not generally incentivized to seek declarations of patent invalidity against universities because of the nature of the parties as repeat players in the market for innovation. Accordingly, as a practical matter, the door may remain ajar because industry players rarely ask courts to apply the *Ex parte Young* doctrine to declarations of invalidity. Yet, the empirics presented in Section E do not preclude the likelihood that some state patents may be so valuable

335. See Hertzfeld et al., *supra* note 92, at 837.

336. See Ball & Kesan, *supra* note 319, at 29 tbl.1.b, 30 tbl.1.c, 31 tbl.2 (fourteen university defendants divided by 5386 cases).

337. See *supra* Part II.A.

that industry players will choose to litigate. These valuable patents may well be building block patents—patents which cover basic ideas of an entire field. For example, one commentator has suggested that “[n]anotechnology patents bear watching” because universities have acquired building block patents in this field.³³⁸ Moreover, *Post-MedImmune*, declaratory judgment jurisdiction is no longer a significant obstacle to prevent industry players from litigating.³³⁹ Thus, the doctrinal analysis in this Part shows that the *Ex parte Young* doctrine stands ready to connect declarations of patent invalidity and state patents when companies like PhoneCo choose to litigate.

IV. RESOLUTION AND RECOMMENDATION

“The principles of federalism are not designed for tactical advantage”³⁴⁰ Indeed, the *Ex parte Young* doctrine precludes tactical advantages derived from state sovereign immunity that conflict with supreme federal law. In the market for innovation, state universities have such a tactical advantage—licensing with immunity.³⁴¹ Because state universities, as arms of the state, retain sovereign immunity to declaratory judgment actions seeking a declaration of patent invalidity, state universities may seek excessively broad patents from the PTO.

Even though the Federal Circuit has yet to apply the *Ex parte Young* doctrine to declarations of patent invalidity,³⁴² Federal Circuit panels and judges have described elements of the doctrine differently. For example, panels have described the connection requirement

338. Lemley, *supra* note 100, at 630.

339. Indeed, because the data analyzed in this Section occurred before *MedImmune, Inc. v. Genentech, Inc.*, the data probably only represents a floor for the ultimate trajectory of patent litigation in the market for innovation. Ball & Kesan, *supra* note 319, at 29 tbl.1.b, 30 tbl.1.c (presenting data collected from patent cases filed in 2000 and 2002). Further, *MedImmune* and its progeny may even enable parties other than industry players to open the door. See *Ass’n of Molecular Pathology v. USPTO*, No. 09-Civ.-4515, 2009 WL 3614434, at *25 (S.D.N.Y. Nov. 2, 2009).

340. *Vas-Cath, Inc. v. Curators of Univ. of Mo.*, 473 F.3d 1376, 1383 (Fed. Cir. 2007).

341. See Posting of Dennis Crouch to Patently-O, *California’s One-Sided Patent Regime: Litigating with Immunity*, <http://www.patentlyo.com/patent/2008/12/californias-one.html> (Dec. 3, 2008, 11:42 EST) (describing the tactical advantages of state universities with regard to litigating with immunity).

342. *Vas-Cath, Inc.*, 473 F.3d at 1384–85; *Pennington Seed, Inc. v. Produce Exch. No. 299*, 457 F.3d 1334, 1341–43 (Fed. Cir. 2006) (dismissing patent infringement claim under *Ex parte Young* against University of Arkansas officials because “[a]llegations that a state official directs a University’s patent policy are insufficient to causally connect that state official to . . . patent infringement”); *Xechem Int’l, Inc. v. Univ. of Tex. M.D. Anderson Cancer Ctr.*, 382 F.3d 1324, 1334–35 (Fed. Cir. 2004) (Newman, J., additional views) (reviewing *Ex parte Young* doctrine to keep the “door ajar,” but expressing no view on the applicability of the doctrine to a claim of incorrect inventorship); *Genentech, Inc. v. Regents of the Univ. of Cal.*, 143 F.3d 1446, 1455 (Fed. Cir. 1999), *vacated on other grounds*, 527 U.S. 1031 (1999) (“*Ex parte Young* presents novel questions of applicability to an action requesting declaration of patent invalidity and noninfringement.”); *Coll. Sav. Bank v. Fla. Prepaid Postsecondary Educ. Expense Bd.*, 148 F.3d 1343, 1354 (Fed. Cir. 1998), *vacated on other grounds*, 527 U.S. 666 (1999); *Gen-entech, Inc. v. Eli Lilly & Co.*, 998 F.2d 931, 943–44 (Fed. Cir. 1993). *But see Pennington Seed, Inc.*, 457 F.3d at 1345 (Schall, J., concurring) (affirming the judgment of the district court without joining the majority’s application of *Ex parte Young* doctrine).

differently.³⁴³ The *Pennington Seed* court described the connection requirement as a “nexus between the violation of federal law and the individual accused of violating that law,”³⁴⁴ whereas the *Vas-Cath* court merely described the connection requirement as “some connection with the enforcement of the act.”³⁴⁵ Further still, judges have described the violation requirement differently.³⁴⁶ Judge Gajarsa and Judge Rader described the violation requirement as “continuing prospective violations of a federal patent right,”³⁴⁷ whereas Judge Newman described the violation requirement as merely “an ongoing violation of federal law.”³⁴⁸ The different descriptions of the *Ex parte Young* doctrinal elements show that the same case before different panels may produce different results.

Because Federal Circuit panel decisions bind subsequent panels, when a case squarely presents the opportunity, the Federal Circuit en banc should conduct a detailed analysis of the applicability of the *Ex parte Young* doctrine to declaratory judgment actions seeking state patent invalidity. The court should conclude that the *Ex parte Young* doctrine is available for declarations of state patent invalidity for two reasons. First, as Section A explains, applying the *Ex parte Young* doctrine to declarations of invalidity is doctrinally sound. Second, as Section B shows, applying the *Ex parte Young* doctrine to declarations of invalidity is justified as a matter of policy.

A. Applying the *Ex parte Young* Doctrine Is Doctrinally Sound

The Federal Circuit en banc should conclude that the *Ex parte Young* doctrine is available for declarations of state patent invalidity because applying the doctrine here is doctrinally sound. By unpacking and applying the *Ex parte Young* doctrine element by element, this Note shows that there are no “novel questions of applicability to . . . declaration[s] of patent invalidity”³⁴⁹ because the application is consistent with the Supreme Court’s *Ex parte Young* jurisprudence. Indeed, Part III shows that the remedial prong is satisfied under patent law, and the implied cause of action should not be set aside by either the *Seminole Tribe* detailed remedial scheme exception or the *Coeur d’Alene*

343. Compare *Vas-Cath, Inc.*, 473 F.3d at 1384–85, with *Pennington Seed, Inc.*, 457 F.3d at 1342.

344. *Pennington Seed, Inc.*, 457 F.3d at 1342.

345. *Vas-Cath, Inc.*, 473 F.3d at 1384 (internal quotation marks omitted) (quoting *Ex parte Young*, 209 U.S. 123, 157 (1908)).

346. Compare *Pennington Seed, Inc.*, 457 F.3d at 1341, with *Xechem Int’l, Inc.*, 382 F.3d at 1334–35 (Newman, J., additional views).

347. *Pennington Seed, Inc.*, 457 F.3d at 1341. In a concurring opinion, Judge Schall only affirmed the dismissal on abrogation and personal jurisdiction grounds. *Id.* at 1345 (Schall, J., concurring). Thus, Judge Schall’s reasoning did not reach the *Ex parte Young* doctrine. *Id.* Accordingly, Judge Schall did not join Part II B2 of the court’s opinion, which discussed the connection requirement. *Id.*

348. *Xechem Int’l, Inc.*, 382 F.3d at 1334–35 (Newman, J., additional views) (internal quotation marks omitted) (quoting *Verizon Md. Inc., v. Pub. Serv. Comm’n*, 535 U.S. 635, 645 (2002)).

349. *Genentech, Inc. v. Regents of the Univ. of Cal.*, 143 F.3d 1446, 1455 (Fed. Cir. 1999), vacated on other grounds, 527 U.S. 1031 (1999).

submerged lands exception. Part III also shows all elements of the constitutional sovereign immunity prong are satisfied.

B. Applying the Ex parte Young Doctrine Is Justified by Policy

The Federal Circuit en banc should conclude that the *Ex parte Young* doctrine is available for declarations of state patent invalidity because applying the doctrine here is justified by policy for four reasons.

First, applying the *Ex parte Young* doctrine to declarations of state patent invalidity is justified because the doctrine serves its purpose by providing relief against state officials for patent invalidity.³⁵⁰ The *Pennhurst* Court announced the purpose of the *Ex parte Young* doctrine—“vindicate federal rights and hold state officials responsible to the supreme authority of the United States.”³⁵¹ “Vindicate” means, among other things, confirm, substantiate, or justify.³⁵² Accordingly, when a court declares a patent (in)valid, the court *vindicates* the federal patent right to exclude others from making, using, or selling the patented invention by confirming (or denying) the right exists.³⁵³

Second, applying the *Ex parte Young* doctrine to declarations of state patent invalidity is justified because it deters states from seeking excessively broad patents. The *Ex parte Young* doctrine, like other federal offensive remedies, deters states from violating the supreme federal law. Here, the deterrence argument runs in two steps. First, states spend money to acquire patents on their technologies. Yet states *waste* money obtaining patents from the PTO that are later declared invalid by a court because the declaration of invalidity provides that the state can no longer assert rights under the patent. Because states have limited money, states want to avoid wasting money. Next, states seeking (and receiving) excessively broad patents from the PTO increases the chance of two outcomes—declaratory judgment actions are more likely to be brought against excessively broad patents and courts are more likely to declare excessively broad patents invalid. Accordingly, states are deterred from seeking excessively broad patents because states, all things being equal, want to avoid wasting money on defending more declaratory judgment actions and wasting money on more patents that are later declared invalid by a court.

Third, applying the *Ex parte Young* doctrine to declarations of state patent invalidity is justified by “the strong federal policy favoring the full and free use of ideas in the public domain.”³⁵⁴ Because private citizens

350. See *Pennhurst State Sch. & Hosp. v. Halderman*, 465 U.S. 89, 105–06 (1984).

351. *Id.* (internal quotations omitted).

352. MERRIAM WEBSTER’S COLLEGIATE DICTIONARY 1361 (10th ed. 1993).

353. 35 U.S.C. § 154(a) (2006). To be more precise, courts either declare a patent invalid or hold that “the party challenging validity failed to carry his burden under § 282.” *Fromson v. Advance Off-set Plate, Inc.*, 755 F.2d 1549, 1555 n.1 (Fed. Cir. 1985) (internal quotation marks omitted).

354. See *Lear, Inc. v. Adkins*, 395 U.S. 653, 674 (1969); *LaVanaway*, *supra* note 18, at 1973.

may use *Ex parte Young* to challenge weak state patents through declaratory judgment actions, the number of active, invalid patents should decrease. Accordingly, declarations of invalidity for state patents ensure robust access to the public domain. Not only do declarations of invalidity remove the cloud of weak state patents, but declarations of invalidity also provide a quality check for state building block patents in nascent fields like nanotechnology.

Indeed, the Supreme Court recently favored the strong policy in *MedImmune, Inc. v. Genentech, Inc.* when the Court lowered the threshold for declaratory judgment jurisdiction for a controversy between two companies.³⁵⁵ States engaged in the market for innovation should be treated no differently than private parties. The state does not act like a sovereign when it invites a company like PhoneCo to take a license to its patented texting software.³⁵⁶ Rather, the state resembles a company like TextCo when the state chooses to act as proprietor by sending patent license invitations. Accordingly, applying the *Ex parte Young* doctrine to declarations of invalidity would ensure parity in the market for innovation.

Finally, applying the *Ex parte Young* doctrine to declarations of state patent invalidity is justified by counterintuitively promoting state patent licensing. Subjecting states to declaratory judgment actions seeking declarations of patent invalidity intuitively appears to hinder state patent licensing because states would lose their ability to license patents declared invalid by the courts. However, declaratory judgment actions add certainty to the market for innovation. Indeed, what does not kill a patent makes it stronger.

A patent surviving a declaratory judgment action increases the chance of two outcomes. First, industry players who are not parties to the suit are more likely to take a license to the patent because the patentability of the invention is more certain. Indeed, all things being equal, industry players are more likely to invest in bringing a product to market that embodies a clearer patent. Second, the losing declaratory judgment plaintiff is virtually certain to take a license to the patent—there is nowhere to run after the patent survives the suit. Thus, applying the *Ex parte Young* doctrine to declarations of invalidity counterintuitively promotes state patent licensing by adding certainty to the market for innovation.

V. CONCLUSION

Sovereign immunity is not an absolute boundary that separates declarations of patent invalidity, a significant remedy available for most pat-

355. *MedImmune, Inc. v. Genentech, Inc.*, 549 U.S. 118, 145 (2007) (Thomas, J., dissenting).

356. *Cf. Coll. Sav. Bank v. Fla. Prepaid Postsecondary Educ. Expense Bd.*, 527 U.S. 666, 692 (1999) (Stevens, J., dissenting) (“Sovereigns did not then play the kind of role in the commercial marketplace that they do today.”).

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ents, and state patents. To be sure, the *Ex parte Young* doctrine stands ready to connect the two. Even though both the Supreme Court and the Federal Circuit have left the door ajar, applying the *Ex parte Young* doctrine to declarations of patent invalidity is both consistent with Supreme Court jurisprudence and justified by policy. Indeed, applying the doctrine here vindicates the federal patent right to exclude, deters states from seeking excessively broad patents, ensures robust access to the public domain, and counterintuitively promotes state patent licensing. Thus, the door open “establish[es] fair relationships and just recourse.”³⁵⁷

357. *Xechem Int'l, Inc. v. Univ. of Tex. M.D. Anderson Cancer Ctr.*, 382 F.3d 1324, 1335 (Fed. Cir. 2004) (Newman, J., additional views).

