

# How the *Xechem* Decision May Insulate State Universities From Correction of Inventorship Suits

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## INTRODUCTION

Imagine a situation where you and a classmate decide to collaborate on a course paper. You both spend hours researching the paper's topic and each contribute your own ideas to the final product. When your fellow classmate turns in the course paper, however, he fails to include your name and instead claims the entire paper as his own. Naturally you would request that the professor add your name to the course paper so that you may receive proper credit for your work. But what if this classmate received special privileges that allowed him to prevent you from adding your name; but at the same time, had the situation been reversed, he would have been able to add his own name? This situation seems unfair, right?

The circumstance just described is a simplified analogy of a potential problem that could arise when a private industry collaborates with a state university to develop patentable technology. Patent law requires that a patent application name each and every inventor who helped conceive the invention. If a patent application, or even an issued patent, fails to list every inventor, the omitted inventor may later request that the patent be amended to reflect all inventors by bringing a correction of inventorship suit.<sup>1</sup> An omitted inventor will want to have his or her name added to the patent to receive "credit" for his or her work in the form of ownership of the exclusive rights in the patent. An exclusive right entitles the inventor to exclude all others not named in the patent from practicing the patented technology. In addition, ownership rights in a patent are considered property rights and the patent owner can sell, license, or assign these rights.<sup>2</sup> If the patented technology can be practiced, it could prove very lucrative.

Most inventors will be able to seek relief under correction of inventorship suits; however, private industry inventors working jointly with state university inventors may not be afforded the same path to relief. State universities have "special privileges" that are warranted under the Eleventh Amendment and often referred to as "sovereign immunity." Sovereign immunity bars any suit brought against a state or a state entity in federal court.<sup>3</sup> Because federal courts have exclusive jurisdiction over patent law issues, a private industry inventor who has been omitted from a patent owned by a state university may be prevented from bringing a correction of inventorship suit against the university in any court.

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1. See 35 U.S.C. § 256 (2000).

2. See *infra* Part II.A (discussing the requirements under the Patent Act for naming inventors in patent applications and the type of property rights provided by issued patents).

3. See *infra* Part I (summarizing the history of the sovereign immunity defense and Supreme Court decisions that address the sovereign immunity defense with respect to intellectual property).

Recently, in *Xechem International Inc. v. University of Texas M.D. Anderson Cancer Center*,<sup>4</sup> the Federal Circuit considered whether barring a correction of inventorship suit against a state university in federal court pursuant to Eleventh Amendment immunity would also invoke the Fourteenth Amendment by depriving an individual of his or her property rights in a patent without due process. The Federal Circuit concluded that there was no constitutional due process violation because, even though federal courts have exclusive jurisdiction over issues that arise under the patent laws, there was a remedy with the state courts because state courts can determine property ownership issues (i.e., who is the correct owner of a patent).<sup>5</sup> In addition to the Federal Circuit's suggestion that Xechem could have brought its suit in state court, Judge Newman suggested that Xechem could have maintained a suit in federal court if Xechem had sued the University of Texas's inventor in his individual capacity according to the *Ex parte Young* doctrine rather than naming the University as the sole defendant.<sup>6</sup> Although the Federal Circuit's proposed alternatives for Xechem's correction of inventorship suit appeared to circumvent the potential Fourteenth Amendment violation, the Federal Circuit did not explore whether these alternatives were actually available to private industry and its inventors.

This Note examines whether the alternative paths to relief presented in the *Xechem* decision are plausible and argues that the suggested alternatives are flawed and could create a situation where a state university would have absolute immunity against correction of inventorship suits. Part I provides a summary of the current state of the sovereign immunity doctrine. Part II describes the *Xechem* decision in detail and explores whether the state courts or the *Ex parte Young* doctrine would provide a forum for a correction of inventorship suit. Part III explores an alternative path to relief not suggested by the *Xechem* decision—provoking an interference proceeding in the United States Patent Office—and argues that this third alternative also has its limitations. Part IV predicts some implications of the *Xechem* decision and provides some recommendations that private industry may pursue to avoid the dismissal of correction of inventorship suits until the *Xechem* decision is revisited.

## I. THE CURRENT STATE OF THE SOVEREIGN IMMUNITY DEFENSE

The sovereign immunity defense enjoyed by states and their entities is rooted in the Eleventh Amendment of the United States Constitution. The Eleventh Amendment provides that “[t]he 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.”<sup>7</sup> The purpose of the Eleventh Amendment is to avoid “the indignity of subjecting a State to the coercive process of judicial tribunals at the instance of private parties.”<sup>8</sup> “Eleventh Amendment jurisprudence . . . is a vital element of federal jurisdiction that ‘go[es] to the very heart of [the] federal system and affect[s] the allocation of power between the

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4. 382 F.3d 1324 (Fed. Cir. 2004), *cert. denied*, 73 U.S.L.W. 3494 (2005).

5. *Id.* at 1332.

6. *Id.* at 1334–35 (Newman, J., concurring).

7. U.S. CONST. amend. XI.

8. *P.R. Aqueduct & Sewer Auth. v. Metcalf & Eddy, Inc.*, 506 U.S. 139, 146 (1993) (quoting *In re Ayers*, 123 U.S. 443 (1887)).

United States and the several states.”<sup>9</sup> Supreme Court decisions regarding sovereign immunity since the adoption of the Eleventh Amendment have been viewed to reflect the understanding of the structure of the Constitution itself and that sovereign immunity is not derived solely from the text of the Eleventh Amendment.<sup>10</sup>

To understand the impact sovereign immunity has had on intellectual property, one must understand how the sovereign immunity defense has developed through common law. This Part provides a brief overview of the history of the sovereign immunity doctrine and describes two cases that have particular importance with respect to the relationship between intellectual property rights and the sovereign immunity doctrine.

#### *A. Recognition of the Sovereign Immunity Defense and Its Limitations*

The Eleventh Amendment was enacted by Congress in response to the unpopular Supreme Court decision in *Chisholm v. Georgia*.<sup>11</sup> In *Chisholm*, the Court held that two South Carolina residents could sue the State of Georgia in federal court under a literal reading of Article III of the United States Constitution.<sup>12</sup> Article III provides federal courts with jurisdiction over controversies “between a State and Citizens of another State.” Such outrage resulted from the *Chisholm* holding that the Eleventh Amendment was adopted soon after, effectively overruling *Chisholm*.<sup>13</sup>

After the enactment of the Eleventh Amendment, in *Hans v. Louisiana*<sup>14</sup> the Court extended sovereign immunity protection to suits in federal court brought against a state by the state’s own citizens. In *Hans*, a citizen of Louisiana sued the State of Louisiana in federal court under federal question jurisdiction, claiming that the State had failed to pay interest on certain bonds in violation of the Contracts Clause.<sup>15</sup> The Court rejected the plaintiff’s argument and, as support for its ruling extending sovereign immunity in all suits by private citizens, the Court looked to the original intent of defenders of the Constitution.<sup>16</sup> The Court relied in part on Alexander Hamilton’s *The Federalist No. 81*, which asserts that “[i]t is inherent in the nature of sovereignty [for a State] not to be amenable to the suit of an individual without [the State’s] consent.”<sup>17</sup> After *Hans*, the language of the Eleventh Amendment has been interpreted to prohibit any suit in federal court where a state is one party and a citizen is another party.<sup>18</sup>

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9. CONGRESSIONAL RESEARCH SERV., LIBRARY OF CONGRESS, THE CONSTITUTION OF THE UNITED STATES OF AMERICA: ANALYSIS AND INTERPRETATION 1521 (Johnny H. Killian & George A. Costello eds., 1992) (quoting CHARLES A. WRIGHT, THE LAW OF FEDERAL COURTS § 48 at 286 (4th ed. 1983)) (alteration in original), available at <http://www.gpoaccess.gov/constitution/pdf/con022.pdf>.

10. See *Alden v. Maine*, 527 U.S. 706, 728 (1999).

11. 2 U.S. (2 Dall.) 419 (1793), abrogated by U.S. CONST. amend. XI.

12. *Id.* at 420.

13. See, e.g., *Alden*, 527 U.S. at 720–25.

14. 134 U.S. 1 (1890).

15. *Id.*

16. *Id.* at 12–13.

17. *Id.* (quoting THE FEDERALIST NO. 81 (Alexander Hamilton)) (emphasis omitted).

18. See Mark Strasser, *Chisholm, the Eleventh Amendment, and Sovereign Immunity: On Alden’s Return to Confederation Principles*, 28 FLA. ST. U. L. REV. 605, 618 (2001).

While sovereign immunity provides immense protection for the states, the defense is not absolute. A line of cases since *Hans* has established three exceptions to the sovereign immunity defense: (1) a state official may be sued in federal court if the official's actions result in a constitutional violation, (2) a state may be sued in federal court if the state expressly consents to the suit, and (3) a state may be sued in federal court if Congress creates a valid abrogation of the sovereign immunity defense through legislation. The first limitation is most relevant to the *Xechem* decision because Judge Newman suggested that *Xechem* could have maintained a suit in federal court if *Xechem* had sued the University's inventor in his individual capacity.

In *Ex parte Young*,<sup>19</sup> the Supreme Court concluded that although a state cannot be sued in federal court, a state official (or, in other words, a state employee for the purposes of this Note) may be sued in his individual capacity in federal court and be held personally liable if his actions result in a constitutional violation. The Court reasoned that any actions by a state official that result in a constitutional violation must be outside the scope of any official duties, and therefore not afforded sovereign immunity protection.<sup>20</sup> The idea is that when a government official acts unconstitutionally, the official is "stripped of his official or representative character."<sup>21</sup> The purpose behind this exception is "to permit the federal courts to vindicate federal rights and hold state officials responsible to 'the supreme authority of the United States.'"<sup>22</sup> The Supreme Court has recognized two general situations in which the *Ex Parte Young* doctrine may apply. The first situation is "where there is no state forum available to vindicate federal interests, thereby placing upon Article III courts the special obligation to ensure the supremacy of federal statutory and constitutional law."<sup>23</sup> The first exception supports the idea that there should always be a forum available to enforce federal guarantees.<sup>24</sup> Even when a state forum is available, the second situation where the *Ex parte Young* doctrine may be invoked "is when the case calls for the interpretation of federal law."<sup>25</sup>

The exception to the sovereign immunity defense created by *Ex parte Young*, however, was subsequently limited in *Edelman v. Jordan*<sup>26</sup> to prospective injunctive relief (enjoining a state official from committing further constitutional violations). The Court reasoned that restitution or damages must be prohibited because any monetary recovery would come from the state treasury, and would have the same effect as if the state itself had been sued.<sup>27</sup> The effect of the *Ex parte Young* decision has been to

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19. 209 U.S. 123 (1908).

20. *Id.* at 159–60.

21. *Id.*

22. *Pennhurst State Sch. & Hosp. v. Halderman*, 465 U.S. 89, 105 (1984) (citing *Young*, 209 U.S. at 160); *see also, e.g., Alden v. Maine*, 527 U.S. 706, 747, 755 (1999) ("[T]he exception to our sovereign immunity doctrine recognized in *Ex parte Young* is based in part on the premise . . . that certain suits for declaratory or injunctive relief against state officers must therefore be permitted if the Constitution is to remain the supreme law of the land.").

23. *Idaho v. Coeur D'Alene Tribe*, 521 U.S. 261, 270 (1997).

24. *Id.* at 271.

25. *Id.* at 274.

26. 415 U.S. 651 (1974).

27. *See id.* at 663, 668, 675–76 (announcing that a suit "seeking to impose a liability which must be paid from public funds in the state treasury is barred by the Eleventh Amendment").

provide private citizens with a means of seeking relief for violations under the Fourteenth Amendment while still preserving Eleventh Amendment protection for the states.<sup>28</sup>

While states can always expressly consent to suit in federal court, for a short period of time a state could have impliedly waived consent to federal jurisdiction in areas that were regulated by the Commerce Clause. In *Parden v. Terminal Railway of the Alabama State Docks Department*,<sup>29</sup> employees of a state-owned railway sued the State of Alabama for damages under the Federal Employers' Liability Act after suffering work-related injuries. The State of Alabama argued for the dismissal of the suit on sovereign immunity grounds, but the Supreme Court concluded that "when a state leaves the sphere that is exclusively its own and enters into activities subject to congressional regulation, it subjects itself to that regulation as fully as if it were a private person or corporation."<sup>30</sup> The Court reasoned that "[w]hile a [s]tate's immunity from suit by a citizen without its consent has been said to be rooted in 'the inherent nature of sovereignty,' the [s]tates surrendered a portion of their sovereignty when they granted Congress the power to regulate commerce."<sup>31</sup> Constructive consent was short-lived, though, as subsequent Court decisions required that congressional legislation abrogating sovereign immunity be "an unequivocal expression that Congress intended to override Eleventh Amendment immunity."<sup>32</sup>

Congress's power to override Eleventh Amendment sovereign immunity was first recognized by the Supreme Court in *Fitzpatrick v. Bitzer*,<sup>33</sup> which provided that Congress may enact legislation that abrogates state sovereign immunity to enforce the guarantees of the Fourteenth Amendment. This power was subsequently restricted in *Seminole Tribe of Florida v. Florida*<sup>34</sup> to Section 5 of the Fourteenth Amendment.<sup>35</sup> In *Seminole Tribe*, an Indian tribe sued the State of Florida in federal court seeking to compel the State of Florida and its Governor to negotiate a compact to allow certain gaming activities in the state pursuant to the Indian Game Regulatory Act.<sup>36</sup> The Act provides that an Indian tribe may engage in certain gaming activities if a valid compact was created between the tribe and the state in which the gaming activity is located.<sup>37</sup> The Act requires the state to negotiate the compact with the Indian tribe in good faith and allow a tribe to bring a suit against the state in federal court to compel performance.<sup>38</sup>

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

29. 377 U.S. 184 (1964).

30. *Id.* at 196.

31. *Id.* at 191 (original citation omitted).

32. See *Welch v. Tex. Dep't of Highways & Pub. Transp.*, 483 U.S. 468, 478 (1987); see also *Atascadero State Hosp. v. Scanlon*, 473 U.S. 234, 242 (1985); *Pennhurst*, 465 U.S. at 89, 99.

33. 427 U.S. 445, 457 (1976).

34. 517 U.S. 44 (1996).

35. *Seminole Tribe* overruled *Pennsylvania v. Union Gas Co.*, 491 U.S. 1 (1989), which held that Congress could abrogate sovereign immunity under its Article I powers.

36. *Seminole Tribe*, 517 U.S. at 51 (interpreting the Indian Game Regulatory Act, 25 U.S.C. § 2710(d) (2000)).

37. Indian Game Regulatory Act, 25 U.S.C.A. § 2710(d) (Supp. 2005).

38. *Id.*

Florida moved to dismiss the suit, arguing that it violated Florida's sovereign immunity under the Eleventh Amendment.<sup>39</sup> The Indian tribe acknowledged that Florida had not expressly consented to federal jurisdiction, but argued that Congress had abrogated Florida's immunity by enacting the Indian Game Regulatory Act.<sup>40</sup> The Court asserted that a proper abrogation of sovereign immunity would exist only if: (1) Congress clearly expressed its intent to abrogate a state's immunity from suit in federal court, and (2) Congress acted pursuant to a valid exercise of constitutional power.<sup>41</sup> While Congress did declare its intent to abrogate sovereign immunity, the Court found that Congress did not possess the power to abrogate a state's sovereign immunity under the Indian Commerce Clause.<sup>42</sup> The Court determined that the sovereign immunity provided by the Eleventh Amendment could only be limited by subsequent amendments to the Constitution, and because the Commerce Clause preceded the Eleventh Amendment, Congress did not possess the power to abrogate sovereign immunity under its commerce powers.<sup>43</sup>

Following *Seminole Tribe*, the Court imposed a more stringent test for creating a valid abrogation of sovereign immunity. In *City of Boerne v. Flores*,<sup>44</sup> Congress's enactment of the Religious Freedom Restoration Act (RFRA) was called into question. RFRA required that any generally applicable law that places a "substantial burden" on an individual's free exercise of religion must be in furtherance of a compelling government interest.<sup>45</sup> The Court held that RFRA was not a valid exercise of congressional power because it was not remedial in nature.<sup>46</sup> The Court required that Congress must first identify violations of the Fourteenth Amendment and then tailor its legislation to achieve the compelling government interest using the least restrictive means.<sup>47</sup>

Although the Supreme Court has rarely upheld legislation abrogating sovereign immunity, the Court recently upheld Congress's abrogation of sovereign immunity under Title II of the Americans with Disabilities Act (ADA).<sup>48</sup> In *Tennessee v. Lane*,<sup>49</sup> two disabled individuals sued the State of Tennessee, claiming that courthouses that were not wheelchair accessible violated their due process and equal protection rights by denying them access to the court system. The ADA provides that "no qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of a

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39. *Seminole Tribe*, 517 U.S. at 52.

40. *Id.* at 53.

41. *Id.* at 55.

42. *See id.* at 62–66, 72–73 (overruling *Pennsylvania v. Union Gas Co.*, 491 U.S. 1 (1989), which held that Congress had authority under the Commerce Clause to abrogate state sovereign immunity, but affirming *Fitzpatrick v. Bitzer*, 427 U.S. 445 (1976), which held that Congress had authority under Section 5 of the Fourteenth Amendment).

43. *See Seminole Tribe*, 517 U.S. at 65–66.

44. 521 U.S. 507 (1997).

45. *See id.* at 515–16.

46. *See id.* at 519.

47. *See id.* at 520.

48. Americans with Disabilities Act of 1990, 42 U.S.C. §§ 12131–12165 (2000).

49. 541 U.S. 509 (2004).

public entity, or be subjected to discrimination by any such entity.”<sup>50</sup> The Court found that the ADA was a valid exercise of Congress’s Section 5 powers because court access was a fundamental right falling within Fourteenth Amendment protection, and that requiring the State to accommodate disabled individuals to provide access to the court system was reasonably related to a legitimate end.<sup>51</sup>

*B. Failed Attempts to Abrogate Sovereign Immunity:  
Where Sovereign Immunity Stands with Respect to Intellectual Property Rights*

The Supreme Court’s decision in *Seminole Tribe* set the stage for two intellectual property cases that reveal the difficult task Congress faces in attempting to abrogate sovereign immunity with respect to intellectual property rights. In 1999, the Supreme Court heard two companion intellectual property cases that dealt with congressional attempts to abrogate sovereign immunity. These two cases arose after College Savings Bank sued Florida Prepaid Postsecondary Education Expense Board, an arm of the State of Florida, for patent and trademark infringement of its college savings program.<sup>52</sup> Florida Prepaid sought dismissal of both suits on sovereign immunity grounds.<sup>53</sup>

In *College Savings Bank v. Florida Prepaid Postsecondary Education Expense Board*,<sup>54</sup> the trademark infringement case of the two companion cases, College Savings claimed unfair competition based on alleged false advertising by Florida Prepaid.<sup>55</sup> In *College Savings*, the Court considered whether the Trademark Remedy Clarification Act,<sup>56</sup> which allowed suits to be brought against states and their instrumentalities under Section 43(a) of the Lanham Act,<sup>57</sup> was a valid abrogation of state immunity. The Court held that Congress had not legitimately exercised its powers under Section 5 of the Fourteenth Amendment because the right to be free from false advertising and the right to be “secure in one’s own business interest” are not property rights protected by the Due Process Clause of the Fourteenth Amendment.<sup>58</sup>

Similarly, in *Florida Prepaid Postsecondary Education Expense Board v. College Savings Bank*,<sup>59</sup> the patent infringement case of the two companion cases, the Court

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50. 42 U.S.C. § 12132 (2000). Furthermore, under 42 U.S.C. § 12202 (2000), states are not immune from suit in federal or state court against claims brought pursuant to the ADA.

51. *See Lane*, 541 U.S. at 529–35.

52. *See Coll. Sav. Bank v. Fla. Prepaid Postsecondary Educ. Expense Bd.*, 527 U.S. 666, 670–71 (1999); *Fla. Prepaid Postsecondary Educ. Expense Bd. v. Coll. Sav. Bank*, 527 U.S. 627, 630–31 (1999).

53. *College Savings*, 527 U.S. at 671.

54. *Id.* at 666.

55. *Id.* at 671.

56. Trademark Remedy Clarification Act of 1992, 15 U.S.C. § 1122 (2000). The current Act provides that “[a]ny State . . . shall not be immune, under the eleventh amendment of the Constitution of the United States or under any other doctrine of sovereign immunity, from suit in Federal court by any person” and that remedies are available “to the same extent as such remedies are available for such a violation in a suit against any person other than . . . a State.” *Id.*

57. Trademark Act of 1946, 15 U.S.C. § 1125(a) (2000).

58. *College Savings*, 527 U.S. at 672.

59. 527 U.S. 627 (1999).

addressed whether the Patent and Plant Variety Protection Remedy Clarification Act (PRCA),<sup>60</sup> which allowed states and state instrumentalities to be sued in federal court for patent infringement,<sup>61</sup> was a valid abrogation of sovereign immunity.<sup>62</sup> The Court found that even though patent rights were considered property under the Due Process Clause<sup>63</sup> and Congress had clearly expressed its intent in PRCA to abrogate sovereign immunity,<sup>64</sup> PRCA was not a valid abrogation of sovereign immunity under Congress's Section 5 powers because it did not meet the "congruence and proportionality" test set forth in *City of Boerne v. Flores*.<sup>65</sup> The Court found that although in some instances patent infringement by the states will result in deprivations of property, "Congress identified no pattern of patent infringement by the States, let alone a pattern of constitutional violations" indicating that enactment of PRCA was necessary to remedy some wrong.<sup>66</sup> Also, the Court noted that the legislative history of PRCA demonstrated neither that state remedies were not available nor that they were inadequate.<sup>67</sup>

## II. HOW THE STATE COURTS AND THE *EX PARTE YOUNG* APPROACH MAY NOT OFFER RELIEF IN A CORRECTION OF INVENTORSHIP SUIT

When the Federal Circuit dismissed Xechem's correction of inventorship suit against the University of Texas on Eleventh Amendment sovereign immunity grounds, the court suggested that Xechem could have avoided a dismissal by bringing its suit in state court because state courts could determine ownership issues. Judge Newman also suggested, in her additional views, that Xechem may have been able to maintain a suit in federal court if Xechem had sued the University's inventor in his individual capacity. This Part examines whether the state courts or the *Ex parte Young* approach would actually offer relief for Xechem. Subpart A explains the difference between inventorship and ownership, which is important for understanding why the state courts cannot hear issues raised by correction of inventorship suits. Subpart B describes the *Xechem* decision in detail. Subpart C argues that the federal courts have exclusive jurisdiction to hear inventorship issues, and therefore state courts cannot simply decide ownership issues in correction of inventorship suits because inventorship controls ownership. Finally, Subpart D argues that the *Ex parte Young* approach may be a

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60. Patent and Plant Variety Protection Remedy Clarification Act of 1992, 35 U.S.C.A. §§ 271(h) (2001 & Supp. 2005), 296(a) (2000).

61. *See id.* Section 271(h) provides that the term "whoever" includes a State and its instrumentalities. Section 296(a) provides that "[a]ny State [or] instrumentality of a State . . . shall not be immune, under the eleventh amendment of the Constitution of the United States . . . from suit in Federal court by any person . . . for infringement of a patent." Before the 1992 amendments, the term "whoever" was not defined.

62. *See Fla. Prepaid*, 527 U.S. at 635.

63. *Id.* at 637 (citing S. Rep. No. 102-280, at 8 (1992)). Only eight patent infringement suits had been prosecuted against States before 1990. *See Coll. Sav. Bank v. Fla. Prepaid Postsecondary Educ. Expense Bd.*, 148 F.3d 1343, 1353-54 (1998), *rev'd*, 525 U.S. 627 (1999).

64. *Fla. Prepaid*, 527 U.S. at 635.

65. *See id.* at 637-43; *City of Boerne v. Flores*, 521 U.S. 507, 519 (1997).

66. *Fla. Prepaid*, 527 U.S. at 640.

67. *Id.* at 643.



solution in some instances, but not all, which creates the possibility of a Fourteenth Amendment violation.

*A. Distinguishing Correction of Inventorship from Ownership*

A patent is a government grant of exclusive rights in an invention in exchange for the disclosure of the invention to the public.<sup>68</sup> A patent grant is considered “property” and receives constitutional protection under the Due Process Clause of Section 5 of the Fourteenth Amendment.<sup>69</sup> The United States Patent and Trademark Office will not issue a patent unless the patent application meets certain requirements set forth in the Patent Act.<sup>70</sup> One requirement is that all true inventors must be named in the patent application.<sup>71</sup> A true inventor is an individual who meets the minimum requirements for “inventorship.”<sup>72</sup> If the inventor satisfies the “inventorship” requirements, the inventor must be named in the patent application and will be entitled to exclusive rights in the patent. Under federal patent law, inventorship is divided into two concepts: (1) conception and (2) reduction to practice.<sup>73</sup> Conception is the touchstone of inventorship determinations and is “the formation in the mind of the inventor, of a definite and permanent idea of the complete and operative invention.”<sup>74</sup> The second requirement for inventorship, reduction to practice, can occur in one of two ways: either (1) by physically making and testing the invention to determine whether it works for its intended purpose, or (2) by filing for a patent application.<sup>75</sup> An inventor must have both conceived and reduced to practice some aspect of the invention to be considered a true inventor.<sup>76</sup>

The Patent Act also requires that when more than one inventor has conceived of an invention and reduced it to practice, all inventors must apply for the patent jointly. The Patent Act provides:

When an invention is made by two or more persons jointly, they shall apply for patent jointly . . . . Inventors may apply for a patent jointly even though (1) they did not physically work together or at the same time, (2) each did not make the

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68. See ROGER E. SCHECHTER & JOHN R. THOMAS, *INTELLECTUAL PROPERTY: THE LAW OF COPYRIGHTS, PATENTS AND TRADEMARKS* 282–83 (2003).

69. See *Fla. Prepaid*, 527 U.S. at 642; 35 U.S.C. § 261 (2000) (providing that “patents shall have the attributes of personal property”).

70. See SCHECHTER & THOMAS, *supra* note 68, at 282.

71. See 35 U.S.C. § 102(f) (2000).

72. See, e.g., Cynthia M. Ho, *Who Deserves the Patent Pot of Gold?: An Inquiry Into the Proper Inventorship of Patient-Based Discoveries*, 7 DEPAUL J. HEALTH CARE L. 185, 192–94 (2004).

73. Howard M. Eisenberg, *Patent Law You Can Use: Inventorship v. Ownership of a Patent* (2000), [http://www.yale.edu/ocr/invent\\_guidelines/docs/inventor\\_owner.pdf](http://www.yale.edu/ocr/invent_guidelines/docs/inventor_owner.pdf).

74. *Burroughs Wellcome Co. v. Barr Labs.*, 40 F.3d 1223, 1228 (Fed. Cir. 1994) (quoting *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1367 (Fed. Cir. 1986)).

75. See SCHECHTER & THOMAS, *supra* note 68, at 430–32.

76. See *Ethicon, Inc. v. U.S. Surgical Corp.*, 135 F.3d 1456, 1461 (Fed. Cir. 1998).

same type or amount of contribution, or (3) each did not make a contribution to the subject matter of every claim of the patent.<sup>77</sup>

Each inventor who meets the inventorship requirements and is named in the patent will have an undivided ownership interest in the entire patent, regardless of the extent of the contribution, and will have the power to license, sell, or assign rights in the patent without the consent of any other co-owners.<sup>78</sup> The default rule under the Patent Act is that the inventors named in the patent are the owners of the rights in the patent.<sup>79</sup> This rule, though, is often contracted around in employment relationships where the employee-inventor agrees to assign all exclusive rights in any patented invention over to the employer.<sup>80</sup> These assignments occur not only in the corporate setting, but also in university research situations.<sup>81</sup>

Sometimes true inventors are improperly excluded from being named in a patent. In the past, failure to include all true inventors violated patentability requirements and rendered a patent invalid as to all inventors.<sup>82</sup> To avoid this harsh penalty, Congress enacted 35 U.S.C. § 256 as a possible remedy for exclusion of true inventors by error. Section 256 provides:

Whenever through error a person is named in an issued patent as the inventor, or through error an inventor is not named in an issued patent and such error arose without any deceptive intention on his part, the Director may, on application of all the parties and assignees, with proof of the facts and such other requirements as may be imposed, issue a certificate correcting such error.

The error of omitting inventors or naming persons who are not inventors shall not invalidate the patent in which such error occurred if it can be corrected as provided in this section. The court before which such matter is called in question may order correction of the patent on notice and hearing of all parties concerned and the Director shall issue a certificate accordingly.<sup>83</sup>

If an inventor is subsequently added to an issued patent, the added inventor shares ownership rights in the entire patent with the other inventors named in the patent.<sup>84</sup> This joint ownership will occur even if the originally named inventors have already assigned all rights in the patent to another.<sup>85</sup>

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77. 35 U.S.C. § 116 (2000).

78. *Ethicon*, 135 F.3d at 1465–66; see 35 U.S.C. § 262 (2000) (“[E]ach of the joint owners of a patent may make, use, offer to sell, or sell the patented invention within the United States, or import the patented invention into the United States, without the consent of and without accounting to the other owners.”).

79. See SCHECHTER & THOMAS, *supra* note 68, at 431.

80. See John J. Okuley, *Resolution of Inventorship Disputes: Avoiding Litigation Through Early Evaluation*, 18 OHIO ST. J. ON DISP. RESOL. 915, 924–26 (2003).

81. *Id.* at 919–22.

82. See Janice M. Mueller, *Patenting Industry Standards*, 34 J. MARSHALL L. REV. 897, 913 (2001).

83. 35 U.S.C. § 256 (2000).

84. See SCHECHTER & THOMAS, *supra* note 68, at 430–31.

85. See *id.*

While ownership issues are inherent in correct inventorship determinations, the concepts remain distinct. In correction of inventorship suits, true ownership must always be determined before ownership can be addressed. The distinction between these two concepts will become clearer in Subpart C as the distinction is applied to the facts of the *Xechem* decision.

### B. The *Xechem* Decision

Although this Note focuses primarily on the two alternative forms of relief suggested by *Xechem*, this Subpart provides a brief overview of the entire case. The *Xechem* case arose out of a sponsored laboratory study agreement between Xechem International, Inc. ("Xechem") and the University of Texas M.D. Anderson Cancer Center ("the University"), an agency of the state of Texas. In the agreement, Xechem agreed to provide the University with financial and technical support for the purpose of developing a new pharmaceutical formulation for increasing the solubility of paclitaxel, a cancer drug.<sup>86</sup> After the new formulation was developed, Xechem drafted a patent application naming a Xechem inventor and a University inventor as co-inventors.<sup>87</sup> The University objected to the co-inventorship designation and filed two patent applications on its own, naming the University's inventor as the sole inventor.<sup>88</sup> Both patents were issued to the University, and the University notified Xechem that any use of the patented technology would be infringement.<sup>89</sup> Xechem responded by filing suit in federal court pursuant to 35 U.S.C. § 256, seeking, inter alia, correction of inventorship to name Xechem's inventor as a true inventor of the patented technology.<sup>90</sup> Xechem requested that either Xechem's inventor be added to the issued patent and become a joint inventor, or in the alternative, the University's inventor be removed from the patent application and replaced with Xechem's inventor because the University's inventor did not meet the requirements for inventorship.<sup>91</sup> In response to Xechem's correction of inventorship suit, the University moved to have the case dismissed on sovereign immunity grounds.<sup>92</sup>

The Federal Circuit began its opinion by reviewing the holdings of *Florida Prepaid* and *College Savings*, stressing that "Eleventh Amendment immunity may be abrogated 'only where the State provides no remedy, or only inadequate remedies, to injured patent owners for its infringement of their patent could a deprivation of property

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86. *Xechem Int'l, Inc. v. Univ. of Tex. M.D. Anderson Cancer Ctr.*, 382 F.3d 1324, 1327 (Fed. Cir. 2004).

87. *Id.*

88. *Id.* at 1327. The facts of *Xechem* indicate that Xechem was aware that the University was filing a patent application naming its inventor as the sole inventor, and Xechem acknowledged the sole inventorship status. Xechem then entered a licensing agreement with the University, which the University argued was terminated due to Xechem's alleged insolvency. *See id.*

89. *Id.*

90. *Id.*

91. *See Xechem Int'l, Inc. v. Univ. of Tex. M.D. Anderson Cancer Ctr.*, No. H-02-1013, 2003 U.S. Dist. LEXIS 26247, at \*7-8 (S.D. Tex. 2003).

92. *Xechem*, 382 F.3d at 1326.

without due process result,' thereby invoking the Fourteenth Amendment."<sup>93</sup> The *Xechem* court noted that legislation had not successfully abrogated sovereign immunity in the past because Congress had failed to show why the legislation was necessary since there was a "lack of a 'pattern of patent infringement by the States.'"<sup>94</sup> The Federal Circuit also stressed that the Court's recent opinion in *Lane* would not reopen the issues of *Florida Prepaid*, and the decision had "reiterated that suits against states for patent infringement had not been shown to raise Fourteenth Amendment issues."<sup>95</sup> The court then addressed each of *Xechem*'s arguments in turn.

*Xechem* first argued that the University had waived its immunity from suit when it entered into the sponsored laboratory agreement and the licensing agreement with *Xechem* for commercial gain.<sup>96</sup> *Xechem* argued that by entering into the contractual arrangements the University agreed to subject itself to federal jurisdiction to secure constitutional property rights and decide issues exclusively within the jurisdiction of the federal courts.<sup>97</sup> The Federal Circuit rejected *Xechem*'s argument, stating that *College Savings* affirmed that a state's engagement in commercial activities is not an implied waiver of immunity, and a state can only consent to suit by a clear declaration.<sup>98</sup>

*Xechem* next argued that the University had constructively consented to federal jurisdiction when it caused its inventor to file for a patent in the United States Patent and Trademark Office (USPTO).<sup>99</sup> Specifically, *Xechem* argued that the University could not receive the legal benefits of the patent laws and not be subject to them, that by filing a patent application, the University agreed to have the court decide the correct inventorship of the subsequently issued patent.<sup>100</sup> Again, the court rejected *Xechem*'s argument, stating that waiver must be clear and unequivocal.<sup>101</sup> *Xechem* also argued that the University's acceptance of a granted patent was a "gift," similar to the receipt of federal disbursements.<sup>102</sup> By accepting the patent, *Xechem* argued, the University constructively waived its sovereign immunity.<sup>103</sup> The court acknowledged that cases have held that Congress can condition a state's receipt of federal funds on its consent to waiver,<sup>104</sup> but it found that a grant of a patent is not a government disbursement.<sup>105</sup> The court noted that a patent grant is already conditioned on the applicant's disclosure of the technology to the public.<sup>106</sup> In addition, the court observed that patent activity is

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93. *Id.* at 1328 (citing *Fla. Prepaid Postsecondary Educ. Expense Bd. v. Coll. Sav. Bank*, 527 U.S. 627, 643 (1999)).

94. *Id.* (citing *Fla. Prepaid*, 527 U.S. at 640).

95. *Id.* at 1328–29 (citing *Tennessee v. Lane*, 541 U.S. 509, 520–21 (2004)).

96. *Id.* at 1329.

97. *Id.*

98. *Id.* at 1329–30.

99. *Id.* at 1330.

100. *Id.* at 1330–31.

101. *Id.* at 1331.

102. *Id.*

103. *Id.*

104. *Id.*; see also *South Dakota v. Dole*, 483 U.S. 203 (1987); *Petty v. Tennessee-Missouri Bridge Comm'n*, 359 U.S. 275 (1959).

105. *Xechem*, 382 F.3d at 1331.

106. *Id.*

commercial activity, and therefore obtaining a patent will not constructively waive a state's sovereign immunity.<sup>107</sup>

Finally, Xechem argued that the University's consent to federal jurisdiction was not necessary.<sup>108</sup> Under 35 U.S.C. § 256, a court may order a correction of inventorship even if the other party objects. Xechem argued that since the court could order a correction of inventorship even without the University's consent, the University did not need to be a party to the suit.<sup>109</sup> The Federal Circuit, however, stated that the University was the only named defendant in the suit, and without a defendant, there could be no suit.<sup>110</sup> The Federal Circuit then went on to address the issue of whether a correction of inventorship determination must be heard by the federal courts:

The pleadings stated that inventorship can be corrected only in federal court, but ownership issues are generally the province of state courts. Although the Federal Circuit has held that inventorship is determined under federal law, state courts can apply federal law to issues properly before the state court. Federal preemption of causes arising under the Patent Act does not include matters of ownership or license.<sup>111</sup>

The Federal Circuit's majority opinion then concluded by recognizing that "possible state court remedies may be 'uncertain' or 'less convenient' or 'might undermine the uniformity of patent law,'" but upholding a state's sovereign immunity "did not deprive a patentee of property without due process of law."<sup>112</sup> Only where there was no remedy under state law would there be Fourteenth Amendment concerns, and the Federal Circuit found that Xechem had not made this showing.<sup>113</sup>

Judge Newman wrote separately to express her concern that the suggestion in the court's opinion that state courts could provide a remedy was not fully explored, nor was it explored by the Supreme Court in *Florida Prepaid* or *College Savings*.<sup>114</sup> Judge Newman noted that *Florida Prepaid* held that the Fourteenth Amendment was implicated only if no adequate state law remedies existed,<sup>115</sup> but the burden was on the claimant to show that the available remedies were inadequate.<sup>116</sup> Xechem had asserted that correction of inventorship suits involved the fundamental concept of property because inventorship controls ownership of a patent, and as the Court in *Florida Prepaid* explained, "[i]n procedural due process claims, the deprivation by state action of a constitutionally protected interest . . . is not in itself unconstitutional; what is unconstitutional is the deprivation of such an interest without due process of law."<sup>117</sup>

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107. *Id.*

108. *Id.* at 1331–32.

109. *Id.* at 1332.

110. *Id.*

111. *Id.* (citations omitted).

112. *Id.*

113. *Id.*

114. *Id.* at 1332–33 (Newman, J., writing separately to express additional views).

115. *Id.* at 1333 (Newman, J., writing separately to express additional views) (citing *Fla. Prepaid Postsecondary Educ. Expense Bd. v. Coll. Sav. Bank*, 527 U.S. 627, 643 (1999)).

116. *Id.* (Newman, J., writing separately to express additional views) (citing *Fla. Prepaid*, 527 U.S. at 643).

117. *Id.* at 1333–34 (Newman, J., writing separately to express additional views) (quoting

Xechem argued that only federal courts could hear correction of inventorship suits, and Judge Newman recognized that precedent had yet to determine whether state courts could hear suits resolving ownership issues when ownership is controlled by inventorship determinations.<sup>118</sup> In addition to questioning whether the state courts could provide a remedy in a correction of inventorship suit, Judge Newman suggested that Xechem could consider bringing the correction of inventorship suit against the individual inventor named in the patent or another state official using the *Ex parte Young* approach.<sup>119</sup> Judge Newman, however, did not further explore whether *Ex parte Young* would actually provide relief.<sup>120</sup>

### C. Why a State Court Cannot Entertain a Correction of Inventorship Suit

The key distinction that the Federal Circuit failed to make when it suggested that state courts could hear the issues raised by a correction of inventorship suit is that ownership is controlled by inventorship in correction of inventorship suits brought pursuant to § 256. Inventorship is a legal standard setting forth the requirements that an inventor must meet before being named as an inventor of a patent. On the other hand, ownership relates to who actually owns the legal rights in the patent; or in other words, who has power to exclude others from practicing the patented technology or suing for patent infringement.<sup>121</sup> While a state university may be an owner of a patent because entities can own property, only real persons can meet the requirements for inventorship.<sup>122</sup> Thus, the first determination in a correction of inventorship suit will always be whether the alleged inventor actually conceived of some aspect of the invention.<sup>123</sup> If the court determines that the inventor has met the requirements for inventorship, then, absent an agreement to the contrary, the inventor will be added to the patent.<sup>124</sup> As the Federal Circuit noted in its decision in *Beech Aircraft Corp. v. EDO Corp.*:

At the heart of any ownership analysis lies the question of who first invented the subject matter at issue, because the patent right initially vests in the inventor who may then, barring any restrictions to the contrary, transfer that right to another, and so forth. However, who ultimately possesses ownership rights in that

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*Fla. Prepaid*, 527 U.S. at 642–43).

118. *Id.* at 1334 (Newman, J., writing separately to express additional views).

119. *Id.* at 1334–35 (Newman, J., writing separately to express additional views).

120. *Id.* at 1335 (Newman, J., writing separately to express additional views).

121. *See Beech Aircraft Corp. v. EDO Corp.*, 990 F.2d 1237, 1248 (Fed. Cir. 1993) (“[I]nventorship is a question of who actually invented the subject matter claimed in a patent. Ownership, however, is a question of who owns legal title to the subject matter claimed in a patent, patents having the attributes of personal property.”); Steven Cherenksy, *A Penny for Their Thoughts: Employee-Inventors, Preinvention Assignment Agreements, Property, and Personhood*, 81 CAL. L. REV. 595, 604–05 (1993); Eisenberg, *supra* note 73.

122. Under 35 U.S.C. § 102, only a “person shall be entitled to a patent,” meaning that only a natural person can meet the requirements for patentability, which includes inventorship. (emphasis added). *See also* 35 U.S.C. § 102(g) (2000).

123. *See Beech Aircraft*, 990 F.2d at 1248.

124. *See* 35 U.S.C. § 262 (2000).

subject matter has no bearing whatsoever on the question of who actually invented that subject matter.<sup>125</sup>

Because ownership inherently vests in any inventor that has met the inventorship requirements, an ownership determination may not even be necessary where there is no assignment of rights to another individual or entity. Only where the inventor has agreed to assign rights to another will a court need to address ownership issues (e.g., the validity of a contractual or licensing arrangement).

Judge Newman, in her additional views, noted that precedent has not addressed whether state courts can make inventorship determinations, which are issues that fall under federal patent law.<sup>126</sup> Thus, federal courts continue to maintain exclusive jurisdiction over inventorship issues because 28 U.S.C. § 1338(a) provides that “[t]he district courts shall have original jurisdiction of any civil action arising under any Act of Congress relating to patents . . . . Such jurisdiction shall be exclusive of the courts of the states in patent . . . cases.”<sup>127</sup> Moreover, the Federal Circuit has also determined that federal standards for inventorship trump any state common law standards.<sup>128</sup>

Maintaining federal jurisdiction over patent law issues is imperative because it promotes uniformity. As Justice Stevens stated in *Florida Prepaid*, “consistency, uniformity, and familiarity with the extensive and relevant body of patent jurisprudence are matters of overriding significance in this area of the law.”<sup>129</sup> Uniformity encourages the development of patentable technologies because application of the laws is more predictable.<sup>130</sup> Developing patentable technology often requires extensive funding for both research and development and litigation, therefore a company will want to know the strength of a patent application before committing to a large and potentially risky investment. The failure of the Federal Circuit to recognize the significant difference between inventorship and ownership would seem to suggest that the Federal Circuit is willing to go to greater lengths to protect Eleventh Amendment immunity than it is to protect potential due process violations or uphold exclusive federal jurisdiction over issues arising under federal patent law.<sup>131</sup>

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125. *Beech Aircraft*, 990 F.2d at 1248.

126. *Xechem Int’l, Inc. v. Univ. of Tex. M.D. Anderson Cancer Ctr.*, 382 F.3d 1324, 1333–34 (Fed. Cir. 2004) (Newman, J., writing separately to express additional views).

127. 28 U.S.C. § 1338(a) (2000); *see also* *MCV, Inc. v. King-Seeley Thermos Co.*, 870 F.2d 1568, 1570 (1989).

128. *Univ. of Colo. Found. v. Am. Cyanamid Co.*, 196 F.3d 1366, 1372 (Fed. Cir. 1999).

129. *Fla. Prepaid Postsecondary Educ. Expense Bd. v. Coll. Sav. Bank*, 527 U.S. 627, 650 (1999); *see also* Christopher P. Banks, *The Constitutional Politics of Interpreting Section 5 of the Fourteenth Amendment*, 36 AKRON L. REV. 425, 469–71 (2003).

130. *See* David Kelly, Comment, *The Federal Circuit Transforms the Written Description Requirement into a Biotech-Specific Hurdle to Obtaining Patent Protection for Biotechnology Patents*, 13 ALB. L.J. SCI. & TECH. 249, 267 (2002).

131. It is also important to note that the Supreme Court has found that states are immune from federal claims for damages in their own courts. *See Alden v. Maine*, 527 U.S. 706 (1999). Because correction of inventorship suits only ask for declaratory relief, *Alden* will not provide immunity for states.

*D. When the Ex parte Young Approach May Not Provide Relief*

Judge Newman suggested that Xechem may have been able to maintain a suit in federal court if it had sued the University's inventor in his individual capacity under the *Ex parte Young* doctrine. This Subpart explores this approach and argues that *Ex parte Young* may work, but two hurdles must first be overcome before the *Ex parte Young* approach will be available.

1. First Hurdle: Proper Defendant?

As the Federal Circuit stated in *Xechem*, a suit will only exist if there is a defendant.<sup>132</sup> The defendant named in the suit, nevertheless, must be a proper defendant. With regard to cases involving patent inventorship and ownership issues, the Federal Circuit has found that a proper party will be an individual or entity that has an economic interest in the patent.<sup>133</sup> Because ownership rights in patents are often assigned in employment situations, there could potentially be instances where an inventor named in a patent could not be sued in his or her individual capacity. This hurdle to the *Ex parte Young* approach is presented in *Chou v. University of Chicago*.<sup>134</sup> In *Chou*, a graduate student researching the herpes simplex virus suggested to her supervising professor that her work should be patented.<sup>135</sup> The professor told the student that her work was not patentable, but the professor later filed for a patent application on her work, naming himself as the sole inventor.<sup>136</sup> The student filed suit against the professor, the University of Chicago, and a company that had licensed the technology, alleging that she was a true inventor and should be added to the issued patent under 35 U.S.C. § 256.<sup>137</sup>

In *Chou*, the Federal Circuit addressed the issues of: (1) whether the student had standing to bring a correction of inventorship suit, and (2) which defendants were proper defendants to the correction of inventorship claim.<sup>138</sup> Under the University of Chicago's administrative policies, the student had assigned all of her rights in any inventions to the University by virtue of accepting employment.<sup>139</sup> The Federal Circuit found, however, that even though the student had assigned away all of her rights, a party is not required to have an expectation of ownership to have standing to bring a correction of inventorship suit.<sup>140</sup> With respect to the question of which defendants were considered proper defendants to the correction of inventorship suit, the Federal Circuit held "that parties with an economic stake in a patent's validity" may be sued under 35 U.S.C. § 256.<sup>141</sup> The Federal Circuit found that even though the University

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132. *Xechem Int'l, Inc. v. Univ. of Tex. M.D. Anderson Cancer Ctr.*, 382 F.3d 1324, 1332 (Fed. Cir. 2004).

133. *See Chou v. Univ. of Chicago*, 254 F.3d 1347, 1359 (Fed. Cir. 2001).

134. *Id.* at 1347..

135. *Id.* at 1353.

136. *Id.*

137. *Id.* at 1354.

138. *Id.* at 1358–59.

139. *Id.* at 1357.

140. *Id.* at 1358–59.

141. *Id.* at 1359.



owned the patent rights, the professor was a proper defendant because he received royalties from the licensing of the technology.<sup>142</sup>

The *Chou* decision creates a prerequisite that only individuals with an economic stake in the patent can be proper defendants. This prerequisite to bringing a correction of inventorship suit under section 256 could potentially present a problem for suits brought against state employees pursuant to the *Ex parte Young* approach. If an employee of a state university is required to assign all patent rights to the university and does not receive royalties for his or her invention and has no other economic stake in the patent's validity, this would prevent a suit against a state employee. The facts provided in *Xechem* did not indicate whether the University gave its employees royalties for their patented inventions. It is plausible, however, that in some university inventor/employee situations that the employee will not receive compensation above his salary for assigning patent rights to his employer. While *Chou* is not a Supreme Court decision, until other jurisdictions decide whether to follow the precedent of *Chou*, the implications of the *Chou* decision are difficult to determine. But if no suit can be brought against a university or a university's employee, there could potentially be no forum for a correction of inventorship suit, raising Fourteenth Amendment due process concerns.

## 2. Second Hurdle: Is the State the Real Party of Interest?

A potential second hurdle to bringing a correction of inventorship suit under the *Ex parte Young* approach is that sovereign immunity protection will still apply whenever the state is the real party in interest.<sup>143</sup> In *Idaho v. Coeur d'Alene Tribe of Idaho*,<sup>144</sup> the Supreme Court limited the scope and application of the *Ex parte Young* approach in certain circumstances where special sovereignty interests are implicated.<sup>145</sup> In *Coeur d'Alene Tribe*, an Indian tribe sought prospective injunctive relief against state officials by seeking a declaration of the tribe's ownership and exclusive use of certain lands and navigable waters claimed by the State of Idaho.<sup>146</sup> The Court found the *Ex parte Young* approach inapplicable because a determination of ownership was "the functional equivalent of a quiet title action which implicates special sovereignty interests"—ownership of navigable waters.<sup>147</sup>

While this narrow exception to *Ex parte Young* has been distinguished in some circuits,<sup>148</sup> a correction of inventorship suit against a state university and the university's employee-inventor does resemble *Coeur d'Alene*. In a correction of inventorship suit, a claimant is seeking a declaration of inventorship and ultimately ownership rights in property already owned by the state. Adding another inventor to a state-owned patent will affect the state's interests in the patent. A successful correction of inventorship claim will not take away all ownership rights in the patent from the

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142. *Id.* at 1359–60.

143. *See, e.g.,* *Pennhurst State Sch. & Hosp. v. Halderman*, 465 U.S. 89, 114 (1984).

144. 521 U.S. 261 (1997).

145. *See id.* at 281–88.

146. *Id.* at 264.

147. *See id.* at 281–88.

148. *See, e.g.,* *Dakota, Minn. & E. R.R. Corp. v. South Dakota*, 362 F.3d 512 (8th Cir. 2004).

state, but it will take away the state's monopoly on the right to exclude others from practicing the technology, and could result in the state having to share profits from licensing or selling the invention with the claimant. A successful correction of inventorship claim would also allow an added inventor to prevent a state from seeking infringement damages, because a patent owner cannot bring a patent infringement suit against alleged infringers unless all co-owners in the patent agree to the suit.<sup>149</sup> While it is unclear whether a state's ownership in patent rights would be considered a special sovereignty interest like a state's ownership in navigable waters, the courts have yet to address the issue.

### III. A THIRD ALTERNATIVE NOT EXPLORED BY *XECHEM*: INTERFERENCE PROCEEDINGS

One path to relief not explored by the *Xechem* decision is the initiation of an interference proceeding in the United States Patent and Trademark Office (USPTO).<sup>150</sup> A primary role of the USPTO is to evaluate patent applications to determine whether the disclosed technologies meet the requirements for patentability.<sup>151</sup> If the application meets the patentability requirements, the USPTO will issue a patent to the applicant.<sup>152</sup> There are times, however, when the technology of an issued patent and a pending patent application (or the technology of two pending patent applications) will interfere with one another because each claims the same invention. Under 35 U.S.C. § 135, whenever an issued patent and a pending patent application interfere with one another, an interference can be initiated. In an interference proceeding, the Board of Patent Appeals and Interferences ("the Board") of the USPTO will determine questions of priority and validity and eventually award one party the patent.<sup>153</sup>

There are at least two parties to an interference proceeding: a senior party and a junior party.<sup>154</sup> The inventor with the earliest filing date is considered the "senior party," and the senior party's patent has a presumption of validity.<sup>155</sup> All other parties are considered "junior parties" and each has the burden of proving earlier inventorship.<sup>156</sup> When the interference proceeding involves an issued patent and a pending patent application, the burden of proof will depend on whether a junior party filed an application before or after the senior party's patent issued. If the junior party filed before the senior party's patent issued, the junior party must establish priority by

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149. See *Ethicon Inc. v. U.S. Surgical Corp.*, 135 F.3d 1456, 1467–68 (1998) (stating that "[a]n action for infringement must join as plaintiffs all co-owners," and that co-owners must "consent to join as plaintiffs in an infringement suit" otherwise the suit will be dismissed).

150. See DONALD S. CHISUM, et. al., *PRINCIPLES OF PATENT LAW* 486 (2001); PATENT AND TRADEMARK OFFICE, *MANUAL OF PATENT EXAMINING PROCEDURE* § 2300.02 (2001) [hereinafter MPEP].

151. See CHISUM, *supra* note 150, at 91.

152. See *id.*

153. See SCHECHTER & THOMAS, *supra* note 68, at 347–49, 452.

154. MPEP, *supra* note 150, § 2301.02(m).

155. See 35 U.S.C. § 282 (2000) (providing that an issued patent has the presumption of validity); see also MPEP *supra* note 150, § 2301.02(m)

156. See *Apotex USA, Inc. v. Merck & Co.*, 254 F.3d 1031, 1037 (Fed. Cir. 2001); MPEP, *supra* note 150, § 2301.02(m).

a preponderance of the evidence.<sup>157</sup> But if the junior party filed a patent application after the senior party's patent issued, the junior party must establish priority by clear and convincing evidence.<sup>158</sup> To show priority, the moving party must satisfy the requirements for inventorship, which are the same requirements discussed earlier for correction of inventorship suits.<sup>159</sup>

Instead of bringing a correction of inventorship suit in federal court, Xechem could have filed a patent application claiming the same invention described in the two patents issued to the University and have provoked an interference proceeding. Xechem could then have tried to prove by clear and convincing evidence that its inventor conceived and reduced to practice the claimed invention before the University's inventor. Even if Xechem could not prove that its inventor met the requirements for inventorship for each claim in the patent, Xechem may still be successful in invalidating some claims in the University's patent because the University's inventor would not have met the inventorship requirements for the entire claimed invention. The initiation of an interference proceeding could also encourage the University to enter a licensing agreement with Xechem rather than have the USPTO potentially invalidate its patent.

The alternative option of provoking an interference proceeding, however, is limited. Decisions by the Board can be appealed to the Federal Circuit.<sup>160</sup> Thus, if the Board decides against Xechem in an interference proceeding, Xechem may find itself facing the same sovereign immunity barrier that it would have faced had it originally brought the suit in the federal courts. On the other hand, if the Board decides in Xechem's favor and the University appeals the Board's decision, the University would have expressly waived its sovereign immunity protection by invoking the federal courts to hear the appeal.<sup>161</sup>

#### IV. THE POSSIBLE IMPLICATIONS OF THE XECHEM DECISION AND RECOMMENDATIONS FOR AVOIDING A RUN-IN WITH THE SOVEREIGN IMMUNITY BARRIER

##### *A. Potential Implications of the Xechem Decision*

The Supreme Court in *Florida Prepaid* held that the Fourteenth Amendment was only implicated if no adequate remedies at state law existed,<sup>162</sup> and that the burden was on the claimant to show that the available remedies were inadequate.<sup>163</sup> This Note's exploration of the specific alternative remedies suggested by the Federal Circuit

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157. See 37 C.F.R. § 1.657 (2004).

158. See *id.*

159. See 35 U.S.C. § 102(g) (2000) (providing that during interference proceedings, priority determinations will depend on conception, reduction to practice, and reasonable diligence); MPEP *supra* note 150, § 2308.02.

160. See 35 U.S.C.A. § 141 (Supp. 2005).

161. See *supra* Part I.A (discussing that express consent by a state to federal jurisdiction is an exception to the sovereign immunity defense).

162. *Xechem Intern., Inc. v. Univ. of Tex. M.D. Anderson Cancer Ctr.*, 382 F.3d 1324, 1333 (Fed. Cir. 2004) (citing *Fla Prepaid Postsecondary Educ. Expense Bd. v. Coll. Savings Bank*, 527 U.S. 627, 643 (1999)).

163. *Id.* (citing *Florida Prepaid*, 527 U.S. at 643).

suggests that there could potentially be no adequate remedies, effectively giving state universities absolute immunity in correction of inventorship suits. Since the passage of the Eleventh Amendment, courts have been faced with defining the delicate balance between sovereign immunity and upholding federal guarantees to private citizens. The issues raised by *Xechem* will likely need to be revisited to further clarify whether there is a path to relief for private industry in a correction of inventorship suit. Because the alternative paths to relief remain unclear, until the *Xechem* decision is readdressed private industry may be deterred from entering into collaborative research arrangements with state universities because the risks associated with the arrangements have become more apparent. Unless private firms can find other ways to secure their interests in the projects they fund, they may stop funding university research projects all together. Without the much needed funding provided by private industry, certain university research projects could be cut short.<sup>164</sup> These collaborative projects often lead to significant technological advances that benefit society, thus *Xechem* could potentially have a more significant impact on society than on private industry.

### *B. Recommendations for Avoiding a Dismissal of a Correction of Inventorship Suit*

Until the *Xechem* decision is revisited by the courts, private industries that choose to collaborate with state universities must take every precaution to avoid litigation. This includes clearly assigning responsibilities to inventors before research has begun. But because litigation will sometimes be unavoidable, private industry should also urge Congress to enact legislation that will abrogate a state's sovereign immunity in correction of inventorship suits. Private industry could also infringe a university's patent and then use correction of inventorship as a defense. Each of these recommendations will be described in turn in this Section.

#### 1. Clearly Assigning Inventive Responsibilities

One way to avoid litigation is to designate inventive duties between university inventors and private industry inventors before any research is begun.<sup>165</sup> If a university is primarily responsible for the development of the invention and a private industry firm is responsible for providing the funding and resources, these roles should be clearly defined before the collaborative project begins. The university and the firm should also make explicit which employees are intended to be named in the patent and base licensing or ownership agreements on those decisions.<sup>166</sup> The inventive process then should be dictated to the employees intended to be named in the patent and any outside help limited as to prevent the possibility of conception by unintended

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164. See Joshua A. Newberg & Richard L. Dunn, *Keeping Secrets in the Campus Lab: Law, Values and Rules of Engagement for Industry-University R&D Partnership*, 39 AM. BUS. L.J. 187, 188-89 (2002).

165. See, e.g., Robert G. Bone, *From Property to Contract: The Eleventh Amendment and University-Private Sector Intellectual Property Relationships*, 33 LOY. L.A. L. REV. 1467, 1505-11 (2000).

166. Cf. *id.* (suggesting that once a private industry firm obtains a promise from the state university regarding legal protection, it can feel comfortable sharing its intellectual property with the university).

inventors. Without agreements as to inventorship roles and licensing, private industry firms will be much more reluctant to share funding and technology with the university because they will fear that the university could claim a monopoly over the patentable technology.<sup>167</sup> And without the technological and financial support of private industry firms, important technological advances may be stalled.<sup>168</sup>

## 2. Abrogating Sovereign Immunity Through Legislation

At the conclusion of Judge Newman's additional views, she expressed her concern that "there is an increasing urgency, as the states enter the private competitive arena governed by laws of intellectual property, to establish fair relationships and just recourse."<sup>169</sup> There is an increasing need to establish the rules of these relationships because universities have been on a patent filing binge in recent years.<sup>170</sup> In 2001 alone, total university income from patent licensing reached \$1.07 billion.<sup>171</sup> This patent boom is partly due to the financial backing and technology support provided by private industry.<sup>172</sup> These university-industry collaborations have been credited with "significantly enhancing the technological capacity and economic competitiveness of U.S. firms, encouraging the commercialization of advanced university-generated technology, and helping underwrite the costs of conducting state-of-the-art university research."<sup>173</sup>

Thus far, Congress has only attempted to abrogate state sovereign immunity in cases where states have infringed the intellectual property of private citizens. Senator Patrick Leahy has introduced the Intellectual Property Protection Restoration Act (IPPRA),<sup>174</sup> which protects owners of federal intellectual property rights against infringement by states. The bill creates incentives for states to waive their immunity from suit in federal intellectual property cases, but the bill does not make waiver mandatory.<sup>175</sup> The bill provides that a state cannot recover any monetary damages from suits against private parties for intellectual property infringement unless the State agrees to waive its immunity from federal suits for intellectual property infringement.<sup>176</sup>

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167. *Cf. id.* at 1508 (arguing that without an agreement, the private industry firm and the state university might reach a stalemate with their collaboration because both will be trying to keep their intellectual property secret from the other).

168. *Id.*

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

170. See Tracy Staedter, *Academic Patent Binge*, *TECH. REV.*, Dec. 2003/Jan. 2004, at 24. In 2003, the University of California received the most patents at 439. Press Release, U.S. Patent and Trademark Office, USPTO Releases List of Top 10 Universities Receiving Most Patents in 2003 (Feb. 9, 2004), available at <http://www.uspto.gov/web/offices/com/speeches/04-04.htm>.

171. Staedter, *supra* note 170, at 24. These figures reflect total licensing income for both public and private universities.

172. See Newberg & Dunn, *supra* note 164, at 187-89.

173. *Id.* at 188-89.

174. S. 1191, 108th Cong. (2003).

175. *Id.*; see also *Intellectual Property Protection Restoration Act of 2003: Hearing on H.R. 2344 Before the Subcomm. on the Courts, the Internet, and Intellectual Property of the H. Comm. on the Judiciary*, 108th Cong. (2003).

176. *Id.*

The IPPRA currently is applicable only to infringement cases, but Congress should consider extending the waiver to correction of inventorship cases. As discussed earlier, for Congress to abrogate sovereign immunity through legislation it must: (1) clearly express its intent to abrogate a state's immunity from suit in federal court, and (2) act pursuant to a valid exercise of constitutional power.<sup>177</sup> The legislation must also meet the "congruence and proportionality test" set out in *City of Boerne*, which provides that "[t]here must be congruence and proportionality between the injury to be prevented or remedied and the means adopted to that end."<sup>178</sup> To ensure that inventors have a forum for bringing correction of inventorship suits, a legislative provision might read: "Any State, state instrumentality, or state official that obtains ownership rights in an issued patent, shall be subject to suit in federal court for correct inventorship determinations pursuant to 35 U.S.C. § 256." Although this language may need to be refined, it is a first step toward creating legislation that may eventually circumvent the sovereign immunity barrier faced by correction of inventorship suits.<sup>179</sup> First, the language clearly expresses Congress's intent to subject states, state instrumentalities, and state officials to suit in federal court. Second, Congress would be acting pursuant to Section 5 power under the Fourteenth Amendment because inventorship determinations implicate ownership issues. Patent rights are property rights protected by the due process clause of the Fourteenth Amendment, therefore Congress would be exercising its powers to protect potential deprivations of property rights by providing a forum to hear a correction of inventorship suit. The legislation is also the least restrictive means for achieving the goal of providing a forum for determining inventorship—it does not seek monetary damages or a forum for determining independent ownership issues.<sup>180</sup> This proposed legislation will also not affect a state employee's ability to apply for a patent grant because this legislation only waives the sovereign immunity of patent owners.<sup>181</sup> The waiver is conditioned on the university deciding to acquire ownership rights in an issued patent, but of course, in most situations a university employee will agree to assign all rights in the patent to the university.<sup>182</sup>

Even though property rights protected under the Due Process Clause are implicated in correction of inventorship suits, Congress must also demonstrate that the legislation is remedial in nature before the courts will find a valid exercise of its powers. The Supreme Court held in *Florida Prepaid* that Congress must identify a pattern of constitutional violations by the states to show that its legislation is remedial or

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177. *Seminole Tribe of Fla. v. Florida*, 517 U.S. 44, 55 (1996).

178. *City of Boerne v. Flores*, 521 U.S. 507, 519 (1997).

179. Scholars have argued whether the IPPRA would be a valid abrogation of Congress's powers, but this Note will not address the current language of the IPPRA. See, e.g., Jeffrey W. Childers, Comment, *State Sovereign Immunity and the Protection of Intellectual Property: Do Recent Congressional Attempts to "Level the Playing Field" Run Afoul of Current Eleventh Amendment Jurisprudence and Other Constitutional Doctrines?*, 82 N.C.L. REV. 1067 (2004); Jason Karasik, *Leveling the IP Playing Field: Conditional Waiver Theory and the Intellectual Property Protection Restoration Act*, 27 HASTINGS COMM. & ENT. L.J. 475 (2005).

180. Cf. Brandon White, *Protecting Property Owners from Infringement by the States: Will the Intellectual Property Rights Restoration Act of 1999 Finally Satisfy the Court?*, 35 AKRON L. REV. 531, 553–54 (2002).

181. *Id.*

182. *Id.*

preventive in securing Fourteenth Amendment protections.<sup>183</sup> If Congress was unsuccessful in showing a pattern of infringement by the states, the chances are less likely that Congress will be able to prove a pattern of instances where states file patent applications that do not name every true inventor. Licensing agreements have lessened the likelihood that infringement or correction of inventorship suits will occur between private industry and universities.<sup>184</sup> A firm will not initiate a suit if it has rights to make and use the patented invention.<sup>185</sup> However, with the increase in university-industry collaborations, correct inventorship issues are likely to occur more frequently.

### 3. Using Correction of Inventorship as a Defense

A state university will waive its sovereign immunity defense if it invokes federal jurisdiction by filing a claim in federal court.<sup>186</sup> If an inventor is almost certain that he is a true inventor of a patented invention, the inventor could decide to infringe the patent (e.g., make, use, or license the patented invention) and then wait to see whether the state university will sue the inventor in federal court for patent infringement. Once the state university has waived its immunity by invoking the federal courts to determine infringement, the inventor could use section 256 as a defense to the patent infringement claim. The inventor could claim that he has not infringed the university's patent because the patent held by the university is invalid due to failure to name all inventors.<sup>187</sup> The inventor could then request that the patent's validity be preserved through correcting the patent to reflect the proper inventors (i.e., by adding the inventor's name to the patent).<sup>188</sup> If the inventor is successful in adding his name to the patent, the infringement suit will be dismissed by the court because the inventor would have ownership rights in the patent reverting back to the date when the application was first filed.<sup>189</sup> Of course, infringing a patent can be very risky. If the inventor is unsuccessful in invalidating the patent and subsequently having his name added, the state university will maintain a monopoly over the patent's exclusion rights. The inventor will also be enjoined from further use of the technology and may also have to pay damages to the university for the infringement.<sup>190</sup>

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183. Fla. Prepaid Postsecondary Educ. Expense Bd. v. College Savings Bank, 527 U.S. 627, 639-40, 45 (1999).

184. See, e.g., Bone, *supra* note 165, at 1505.

185. See, e.g., *id.* at 1505-11.

186. Xechem Int'l, Inc. v. Univ. of Tex. M.D. Anderson Cancer Ctr., 382 F.3d 1324, 1329 (Fed. Cir. 2004).

187. See 35 U.S.C. §§ 102(f), 116 (2000).

188. See generally Ethicon, Inc. v. U.S. Surgical Corp., 135 F.3d 1456, 1466 (Fed. Cir. 1998) (dismissing claim for patent infringement after defendant asserted a successful section 256 defense).

189. See, e.g., *id.*

190. See 35 U.S.C.A. § 271 (2001 & Supp. 2005) (providing a cause of action for patent infringement and describing the type of remedies available).

## CONCLUSION

The Federal Circuit may have insulated state universities, and in some instances, also their employees, from suit in federal court for correction of inventorship, thus implicating the Fourteenth Amendment. The effects of the *Xechem* decision on industry-university collaborative relationships has yet to be seen; however, if the courts continue trending toward protecting sovereign immunity in intellectual property cases, private industry firms may have to resort to restricting their collaborations with universities to private universities.<sup>191</sup>

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191. See Bone, *supra* note 165, at 1505.