

**United States Court of Appeals
for the Federal Circuit**

REGENTS OF THE UNIVERSITY OF MINNESOTA,
Appellant

v.

**LSI CORPORATION, AVAGO TECHNOLOGIES U.S.
INC.,**
Appellees

GILEAD SCIENCES, INC.
Intervenor

2018-1559

Appeal from the United States Patent and Trademark
Office, Patent Trial and Appeal Board in No. IPR2017-
01068.

REGENTS OF THE UNIVERSITY OF MINNESOTA,
Appellant

v.

**ERICSSON INC., TELEFONAKTIEBOLAGET LM
ERICSSON,**
Appellees

GILEAD SCIENCES, INC.
Intervenor

2018-1560, 2018-1561, 2018-1562, 2018-1563, 2018-1564,
2018-1565

Appeals from the United States Patent and Trademark Office, Patent Trial and Appeal Board in Nos. IPR2017-01186, IPR2017-01197, IPR2017-01200, IPR2017-01213, IPR2017-01214, IPR2017-01219.

Decided: June 14, 2019

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Before DYK, WALLACH, and HUGHES, *Circuit Judges*.

Opinion for the court by *Circuit Judge* DYK, in which WALLACH and HUGHES, *Circuit Judges*, join.

Additional views by *Circuit Judges* DYK, WALLACH, and HUGHES.

DYK, *Circuit Judge*.

The Regents of the University of Minnesota (“UMN”) appeals from decisions by the United States Patent and Trademark Office (“USPTO”) Patent Trial and Appeal Board (“Board”) declining to dismiss petitions for inter partes review (“IPR”). The petitions were alleged to be improper because states supposedly enjoy sovereign immunity in IPR proceedings. We conclude that state sovereign immunity does not apply to these proceedings, and therefore we affirm.

BACKGROUND

The University of Minnesota is an arm of the state of Minnesota and is one of the largest public research institutions in the country. It pursues patent protection for inventions resulting from its research and is the owner of U.S.

Patent Nos. 5,859,601 ('601 patent), 7,251,768 ('768 patent), 7,292,647 (RE45,230 patent), 8,588,317 ('317 patent), 8,718,185 ('185 patent), and 8,774,309 ('309 patent). The patents were assigned to UMN at the outset of prosecution, and they were issued between January 12, 1999, and July 8, 2014. These patents cover two distinct technologies.

Appellee LSI Corp. designs and supplies semiconductors; it is alleged to infringe UMN's '601 patent, which claims particular types of "read channel" chips. Appellee Ericsson Inc. is a telecommunications company. Its customers' use of Ericsson's products was alleged to infringe UMN's '768, RE45,230, '317, '185, and '309 patents. These patents claim technology used for 4G LTE networks.

UMN, alleging infringement of these patents, sued LSI and separately sued Ericsson's customers in district court. Ericsson intervened in the customer suits.

After the commencement of the suits for patent infringement, LSI and Ericsson separately petitioned for IPR seeking a determination of unpatentability of the challenged claims on grounds of anticipation and obviousness. See *LSI Corp. v. Regents of the Univ. of Minn.*, No. IPR2017-01068, Paper 1 (P.T.A.B. Mar. 10, 2017); *Ericsson Inc. v. Regents of the Univ. of Minn.*, Nos. IPR2017-01186, Paper 1 (P.T.A.B. Mar. 28, 2017); IPR2017-01197, Paper 1 (P.T.A.B. Mar. 29, 2017); IPR2017-01200, Paper 1 (P.T.A.B. Mar. 30, 2017); IPR2017-01213, Paper 1 (P.T.A.B. Mar. 30, 2017); IPR2017-01214, Paper 1 (P.T.A.B. Mar. 30, 2017); IPR2017-01219, Paper 1 (P.T.A.B. Mar. 30, 2017).

After the petitions for IPR were filed, and before the USPTO decided whether to institute IPR, UMN filed a motion to dismiss in each proceeding based on state sovereign immunity. The USPTO convened an expanded panel, consisting of three administrative patent judges as well as the Chief Judge, Deputy Chief Judge, and two Vice Chief Judges. In each proceeding, the Board concluded that state

sovereign immunity applied to IPR proceedings but that UMN waived its immunity by filing suit against petitioners in district court.¹ A concurrence to each of the Board decisions concluded that sovereign immunity was not implicated in part because “[a]t its core, *inter partes* review is a circumscribed *in rem* proceeding, in which the Patent Office exercises jurisdiction over the patent challenged, rather than the parties named.” J.A. 13; J.A. 33.

UMN appealed the Board’s decisions, and the cases have been consolidated on appeal. Gilead Sciences, Inc., facing the same issue for its own IPR petitions, sought leave to intervene, which was granted. *Regents of the Univ. of Minn. v. LSI Corp.*, Appeal No. 2018-1559 (Fed. Cir. Apr. 19, 2018), ECF No. 35. We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A).²

¹ The Board’s order denying UMN’s motion to dismiss is at *LSI Corp. v. Regents of the University of Minnesota*, No. IPR2017-01068, Paper 19 (P.T.A.B. Dec. 19, 2017), which is identical in relevant part to the Board’s order in *Ericsson Inc. v. Regents of the University of Minnesota*, Nos. IPR2017-01186, Paper 14; IPR2017-01197, Paper 14; IPR2017-01200, Paper 16; IPR2017-01213, Paper 14; IPR2017-01214, Paper 14; IPR2017-01219, Paper 15 (P.T.A.B. Dec. 19, 2017).

² Appellee LSI argues that UMN’s appeal is not ripe because any harm to UMN would not occur unless and until the Board instituted IPR, which may or may not occur. (The USPTO and the other parties to this appeal do not challenge our jurisdiction). It is well-established that decisions denying sovereign immunity are appealable as collateral orders, and the “ultimate justification is the importance of ensuring that the States’ dignitary interests can be fully vindicated.” *P.R. Aqueduct & Sewer Auth. v. Metcalf & Eddy, Inc.*, 506 U.S. 139, 146–47 (1993) (citing *Mitchell v. Forsyth*, 472 U.S. 511, 527–29 & n.10 (1985));

While this appeal was pending, this court decided *Saint Regis Mohawk Tribe v. Mylan Pharmaceuticals Inc.*, 896 F.3d 1322 (Fed. Cir. 2018), holding that IPR proceedings were not barred by tribal sovereign immunity. A petition for certiorari was filed in that case, and the petition was denied, 139 S. Ct. 1547.

DISCUSSION

I. Post-Issuance Administrative Proceedings³

Addressing the issue of state sovereign immunity requires a detailed understanding of the history of IPR proceedings and the reasons that Congress created such proceedings.

The USPTO is an agency within the Department of Commerce and is “responsible for the granting and issuing of patents.” 35 U.S.C. §§ 1, 2. Almost every year the number of submitted patent applications has increased, from approximately 100,000 in 1980 to nearly 650,000 in 2018. U.S. Patent & Trademark Office, *U.S. Patent Statistics, Calendar Years 1963-2015*, <https://www.uspto.gov/web/>

see Chehazeh v. Attorney Gen. of U.S., 666 F.3d 118, 135–36 (3d Cir. 2012) (collecting cases); *see also Mohawk Indus., Inc. v. Carpenter*, 558 U.S. 100, 110 (2009). We see no material difference between a decision made after institution of IPR, as in *Saint Regis Mohawk Tribe v. Mylan Pharmaceuticals Inc.*, 896 F.3d 1322, 1325 (Fed. Cir. 2018), and a decision made before institution, as in this case. Given UMN’s alleged dignitary interests in avoiding IPR, the “purely legal” issue of whether sovereign immunity bars IPR for state-owned patents is ripe for review. *See Abbott Labs. v. Gardner*, 387 U.S. 136, 149 (1967), *abrogated on other ground by Califano v. Sanders*, 430 U.S. 99, 105 (1977).

³ This history is discussed in the majority and concurrence in *Saint Regis*.

offices/ac/ido/oeip/taf/us_stat.pdf; U.S. Patent & Trade-mark Office, *FY 2018 Performance & Accountability Report* 179 tbl.2 (2018) [hereinafter *FY2 2018 P&A Rpt.*], <https://www.uspto.gov/sites/default/files/documents/USPTOFY18PAR.pdf>. This has led to a steady backlog of applications, and the USPTO now issues approximately 300,000 patents each year. *FY 2018 P&A Rpt.*, at 180 tbl.3; *id.* at 181 tbl.6. To perform its duty to examine and issue patents, the USPTO relies on a corps of approximately 8,000 patent examiners who are charged with determining whether an applicant is entitled to a patent for a claimed invention. *Id.* at 205 tbl.28. Although essential to the examination process, the agency struggles to attract and retain examiners able to perform sufficiently thorough prior art searches and make a patentability determination.⁴

Given the large number of patent applications, patent examiners only receive roughly 22 hours to review each application, which 70% of examiners have reported as insufficient time. U.S. Gov't Accountability Office, *GAO-16-490, Patent Office Should Define Quality, Reassess Incentives, and Improve Clarity* 10, 25–26 (2016) [hereinafter *Quality, Incentives, & Clarity*]. In those 22 hours, examiners must ensure not only that technical formalities are met, but also that the statutory requirements for patentability, such as novelty and non-obviousness, are met. For this determination, the USPTO relies on the examiner's prior art searching, aided by prior art the applicant identifies.

For many years, until 2000, there was virtually no public input in the initial examination process since patent applications were not published. Beginning in 2000, patent

⁴ See U.S. Gov't Accountability Office, *GAO-16-479, Patent Office Should Strengthen Search Capabilities and Better Monitor Examiners' Work* 28–29 & 28 n.50 (2016); *FY 2018 P&A Rpt.*, at 205 tbl.28 (2018) (showing net attrition of more than 450 examiners from 2014 to 2018).

applications have been typically published 18 months after the earliest claimed filing date, *see* 35 U.S.C. § 122; 37 C.F.R. § 1.211, and Congress has provided for some limited public participation during the initial examination,⁵ *see* 35 U.S.C. §§ 122(c), (e); H.R. Rep. No. 112–98, pt. I, at 48–49 (2011); 37 C.F.R. §§ 1.290–91. Nonetheless, in light of the USPTO’s constrained resources and the absence of material outside input during the initial examination, it is inevitable that there are patents granted in error.⁶

This is not a new phenomenon. In 1980, Congress was concerned that this was “a situation where a limited staff is trying to cope with a constantly increasing workload and is under pressure to make speedy determinations on whether or not to grant patents.” S. Rep. No. 96–617, at 8 (1980); *see also Patent Reexamination: Hearing on S. 1679 Before the Comm. on the Judiciary*, 96th Cong. 3 (1980)

⁵ After a patent application is published, a third party may file a pre-issuance submission, which includes either a patent application, published patent application, or other printed publication and, after 2011, a concise statement as to the relevance of the submitted prior art to the patentability of the claimed invention. 35 U.S.C. § 122(e); 37 C.F.R. § 1.290.

⁶ *See Quality, Incentives, & Clarity*, at 25 (“[E]xaminers’ time pressures are one of the central challenges for patent quality.”); *see also* Michael D. Frakes & Melissa F. Wasserman, *Does the U.S. Patent and Trademark Office Grant Too Many Bad Patents?: Evidence from a Quasi-Experiment*, 67 *Stan. L. Rev.* 613, 652–53 (2015) (finding increased patent grant rates correlated with increased resource strain on the USPTO); Shawn P. Miller, *Where’s the Innovation: An Analysis of the Quantity and Qualities of Anticipated and Obvious Patents*, 18 *Va. J.L. & Tech.* 1, 45 (2013) (estimating that 28% of issued patents would be invalidated as anticipated or obvious).

(statement of Sen. Bayh) (characterizing the USPTO as “an understaffed and overworked office trying to handle an ever increasing workload”); *Industrial Innovation and Patent and Copyright Law Amendments: Hearing on H.R. 6033, H.R. 6934, H.R. 3806, H.R. 2414 Before the Subcomm. on Courts, Civil Liberties & the Admin. of Justice of the H. Comm. on the Judiciary*, 96th Cong. 580–81 (1981) (statement of Sidney A. Diamond, Commissioner of Patents and Trademarks). Congress’ solution was to provide for reexamination of the original patent grant.

In general, until 1980 the only way the original patent grant could be challenged was in patent litigation in district court by a declaratory judgment action or as a defense in a patent infringement action, both of which could be extremely expensive and both of which generally were not available until a claim of infringement was asserted by the patent owner. *See Patlex Corp. v. Mossinghoff*, 758 F.2d 594, 601–02 (Fed. Cir. 1985); S. Rep. 96–617, at 9–10 (testimony of Sidney A. Diamond, Commissioner of Patents and Trademarks).⁷ In this respect, the United States’ patent system diverged from its English origins, which had for centuries recognized the executive’s ability to reconsider a prior patent grant.⁸ In 18th-century England,

⁷ There were earlier post-grant administrative proceedings to determine who was the proper owner of a patented invention (i.e., an interference proceeding), *see, e.g., Morgan v. Drake*, 36 F.2d 511 (C.C.P.A. 1929), and to reevaluate the patentability of a patented invention based on an application by the patent owner (i.e., a reissue proceeding), *see Fresenius USA, Inc. v. Baxter Int’l, Inc.*, 721 F.3d 1330, 1336–40 (Fed. Cir. 2013) (discussing history).

⁸ *See In re Bilski*, 545 F.3d 943, 966–76 (Fed. Cir. 2008) (en banc) (Dyk, J., concurring) (discussing the relationship between the U.S. patent law and the English common law); Mark A. Lemley, *Why Do Juries Decide If*

parties could challenge the validity of a patent by petitioning the government via the Privy Council to revoke the public franchise. *Oil States Energy Servs., LLC v. Green's Energy Grp., LLC*, 138 S. Ct. 1365, 1376–78 (2018). “The Privy Council was a prominent feature of the English system,” and “[b]ased on the practice of the Privy Council, it was well understood at the founding that a patent system could include a practice of granting patents subject to potential cancellation in the executive proceeding.” *Id.* at 1377.

In 1980, Congress for the first time enacted post-grant review provisions allowing a challenge to the validity of an issued patent in an ex parte reexamination process.⁹ Act of Dec. 12, 1980, Pub. L. No. 96–517, 94 Stat. 3015 (1980). In these proceedings, Congress sought to enlist the assistance

Patents Are Valid?, 99 Va. L. Rev. 1673, 1691–704 (2013) [hereinafter *Why Do Juries Decide?*] (discussing the divergence of early American and English patent practice).

⁹ Prior to 1836, Congress had authorized suit for *scire facias* to invalidate a patent where the suit, though brought by a private party, was under the control of the United States. In the Patent Act of 1836, Congress repealed that provision, but the Supreme Court concluded that the statutory change did not remove the United States’ ability to sue in equity to invalidate a patent, at least where there had been fraud on the patent office. See *United States v. Am. Bell. Tel. Co.*, 128 U.S. 315, 371–73 (1888) (“[Such a suit by the United States] is so widely different, so much more beneficial, and is pursued under circumstances so much more likely to secure complete justice, than any defense which can be made by an individual infringer, that it is impossible to suppose that congress, in granting this right to the individual, intended to supersede or take away the more enlarged remedy of the government.”); *Why Do Juries Decide*, *supra* n.8, at 1695–97.

of third parties to identify relevant prior art so as to address the lack of public trust and confidence in the patent system's ability to weed out bad patents in initial ex parte examination.¹⁰ As the USPTO Commissioner explained during consideration of the 1980 legislation,

The main reason [the new procedure of] reexamination is needed is because members of the public interested in the validity of a patent are sometimes able to find pertinent prior patents and printed publications not known or available to the PTO

The patent owner's competitors will devote great effort and expense to invalidating a patent that affects their businesses. They can afford to look for documentary evidence of unpatentability in library collections, technical journals and other sources not within the PTO's search file. Because of budgetary and time constraints, the examiner's search seldom extends beyond the PTO's 22 million document collection.

Industrial Innovation and Patent and Copyright Law Amendments: Hearing on H.R. 6033, H.R. 6934, H.R. 3806, H.R. 2414 Before the Subcomm. on Courts, Civil Liberties & the Admin. of Justice of the H. Comm. on the Judiciary, 96th Cong. 576 (1981) (statement of Sidney A. Diamond, Commissioner of Patents and Trademarks). Not only would the USPTO benefit from greater public participation in post-grant proceedings, but the proceedings also had new

¹⁰ Mark D. Janis, *Rethinking Reexamination: Toward a Viable Administrative Revocation System for U.S. Patent Law*, 11 Harv. J.L. & Tech. 1, 9–10 (1997); see S. Rep. No. 96–617, at 2–3, 14 (1980); H.R. Rep. No. 96–1307, pt. 1, at 3 (1980) (expressing concern as to the lack of confidence in the patent system).

procedures that would allow the agency to focus its resources on reevaluating those patents of particular concern to the public.¹¹

Thus, “[t]he reexamination statute enabled the PTO to recover administrative jurisdiction over an issued patent in order to remedy any defects in the examination which that agency had initially conducted and which led to the grant of the patent.” *Patlex*, 758 F.2d at 601. Under the reexamination procedures, if the USPTO learned of prior art that raised “a substantial new question of patentability” it could institute an *ex parte* reexamination. 35 U.S.C. § 303.

However, *ex parte* reexaminations did not solve the agency’s problems. Once instituted, *ex parte* reexamination largely followed the same process as the initial examination, without further third-party input. S. Rep. No. 110–259, at 18–19 (2008). It “follow[ed] essentially the same inquisitorial process between patent owner and examiner as the initial Patent Office examination.” *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 1353 (2018) (citing 35 U.S.C. § 305). In this respect, it was “meaningfully different” from the *inter partes* reexamination and IPR proceedings that Congress adopted thereafter. *Return Mail, Inc. v U.S. Postal Serv.*, No. 17-1594, slip op. at 14 (June 10, 2019).

In 1999, seeking to enhance the process, Congress enacted provisions for the *inter partes* reexamination

¹¹ See Kimberly A. Moore, *Worthless Patents*, 20 Berkeley Tech. L.J. 1521, 1521–22, 1530–31 (2005) (noting that only a small fraction of issued patents are ever asserted and that, in the sample of patents studied, more than half of all the issued patents expired for failure to pay maintenance fees); Mark A. Lemley, *Rational Ignorance at the Patent Office*, 95 Nw. U. L. Rev. 1495, 1497, 1501–08 (2001) (same).

proceedings, in order to increase third party participation. Act of Nov. 29, 1999, Pub. L. No. 106–113, 113 Stat. 1501 (1999); *see* H.R. Rep. 106–464, at 133 (1999).

Similar to *ex parte* reexamination, the *inter partes* reexamination process began with a third-party request for reexamination based on prior art, and if the prior art raised a substantial new question of patentability, the USPTO would grant the request and proceed with reexamination. 35 U.S.C. § 312 (2002). However, significantly, unlike *ex parte* reexamination, *inter partes* reexamination allowed the third-party requestor to participate throughout the proceeding. “Each time that the patent owner file[d] a response to an action on the merits from the [USPTO], the third-party requestor shall have one opportunity to file written comments addressing issues raised by the action of the Office or the patent owner’s response thereto.” *Id.* § 314. The third party could also appeal to the Board of Patent Appeals and Interferences if the examiner found the claims to be not unpatentable. “The participation by third parties [was] considered vital” to the goal of “improving patent quality and validity” because “in many circumstances they [would] have the most relevant prior art available and incentive to seek to invalidate an allegedly defective patent.” H.R. Rep. 107–120, at 4 (2001). After 1999, Congress continued to tweak *ex parte* and *inter partes* proceedings, but they were less widely used than Congress had hoped and had features that made them “troublesomely inefficient and ineffective as a truly viable alternative for resolving questions of patent validity.” S. Rep. No. 110–259, at 19 (2008).¹²

¹² For example, until 2002, a person requesting reexamination of a patent could not solely rely on prior art that the USPTO had already considered. *See* Pub. L. 107–273, § 13105, 116 Stat. 1758, 1900 (2002). Another example of the deficiency of these proceedings was that *inter partes*

In 2011, Congress enacted the Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112–29, 125 Stat. 284 (2011), to “improve patent quality and limit unnecessary and counterproductive litigation costs.” H.R. Rep. 112–98, pt. I, at 40 (2011). Congress replaced inter partes reexamination with new post-grant review procedures, including IPR, covered business method review, and post-grant review, while retaining ex parte reexamination. IPR in particular was designed to improve on the inter partes reexamination process, and “[a]lthough Congress changed the name from ‘reexamination’ to ‘review,’ nothing convinces us that, in doing so, Congress wanted to change its basic purposes, namely to reexamine an earlier agency decision.” *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2137, 2144 (2016). Just as with the prior reexamination procedures, IPR “allows a third party to ask the U.S. Patent and Trademark Office to reexamine the claims,” *id.* at 2136, albeit with “broader participation rights,” *id.* at 2137.

Before IPR can be instituted, a person must file a petition challenging the validity of one or more patent claims under § 102 or § 103 on the basis of prior art patents or printed publications. 35 U.S.C. §§ 311, 312. The petition may be supported by declarations. 35 U.S.C. § 312(a)(3)(B). The petitioner need not have constitutional standing to file the petition or participate in IPR. *Cuozzo*, 136 S. Ct. at 2143–44. After filing, the petitioner has a limited ability to amend its petition as “the Board has determined that in IPR a petitioner may only make clerical or typographical corrections to its petition.” *Saint Regis*, 896 F.3d at 1328. The petitioner must also serve the petition on the patent

reexamination took an average of three and a half years from initiation to a certificate issue date. *See* U.S. Patent & Trademark Office, Inter Partes Reexamination Filing Data (2017), https://www.uspto.gov/sites/default/files/documents/inter_parte_historical_stats_roll_up.pdf.

owner, 37 C.F.R. § 42.105, and the patent owner may, but need not, file a preliminary response, 35 U.S.C. § 313; 37 C.F.R. § 42.107(a).

If the Director of the USPTO, a politically accountable executive officer,¹³ determines that the appropriately filed petition “shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition,” the Director may institute IPR. 35 U.S.C. § 314(a); *see* 35 U.S.C. § 325(d). “The decision whether to institute inter partes review is committed to the Director’s discretion.” *Oil States*, 138 S. Ct. at 1371. This decision is “final and nonappealable.” 35 U.S.C. § 314(d); *see Oil States*, 138 S. Ct. at 1378 n.5 (citing *Cuozzo*, 136 S. Ct. at 2140).

Once instituted, the Board, typically a three-member panel of administrative patent judges, examines the validity of the asserted patent claims. A patent owner may respond to the petition after IPR is instituted, 35 U.S.C. § 316(a)(8), but the petitioner bears the burden of proving “unpatentability by a preponderance of the evidence,” *id.* § 316(e). The procedure for reexamining the earlier decision to issue the patent by design is abbreviated compared to district court proceedings. *See id.* § 316(a)(11). During IPR, the patent owner and petitioner can seek discovery, but such discovery is generally limited to “(A) the deposition of witnesses submitting affidavits or declarations; and (B) what is otherwise necessary in the interest of justice.” *Id.* § 316(a)(5); 37 C.F.R. § 42.51(b); *see* 154 Cong. Rec. S9988–89 (daily ed. Sept. 27, 2008) (statement of Sen. Kyl) (noting that “[g]iven the time deadlines imposed on these proceedings, it is anticipated that, regardless of the

¹³ The Director is “appointed by the President, by and with the advice and consent of the Senate,” and “may be removed from office by the President.” 35 U.S.C. § 3(a)(1), (4).

standards imposed . . . PTO will be conservative in its grants of discovery”).¹⁴ Additionally, although the parties are entitled to an oral hearing, 35 U.S.C. § 316(a)(10); 37 C.F.R. § 42.70, “[t]he hearings are short, and live testimony is rarely allowed.” *Saint Regis*, 896 F.3d at 1328 (citing *Ultratec, Inc. v. CaptionCall, LLC*, 872 F.3d 1267, 1270 n.2 (Fed. Cir. 2017)).

Once instituted, the proceedings may continue without either the petitioner or the patent owner. The statutory provision states that if the petitioner stops participating, the Board may continue on to a final written decision. 35 U.S.C. § 317(a). If the patent owner stops participating, “[t]he Board has construed its rules to allow it to continue review.” *Saint Regis*, 896 F.3d at 1328. During the proceeding the patent owner may also seek leave to amend the original patent claims to resolve the problem of patent eligibility, as the applicant can do in initial examination though the proposed amendments may also be challenged by the petitioner. 35 U.S.C. § 316(d).

An IPR proceeding in general must be completed within one year of institution. 35 U.S.C. § 316(a)(11). When IPR is completed, the Board issues a final written decision with respect to patent claims challenged by the petitioner

¹⁴ “[D]iscovery is limited as compared to that available in district court litigation. Limited discovery lowers the cost, minimizes the complexity, and shortens the period required for dispute resolution. There is a one-year statutory deadline for completion of *inter partes* review, subject to limited exceptions. What constitutes permissible discovery must be considered with that constraint in mind.” *Garmin Int’l, Inc. v. Cuozzo Speed Techs. LLC*, No. IPR2012–00001, 2013 WL 11311697, at *3 (Paper 26) (P.T.A.B. Mar. 5, 2013) (citations omitted) (contextualizing the Board’s interpretation of the “necessary in the interest of justice” prong for IPR discovery).

and any claims sought to be amended. 35 U.S.C. § 318(a). A party dissatisfied with the decision may then appeal to this court, *id.* § 319,¹⁵ and the Director may intervene in the appeal, *id.* § 143. After the time for appeal has expired, or appellate review has been exhausted, the process ultimately terminates with the USPTO issuing a certificate canceling, confirming, or incorporating patent claims. *Id.* § 318(b). The proceeding cannot award monetary or other relief against the patent owner. Following an IPR proceeding that “results in a final written decision,” statutory estoppel applies to the petitioner with respect to “any ground that the petitioner raised or reasonably could have raised during” the IPR proceeding. *Id.* § 315(e). The patent owner is estopped from obtaining “[a] claim that is not patentably distinct from a finally refused” claim. 37 C.F.R. § 42.73(d)(3)(i).

II. State Sovereign Immunity

While admitting that both *ex parte* and *inter partes* reexamination did not implicate sovereign immunity,¹⁶ UMN and its supporting amici contend that states enjoy immunity from IPR proceedings.

States typically enjoy immunity from lawsuits brought by private parties as a “fundamental aspect of the sovereignty which the States enjoyed before the ratification of the Constitution, and which they retain today.” *Alden v.*

¹⁵ We have held, however, that a petitioner can only appeal an adverse decision by the Board if it satisfies Article III standing requirements. *Consumer Watchdog v. Wis. Alumni Research Found.*, 753 F.3d 1258, 1260–61 (Fed. Cir. 2014).

¹⁶ “Q. Do States enjoy sovereign immunity in reexam proceedings? A. In an *ex parte* reexamination, no” “Q. So no sovereign immunity in *inter partes* reexam? A. . . . I would say no” Oral Arg. at 6:20–7:01.

Maine, 527 U.S. 706, 713 (1999). This is sometimes referred to as Eleventh Amendment immunity,¹⁷ but “the sovereign immunity of the States neither derives from nor is limited by, the terms of the Eleventh Amendment.” *Id.*; see *Seminole Tribe of Fla. v. Florida*, 517 U.S. 44, 54 (1996). “The preeminent purpose of state sovereign immunity is to accord States the dignity that is consistent with their status as sovereign entities,” while collaterally “serv[ing] the important function of shielding state treasuries.” *Fed. Mar. Comm’n v. S.C. State Ports Auth.*, 535 U.S. 743, 760, 765 (2002) (“*FMC*”).

This immunity applies not only to proceedings brought by a private party in an Article III forum but also to agency adjudications brought by private parties that are similar to court adjudications. *Id.* at 760. However, sovereign immunity does not apply to suits brought by the United States, including agency proceedings commenced by the United States. *Id.* at 752; *Alden*, 527 U.S. at 755 (citing *Principality of Monaco v. Mississippi*, 292 U.S. 313, 328–29 (1934) (collecting cases)); *United States v. Mississippi*, 380 U.S. 128, 140–41 (1965); *United States v. Texas*, 143 U.S. 621, 646 (1892). The Supreme Court recognized in *FMC* that sovereign immunity does not bar an agency from bringing an enforcement action against the state “upon its own initiative or upon information supplied by a private party.” 535 U.S. at 767–68.

UMN argues that sovereign immunity applies to IPR proceedings where the state is the patent owner because they are not like suits brought by the United States but are entirely a dispute between a private party and the state,

¹⁷ “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.” U.S. Const. amend. XI.

and they share similarities with Article III proceedings where sovereign immunity applies. We have recently addressed the related question of whether tribal sovereign immunity applies to IPR proceedings in *Saint Regis Mohawk Tribe v. Mylan Pharmaceuticals Inc.*, 896 F.3d 1322 (Fed. Cir. 2018), *cert. denied*, 139 S. Ct. 1547 (2019), and held that it does not.

III. *Saint Regis Mohawk Tribe*

In *Saint Regis*, the Saint Regis Mohawk Tribe entered into an ownership agreement regarding various patents, which were the subject of ongoing IPR proceedings, and it then invoked tribal sovereign immunity as a bar to those proceedings. *Id.* at 1325. We concluded that tribal sovereign immunity did not apply to IPR because the “USPTO [was] acting as the United States in its role as a superior sovereign to reconsider a prior administrative grant and protect the public interest in keeping patent monopolies ‘within their legitimate scope.’” *Id.* at 1329 (quoting *Cuozzo*, 136 S. Ct. at 2144).

The Supreme Court has concluded that IPR proceedings are essentially agency reconsideration of a prior patent grant. *Cuozzo*, 136 S. Ct. at 2144 (“[T]he purpose of the proceeding is not quite the same as the purpose of district court litigation [Instead,] the proceeding offers a second look at an earlier administrative grant of a patent.”); *Oil States*, 138 S. Ct. at 1374 (“[IPR] involves the same interests as the determination to grant a patent in the first instance.”). The fact that Congress has enlisted the assistance of private parties does not change their essential character. As discussed above, since 1980, Congress, concerned with agency resource constraints, has relied on third party participation to assist the agency’s evaluation of patentability. *See also Saint Regis*, 896 F.3d at 1330–31 (Dyk, J., concurring). In IPR, Congress imported limited discovery and live hearings. As explained in *Saint Regis*, although these modifications to inter partes reexamination

make IPR “look[] a good deal more like civil litigation,” *SAS*, 138 S. Ct. at 1353, fundamentally these proceedings continue to be a “second look at an earlier administrative grant of a patent,” *Cuozzo*, 136 S. Ct. at 2144. *See Saint Regis*, 896 F.3d at 1327–29. The USPTO’s enlistment of third parties in IPR has made the process less of an “agency-led, inquisitorial process for reconsidering patents,” and more of a “party-directed, adversarial process,” *SAS*, 138 S. Ct. at 1355, i.e., “[an] adversarial, adjudicatory proceeding[] between the ‘person’ who petitioned for review and the patent owner,” *Return Mail*, slip op. at 14, but that does not disturb the basic purpose of the proceeding, “namely, to reexamine an earlier agency decision,” *Cuozzo*, 136 S. Ct. at 2144. “Ultimately several factors convince[d] us that IPR is more like an agency enforcement action than a civil suit brought by a private party, and we conclude[d] that tribal immunity is not implicated.” *Saint Regis*, 896 F.3d at 1327.¹⁸ These factors are equally applicable to state sovereign immunity.

First, “[i]t is the Director, the politically appointed executive branch official, not the private party, who ultimately decides whether to proceed against the sovereign.” *Saint Regis*, 896 F.3d at 1328. Although there must be a petition for IPR to be initiated (i.e., “[35 U.S.C. § 311(a)] doesn’t authorize the Director to start proceedings on his own initiative,” *SAS*, 138 S. Ct. at 1355), any “person who is not the owner of [the] patent” may file a petition, 35 U.S.C. § 311(a), even those who do “not have a concrete

¹⁸ We did not hold that interference proceedings were barred by state sovereign immunity in *Vas-Cath, Inc. v. Curators of Univ. of Mo.*, 473 F.3d 1376, 1382 (Fed. Cir. 2007), nor do we decide that issue here. We note that interference proceedings may more closely resemble agency adjudication between private parties as compared to IPR proceedings.

stake in the outcome; indeed, they may lack constitutional standing,” *Cuozzo*, 136 S. Ct. at 2143–44. The Director’s decision to institute is within his discretion, and Congress went so far as to bar judicial review of that decision. 35 U.S.C. § 314(d). In this respect, IPR “is not initiated by private parties in the way that a common-law cause of action is.” *Oil States*, 138 S. Ct. at 1378 n.5.

Second, even if the petitioner or patent owner elects not to participate during IPR, the Board can continue to a final written decision, “reinforc[ing] the view that IPR is an act by the agency in reconsidering its own grant of a public franchise.” *Saint Regis*, 896 F.3d at 1328. In contrast, civil litigation in an Article III forum terminates when there is no longer a “case or controversy.”

Third, the IPR procedure is in other respects distinct from ordinary civil litigation. The Federal Rules of Civil Procedure do not apply. Unlike civil litigation, during IPR a patent owner may amend its claims. (In district court litigation, a patent owner may only amend patent claims to correct typographical errors). *Id.* at 1328–29. Even though discovery and a live hearing may be part of an IPR proceeding, both are more limited than their civil counterparts. *Id.*

It is clear from the history and operation of IPR that these proceedings are designed to allow the USPTO to harness third parties for the agency to evaluate whether a prior grant of a public franchise was wrong, a feature carried over from inter partes reexamination. In this way, IPR is akin to *FMC* proceedings brought by the agency that would not be barred by sovereign immunity. 535 U.S. at 767–68. Indeed, *Saint Regis* relied heavily on the Supreme Court’s analysis in *FMC*, which dealt with state sovereign immunity. 896 F.3d at 1326 (“Although the precise contours of tribal sovereign immunity differ from those of state sovereign immunity, the *FMC* analysis is instructive.”). Applying *FMC*’s analysis as we did in *Saint Regis*, we hold that IPR, like inter partes reexamination, is similar to an

agency enforcement action instituted by the USPTO “upon information supplied by a private party” rather than civil litigation, so state sovereign immunity is not implicated. *FMC*, 535 U.S. at 768.

We also read the Supreme Court’s holding in *Oil States*, that IPR evaluation of patent validity concerns “public rights,” as supporting the conclusion that IPR is in key respects a proceeding between the government and the patent owner. In *Oil States*, the Court concluded that IPR proceedings could be conducted before the agency rather than an Article III court because they concern matters “which arise *between* the Government and persons subject to its authority,” that is “arising *between* the government and others, which from their nature do not require judicial determination.” 138 S. Ct. at 1373 (emphases added) (quoting *Crowell v. Benson*, 285 U.S. 22, 50 (1932)).¹⁹ The Court concluded that despite the increased participation of third parties, IPR “remains a matter involving public rights, one ‘*between* the government and others.’” *Id.* at 1378 (emphasis added) (quoting *Ex parte Bakelite Corp.*, 279 U.S. 438, 451 (1929)). We interpret the Court’s language in *Oil States* as concluding that IPR is an adjudication of public rights, and therefore able to be resolved in a non-Article III forum, because it is in key respects a proceeding between the United States and the patent owner. In this way, these proceedings are not barred by state sovereign immunity since

¹⁹ This is not to say that the public rights doctrine may not cover instances of disputes between private parties regarding a public right. See *MCM Portfolio LLC v. Hewlett-Packard Co.*, 812 F.3d 1284, 1288–92 (Fed. Cir. 2015). But we read the Supreme Court as having resolved the public rights issue in *Oil States* on the narrower ground that IPR is a proceeding between the United States and the patent owner, rather than adjudication between two private parties regarding a public right.

sovereign immunity does not bar proceedings brought by the United States. *FMC*, 535 U.S. at 752; *Alden*, 527 U.S. at 755 (citing *Principality of Monaco*, 292 U.S. at 328–29).

UMN argues that the reasoning in *Saint Regis* is inapposite to the current appeal because there are salient differences between tribal and state sovereign immunity. In *Saint Regis* we recognized “many parallels” between tribal and state sovereign immunity but left “for another day the question of whether there is any reason to treat state sovereign immunity differently.” 896 F.3d at 1329. We now conclude that the differences between tribal and state sovereign immunity do not warrant a departure from the reasoning in *Saint Regis*.

To be sure, “immunity possessed by Indian tribes is not coextensive with that of the States,” *Kiowa Tribe of Okla. v. Mfg. Techs., Inc.*, 523 U.S. 751, 756 (1998), as the two are derived from different origins, *compare id.* at 756–57, *with Alden*, 527 U.S. at 713–28. Tribal sovereign immunity “is subject to the superior and plenary control of Congress,” *Santa Clara Pueblo v. Martinez*, 436 U.S. 49, 58 (1978), whereas state sovereign immunity can only be abrogated under “a valid grant of constitutional authority,” *Kimel v. Fla. Bd. of Regents*, 528 U.S. 62, 73 (2000). But, as noted above, suits brought by the United States have long been recognized as not being impeded by either tribal or state sovereign immunity, and when Congress intends to abrogate either tribal or state sovereign immunity for suits brought by private parties, it must do so with clear language. *See, e.g., Michigan v. Bay Mills Indian Cmty.*, 572 U.S. 782, 790 (2014) (tribal sovereign immunity); *Blatchford v. Native Village of Noatak & Circle Village*, 501 U.S. 775, 786 (1991) (state sovereign immunity).

The patentee’s suggestion that *Saint Regis* rests on the authority of Congress to abrogate tribal sovereign immunity finds no support in the decision or the statutory scheme. There is no indication in the AIA or its legislative history

that Congress designed IPR to abrogate tribal immunity. And, contrary to UMN's arguments, *Saint Regis* did not base its reasoning on implied abrogation of tribal sovereign immunity. Instead, *Saint Regis* concluded that IPR was an agency reconsideration proceeding to which sovereign immunity does not apply in the first instance. 896 F.3d at 1329. This reasoning applies equally to states as it does to tribes.

UMN further contends that, unlike tribal immunity, there is a presumption (the *Hans* presumption) that state sovereign immunity applies to proceedings, such as IPR, that were "anomalous and unheard of when the Constitution was adopted." *FMC*, 535 U.S. at 755–56 (quoting *Hans v. Louisiana*, 134 U.S. 1, 18 (1890)). We disagree. First, "it was well understood at the founding that a patent system could include a practice of granting patents subject to potential cancellation in the executive proceeding of the Privy Council" (i.e., that the executive could provide a forum for resolving questions of patent validity). *Oil States*, 138 S. Ct. at 1376–78. Second, the Supreme Court recognized in *FMC* that even though the *Hans* presumption applied to bar resolution of private disputes in an agency forum, it did not bar resolution of an agency enforcement action against a state that was initiated based on information supplied by a third party. *FMC*, 535 U.S. at 767–68. As we held in *Saint Regis*, IPR is properly viewed as an agency's reconsideration of a previous patent grant that is aided by information supplied by a third party, and state sovereign immunity does not bar these proceedings.

We conclude that state and tribal sovereign immunity do not differ in a way that is material to the question of whether IPR proceedings are subject to state sovereign immunity. Thus, under the reasoning of the majority and

concurrence in *Saint Regis*, we conclude that state sovereign immunity does not apply to IPR proceedings.²⁰

²⁰ UMN argues that the Supreme Court’s decision in *Franchise Tax Board of California v. Hyatt*, 139 S. Ct. 1485, 1495 (2019), recognizes that “the only forums in which the States have consented to suits by one another and by the Federal Government are Article III courts.” UMN contends that this decision supports its position that IPR proceedings cannot be maintained even if they are proceedings brought by the United States. Fed. R. App. P. 28(j) Letter, ECF No. 155. Unlike the current appeal, *Hyatt* involved only the question whether state sovereign immunity barred private suits brought against a state in a sister state’s courts. The Court answered in the affirmative, overruling *Nevada v. Hall*, 440 U.S. 410 (1979). We do not read *Hyatt* as holding that state sovereign immunity applies in agency proceedings initiated by the United States.

First, the sentence in *Hyatt* relied on by UMN cites *FMC* as sole authority for the proposition. The Supreme Court specifically recognized in *FMC* that an agency “remains free to investigate alleged violations . . . either upon its own initiative, or upon information supplied by a private party, and to institute its own administrative proceeding against a [state entity].” 535 U.S. at 768 (citation omitted). There is no indication in *Hyatt* that the Court intended to undermine *FMC*. Just as the agency could bring an enforcement action in *FMC*, so too can the USPTO institute an IPR proceeding based on information supplied by a private party where the final decision is reviewable by an Article III court.

Second, even if state sovereign immunity might in some circumstances bar administrative proceedings involving states, this would not bar the USPTO’s reconsideration of a prior patent grant because a state impliedly consents to such proceedings when it applies for, or otherwise

We finally note, although not implicated in the facts of this case, the concerns raised by the parties and amici that if sovereign immunity barred IPR proceedings against patents obtained by a sovereign, nothing would prevent a state from lending its sovereign immunity to private parties, as the tribe attempted to do in *Saint Regis*.²¹ Such manipulation would undo Congress' central quality control mechanism in creating post-grant administrative proceedings.

CONCLUSION

IPR represents the sovereign's reconsideration of the initial patent grant, and the differences between state and tribal sovereign immunity do not warrant a different result than in *Saint Regis*. We therefore conclude that state sovereign immunity does not apply to IPR proceedings. In

obtains ownership of, a patent that is “a creature of statute law” and granted “subject to potential cancellation in [an] executive proceeding.” *Oil States*, 138 S. Ct. at 1374, 1377 (“We conclude that inter partes review is one of th[e] conditions [for patentability].”). When one sovereign acquires property under the domain of another, sovereign immunity does not bar reconsideration of the property grant by the originating sovereign. See *Georgia v. City of Chattanooga*, 264 U.S. 472, 479–80 (1924) (“The terms on which Tennessee gave Georgia permission to acquire and use the land and Georgia’s acceptance amount to consent that Georgia may be made a party to condemnation proceedings.”); *Upper Skagit Indian Tribe v. Lundgren*, 138 S. Ct. 1649, 1657–61 (2018) (Thomas, J., dissenting) (discussing the immovable-property exception to sovereign immunity).

²¹ See Adam Davidson, *Why is Allergan Partnering With The St. Regis Mohawk Tribe?*, *The New Yorker*, Nov. 13, 2017 (reporting on interest by state universities in commoditizing sovereign immunity for privately owned patents).

light of the above disposition, we do not address the issue of whether, if sovereign immunity were to apply to IPR proceedings, the state here waived such immunity by asserting patent claims in district court that were later challenged in a petition for IPR.

AFFIRMED

COSTS

No costs.

**United States Court of Appeals
for the Federal Circuit**

REGENTS OF THE UNIVERSITY OF MINNESOTA,
Appellant

v.

**LSI CORPORATION, AVAGO TECHNOLOGIES U.S.
INC.,**
Appellees

GILEAD SCIENCES, INC.
Intervenor

2018-1559

Appeal from the United States Patent and Trademark
Office, Patent Trial and Appeal Board in No. IPR2017-
01068.

REGENTS OF THE UNIVERSITY OF MINNESOTA,
Appellant

v.

**ERICSSON INC., TELEFONAKTIEBOLAGET LM
ERICSSON,**
Appellees

GILEAD SCIENCES, INC.
Intervenor

2018-1560, 2018-1561, 2018-1562, 2018-1563, 2018-1564,
2018-1565

Appeals from the United States Patent and Trademark Office, Patent Trial and Appeal Board in Nos. IPR2017-01186, IPR2017-01197, IPR2017-01200, IPR2017-01213, IPR2017-01214, IPR2017-01219.

Additional views of DYK, WALLACH, and HUGHES, *Circuit Judges*.

While the opinion for the court does not reach the issue, in our view state sovereign immunity also does not apply to IPR proceedings because they are in substance the type of in rem proceedings to which state sovereign immunity does not apply.

I. In Rem Proceedings

On appeal the parties dispute whether IPR is an in rem proceeding to which sovereign immunity does not apply, even if the proceedings are deemed adversarial as between private parties.

For sovereign immunity purposes, at least in some contexts the Supreme Court's "precedent has drawn a distinction between in rem and in personam jurisdiction, even when the underlying proceedings are, for the most part, identical." *Tenn. Student Assistance Corp. v. Hood*, 541 U.S. 440, 453 (2004). In personam proceedings involve "subjecting a State to the coercive process of judicial tribunals at the instance of private parties," which constitutes an affront to a state's dignity. *Id.* (quoting *Seminole Tribe*

of *Fla. v. Florida*, 517 U.S. 44, 58 (1996)); see, e.g., *id.* (“The issuance of process . . . is normally an indignity to the sovereignty of a State because its purpose is to establish personal jurisdiction over the State.”). In rem proceedings, where personal jurisdiction need not be established over a state or its officers, at least in some contexts, “do[] not, in the usual case, interfere with state sovereignty even when States’ interests are affected.” *Cent. Va. Cmty. Coll. v. Katz*, 546 U.S. 356, 370 (2006) (holding that states have waived sovereign immunity for certain proceedings brought pursuant to the Bankruptcy Clause). And, as we describe below, IPR is an in rem proceeding.

Despite language in some Supreme Court cases broadly describing the United States’ immunity to in rem proceedings,¹ recognition of state sovereign immunity in such proceedings has been more limited. For example,

¹ See, e.g., *The Siren*, 74 U.S. 152, 154 (1868) (“[D]irect suits cannot be maintained against the United States, or against their property”); but see *The Davis*, 77 U.S. 15, 19–20 (1869): “There are some expressions in the opinion of this court in the case of *The Siren*, which seem to imply that no suit *in rem* can be instituted against property of the United States under any circumstances. But a critical examination of the case and the reasoning of the court, will show that that question was not involved in the suit, and that it was not intended to assert such a proposition without qualification.” *Davis* held that personal property of the United States in the hands of a common carrier is not immune to an in rem “proceeding which does not need a process against the United States, and which does not require that the property shall be taken out of the possession of the United States.” 77 U.S. at 21–22; see also *California v. Deep Sea Research, Inc.*, 523 U.S. 491, 507 (1998) (relying on *Davis* in the context of state sovereign immunity).

sovereign immunity generally bars quiet title actions against state-owned real property, particularly where the dispute is “over a vast reach of lands and waters long deemed by the State to be an integral part of its territory.” *Idaho v. Coeur d’Alene Tribe of Idaho*, 521 U.S. 261, 281–82 (1997) (citing *Tindal v. Wesley*, 167 U.S. 204, 223 (1897)).² With state-owned personal property, the Court has considered whether the disputed property was “owned by a state and used and employed solely for its governmental uses and purposes,” because for an ostensibly in rem proceeding against the state’s property, “[t]o permit a creditor to seize and sell [the property] to collect his debt would be to permit him in some degree to destroy the government itself.” *In re New York*, 256 U.S. 503, 510 (1921) (second portion quoting *Klein v. City of New Orleans*, 99 U.S. 149, 150 (1878)). In other contexts, the Court has looked to whether the state is in actual possession of the disputed property: “an actual possession, and not that mere constructive possession which is very often implied by reason of ownership under circumstances favorable to such implication.” *California v. Deep Sea Research, Inc.*, 523 U.S. 491, 507 (1998) (quoting *The Davis*, 77 U.S. 15, 21 (1869)). This is “consistent with the principle which exempts the [State] from suit and its possession from disturbance by virtue of judicial process.” *Id.* (alteration in original) (quoting *Davis*, 77 U.S. at 21).

IPR is distinguishable from these in rem proceedings where the Court has held that sovereign immunity applies. Unlike *Coeur d’Alene*, IPR does not implicate ownership of real property or the state’s ability to regulate within its

² Suits concerning ownership of immovable property owned by one sovereign, but located in another, may not implicate sovereign immunity. See *Upper Skagit Indian Tribe v. Lundgren*, 138 S. Ct. 1649, 1654–55 (2018); *id.* at 1657–61 (Thomas, J., dissenting).

own domain. *Cf. Oil States Energy Servs., LLC v. Green's Energy Grp., LLC*, 138 S. Ct. 1365, 1376 n.3 (2018) (“Modern invention patents . . . are meaningfully different from land patents.”). Patents are creations of federal statutory law and are regulated by that law, *id.* at 1374 (quoting *Crown Die & Tool Co. v. Nye Tool & Mach. Works*, 261 U.S. 24, 40 (1923)), which includes the ability of the executive to consider whether a previous grant was erroneous, *id.* at 1376–78 (noting that “[IPR] is one of th[e] conditions” of patentability). Patents are also not property that is used by a state “solely for its governmental uses and purposes.” *New York*, 256 U.S. at 510.³ Although a state does not waive its sovereign immunity merely by participating in commercial activity,⁴ as UMN has done here, such private

³ In recent years states have sought to supplement revenue by increasing market participation in licensing and enforcing patents. See Andrew Chung, *Schools that Sue: Why More Universities File Patent Lawsuits*, Reuters (Sept. 15, 2015); Malathi Nayak, *Patent-Heavy Schools Look to Courts for IP Paydays*, BNA Intellectual Property Blog (June 14, 2017); Jacob H. Rooksby, *Innovation and Litigation: Tensions Between Universities and Patents and How to Fix Them*, 15 Yale J.L. & Tech. 312, 330–40 (2013); Tejas N. Narechania, Note, *An Offensive Weapon?: An Empirical Analysis of the “Sword” of State Sovereign Immunity in State-Owned Patents*, 110 Colum. L. Rev. 1574, 1601 (2010). The federal government’s policy of encouraging commercialization of research performed with federal funds under the Bayh-Dole Act, Pub. L. No. 96–517, 94 Stat. 3015 (1980), hardly suggests state sovereign immunity bars administrative reconsideration of an erroneously granted patent.

⁴ *Coll. Sav. Bank v. Fla. Prepaid Postsecondary Educ. Expense Bd.*, 527 U.S. 666, 685 (1999) (“[A] suit by an individual against an unconsenting State is the very evil at which the Eleventh Amendment is directed—and it

market participation does not make patents “public property of a state used and employed for public and governmental purposes” that would implicate sovereign immunity in in rem proceedings under the Supreme Court’s decision in *In re New York*. *Id.* at 510.

Also, because patents are intangible property—a right to exclude—the concern of protecting the state’s “possession from disturbance” is not applicable for IPR where ownership is not disputed. *Deep Sea*, 523 U.S. at 507. A state cannot “actual[ly] possess[]” a patent even if the state otherwise claims ownership, *see id.* (quoting *Davis*, 77 U.S. at 21), and the Board does not physically intrude into the state’s domain to obtain jurisdiction over a patent or to resolve the issue of its validity. We do not distinguish between tangible and intangible property, but instead between property that is physically possessed by a state and property that is not. Thus, IPR does not disturb a state’s actual possession even if a state-owned patent is found to have been erroneously granted.

Not only is an IPR proceeding unlike in rem proceedings held to implicate sovereign immunity, IPR is closely akin to proceedings where the Supreme Court has concluded sovereign immunity is not a bar; for example, in rem bankruptcy proceedings involving discharge of a debt owed to the state. In *Tennessee Student Assistance Corp. v. Hood*, an individual received student loans from the state of Tennessee and then later sought discharge of the state debt in bankruptcy proceedings. 541 U.S. at 444–45. She served the state with her complaint and a summons. *Id.* The state moved to dismiss the complaint based on state sovereign immunity. *Id.* at 445. The Court held that the state enjoyed

exists whether or not the State is acting for profit, in a traditionally ‘private’ enterprise, and as a ‘market participant.’”).

no sovereign immunity because of the in rem character of the bankruptcy proceedings.

“The discharge of a debt by a bankruptcy court is . . . an *in rem* proceeding,” *id.* at 447, as “the court’s jurisdiction is premised on the res, not on the persona,” *id.* at 450. Although “States, whether or not they choose to participate in the proceeding, are bound by a bankruptcy court’s discharge order no less than other creditors,” *id.* at 448, the “debtor does not seek monetary damages or any affirmative relief from a State by seeking to discharge a debt; nor does he subject an unwilling State to coercive judicial process,” *id.* at 450. In this way, “the court’s exercise of its *in rem* jurisdiction to discharge a student loan debt is not an affront to the sovereignty of the State.” *Id.* at 451 n.5.

IPR is similarly an in rem proceeding—a proceeding to reevaluate the validity of an issued patent. *See Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144 (2016) (noting “that the proceeding offers a second look at an earlier administrative grant of a patent”). Just as with a bankruptcy proceeding to discharge a debt, IPR is an in rem proceeding that is not premised on obtaining jurisdiction over a state or its officers. The Board’s jurisdiction is premised on the res (i.e., the patent). A person files a “petition to institute an inter partes review of the patent.” 35 U.S.C. § 311(a) (emphasis added). As in bankruptcy, a petitioner for IPR “does not seek monetary damages or any affirmative relief from a State by seeking to [have a patent reviewed in IPR]; nor does he subject an unwilling State to a coercive judicial process.” *Hood*, 541 U.S. at 450. “[IPR] does not make any binding determination regarding ‘the liability of [one party to another] under the law as defined.’” *Oil States*, 138 S. Ct. at 1378 (quoting *Crowell v. Benson*, 285 U.S. 22, 51 (1932)). The petitioner only seeks to have the agency reconsider a previous grant of a patent, and the only relief the Board can offer is the revocation of erroneously granted patent claims. IPR ultimately terminates only with a certificate that either cancels erroneously granted

patent claims, confirms claims determined to be patentable, or incorporates newly amended claims determined to be patentable. 35 U.S.C. § 318(b). No monetary or other relief against the patent owner is authorized or provided.⁵

Additionally, similar to the state's situation in *Hood*, there is no statutory requirement compelling a state to participate in IPR as a patent owner, even if it is otherwise motivated to do so.⁶ The parallels between IPR and the

⁵ To the extent the estoppel provisions in 37 C.F.R. § 42.73(d)(3), prevent a patent owner from obtaining a patent on claims that are patentably indistinct from cancelled claims in an IPR proceeding, that result is no different than what is mandated under traditional principles of res judicata and collateral estoppel. *See B&B Hardware, Inc. v. Hargis Indus., Inc.*, 135 S. Ct. 1293 (2015); *MaxLinear, Inc. v. CF CRESPE LLC*, 880 F.3d 1373 (Fed. Cir. 2018); *Ohio Willow Wood Co. v. Alps South, LLC*, 735 F.3d 1333 (Fed. Cir. 2013). In the absence of such a provision, the result would still be the same (i.e., the later claim is unpatentable for the same reasons as the earlier patentably indistinct claim).

⁶ It is questionable whether a patentee risks default by failing to participate in the IPR proceedings. While the Board has on occasion interpreted non-participation as abandonment under 37 C.F.R. § 42.73(b)(4), *see, e.g., VDF Futurceuticals, Inc. v. Kazerooni*, No. IPR2017–00547, 2018 WL 842176 (P.T.A.B. Feb. 9, 2018), it is questionable whether a default judgment could be entered cancelling a patent if the state owner does not participate. *See* 35 U.S.C. § 313 (“[T]he patent owner shall have the right to file a preliminary response . . .” (emphasis added)); 37 C.F.R. § 42.107(a) (“The patent owner may file a preliminary response to the petition.” (emphasis added)); 35 U.S.C. § 316(a)(8) (requiring regulation “providing for the filing by the patent owner of a response to the petition”); 37

bankruptcy proceedings in *Hood* reinforce the conclusion that IPR do not raise the concerns that have animated application of sovereign immunity for certain in rem proceedings.

The USPTO’s “second look at an earlier administrative grant of a” public franchise does not constitute an affront to a state’s sovereignty, *Cuozzo*, 136 S. Ct. at 2144, particularly where the only possible adverse outcome is the cancellation of erroneously granted claims. Although patent law, like bankruptcy, is a specialized area of law, we see no reason why the exercise of the executive’s historically well-recognized ability to reconsider a grant of a public franchise in an in rem proceeding “is more threatening to state sovereignty than the exercise of” an Article III court’s bankruptcy in rem jurisdiction. *Hood*, 541 U.S. at 451.

Therefore, it seems to us that IPR proceedings are the type of in rem proceedings to which state sovereign immunity does not apply.

C.F.R. § 42.120 (“A patent owner may file a response to the petition” (emphasis added)). It is the petitioner that “shall have the burden of proving a proposition of unpatentability by a preponderance of the evidence.” 35 U.S.C. § 316(e).