

**All Shook Up:
A Reincarnated View of the Takings Clause in
Light of Alleged AIA Takings of Pre-AIA
Issued Patents**

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I. INTRODUCTION

The Constitution of the United States is a revered national document outlining the confines of government and the relationship among the created structures.¹ In constitutional law classes, common broad topics include the Commerce Clause, Due Process Clause, and discussion of fundamental rights. Little discussed, however, is the Intellectual Property Clause. In Article I, Section 8, Clause 8, Congress is granted the enumerated power “[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.”² Just three years after the Constitution was signed, Congress passed the Patent Act of 1790.³ Since then, Congress has passed several acts that significantly update patent legislation, including: the Patent Act of 1793, the Patent Act of 1836, the Patent Act of 1952, and the Leahy-Smith America Invents Act (AIA) of 2011.⁴

The AIA changed the procedures by which patents are reexamined for invalidity on request of the inventor or challenged by third-party competitors. These changes caused frustration for companies with significant patent portfolios, as they encountered new—and unexpected—assertions of patent invalidity through use of the process called inter partes review (IPR).⁵ As a result, sections of the AIA are being challenged on numerous grounds, many of which are constitutionally based.⁶ The most recent constitutional challenge asserts that applying the IPR process, enacted in the AIA, to pre-AIA granted patents constitutes a violation of the Takings Clause based on companies’ investment-backed expectations.⁷ At the Court of Appeals for the Federal Circuit, the judges were unpersuaded and the claim failed in *Celgene v. Peter*.⁸ The Federal Circuit used its *Celgene* holding in at least two subsequent cases alleging a Takings Clause claim: *Arthrex, Inc. v. Smith & Nephew, Inc.* and *Collabo Innovations, Inc. v. Sony Corp.*⁹ Industry commentary suggests that the

¹ See generally U.S. CONST.

² U.S. CONST. art. I, § 8, cl. 8.

³ Patent Act of 1790, ch.7, § 1, 1 Stat. 109 (repealed 1793).

⁴ Leahy-Smith America Invents Act, Pub. L. 112-29, 125 Stat. 284 (2011) (codified as amended in scattered sections of 35 U.S.C.); Patent Act of 1952, ch.1, §1, 66 Stat. 792 (1952); Patent Act of 1836, ch.357, §6, 5 Stat. 117 (1836); Patent Act of 1793, ch.11, §1, 1 Stat. 318 (repealed 1836).

⁵ See Neal Solomon, *IPRs Unduly Harm Patent Holders and Benefit Big Tech Infringers*, IPWATCHDOG (Oct. 24, 2017), <https://www.ipwatchdog.com/2017/10/24/iprs-unduly-harm-patent-holders-benefit-big-tech-infringers/id=89568/> [https://perma.cc/6MFQ-F4XU].

⁶ See, e.g., *Oil States Energy Servs. v. Greene’s Energy Grp.*, 138 S. Ct. 1365, 1379 (2018).

⁷ *Celgene Corp. v. Peter*, 931 F.3d 1342, 1358 (Fed. Cir. 2019).

⁸ *Id.* at 1362.

⁹ *Arthrex, Inc. v. Smith & Nephew, Inc.*, 935 F.3d 1319, 1331–32 (Fed. Cir. 2019); *Collabo Innovations, Inc. v. Sony Corp.*, 778 F. App’x 954, 961 (Fed. Cir. 2019). The Court

Takings Clause, as it relates to pre-AIA application of IPR, is ripe for consideration at the Supreme Court of the United States.¹⁰ In recent history, the Supreme Court granted certiorari to patent cases from the Federal Circuit that it intended to reverse or reverse-in-part to clarify patent law and related doctrine.¹¹ But, what should the question be before the Supreme Court? The justices could consider the question that was before the Federal Circuit: Is applying the AIA IPR process retroactively to a pre-AIA issued patent a governmental taking in violation of the Constitution? Alternatively though, and maybe more appropriately, should the question be about the scope of the takings doctrine? Traditionally, the Takings Clause is a very conservative doctrine that conforms best with an originalist view of constitutional interpretation, with tangible property as its primary focus. However, intellectual property sits in the realm of intangible property rights. Therefore, should the Takings Clause doctrine expand under a living constitutionalist lens to encompass a progressive area of law?

This Note explores the new IPR process enacted in the AIA for reviewing pre-AIA issued patents, the Takings Clause as it relates to the specialized Federal Circuit, and applicable constitutional theory. Part II discusses the America Invents Act inter partes review process, and a recent Supreme Court case—*Oil States Energy Servs. v. Greene's Energy Grp. (Oil States)*—reviewing the overall constitutionality of IPR. Part III reviews recent Federal Circuit opinions discussing the Takings Clause issue, refreshes the doctrine of the Takings Clause, and posits that the Takings Clause, conservatively applied, may not be in the best interest of intellectual property law. Part IV considers applicable writings and thoughts on takings constitutional theory in regard to wealth preservation, how it may apply to the patents, and why this leads to a new vision of the Takings Clause. Part V explains why the abandonment of originalism is prudent when evaluating instances in which a patent may be

of Appeals for the Federal Circuit has “nationwide jurisdiction in a variety of subject areas, including international trade, government contracts, patents, trademarks, certain money claims against the United States government, federal personnel, veterans’ benefits, and public safety officers’ benefits claims.” *Court Jurisdiction*, U.S. CT. APPEALS FOR FED. CIR., <http://www.cafc.uscourts.gov/the-court/court-jurisdiction> [<https://perma.cc/XM8M-R9NU>].

¹⁰ Matthew Rizzolo & Kathryn Thornton, *Next Steps After Celgene: Federal Circuit Ruling on Takings Clause and IPRs Leaves Open Questions*, IPWATCHDOG (Aug. 7, 2019), <https://www.ipwatchdog.com/2019/08/07/next-steps-celgene-federal-circuit-ruling-takings-clause-iprs-leaves-open-questions/id=111961/> [<https://perma.cc/JY2F-WZ8X>].

¹¹ Steven Seidenberg, *Tug-of-War over Interpretations of Patent Law Continues Between Federal Circuit and SCOTUS*, A.B.A. J. (Jan. 1, 2016), http://www.abajournal.com/magazine/article/tug_of_war_over_interpretations_of_patent_law_continues_between_federal [<https://perma.cc/S9HR-483J>] (“Historically, the Supreme Court paid little attention to patent law. That changed in 2005, when it began reviewing an unprecedented number of the Federal Circuit’s patent law decisions. The court heard 27 patent cases over the next 10 years, and in 22 of them the justices overturned the Federal Circuit’s interpretation of the law.”).

unconstitutionally taken by the government without just compensation, and, thus, demands a more progressive interpretation. Part VI concludes.

II. WHAT IS THE TAKINGS CLAUSE DOCTRINE AND WHY DO IPRS MATTER?

When thinking about intellectual property on a broad level, constitutional issues are not always inherently obvious. However, the Intellectual Property Clause in the Constitution gives Congress the explicit power to promote the progress of science.¹² Congress has delegated much of this power to the United States Patent and Trademark Office (USPTO), an agency tasked with “advis[ing] the president of the United States, the secretary of commerce, and U.S. government agencies on intellectual property (IP) policy, protection, and enforcement; and promot[ing] the stronger and more effective IP protection around the world.”¹³ As a result of this typical governmental structure, with the added complexity of a specialized Federal Circuit, constitutional issues actually arise fairly often. Most recently, the issue surrounds the Leahy-Smith America Invents Act (AIA), the Takings Clause, and retroactive application of the IPR process by the USPTO to patents that were issued prior to the AIA’s passage.

A. Brief Explanation of IPR under the AIA

The process of inter partes review was enacted under the America Invents Act of 2011.¹⁴ Under Chapter 31 of Title 35 of the United States Code, procedures were changed for how third parties petition the Patent Trial and Appeal Board (PTAB).¹⁵ The validity of an issued patent may be challenged

¹² U.S. CONST. art. I, § 8, cl. 8.

¹³ *About Us*, U.S. PAT. & TRADEMARK OFF., <https://www.uspto.gov/about-us> [<https://perma.cc/YH24-VZFF>] (last updated Oct. 8, 2019). Additionally, the USPTO “furthers effective IP protection for U.S. innovators and entrepreneurs worldwide by working with other agencies to secure strong IP provisions in free trade and other international agreements.” *Id.* “It also provides training, education, and capacity building programs designed to foster respect for IP and encourage the development of strong IP enforcement regimes by U.S. trading partners.” *Id.*

¹⁴ Leahy-Smith America Invents Act, Pub. L. 112-29, 125 Stat. 284 (2011) (codified as amended in scattered sections of 35 U.S.C.).

¹⁵ 35 U.S.C. §§ 311–19 (2012).

through reexamination on the basis of 35 U.S.C. Section 102¹⁶ or Section 103.¹⁷ The only prior art allowed to be used in the challenge are patents or printed publications for first-inventor-to-file patents.¹⁸ The effective date for the statute enabling IPRs was September 16, 2012, and states applicability “to any patent issued before, on, or after September 16, 2012.”¹⁹

B. *Is IPR Unconstitutional as Applied to All Patents that Fall under the AIA? The Supreme Court Says “No” in Oil States*

The first constitutional challenges to the IPR process, heard by the Supreme Court, were in *Oil States Energy Services v. Greene’s Energy Group* under Article III and the Seventh Amendment.²⁰ In 2005, Oil States Energy Services was assigned U.S. Patent No. 6,179,053 (’053 Patent) Lockdown Mechanism for Well Tools Requiring Fixed-Point Packoff, which “relates to equipment for servicing oil and gas wells and, in particular, to an apparatus and method for securing a mandrel of a well tool in an operative position in which the mandrel is packed-off against a fixed-point in the well.”²¹ The patent explains that to harvest hydrocarbon oil and gas from the ground, stimulation is necessary, often

¹⁶ *Id.* § 102(a) (“Novelty; Prior Art.—A person shall be entitled to a patent unless—(1) the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention; or (2) the claimed invention was described in a patent issued under section 151, or in an application for patent published or deemed published under section 122(b), in which the patent or application, as the case may be, names another inventor and was effectively filed before the effective filing date of the claimed invention.”).

¹⁷ *Id.* § 103 (“A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.”).

¹⁸ *Inter Partes Review*, U.S. PAT. & TRADEMARK OFF., <https://www.uspto.gov/patents-application-process/appealing-patent-decisions/trials/inter-partes-review> [<https://perma.cc/RZ7E-BCCQ>] (last updated May 9, 2017). The USPTO asserts that “[t]hese deadlines do not apply to first-to-invent patents.” *Id.* A petition for inter partes review cannot be filed until after the later of either: (i) 9 months after the grant of a patent or (ii) the date of termination of any post-grant review of the patent. *Id.*

¹⁹ *Id.*

²⁰ *Oil States Energy Servs. v. Greene’s Energy Grp.*, 138 S. Ct. 1365, 1372 (2018). The Supreme Court quickly dismissed the Seventh Amendment claim: “[W]hen Congress properly assigns a matter to adjudication in a non-Article III tribunal, ‘the Seventh Amendment poses no independent bar to the adjudication of that action by a nonjury factfinder.’ No party challenges or attempts to distinguish those precedents. Thus, our rejection of Oil States’ Article III challenge also resolves its Seventh Amendment challenge. Because inter partes review is a matter that Congress can properly assign to the PTO, a jury is not necessary in these proceedings.” *Id.* at 1379 (quoting *Granfinanciera, S.A. v. Nordberg*, 492 U.S. 33, 53–54 (1989) (internal citations omitted)).

²¹ U.S. Patent No. 6,179,053 (filed Aug. 12, 1999).

in the form of pumping corrosive and abrasive fluids under high pressure, that can degrade fracking equipment.²² The invention purports to improve upon the prevention of such damage through their innovative wellhead isolation tools.²³

In 2014, Oil States initiated litigation against Greene’s Energy Group for infringement of the ’053 Patent in federal court.²⁴ Greene’s Energy filed and won a retaliatory petition before the PTAB challenging the ’053 Patent in an IPR.²⁵ When Oil States appealed to the Federal Circuit, it raised the Article III unconstitutionality claim, which was the primary basis of the Supreme Court’s discussion regarding IPR constitutionality.²⁶ Fundamentally, Oil States argued that the IPR process is unconstitutional because it is an Article III adjudicative proceeding held by the PTAB that is eerily analogous to judicial power and, as such, should be tried before an Article III judge appointed by the President.²⁷

In holding that the AIA’s IPR procedures are constitutional, Justice Thomas’s majority opinion rests on the idea that granting patents falls under the public rights doctrine, specifically that a patent is the grant of a public franchise “arising between the government and others.”²⁸ As a result, patents need not be adjudicated under Article III because “granting patents is one of ‘the constitutional functions’ that can be carried out by ‘the executive or legislative departments’ without ‘judicial determination.’”²⁹ Leveraging this reasoning against the IPR process, the majority held that IPRs also fall under the public rights doctrine.³⁰ An IPR is a subsequent review of an administrative agency’s issuance of a patent, and the PTAB reconsiders the statutory requirements it did during the patent application examination that lead to the initial issuance of a patent.³¹ While Justice Thomas concedes that the primary difference between granting a patent and an IPR is the time at which the review occurs, he dismisses this distinction because patents are granted subject to the qualifications that the USPTO has “‘the authority to reexamine—and perhaps cancel—a patent claim’ in an inter partes review. Patents thus remain ‘subject to [the Board’s] authority’ to cancel outside of an Article III court.”³²

²² *Id.*

²³ *Id.*

²⁴ *Oil States Energy Servs. v. Trojan Wellhead Prot., Inc.*, No. 6:12-cv-611, 2014 WL 12360946 (E.D. Tex. June 23, 2014).

²⁵ *Greene’s Energy Grp. v. Oil States Energy Servs.*, No. IPR2014-00216, 2015 WL 2089371, at *1 (P.T.A.B. May 1, 2015).

²⁶ *Oil States Energy Servs. v. Greene’s Energy Grp.*, 138 S. Ct. 1365, 1372–73, 1379 (2018).

²⁷ *See id.* at 1378.

²⁸ *Id.* at 1373 (quoting *Ex parte Bakelite Corp.*, 279 U.S. 438, 451 (1929)).

²⁹ *Id.* at 1374 (quoting *Crowell v. Benson*, 285 U.S. 22, 50–51 (1932)).

³⁰ *Id.*

³¹ *Id.* at 1374 (citing *Cuozzo Speed Techs. v. Lee*, 136 S. Ct. 2131, 2144 (2016)); 35 U.S.C. § 311(b) (2012).

³² *Oil States*, 138 S. Ct. at 1374 (first quoting *Cuozzo*, 136 S. Ct. at 2137; and then quoting *Crowell*, 285 U.S. at 50).

In its review, the Supreme Court explicitly left open other constitutional questions for possible consideration in the future: “[O]ur decision should not be misconstrued as suggesting that patents are not property for purposes of the Due Process Clause or the Takings Clause.”³³

III. THE FEDERAL CIRCUIT IS BUILDING PRECEDENT ON RETROACTIVE APPLICATION OF IPR, BUT IS ITS REASONING IN ALIGNMENT WITH TAKINGS CLAUSE JURISPRUDENCE?

In 2019, the Federal Circuit held that when patents issued prior to the passage of the AIA are invalidated through use of the AIA IPR process, an unconstitutional taking does not occur.³⁴ Particularly, in *Celgene*, the plaintiff “advance[d] a regulatory takings theory and argue[d] that subjecting its pre-AIA patents to IPR—a procedure that existed at the time its patents issued, but with several differences—unfairly interferes with its reasonable investment-backed expectations without just compensation.”³⁵

A. The Federal Circuit’s Celgene v. Peter Analysis of the Takings Clause Is Not Based on Takings Clause Precedent

Celgene’s argument is based in regulatory takings doctrine and alleges that the invalidation of its patent interferes with its reasonable investment-backed expectations, without just compensation.³⁶ The brief for *Celgene* focuses on differences between the pre-AIA procedures for inter partes reexamination

³³ *Id.* at 1379 (first citing *Fla. Prepaid Postsecondary Educ. Expense Bd. v. Coll. Sav. Bank*, 527 U.S. 627, 642 (1999); and then citing *James v. Campbell*, 104 U.S. 356, 358 (1882)).

³⁴ *Arthrex, Inc. v. Smith & Nephew, Inc.*, 935 F.3d 1319, 1331–32 (Fed. Cir. 2019) (citing *Celgene*, 931 F.3d at 1357–63); *Collabo Innovations, Inc. v. Sony Corp.*, 778 F. App’x 954, 961 (Fed. Cir. 2019) (citing *Celgene*, 931 F.3d at 1357–63); *Celgene Corp. v. Peter*, 931 F.3d 1342, 1357–63 (Fed. Cir. 2019). The Court of Federal Claims also heard a case on patent takings. *Christy, Inc. v. United States*, 141 Fed. Cl. 641, 657–60 (2019). However, *Christy, Inc. v. United States* is ripe for reversal as its discussion is based on lack of property rights in a patent sufficient to constitute a taking:

In short, patents are public franchises, not private property. Because ‘[a] taking compensable under the Fifth Amendment inherently requires the existence of ‘private property,’ patent rights are not cognizable property interests for Takings Clause purposes. In any event, patent owners have no property right to maintain patent claims that are found to be unpatentable, regardless of the timing of any such determination.

Id. at 660 (quoting *Skip Kirchdorfer, Inc. v. United States*, 6 F.3d 1573, 1580 (Fed. Cir. 1993) (internal citations omitted)).

³⁵ *Celgene*, 931 F.3d at 1358.

³⁶ *Id.*

procedures and the AIA inter partes review procedures.³⁷ Specifically, Celgene argues that the new IPR process resembles civil litigation due to the challenger’s ability to conduct discovery and “join issue in briefing and at an oral hearing.”³⁸ Moreover, the process is conducted without the presumption of validity that is afforded in the civil litigation process resulting in an IPR procedure that favors the challenger now more than ever.³⁹ These differences, according to Celgene, amount to an unconstitutional taking and diminished the total value of its invention.⁴⁰ Celgene “invested time and money showing that thalidomide, in combination with dexamethasone, is effective in treating patients recently diagnosed with multiple myeloma, and it incurred massive expenses to meet the FDA’s onerous and costly requirements for new drug applications” and continued to invest research and development to that effect.⁴¹ Finally, Celgene tried to undermine the Federal Circuit’s precedent, *Patlex Corp. v. Mossinghoff*, by attacking the basis on which it was decided, because the standard used was whether the statute was enacted in an arbitrary or irrational way.⁴² According to the appellant, the Supreme Court has since abrogated that reasoning, which resulted in the arbitrary or irrational standard standing as the incorrect test to use in analyzing a taking.⁴³

While arguing against Celgene on two different theories supporting the constitutionality of IPR, the USPTO did not discuss Celgene’s claims relating to its investment-backed expectations in cultivating its patent portfolio:

[First,] when the Board finds claims unpatentable in an IPR, it does not effectuate a taking under the Fifth Amendment because the patent owner “never had a valid property right because the patent was erroneously issued in the first instance.” Second, the PTO argues that Celgene’s takings claim fails “because patents have been subject to reconsideration and cancellation by the USPTO in administrative proceedings for nearly four decades, and Celgene’s own patent[s were] issued subject to this administrative revocation authority.”⁴⁴

According to the appellant’s reply brief, the USPTO also relied on *Landgraf v. USI Film Products* for the proposition that retroactively applied procedures

³⁷ See generally Brief of Appellant, *Celgene v. Peter*, 931 F.3d 1342 (Fed. Cir. 2019) (No. 2018-1167), 2018 WL 2554044.

³⁸ *Id.* at 55.

³⁹ See *id.*

⁴⁰ *Id.* at 52 (citing *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1019 n.8 (1992)).

⁴¹ *Id.* at 57.

⁴² *Id.* at 58 (citing *Patlex Corp. v. Mossinghoff*, 758 F.2d 594 (Fed. Cir. 1985)).

⁴³ Brief of Appellant, *supra* note 37, at 58–59.

⁴⁴ *Celgene Corp. v. Peter*, 931 F.3d 1342, 1358 (Fed. Cir. 2019) (internal citations omitted) (discussing intervenor’s brief).

are not in violation of the presumption against retroactivity, because a lesser reliance interest exists in procedures.⁴⁵

After summarizing each of the parties' briefs, the Federal Circuit constructed a two-factor test to determine whether an unconstitutional taking occurred: "[1] the effect that doing so has on the patent right granted by the PTO, and [2] specifically whether IPRs differ from the pre-AIA review mechanisms significantly enough, substantively or procedurally, to effectuate a taking."⁴⁶ The court rejected Celgene's argument by reasoning that patents have always been challengeable in federal courts and that the examination methods of the pre-AIA statutes are substantially similar to the IPR procedures.⁴⁷ In support, the court states that both third parties or the Director of the USPTO have been able to petition for patent reexamination for almost forty years.⁴⁸ When Celgene filed its patent applications at issue in the case, either *ex partes* examination or *inter partes* reexamination existed.⁴⁹ The Federal Circuit concluded that the *inter partes* review procedures did not differ significantly enough from avenues of consideration in existence at the time of the patent application filing.⁵⁰ Relying on the similarities, the court offers that many more similarities exist than the differences relied on by Celgene, such as burden of proof and discretion of the Director to initiate proceedings. Lastly, the court looked to congressional intent upon AIA enactment also for support: "The [IPR] proceeding involves what used to be called a *reexamination*. . . . Although 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."⁵¹

Unsurprisingly, the Federal Circuit did not shy away from the many distinctions among IPRs and its predecessors, but that does not affect the calculus of the Federal Circuit's opinion. Chief Judge Prost's opinion concedes that differences do exist because otherwise there would have been no real need for a new patent act.⁵² Further, in addressing Celgene's attempt to distinguish

⁴⁵ Reply Brief of Appellant at 33, *Celgene Corp. v. Peter*, 931 F.3d 1342 (Fed. Cir. 2019) (No. 2018-1167), 2018 WL 5801172, at *27; *see also* *Landgraf v. USI Film Prods.*, 511 U.S. 244 (1994).

⁴⁶ *Celgene*, 931 F.3d at 1358. The Federal Circuit relies on its own precedent reviewing *ex parte* reexamination under the Fifth Amendment Takings Clause and Due Process Clause. *Id.* at 1358 n.13 (citing *Patlex*, 758 F.2d at 603, 605).

⁴⁷ *Id.* at 1359.

⁴⁸ *Id.* (citing *Cuozzo Speed Techs. v. Lee*, 136 S. Ct. 2131, 2137 (2016)).

⁴⁹ *Id.*

⁵⁰ *Id.* at 1360.

⁵¹ *Id.* (citing *Cuozzo*, 236 S. Ct. at 2144).

⁵² *Celgene*, 931 F.3d at 1361 (quoting H.R. REP. NO. 112-98, pt. 1, at 39–40 (2011)) ("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.'"). The Federal Circuit further mitigates its concession by likening IPRs to increasing staff and budget at the USPTO:

IPRs from civil litigation, the court was persuaded that those distinguishing characteristics are markers of the reexamination process of the pre-AIA system.⁵³ The court relies on precedent that indicates “no one has a vested right in any given mode of procedure” and did not alter patent owner expectations that reconsideration of their patent—either before or after the AIA—was possible.⁵⁴

B. In Both Collabo Innovations, Inc. v. Sony Corp. and Arthrex, Inc. v. Smith & Nephew, Inc., the Federal Circuit Did Not Elaborate on Its Decision in Celgene

The Federal Circuit heard two cases asserting takings claims in 2019. Judge Stoll wrote both opinions for the court and largely reiterated its stance in *Celgene* without adding much dicta or reasoning. In *Arthrex*, the panel concluded that the patent in question was issued on September 2, 2014, over two years after the passage of the AIA.⁵⁵ Alternatively however, if the patent had issued prior to the passage of the AIA, the panel confirmed the basis for its reasoning in *Celgene* that insufficient differences exist between the pre-AIA processes to challenge patents as a third party and the IPR process created in the AIA.⁵⁶ The court stated that Arthrex unequivocally had notice that the USPTO, using a preponderance of evidence standard, can reconsider the validity of issued patents on particular grounds.⁵⁷ Likewise in *Collabo Innovations*, the “patent owners already expected that their patents could be challenged in district court and ‘[f]or forty years’ had expected that ‘the [Patent Office] could reconsider the validity of issued patents on particular grounds, applying a preponderance of the evidence standard.’”⁵⁸

The Federal Circuit has not yet elected to hear any particular case en banc, and the Supreme Court has not granted certiorari. However, there is reason to believe that not all judges on the Federal Circuit may agree with the reasoning in *Celgene*. In Judge O’Malley’s concurring opinion published January 24, 2018

Implementing IPRs to create a more robust and efficient system for challenging the validity of patents is not unlike the PTO or Congress making the system more robust by, for example, increasing the budget for or number of examiners in the reexamination unit. While those changes might result in significantly more requests for reexamination and more claims being canceled, we doubt that anyone would argue that they effectuate a taking.

Id. at 1361 n.18.

⁵³ *Id.* at 1362.

⁵⁴ *Id.* at 1361–62 (quoting *Denver & Rio Grande W. R.R. Co. v. Bhd. of R.R. Trainmen*, 387 U.S. 556, 563 (1967)).

⁵⁵ *Arthrex, Inc. v. Smith & Nephew, Inc.*, 935 F.3d 1319, 1331 (Fed. Cir. 2019).

⁵⁶ *Id.* (citing *Celgene*, 931 F.3d at 1357–63).

⁵⁷ *Id.* at 1331–32 (citing *Celgene*, 931 F.3d at 1357–63).

⁵⁸ *Collabo Innovations, Inc. v. Sony Corp.*, 778 F. App’x 954, 961 (Fed. Cir. 2019) (quoting *Celgene*, 931 F.3d at 1363).

in a separate *Arthrex v. Smith & Nephew* opinion relating to the same patent, she expressed caution at the USPTO's ability to retroactively apply provisions of the AIA: "I also am skeptical that the framework of the Leahy-Smith America Invents Act . . . provides the Board with the necessary authority to issue adverse judgments based on statutory disclaimers prior to institution of inter partes review."⁵⁹ In this particular lawsuit however, the questions were not reached because Arthrex disclaimed any such claim before the Federal Circuit.⁶⁰

C. Constitutional Jurisprudence of the Takings Clause

The Supreme Court has treated patents as property as it relates to the Takings Clause.⁶¹ The Fifth Amendment to the Constitution states that "private property [shall not] be taken for public use, without just compensation."⁶² Therefore, if a patent is taken for public use, after a reasonable expectation and reliance interest by the patent owner without just compensation, a taking has occurred. Due to the assertion that retroactive application of the AIA is in violation of the Takings Clause, doctrine relating to regulatory takings are applicable.

The Supreme Court of the United States has an elaborate history with a multitude of precedents outlining the confines of the Takings Clause, with three cases dominating regulatory takings jurisprudence—*Lucas v. South Carolina Coastal Council*,⁶³ *Penn Central Transportation Co. v. City of New York*,⁶⁴ and *Loretto v. Teleprompter Manhattan CATV Corp.*⁶⁵—although in a rather ununified fashion.⁶⁶

Lucas and *Loretto* consider per se regulatory takings with two very different focuses: trespass and economics. In *Loretto*, the government must provide just compensation for cases in which the government permanently and physically invades one's property.⁶⁷ Alternatively in *Lucas*, the government must provide just compensation if the government "deprive[s] an owner of 'all economically

⁵⁹ *Arthrex, Inc. v. Smith & Nephew, Inc.*, 880 F.3d 1345, 1351 (Fed. Cir. 2018) (O'Malley, J., concurring).

⁶⁰ *Id.*

⁶¹ See, e.g., *Horne v. Dep't of Agric.*, 135 S. Ct. 2419, 2427 (2015) (quoting *James v. Campbell*, 104 U.S. 356, 358 (1882)) ("[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, any more than it can appropriate or use without compensation land which has been patented to a private purchaser."); *Oil States Energy Servs. v. Greene's Energy Grp.*, 138 S. Ct. 1365, 1379 (2018) (first citing *Fla. Prepaid Postsecondary Educ. Expense Bd. v. Coll. Sav. Bank*, 527 U.S. 627, 642 (1999); and then citing *James v. Campbell*, 104 U.S. 356, 358 (1882)).

⁶² U.S. CONST. amend. V.

⁶³ See generally *Lucas v. S.C. Coastal Council*, 505 U.S. 1003 (1992).

⁶⁴ See generally *Penn Cent. Transp. Co. v. City of New York*, 438 U.S. 104 (1978).

⁶⁵ See generally *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419 (1982).

⁶⁶ *Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528, 539 (2005).

⁶⁷ *Id.* at 538.

beneficial use’ of her property.”⁶⁸ In the absence of a per se taking, *Penn Central* governs the remainder of cases in the realm of regulatory takings.⁶⁹ The Supreme Court summarized the *Penn Central* factors for evaluating regulatory taking claims as such:

[A]mong those factors are ‘[t]he economic impact of the regulation on the claimant and, particularly, the extent to which the regulation has interfered with distinct investment-backed expectations.’ In addition, the ‘character of the governmental action’—for instance whether it amounts to a physical invasion or instead merely affects property interests through ‘some public program adjusting the benefits and burdens of economic life to promote the common good’—may be relevant in discerning whether a taking has occurred.⁷⁰

While each case reflects on different aspects of a rather amorphously applied and complex doctrine, the Supreme Court has deduced a central theme amongst the leading regulatory takings cases: “Each aims to identify regulatory actions that are functionally equivalent to the classic taking in which government directly appropriates private property or ousts the owner from his domain.”⁷¹

D. In Following Its Own Precedent in Celgene, the Federal Circuit Failed to Cite Supreme Court Fifth Amendment Takings Doctrine

The Federal Circuit often hears cases asserting violations of the Takings Clause because of its special jurisdiction over “certain money claims against the United States government.”⁷² In a case involving a land development dispute, the Federal Circuit discussed regulatory takings, accepted *Penn Central Transportation Co. v. New York City*⁷³ as controlling, and provided the relevant analysis: “[T]he regulatory takings analysis is an ‘essentially ad hoc, factual inquiry,’ which requires courts to evaluate (1) the character of the governmental action, (2) the economic impact of the regulation on the claimant, and (3) the extent to which the regulation interfered with distinct investment-backed expectations.”⁷⁴ Furthermore, the Federal Circuit stated, “If the court determines that the regulation ‘goes too far’ such that it should be recognized as a taking of private property for public use, then the government must provide just compensation.”⁷⁵

⁶⁸ *Id.*

⁶⁹ *Id.* at 539.

⁷⁰ *Id.* at 538–39 (quoting *Penn Cent. Transp. Co. v. City of New York*, 438 U.S. 104, 124 (1978) (internal citations omitted)).

⁷¹ *Id.* at 539.

⁷² *Court Jurisdiction*, *supra* note 9.

⁷³ *Penn Cent. Transp. Co.*, 438 U.S. at 104.

⁷⁴ *Lost Tree Vill. Corp. v. United States*, 707 F.3d 1286, 1292 (Fed. Cir. 2013) (quoting *Penn Cent. Transp. Co.*, 438 U.S. at 124).

⁷⁵ *Id.* (citing *Pa. Coal Co. v. Mahon*, 260 U.S. 393, 415 (1922)).

The Supreme Court should clarify the application of the Takings Clause in cases involving the retroactive invalidation of pre-AIA issued patents using the AIA IPR process by granting certiorari, or the Federal Circuit should grant a rehearing en banc. Two potential scenarios exist. The first scenario is that the Supreme Court applies the current takings doctrine to cases like *Celgene*. The second scenario involves the Court creating a new test for intangible property, such as intellectual property, which is supported by analysis of originalist and living constitutionalist theories.

If the Supreme Court decides the existing regulatory takings doctrine stands with the *Penn Central* factors, the most important factors to consider when evaluating the retroactive invalidation of pre-AIA issued patents using the AIA IPR process are the economic impact of the regulation on the claimant and the extent to which the regulation interfered with distinct investment-backed expectations. But, how exactly would this be accomplished? The nature of patent law is that patents cannot squarely or sufficiently meet any of the other *Penn Central* factors (or be a per se regulatory taking for that matter). A patent is “‘the right to exclude others from making, using, offering for sale, or selling’ the invention in the United States or ‘importing’ the invention into the United States. What is granted is not the right to make, use, offer for sale, sell or import [the invention]”⁷⁶ When a patent is invalidated, the invention is available for use by anyone in the public, including the entity or person that owned the patent rights, provided another’s patent did not exclude the making of their own invention. As a result, and notwithstanding that patents are property and potentially subject to a regulatory taking, the IPR process does not sufficiently diminish economic value. In the event that a pre-AIA patent is invalidated through IPR proceedings, the patent owner whose rights are void may still make, use, offer for sale, sell, or import the invention to secure economic benefit. Furthermore, if the patent claimed a successful and profitable invention, it is likely that the producing entity would invest in such a technology to their own benefit with or without a patent, with the expectation that it would be profitable.

Reaching the same result as the Federal Circuit—that applying AIA IPR to pre-AIA issued patents does not constitute an unconstitutional taking—is a coincidental aspect to the Takings Clause analysis, which may suggest that granting certiorari or rehearing en banc is not necessary. However, the negative implications of refusing to grant certiorari or a rehearing en banc are apparent. As other district and appellate courts hear cases asserting a taking in similar scenarios, “bad law” may be applied. The fact is that the Federal Circuit devised the applied test in *Celgene* from their own precedent and ignored quintessential Takings Clause doctrine from the Supreme Court. But, maybe the Federal Circuit was onto something?

⁷⁶ *General Information Concerning Patents*, U.S. PAT. & TRADEMARK OFF., <https://www.uspto.gov/patents-getting-started/general-information-concerning-patents> [<https://perma.cc/DNU8-6DJ8>] (last updated Nov. 1, 2019) (emphasis added).

IV. NOTWITHSTANDING APPLICATION OF TAKINGS JURISPRUDENCE,
FINDING PRE-AIA PATENTS UNCONSTITUTIONAL UNDER AIA IPRS
CREATES TOO GREAT AN ADMINISTRATIVE BURDEN

The Supreme Court could find that retroactive application of IPR to pre-AIA issued patents is an unconstitutional taking through the traditional *Loretto*, *Lucas*, or *Penn Central* analyses, but doing so would not be plausible because of the gross administrative burden that would result. Of the 6700 AIA petitions filed as of March 2017, IPRs comprised 92% of the petitions.⁷⁷ Of the patents exiting the IPR process, only 19% emerged with all patent claims intact, while 81% had some or all claims invalidated.⁷⁸ The USPTO itself concedes that IPR retroactivity is a growing business: “[G]iven the growing number of retroactivity challenges apparently prompted by the reference to retroactivity in *Oil States*, . . . this Court may nevertheless conclude that the interests of justice warrant addressing the retroactivity question quickly to avert further uncertainty regarding the constitutionality of inter partes review.”⁷⁹ But to offer “just compensation” for each pre-AIA claim invalidated would create an administrative burden that would be difficult to meet.

Just compensation in the context of the Takings Clause is “the fair market value of its property [and] is thus consistent with the basic equitable principles of fairness underlying the Just Compensation Clause.”⁸⁰ The Supreme Court has held that determining fair market value is an arduous task for patents: “A patent is a thing unique. There can be no contemporaneous sales to express the market value of an invention that derives from its novelty its patentable quality.”⁸¹ As such, the court must make an effort to “determin[e] the correct . . . value of the patented invention, [especially] when it is but one part or feature among many, and ascertaining what the parties would have agreed to in the context of a patent license negotiation.”⁸² An added complication is that parties may have differences in opinion about the fair market value of an invention, but the parties will often agree that the figure is around its “true ‘economic value.’”⁸³ Such disagreements are “the inherent risk in licensing intangible assets that may have no established market value.”⁸⁴ Moreover, “even when the patented invention is a small component of a much larger commercial product, awarding a

⁷⁷ Mark Magas, Note, *Consequences for Patent Owners If a Patent Is Unconstitutionally Invalidated by the Patent Trial and Appeal Board*, 94 CHI.-KENT L. REV. 79, 79–80 (2019).

⁷⁸ *Id.*

⁷⁹ *Celgene Corp. v. Peter*, 931 F.3d 1342, 1356 (Fed. Cir. 2019).

⁸⁰ *United States v. 564.54 Acres of Land, More or Less, Situated in Monroe & Pike Clys., Pa.*, 441 U.S. 506, 517 (1979) (citing *United States v. Fuller*, 409 U.S. 488, 490 (1973) (internal citations omitted)).

⁸¹ *Sinclair Ref. Co. v. Jenkins Petroleum Process Co.*, 289 U.S. 689, 697 (1933).

⁸² *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1337 (Fed. Cir. 2009).

⁸³ *Id.*

⁸⁴ *Id.*

reasonable royalty based on either sale price or number of units sold can be economically justified.”⁸⁵

But why would the prospect of estimating just compensation of taken patents enter into the Federal Circuit’s, or even the Supreme Court’s calculus? The answer may rest in the evolving conceptions of the Takings Clause in relation to society,⁸⁶ specifically that property is a form of wealth in the contemporary United States. As a result, the Takings Clause is now less about protection of property and more about the protection of wealth.⁸⁷ Applying this concept to *Celgene* and the Federal Circuit’s resulting opinion, compensating patent owners for governmentally “taken” patent rights would be an effort to protect the wealth of the patent owner. But, with a lack of reliable methodology to estimate fair market value for possibly hundreds of patents, holding that pre-AIA patents and patent claims invalidated by AIA IPR is not practical for the Federal Circuit.

An additional dimension to consider is the deference the judiciary provides the legislature with regard to which aspect of political justice is at stake.⁸⁸ Economic rights concerning the Takings Clause are highly deferential. In fact, “only an extremity of governmental behavior or consequence will dislodge the pervasive willingness to accept as equitable the economic burdens imposed by governmental action.”⁸⁹ The conception of patents as an affirmative right of “wealth” suggests that patents are outside the realm of the narrowed constitutional adjudication because “the prospect of complex questions of social strategy and responsibility that succeeds in providing a case for such narrowing.”⁹⁰ Patents as an unconstitutional taking “provides good reason for limiting judicial enforcement of constitutional justice along the . . . boundary

⁸⁵ *Id.* at 1339.

⁸⁶ SOTIRIOS A. BARBER & JAMES E. FLEMING, CONSTITUTIONAL INTERPRETATION: THE BASIC QUESTIONS 26 (2007) (discussing RONALD DWORKIN, TAKING RIGHTS SERIOUSLY 134 (1977)) (“Dworkin seems to claim that one can be faithful to an unchanging text while supporting changes in interpretations of that text. And what justifies this claim is perhaps the best-known distinction of his legal philosophy: the distinction between constitutional concepts and competing conceptions of those concepts.”) (emphases omitted).

⁸⁷ Lawrence G. Sager, *Property Rights and the Constitution*, 22 PROPERTY 376, 380 (1980) (“[T]he question becomes whether our constitutional tradition can be understood as protecting a state of affairs pursuant to which individuals are for the most part unfettered in the pursuit of wealth by the means of their choosing, and further, for the most part able to retain the fruits of their acquisitive efforts. On the face of the matter, our constitutional tradition seems more promising here. While quite ill suited to the protection of property, the compensation requirement seems nicely tailored for the protection of wealth; its effect, after all, is to frustrate the redistributions of wealth that would inevitably be the consequence of uncompensated governmental takings of property.”).

⁸⁸ See Lawrence G. Sager, *Justice in Plain Clothes: Reflections on the Thinness of Constitutional Law*, 88 NW. U. L. REV. 410, 412 (1993).

⁸⁹ *Id.*

⁹⁰ See *id.* at 428.

beyond which lie economic rights, rights to the repair of injustice, and affirmative rights more generally.”⁹¹

If the Federal Circuit considered invalidated patents via retroactive application of IPR to pre-AIA patents as an unconstitutional taking, the court would have been altering the level of deference typically afforded in cases of economic rights and broadening judicial enforcement in an inappropriate manner. The resulting administrative burden of providing patent owners just compensation after *Celgene* would congest the USPTO, judiciary, or legislature, and ultimately result in governmental stagnation.

These concepts are vastly complex. Constitutional scholars who have spent years ruminating about these very concepts have not reached a perfect solution. The Federal Circuit may have realized something preeminently by applying an atypical Takings Clause test to regulatory takings. As the Takings Clause doctrine stands, the fit to intellectual property, as intangible property, is lacking. Therefore, courts may need a fresh perspective on the takings doctrine when applying the doctrine to intellectual property.

V. PROGRESSIVE CONSTITUTIONAL INTERPRETATIONS: ABANDONMENT OF ORIGINALISM IN FAVOR OF LIVING CONSTITUTIONALISM FOR INTELLECTUAL PROPERTY ISSUES

Like many concepts within the Constitution that can be traced back to the Magna Carta, the Takings Clause has a history on which the Framers could have relied, but that history was sparse.⁹² The colonial government often made a habit of interfering with private property, but such a habit was not accompanied by just compensation.⁹³ The idea of just compensation was not included in the Magna Carta, however, and the recourse afforded to those whose property was seized was procedural.⁹⁴ In 1777, Vermont was the first state to incorporate compensation into its Constitution, and the same notion was included in the Northwest Ordinance of 1787.⁹⁵ Unfortunately, though, there are no records of any discussion relating to the meaning of the Takings Clause by Congress upon passage of the Fifth Amendment, and “Madison’s statements thus provide unusually significant evidence about what the clause was originally understood to mean.”⁹⁶ But regardless of where one looks for the original meaning of the Takings Clause, it is seemingly evident that the Framers intended the Clause for when the government physically took property.⁹⁷

⁹¹ *See id.*

⁹² *See* William Michael Treanor, *The Original Understanding of the Takings Clause and the Political Process*, 95 COLUM. L. REV. 782, 785–87 (1995).

⁹³ *Id.*

⁹⁴ *Id.*

⁹⁵ *Id.* at 790–91.

⁹⁶ *Id.* at 791.

⁹⁷ *Id.* at 795, 798, 831 n.252.

But in 1922, the Takings Clause was expanded in *Pennsylvania Coal Co. v. Mahon* to include regulatory takings.⁹⁸ Some commentators allege that after *Pennsylvania Coal*, the Supreme Court has completely disregarded the original meaning of the text.⁹⁹ This expansion was largely due to the changing conceptions of property in society and definition of wealth as “stocks, bonds, pensions, and an assortment of rights granted by the activist welfare state.”¹⁰⁰ Scholars, even those from originalist camps, have since found reasons for why *Pennsylvania Coal* fits squarely within the Framers’ intent for the Takings Clause.¹⁰¹

All that modern scholars can truly agree upon is that the takings jurisprudence, especially in the context of regulatory takings, is incoherent.¹⁰² At least one scholar even interprets Justice Scalia’s opinion in *Lucas* “to be treating the Takings Clause as capable of evolution, without making a case for why it should be so treated.”¹⁰³ In the context of patent rights, scholars Bell and Parchomovsky described property in a manner that leaves room for patents: “Property’s usage of the concept of ‘thing’ is capacious, including not just tangible items but also ideas and qualities. Accordingly, intangible goods such as ideas, expressions, or symbols may be proper subjects of property law.”¹⁰⁴

While patents embody the ultimate intangible property right, it is not something that can be physically invaded, the right is not appurtenant, and ending the right through governmental action does not diminish the value sufficiently to effectuate a taking. Therefore, intellectual property law, specifically patent law, does not fit within any of the existing Takings Clause categories created in *Loretto*, *Lucas*, or *Penn Central*. Instead of continuing to use originalism as a pretext for the evolution of the doctrine, the Court should once again expand the takings doctrine to include a fourth type of unconstitutional regulatory taking using a living constitutionalist interpretative method.

The Federal Circuit in *Celgene* appears to have attempted exactly this expansion. However, the court did the Takings Clause no favors. A reading of the opinion has a “because I said so” attitude underlying the text. The Federal Circuit basing the living constitutionalism viewpoint on the notice afforded to the patent owner makes sense, but the Federal Circuit did not give enough detail

⁹⁸ Treanor, *supra* note 92, at 798 (discussing *Pa. Coal Co. v. Mahon*, 260 U.S. 393 (1922)).

⁹⁹ *Id.* at 803–06, 811.

¹⁰⁰ *Id.* at 812 (quoting BRUCE A. ACKERMAN, *PRIVATE PROPERTY AND THE CONSTITUTION* 166 (1977)).

¹⁰¹ *See, e.g., id.* at 815.

¹⁰² *See* Steven J. Eagle, *Property Tests, Due Process Tests and Regulatory Takings Jurisprudence*, 2007 B.Y.U. L. REV. 899, 899 (first citing Carol M. Rose, *Mahon Reconstructed: Why the Takings Issue Is Still a Muddle*, 57 S. CAL. L. REV. 561, 561 (1984); and then citing Joseph L. Sax, *Takings and the Police Power*, 74 YALE L.J. 36, 37 (1964)).

¹⁰³ Treanor, *supra* note 92, at 807–08.

¹⁰⁴ Eagle, *supra* note 102, at 933 (quoting Abraham Bell & Gideon Parchomovsky, *A Theory of Property*, 90 CORNELL L. REV. 531, 577 (2005)).

about the pre-AIA evaluation system and the IPR evaluation system of the AIA to be truly persuasive in its reasoning.

Living constitutionalism is an abandonment of the originalist theories of fixation and constraint.¹⁰⁵ A plethora of interpretative methods exist under the vast umbrella of living constitutionalism.¹⁰⁶ Dworkin and Fleming's moral readings theory,¹⁰⁷ Strauss's common law constitutionalism theory,¹⁰⁸ and Ackerman's popular constitutionalism theory¹⁰⁹ are each particularly relevant interpretative methods.¹¹⁰ Each theory has supporters and critics, but each theory is running towards the same objective: doctrinal evolution based on various elements of temporal and societal changes.¹¹¹ The idea is that, instead of forcing an ill-fitting originalist doctrine to contemporary legal issues, the judiciary should embrace a forward-looking perspective to ensure that constitutional doctrine, like the Takings Clause, does not become a discombobulated, incoherent, and complex set of legal rules.

Patent law exemplifies the need to bring the Takings Clause into the twenty-first century using theories of living constitutionalism. There is no dispute that the Framers intended for the Takings Clause to apply to physical property.¹¹² Furthermore, the Intellectual Property Clause in the Constitution existed prior to passage of the Fifth Amendment. Viewing the Constitution as a whole,¹¹³ if Congress intended for intellectual property to be subject to the Takings Clause, it would be expected that historical records would say as much. The fact of the matter is, historical records detailing the Framers' intentions contain gaps, which supports a more progressive view of the takings doctrine.

This brings us back to where we started: the Federal Circuit. The Federal Circuit is a progressive court that attempts to apply progressive takings clause doctrine. These efforts conform with the intent of the creation of the court in a time when it was known that the balance between private and governmental interests clashed:

¹⁰⁵ See Lawrence B. Solum, *Originalism Versus Living Constitutionalism: The Conceptual Structure of the Great Debate*, 113 NW. U. L. REV. 1243, 1271 (2019).

¹⁰⁶ *Id.*

¹⁰⁷ RONALD DWORKIN, *FREEDOM'S LAW: THE MORAL READING OF THE AMERICAN CONSTITUTION* 2 (1996); BARBER & FLEMING, *supra* note 86, at 26.

¹⁰⁸ See generally David A. Strauss, *Common Law Constitutional Interpretation*, 63 U. CHI. L. REV. 877 (1996).

¹⁰⁹ BRUCE ACKERMAN, *WE THE PEOPLE: FOUNDATIONS* 51–62 (1991).

¹¹⁰ Solum, *supra* note 105, at 1271–72.

¹¹¹ See Scott Dodson, *A Darwinist View of the Living Constitution*, 61 VAND. L. REV. 1319, 1327–37 (2008); Eliot T. Tracz, *Doctrinal Evolution and the Living Constitution*, 42 U. DAYTON L. REV. 257, 258 (2017).

¹¹² Treanor, *supra* note 92, at 795.

¹¹³ See Dodson, *supra* note 111, at 1341–42 (first citing CHARLES L. BLACK, JR., *STRUCTURE AND RELATIONSHIP IN CONSTITUTIONAL LAW* (1969); then citing JOHN HART ELY, *DEMOCRACY AND DISTRUST: A THEORY OF JUDICIAL REVIEW* 77–101 (1980); and then citing Richard H. Fallon, Jr., *A Constructivist Coherence Theory of Constitutional Interpretation*, 100 HARV. L. REV. 1189, 1192–94 (1987)).

[O]ur economic strength as a nation depends on technologic leadership, the balance of trade, and a culture that favors creativity, entrepreneurship, and industrial activity. These aspects can be fostered or deterred by governmental policy. The provision of an optimum policy of innovation incentive in a system of private enterprise is a complex question of industrial economics and scientific advance, a question whose answer varies among industries, markets, subject matter, and nations.¹¹⁴

The Court of Appeals for the Federal Circuit “is a court of commerce, industry, and governmental obligation, flowing from its many and varied areas of jurisdiction. The court’s concerns are with the nation’s business and trade, for both government and the private sector, and with the nation’s human obligations.”¹¹⁵ The Federal Circuit is an ideal Article III judicial body to expand the Takings Clause doctrine using progressive constitutional theories to incorporate patent law. However, due to the lack of discussion of the minutiae in regard to the differences among the AIA and its predecessors in *Celgene v. Peter*, the Federal Circuit should grant a rehearing en banc to elaborate on its reasoning and create a more robust progressive Takings Clause doctrine.

VI. CONCLUSION

The Takings Clause is a complex and disjointed doctrine that seems to gain complexity with each published case. Retroactive application of AIA inter partes review to invalidate patents issued prior to the passage of the AIA presents a special circumstance that is incongruent with the existing takings jurisprudence. The Takings Clause represents a conservative doctrine applied pretextually under originalist theories, but in this situation, a progressive living constitutional reasoning is warranted. The Federal Circuit is an appropriate venue for such a shake up, but more detail is needed to legitimize and create a fourth category of the regulatory Takings Clause doctrine.

¹¹⁴ Pauline Newman, *Foreword: The Federal Circuit in Perspective*, 54 AM. U. L. REV. 821, 821–22 (2005).

¹¹⁵ *Id.* at 821.