

Nos. 19-1434, 19-1452, 19-1458

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**In the Supreme Court of the United States**

UNITED STATES OF AMERICA,  
*Petitioner,*

v.

ARTHREX, INC., ET AL.,  
*Respondents.*

SMITH & NEPHEW, INC., ET AL.,  
*Petitioners,*

v.

ARTHREX, INC., ET AL.,  
*Respondents.*

ARTHREX, INC.,  
*Petitioner,*

v.

SMITH & NEPHEW, INC., ET AL.,  
*Respondents.*

On Writs of Certiorari to the  
United States Court of Appeals for the Federal Circuit

**BRIEF OF AMICI CURIAE ENGINE ADVOCACY  
AND ELECTRONIC FRONTIER FOUNDATION  
IN SUPPORT OF PETITIONER**

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**INTEREST OF AMICI CURIAE**

Amici are two organizations representing innovators and businesses from all sectors of the economy. They are dedicated to ensuring that the patent system works as intended to foster innovation, in part through effective administrative mechanisms for voiding invalid patents.<sup>1</sup>

Engine Advocacy (“Engine”) is a non-profit technology policy, research, and advocacy organization that bridges the gap between policymakers and startups, working with governments and high-technology, growth-oriented startups across the nation to support the development of technology entrepreneurship. Engine has worked with the White House, Congress, federal agencies, and state and local governments to discuss policy issues, write legislation, and introduce the tech community to Washington insiders.

The Electronic Frontier Foundation (“EFF”) is a non-profit civil liberties organization that has worked for 30 years to protect consumer interests, innovation, and free expression in the digital world. EFF and its more than 30,000 active members have a strong interest in helping the courts and policymakers ensure

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<sup>1</sup> Pursuant to Supreme Court Rule 37, the parties have consented to the filing of this brief, and all parties’ consents are on file with the clerk. No counsel for a party authored this brief in whole or in part, and no party or counsel for a party made a monetary contribution intended to fund its preparation or submission. No person other than the amici or their counsel made a monetary contribution to the preparation or submission of this brief.

that patent law serves the interests of creators, innovators, and the general public.

Amici write to share the perspective of innovation-driven communities in general, and high-technology startups in particular, that holding administrative patent judges (“APJs”) of the Patent Trial and Appeal Board (“PTAB”) unconstitutionally appointed undermines the critically important inter partes review (“IPR”) system. IPRs and other post-grant proceedings are vital to a healthy and functioning patent system that promotes more innovation than it deters. Dismissing current APJs or otherwise dismantling, undoing, or delaying IPRs would wreak havoc on the patent system by amplifying the propagation of wrongly granted patents in contravention of Congress’s intent and the public’s interest.

### **SUMMARY OF ARGUMENT**

The questions before this Court are whether APJs are inferior or principal officers and, if the latter, whether the Federal Circuit’s application of severance to save post-issuance review proceedings was correct. This Court’s answers are of more than theoretical significance: they will have powerful practical consequences for startups, innovators, technology users, and the administration of the patent system. The Federal Circuit’s deeply flawed approach threatens that system’s overriding goal: to promote innovation and economic growth by granting statutorily-limited exclusive rights when—and only when—the statutory requirements have been met.

The Federal Circuit misclassified APJs as principal officers because it ignored the similarities between APJs and patent examiners and overstated the similarities between APJs and administrative law judges (“ALJs”) in other agencies. This error flows directly from the court’s application of a new, rigid test that is inconsistent with Supreme Court precedent. And the error is critical because it places IPRs at risk, potentially harming startups, innovators, and the entire patent ecosystem.

A proper analysis demonstrates APJs are, at most, inferior officers. APJs are functionally closer to federal employees—in particular, patent examiners—than to principal officers like the Director. APJs and examiners both have the same core goal: to ensure that only valid patents are permitted to enter and remain in the marketplace. Both must follow the policies and procedures set by the Director of the United States Patent and Trademark Office (“USPTO”). Both are limited by law in what factors they can consider and what determinations they can make, with APJs often being *more* limited. And APJs, like other inferior officers, are subject to removal by a principal officer.

Although the Federal Circuit misclassified APJs, it was correct that severance is the best remedy to the perceived constitutional problem. IPR is a critical tool that helps innovators, startups, and the public at large. IPR provides a second layer of examination for patents that are being asserted but were wrongly granted, resulting in improved patent quality for all. Severance is both legally correct and necessary to ensure that IPR and other post-grant proceedings remain available to innovators.

Amici urge the Court to apply a fact-bound, multifaceted test and classify APJs as, at most, inferior officers. However, should the Court classify APJs as principal officers, it should affirm the use of severance for resolving the constitutional issue to ensure IPR remains available to innovators.

## ARGUMENT

### **I. The Federal Circuit Misclassified APJs Because It Overstated APJ Authority and Oversimplified the Principal Officer Analysis.**

In its decision, the Federal Circuit strayed from this Court's precedent and constructed a three-factor weighing test derived from the particular facts of *Edmond v. United States*, 520 U.S. 651 (1997). As a result, the court failed to consider the role APJs play in practice, including the relationship between APJs and patent examiner employees. It ignored the functional similarities between examiners and APJs,<sup>2</sup> the Director's supervisory and policy-making powers over each role, and critical distinctions between APJs and less-analogous ALJs this Court has deemed principal officers.

This Court's precedent confirms that distinguishing between employees, inferior officers, and principal officers is a multifaceted and fact-bound inquiry, not a strict test based on exclusive criteria. *See Freytag v. Comm'r of Internal Revenue*, 501 U.S. 868, 881 (1991) (argument based only on "authority to

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<sup>2</sup> Indeed, the Federal Circuit does not mention examiners a single time in its opinion. *See* Pet. App. at 1a-33a.

enter a final decision . . . ignores the significance of the duties and discretion that special trial judges possess.”); *see also Lucia v. Sec. and Exch. Comm’n*, 138 S. Ct. 2044 (2018); *Edmond*, 520 U.S. 651; *Morrison v. Olson*, 487 U.S. 654 (1988). This Court should consider all relevant facts and properly apply its precedent to them. Doing so will demonstrate that APJs are not principal officers.

**A. Reading Too Much into *Edmond*, the Federal Circuit Manufactured a Rigid Test Inconsistent with Precedent and Practical Reality.**

Instead of engaging in a case-specific inquiry of all relevant facts about APJs, including how their role compares to that of USPTO employees who also make final patentability decisions—patent examiners—the Federal Circuit constructed an artificial and rigid three-factor test that lacks support in the case law. Moreover, the narrow test the Federal Circuit applied led it to construct strained analogies between APJs and ALJs who carry out different functions in different agencies that, unlike the USPTO, are not responsible for granting twenty-year monopolies.

Despite acknowledging that “[t]here is no ‘exclusive criterion for distinguishing between principal and inferior officers for Appointments Clause purposes,’” Pet. App. at 37a (quoting *Edmond*, 520 U.S. at 661), the Federal Circuit treated three factors as effectively dispositive, structuring its analysis around those factors and dismissing any others as “completely absent” without elaboration. *Id.* at 9a-22a (using three factors discussed in *Edmond* as headings).

The Federal Circuit’s misreading of *Edmond* flies in the face of this Court’s precedent, which uses entirely different factors where appropriate to evaluate an officer’s status. As this Court has observed, the “line between ‘inferior’ and ‘principal’ officers is one that is far from clear.” *Morrison*, 487 U.S. at 671. In *Morrison*, the Court held that the independent counsel was an inferior officer, performing a case-specific analysis of facts unrelated to those it considered in *Edmond*. *See id.* at 670-73. Instead, the Court stressed multiple important considerations favoring an inferior officer designation for the independent counsel, including:

- the lack of “authority to formulate policy for the Government or the Executive Branch”;
- the lack of “administrative duties outside of those necessary to operate her office”;
- the provision subjecting her to removal by the head of the department—the Attorney General—for “good cause.”

*Id.* at 671-72. Each of these considerations applies with equal force to the APJs at issue here.

As noted in Judge Dyk’s dissent from the denial of rehearing en banc, other circuit courts have reconciled *Edmond* with *Morrison* by conducting a multifaceted, fact-specific inquiry—rather than applying a rigid rule that turns on the same three factors in each and every case. Pet. App. at 274a. For example, in *United States v. Hilario*, the First Circuit held that officers may “be considered inferior officers if the nature of their work suggests sufficient limitations of responsibility and authority,” even if principal officers do not direct and supervise them. 218 F.3d 19, 25 (1st Cir. 2000); *see*

also *United States v. Gantt*, 194 F.3d 987, 999 n.6 (9th Cir. 1999) (overruled on other grounds) (recognizing that “supervision by a superior officer is a sufficient but perhaps not a necessary condition to the status of inferior officer”).

The Court should take this opportunity to confirm the path laid out in *Edmond* and *Morrison*, and it should reject the Federal Circuit’s unduly rigid approach.

**B. The Federal Circuit’s Failure to Consider the Similarities Between APJs and USPTO Employees Led It to Misclassify APJs as Principal Officers.**

The Federal Circuit’s decision is narrowly focused on comparing APJs to other types of “judges.” But to properly classify APJs, it is critical to consider their role and status within the context of their agency, the USPTO, and thus in relation to both employee examiners and principal officers like the Director. In its analysis, the Federal Circuit ignored important functional and structural similarities between examiners and APJs that, when properly considered, compel the conclusion that APJs are not principal officers. If anything, these similarities strongly suggest that the work APJs do is much closer to that of examiners than that of the Director. At most, APJs should be classified as inferior officers, but only after a full analysis of their role.

*i. APJs Are Functionally Similar to Patent Examiner Employees.*

Patent examiners—who are federal employees, *see, e.g.*, 35 U.S.C. § 3(b)(4)—perform similar functions

to APJs. Fundamentally, both serve the same goal: ensuring the USPTO allows only patents that comply with the statutory requirements for patentability to exist in the marketplace. They are the gatekeepers who can stop deficient applications from unjustly restricting competition.

The essential function of verifying patentability is first carried out by an examiner, whose decision is “subject to the qualification that the [USPTO] has ‘the authority to reexamine—and perhaps cancel—a patent claim’ in an inter partes review . . . outside of an Article III court.” *Oil States Energy Servs., LLC v. Greene’s Energy Grp.*, 138 S. Ct. 1365, 1374 (2018) (citation omitted). As this Court has recognized, the purpose of pre-issuance examination is fundamentally the same as post-grant review. *See id.* (“The primary distinction between [IPRs] and the initial grant of a patent is that [IPR] occurs *after* the patent has issued.”).

In exercising this authority prior to issuance, patent examiners perform substantially the same tasks the Federal Circuit relied on in classifying APJs as principal officers: they hear testimony, issue written decisions, and “ultimately decid[e] the patentability of the claims at issue.” Pet. App. at 8a. While the Federal Circuit noted that IPR has a “functional resemblance” to litigation, *id.* (quotation omitted), it ignored the many functional, structural, and practical similarities between APJs and USPTO employees.

The Federal Circuit focused on the court-like terminology of IPR procedures rather than the examination-like substance of what APJs actually do. *See* Pet. App. at 8a (emphasizing that APJs “oversee



discovery,” “hear oral arguments,” and “issue final written decisions”). But, as this Court has held, these appearances can be deceiving: using “court-like procedures does not necessarily mean [the agency] is exercising the judicial power.” *Oil States*, 138 S. Ct. at 1378 (citing *Freytag*, 501 U.S. at 878). Court-like terminology can be similarly misleading. *See id.* (“This Court has rejected the notion that a tribunal exercises Article III judicial power simply because it is “called a court and its decisions called judgments.”) (citing *Williams v. United States*, 289 U.S. 553, 563 (1933)). In substance and in form, what APJs do and what patent examiners do is largely the same. Both Supreme Court and Federal Circuit precedent confirm that these similarities fall squarely within a proper Appointments Clause analysis.

First, APJs and examiners perform the same core function: deciding whether claims are patentable under controlling U.S. law. *See* Pet. App. at 8a (emphasizing the authority an APJ exercises in “ultimately deciding the patentability of the claims at issue”) (citing 35 U.S.C. § 318(a)); *Oil States*, 138 S. Ct. at 1370 (“When an inventor applies for a patent, an examiner reviews the proposed claims and the prior art to determine if the claims meet the statutory requirements.”) (citing 35 U.S.C. §§ 112, 131). If anything, examiners have *more* authority to make ultimate decisions of patentability: they issue final decisions on patentability individually while APJs can only do so with the majority support of three-member panels. *See* 35 U.S.C. §§ 6, 316(c).

Second, APJs and examiners perform that same core function in the same manner: by comparing the claimed invention to prior art in the relevant field.

Again, APJs have the more limited role: during IPRs, they assess patentability, but “only under section 102 or 103 and only on the basis of prior art consisting of patents or printed publications.” 35 U.S.C. § 311(b). By contrast, a patent examiner “reviews the proposed claims and the prior art to determine if the claims meet the statutory requirements” of the Patent Act—including those beyond sections 102 and 103. *Oil States*, 138 S. Ct. at 1370 (citing 35 U.S.C. §§ 101, 102, 103, 112, 131). This includes prior art evidence beyond patents and printed publications as well as enablement, indefiniteness, patentable subject matter, and other non-prior-art reasons for invalidity. *See, e.g.*, 37 C.F.R. § 1.104 (directing examiners to conduct a “thorough investigation of the available prior art”); *id.* § 1.105 (authorizing submission, *inter alia*, of “any non-patent literature . . . that relates to the claimed invention”); Manual of Patent Examining Procedure (“MPEP”) § 2106 (“Examiners should determine whether a claim satisfies the criteria for subject matter eligibility . . .”).

Third, APJs and examiners rely on the same kind of evidence in making patentability decisions. For example, APJs consider “affidavits, declarations, . . . written memoranda,” and testimony provided in “an oral hearing.” *Oil States*, 138 S. Ct. at 1371 (citing 35 U.S.C. §§ 316(a)(8), 316(a)(10)). Patent examiners can similarly consider written applications, affidavits, declarations, and testimony provided in oral interviews with applicants. *See* 37 C.F.R. § 1.132 (authorizing examiners to consider written affidavits and declarations); *id.* § 1.133 (authorizing examiners to conduct oral interviews with applicants). Patent examiners, like APJs, can even weigh evidence of this kind to make factual determinations related to

patentability, such as secondary considerations of non-obviousness. *See* MPEP § 716.01(a).

Thus, the Federal Circuit overestimated the limited responsibilities that in fact make APJs much more like patent examiners than the principal officers who supervise them both.

*ii. The Director's Supervisory Power Over Both APJs and Examiners Demonstrates APJs Are Not Principal Officers.*

Both APJs and patent examiners must follow the policies and procedures set by the Director, who is a principal officer. This supervision further illustrates the absurdity of classifying APJs as principal officers when they, like patent examiners, are inferior to the Director within the context of the USPTO.

In *Edmond*, the Court held that judges of the Coast Guard Court of Criminal Appeals were inferior officers largely because of the Judge Advocate General's "administrative oversight," including the power to "prescribe uniform rules of procedure" and "formulate policies" for the court. 520 U.S. at 664 (quotation omitted). Here, like the Judge Advocate General, the Director provides "policy direction . . . for the Office" and "prescribes regulations" setting forth standards and procedures for APJs to follow during IPRs. 35 U.S.C. §§ 3(a)(2)(A), 316(a). And critically, the Director has the power to set policy that governs both APJs and examiners. *See* MPEP, *Foreword* ("Examiners will be governed by the applicable statutes, rules, decisions, and orders and instructions issued by the Director . . .").

APJs and patent examiners must follow policies and procedures that the Director sets and cannot

themselves set rules. The fact that APJs are much more like employees than principal officers highlights the inferior nature of their role.

*iii. The Secretary of Commerce's Power to Remove APJs Demonstrates APJs are Inferior Officers.*

By law, APJs receive the same employment protections as USPTO employees and, therefore, may be terminated for “such cause as will promote the efficiency of the service.” 5 U.S.C. § 7513(a). The Federal Circuit concluded this factor weighs in favor of classifying APJs as principal officers, even though it also applies to examiner-employees. *See* Pet. App. at 20a.

In *Morrison*, however, the Court held that the same type of removal provision supported classifying the independent counsel as an inferior officer. 487 U.S. at 672. The Court held that the Attorney General’s power to remove the independent counsel for good cause “indicates that [the independent counsel] is to some degree ‘inferior’ in rank and authority.” *Id.* at 671. It explained that the “good cause” removal provision does *not* “impermissibly burden[] the President’s power to control or supervise the independent counsel” and leaves the executive “ample authority to assure that the counsel is competently performing” his or her duties. *Id.* at 692.

Under *Morrison*, the Secretary of Commerce’s authority to remove APJs should weigh against classifying APJs as principal officers. Like the Attorney General in *Morrison*, who was the only officer who could remove the independent counsel, 487 U.S. at 663, the Secretary of Commerce may remove

APJs for “such cause as will promote the efficiency of the service,” 5 U.S.C. § 7513(a). The Secretary’s broad removal power over APJs should likewise indicate that APJs are inferior in rank and authority to the principal officers, like the Secretary, who can remove them.

*iv. APJs Are Distinct from Other Types of ALJs Because They Adjudicate Matters Involving Public Rights.*

APJs differ in critical ways from ALJs in other contexts. To be sure, APJs carry out duties that bear a semblance to ALJs in other areas of the law. For example, the special trial judges of the Tax Court, whom this Court deemed inferior officers in *Freytag*, 501 U.S. 868, “take testimony, conduct trials, rule on the admissibility of evidence,” and hold positions that are “‘established by Law.’” *Id.* at 881-82 (quoting U.S. Const. art. II, § 2, cl. 2). But that similarity should not be overstated: IPRs are unique proceedings that combine aspects of agency examination with trial-like features to resolve matters involving public rights.

As this Court has explained, “[IPR] includes some of the features of adversarial litigation,” but “remains a matter involving public rights, one ‘between the government and others, which from its nature does not require judicial determination.’” *Oil States*, 138 S. Ct. at 1378 (citing *Ex parte Bakelite Corp.*, 279 U.S. 438, 451 (1929)). APJs are unique because their determinations—however trial-like the process—are fundamentally about the correctness of the agency’s decision to grant a monopoly for the twenty years of a patent’s term.

IPRs exist in order to “offer[] a second look at an earlier administrative grant of a patent” to the agency responsible for granting it. *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144 (2016). When an APJ panel decides a granted patent is invalid, which may render private litigation unnecessary, the primary benefit is to the public. Cancelling patents that should never have been issued “helps protect the public’s ‘paramount interest in seeing that patent monopolies ... are kept within their legitimate scope.’” *Id.* (quoting *Precision Instrument Mfg. Co. v. Automotive Maintenance Machinery Co.*, 324 U.S. 806 (1945) and citing H.R. Rep. No. 112-98, at 39-40 (2011) (IPR is an “efficient system for challenging patents that *should not have issued*”) (emphasis added)).

In this respect, IPR proceedings are fundamentally different from adversarial proceedings between private individuals and government entities accusing them of wrongdoing, such as those before the Tax Court in *Freytag* and the Coast Guard Court of Criminal Appeals in *Edmond*. In IPR proceedings, the entity alleged to have acted wrongly is the government in issuing a patent that does not comply with the law.

### **C. A Healthy and Efficient Patent System Relies on Examiners and APJs Applying Policy Without Creating It.**

APJs provide a crucial layer of post-issuance agency review between the examiners (employees) and the Director and federal judiciary (principal officers). As described above, this review is defined by law to be similar to but even more limited than the initial examination.

While the details have changed over time, the structure is old and well-established. Intra-agency review traces its lineage to examiners-in-chief and the Board of Patent Appeals and Interferences (“BPAI”). Pet. App. at 54a; 35 U.S.C. § 3 (1952). Prior to the passage of the AIA, APJs sat on the BPAI, which decided appeals of rejected patent applications, reexaminations, as well as priority disputes between patent applicants known as interferences. 35 U.S.C. §§ 134, 141 (2006); Dennis Crouch; *Board of Patent Appeals and Interferences (BPAI)*, Patently-O (Mar 4, 2008), <https://perma.cc/LEG3-6LAE>. This intermediate layer of agency review has been essential to our patent system and remains so today.

The patent system needs this intra-agency review more than ever given the massive year-over-year growth of patent applications in recent years, from 295,000 in 2000 to 597,000 in 2018. USPTO, *U.S. Patent Statistics Chart*, <https://perma.cc/Y86S-XHV3> (2019). Because of the number of applications that must be evaluated, examiner mistakes are inevitable. Mark A. Lemley, *Rational Ignorance at the Patent Office*, 95 N.W. Law Rev. 1495, 1499 (2001). These mistakes are extremely expensive and time-consuming to fix after a patent issues, but until corrected, stifle innovation and competition. See Stuart Graham and David Mowery; *Software Patents: Good News or Bad News?*, Intellectual Property Rights in Frontier Industries 45-80 (Robert W. Hahn ed., 2005), <https://perma.cc/3EGZ-GK2W>.

To some extent, the patent system must tolerate examiner mistakes during initial examination. The government expending too much time or resources trying to perfect examination of each and every patent

application is economically inefficient, but knowing in advance which applications will be worth spending more time on is impossible. *See* Lemley at 1495-1499. Because only a tiny minority of patent applications turn into patents that are licensed or litigated, *id.* at 1501, IPRs are a more efficient means to closely-scrutinize the validity of patents with market significance. Indeed, these PTAB reviews are necessary to allow the USPTO to identify and cancel wrongly granted patents, and incur less expense and are completed in less time than district court litigation.

Our patent system depends on having mechanisms for additional agency review of a patent's validity. The Federal Circuit was wrong to disregard the USPTO's history and structure when deciding how to classify APJs. APJs review decisions made in the first instance by patent examiners, but that does not render them principal officers. At most, APJs are inferior officers responsible for reviewing the decisions of employees and accountable to the Director, a principal officer.

## **II. If the Court Concludes APJs are Principal Officers, Judicial Severability Should be Used to Preserve the IPR System Congress Created to Stem the Tide of Abusive Patent Litigation.**

IPRs and other post-grant proceedings are fundamental to the healthy functioning of our patent system. Large and small businesses rely on the patent system, which only works as intended when the USPTO issues high-quality patents, to, e.g., attract



investors, attract customers, and protect innovations. Innovative companies, therefore, rely on IPR and other proceedings before the PTAB to promote patent quality. These proceedings further reduce the costs of weeding out wrongly granted patents and deter abusive patent litigation, both by providing administrative procedures for addressing such patents without litigation and reducing the number that might be used in abusive litigation.

On appeal, the Federal Circuit, despite finding APJs to be unconstitutionally appointed, severed the statute to preserve the IPR system. Should this Court hold that APJs are currently unconstitutionally appointed, then the Court should invoke the doctrine of severance ensure that IPRs and other post-grant proceedings remain available to innovators so they can focus their resources on research and development instead of litigation.

**A. IPRs Increase Patent Quality, Promote the Public Interest, and Benefit Small Businesses.**

This court has consistently and correctly emphasized the importance of “protecting our competitive economy by keeping open the way for interested persons to challenge the validity of patents which might be shown to be invalid.” *Edward Katzinger Co. v. Chi. Metallic Mfg. Co.*, 329 U.S. 394, 400-01 (1947). Indeed, the “far-reaching social and economic consequences of a patent . . . give the public a paramount interest in seeing that patent monopolies . . . are kept within their legitimate scope. *Blonder-Tongue Labs. Inc. v. Univ. Of Ill. Found.*, 402 U.S. 313, 343 (1971) (quoting *Precision Instrument Mfg. Co. V. Auto. Maintenance Machinery Co.*, 324

U.S. 806, 816 (1945)); *see also, e.g., Lear, Inc. v. Adkins*, 395 U.S. 653, 674 (1969) (referencing “strong federal public policy favoring the full and free use of ideas in the public domain,” and rejecting doctrine of licensee estoppel); *Cardinal Chem. Co. v. Morton Int’l, Inc.*, 508 U.S. 83, 100 (1993) (recognizing importance to the public of resolving questions of patent validity.)

Post-issuance proceedings before the PTAB, including IPRs, promote competition and innovation, making it possible to “weed out bad patent claims efficiently.” *Thryv, Inc. v. Click-To-Call Techs. LP*, 140 S. Ct. 1367, 1374 (2020). While invalidating patents in district court can produce similar benefits, the costs of challenging a wrongly granted patent are staggering. *See, e.g., Blonder-Tongue*, 402 U.S. at 334 (“the expense of defending a patent suit is often staggering to the small businessman”).

In recognition of the harm invalid patents do, Congress created IPR proceedings both to “improv[e] patent quality and provid[e] a more efficient system for challenging patents that should not have issued,” as well as to “reduc[e] unwarranted litigation costs.” H.R. Rep. No. 112-98, at 39-40 (2011). As then-Representative Lamar Smith noted:

All roads should lead to enhanced patent quality. Patents of dubious probity only invite legal challenges that divert money and other resources from more productive purposes, purposes such as raising venture capital, commercializing inventions and creating jobs.

*Patents: Improving Quality and Curing Defects: Hearing Before the Subcomm. on Cts, the Internet, and Intell. Prop.*, 107th Cong. 1 (2001),

<https://perma.cc/NA3P-YG42>. Since the AIA's enactment, there has been progress towards the goal of increasing patent quality through more affordable, accessible patent challenges at the USPTO. There were 8,617 IPRs as of 2018—and the overall number of patent challenges instituted by the PTAB each year has tended to decrease, suggesting that IPRs have helped increase patent quality. *E.g.*, Ryan Damon et al., *Five Years Later: Lessons Learned from the First Inter Partes Review*, ACC Docket (May 3, 2018), <https://perma.cc/NV72-XYXM>; Unified Patents, *1st Half 2018: Patent Dispute Report* (June 28, 2018), <https://perma.cc/QP73-YEGH>.

At the same time, IPRs have been vital in countering patent assertion entities (“PAEs”). PAEs are companies which derive the majority of their revenue from patent licensing activities. PAEs hurt businesses and the public as a whole through extortionary schemes built around leveraging the exorbitant costs of district court litigation to obtain nuisance-value settlements. Fortunately, IPRs have helped startups and small businesses defend themselves against PAEs: in 2018, approximately 60% of high-tech patents challenged at the PTAB were owned by PAEs. *See* Unified Patents, fig. PTAB Litigation: Q1 2015 - Q2 2018, *supra*.

Not only do IPRs cost less than traditional litigation, their unique standing requirements allow a broader range of interested third parties to challenge invalid patents. Unlike litigation, IPRs allow any “person who is not the owner of a patent [to] file with the [USPTO] a petition to institute an [IPR] of the patent.” 35 U.S.C. § 311(a). This unique standing

requirement allows public charities, consumer advocacy groups, and trade organizations to challenge wrongly granted patents and free small businesses from looming litigation threats. *See Consumer Watchdog v. Wis. Alumni Research Found.*, 753 F.3d 1258, 1261-62 (C.A. Fed. 2014).

Amici know firsthand how powerful these proceedings before the PTAB can be. For example, in *Personal Audio, LLC v. Elec. Frontier Found.*, 867 F.3d 1246 (Fed. Cir. 2017), EFF challenged U.S. Patent 8,112,504 ('504 patent), which claimed “a system for disseminating media content” in serialized episodes—or, according to the patent owner, Personal Audio LLC, the basic idea of podcasting. Although EFF was not accused of infringing, Personal Audio was targeting the podcasting community with lawsuits against comedian-podcaster Adam Carolla, and three of the biggest podcasting companies, while threatening numerous smaller podcasters with litigation. EFF was able to file a petition challenging the patent, thanks to the support of over 1,000 members of its community, and the AIA’s statutory requirements. The PTAB ultimately invalidated the ‘504 patent, and even though EFF lacked standing to defend that decision on appeal, the Federal Circuit affirmed, and the patent was cancelled.

The patent’s cancellation liberated the podcaster community—including those without the financial resources for protracted litigation—from the specter of liability and harassment by Personal Audio and saved their audiences’ access to and interest in their work. If not for the IPR review, Personal Audio would have had

years to threaten and sue for damages based on podcasting activities by virtually anyone in this country, unfairly capitalizing on a wrongly granted patent. The effect on the finances, creativity, and the productivity of the podcasting community would have been devastating.

The *Personal Audio* case illustrates the value of patent challenges and the broader standing requirements in IPRs to small businesses, startups, and the public as a whole. See *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2143-44 (2016) (“Parties that initiate the proceeding need not have a concrete stake in the outcome; indeed, they may lack constitutional standing.”). The entire podcasting community, including individual podcasters, startups, established companies, and consumers, benefitted from getting the USPTO to correct its own mistake.

The benefits of IPR to the public are undeniable. As of 2017, IPRs helped plaintiffs and defendants avoid at least \$2.31 billion in losses by giving them a more efficient alternative to district court litigation. Josh Landau; *Inter Partes Review: Five Years, Over \$2 Billion Saved*; Patent Progress (Sept. 14, 2007) <https://perma.cc/GP5M-LVJX>. This \$2.31 billion represents only the cost of legal fees; it does not account for the benefits that flow from unrestricted access to technology and markets due to the invalidation of wrongly granted patents. *Id.* This money is better spent on creating new jobs and researching new technologies. *Id.* When deciding on this case, the Court should be mindful of the immense value created by IPRs. To dismantle, suspend, or terminate IPRs, including by nullifying the appointments of existing APJs, would hamstring

American innovation, competition, and economic growth.

**B. IPRs are Critical to Startups and the Economy Because They Reduce Costs, Reduce Abusive Litigation, and Protect Innovation**

Small businesses and startups are key drivers of the American economy. They account for 44 percent of the American GDP and two-thirds of net new job creation. U.S. Small Bus. Admin. Off. Advoc., *Small Businesses Generate 44 Percent of U.S. Economic Activity* (Jan. 30, 2019), <https://perma.cc/PPB2-ACPW>. High-tech startups comprise a significant portion of these small businesses. Ian Hathaway, *Tech Starts: High-Technology Business Foundation and Job Creation in the United States*, Kauffman Found. (2013), <https://perma.cc/P7GX-5Y6D>. IPR is a critical tool for startups and advances their ability to operate without being threatened with wrongly granted patents.

*i. Startups Are Particularly Vulnerable to Threats Leveraging Wrongly Granted Patents*

Startups are more vulnerable than established firms to the costs and risks of abusive patent litigation, making them an attractive and unfortunately common target for PAEs. *E.g.*, Collen Chien, *Startups and Patent Trolls*, 17 *Stan. Tech. L. Rev.* 461, 461-62 (2014) (“most unique defendants to troll suits are small”). Because they operate on thin margins, startups are more likely to settle to avoid the high costs of litigation—“even if the asserted patent appears invalid on its face.” Amy L. Landers, *The*

*Antipatent: A Proposal for Startup Immunity*, 93 Neb. L. Rev. 950, 982-83 (2015) (small “entities are more likely to settle for a higher royalty rate to avoid the high transaction costs of patent litigation”). And PAEs often target startups and small companies over mere use of accused technology, which creates more options for asserting a patent and leads to “widespread campaigns targeting small companies that have little to do with the underlying technology.” Chien, *supra*, at 478.

The risk of litigation alone is enough to chill innovation and startup growth. Startups are “particularly sensitive to accusations of infringement because they are likely to experience resource constraints when faced with the costs of funding a suit.” Stuart J.H. Graham, et al., *High Technology Entrepreneurs and the Patent System: Results of the 2008 Berkeley Patent Survey*, 24 Berkley Tech. L.J. 1255, 1315 (2009) <https://perma.cc/8BD2-2AVN>. Which further contributes to a separate type of abuse—the “strategic use of patent litigation by established companies to impose distress on their financially disadvantaged rivals.” Colleen Chien, *Of Trolls, Davids, Goliaths, and Kings*, 97 N.C. L. Rev. 1571, 1587-88 (2009).

The mere risk of an infringement suit may also make 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.” Christopher R. Leslie, *The Anticompetitive Effects of Unenforced Invalid Patents*, 91 Minn. L. Rev. 101, 126 (2006), “The threat of being sued for infringement by an incumbent—even on a

meritless claim—may ‘scare . . . away’ venture capital financing.” Fed. Trade Comm’n, to Promote Innovation: The Proper Balance of Competition and Patent Law and Policy 7-8 (2003). Indeed, investors are reluctant to invest in any company that has received a demand letter from a PAE. *E.g.*, Robin Feldman, *Patent Demands & Startup Companies: The View from the Venture Capital Community*, 16 Yale J.L. & Tech. 236, 280 (2014) (survey of venture capitalists revealed patent demands could deter all investors).

For a startup that does get off the ground, wrongly granted patents can still curtail innovation. Startups accused of infringement by a PAE report significant operational impacts including delayed hiring, changes in product, shutting down business lines, or shutting down entire businesses. Chien, *Startups and Patent Trolls*, at 461-62. For any company, even a large one, another “firm’s questionable patent may lead [it] to forgo R&D in the areas that the patent improperly covers.” FTC at 5. Startups, with less capital, will be even more inclined to avoid R&D if there is a high threat of patent litigation down the line. 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”).

Overall, the threat or reality of litigation over a wrongly granted patent is enough to stall startups or stop them in their tracks. One example illustrates the stark harms these patents can cause: even in a case against a startup that was ultimately dismissed, the



company's valuation dropped by \$4 million during the suit and as a result the company had to lay off over 25% of its staff. See Joe Mullin, *New Study Suggests Patent Trolls Really Are Killing Startups*, Ars Technica (June 11, 2014), <https://perma.cc/5D3U-BGVL>. For other startups, the costs of even meritless infringement accusations can be lethal. See, e.g., Landers, *The Antipatent*, at 979-80 (recounting examples of two former startups who won patent cases but lost market opportunities); Engine, *Startups Need Comprehensive Patent Reform Now* 7-14, <https://perma.cc/8E7R-S46Q> (recounting additional stories of startups harmed by assertion of wrongly-issued patents).

*ii. IPRs Promote Innovation by Offering Small Businesses and Startups an Alternative to Litigation and Protection from Abusive Litigation*

The nation's startups—major drivers of innovation—will be disproportionately affected if the current IPR system is significantly altered or even eliminated. APJs and IPR proceedings play a vital role in limiting the number of wrongly granted patents in the marketplace, reducing cost, and curtailing abuse.

Wrongly granted patents can stifle innovation and shrink the competitive marketplace. Leslie, *supra*, at 115–16 (citing *Bresnick v. U.S. Vitamin Corp.*, 139 F.2d 239, 242 (2d Cir. 1943)). The competitive harm from a wrongly granted patent can start upstream, long before litigation or any concrete plan of infringement, much less an infringing act. Indeed, the mere existence of a patent can distort the market, even if the patent owner never asserts it. A wrongly granted patent can operate like a scarecrow, deterring

competitors and follow-on innovation. *Id.* The availability of IPR is unique in allowing third parties seeking to compete or innovate in the area of a wrongly granted patent the chance to clear that patent out before incurring the cost of research and development and risking later litigation. *Id.*

Streamlined administrative review provides alternatives to costly—or for many startups, wholly unaffordable—litigation over wrongly issued patents. Short-circuiting that process by eliminating IPR particularly harms startups because proving invalidity in court is often out of reach for them; the limitation on judicial review lessens the likelihood that larger competitors or others will clear the field; and startups are much more likely to drop their innovative plans than risk even a weak infringement lawsuit. *See supra* parts II.A. and II.B.i.

For most startups, there are no reasonable alternatives to IPR and other post-issuance review proceedings. It can easily cost one to five million dollars to defend even a frivolous patent case in district court. Am. Intellectual Prop. Law Ass'n, *2019 Report of the Economic Survey* 51 (2019). This sum is orders of magnitude beyond what many startups and small businesses can afford to spend. By design, IPRs give small companies and startups a relatively quick and affordable way to resolve meritless patent disputes without risking everything. *Id.* at 52 (cost of IPR for computer technology is approximately \$325,000); *Cost of Inter Partes Review: Everything You Need to Know*, UpCounsel, <https://perma.cc/B63W-F9LM> (approximating the cost of an IPR at \$300,000–\$600,000). Resolving patent validity early and efficiently through IPR, as Congress intended, H.R.

Rep. No. 112-98, at 39-40 (2011), allows startups to focus their time and resources on doing what they do best: innovating and generating new economic opportunities.

When startups have defenses that are within reach—like IPR—they can fight back instead of paying up simply to avoid litigation. This raises the stakes of patent litigation for plaintiffs: those asserting wrongly granted patents face a credible threat of patent invalidation before the PTAB, which makes the benefits of filing an infringement lawsuit based on such a patent far less certain. Engine, *Patent Review is Working for Startups*, <https://perma.cc/9AP8-UN9K>. Indeed, evidence shows that PAE litigation has started to decline since the introduction of IPR, while startup activity has increased. *Id.*

Congress created IPR proceedings to encourage innovation and “limit unnecessary and counterproductive litigation costs.” H.R. Rep. No. 112-98, at 39-40 (2011). The evidence overwhelmingly shows IPR is achieving those goals by giving startups and innovation-driven businesses a feasible way to challenge wrongly granted patents before the agency responsible for their issuance. Regardless of this Court’s constitutional findings, these post-issuance proceedings should remain available to the American public as their representatives in Congress intended.

**CONCLUSION**

For the foregoing reasons, the Court should find that APJs are not principal officers. Should the Court hold that they are principal officers, it should sever the statute in a way that ensures that IPR remains available to protect startups and innovators.

Respectfully Submitted,

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