

No. 21-746

In The
Supreme Court of the United States

—◆—
APPLE INC.,

Petitioner,

v.

QUALCOMM INCORPORATED,

Respondent.

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

—◆—
**BRIEF OF ENGINE ADVOCACY, THE PUBLIC
INTEREST PATENT LAW INSTITUTE,
AND ACT | THE APP ASSOCIATION
AS AMICI CURIAE IN SUPPORT OF PETITIONER**

—◆—
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INTERESTS OF *AMICI CURIAE*¹

Amici are organizations that represent high-technology startups, small business innovators, and the public and are dedicated to ensuring that the patent system works to foster innovation. This includes preserving effective administrative mechanisms for clearing out invalid patents.

Engine Advocacy (“Engine”) is a non-profit technology, policy, research, and advocacy organization that bridges the gap between policymakers and startups. Engine works with government representatives and a community of high-technology, growth-oriented startups across the nation to support the development of technology entrepreneurship.

The Public Interest Patent Law Institute (“PIPLI”) is a non-profit, nonpartisan organization dedicated to ensuring the patent system promotes innovation and access for the benefit of all members of the public. PIPLI conducts policy research; engages in educational outreach; advocates for greater transparency, ethics, and equity in the patent system; and ensures representation of the public’s interest in

¹ Pursuant to Supreme Court Rule 37, counsel for *amici curiae* represent that they authored this brief in its entirety and that none of the parties or their counsel, nor any other person or entity other than *amici* or their counsel, made monetary contributions intended to fund the preparation or submission of this brief. Counsel for both parties have consented to *amici*’s request for consent to the filing of this brief, and both parties received timely notice of *amici*’s intent to file.

courts and agencies that decide important issues of patent law.

ACT | The App Association (the “App Association”) is an international advocacy and education non-profit organization representing more than 5,000 small business technology firms that develop the software applications and connected devices powering the Internet of Things. Located in all 435 congressional districts of the United States, the App Association represents an ecosystem that supports 5.9 million American jobs and is valued at approximately \$1.7 trillion.

The patent system concretely affects millions of innovators and individual Americans who depend on access to patented technology but may not participate directly in the patent system. These constituencies include research scientists, open source technology developers, small business owners, medical patients, and assistive device users. Wrongly-granted patents hurt them by eroding space for innovation, competition, and access while simultaneously empowering incumbents, increasing prices, and burdening courts. Due to limited financial resources and legal limitations on standing, members of the public can rarely challenge wrongly-granted patents directly, even when they suffer their negative effects firsthand. The public thus has a powerful interest in ensuring that private entities who possess the requisite resources, standing, and arguments to institute administrative proceedings before the Patent and Trial Appeal Board can pursue them to completion. Litigation settlements do not and

should not prevent the resolution of patent validity disputes.



SUMMARY OF ARGUMENT

The Federal Circuit’s overly-restrictive view of Article III standing in a series of patent appeals contravenes Supreme Court precedent and Congress’s choice to allow such appeals to proceed. This Court’s immediate intervention is necessary to prevent harms to the patent system, domestic innovation, and the broader public that the Federal Circuit’s lopsided deference to the Patent Trial and Appeal Board (“PTAB”) will otherwise inflict.

Congress carefully crafted administrative patent review mechanisms to “improv[e] patent quality” and make the U.S. patent system “more efficient.” H.R. REP. No. 112-98, at 39 (2011). Instead of forcing private third parties to incur substantial litigation costs to eliminate invalid patents, Congress instituted a more affordable and accessible alternative. In contrast to prior administrative patent review mechanisms, Congress knew that access to appeal was important and expressly authorized it. *Infra* Section II.B.

Nevertheless, the Federal Circuit’s recent case law departs from precedent to severely restrict standing when a dissatisfied PTAB challenger is not facing imminent threat of suit. That is what happened to Apple here, as this Court has repeatedly held that patent challengers do not sacrifice standing simply

because they are licensees. *E.g.*, *Medimmune Inc. v. Genentech, Inc.*, 549 U.S. 118, 137 (2007) (holding licensees have declaratory judgment jurisdiction to challenge patents); *Lear, Inc. v. Adkins*, 395 U.S. 653, 671 (1969) (rejecting licensee estoppel). The Federal Circuit’s approach to standing frustrates Congress’s goals, upends settled precedent, and hurts the public by discouraging parties who are best suited to challenge questionable patents from pursuing post-grant review.

The practical consequences of these Federal Circuit cases are stark. Startups, small businesses, and the broader public bear the burden of wrongly-granted patents which unjustly obstruct innovation, competition, and access to technology. Invalid patents impose these harms even absent pending or imminent litigation. Successful patent challenges eliminate the injurious effects of invalid patent broadly, not just for the party instituting review—emphasizing the value of administrative patent challenges, the public’s need for them, and the benefits we stand to lose under the Federal Circuit’s approach.

If the Federal Circuit continues to circumscribe judicial review of certain PTAB decisions, the U.S. patent system, economy, and innovation ecosystem will suffer.



ARGUMENT

I. The Federal Circuit’s Narrow Approach to Standing is Inconsistent with Supreme Court Precedent, Creating Disagreement within the Federal Circuit and Frustrating the Public’s Interest in Weeding Out Invalid Patents.

This case is the among the most recent in a series of Federal Circuit decisions that improperly cabin access to judicial review, in conflict with *Medimmune*. 549 U.S. at 137. In addition to breaking with *Medimmune* on the issue of licensee standing, the Federal Circuit’s decision below undermines the established principle that a party is not required to first risk damages and incur serious risk of economic harm in order to challenge the validity of patents blocking its path. *See, e.g., id.* at 134.

The Federal Circuit’s unduly narrow approach has prompted express disagreement among the judges of that court, with some dubbing it “overly rigid” and highlighting how it “contravenes” the America Invents Act (“AIA”). *Gen. Elec., Co. v. United Techs. Corp.*, 928 F.3d 1349, 1355 (Fed. Cir. 2019) (Hughes, J., concurring); *accord Apple Inc. v. Qualcomm Inc.*, 17 F.4th 1131, 1139 (Fed. Cir. 2021) (Newman, J., dissenting). This divide, coupled with the harm caused by the Federal Circuit’s narrow application of standing, crystallizes the need for this Court’s review.

A. The Federal Circuit’s Approach to Standing Undermines Principles Articulated by this Court.

The Federal Circuit is “tak[ing] a patent-specific approach to the doctrine of [] standing that is out of step with Supreme Court precedent.” *Gen. Elec., Co.*, 928 F.3d at 1355 (Hughes, J., concurring). This Court should grant certiorari to reaffirm that “[p]atent law is governed by the same . . . procedural rules as other areas of civil litigation.” *SCA Hygiene Prods. Aktiebolag v. First Quality Baby Prods., LLC*, 137 S. Ct. 954, 964 (2017).

The Federal Circuit’s approach to standing within the context of PTAB appeals departs from this Court’s and its own precedent by unduly limiting the doctrine of competitive standing, “which relies on economic logic to conclude that a plaintiff will likely suffer an injury-in-fact when the government acts in a way that increases competition or aids the plaintiff’s competitors.” *Canadian Lumber Trade All. v. U.S.*, 517 F.3d 1319, 1332 (Fed. Cir. 2008); *see, e.g., Clinton v. City of New York*, 524 U.S. 417, 433 (1998) (the Supreme Court “routinely recognizes probable economic injury resulting from [governmental actions] that alter competitive conditions as sufficient to satisfy the [Article III ‘injury-in-fact’ requirement],” and any party “who is likely to suffer economic injury as a result of [governmental action] that changes market conditions satisfies this part of the standing test” (citing 3 KENNETH DAVIS & RICHARD J PIERCE, ADMINISTRATIVE LAW TREATISE 13–14 (3d ed. 1994))). The Federal

Circuit has reasoned that the “government action at issue” in a patent review—“the upholding of specific patent claims”—is “quite different” from the types of government action that it and other courts have found standing to challenge, for example, limiting a challenger’s sales by “opening the market to more competitors.” *AVX Corp. v. Presidio Components, Inc.*, 923 F.3d 1357, 1364–65 (Fed. Cir. 2019). This reasoning is flawed. Not only is the Federal Circuit asking for more than this Court’s precedent requires, it is ignoring the practical consequences of this government action: when it upholds a questionable patent, it is preserving a monopoly that inherently and adversely affects competition.

Moreover, the Federal Circuit’s narrow and idiosyncratic approach to standing departs from how this Court treats injury in the context of patent licenses, creating anomalous results. *See, e.g., Medimmune*, 549 U.S. at 137. The case at hand is illustrative: the Federal Circuit has created a situation where, if Apple wants to bring a validity challenge, it would have to challenge Qualcomm’s full portfolio of 100,000 licensed patents; break its portfolio license agreement and be sued now; or wait for the license to expire and be sued then. Yet, as Judge Newman has explained, precedent confirms such extreme measures are not necessary. *Apple*, 17 F.4th at 1139.

Additional departures from precedent are apparent in other recent cases. In *General Electric*, the Federal Circuit refused to review a patent challenge even though the parties were “direct competitors in a

fiercely competitive market that requires significant up-front investment,” and where the patent at issue “effectively precluded” one competitor from developing in the space it felt was improperly covered by an invalid patent. 928 F.3d at 1358 (Hughes, J., concurring). And in *JTEKT Corp. v. GKN Automotive Ltd.*, the Federal Circuit refused to find standing in a case between competitors, where the petitioner was already engaged in potentially infringing product development because, the court emphasized, it had not yet proven a concrete, substantial, or likely risk of an infringement suit. 898 F.3d 1217, 1221 (Fed. Cir. 2018).

By contrast, the Federal Circuit finds standing where a party has built a plant to make the infringing product, *E.I. DuPont de Nemours & Co. v. Synvina C.V.*, 904 F.3d 996, 1004–05 (Fed. Cir. 2018), or has gotten FDA pre-approval for a drug, *Amerigen Pharms. Ltd. v. UCB Pharma GmbH*, 913 F.3d 1076, 1084–85 (Fed. Cir. 2019), both of which require enormous upfront costs. These cases reflect the Federal Circuit’s tendency to erect unwarranted (even insurmountable) barriers to those willing to invest in meritorious validity challenges—directly against what this Court articulated in *MedImmune*: that requiring a party to “destroy a large building, bet the farm, or [] risk treble damages” to have standing in court “finds no support in Article III.” 549 U.S. at 134.

B. The Federal Circuit’s Restriction on Standing Harms the Public by Denying Rulings on the Merits for Many Patent Cases.

The issues here transcend this dispute and these two parties. Invalid patents corrode the benefits of the patent system,² and this Court has repeatedly articulated the underlying importance of the public interest in patent law to preserve access to fundamental ideas that facilitate downstream innovation. *See Graham v. John Deere Co. of Kan. City*, 383 U.S. 1, 9 (1966). “It is as important to the public that competition should not be repressed by worthless patents, as that the patentee of a really valuable invention should be protected in his monopoly. . . .” *Pope Mfg. Co. v. Gormully*, 144 U.S. 224, 234 (1892). Thus, the public is best served by a patent system that

² The Founders recognized that wrongful claimants would obtain patents and that improvidently granted ones could inflict serious harm. *See* Letter from Thomas Jefferson to Isaac MacPherson (Aug. 13, 1813) in 13 THE WRITINGS OF THOMAS JEFFERSON 326, 335 (Albert Ellergy Bergh ed., Library ed. 1903) (“Considering the exclusive right to invention as given not of natural right, but for the benefit of society, I know well the difficulty of drawing a line between the things which are worth to the public the embarrassment of an exclusive patent, and those which are not.”); James Madison, *Detached Memoranda* (ca. 31 January 1820), NATIONAL ARCHIVES: FOUNDERS ONLINE, <https://founders.archives.gov/documents/Madison/04-01-02-0549> (last visited Dec. 15, 2021) (“[G]rants of this sort can be justified in very peculiar cases only, if at all; the danger being very great that the good resulting from the operation of the monopoly, will be overbalanced by the *evil* effect of the precedent; and it being not impossible that the monopoly itself, in its original operation, may produce more evil than good.”).

focuses on the merits of validity, to enable “full and free competition in the use of ideas which are in reality a part of the public domain.” *Lear*, 395 U.S. at 670; see also Alberto Galasso & Mark Schankerman, *Patents and Cumulative Innovation: Causal Evidence from the Courts* 19 (Nat’l Bureau of Econ. Rsch., Working Paper No. 20269, 2014) (showing invalid patents block follow-on research).

Indeed, licensees like Apple often are the only entities with sufficient incentives to challenge invalid patents. As this Court explained when rejecting the doctrine of licensee estoppel in *Lear*, “If [licensees] are muzzled, the public may continually be required to pay tribute to would-be monopolists without need or justification.” 395 U.S. at 670. The Federal Circuit’s decision contravenes this Court’s reasoning in *Lear* and the public’s interest in the full and free competition that wrongly-granted patents prevent.

Licensees operating in the same technological field as a patent’s subject matter are uniquely well-positioned to assess its validity. They have the requisite technical knowledge, understand the perspective of a person of ordinary skill in the art, and can identify and access relevant prior art. Congress created post-grant review mechanisms to provide an “efficient system for challenging patents that should not have issued.” *Cuozzo Speed Techs., LLC v. Lee*, 579 U.S. 261, 280 (2016) (quoting H.R. REP. No. 112-98, at 39–40 (2011)). Those reviews will be neither efficient nor effective if those most motivated and qualified to challenge wrongly-granted patents (licensees) cannot

obtain judicial review without risking severe economic harm.

II. The Federal Circuit’s Approach Frustrates Congress’s Carefully Balanced Policy to Root Out Questionable Patents.

Within patent law, “Congress has the prerogative to determine the exact right response—choosing the policy fix, among many conceivable ones, that will optimally serve the public interest.” *Kimble v. Marvel Entm’t, LLC*, 576 U.S. 446, 465 (2015). With the AIA, it created inter partes review (“IPR”) and post-grant review (“PGR”), which “offer[] a second look at an earlier administrative grant of a patent” and serve two purposes: (1) “helping resolve concrete patent-related disputes among parties” and (2) “help[ing] protect the public’s ‘paramount interest in seeing that patent monopolies . . . are kept within their legitimate scope.’” *Cuozzo*, 579 U.S. at 279–80 (quoting *Precision Instrument Mfg. Co. v. Auto Maint. Mach. Co.*, 324 U.S. 806, 816 (1945)).

The Federal Circuit’s overly restrictive IPR and PGR standing rule undermines the dual purpose of the post-grant review system that Congress created. And these disputes are inherently public because “the decision to *grant* a patent is a matter involving public rights—specifically, the grant of a public franchise.” *Oil States Energy Servs., LLC v. Greene’s Energy Grp., LLC*, 138 S. Ct. 1365, 1373 (2018). But, the public only

benefits when private entities can present and pursue validity challenges to completion.

A. The Realities and Constraints of Patent Examination Necessitate an Effective Ex-post Mechanism to Review Patent Quality.

The U.S. patent system cannot effectively promote the progress of science and useful arts without viable post-issuance error correction. If anything, the importance of such challenges is greater today than ever. Given the staggering number of patent applications and limited resources for examination, invalid patents will inevitably slip through, and the public will bear their costs unless and until their validity is challenged.

The Patent Office examines over 600,000 patent applications each year. *U.S. Patent Statistics Chart: Calendar Years 1963-2019*, U.S. PAT. & TRADEMARK OFF. (Dec. 13, 2021), https://www.uspto.gov/web/offices/ac/ido/oeip/taf/us_stat.htm. Given that load, “patent examiners have from 8 to 25 hours to read and understand each application, search for prior art, evaluate patentability, communicate with the applicant, work out necessary revisions, and reach and write up conclusions” which can be insufficient to perform a thorough examination. Christopher R. Leslie, *The Anticompetitive Effects of Unenforced Invalid Patents*, 91 MINN. L. REV. 101, 106 (2006) (quoting FED. TO COMM’N, TO PROMOTE INNOVATION:

THE PROPER BALANCE OF COMPETITION AND PATENT LAW AND POLICY, Executive Summary, at 10 (2003)); *see also, e.g.*, Michael D. Frakes & Melissa F. Wasserman, *Is the Time Allocated to Review Patent Applications Inducing Examiners to Grant Invalid Patents?: Evidence from Micro-Level Application Data*, 99 REV. ECON. & STATS., 550, 552 (2017) [hereinafter “Frakes & Wasserman 2017”] (examiners spend an average of 19 hours over the course of 2 years reviewing an application). Indeed, studies have shown forty-three percent of patents challenged in court were found invalid. John R. Allison et al., *Our Divided Patent System*, 82 U. CHI. L. REV. 1073, 1099 (2015).

Examiners themselves admit that time constraints impede their ability to review applications thoroughly. According to one federal government survey, more than seventy percent of examiners say their time allotments make it somewhat or much more difficult to complete a thorough examination. *Survey of Patent Examiners*, U.S. GOV'T ACCOUNTABILITY OFF. (GAO-16-478SP, June 2016), https://files.gao.gov/special.pubs/gao-16-478sp/results.htm#question_57 (last visited Dec. 14, 2021) (Question 13). Other reports reveal that “examiners believe they are ‘fighting for their lives’ and are ‘not [given] enough time to do a proper job.’” Michael D. Frakes & Melissa F. Wasserman, *Irrational Ignorance at the Patent Office*, 72 VAND. L. REV. 975, 978–79 (2019) (quoting MANHATTAN STRATEGY GRP., PATENT EXAMINERS PRODUCTION EXPECTANCY GOALS RE-ASSESSMENT AND ADJUSTMENT STUDY, at D-9 (2010)). And studies confirm that “as

examiners are given less time to review applications . . . the more likely they are to grant patents,” and on average those “marginally issued patents are of weaker-than-average quality.” Frakes & Wasserman 2017, *supra*, at 560.

It was against that backdrop, with the “growing sense that questionable patents are too easily obtained and too difficult to challenge,” that Congress chose to create IPR and PGR and grant dissatisfied petitioners the right to appeal. H.R. REP. NO. 112-98, at 39 (2011); *see also, e.g.*, 153 CONG. REC. H10270-10307 (Sept. 7, 2007) (statement of Rep. Chris Cannon) (“Patents of questionable validity are limiting competition and raising prices for consumers.”). Streamlined post-grant procedures were meant to provide important pathways to police patentees that over-patent, over-assert, or strategically evade invalidity litigation by suing those without the resources to defend themselves. By preventing large swaths of parties from accessing judicial review, the Federal Circuit undermines the “policy fix” that Congress chose in an effort to “optimally serve the public interest” and improve quality within our burdened patent system. *See Kimble*, 576 U.S. at 465.

B. Congress Considered Appellate Rights an Essential Component of the Post-grant Review Structure.

When Congress revamped post-grant procedures, it intentionally and expressly granted “a party

dissatisfied” with the results of an IPR or PGR the right to appeal. 35 U.S.C. §§ 319, 329.³ This marked an intentional departure from the previous post-grant reexamination, where “a challenger that lost at the USPTO . . . had no right to appeal . . . either administratively or in court.” H.R. REP. No. 112-98, at 45 (2011). Congress recognized that “[r]estrictions such as these made reexamination a *much less favored avenue* to challenge questionable patents than litigation.” S. REP. No. 110-259, at 18–19 (2008) (emphasis added). And it plainly intended to afford appellate standing to the limits of Article III as a key to effective post-grant review.

Congress knew what it was doing when it created appealability in this context—a decision this Court should honor. When it passed the AIA and broadly granted judicial review of final decisions, Congress would have expected well-established standing principles to apply in all cases. Congress passed the law knowing that “patent claims” were able to “create a controversy sufficient for declaratory judgment jurisdiction even when there is no risk of infringement. . . .” *Sanofi-Aventis U.S., LLC v. Dr. Reddy’s Lab’s, Inc.*, 933 F.3d 1367, 1374 (Fed. Cir. 2019). Directly relevant here, it also passed the AIA decades after *Lear* held licensees have standing to challenge patents and years after *MedImmune* confirmed that holding.

³ When Congress intended to preclude appellate review of decisions pertaining to post-grant review, it did so expressly. 35 U.S.C. § 314(d) (IPR institution decisions are nonappealable).

The need to honor this legislative choice is especially pressing given the “strong presumption that Congress intends judicial review of administrative action.” *Bowen v. Mich. Acad. of Fam. Physicians*, 476 U.S. 667, 670 (1986), *overruled on other grounds*, 5 U.S.C. § 701(a)(2). This need is even more compelling where, as here, Congress expressly provides a right to appeal. As this Court has held, Congress’s full grant of appellate review relaxes requirements of “immediacy and redressability” within the context of Article III standing. *Massachusetts v. EPA*, 549 U.S. 497, 517–18 (2007). Rather than relaxing standing requirements, however, the Federal Circuit has strengthened them. The Federal Circuit’s imposition of patent-specific limitations on standing directly undermines Congress’s carefully considered choice.

C. The Federal Circuit’s One-Sided Approach to Standing Deters Even Strong Administrative Challenges and Frustrates Evenness in Patent Law.

The Federal Circuit’s departure from precedent has practical consequences. Hindering review of one subset of appeals from administrative patent challenges creates disincentives for bringing them, making the law unfairly lopsided.

When Congress created IPR and PGR, it included estoppel provisions to bar petitioners from making arguments they “raised or reasonably could have raised” before the Patent Trial and Appeal Board

(“PTAB”) in subsequent district court litigation. 35 U.S.C. §§ 315(e)(2), 325(e)(2). Because of this estoppel, a would-be patent challenger who unsuccessfully makes invalidity arguments to the PTAB could be barred from raising defenses in a later district court infringement action—leaving them without vital defenses when infringement litigation eventually emerges.⁴ As Judge Hughes explained, the potential effects of estoppel, and uncertainty as to what defenses a challenger can raise after IPR, “underscore the problems with [the Federal Circuit’s] increasingly narrow approach to Article III standing.” *Gen. Elec. Co.*, 928 F.3d at 1359. These severe consequences to the parties and the public “suffice[] to establish standing to challenge validity of the licensed patents, for Apple’s risk of liability is not conjectural or hypothetical.” *Apple*, 17 F.4th at 1142 (Newman, J., dissenting) (quotations omitted).

The AIA’s estoppel is supposed to be a reasonable trade-off: patent challengers give up the right to bring meritorious validity arguments in district court in exchange for access to PTAB proceedings and appellate review. Depriving challengers of access to appellate review based on their licensing status changes the balance by extending estoppel to validity arguments that should have succeeded but were erroneously rejected and never reviewed. The potential

⁴ The Federal Circuit has not definitively resolved how estoppel would apply for cases dismissed on appeal for lack of standing. *See AVX Corp.*, 923 F.3d at 1363 (declining to reach the issue).

consequences are substantial: the Federal Circuit reverses some or all of the PTAB's conclusions in more than 20 percent of IPR appeals. Daniel F. Klodowski & Eric A. Liu, *Federal Circuit PTAB Appeal Statistics Through April 30, 2021*, FINNEGAN (May 20, 2021), <https://www.finnegan.com/en/insights/blogs/at-the-ptab-blog/federal-circuit-ptab-appeal-statistics-through-april-30-2021.html>. The prospect of losing the right to bring meritorious validity arguments in district court will disincentivize would-be challengers from going to the PTAB at all.

Finally, by cabining access to appeal, the Federal Circuit is contributing to uneven development of the law. Appellate review is supposed to promote quality and uniformity, JANICE M. MUELLER, *PATENT LAW* 39 (3d ed. 2009), but an appellate court cannot do that if it only reviews a subset of cases and categorically avoids an entire class of disputes. Sapna Kumar, *Standing Against Bad Patents*, 32 *BERKELEY TECH. L.J.* 87, 130 (2017) (articulating that patent challengers and patent owners currently have lopsided access to court). Ignoring appeals where the PTAB declines to invalidate a patent not yet formally asserted, while entertaining appeals where the PTAB reaches the opposite conclusion, creates imbalance within the system and ensures the law develops in a skewed manner.

III. Taking an Overly Narrow Approach to Standing Will Harm Innovation and Economic Development, Especially in the Context of Startups and Small Businesses.

Startups and small business innovators develop breakthrough technologies that fuel innovation and drive economic progress. Startups produce considerably more influential inventions per investment dollar compared to established firms. David Benson & Rosemarie H. Ziedonis, *Corporate Venture Capital as a Window on New Technologies: Implications for the Performance of Corporate Investors When Acquiring Startups*, 20 *ORG. SCI.* 329, 332 (2009). Moreover, new firms generated essentially all net job growth and have maintained job creation during recessionary periods in the U.S. over the past 30 years. *See Job Creation*, U.S. CENSUS BUREAU, <https://bds.explorer.ces.census.gov/> (last visited Dec. 4, 2021). But, these small businesses are particularly vulnerable when faced with threats based on questionable patents—in the context of infringement litigation or otherwise.

The Federal Circuit’s narrow interpretation of standing jeopardizes these and other economic gains. Post-grant patent review procedures have been valuable for startups and small businesses, who often lack the resources to defend even meritless patent suits. And, they have proven successful: following the passage of the AIA, “abusive [patent] litigation started to decline while startup activity simultaneously increased.” *Startups & the U.S. Patent System: Prioritizing Quality and Balance to Promote Innovation*,

ENGINE 15 (July 2021), <https://static1.squarespace.com/static/571681753c44d835a440c8b5/t/60f8579bae6a2d324b7440a2/1626888093336/Engine+Patent+Quality+Booklet+2021+7.21.pdf>.

The benefits of a healthy IPR and PGR system are felt more broadly. As of 2017, plaintiffs and defendants avoided at least \$2.31 billion in losses by utilizing this more efficient alternative to district court litigation. Josh Landau, *Inter Partes Review: Five Years, Over \$2 Billion Saved*, PATENT PROGRESS (Sept. 14, 2007), <https://www.patentprogress.org/2017/09/14/inter-partes-review-saves-over-2-billion/>. Because businesses can reinvest those savings into their companies, administrative patent reviews have increased U.S. business activity by approximately \$2.95 billion over 5 years (including multiplier effects). *An Assessment of the Impact of the America Invents Act and Patent Trial and Appeal Board on the US Economy*, PERRYMAN GRP. (June 25, 2020), <https://www.perrymangroup.com/media/uploads/report/perryman-an-assessment-of-the-impact-of-the-american-invents-act-and-patent-trial-and-appeal-board-on-the-us-economy-06-25-20.pdf>. Restoring full appellate review is imperative to preserving these gains.

A. The Federal Circuit’s Approach Opens Avenues for Gamesmanship, Where Startups Are at a Particular Disadvantage.

The Federal Circuit’s decision here creates a dangerous opportunity for gamesmanship that disproportionately benefits large, wealthy companies like Qualcomm to the disadvantage of smaller firms. Qualcomm has amassed an enormous portfolio of patents which it compelled Apple to license during the course of litigation involving a small subset of them, *Apple*, 17 F.4th at 1141 (Newman, J., dissenting), and even with Apple’s resources, it could not feasibly challenge that *entire* portfolio. Even if Qualcomm’s portfolio was significantly smaller, most companies would find it prohibitively expensive to challenge an entire portfolio (including patents they did not and would not ever infringe). *See, e.g.*, Amy L. Landers, *The Antipatent: A Proposal for Startup Immunity*, 93 NEB. L. REV. 950, 983 (2015) (“[P]ortfolios create a cloud of uncertainty that translates into an exponential multiplication of risk compared to the assertion of a single patent.”).

In its ruling, the Federal Circuit concluded that, unlike single-patent licenses, portfolio licenses which include “tens of thousands of patents” become “fatal to establishing standing under the reasoning of *MedImmune*.” *Apple Inc. v. Qualcomm Inc.*, 992 F.3d 1378, 1383 (Fed. Cir. 2021). The reason for the fatality is that invalidity of the challenged patent would not materially “affect [] ongoing payment obligations.” *Id.*

This distinction creates a loophole for holders of questionable patents: in order to shield those patents from judicial scrutiny, companies can bundle weak patents into a portfolio as long as they have enough patents and bargaining power to do so.

This irrelevant distinction between types of licenses could have far-reaching consequences. Portfolio licensing has proliferated over the last two decades and is currently a very common practice. *See, e.g.*, Jay Pil Choi & Heiko Gerlach, 9(1) AM. ECON. J.: MICROECON. 315, 316 (discussing the recent explosion of strategic patent portfolio acquisitions). Moreover, licensees hoping to avoid litigation are rarely given a meaningful choice, as patent owners frequently demand that potential infringers license entire portfolios rather than individual patents. *See* Mark A. Lemley & A. Douglas Melamed, *Missing the Forest for the Trolls*, 113 COLUM. L. REV. 2117, 2126–27 (2013) (describing patent aggregators who collect thousands of patents and “demand royalties to license the portfolio and threaten to sue those that do not pay”). And while patent portfolios can, and are used against startups, *see, e.g.*, Landers, *supra*, at 982–84 (discussing complications from portfolio approach to patent ownership); Abby Rives, Opinion, *Fortress Patent Fight Shows Abusive Litigation Hurts Startups*, LAW360 (Mar 25, 2020), <https://www.law360.com/articles/1256250> (describing entity with large portfolio targeting startups), those small businesses lack the resources to similarly amass such vast portfolios. That

means the Federal Circuit has created a game where only large companies can play.

Just as this Court held that single-patent licensees should not have to breach agreements to concoct Article III standing, so too should portfolio licensees facing similar pressures not be forced into such a precarious situation. *MedImmune*, 549 U.S. at 134–35.

B. Resolving Patent Validity Early and Efficiently Provides Startups and Small Businesses Freedom to Innovate Without Wasting Limited Resources.

By restricting access to post-grant review of questionable patents, the Federal Circuit is creating a unique threat to small innovative companies. Startups and small business innovators are significantly less able to absorb certain costs and risks. When wrongly accused of infringement, they face the prohibitively high cost of litigation.⁵ As this Court has long recognized, “the expense of defending a patent suit is often staggering to the small businessman.” *Blonder-Tongue Lab’ys, Inc. v. Univ. of Ill. Found.*, 402 U.S. 313,

⁵ On average, it costs over a million dollars to challenge a patent in lower-stakes district court case and at least \$300,000 to pursue an IPR or PGR. AIPLA, *Report of the Economic Survey 2019*, 50–52 (2019). Defending a district court patent case typically exceeds the amount of money startups raise in their seed stage, money that is expected to cover all of the startup’s costs for nearly two years. *The State of the Startup Ecosystem*, ENGINE 6, 17 (2021), <https://engineis.squarespace.com/s/The-State-of-the-Startup-Ecosystem.pdf>.

334 (1971) (quoting *Picard v. United Aircraft Corp.*, 128 F.2d 632, 641 (2d Cir. 1942) (concurring opinion)).

Even when not subjects of active litigation, questionable patents impose unwarranted burdens and chilling effects that harm everybody, from companies to consumers. When courts disincentivize use of the tools Congress created to address the inherently injurious effects of invalid patents, harms that should be avoidable become oppressive. The result is less investment, competition, and innovation. Without efficient administrative patent review, startups and small businesses have few options when they encounter invalid patents. They can risk litigation, be coerced into licensing, or forgo innovation entirely.

The mere possibility of a future infringement suit tends to make potential investors balk. “Venture capitalists do not eagerly embrace business models based on a product that infringes the patent of a dominant player when assertions of invalidity cannot be tested before entering the market.” Leslie, *supra*, at 126; *see generally, e.g.*, Catherine E. Tucker, *The Effect of Patent Litigation and Patent Assertion Entities on Entrepreneurial Activity*, ANALYSIS GRP. (May 15, 2014), <https://www.analysisgroup.com/Insights/publishing/the-effect-of-patent-litigation-and-patent-assertion-entities-on-entrepreneurial-activity/> (finding higher levels of patent litigation within a field correlated to reduced VC investment). Without those sources of financing, a new firm could be excluded from the market entirely. Even if it manages to enter, the

increased cost of capital will make the new entrant a less efficient competitor. Leslie, *supra*, at 127.

Questionable patents further erect barriers to entry. This is readily apparent, for example, in *Walker Process Equipment, Inc. v. Food Machinery & Chemical Corp.*, 382 U.S. 172 (1965), where FMC held patents rumored and thought to be invalid, but competitors were not willing to enter the market for four years. Leslie, *supra*, at 110–11. During those four years, FMC was able to use its invalid patent to entrench itself in the market, creating an uphill battle for competitors. *Id.*; see also, e.g., Landers, *supra*, at 968 (discussing research showing some third-party patents deter startup innovation).

Invalid patents further constrain the ways established firms, small and large, pursue R&D. Suspect patents have been famously analogized to scarecrows that inherently deter competitors. *Bresnick v. U.S. Vitamin Corp.*, 139 F.2d 239, 242 (2d Cir. 1943). In fact, the invalidation of a single patent increases citations to that patent, on average, by fifty percent—in other words, the presence of invalid patents significantly reduces follow-on innovation. Galasso & Schankerman, *supra*, at 4. This scarecrow effect is particularly salient for startups and small businesses who have slimmer coffers to protect against downside risks of encroaching on an invalid patent. See, e.g., Jean O. Lanjouw & Mark Schankerman, *Enforcement of Patent Rights in the United States*, in *PATENTS IN THE KNOWLEDGE-BASED ECONOMY* 145, 146 (Wesley M. Cohen & Stephen A. Merrill eds., 2003) (referring to

evidence that “small firms avoid R&D areas where the threat of litigation from larger firms is high”).

C. Restrictions on Standing Lessen the Likelihood Others will Step in to Clear the Field of Invalid Patents.

When an invalid patent is challenged, the benefits are broadly felt. By restricting standing, the Federal Circuit disincentivizes others not (yet) accused of infringement—including third parties and large companies—from incurring the time and expense of initiating IPR or PGR challenges, because those filers would be denied judicial review of any flawed decision and risk estoppel in the future. *Supra* Section II.C. Indeed, if the current trajectory of Federal Circuit standing cases continues, all variety of not-yet-infringers will start to shy away from beneficial patent challenges.

Often, a questionable patent is asserted against many, sometimes thousands, of firms. *See, e.g., Startups & the U.S. Patent System, supra*, at 8, 14 (summarizing examples). In particular, startups and small businesses are frequent targets of patent demands, as patentees know those without the resources to go to court are more likely to settle. *E.g., Landers, supra*, at 968, 978–79. As such, one firm challenging an invalid patent benefits many others—especially companies with limited resources.

The story of MPHJ Technology Investments (“MPHJ”) is illustrative. MPHJ possessed the rights to

patent claims—since deemed invalid—which related to scanning documents. Joe Mullin, *HP Launches the Second Attack Against Notorious “Scan to E-mail” Patents*, ARSTECHNICA (May 29, 2013 1:20 PM), https://arstechnica.com/tech-policy/2013/05/hp-launches-the-second-attack-against-notorious-scan-to-e-mail-patents/?itm_source=parsely-api; *Hewlett Packard Co. v. MPHJ Tech. Invs., LLC*, No. IPR2013-00309, 2014 WL 6617698, at *3 (P.T.A.B. Nov. 19, 2014). MPHJ targeted thousands of small and medium-sized businesses across America, threatening suit if the businesses refused to license the patents for \$1,000 per employee. Mullin, *supra*. Despite recognizing MPHJ’s patents were weak, the vast majority of the targeted companies did not have the resources to challenge them. *Id.*

But, scanner manufacturers such as Lexmark, HP, Xerox, and Ricoh stepped in and filed IPRs against MPHJ’s scanning patents, successfully freeing small businesses from their threats and creating space for competition. *E.g., id.* Even if the larger manufactures were not directly targeted by MPHJ, they were willing to pursue challenges through IPR.

The case at hand is also illustrative. If Apple prevails in challenging U.S. Patent No. 7,844,037, then hundreds of calling apps will be free to provide the basic (and arguably obvious) service of automated assistance in response to phone calls, such as by enabling the option for “message replies.” U.S. Patent No. 7,844,037, at 1:64-65.

Large businesses and others can (or could) play a vital role removing invalid patents from the field. This enables resource-constrained small businesses to optimally innovate and generate economic opportunities. And Congress was astutely aware of this important aspect of IPR, choosing to allow anyone to petition for IPR review and offering them access to appeal. *Supra* Section II.B.

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CONCLUSION

For the foregoing reasons, *amici* urge the Court to grant the petition for a writ of certiorari.

Respectfully submitted,

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