In The Supreme Court of the United States

CELGENE CORPORATION,

Petitioner,

v.

LAURA A. PETER, DEPUTY UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND DEPUTY DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE,

Respondent.

On Petition For A Writ Of Certiorari To The United States Court Of Appeals For The Federal Circuit

BRIEF OF AMICI CURIAE INTELLECTUAL PROPERTY LAW PROFESSORS IN SUPPORT OF PETITIONER

GREGORY DOLIN
Associate Professor of Law
UNIVERSITY OF BALTIMORE
SCHOOL OF LAW
1420 N. Charles Street
Baltimore, Maryland 21201
(410) 837-4610
gdolin@ubalt.edu

AARON FRANKEL
Counsel of Record
JOHN M. MCNULTY
CHASE H. MECHANICK
KRAMER LEVIN NAFTALIS
& FRANKEL LLP
1177 Avenue of the Americas
New York, New York 10036
(212) 715-7793
afrankel@kramerlevin.com

Attorneys for Amici Curiae Intellectual Property Law Professors

TABLE OF CONTENTS

F	Page
TABLE OF AUTHORITIES	ii
INTEREST OF AMICI CURIAE	1
SUMMARY OF ARGUMENT	2
ARGUMENT	6
I. THE <i>INTER PARTES</i> REVIEW PROCESS DEPARTS DRAMATICALLY FROM PRE-AIA PROCEDURES	9
II. RETROSPECTIVE <i>INTER PARTES</i> REVIEW IS A REGULATORY TAKING	13
A. Retrospective Application of IPR Undermines Reasonable Investment-Backed Expectations	14
B. Empirical Research Confirms That Retrospective <i>Inter Partes</i> Review Is a Regulatory Taking	16
III. THE FEDERAL CIRCUIT'S RELIANCE ON PATLEX AND JOY TECHNOLOGIES IS UNAVAILING	19
CONCLUSION	22

TABLE OF AUTHORITIES

Page
Cases
Aqua Prods. v. Matal, 872 F.3d 1290 (Fed. Cir. 2017) (en banc)12
In re Buszard, 504 F.3d 1364 (Fed. Cir. 2007)10
City of Monterey v. Del Monte Dunes at Monterey, Ltd., 526 U.S. 687 (1999)
In re Cuozzo Speed Techs., LLC, 793 F.3d 1297 (Fed. Cir. 2015)3, 11
Ford Motor Co. v. United States, 405 U.S. 562 (1972)7
Google Inc. v. Jongerius Panoramic Techs., LLC, IPR2013-00191, Paper No. 50 (P.T.A.B. Feb. 13, 2014)3, 10
Horne v. Dep't of Agric., 576 U.S. 350, 135 S. Ct. 2419 (2015)6, 7
James v. Campbell, 104 U.S. 356 (1881)
Joy Technologies, Inc. v. Manbeck, 959 F.2d 226 (Fed. Cir. 1992)passim
Kaiser Aetna v. United States, 444 U.S. 164 (1979)14
Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470 (1974)14, 15
Lingle v. Chevron U.S.A. Inc., 544 U.S. 528 (2005)

TABLE OF AUTHORITIES —Continued

Page
Lucas v. South Carolina Coastal Council, 505 U.S. 1003 (1992)14
Microsoft Corp. v. i4i Ltd. Partnership, 564 U.S. 91 (2011)8, 10
Murr v. Wisconsin, 137 S. Ct. 1933 (2017)6, 13, 14
Oil States Energy Services, LLC v. Greene's Energy Group, LLC, 38 S. Ct. 1365 (2018)
Patlex Corporation v. Mossinghoff, 758 F.2d 594 (Fed. Cir. 1985)
Penn Cent. Transp. Co. v. City of New York, 438 U.S. 104 (1978) 14
Pennsylvania Coal Co. v. Mahon, 260 U.S. 393 (1922)
Return Mail, Inc. v. United States Postal Service, 139 S. Ct. 1853 (2019)
Ruckelshaus v. Monsanto Co., 467 U.S. 986 (1984)4, 15, 16
Tahoe-Sierra Pres. Council, Inc. v. Tahoe Reg'l Planning Agency, 535 U.S. 302 (2002)14
Constitutions
U.S. Const. amend. V

TABLE OF AUTHORITIES —Continued

Page
STATUTES & RULES
35 U.S.C. § 261
35 U.S.C. §§ 301-3079
35 U.S.C. § 305 (1999)
35 U.S.C. §§ 311-318 (1999) (repealed 2012)9
35 U.S.C. § 314(a) (1999)
35 U.S.C. § 316(d)
35 U.S.C. § 316(e)8
Leahy-Smith America Invents Act, Pub. L. No. 112-29, § 6, 125 Stat. 284 (2011)
LEGISLATIVE HISTORY
H. R. Rep. No. 112-98, pt. 1, at 39-40 (2011), as reprinted in 2011 U.S.C.C.A.N. 67, 696
OTHER AUTHORITIES
Gregory Dolin, <i>Dubious Patent Reform</i> , 56 B.C. L. Rev. 881 (2015)
Gregory Dolin & Irina D. Manta, <i>Taking Patents</i> , 73 Wash. & Lee L. Rev. 719 (2016)10
Jack Lu, Patent Market Dynamics and the Impact of Alice and the AIA, IPWatchdog (May 17, 2015), https://bit.ly/2JldWSb

TABLE OF AUTHORITIES —Continued

	Page
James Sheppard, Approach Part 1: Hitter's Count, Elite Diamond Performance (Mar. 25, 2018), https://www.elitediamondperformance.com/blog/2018/3/25/approach-part-1-hitters-count	13
John R. Allison & Mark A. Lemley, Empirical Evidence on the Validity of Litigated Patents, 26 AIPLA Q.J. 185 (1998)	4, 17
Mark A. Lemley, An Empirical Study of the Twenty-Year Patent Term, 22 AIPLA Q.J. 369 (1994)	4, 17
Michael J. Mauriel, Patent Reexamination's Problem: The Power to Amend, 46 Duke L. J. 135 (1996)	10
Patent Trial and Appeal Board Motion to Amend Study, Installment 5, USPTO, https://bit.ly/ 2CAy3cg	12
Richard Baker, American Invents Act Cost the US Economy Over \$1 Trillion, SSRN (June 8, 2015), https://dx.doi.org/10.2139/ssrn.2616023	5, 18
Robert P. Merges, Commercial Success and Patent Standards: Economic Perspectives on Innovation, 76 Cal. L. Rev. 803 (1988)	4, 17
Shawn P. Miller, Where's the Innovation: An Analysis of the Quantity and Qualities of Anticipated and Obvious Patents, 18 Va. J. L. &	10
Tech. 1 (2013)	18
tics collected Mar 28, 2020)	16 17

INTEREST OF AMICI CURIAE¹

Gregory Dolin is an Associate Professor of Law at the University of Baltimore, School of Law, currently on leave to serve as an Associate Justice of the Supreme Court of the Republic of Palau. His scholarship centers on U.S. patent law with a specific focus on how the patent regime affects innovation. As an intellectual property scholar, he is concerned that patent law properly promotes and secures legal protection for patent owners. His work in these areas includes scholarly articles, presentations, amicus briefs, and Congressional testimony.

Kristen Osenga is the Austin E. Owen Research Scholar & Professor of Law at the University of Richmond School of Law. Her scholarship, which includes articles and presentations for academic audiences and the bar, is focused on intellectual property law and specifically patents. A primary aspect of her research is in support of a strong patent system that provides effective and reliable protection for inventors and patent owners and encourages innovation and development.

Professor Irina D. Manta is the Founding Director of the Center for Intellectual Property Law at the Maurice A. Deane School of Law at Hofstra University. Her

¹ Written notice was provided to the parties on March 23rd, 2020. All parties have consented to this filing. This brief was not authored in whole or in part by counsel for any party. No such counsel or any party made a monetary contribution to fund the preparation or submission of this brief. No person or entity other than *amici* or their counsel made a monetary contribution to the preparation or submission of this brief.

teaching and scholarship span subjects across intellectual property, and she is the co-author of a textbook in the area. Professor Manta has lectured both nationally and internationally on intellectual property topics, and has a special interest in the preservation of property rights in intangible goods.

Amici have no stake in the parties or in the outcome of the case.

SUMMARY OF ARGUMENT

This case deals with a key issue that was left unresolved by this Court in Oil States Energy Services, LLC v. Greene's Energy Group, LLC, 138 S. Ct. 1365 (2018): whether there is an unconstitutional taking in the retrospective application of the "inter partes review" ("IPR") proceeding created by the 2011 America Invents Act ("AIA" or the "Act") to patents that issued prior to the passage of the Act. See U.S. Const. amend. V; Leahy-Smith America Invents Act, Pub. L. No. 112-29, § 6, 125 Stat. 284, 299-305 (2011). The Federal Circuit below incorrectly held that such retrospective application of IPR is not an unconstitutional taking. See Pet. App. at 28a-39a. Because this question affects thousands of patents and its resolution calls into question the constitutionality of a federal statute, this Court should grant the petition for a writ of certiorari.

1. IPR significantly differs from the two types of reexamination proceedings before the Patent and Trademark Office ("PTO") that existed prior to the

AIA: ex parte reexamination and inter partes reexamination. The Patent Trial and Appeal Board ("PTAB"), which conducts IPR proceedings, recognized this difference when it held that "[a]n inter partes review is neither a patent examination nor a patent reexamination" but is "a trial, adjudicatory in nature [which] constitutes litigation." Google Inc. v. Jongerius Panoramic Techs., LLC, IPR2013-00191, Paper No. 50, at 4 (P.T.A.B. Feb. 13, 2014).

A critical difference between reexamination and IPR is that, in reexamination, the patentee is free to amend its claims an unlimited number of times. In contrast, "[d]uring IPRs, there is no back-and-forth between the patentee and examiner seeking to resolve claim scope ambiguity; there is no robust right to amend." *In re Cuozzo Speed Techs., LLC*, 793 F.3d 1297, 1301 (Fed. Cir. 2015) (Prost, C.J., Newman, Moore, O'Malley, Reyna, JJ., dissenting from the denial of the petition for rehearing *en banc*).

- 2. Empirical research and this Court's precedents confirm that retrospective application of IPR is a regulatory taking.
- a. The decision to procure a patent is fundamentally an investment decision. To conceive of a new invention and reduce it to practice requires massive investments in time, capital, and human effort. In addition, the decision to disclose the invention and forgo trade secret protection is essentially a tradeoff: the patentee sacrifices the confidentiality of the invention in exchange for the protections conferred under U.S.

patent law. Hence, the legal regime existing at the time the applicant filed for the patent constitutes the patentee's "investment-backed expectation." *Cf. Ruckel-shaus v. Monsanto Co.*, 467 U.S. 986, 1006, 1011 (1984). Retrospective application of IPR disrupts these settled expectations.

The research of *amici* and others confirms that the economic impact of the AIA's retrospective application of IPR is so grave as to constitute an unconstitutional taking. The rate of patent invalidation in IPR is significantly higher than the rate in either ex parte reexamination or judicial proceedings. See Gregory Dolin, Dubious Patent Reform, 56 B.C. L. Rev. 881, 923-24, 926 (2015); John R. Allison & Mark A. Lemley, Empirical Evidence on the Validity of Litigated Patents, 26 AIPLA Q.J. 185, 205 (1998); Mark A. Lemley, An Empirical Study of the Twenty-Year Patent Term, 22 AIPLA Q.J. 369, 420 (1994); Robert P. Merges, Commercial Success and Patent Standards: Economic Perspectives on Innovation, 76 Cal. L. Rev. 803, 822 (1988). The ability to amend is a key right that patentees use to preserve validity. A full two-thirds of patents exit ex parte reexamination with some changes made to the claims, see Dolin, Dubious Patent Reform, at 924, compared to less than 0.4% of IPRs concluded through Q3 2018, see Lex Machina, Legal Analytics Platform, https://lexmachina.com/legal-analytics/ (statistics collected Mar. 28, 2020). This indicates that the deprecation of the ability to freely amend claims in IPR plays an important role in this astronomical invalidation rate.

This adverse legal environment has not only chilled investment by patent intensive companies; it has depleted the value of patents issued prior to the enactment of the AIA. For instance, according to one estimate, the value of patents had dropped by 61% following the enactment of the AIA. See Richard Baker, American Invents Act Cost the US Economy Over \$1 Trillion, SSRN 2 (June 8, 2015), https://dx.doi.org/10.2139/ssrn.2616023 (last visited Mar. 30, 2020). This is no surprise: The value of a patent is inherently connected with the likelihood that the patent is invalidated. As a corollary, by depleting the value of patents, IPR disrupts the reasonable, investment-backed expectations that inventors and investors held prior to the AIA.

The Federal Circuit below cited its prior decisions in Patlex Corporation v. Mossinghoff, 758 F.2d 594 (Fed. Cir. 1985), reh'g granted on other grounds, 771 F.2d 480 (Fed. Cir. 1985) and Joy Technologies, Inc. v. Manbeck, 959 F.2d 226 (Fed. Cir. 1992), cert. denied, 506 U.S. 829 (1992), superseded by statute on other grounds. See Pet. App. at 30a-31a & n.13. But these cases do not support that conclusion. As noted elsewhere herein, IPR procedures are fundamentally different from ex parte reexamination. More fundamentally, these precedents from roughly three decades ago applied an outdated test for evaluating regulations under the Takings Clause, inquiring whether the regulation serves an overriding "public purpose." *Patlex*, 758 F.2d at 603. This Court repudiated that analysis in Lingle v. Chevron U.S.A. Inc., 544 U.S. 528 (2005).

Accordingly, *Patlex* and *Joy Technologies* can no longer be said to rest on solid foundations.

ARGUMENT

As this Court has repeatedly affirmed, the "purpose of the Takings Clause . . . is to prevent the government from forcing some people alone to bear public burdens which, in all fairness and justice, should be borne by the public as a whole." *Murr v. Wisconsin*, 137 S. Ct. 1933, 1943 (2017) (quotation marks omitted) (quoting *Palazzolo v. Rhode Island*, 533 U.S. 606, 617-18 (2001)). Thus, "a strong public desire to improve the public condition is not enough to warrant achieving the desire by a shorter cut than the constitutional way." *Horne v. Dep't of Agric.*, 576 U.S. 350, 135 S. Ct. 2419, 2428 (2015) (quoting *Pennsylvania Coal Co. v. Mahon*, 260 U.S. 393, 416 (1922)).

In 2011, Congress "overhauled the patent system" by enacting the AIA and introducing new post-issuance review proceedings, including IPR. Return Mail, Inc. v. United States Postal Service, 139 S. Ct. 1853, 1860 (2019); see AIA, Pub. L. No. 112-29, § 6, 125 Stat. 284, 229-313. Congress enacted the AIA in response to perceived shortcomings in the existing patent reexamination system. See Pet. App. at 36a (suggesting that "Congress passed the AIA with post grant review procedures that were intentionally more robust and would provide a 'more efficient system for challenging patents that should not have issued'") (quoting H.R. Rep.

No. 112-98, pt. 1, at 39-40 (2011), as reprinted in 2011 U.S.C.C.A.N. 67, 69). However, while the introduction of IPR may have been motivated by laudable policy goals, these interests cannot overcome the limitations imposed under the Takings Clause of the Fifth Amendment.

Patents are private property, and thus may not be "taken for public use" "without just compensation." U.S. Const. amend. V; see Oil States, 138 S. Ct. at 1379 ("[O]ur decision should not be misconstrued as suggesting that patents are not property for the purposes of the . . . Takings Clause."); Horne, 135 S. Ct. at 2427 ("A patent confers upon the patentee an exclusive property in the patented invention which cannot be appropriated or used by the government itself, without just compensation...") (alterations omitted) (quoting James v. Campbell, 104 U.S. 356, 358 (1881)); Ford Motor Co. v. United States, 405 U.S. 562, 576 n.11 (1972) (describing "patents" as "constitutionally protected property rights"); see also 35 U.S.C. § 261 ("Subject to the provisions of this title, patents shall have the attributes of personal property."). Although the Federal Circuit took no issue with the basic proposition that patents are private property, see Pet. App. at 28a, it failed to properly evaluate the nature and the scope of that property or appreciate how retrospective application of IPR proceedings to already-issued patents constitutes a regulatory taking.

When the severe legal strictures of IPR are applied to invalidate previously-issued patents without a full opportunity to preserve their validity through

amendment, thereby bringing their covered inventions into the public domain, the property rights held by individual patentees are transferred to the public at large. Specifically, the decision to obtain a patent is an investment, one in which patentees disclose their inventions to the public (and pay the significant government fees and other costs of patent prosecution) in exchange for the right of exclusive use conferred by federal patent law.

Of course, patents have always been subject to invalidation, and patentees have made their investment decisions with this knowledge in mind. However, prior to the AIA, patents could be invalidated only upon clear and convincing proof of invalidity, see Microsoft Corp. v. i4i Ltd. Partnership, 564 U.S. 91 (2011), or in a proceeding that allowed the patentee unlimited opportunities to amend the claims, see 35 U.S.C. §§ 305, 314(a) (1999). In contrast, IPR proceedings retrospectively imposed on long-since issued patents new invalidation rules dispensing with both the clear and convincing evidence standard and the unfettered opportunity to amend the claims. See 35 U.S.C. § 316(d), (e) (2012). These proceedings ambush patentees with new legal rules and fundamentally change the bargain the inventors have struck with the public—in effect locking patentees into investments they might not otherwise have made. As such, the inventions disclosed under the prior rules but subject to new, more onerous rules with a higher likelihood of invalidation become "taken for public use, without just compensation." U.S. Const. amend. V.

For this and other reasons explained below, this Court should grant the petition for a writ of certiorari to remedy the Federal Circuit's error.

I. THE INTER PARTES REVIEW PROCESS DEPARTS DRAMATICALLY FROM PRE-AIA PROCEDURES

The IPR process is dramatically different from pre-AIA post-grant review procedures. Prior to the enactment of the AIA, two forms of PTO reexamination proceedings to cancel a patent were available: "ex parte reexamination" and "inter partes reexamination," of which the latter has been abolished and the former retained alongside AIA-created procedures. See generally Oil States, 138 S. Ct. at 1370-71. Under "ex parte reexamination," any person may file a petition with the PTO that argues that the patent is invalid under the novelty and/or the obviousness bars for patent eligibility. See 35 U.S.C. §§ 301-307. Generally, the requester is not a party to these proceedings once the petition has been acted upon. *Inter partes* reexamination was a similar process, except that the requester could file responses to any filings by the patentee. See 35 U.S.C. §§ 311-318 (1999) (repealed 2012).

Crucially, during reexamination, patentees can liberally amend their claims to narrow their scope—much like in the initial examination. *See id.* §§ 305, 314(a) (1999). In the context of patent reexamination, narrower is better: patents can only be granted (or survive reexamination) if they describe new and non-obvious things, so a broad claim is more likely to

trespass on non-patentable prior art. See Gregory Dolin & Irina D. Manta, Taking Patents, 73 Wash. & Lee L. Rev. 719, 744-46 (2016). Reexamination, like initial examination, is an iterative process: the PTO pushes against applicants to see how far their claims extend, much like judges push against litigants in oral argument to see how far the logic of a given proposition extends. See id. at 746; In re Buszard, 504 F.3d 1364, 1366-67 (Fed. Cir. 2007) ("[T]he patent examiner and the applicant, in the give and take of rejection and response, work toward defining the metes and bounds of the invention to be patented.").

IPR fundamentally differs from reexamination. Unlike reexamination, which is regarded as an "extension of the patent prosecution process," Michael J. Mauriel, Patent Reexamination's Problem: The Power to Amend, 46 Duke L. J. 135, 140 (1996), IPR is "adjudicatory in nature," as "the patent owner and challenger may seek discovery, file affidavits and other written memoranda, and request an oral hearing." Return Mail, 139 S. Ct. at 1860; see also Google Inc., Paper No. 50, at 4 ("An inter partes review is neither a patent examination nor a patent reexamination" but is "a trial, adjudicatory in nature [which] constitutes litigation."). At the same time, patents subject to these trial-like proceedings do not benefit from the clear and convincing standard for patent invalidation, as they would in district court. See Microsoft Corp., supra (establishing a clear-and-convincing standard for patent invalidation in judicial proceedings).

The lack of a clear and convincing evidence standard is compounded by the fact that, "[d]uring IPRs, there is no back-and-forth between the patentee and examiner seeking to resolve claim scope ambiguity; there is no robust right to amend." *Cuozzo*, 793 F.3d at 1301 (Prost, C.J., Newman, Moore, O'Malley, Reyna, JJ., dissenting from the denial of the petition for rehearing *en banc*). Generally, the patentee has only one opportunity to amend, and must obtain the permission of the PTAB to do so. *See* 35 U.S.C. § 316(d).² This subjects patents to a one-two punch where the patentee is not only deprived of his defenses, but also left naked against the multiple arrows in the challenger's quiver.

The one-bite-at-the-amendment-apple regime is a momentous change over prior reexamination proceedings. During *ex parte* or *inter partes* reexamination, a patent owner could proceed cautiously, gradually abandoning claim scope as needed to avoid prior art. In contrast, patentees subjected to an IPR only have a single opportunity to propose amendments, and must thread the needle between over narrowing the claims in an attempt to ensure that they are found valid, thereby abandoning claim scope to which they would otherwise be entitled, or not narrowing the claims enough, in hopes of preserving claim scope, but possibly losing the claims in their entirety if they are found invalid.

² Additional motions to amend are permitted only "to materially advance the settlement of a proceeding" or "as permitted by regulations prescribed by the Director [of the PTO]." 35 U.S.C. § 316(d)(2). Such motions are rarely, if ever, granted.

In practice, even the right to a *single* amendment in IPR proceedings is virtually non-existent, as the PTAB rarely permits amendments. According to PTO statistics, only *eight* motions to amend (out of over 200) were granted through September 30, 2018, with an additional 13 granted in part. *Patent Trial and Appeal Board Motion to Amend Study, Installment 5*, USPTO 7, https://bit.ly/2CAy3cg ("USPTO Amendment Study"). Ninety percent of all motions to amend were denied in their entirety, with less than 4% granted in whole and the rest granted only in part. *Id*.³

As the Federal Circuit noted, "[d]espite repeated recognition of the importance of the patent owner's right to amend during IPR proceedings—by Congress, courts, and the PTO alike—patent owners largely have been prevented from amending claims in the context of IPRs." *Aqua Prods.*, 872 F.3d at 1299-1300.

Critically, patents issued even before the enactment of the AIA can be challenged in IPR, which undermines, if not outright vitiates, patentees' investment-backed expectations by changing the applicable legal regime. The retroactive loss of the right to freely amend one's claims is perhaps the most consequential distinction between IPR and reexamination. See id. at 1298 (noting "amendments are a key feature of post-

³ While the success rate of motions to amend has increased since the Federal Circuit's decision in *Aqua Prods. v. Matal*, 872 F.3d 1290 (Fed. Cir. 2017) (*en banc*) (holding that the PTO may not place the burden of persuasion regarding the patentability of proposed amended claims on the patent owner), it remains very low.

grant proceedings"). To illustrate, consider the following analogy. A patron purchases a concert ticket that says: "In the event of inclement weather, this concert will be rescheduled, in which case this ticket will grant admission to the rescheduled event." A law that cancelled this provision—for instance, providing that concert tickets are retroactively only good for the single event for which they were originally purchased even if it is rained out—would no doubt impair the value of the ticket. Indeed, if for whatever reason the "right to reschedule" were a particularly important right, it would not be a stretch to say that it is no longer even the same ticket and, instead, represented a different bundle of rights of lesser value.⁴

II. RETROSPECTIVE INTER PARTES RE-VIEW IS A REGULATORY TAKING

As Justice Holmes stated in *Pennsylvania Coal Co. v. Mahon*, "while property may be regulated to a certain extent, if regulation goes too far it will be recognized as a taking." 260 U.S. at 415; *accord*, *Murr*, 137 S. Ct. at 1942; *Lingle*, 544 U.S. at 537. In other words, "[a] regulation . . . can be so burdensome as to become

⁴ Similarly, changing the rules of baseball to a regime where batters are called out after one strike, instead of three, would dramatically undermine the expected value of each at-bat. Major League Baseball players have a batting average over twice as high when they have three strikes available to them as compared to when they are down to their last strike. See James Sheppard, Approach Part 1: Hitter's Count, Elite Diamond Performance (Mar. 25, 2018), https://www.elitediamondperformance.com/blog/2018/3/25/approach-part-1-hitters-count.

a taking. . . . "Murr, 137 S. Ct. at 1942. This Court has identified the primary factors to be considered in a regulatory takings analysis as: "(1) the economic impact of the regulation on the claimant; (2) the extent to which the regulation has interfered with distinct investmentbacked expectations; and (3) the character of the governmental action." Id. at 1943 (citing Palazzolo, 533) U.S. at 617); see also Lingle, 544 U.S. at 538-39; Kaiser Aetna v. United States, 444 U.S. 164, 175 (1979); Penn Cent. Transp. Co. v. City of New York, 438 U.S. 104, 124 (1978). As set forth below, applying these factors confirms that the AIA's changes are a taking. Moreover, this Court has cautioned that it has "'generally eschewed' any set formula for determining how far is too far, choosing instead to engage in 'essentially ad hoc, factual inquiries," Tahoe-Sierra Pres. Council, Inc. v. Tahoe Reg'l Planning Agency, 535 U.S. 302, 326 (2002) (quoting Lucas v. South Carolina Coastal Council, 505 U.S. 1003, 1015 (1992)), "designed to allow 'careful examination and weighing of all the relevant circumstances." Id. at 322 (quoting Palazzolo, 533 U.S. at 636 (O'Connor, J., concurring)).

A. Retrospective Application of IPR Undermines Reasonable Investment-Backed Expectations

The decision to seek a patent is fundamentally a decision to invest. To conceive of a new invention and reduce it to practice often requires a massive dedication of time, capital, and human effort. See Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 480 (1974) ("The

patent laws promote this progress by offering a right of exclusion for a limited period as an incentive to inventors to risk the often enormous costs in terms of time, research, and development."). In addition, to obtain a patent, inventors are required to disclose the invention, sacrificing their right to keep it confidential and claim it as a trade secret. See id. at 480-81; see also Monsanto, 467 U.S. at 1012 (noting that "disclosure or use by others" of a trade secret destroys its "economic value"). In this sense, the decision to seek a patent is a calculated tradeoff, in which the only consideration the patentee receives is a predictable set of legal rules governing their exclusive right of use.

This Court has long considered significant retroactive disruption of these legal rules to be a regulatory taking. In *Monsanto*, the Court held that the Environmental Protection Agency's public disclosure of data voluntarily submitted to the Agency may, in some circumstances, constitute a taking. Noting that the disclosure of data constituting a trade secret destroys the holder's property interest in the data, see 467 U.S. at 1011, the Court's analysis centered on the legal rules governing the use and disclosure of such data and the "nature of the expectations of the submitter at the time the data were submitted." Id. at 1013 n.17. Where, at the time of submission, the relevant statutory scheme allowed the submitter to designate its data as trade secrets not subject to public disclosure, "[t]his explicit governmental guarantee formed the basis of a reasonable investment-backed expectation." Id. at 1011. Accordingly, this Court held that the Agency could not disclose such data, consistent with the Takings Clause, even though a subsequent act of Congress permitted disclosure of such data. *See id.* at 1013-14.

This case is no different. The patentees disclosed data and information to the public in exchange for exclusive right to practice the disclosed invention and under an understanding that this right could be abrogated only upon clear and convincing evidence that it was improperly granted or concomitant with an unlimited right to amend the claims of an issued patent. These "explicit governmental guarantee[s] formed the basis of a reasonable investment-backed expectation." *Id.* The AIA abrogated these guarantees and allowed cancellation of claims under a preponderance of evidence standard and absent an opportunity to amend the claims. Under *Monsanto* this "bait-and-switch" constitutes a compensable taking.

B. Empirical Research Confirms That Retrospective *Inter Partes* Review Is a Regulatory Taking

Empirical research of *amici* and others supports petitioner's contention that retrospective application of IPR is a regulatory taking in light of its economic impact and resulting disruption of patentees' investment-backed expectations.

To date, the PTO has resolved 9,288 IPR petitions. See Lex Machina (statistics collected Mar. 28, 2020). Of the 4,895 cases in which the PTAB instituted review, 2,804 resulted in a final substantive decision. *Id.* In a

full 64% of those cases the PTAB found all claims unpatentable, and found at least some claims unpatentable in an additional 17% of the cases. *Id.*; *see also* Dolin, *Dubious Patent Reform*, at 926 (finding, on a claim-byclaim basis, PTO data show a nearly 75% invalidation rate).

This confirms that IPR proceedings are extremely hostile terrain for patentees, and the inability to amend claims unquestionably plays a role. One need only compare these results to the data for *ex parte* reexamination, where amendments are freely allowed. In *ex parte* reexamination, a full *two-thirds* of patents exit reexamination with some changes made to the claims, compared to *less than 0.4%* of IPRs concluded through Q3 2018. *See* Dolin, *Dubious Patent Reform*, at 924; Lex Machina (statistics collected Mar. 28, 2020). Only 12% of patents fail *ex parte* reexamination (compared to 64% for IPRs), while 25% exit with all claims confirmed (compared to 19% for IPRs). *See* Dolin, *Dubious Patent Reform*, at 923-24; Lex Machina (statistics collected Mar. 28, 2020).

The rate of invalidation in IPRs is also higher than in judicial litigation. See John R. Allison & Mark A. Lemley, Empirical Evidence on the Validity of Litigated Patents, 26 AIPLA Q.J. 185, 205 (1998) (46% invalidation rate); Mark A. Lemley, An Empirical Study of the Twenty-Year Patent Term, 22 AIPLA Q.J. 369, 420 (1994) (44% invalidation rate); Robert P. Merges,

⁵ Through Q3 2018, there were over 5,500 concluded IPRs. *See* Lex Machina (statistics collected Mar. 28, 2020). Only 21 motions to amend were granted in whole or in part. *See id*.

Commercial Success and Patent Standards: Economic Perspectives on Innovation, 76 Cal. L. Rev. 803, 822 (1988) (44% invalidation rate). Even this range of 44%-48% for judicial litigation overstates it, as these rates include *all* causes of invalidation, rather than just lack of novelty or obviousness—the only grounds on which a patent can be invalidated in IPR.

One study that attempted to quantify the proper invalidation rate suggested that only about 28% of patents are invalid under proper anticipation or obviousness standards, far fewer than are invalidated in IPRs. See 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, 6-7 (2013).6

The economic value of a patent must take into account the chance that the patent itself will be declared invalid. It comes as no surprise, therefore, that the value of patents has declined since IPR proceedings were introduced; as a corollary, the investment-backed expectations of these patent holders have been harmed. It has been reported that the value of patents has dropped by 61% between 2012 and 2014. *See Baker*, *supra*, at 2. The value of patent licenses agreed

⁶ In contrast to the retroactive imposition of the IPR regime, inventors filing for patents and others investing in patents have done so fully aware of the potential for invalidation of the patents in district court litigation. Moreover, patent owners can control their exposure to this risk because courts generally only decide invalidity issues when an accused infringer raises them as a defense. In contrast, patent owners can be subjected to an IPR at any time, including by third parties whom they have never accused of infringement.

to has also fallen post-AIA. See Jack Lu, Patent Market Dynamics and the Impact of Alice and the AIA, IP-Watchdog (May 17, 2015), https://bit.ly/2JldWSb (last visited Mar. 30, 2020). And the opportunistic initiation of IPR proceedings can be, and has been, used to strong-arm companies into more favorable licensing or settlement deals. See Dolin, Dubious Patent Reform, at 944-46 (discussing examples).

Thus, the retroactive imposition of the IPR scheme is a taking because it has a significant negative economic impact on patent owners and diminishes the value of patents, thereby upsetting the investment-backed expectations of patent holders.

III. THE FEDERAL CIRCUIT'S RELIANCE ON PATLEX AND JOY TECHNOLOGIES IS UNAVAILING

In holding that retrospective IPR was not an unconstitutional taking, the Federal Circuit misapplied two of its earlier precedents, *Patlex Corp. v. Mossing-hoff*, 758 F.2d 594 (Fed. Cir. 1985) and *Joy Technologies, Inc. v. Manbeck*, 959 F.2d 226 (Fed. Cir. 1992). In *Patlex*, the Court held that the retrospective application of *ex parte* reexamination did not violate the Due Process Clause of the Fifth Amendment. *See* 758 F.2d at 600-03. In *Joy Technologies*, the Court rejected an attack on the retrospective application of *ex parte* reexaminations under the Takings Clause, but relied entirely on the force of its earlier *Patlex* decision without any additional explication of the takings issue. *See* 959 F.2d

at 228-29. Neither decision should be regarded as persuasive.

As a prefatory matter, *ex parte* reexamination differs significantly from IPR. As noted above, the latter curtails far more rights than the former by prohibiting patentees from freely amending their claims to preserve validity. Thus, it may be that the retrospective application of IPR goes "too far" even if *ex parte* reexamination does not. *Mahon*, 260 U.S. at 415.

Aside from that, the rationale of *Patlex* (and *Joy* Technologies, insofar as it relied on Patlex) is inconsistent with this Court's modern takings jurisprudence. In *Patlex*, the Court held that the "dominant consideration" in evaluating the constitutionality of a retrospective statute under the Due Process Clause was whether it served a "public interest." 758 F.2d at 601. According to that Court, "[t]he jurisprudence reflects [a] balance of public and private interests in order to avoid straining either the Constitution or principles of basic fairness while accommodating an increasingly regulated society." Id. at 602. Because it concluded that "the overriding public purposes Congress articulated in enacting the reexamination law with retroactive effect [were] entitled to great weight," it upheld the validity of the retroactive statute. Id. at 603.

In an earlier time, this Court's Takings Clause jurisprudence would essentially inquire whether a regulation of private property "substantially advance[s] legitimate public interests." *See City of Monterey v. Del*

Monte Dunes at Monterey, Ltd., 526 U.S. 687, 704 (1999). However, this focus on the regulation's underlying public purpose has since been corrected. See Lingle, 544 U.S. at 531 (declaring that the "'substantially advances' formula" is not an "appropriate test for determining whether a regulation effects a Fifth Amendment taking"). As this Court explained:

[T]he "substantially advances" inquiry probes the regulation's underlying validity. But such an inquiry is logically prior to and distinct from the question whether a regulation effects a taking, for the Takings Clause presupposes that the government has acted in pursuit of a valid public purpose. The Clause expressly requires compensation where government takes private property "for public use." It does not bar government from interfering with property rights, but rather requires compensation "in the event of otherwise proper interference amounting to a taking." First English Evangelical Lutheran Church, 482 U.S., at 315, 107 S.Ct. 2378 (emphasis added). Conversely, if a government action is found to be impermissible—for instance because it fails to meet the "public use" requirement or is so arbitrary as to violate due process—that is the end of the inquiry. No amount of compensation can authorize such action.

Id. at 543 (emphasis in original). *Lingle* clarifies that a takings analysis cannot be resolved by a "means-ends review" of the challenged regulation. *Id.* at 544.

By purporting to "balance . . . public and private interests," the Federal Circuit in *Patlex* followed an approach that is inconsistent with this Court's Takings jurisprudence. 758 F.2d at 602. Thus, neither *Patlex* nor *Joy Technologies* (as the mere progeny of *Patlex*) stands as persuasive authority for the constitutionality of retrospective IPR proceedings under the Takings Clause, and the Federal Circuit's reliance on those cases is misplaced.

CONCLUSION

For the foregoing reasons, the petition for a writ of certiorari should be granted.

March 31, 2020

GREGORY DOLIN
Associate Professor of Law
UNIVERSITY OF BALTIMORE
SCHOOL OF LAW
1420 N. Charles Street
Baltimore, Maryland 21201
(410) 837-4610
gdolin@ubalt.edu

Respectfully submitted,

AARON FRANKEL
Counsel of Record
JOHN M. MCNULTY
CHASE H. MECHANICK
KRAMER LEVIN NAFTALIS
& FRANKEL LLP
1177 Avenue of the Americas
New York, New York 10036
(212) 715-7793
afrankel@kramerlevin.com

Attorneys for Amici Curiae Intellectual Property Law Professors