

No. 20-891

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IN THE  
**Supreme Court of the United States**

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AMERICAN AXLE & MANUFACTURING, INC.,

*Petitioner,*

*v.*

NEAPCO HOLDINGS LLC, *et al.*,

*Respondents.*

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ON PETITION FOR A WRIT OF CERTIORARI TO THE UNITED  
STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

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**BRIEF OF *AMICUS CURIAE* ALLIANCE OF  
U.S. STARTUPS & INVENTORS FOR JOBS  
("USIJ") IN SUPPORT OF PETITION BY  
AMERICAN AXLE & MANUFACTURING,  
INC. FOR A WRIT OF CERTIORARI  
DIRECTED TO THE U.S. COURT OF  
APPEALS FOR THE FEDERAL CIRCUIT**

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The Alliance of U.S. Startups and Inventors for Jobs (“USIJ”) submits this brief as *amicus curiae* pursuant to Rule 37 in support of the Petition for Writ of Certiorari by American Axle & Manufacturing, Inc., et. al., seeking this Court’s clarification as to what was intended in its *Mayo* and *Alice* decisions. The decision of the Federal Circuit in the instant case, if left unaddressed by this Court, will add further confusion to a body of jurisprudence that already has proven to be difficult if not wholly impenetrable for courts to apply with any rationality, predictability or consistency. It is crucially important that this Court grant the petition and review the decision and opinion of the panel majority below.

### **INTEREST OF *AMICUS CURIAE***

*Amicus curiae* USIJ is a coalition of 22 startup companies and their affiliated entrepreneurs, inventors and investors that depend on stable and reliable patent protection as an essential foundation for making long term investments of capital and time commitments to high-risk businesses developing new technologies (“the Invention Community”). A list of USIJ members is attached as Appendix A.<sup>1</sup> USIJ was formed in 2012 to address concerns that legislation, policies and practices adopted by the U.S. Congress, the Federal Judiciary and certain Federal agencies were and are placing members of the Invention

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1. No counsel for a party authored this brief in whole or in part, and no such counsel or party made a monetary contribution intended to fund the preparation or submission of this brief. No person other than this *amicus curiae* made a monetary contribution to its preparation or submission. *Amicus* USIJ has provided proper notice to both parties and has the consent of both parties to file this brief.

Community at an unsustainable disadvantage relative to their larger incumbent rivals, both domestic and foreign, and others that would misappropriate their inventions. A disproportionately large number of strategically critical breakthrough inventions are attributable to individual inventors, startups, and small companies.

USIJ's fundamental mission is to assist and help inform Members of Congress, the Federal Judiciary and leaders in the Executive branch regarding the key role that patents play in our nation's economic system and the particular importance of startups and small companies to our country's continued leadership in strategically critical technologies that has served us well for nearly two centuries.

### **SUMMARY OF ARGUMENT**

From the standpoint of many entrepreneurs, inventors and investors that comprise the Invention Community, the U.S. patent system appears to be on life support. Legal protection for inventions and discoveries that once was a defining characteristic of U.S. industrial policy has become increasingly irrelevant, no longer providing adequate safety and incentives to investors otherwise willing to make high risk commitments of time and capital or to visionary inventors who would leave secure jobs to pursue breakthrough technologies and challenge entrenched incumbents. Although aggregated investment data might suggest that entrepreneurs and investors continue to be very active in this country, a closer look reveals that much of the current focus for such activity has shifted away from the inventions needed for strategically critical technologies that are essential if we

are to maintain this country's leadership in science and technology, shifting instead toward investments such as entertainment, apparel, social media and the like, which either do not depend on patents at all or do not consider enforceable patents to be essential to their businesses. We discuss this trend in Section II, below.

This growing unwillingness of inventors and investors to rely on patents as a basis for tackling promising but risky new technologies is an ominous development that augurs badly for our country at a moment when we need them most. Startups, small companies and individual inventors have been responsible historically for many of our most important breakthrough inventions. These entities need patent protection far more than the large corporate incumbents that own vast portfolios of patents, and yet it is the former group that is most severely affected by the systematic weakening of patent protection that we have witnessed over the last few years. Startups, for the most part, cannot rely on the large-scale manufacturing, marketing and worldwide distribution systems enjoyed by large incumbents, and many have only their patents to protect them from copyists and pirates who would drive them from the competitive marketplace.

Although there has been more than one contributor to the growing perception within the Invention Community that patents no longer are relevant to protecting long-term commitments of time and capital, this Court's current jurisprudence on patent eligibility, as implemented by the Federal Circuit and some of the district courts, stands at or near the top of that list. A number of the Federal Circuit's eligibility rulings, in particular, have been driven by an apparent belief that the appellate court was

merely implementing rulings by this Court. We believe that the Federal Circuit is unduly cautious in a number of such rulings, certainly in the instant case, and as a result has expanded the categories of inventions that no longer are eligible for patent protection well beyond what was prescribed or even envisioned by this Court. The panel majority opinion in this case appears to have been rendered in a search for outcome-oriented theories around which to find ineligibility that otherwise would not exist. This is troublesome indeed.

Worse than its dangerous and unnecessary expansion of what was intended as a “narrow exception” to the statutory language of Section 101, the Federal Circuit is hopelessly divided as to a proper interpretation of this Court’s rulings in *Mayo Collaborative Services, et.al v. Prometheus Laboratories, Inc.*, 132 S.Ct. 1289 (2012) and *Alice Corp. v. CLS Bank*, 573 U.S. 208; 134 S.Ct. 2347 (2015), among others. Differing points of view among the several judges of that court on this critical issue – some of such views being irreconcilable with one another – is magnified many times over for the hundreds of district court judges hearing patent cases in our country and who are even more confused in trying to sort out what is required of them. The disparity of views among the various judges of the Federal Circuit also means that outcomes on eligibility often are dependent on the specific panel of judges assigned to a case, with disastrous uncertainty facing litigants on both sides.

Numerous judges and users of the patent system have called attention to the inability of lower courts, including the Federal Circuit, to arrive at a consistent approach to Section 101 issues, particularly the proper way to apply the “two step” test established in the *Alice* case (134



S.Ct. at 2355-58). The panel majority in the instant case, certainly as viewed by the dissenting judge, appears simply to have collapsed the two steps into a single step, which surely was not what this Court intended. (967 F.3d 1285, 1319). Adding further confusion to the analysis of eligibility is the proper scope of this Court’s recognition that an invention does not lose eligibility merely because a claim recites use of an abstract concept.<sup>2</sup> Although this latter statement may be a truism, pivotal as to outcomes, its scope, as articulated by this Court, is not perceived by many lower court judges, including several at the Federal Circuit, as having limiting principles, thus leaving these judges of the lower courts free to establish their own. The level of irreconcilable disagreement among the various judges of the Federal Circuit in this case is outlined in detail by Petitioner (Pet., pp. 15 – 17). The even split of the twelve Federal Circuit judges in denying *en banc* review and the multiple dissents and concurrences in doing so are themselves powerful testimony to the level of confusion that this Court’s jurisprudence has fostered, to the considerable detriment of our Constitution, our country and our ability to remain competitive with the science-driven juggernaut that the leaders of the People’s Republic of China aspire to create.

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2. *E.g.*, in *Alice Corp. v. CLS Bank*, 573 U.S. 208, 214 (2015), the Court reiterated:

“[W]e tread carefully in construing this exclusionary principle [of ineligibility] lest it swallow all of patent law. [citation omitted]. At some level, ‘all inventions ... embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas. ... Thus, *an invention is not rendered ineligible for patent simply because it involves an abstract concept.*” (Emphasis supplied).

The instant case, however, is but the tip of an iceberg in terms of judicial frustration with the guidance provided by this Court. Other examples are *Interval Licensing, LLC v. AOL, Inc.*, 766 F.3d 1364, 1371 (Fed. Cir. 2014) (Plager, J., “I also respectfully dissent from our court’s continued application of this incoherent body of doctrine.”); *Athena Diagnostics, Inc., et al v. Mayo Diagnostic Services LLC*, 915 F.3d 743 (Fed. Cir. 2019) (2019) (*per curiam* order denying *en banc* review with 8 separate concurrences and dissents consuming 82 pages) (Hughes, J., “multiple concurring and dissenting opinions ... are illustrative of how fraught [is] the issue of § 101 eligibility”). The Congressional Research Service commented on the *Athena* case as follows:

“The denial of full-court review in *Athena* is noteworthy .... A denial of a full-court rehearing accompanied by eight separate opinions has never occurred in the history of the Federal Circuit. The number of opinions in *Athena* indicates that although the judges are divided on what should be done in view of current Supreme Court precedent, they view the section 101 issue as extremely important.”

What we now have at the Federal Circuit is a “panel specific” approach on a key threshold issue that surfaces regularly in patent procurement and patent litigation. Litigants dealing with Section 101 in the Federal Circuit will know with any accuracy what the outcome is likely to be only when they see which judges will make up their panel. This is not the proper functioning of a rule of law, it is more akin to a casino than to a United States court, and the longer-term impact will be to diminish one of

our country's most important attributes, our world-class innovation environment. In its 2018 report on the patent system, the U.S. Chamber of Commerce, with specific reference to the patent eligibility issue, observed:

“There continues to be considerable uncertainty for innovators and the legal community, as well as an overly cautious and restrictive approach to determining eligibility for patentable subject matter in areas such as biotech, business methods, and computer-implemented inventions. This seriously undermines the long-standing world-class innovation environment and threatens the nation's global competitiveness.”

International IP Index, published February 2018.

Former Federal Circuit Chief Judge, Paul Michel, in testimony before the Subcommittee on Intellectual Property of the U.S. Senate Committee on the Judiciary, in a hearing on June 4, 2019 addressing, *inter alia*, the current state of patent eligibility, called further attention to the existing uncertainty and its dire implications for all of the participants in the patent system:

“It is important for me, as a retired judge, to acknowledge that the courts alone created this problem. In my view, recent cases are unclear, inconsistent with one another and confusing. I myself cannot reconcile the cases. That applies equally to Supreme Court and Federal Circuit cases. Nor can I predict outcomes in individual cases with any confidence since the law keeps changing year after year. If I, as a judge with

22 years of experience deciding patent cases on the Federal Circuit’s bench, cannot predict outcomes based on case law, how can we expect patent examiners, trial judges, inventors and investors to do so?”

<https://www.judiciary.senate.gov/imo/media/doc/Michel%20Testimony.pdf>

In written testimony for the same hearing, David J. Kappos, former Deputy Secretary of Commerce and USPTO Director, observed:

“Our current patent eligibility law truly is a mess. The Supreme Court, Federal Circuit, district courts, and USPTO are all spinning their wheels on decisions that are irreconcilable, incoherent, and against our national interest. ... [U]nder current U.S. law governing patent eligibility, it is easier to secure patent protection for critical life sciences and information technology inventions in the People’s Republic of China and in Europe, than in the U.S.”

<https://www.judiciary.senate.gov/imo/media/doc/Kappos%20Testimony.pdf>.

There can be no question that the users of the patent system and our courts are at sea on this issue and desperately need navigational tools to find their way. We urge this Court to grant the Petition and clarify the law with respect to eligibility.

**ARGUMENT****I. The Panel Majority Decision Fails to Comply with Eligibility Precedents Established by this Court and with Rule 56, F.R.C.P.**

The two-to-one panel decision below is considered by many observers to be one of the most badly reasoned decisions that the Federal Circuit has ever allowed to stand. The panel majority either ignored or rejected the statutory requirements of 35 U.S.C. §101, and the panel twisted to the point of absurdity the rulings of this Court with respect to the judicially created “exceptions.” It is time for this Court to own up to the chaos and confusion that its rulings on eligibility have fostered and to use this opportunity to clarify what actually was intended in its *Mayo* and *Alice* decisions.

Amicus USIJ urges the Court to grant the Petition for writ of certiorari and to address, at a more focused level, the reasons why the lower courts, and particularly the Federal Circuit, are having such difficulty understanding and applying those decisions. While reasonable minds may sometimes differ with respect to whether any particular claimed invention should fall under this Court’s rulings on ineligibility, no one can seriously question that there exists virtually no widely accepted set of principles for applying *Alice* and *Mayo* to the many varied factual situations that are presented by the real world of patent litigation. At the time they were rendered, this Court may have believed that those decisions would provide adequate guidance to the lower courts to deal with eligibility in a rational and consistent manner. The passage of time has proven otherwise, as it is increasingly clear that any semblance of uniformity is not likely or even possible.

Exemplary is that this Court’s opinion in *Alice* was cautiously limited by the following observation:

“[W]e tread carefully in construing this exclusionary principle lest it swallow all of patent law. [citation omitted]. At some level, ‘all inventions ... embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas. ... Thus, an invention is not rendered ineligible for patent simply because it involves an abstract concept.’ 573 U.S. at 214, citing *Diamond v. Diehr et al.*, (450 U.S. 175, 187).

An important addition to the foregoing is that while a natural law – in and of itself – is not one of the statutory categories of invention covered by Section 101, and is therefore not patent eligible, an invention that makes a practical use of such a law is patent eligible. “[A]pplication[s] of such concepts ‘to a new and useful end,’ we have said, remain eligible for patent protection.” *Id.*, citing *Gottschalk v. Benson*, 409 U.S. 63, 67, 93.”

The panel majority, however, and indeed the half of the full court that refused to rehear the decision *en banc*, could not have given proper weight to the foregoing when they signed off on ineligibility for a patent on a method for damping vibrations in a steel axle, saying the claim was directed to a law of nature, “Hooke’s law and perhaps other laws” (967 F.3d at 1303 - 04). Neither the specification of the ‘911 patent nor any of its claims even mentions Hooke’s law or any other natural law, let alone relies on them or seeks to claim them. The patent has only to do with reducing vibration in a rotating shaft

that is part of a vehicle drive train – a “machine” and “process” for making it, in the parlance of Section 101, and beyond question a “new and useful end.” *Alice* at 214. Moreover, even if the patent did recite the use of Hooke’s law in calculating a specific design for a specific dampening collar, this invention still would be the essence of a practical application that makes use of such law. The panel majority is simply wrong – and dangerously so – when it states as the basis for ineligibility:

“Like the claims in *Flook*, the claims of the ‘911 patent are directed to the utilization of a natural law (here, Hooke’s law and possibly other natural laws) in a particular context.” 967 F.3d at 1298.

“Utilization of a natural law” is the essence of what this Court has said is **not** a proper basis for finding an invention ineligible.

It is no answer to say, as the panel majority has done, that both sides acknowledge that Hooke’s law may be useful in calculating the forces and deflection in a rotating shaft. *E.g.*, 967 F.3d at 1292. Numerous formulae and equations (*i.e.*, “abstract principles” or “natural laws” if standing alone), are used routinely in calculating the strength of materials and the forces to which such materials are subjected in nearly every mechanical invention that qualifies for a patent today. Indeed, almost **all** scientific exploration and technology development use natural laws and mathematical principles as a routine part of their respective disciplines.<sup>3</sup> Any of these many other

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3. Applied to the instant case, this means that many calculations (*i.e.*, the application of mathematical formulae and laws

laws of nature or mathematical formulas could just as readily have been seized upon as the basis for ineligibility in the same way the panel majority seized Hooke's law. What is important here is not the background presence of a natural law used for the design of a drive shaft and its dampers, it is the practical application itself, which surely this invention reflects.

The dangers in leaving this jaw-dropping and non-sensical ruling in effect, with all due respect for a lawfully constituted court of appeals, are palpable. The decision would subject nearly every patent to an eligibility challenge and therefore to the whimsical vagaries of judges who may be confused by the rulings of this Court and the Federal Circuit or who simply prefer to use their own subjective views of patentability. For reasons provided clearly and succinctly by both Petitioner and in the dissenting opinion of Judge Kimberly Moore, the ruling does expose clearly the inability of the Federal Circuit to come to grips with this body of jurisprudence and the devolution of a critical rule of law into binary outcomes, depending on which particular set of judges is assigned to hear an appeal. As the basis for seeking this Court's intervention, this division of the Federal Circuit is akin to a split in the circuits, only much worse for litigants. When there is split in the circuits, the parties at least know which circuit they are in at the time the case is filed and can use that as a guide to how they handle the preparation and trial. Here

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of nature) normally would be required to design and manufacture the drive shaft that that is claimed, not simply those features related to damping of vibrations. The mass, thickness, torsional strength, and composition of the shaft itself, for example, would require the balancing of multiple engineering tradeoffs that then would be embodied in the shaft.



the parties learn the identity of the particular panel on the morning of the oral argument and so proceed blindly to the edge of a cliff before they learn whether they are going to fall off. From the standpoint of managing judicial resources and the management of legal problems, the decision is simply intolerable.

The dissenting opinion of Judge Moore identifies many of the numerous points at which the panel majority opinion is wrong and that cry out for clarification by this Court, including the majority's collapse of the "two-step" procedure laid out in *Mayo* and *Alice*, (967 F.3d 1285, 1304, *et seq.*) the panel's failure even to acknowledge extensive evidence satisfying the "inventive step" required by *Mayo* and *Alice* (*Id.* at 1313-14), the detailed descriptions of the invention found in the dependent claims but ignored entirely by the majority (*Id.* at 1318), the cavalier dismissal of disputed issues of fact contrary to Rule 56 (*Id.* at 1313), and the majority's effort to sidestep the factual foundations required for the grant of summary judgment based upon what is essentially the use of ineligibility as a substitute for a lack of enablement (*Id.* at 1315).

The approach to patent eligibility reflected in the panel majority opinion is, if left standing, an open invitation to infringers to ignore the rights of patent owners and to district judges and other panels of that court to expand further the ineligibility of inventions under Section 101, contrary to the cautionary admonitions in the Court's *Alice* and *Mayo* decisions. In particular, the unprecedented injection of enablement issues into an eligibility analysis, as detailed by Judge Moore's dissent, expands the existing ambiguity of this Court's jurisprudence and increases further the number of possible ways in which this Court's

rulings on Section 101 issues can be misconstrued by the lower courts. The Court's requirement of an "inventive concept" or "inventive step" can trace its origin to what, at least arguably, is supported by the use of the word "new" in the statutory provision. *E.g.*, *Bilski v. Kappos*, 561 U.S. 593, 602 ("While these [implied] exceptions are not required by the statutory text, they are consistent with the notion that a patentable process must be 'new and useful.'"). One searches in vain, however, for a similar statutory basis for conflating Section 101 with a factually intensive inquiry into enablement.

Nor does the Court's decision in *Mayo* suggest otherwise. There this Court, in rejecting an argument by the Solicitor General that eligibility under Section 101 should be evaluated independently of Sections 102, 103 and 112, noted that merely because an invention satisfies those three provisions does not necessarily demonstrate that it is patent eligible:

"Section 112 requires only a 'written description of the invention ... such full, clear, concise, and exact terms as to enable any person skilled in the art ... to make and use the same.' It does not focus on the possibility that a law of nature (or its equivalent) that meets these conditions will nonetheless create the kind of risk that underlies the law of nature exception ... .")

*Mayo* at 1304. This is hardly an invitation for lower courts to conflate enablement and other Section 112 requirements with an eligibility analysis under Section 101 in the same way that "novelty and nonobviousness" are used. Indeed, the *Mayo* Court seems relatively clear in recognizing that

each of the statutory conditions required for patentability serves its distinct purpose, separate from the others. *Id.*

The majority panel did not simply insist that enablement be examined in determining eligibility, the panel held that it also must appear **in the claims**. (967 F.3d 1285, 1294-95; 1301 *et. seq.*) This is a truly bizarre requirement, since enablement is specifically identified in Section 112 as something to include in the specification, not the claims. The only requirement in Section 112 addressing the content of claims deals with specificity, not enablement. Further, and as noted *supra*, enablement requires a factual inquiry into whether a person skilled in the art can learn from the teachings of a patent how to make and use the claimed invention, hardly something that appellate judges can simply divine from their judicial experience. These types of inquires are rarely appropriate for summary judgment and certainly not here where there are such conflicting views of the actual facts.

In summary, this case exemplifies – if nothing else – the extreme level of confusion that continues to dominate the judicial application of this Court’s eligibility law. It cries out for this Court’s guidance.

## **II. Investments in Technology Startups in Our Country Has Been Declining for More Than a Decade.**

The weakening of patent protection in the United States since 2004 has led to a corresponding decline in the willingness of entrepreneurs and inventors to rely on patents as the foundation for making investments. A survey of 475 venture capital investors across a broad variety of industries conducted by David O. Taylor, Associate

Professor of Law and Co-Director of the Tsai Center for Law, Science and Innovation, Southern Methodist University, Dedman School of Law, shows that for those investors who pay attention to patent eligibility and the enforceability of the patents owned by their portfolio companies, there already is a growing unwillingness to commit time and capital to companies that require reliable patents to justify investing. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3340937](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3340937). Moreover, not all investors are fully aware of the declines in the actual reliability of patents as enforceable property rights; as that reality becomes more fully understood within the Invention Community, it is not unreasonable to expect further shifts away from patent essential industries.

Professor Taylor's survey is consistent with and indeed confirms a similar study in 2018 by amicus USIJ of data collected by PitchBook, Inc. and supplied to the National Venture Capital Association. Venture capital investing trends over the period from 2004 to 2017 show that while the total amount of venture capital invested in the U.S. over that 14-year period increased by a factor of four (from approximately \$20B to \$80B), the portion invested in many of our most important and strategically critical industries suffered substantial declines. In 2004, for example, investments in semiconductors accounted for 1.2% of all the companies that received venture capital funding and 2% of all the venture capital dollars invested. By 2017, the number of companies that received funding for developing new semiconductor technology had fallen by an order of magnitude and the dollar commitment was negligible. <https://www.usij.org/research/2018/7/9/us-startup-company-formation-and-venture-capital-funding-trends-2004-to-2017>. Similar declines can be seen in drug discovery, medical devices, operating systems, core

networking technology, etc. At the same time, investments in consumer apparel, hotels, social media and similar market segments increased substantially.

The following chart, which is copied from Page 9 of the USIJ study, provides a somewhat broader view of these significant shifts in venture capital investments:

<p><b>• Exemplary strategic sectors that have declined as a % of total VC funding:</b></p> <ul style="list-style-type: none"> <li>◇ Core internet networking</li> <li>◇ Wireless communications</li> <li>◇ Internet software</li> <li>◇ Operating system software</li> <li>◇ Semiconductors</li> <li>◇ Pharmaceuticals</li> <li>◇ Drug Discovery</li> <li>◇ Surgical Devices</li> <li>◇ Medical Supplies</li> </ul> <p>• % of total VC funding in 2004: 20.95%</p> <p>• % of total VC funding in 2017: 3.22%</p>	<p><b>• Exemplary sectors that have increased as a % of total VC funding:</b></p> <ul style="list-style-type: none"> <li>◇ Social network platforms</li> <li>◇ Software apps</li> <li>◇ Consumer apparel and accessories</li> <li>◇ Food products</li> <li>◇ Restaurants, hotels and leisure</li> <li>◇ B2C companies in general</li> <li>◇ Consumer finance</li> <li>◇ Financial services in general</li> </ul> <p>• % of total VC funding in 2004: 11.4%</p> <p>• % of total VC funding in 2017: 36.3%</p>
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The trends reflected in the USIJ study were confirmed last year by Professor Mark F. Schultz, Goodyear Tire & Rubber Company Endowed Chair in Intellectual Property Law and Director, Intellectual Property and Technology Law Program at the University of Akron. His report, entitled “The Importance of an Effective and Reliable Patent System to Investment in Critical Technologies,” was released July 2020. His conclusions confirm and strengthen the USIJ Study. It too is available at [www.usij.org/research](http://www.usij.org/research). These declines in investment in new strategically critical technologies do not bode well for this country. Semiconductor technology, to use but one example, would rank high on almost any list of the most critical technologies for cybersecurity, artificial intelligence, national defense and virtually every other economic activity that depends on computational progress. Investment in startups likely to develop real breakthrough inventions in that field of technology has all but vanished. Although it may be years before the long term implications of this shift away from critical technologies becomes fully apparent, the trend line is readily visible today.

## CONCLUSION

USIJ strongly urges this Court to vacate the panel majority decision and to establish some boundaries on the extent to which lower court judges are free to find that inventions lack patent eligibility based on judicially created exceptions to the clear statutory language of Section 101. Otherwise, the certainty and reliability required for a viable patent system will be increasingly in doubt.

Respectfully submitted,

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Date: January 29, 2021

## **APPENDIX**



**APPENDIX — USIJ MEMBER COMPANIES**

- Aegea Medical
- BioCardia
- DivX, LLC
- EarLens Corporation
- ExploraMed
- Fogarty Institute for Innovation
- ForSight Labs, LLC
- Headwater Research
- Lauder Partners, LLC
- Materna Medical
- MedicalCue
- Moximed
- Original Ventures
- Pavey Investments
- Precision Biopsy
- Prescient Surgical

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*Appendix*

- Puracath Medical
- Rearden Studios
- Siesta Medical
- Soraa
- Tallwood Venture Capital
- The Foundry